# Celoxis v10.5 Documentation

## Getting Started Guide

The Getting Started guide will help you take the simple steps towards creating your very first project in Celoxis. This is intended for those who are evaluating Celoxis.

## Configuration Handbook

This handbook is intended for the Admin who is configuring Celoxis for rollout to your Organization. There are a few simple steps to configure. Once you have your data ready, it will just take a couple of hours to set it up in Celoxis.

## User Guide

This is your user guide for getting familiar with the various features in the application. This product is intended for project managers, teams, etc who work in collaboration.

## Installation Guide (On-Premise)

The Installation Guide is for our users who are going to install Celoxis On-Premise for the first time. This guide will help you understand the requirements and the per-requisites before installing the product.

## API Guide

The API guide helps you write custom code for integrating some popular applications with Celoxis. This guide gives you an overview of the functions, tables which can be referenced for the integration.

# Getting Started

**Welcome to Celoxis!**

While taking your trial account, if you have invited your colleagues to join you in the evaluation of Celoxis, they should already have logins created in Celoxis and will have received a mail from Celoxis informing them of their login/password.

Now all you need to do is set up the following and start using Celoxis

1. Define your Users/Resources
2. Define your Clients
3. Create your first project

<p><br/></p>

## Celoxis User Interface

When you log into Celoxis (supported browsers), you will be taken to the Dashboard page. The dashboard acts as a container of different reports organized in 2 panes, a left pane and a right pane. So for eg, the dashboard in the image below has 2 reports on the left pane - My Projects and My Tasks and 2 reports on the right pane. You can customize the Dashboard to display the information most relevant to your daily working.

1. The menus at the top of the application provide a quick way of performing most actions related to that feature. E.g. Project menu will allow you to create projects, add tasks etc whereas clicking on Documents is the easiest way to add a document and so on.
2. The pull down that appears next to the name of any object is referred to as an action selector. Actions related to that object can be performed from the menu.
3. If you require any kind of assistance, you can click on the help icon Question Mark (?). You can either choose to look up the User Guide, or Submit a Help Request, or post on the Community Help forums.
4. Most pages in Celoxis are actually reports. You can choose to see more columns in your local view of the report. If you click on the Column picker and select more columns, your local copy of the report will show those. It will not affect the main report.
5. You can quickly search for any entity in Celoxis from the search box. The relevant items will be shown in a new pop-up.

6.  The print icon beside help allows you to print the report/page you are viewing.



## Define your Users / Resources

The term Resources is used in Celoxis to indicate any person, role, equipment or facility that would be required for completion of the project activity. Users is another term used for Resources. Before you start using Celoxis, you have to define your Users. These can be the people who you have invited to join in your evaluation. Or you can create more Users(resources) which are your virtual users i.e without a login/password. For example, you need use of some Lab for performing your tasks and you need to allocate it for use against specific tasks. You can create a User called Lab without a userid/password.

To create users, please read the Add/Edit Users section of the User Guide. After creating your project and defining your tasks, you can read about Resource Assignment.

## Define your Clients

Clients are people/organizations for whom projects are done. Client accounts are different from user accounts in that they are free and hence have limited functionality and Celoxis does not notify clients when their accounts are created. You must inform clients. Clients can view their projects, check project status, participate in shared discussions and upload/download documents shared with them. You can further limit what the client can see/do. A special client (Internal) is created by default which can be used for internal projects.

To create your clients, please read the Add/Edit/Delete Client section of the User Guide.

**Client accounts are FREE irrespective of whether they have a login or not.**

## Create your first project

Celoxis provides you with 3 options to create your project. From the **Project** menu under **Add** of main menu, you can select either

- Blank Project.
- Clone a project.
- Import Microsoft Project.

Let us create a new blank project. All you need to do is give it a name, pick a start and end date, select a client and your project is created. You will be put on the Interactive Gantt page where you can easily add new tasks and plan your project.

If you would like to read more about the Phase and Category, you can refer to the User Guide.

- Project States
- Project Categories

## Assign users to tasks

Once you create your project you may want your project team to be able to see that project. For that, you need to create tasks in the project and assign users to the task. Please click here to read about how to assign users to tasks. When you assign people to tasks, they automatically become a part of your project team and can view the project. When they log into Celoxis, on their dashboard they can see a report called Who's doing what? The tasks assigned to them will show up under that report.

## Import Users/Clients/Tasks via CSV

**Following are the general guidelines you should follow to import via CSV** :

- You need to do the exact mapping of your columns in CSV file to the fields available in Celoxis. The columns should be separated by a comma (,).
- In case you are importing custom field data via CSV, the custom fields must be first created in Celoxis. Only then can you import the data. You can select 'Skip' in case you do not want to import that data.
- The mandatory fields for the respective entities must be present in the CSV file. For e.g, For importing tasks via CSV, the Summary, Start date, Finish Date are mandatory fields.
- Under 'Ignore Rows', you need to enter 1 when you have a column name line first in you CSV.
- The Date format you have in the CSV should be the same you have in your CSV file. Choosing an incorrect date format will give an error.
- There are some columns you cannot map from a CSV file like a task duration, Work(h), etc. These needs to be skipped.
- In case you are importing projects via CSV, then the 'Phase' should be one of the following : In Planning, In Progress, On Hold, Archived.

> In case, you still face any issues, open a support ticket with us with your CSV file attached in the ticket.

## Accessing Celoxis on mobile browsers

**Celoxis on mobile** is a mobile-optimized application that can be accessed from any iOS, Android, Windows web-enabled phones. You do not need to download or install any App from Google's Play Store or Apple's App Store.

> To access Celoxis on mobile, point your favorite mobile browser to https://m.celoxis.com

## Dashboard

### Joe's Dashboard

| | | |
|---|---|---|
| **My Active Tasks** | `35` | > |
| **My Project's Forecasts** | `44` | > |
| **Critical Discussions** | `7` | > |
| 🕐 **My Timesheet** | `1` | > |
| 📊 **My Favorite Reports** | | > |
| 📅 **Calendar** | | > |

### Add...

| | |
|---|---|
| 📊 **Update Progress** | > |
| 🕐 **Time** | > |
| 📋 **Task** | > |
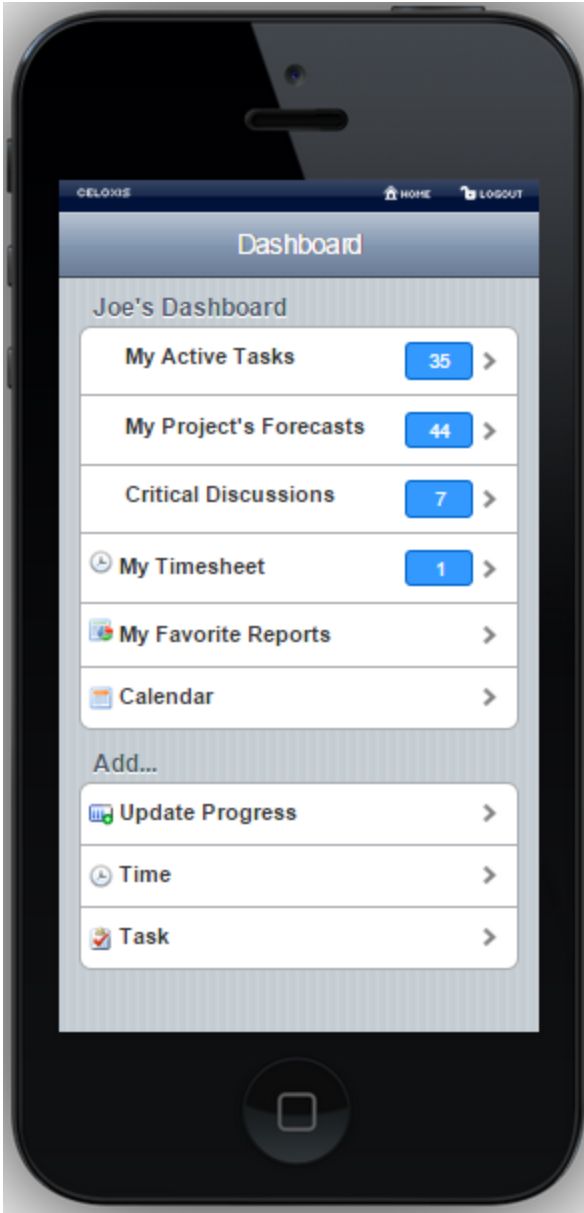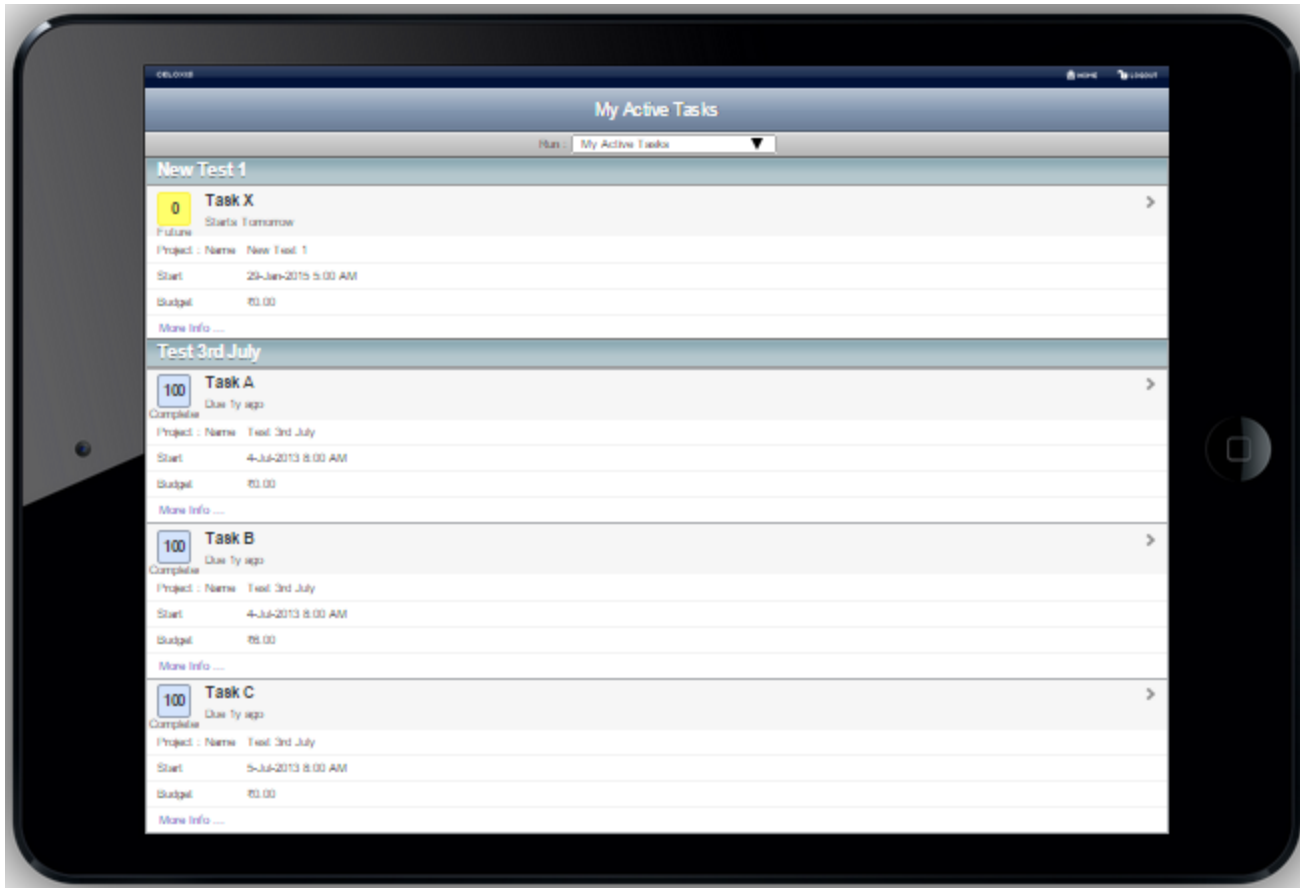
Following features are available on mobile:

1. Home
    a. Dashboard: You can quickly view all your dashboard reports as soon as you log into Celoxis on your mobile browsers.
    b. My Timesheet: Your weekly timesheet view lets you view and record time spent on project related work-items.
    c. My Favorite Reports: Quick view of all your favorite Celoxis reports.
    d. Calendar: Provides an iCal URL for your favorite calendar application.
2. Add
    a. Task: Add a task to a specific project. The following task details can be specified from mobile browsers: Project, Task name, Start, Duration, Resources, Priority and task details.
    b. Updates: Add progress updates on tasks. The following details can be specified from mobile browsers: % Complete, Hours, Time Code, Comments, Also Cc Project Team Members.
    c. Time: Record time spent on a specific project-related work items (tasks or app items). The following details can be specified from mobile browsers: Project, Work item, Date, Hours, % Complete and Comments. You can save or even send the time entry for approval. You can also submit non-project time.
3. Project and Task Details: You can view specific project or task details. You can quickly sift through the different project or task specific views.
4. Approve/Reject Time: Managers can approve or reject individual time entries.
5. Project related Actions: The following actions are available on mobile browsers.
    a. Add Task
    b. Add Document
6. Task-related Actions: The following actions are available on mobile browsers.
    a. Add Update (Or Update Progress)
    b. Request Update
    c. Mark Complete
    d. Add Document
    e. Edit (the task)
    f. Delete (the task)
7. Reports: In addition to viewing your dashboard or favorite reports, you can also view similar type reports from a report's "Run:" pick list. For example, if you are viewing  "All Projects by Schedule Status" report, you can view additional projects reports by picking one from its "Run:" pick list.
8. Downloading Documents: Documents can be easily downloaded or viewed by clicking on their name from a document report.

**Quick Tip**

You can bookmark the mobile website URL (Add to Home screen option in Android or iPhone) and keep "Stay signed in" option on the Log in screen checked. This way you can quickly access Celoxis straight from your Home screen and you'll never have to type in the URL again.
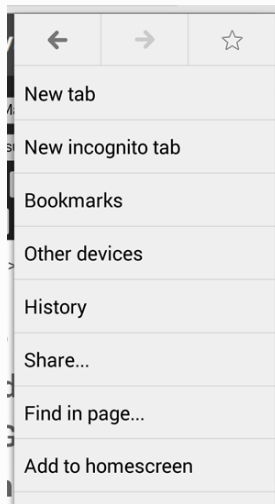


## Still Feeling Lost?

Any new application can be overwhelming on day one. If you feel you cannot find how to do something, you can click on the Question Mark icon (in the top right side). You have one of the following options

1. Search in our User Guide
2. Raise a Support Ticket
3. Post your question on the Community Help forum
4. Drop a mail to support@celoxis.com

# Configuration Handbook

Before you roll out Celoxis to your Organization, you will have to set it up with your data. Once you have your data ready, configuring it in Celoxis is a very simple process. An average company with a 10 user account can be setup in Celoxis in 2 hours flat. Just follow these 7 easy steps and you are ready to leverage the power of Celoxis. A user will require to have Administrator privileges to configure Celoxis.

## Company/Administrator Details (5 mins)

These are company level settings which you can set from Company Information.

1. **Currency Symbol** - Define the currency symbol you wish to use. You can select only one.
2. **Document Language** - Pick the language of documents uploaded in the system. Used for indexing the content for search.
3. **Week Starts On** - Used in the display of Calendar, Date picker and Weekly time.
4. **Min. days in a week** - Useful to decide what is considered as Week 1 of the year.

### Company/Administrator Details  ⊘

Company Code: new_release

Name *

Celoxis New Release

Country *                                           Locale

United States                         ⌄            English (United States)                    ⌄

Currency Symbol                                   Document Language * ⑦

$                                                  English                                 ⌄

Week starts on ⑦                                  Min. Days in 1ˢᵗ Week * ⑦

Monday                                ⌄            6                                       ⌄

Contact Name *                                    Contact Email *

Martin O                                          martin@acme.com

                                          **Save**      Cancel

## Work Calendar Setup (15 mins)

Work calendars help you define your work timings and time zones. You can define any number of work calendars. Users can be assigned work calendars based on which geography they work in and the work timings they follow.
Celoxis provides a default calendar called 'Default', which has work timings defined as M-F, 8am-12am and 1pm - 5pm. You can change that as per your requirement. However, you cannot change the name 'Default'. Alternately, you can define a different primary work calendar. To learn how to add work calendars, please click here.

### Setup Company Holidays (10 holidays)

You must setup your Company holidays at the start. These are factored into when tasks are scheduled. To add such holidays/exceptions, click here.

## User Setup (20 mins/10 users)

In Celoxis, there are 2 types of users - Paid (with login) and FREE(no login).Free users can be used to define Roles or can be named users if they do not require to log into Celoxis. For a small company with 10 user accounts, you can setup your users in 20 minutes. Some points to note.

1. You can add one user at a time, OR import a list of users from a CSV file.
2. Users must be assigned work calendars. These are used in scheduling tasks assigned to the users.
3. You can add user skills under 'Keywords'.
4. Select the Locale, display and input date formats for them.
5. You can customize each user's dashboard and notifications when creating the user. Alternately, every user can customize their own dashboards and notifications.
6. When you create a paid user in Celoxis and provide a valid email address, a mail is automatically sent off to the user informing them of their login and password. They can then login to Celoxis and reset their passwords.
7. A User can also be assigned a User Cost Rate
8. If company billing model is User Based billing, then a User can also be assigned a User Bill Rate.

## Client Setup (10 mins/10 clients)

Celoxis offers FREE Client logins. You can collaborate actively with your clients by sharing project and task updates, documents and inviting them to participate in project discussions. For a company with around 10 client accounts, you can set them up in 10 minutes.
Some points to note:

1. Every client account defined in Celoxis gets their own login. You can choose to share it with your clients or not.
2. You can setup a Client hierarchy in Celoxis. First add your top level client contacts, followed by the next level. Pick the appropriate parent group as you proceed to create your client hierarchy.
3. You can select what privileges you wish to grant your client.
4. By default, Celoxis defines a client called 'Internal'. If no clients are created, a new project is assigned this Internal client. This can also be used when executing Internal projects.
5. Celoxis creates 5 default reports that are shared with the clients (projects, tasks, documents, discussions and processes).

## Project Categories and Custom Fields Setup (10 mins/ 3 categories)

Categories help an Organization classify the projects they execute. You can then run a variety of reports to analyze performance across different categories. Celoxis lets you define custom fields to capture additional information specific to categories. This is a very key function and before you start creating projects in Celoxis, it is important to configure these categories and custom fields. By default, Celoxis will create projects under a category called 'General'. Read more on how to define project categories and custom field.
For a small company with 3 categories having a custom field each should take about 10 minutes.



## Time and Expense Code Setup (10 mins/10 codes)

If you are going to track time and expenses using Celoxis, you must define Time and Expense Codes.

- Time codes help you capture the exact details of activities performed on a task. Time codes that are not specific to projects (like sick leave, training) can be defined as non-project time codes.
- Expense codes are used to define your expense heads.

By default, Celoxis provides a time and an expense code called 'Default'. A small company may have about 5 time and 5 expense codes. These can be setup in 10 minutes.

If you plan to do your billing from Celoxis, you must select the billing model for your Company. Billing is possible using bill rates defined either at a User level or a Time Code level (since V6.5). If User based billing model is selected, you can add your User Bill Rates from the User screen. If Time Code Billing selected, you can define rates on your time codes.

## Security Setup (50 mins)

There are 3 factors that determine security

1. Workspace- This is a way to group your users.
2. Roles - Users play different roles in different departments.
   a. 2 types of roles - User defined and System defined
   b. System defined - there are few roles that are pre-defined by Celoxis - eg. Project Manager, Project Team, Task Team, Project Client, Administrator, Staff.
   c. User defined - you have to define these based on the roles played in your organization
3. Privileges - There are 3 kinds of privileges
   a. Grant
   b. Deny
   c. Unspecified.

After defining your Workspaces and Roles, you need to set the Workspace to role combination of every user. Then for every Role, you setup the privileges that specify what actions are allowed for that role. For eg.. Add Task - Can anyone in your Organisation create a new task? If yes, you will Grant this permission to your role - '**Staff**'.

Security is applied based on a combination of WHAT ROLE a USER plays in which WORKSPACE (Every project in Celoxis has a Workspace. And objects such as tasks, time, expense, documents and discussions are all attached to a project and hence a Workspace.) Please click here to read more on how security works.

# User Guide

## Projects

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# Apps

# Views

# Reports

## Project Basics

## Project Attributes

1. **Basic** tab

| Attribute | Description | R/RW |
|-----------|-------------|------|
| Name | A brief description of the project | RW |
| Start | The Start date of your project | RW |
| Deadline | The date at which you expect the project to finish. This is an optional field i.e if the project is a continuous project, you can keep this field blank. | RW |
| Manager | The primary project manager. For more information on project manager, click here. | RW |

| Client | This is the company or the individual for whom a project is executed. For projects which do not have a client, you can select - No Client - <br> For more information on Client, click here | RW |
|---|---|---|
| State | For details, click here. | RW |
| Priority | The project's priority. | RW |

2. **Advanced** tab

| Attribute | Description | R/RW |
|---|---|---|
| Workspace | This is a provision to organize users and projects within your company. This departmental organization lets you see only those users and projects which belong to that particular department. You can create only one level of department. In other words, there is no hierarchy within departments. This is intentional to keep it simple and avoid confusion. <br> For more information on Department Settings, click here. | RW |
| Code | This is a short alpha numeric code that identifies the project. This code should be unique across the company and has to be entered manually. This is useful if you refer to projects with a code which is more convenient and accurate way than using the project name. You can also search for projects using the project code. | RW |
| Project Team | A project team work towards its predefined goals and objectives under the guidance of a project manager. Project managers can specify the team for their projects. In a project, when you allocate resources to tasks, the resources are automatically added to the respective project team. For more information on Team, click here. <br><br> **Project Team** dropdown is available when the option **When assigning tasks to user show all users, not just users in project team** at company level (**Settings** > **Company**, under 'Projects & Tasks' section) is unchecked. | RW |
| Budget | This is the amount you expect to spend in order to complete the project. Depending on the current rate of spending, Celoxis automatically indicates the budget health of a project using RAG (Red/Amber/Green) signals which helps the manager take appropriate actions before it is too late. The budget is also used to calculate the EVA (Earned Value Analysis) numbers. | RW |
| Fixed Price | This means that the project is bid at a fixed price, regardless of the cost incurred. | RW |
| Hourly | This means that the project is bid on a per hour basis. In this case, you can define a Start Price and a Ceiling Price. Time entries are automatically marked as *Billable* if the charging model for the associated project is set as *Hourly*. | RW |
| Risk | The potential negative impact that may arise from this project. For more information on Risk, click here. | RW |
| Benefit | A number between 0 and 100 that reflects the potential for financial or operational gain upon successful completion. Higher number means more benefit. For more information on benefit, click here. | RW |
| Alignment | A number between 0 and 100 that reflects how closely this project's requirements fit within the organizations business, goals, skill sets, and resources. Higher number means better alignment. For more information on Alignment, click here. | RW |

**Options** section: For details, refer here.

3. **Description** tab
   A detailed description of the project.

4. **Custom Fields** tab
   For details, click here.

**Project Options**

Your project can be altered to suit your requirement like the calendar or the way the % Complete of the task is calculated.

1. **Tasks should start when all predecessors are complete**

   If this option is enabled, the dependent task will start as soon as the predecessor task is completed. Normally, a dependent task will only start on its start date even if its predecessor finishes ahead of time. This is because we assume that the manager has carefully planned

the project taking into consideration resource availability and loading and the system cannot automatically make a call to start the dependent task ahead of schedule. However, in some cases it might be preferable for a dependent task to start as soon as all its successors are complete.

> When you enter % Complete against a task, by default the Start(Actual) and Finish (Actual) of the task is its Planned Start and Finish date respectively. If your task finishes early or late than the planned schedule, then you need to change the Start(Actual) and Finish (Actual) of the task when doing a progress update so that the successor tasks are scheduled accordingly.

2. **Do not send email notifications for this project**

   This option allows the user to disable the email notifications specific to the project.

   > No notifications for task and project are sent. Notifications for discussion, document, expense (rejected), time-entries (rejected), time submitted on my behalf and Request Progress Update will still be sent.

3. **Always assume this project is on time and budget**
   This option always assumes that the project is On Time and On Budget. In long running projects, time and budget does not pose much of a constraint as much as the overall performance and efficacy of the project. In such situations, even if a task is At Risk or Overdue, Over Budget, the system always shows it On Time and On Budget.

4. **Auto subscribe team members to new discussion topics**
   Whenever a new topic is created, team members are automatically subscribed to the topic and they receive email notifications.

*Default Task % Complete Method*

1. **Last % entered by assigned resource** - Whatever last % complete is entered will be the task's % complete.

2. **Weighted avg. of % entered by each resource** - It is computed as the weighted sum of percent complete by all the resources assigned to the tasks. This is calculated based on the following formula:

   ```
   % complete of a task = (W1 × P1 + W2 × P2 + ...) ÷ (W1 + W2 + ...)

   Where W is the work assigned to the nth resource while P is the %
   complete entered by that resource
   ```

   To illustrate it further, let us consider an example: If Joe and Mary both are assigned as 10h and 20h respectively on task T1. Now, Joe enters 10% Complete and Mary enters 20%. Then % Complete of task=16%

3. **Auto-calculated from resource time sheet** - The Task % complete is calculated on the basis of time entries.
   This is calculated based on the following formula:

   ```
   % complete for a task = (Time by user 1 × 100) + Time by user 2 × 100
   + ...) ÷ (Allocated hours of user 1) + (Allocated hours of user 2) +
   ...
   ```

   To illustrate it further, let us consider an example: If Joe and Mary both are assigned 100% on task T1 That is, they both are assigned 8 hours each. Joe's approved hours = 4 Mary's approved hours = 8 which means that Joe has finished only 50% of his task while Mary has finished 100%.of her task. Now, the task's % complete = 4 × 100 + 8 × 100 ÷ 16 = 400 + 800 ÷ 16 = 1200 ÷ 16 = 75%.

   > When the % Complete method is **Auto-calculated from resource time sheet,** the % Complete box is grayed out. However, you can still enter % Complete for milestone tasks.
   >
   > Similarly, when the % Complete method is **Weighted avg. of % entered by each resource**, then only the task assignee can

enter progress update against the task. No other user will be able to enter progress against this task.

### Default Task Schedule Type

1. **Fixed Work:** If a task is Fixed Work, Celoxis automatically shrinks/grows the task's finish date when a resource allocation is changed.
2. **Fixed Duration**: If a task is Fixed Duration, Celoxis automatically shrinks/grows the resource's allocation when task effort is increased/decreased.
3. **Fixed Units**: If a task is Fixed Units, Celoxis automatically shrinks/grows the task efforts when task duration is increased/decreased.

### Work Calendar

If no resource is allocated on a task, then scheduling is done on the basis of the project's work calendar.

## Computed attributes of project

There are additional columns which are automatically calculated by Celoxis i.e the value of the fields cannot be entered. The columns can be picked in a project report.

| Attribute | Description | R/RW |
|---|---|---|
| Finish (Planned) | This is the finish date of the task that finishes last. Planned Finish is automatically calculated on the basis of the last finished task in a project. Although the project manager specifies a deadline, it is possible that as per the dates and duration entered for the tasks, the final task finishes before or after the deadline. This tells the managers if their deadline is realistic. To be on a safer side, managers may decide to keep a buffer between the end date of the final task and the deadline. The planned finish automatically changes as per changes to the task dates. During planning, project managers should use the planned finish as the real date on which the project is bound to complete. | R |
| Finish (Projected) | This is the date on which the project is expected to finish. It is derived from the last projected finish date of the task in the project.

Projects rarely progress as per the plan. In case of delays, it is very difficult for managers to assess the impact on the schedule of the project, especially if the plan is non-trivial. As the team updates the progress of tasks, the system continuously estimates the end dates of all tasks and the projected finish. The project manager can then decide if the hours being invested in various activities in a project are in compliance with the end date of the project. The project manager may need to increase the pace of the project, add additional resources, re-work their plan or seek approval to extend the project deadline. Managers must keep a close watch on this date to ensure that the project does not lapse. | R |
| % Complete | This indicates the progress of the project. It is auto calculated based on the following formula: If p is the percentage complete of the topmost tasks and w is the estimated hours on the tasks, then:

```
Percent complete of a project = (w1 × p1 + w2 × p2+...) ÷ (w1 + w2+...) where 1 and 2
are its tasks.
```

There might be a situation, when no resources are assigned on a task and hence work (w) is 0. In such cases, the duration of the task is taken into account for calculating the % Done.

Depending on the current rate of progress, Celoxis automatically indicates the schedule health of a project using the RAG (Red/Amber/Green) signals which helps the manager take appropriate actions before it is too late. The % complete is used to calculate the Projected Finish and the Accrued Fixed Cost. For more information on RAG indicators, click here.

For more information on how project's % Complete is calculated, click here. | R |
| Estimated (Hours) | These are the total hours that the team must put in to complete the project. It is auto calculated as the sum of estimated hours of each of its tasks. | R |
| Actual (Hours) | These are the total hours the team has worked on a project till date. It is auto calculated based on the following formula:

```
Act. Hours = (Approved hours of T1 + Approved hours of T2 +...)
```

It is used by the system to automatically compute the Projected Finish date of all tasks and the project, which in turn is used to show the RAG signals. | R |

| | | |
|---|---|---|
| Hours (Act, Costable) | This is the total of approved time entries which are marked Costable. It is auto calculated based on the following formula.<br><br>```
Actual Costable Hours = (Approved Costable hours of T1 + Approved Costable hours of T2)
```<br><br>It is used to compute the Actual Cost. | R |
| Cost (Est) | This is the cost a project is expected to incur based on your plan. While the budget simply indicates an amount you expect to spend, Est. Cost is calculated from the task duration, the associated resources and their costs plus any material or fixed costs that you expect to incur on a task. The sum of Estimated Costs of tasks is the Estimated Cost of a project. It helps the project manager ensure that the budget is realistic. Since this changes automatically every time you make a change to the project plan, it is recommended that the project manager regularly ensure that this amount is equal or less than the budget. For more information on Est. Cost, click here. | R |
| Cost (Act) | This is the real / tangible cost incurred till date of the project. It is used to automatically compute the Projected Cost, which in turn is used to show the RAG signals that warns you of cost overruns well in advance. It can also be used to decide if a project is worth continuing. For more information on Act. Cost, click here. | R |
| Cost (Projected) | This is the cost expected to be incurred on a project based on the current rate of the % complete. If projected cost exceeds the project budget then it requires immediate attention. For more information on Projected Cost, click here. The Projected Cost for the project is the sum of projected cost of all top level tasks.<br><br>If the project is 0% complete then Estimated cost = Projected Cost | R |
| Cost (Est, Labor) | This is the total estimated labor cost of all the tasks in the project. It can be seen on a mouse over of the Cost (Est) on the project details page. | R |
| Cost (Est.,Material) | This is the amount you expect to spend on items like travel, equipment purchase etc. It is the sum of the Est. Material Costs of all tasks in the project. It can be seen on a mouse over of the Cost (Est) on the project details page. | R |
| Cost (Fixed) | This is the cost which will be incurred on a project regardless of who works on the task and for how long. It is the sum of the Est. Fixed Costs of all tasks in the project. It can be seen on a mouse over of the Cost (Est) on the project details page. | R |
| Cost (Accrued, Fixed) | This is the fixed cost incurred on a project till date. It is computed as the sum of Accrued Fixed Costs of all tasks in the project. It can be seen as the Fixed cost on a mouse over of the Cost(Act) on the project details page. For more information on different Costs, click here | R |
| Hours (Billable) | This is the sum of hours from the approved time entries which are marked billable. This is used to calculate the Bill Amount for the project. Time is automatically marked as Billable if the charging model for the associated project is set as Hourly. You can also change this before approving a time entry. | R |
| Hours (Non-Billable) | This is the sum of hours from the approved time entries which are marked not billable. | R |
| Bill Amount | This is the amount which is billed to the client. It is the sum of billable amounts of the tasks in the project. You can see it on the Project Details page or the Costing Summary report.<br>It also includes the approved Expenses marked as billable. | R |
| Amount(Est, Billable) | This is the estimated billing amount that the project might incur for completion. This column is only visible when you do<br>user based billing. It is calculated as the sum of estimated billable amounts of all top level tasks.<br><br>If the Project's billing model is "Fixed Price" Billing, then Amount(Est, Billable)=Fixed Price value | |

For baseline attributes, click here.

## Project States

Celoxis allows you to define your own project states to suit your business requirements. The following are the pre-defined states. You can edit them OR add your own states as necessary.

| Action | States | | | | |
|---|---|---|---|---|---|
| | **Draft** | **Active** | **On Hold** | **Completed** | **Cancelled** |
| Send email notifications | ✗ | ✓ | ✗ | ✗ | ✗ |
| Allow Time | ✗ | ✓ | ✗ | ✗ | ✗ |
| Show RAG indicators for project | ✗ | ✓ | ✗ | ✗ | ✗ |
| Show RAG indicators for task | ✓ | ✓ | ✓ | ✓ | ✓ |
| Recalculate Projections | ✗ | ✓ | ✗ | ✗ | ✗ |
| Recalculate schedule based on resource work exceptions | ✓ | ✓ | ✗ | ✗ | ✗ |

### Stages

A "stage" determines the behavior of a particular state. Most system actions are tied to a project stage. There are three stages: Planning, Execution and Closure to correspond to different stages in your project life-cycle.

For example, if a state has a stage "Planning", then email notifications are not sent. The RAG indicator of the project with this state will be "Not Active". Similarly, the projected dates for the tasks/project will not be shown. However, adding exceptions will affect the task dates.

The following table describes the behavior of each stage.

| Stage | Show RAG (project) | Show RAG (task) | Send Email Notifications | Resource Work Exceptions impact schedule | Recalculate projections |
|---|---|---|---|---|---|
| **Planning** | ✗ (Not Active) | ✓ | ✗ | ✓ | ✗ |
| **Execution** | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Closure** | ✗ (Not Active) | ✓ | ✗ | ✗ | ✗ |

## Project Categories

Categories help you to organize your projects just as you use folders to organize documents. You can analyze important statistics like billing, expenses, and cost per project category; thus understanding which type of project is more beneficial. You can attach custom fields to project categories which help you to capture custom information for a project.

For instance, a software development firm may have categories like Website Development and Custom Software Development.
The Website Development category may have custom fields like Content Provided By, Advance Amount and so on; while for the Custom Software Development, there may be fields like Preferred Technology and Browsers to be supported.

**To select a project category:**

1. On the **New / Edit Project window**, click the **Custom Fields** tab.
2. From the **Category** drop-down list, select the applicable project category.
3. Click **Submit**. The category is selected for the project.
4. Any custom fields attached to the category are refreshed and will appear in the **Custom Fields** tab.

To Add, Edit and Delete Project Categories, Click here.

### Project Custom Fields

Sometimes the available (in built) fields in a project may not be sufficient and you may feel the need to procure some more information specific to your industry or domain.

Celoxis provides you with the ability to create custom fields that allow you to capture the relevant information. For example, a company may have a policy to take an 'Advance' for a project. Celoxis does not have a default field called 'Advance' but it equips you to create such a field that displays the specific information. You can also use custom fields to include formulas that incorporate existing project fields and other custom fields

to calculate data. Since these custom fields can be unique to your organization, there is no limit to the number of fields that you can have. Project custom fields are specific to project categories. This allows greater flexibility since different types of projects may have different types of fields. Project fields can also be shared across categories. This increases re-usability, maintains uniformity and reduces maintenance.
Benefits

- Custom Fields are available in reports. You can filter, sort and group reports by them.
- You can analyze important statistics on custom field information and this information can be displayed in tabular as well as in graphical (Pie, Bar, Bubble charts) format. This comes in handy when you need to analyze the data of various departments or verticals within your company. Pie chart or bar chart is easy to read, handles large data, shows percent of total for each category and is visually appealing.

For more information on Custom Fields, click here.

## Project Participants

A project has many participants. There can be one or more Project Managers depending on the size. There are Project Team Members. There is a Task Team (people assigned to a specific task). Every project has a client and stakeholders.

- Project Manager
- Project Client
- Project Team
- Task Team

### Project Manager

Project managers are responsible for planning and execution of projects. In Celoxis, every project must have at least one project manager. They can run reports to check on the progress of projects and receive email notifications like late tasks and progress updates.

**To assign a project manager to a project:**

1. On the **New / Edit Project window**, under the **Basic** tab, click the **Manager** drop-down list and select the manger of the project.
2. Click **Submit**. The project manager is added to the project.

Multiple Project Managers

It is possible to have multiple project managers for a project. This may be required due to the size and complexity of the project or if the lead / principal project manager is busy and needs to delegate their job to someone within the team. All managers get equal privileges within the project.

**To assign multiple project managers in a project:**

1. Go to your project and click on **More** option on the right side.
2. Now, click on **Access Control**.
3. In the new pop-up, click the user icon besides *Project Manager* role.
4. In the new pop-up, search the user you wish to assign as secondary PM to this project.
5. Click on **Save**. The new users now play the PM role for this project.

### Project Client

Clients are the companies or individuals for whom projects are executed.

Clients provide opportunities to undertake projects, and expect tangible and predefined returns. In Celoxis you can create clients (unlimited) and assign them to projects. Client accounts are free and hence have limited functionality.

- View projects and their status.
- Update the progress of a task.
- Participate in designated discussion forums.
- Participate in Workflow processes.
- Upload and download shared documents.

**To assign a client:**

1. On the **New/Edit Project window**, under **Basic** tab, click **Client** drop-down list.
2. Select a client.
3. Click **Save**. The client is assigned to the project.

If you have a client hierarchy then, who the project is visible will depend on who is assigned as the client for the project.
To know how to create the Client Hierarchy click here.  The following table describes what the client can see :

Acme (Company)

- India (Department)
    - Pune (Sub-department)
        - Rita (Contact point within department)
        - Mahesh (Contact point within department)
    - Mumbai (Sub-department)

- Neha (Contact point within department)
- Amit (Contact point within department)
- U.S. (Department)
    - New York (Sub-department)
        - Joe (Contact point within department)
        - Mary (Contact point within department)
    - Oklahama (Sub-department)
        - Sandy (Contact point within department)
        - Martha (Contact point within department)

Now, let us assume a project is created "Project- Implementation".

| If<br>Client is | then, the project is visible to |
|---|---|
| Acme | Acme, India, Pune (Rita, Mahesh), Mumbai (Neha, Amit), U.S., New York (Joe, Mary), Oklahama (Sandy, Martha) |
| India | Pune (Rita, Mahesh), Mumbai (Neha, Amit) |
| U.S. | New York (Joe, Mary), Oklahama (Sandy, Martha) |
| New York | Joe, Mary |
| Mary | Mary |

Multiple Clients

The project manager may specify multiple clients for a project. You can individually control permissions for each client. If for example Joe and John were set as the client for a project you can specify that Joe can view the project and update the progress of tasks while John can only view the project.

**To assign multiple clients:**

1. Go to your project and click on **More** option on the right side.
2. Now, click on **Access Control**.
3. In the new pop-up, click the user icon besides *Project Client* role.
4. In the new pop-up, search the client you wish to assign as client to this project.
   NOTE: Only clients of same parent can be added to the project. So, from above example, if "Acme US" is the client, then only  New York (Joe, Mary), Oklahama (Sandy, Martha) can be added as client to this project.
5. Click on **Save**. The new clients are added to this project.

## Project Team

Project managers can specify the team for their projects. The objective of this is two-fold:

1. Options When assigning tasks to resources, you can either choose to display all resources within the company or only those that are in the project team. This is especially convenient when you have many resources which make it difficult to promptly locate a resource from a very long list.
2. You can also control permissions to the project team members, which could be revised / modified / changed during the course of the project.

> **Project Team** dropdown is available when the option **When assigning tasks to user show all users, not just users in project team** is unchecked at Administration level (Click on **Administration** option under the user profile > Under the *Project Management* section, click on Project Options).

**To assign team members in a project:**

1. Go to you project and click on **Edit** button.
2. Under **Advanced** tab, click **Project Team** drop-down list.
3. Select the users that you want to add.
4. Click **OK**.
5. Once you define the other mandatory project attributes on the **New Project** window, click **Submit**. The project team members are assigned to the project.

## Task Team

When a resource is assigned to a task, he automatically becomes the part of the task team and hence, will inherit the privileges set for the Task Team role. The objective behind this is to provide customized access control to the users of the task team. This is useful when you want to give some permissions to the role, but restrict them to the task only. For e.g, you want that the user should be able to view all tasks BUT, edit their own

tasks i.e tasks where they are assigned. This role is a dynamic role which means users play this role only when they are assigned to a task.

The users assigned to a task in a project automatically plays Task Team role for the task in that project.

## Project Settings

From an actions menu of a project you can click on the **More** menu which lets you configure the following for each project:

1. **Billing Rates**: Every project can have a separate billing rate for the timecode or the user depending on your company's billing model. This rate is used to calculate the Bill Amount of the project.
2. **Cost Rates**: Every project can have a separate cost rate per user from which the Cost (Est), Cost (Actual) is calculated.
3. **Access Control**: You can add/edit users to play a specific role per project. You can also set object level security i.e what each role can do for a particular project.
4. **Configure Apps**: You can configure the State Manager and the timeout policy per App for a particular project.

- Access Control per project
- Project Rates

### Access Control per project

At times you may wish to allow some specific users to play a specific role on your project and assign them certain privileges.
For example, you may want a user to be an additional PM on this project who can view project, however not add New tasks in it. To do this

1. Go to your project and click on **More** option on the right side.
2. Now, click on **Access Control**.
3. You can add a user to play a particular role by clicking on the User icon.
4. You can then set the security per role. The changes are saved automatically.



### Project Rates

User cost rates and billing rates can be defined at the Company level or Project level. If the rates do not exist at a project level, then the Company rates are referred.

## To add Billing Rates at the project level:

1. Go to your project and click on **More** option on the right side.

2. Now, click on **Billing Rates**.
3. You will see the list of Time codes/User rates displayed (based on Company billing model)
4. To edit any of the rates you can click on the respective boxes and you can edit the rates.
5. To add new rates, click on the **Add** button and fill the details below.
6. Click on **Save.**

This is the billing rate that will be used to compute this project's billing Amount. If your billing model is User based, then you will also see the Estimated billing for your project.

**To add User Cost at the project level:**

1. Go to your project and click on **More** option on the right side.
2. Now, click on **Cost Rates**.
3. Click on the **Add** icon.
4. From the **User** drop-down list, select a user.
5. Enter the rates by clicking on the rate boxes.
6. Click on **Save.**

## Project Portfolio Management (PPM)

Most organizations today face a resource crunch. Managers are often frustrated by dearth of resources or reassignment of their resources to other projects. If you are familiar with this situation, then PPM is for you. PPM is a process designed to help an organization analyze information about its basket of projects, then prioritize each project according to certain criteria, such as strategic value, risk, cost, etc. With PPM your organization will:

1. learn to look at the *big picture* rather than individual projects
2. learn to differentiate between projects that are valuable and resource hogs
3. make well informed decisions about allocation of resources

Celoxis offers a comprehensive set of tools to manage your project portfolio. Each project has the following PPM attributes :

1. **Risk** - The potential negative impact that may arise from this project.
2. **Benefit** - A number between 0 and 100 that reflects the potential for financial or operational gain upon successful completion. Higher number means more benefit.
3. **Alignment** - A number between 0 and 100 that reflects how closely this project's requirements fit within the organizations business, goals, skill sets, and resources. Higher number means better alignment.
4. **Budget** - The project's budget

In addition, you can define your own fields depending on your organization's PPM process using custom fields . For example, you can have your own field called *PPM Score* that quantifies the rank of a project using our formula custom field. Celoxis provides a number of drill-down charts to analyze your portfolio including the popular *Portfolio Bubble Chart*. You can customize this chart or define your own charts to suit your PPM process.

## Creating Projects

Celoxis lets you create projects in 3 ways :

- Creating a Blank Project
- Importing Project from Microsoft Project
- Copy Project

## Creating a Blank Project

A blank project is one which does not have any tasks in the project.

**To create a new project:**

1. From the main menu, click **Add**, point to **Project**, and then click **New Project**.
2. On the **Add Project** window, define the project attributes.
3. Click **Save.** The new project is created.

For more information on project attributes, click here.

## Importing Project from Microsoft Project

Celoxis can import project with tasks from / to Microsoft Project. If you already have projects in Microsoft Project (MSP), you can simply import the MPP or XML file into Celoxis rather than creating a new project. This helps you save considerable time and effort. When you import Microsoft Project into Celoxis, the following project information is imported.

- Task's parent-child relationships
- Dependencies
- Constraints
- Resource allocation

The custom fields created in MS Project is not imported.

**To import a project from Microsoft Project:**

1. Save your Microsoft Project plan as an **.mpp** or **.xml** file.
2. In Celoxis, from the main menu, click **Add**, point to **Project**, and then click **Import Microsoft Project**.

> If you have already created a project, then you can import the MPP/ XML in the project from the '**More**' > '**Import**' option under Interactive Gantt.

3. Click **Browse** to navigate to the Microsoft Project file.
4. Select the desired file.
5. Click **Next**.
6. You are prompted to map the resources from MS Project to corresponding Celoxis users. If the users are created in Celoxis with the same name as MS Project, then the mapping is automatically done.
7. Click **Next**

> If you are importing tasks in an existing project, then you are asked if the existing tasks in the project are to be maintained or deleted. You can check the tasks to be deleted. If the tasks in the MPP/XML is the same, then the mapping is done automatically.

8. On the **Add Project** window, you can then define/change the project's attributes like the Dates, name, client etc or enter the custom fields.
9. Click **Save**.
10. The imported project is displayed.

> - When importing, the tasks will be scheduled as per the project/resource calendar defined in Celoxis. So, if there are non-working days in Celoxis calendar, then the tasks dates will be pushed out to the next available date.
> - If you have manually scheduled tasks in the MSP file, then they are imported as-is. For details, refer here.
> - Tasks in MSP which are effort-driven are not supported by Celoxis. The scheduling of such tasks is done as per Celoxis computation.

### Importing Baselines

You can have multiple baselines created for your project in your MS Project file, but when importing such a file in Celoxis, you are prompted to select a single baseline which you want to import for the project in Celoxis.

Once you select the baseline and successfully import the project, the baseline columns will be shown according.

### Mapping of Fields/Columns

When importing the MPP or XML file into Celoxis you can map fields from Microsoft Project to fields in Celoxis.

| Celoxis | Microsoft Project |
|---|---|
| Name | Name |
| Start | Start |
| Deadline | Finish |
| Duration | Duration |
| Constraint Type | Constraint Type |
| Constraint Date | Constraint Date |
| Detail | Description |
| Fixed Price | Fixed Cost |
| Priority | Priority |

## Mapping of Priority

Following are the mapping of the priority values:

| Number in MS Project | Equivalent Priority in Celoxis |
|---|---|
| 700 | Very High |
| 600 | High |
| 500 | Normal |
| 400 | Low |
| 0 | Very Low |

So, lets say you want to import a task in Celoxis with priority Very High. Then in MPP file, in the **Priority** column, you should have 700 for that task.

## Mapping Resources

While importing, you can map resources from MS Project to corresponding Celoxis users. After the Microsoft Project Plan is imported, these mapped users are allocated to tasks. If you are importing project that were previously exported from Celoxis, the mapping will be done automatically. However, you can still change it if required.

If there are no resources in your MPP or XML file then, this step is skipped and you move to the next step.

## Copy Project

Often an Organization would be executing projects that are very similar in nature. In such cases, we recommend that you create a template of such a project with all the tasks, including dates, dependencies and resource allocations as if it were a real project. When you need to start a new project, use the **Copy Project** feature to make a copy of this project template; make necessary modifications such as resource assignments and your project plan is ready.
This saves you invaluable time and effort. During copying you can specify a start date for the new project and Celoxis will automatically schedule all the tasks as per the new start date, task duration, vacations and holidays. For example, let us consider the start date of the existing project is June 1, 2010 and the task starts on June 9, 2010 and if the start date of the new copied project is August 15, 2010, then the start of the same task will be August 24, 2010 because it started 7 days after the original project. While cloning the projects, the system also takes into account the holidays and user vacation in that calendar month. You can also store documents in your template and they will be copied over to the new project.

- Cloning a project creates a new project based on an existing project. This operation does not affect the original project in any way.
- Cloning a project copies custom field data, documents, estimated material cost attached to a project/task, task dependencies.
- Task constraints are NOT copied over since the dates will depend on the start date of the new project.

### To copy an existing project

1. From the main menu, click **Add**, point to **Project**, and then click **Copy Project**.
2. You can select your project from **Recent Project** or **Other** option.
3. If you select **Other**, you can type keywords in the **Project** field. As you type, project names matching the keywords are displayed.
4. Select the project that you want to copy.
5. Click **Next.**
6. You can change the information of this new project under the 4 available tabs: Basic, Advanced, Custom Fields, Description.
7. Click Save. The new project is now shown on your screen.

A user needs to have 'View Project', 'View Financials' and 'Add Project' privilege to be able to copy projects.

## Security settings for copying templates

In order to be able to copy a project, the user should have 3 privileges granted - View Project, View Financials and Add Project. A company may not want to Grant the 'View Project' and 'View Financials' to all their Staff, as that would mean anyone who is a user of Celoxis can view all projects including its financial information. You can define a special role (eg. Copy Project Role) and assign those users to this role whom you

wish to grant the ability to copy your templates to create new projects.

At the Company level, you keep "View" Project and "View Financials" as "Unspecified" for this role. However, at the template level (i.e on the specific projects that are defined as templates), set object level security and specifically set a Grant on the 2 privileges - 'View Project' and 'View Financials'. This will allow users playing the "Copy Project Role" the ability to copy from your templates.

| Company Level | View Project | View Financials | Add Project |
|---|---|---|---|
| Copy Project Role | Unspecified | Unspecified | Grant |
| **Template Level** | | | |
| Copy Project Role | Grant | Grant | NA |

> You can prefix the project name with 'Template' for e.g "Template - 4572 TEST Project" OR you can create a custom field say 'Is Template' (type Single-select drop-down with values Yes and No) and select Yes or No depending on whether this project is a template project. Creating a custom field can help you segregate templates from actual projects in reports.

## Exporting Project to Microsoft Project

Exporting your Celoxis project to MS Project is helpful if you need to work on your project plan when you are offline or if working in Microsoft Project is more convenient for you. In such a scenario, you can export your project to Microsoft Project, make changes and re-import it.

**To export a project to Microsoft Project:**

1. Navigate to the project you wish to export.
2. From menu on right, click on **More** followed by Export Microsoft Project.
3. A .xml file is downloaded to your computer.

**To import the XML file into Microsoft Project:**

1. Start the Microsoft Project.
2. Click **File**, and then click **Open**.
3. Select the XML file saved from Celoxis.
4. Choose **As a new project** when prompted on how to open it.

> - When tasks are exported to Microsoft project, allocation in hours is converted into % (percent).
> - When exporting a project with baseline from Celoxis, it is imported as **Baseline** in MS Project.

### Differences between Celoxis and Microsoft Project

Due to a few variances between Celoxis and Microsoft Project, 2-way synchronization can at times throw a few surprises. In order to achieve seamless integration between Celoxis and Microsoft Project it is important to understand these differences. The following table mentions the differences between the behaviour.

| In Celoxis | In MS Project |
|---|---|
| A new task (auto) has an ASAP constraint. Once you change the date only then is an SNET or an appropriate constraint set. | Task dates become constraints. Besides, you can only have one constraint at a time. So you cannot enter both, start and end. |
| Resource allocation can be entered in hours(h) or as a percentage (%). | The allocations specified in hours are converted to an equivalent % and then exported. |
| Custom fields created in MSP are not imported in Celoxis. | Custom fields created in Celoxis are not imported in MSP. |
| Time-based exceptions like half day, etc. affect task start/finish dates. | Time-based exceptions not supported. |
| Project's calendar and resource calendar can have different time zones. | Multiple timezones not supported. |
| When exporting a project with a baseline from Celoxis, it is imported as "Baseline" in MSP. | Supports multiple baselines. |

**FAQ**

1. Why do the task dates move after exporting to MS Project?
   The discrepancies in the dates may occur due to various reasons as mentioned in the table above. If any of the following is true, Celoxis cannot guarantee that the dates will be imported as-is.

2. Why does the % Complete in Celoxis differ from the % Complete in MS Project?
   Celoxis calculates % Complete based on the Work(h). For details refer: https://celoxis.atlassian.net/wiki/x/YgCyAg
   MS Project, however, has two fields for the same: %Work Complete and % Complete. You are expected to refer the % Work Complete in MS Project column for this.

3. Why is an MS Project file not exported?
   Celoxis provides an output (.xml) supported across any platforms which can open such kind of files. MS Project can also support this extension.

## Fields/Columns exported

**Following information is exported:**

- Task attributes
- Parent-child relationships
- Dependencies including lead/lag time
- Constraints
- Predecessors
- Resource allocations
- Resource list - eases project managers job while assigning resources to tasks
- Resource vacations
- Resource Working calendar
- Company working hours
- Company holidays
- Baseline
- 1 person day
- Hours per week/month

> Whenever you make changes in Celoxis, you need to export it back so that MS Project has you latest changes.

## Editing a Project

After creating a project, you may need to change project attributes or set project options. You may wish to update your Phase or make changes to any billing information. To do any of the above, you need to Edit your project.

**To edit a project:**

1. Go to the project and click on **Edit** button on right-side.
2. Edit the required project attributes under the different tabs.
3. Click **Save**.

## For more information on project attributes, click here.

> If you do not see the **Billing** tab on the Edit project window, it means that you do not have 'View Financials' privileges.

### Bulk Edit

Celoxis allows you to modify the following attributes of a project under bulk options. You need to select the checkbox besides the option to set the new value. You can check multiple options at one time.

1. Start
2. State
3. Manager
4. Client
5. Work Calendar
6. Workspace
7. Priority
8. Custom Fields (except of type 'Multi-select Text Area').

## Deleting a Project

**To delete a project**

1. Go to your project and click on **More** option on the right side and click **Delete.**
2. Confirm your deletion by clicking on the *Yes, I understand the consequences and still want to delete* checkbox and then click on Delete.

> Deleting a project permanently deletes all information including Tasks, Time sheets, Expenses, Updates, Folders, Files, Discussions that project. It CANNOT be recovered.

## Monitoring Projects

Once projects are under execution, you must regularly monitor them to ensure that they proceed as per plan. Two important factors which determine monitoring are: Schedule and Budget.

You, as a project manager, monitor the project's schedule and make sure that the projects do not slip the specified deadline and budget. While monitoring, project you take regular updates from your team members and try and resolve their issues if any. Typically, weekly meetings are conducted to get the progress report from team members. However, in order to get these progress reports and to resolve issues, you have to wait for the whole week until you are updated of the current status of a project. Also, if you are managing multiple projects at one time, then it often becomes very difficult to compile the data and other project related information of all the projects together. Therefore, to relieve you of this time consuming task, Celoxis provides updates in real time with features like Visual Health Indicators, Requesting Progress Updates on Tasks, Emailing Task Owners, Viewing Project Activity Log, Project Specific Reports etc, which help you review and monitor the projects and track their progress thoroughly.

### Understanding when plan exceeds deadline

As a PM when creating the WBS structure you might have come across situations that the finish date of a task in the project has exceeded the deadline of your project. This is crucial information when planning your tasks.
Celoxis shows you a warning message on the Interactive Gantt itself when this situation occurs so that you can take necessary actions. We do not touch your planned dates or Deadline to accommodate this difference.



### Getting Notified of Progress Updates

As a Project Manager, you need to be regularly updated of the current status of every activity in a project. Since you may be managing multiple projects, it becomes difficult for you to keep the track of every activity in a project. So, instead of you asking for these updates, Celoxis sends email notifications to you of every progress update done by the team members. This way, you don't need to constantly remind the team members to provide you with the updates and it also eases off the strain on you. If you do not want these notifications, you can simply disable this option.

**To disable the option of Getting Notifications of Progress Updates:**

1. On the **Dashboard,** click **Customize** button on right.
2. **My Settings** pop-up will be displayed. Navigate to the **Preferences** tab.
3. Under the **Projects Managed by me** section, un-check the **Work Item progress is updated** check box.
4. Click **Save**.

For information on Schedule Health, click here

### Getting Notified of At Risk and Overdue Tasks

It is important that projects proceed as per plan. Since there are various tasks in a project and many times each of those tasks are dependent on other tasks, and if one task misses its deadline, other dependent tasks get affected as well. In order to avoid these extreme yet real situations,

Celoxis notifies you of the state of every task within a project and looking at which you can take timely measures. For instance, if an activity is getting delayed, Celoxis automatically informs you that the activity is At Risk or if the activity is already been delayed, then it shows as Overdue. So, without having to wait for the updates from the team members, you would know the current status of the task.

For more information on At Risk and Overdue Task, click here

## Understanding Project Visual Health Indicators

Projects rarely proceed as per plan. Real world situations may change a project's schedule, and the projects may even get delayed. Celoxis provides visual, traffic signal like indicators to indicate schedule and cost health of a project. A quick glance at the visual health indicators can alert a manager to take corrective action before a setback occurs.

### Schedule Health

As team members update the progress of their tasks, Celoxis auto calculates the projected finish date of the project. The visual health indicators are displayed by comparing the projected finish date with the Finish (Est).

| Signal | When |
|---|---|
| On Track | Projected Finish Date is less than or equal to the Project's planned Finish i.e Finish (Est). <br><br> [ Projected Finish <= Finish (Est) ] |
| At Risk | Projected Date exceeds the Finish (Est). <br><br> [ Projected Finish > Finish (Est) AND Present date < Finish (Est) ] |
| Off Track | Present date has exceeded the project Finish (Est). <br><br> [ Present date > Finish (Est) AND Project % Complete < 100% ] |
| Future | Project has not yet started, and the project start date is in Future. |
| Not Active | Project is in "Planning" or "Closure" stage. |

For instance, if project 'A' takes ten days to complete, then after three days' work, it should be 30% complete, but the actual % complete is only 20%. The reason might be because of reasons like unavailability of resources, or other issues. As a result, the project will be delayed from the date of completion, and it would be at risk. In such a situation, Celoxis displays the signal indicating that the project is At Risk. If a project misses its deadline, then Celoxis shows the signal stating that the project is Overdue. You can check with the team members of the probable reasons for the delays and take appropriate actions accordingly.

> You can also define your own visual indicators based on your company requirements. To know more, please refer Define your own Visual Indicators section.

### Budget Health

Based on the project % complete and the actual cost incurred, the projected cost is derived. Thi projected cost is then compared with the budget

or Cost(Est) if budget is not specified, based on which Celoxis displays the visual (Budget) health indicators.

| Signal | When |
|---|---|
| On Track | Projected cost is less than or equal to the budget<br><br>[ Projected Cost <= Budget OR Cost (Est) if Budget is not specified] |
| At Risk | Projected cost has exceeded the budget.<br><br>[ Projected Cost > Budget AND Actual Cost < Budget OR Cost (Est) if Budget is not specified]] |
| Off Track | Actual cost is more than the budget.<br><br>[ Actual Cost > Budget OR Cost (Est) if Budget is not specified] |

For instance, your budget for a project is $1000. Now, when you spend $1000 on the project, ideally your project should have been 100% completed or when you have spent $500, your project should be 50% completed, and then in this situation, Celoxis displays the signal indicating that your project is "On Budget". But if you have spent $600, and your project is only 50% completed, that means by the time your project is 100% complete, you would have spent $1200 at the current rate of spending. In such a situation, Celoxis displays the signal indicating that your project is At Risk. However, if your project is only 80% completed, and you have already spent $1000, then, in such a situation, Celoxis displays the signal indicating that the project is "Over Budget." You can check with your team members of the probable reasons for the delays and take appropriate actions accordingly.

> These schedule signals are not calculated regularly as these are very intensive operations which might slow down the application. Hence, you need to recalculate the projections so that the health indicators, projected dates show up correctly. On how to recalculate the projections, please click here.

### Requesting Progress Updates on Tasks

You may request for the progress updates on tasks if you realize that tasks have not been updated. When you request for an update, an email notification is sent to resources assigned to the task, requesting them to update the task status. Team members can update the task status in two ways:

- By simply logging into the application and doing the updates.
  Or
- By directly replying to the email that they receive from you. In their reply, they enter the new % complete of the task as the "subject" of the email and the updated comments as "body" of the email. You are notified of the update and the reply is automatically filed against the task.

**To request progress updates on tasks:**

1. Go to your **Project**.
2. Open the project specific report - **Tasks (List)** from the list of project specific reports.
3. Point to a task and from the actions drop-down menu, click on **Request an Update**. The task owners are notified.

> If the **Request Progress Update** link is grayed out, it means that there are no resources assigned to that task(s).

## Earned Value Analysis (EVA)

Earned value analysis is an industry standard to measure a project's progress, forecast its completion date and final cost, and provide schedule and budget variances along the path. It compares the planned amount of work with that of actually been completed to determine if the cost, schedule, and work accomplished are progressing as planned.

Earned Value Analysis helps the project manager in:

- Identifying different measures of progress for different types of tasks.
- Rolling up progress of many tasks into an overall project status.
- Setting up a uniform unit of measure (currency or work hours).
- Providing an 'early warning' signal for prompt and corrective actions.

**To view Earned Value Analysis (EVA) status:**

1. Go to your **Project**.
2. Create a project-specific **Task** report.
3. In the **Name\*** box, type the name of the report.
4. Fill in the other details.
5. In the **Output** section, from the available **Columns**, select the EVA columns. For instance, BCWS, ACWP etc.
6. In the **Sort By** and **Group By** section, you can sort and group the columns and click **Save**. The selected columns are saved and displayed.

> The EVA columns will be computed based on the baseline values. To view the EVA data, you need to set a baseline on the project/tasks.

## EVA Columns

The Earned Value Analysis data comprises of the following columns:

1. **% Complete (Planned)**
   It is calculated based on the task's planned start and finish dates, and the current date.
   For instance, if Task1 has 2 days duration (Friday and Monday) and if today is Monday morning then the Planned % Complete will be 50% as 8 working hours are passed (assuming default calendar). The hours passed depends on the server time.

2. **Actual Cost of Work Performed (ACWP)**
   Displays the actual cost (Cost(Actual)) of work performed that has been done till date.
   This includes the labor cost, pro-rated Cost(Fixed) and costable expenses.

3. **Budgeted Cost of Work Scheduled (BCWS)**
   It is calculated as   **(% Complete (Planned, Baseline) \* Budget (Baseline))**
   Displays the budgeted cost of work scheduled for a given period. For example, a project starts on the 1st and gets over on the 10th of a month. If the budget is $1000, then on 3rd day of the same month, ideally 30% of the task should get completed and $300 should have been spent. Therefore, on the 3rd days the BCWS would be $300.

4. **Budgeted Cost of Work Performed (BCWP)**
   It is calculated as (**% Complete x Budget (Baseline))**
   Displays the budgeted cost of work performed. This is the planned (not actual) cost to complete the work to date. For instance, a project starts on the 1st and gets over on the 10th of a month. If the budget of the project is $1000 and if the user has actually completed only 20% of the task till 3rd then the BCWP will be $200.

5. **Schedule Variance**
   It is calculated as **(BCWP-BCWS)**
   Displays a comparison between the work performed during a given period of time with what was planned. A negative variance means the project is behind schedule.

6.  **Cost Variance**
   It is calculated as **(BCWP-ACWP)**
   Displays a comparison between the budgeted cost of work performed with the actual cost. A negative variance means the project/task is over budget.

7. **Schedule Performance Index (SPI)**
   It is calculated as **(BCWP/BCWS)**
   SPI less than 1 means project / task is behind schedule.

8. **Cost Performance Index (CPI)**

It is calculated as **(BCWP/ACWP )**
CPI less than 1 means project/task is over budget.

## Recalculating Projections

As a project progresses, tasks often tend to get delayed. It is very useful for a Manager to be able to compute the finish date based on current progress. Celoxis allows you to compute a projected finish date for your tasks and project. This can be done by clicking on **Recalculate Projections** for a project.

The attributes which are calculated are:

- Projected Start date of tasks.
- Projected Finish date of a tasks.
- Projected Finish date of a project.
- RAG (schedule and budget) status of project.

**To recalculate projections:**

1. Go to your Project and from menu on right, click on **More** followed by **Recalculate Projections**.

## Archiving/Completing Projects

When a project is completed or is suspended, you may want to preserve the project as part of your knowledge base. However, you would not want it to appear in your current list of projects. To achieve this, you can archive your projects. When a project is archived, the tasks within it are not visible to the team members, email notifications are not sent, and time sheets are allowed only if the project's State allow time on it.

**To archive a project:**

1. Go to your project and click **Edit** button on right.
2. Under the **Basic** tab, in the **State** drop-down list, click **Completed**.
3. Click **Save**. The project is archived.

## Collaborating on projects

**Client collaboration**

Client collaboration in Celoxis is an effective way to share your project plan, documents and reports with the client while planning and executing a project. It helps you to seek approval from the client on various activities related to the project. You can also conduct online discussions with the clients and vice versa. If you are using work flows in Celoxis for your business processes like issue / bug tracking, approval processes, help desk request, etc., your clients can participate in these processes which map better to work flows than projects and they can also provide instant feedback to the project team. To read more, click here

**Project Team Collaboration**

During the project life cycle, a lot of communication, data exchange, etc will take place for the successful project completion. The project team needs to collaborate with each other with the tasks assigned to them. In Celoxis, one can achieve this by :

- Sharing Documents.
- Participating in discussions
- Reports.
- Project processes.

Team members can participate in the above methods and can share their ideas, views, work.

## Project Financials

Project Financials is a crucial piece of information in any Project Management solution. It is used to manage and track the finances. You can use the information given in this section while designing a budget, working out different costs and tracking the profitability of your project.

- Budgeting Projects
- Project Costing
    - User Cost Rates
- Project Billing
    - Fixed Price
    - Hourly Billing
        - User based

- Time code based

## Budgeting Projects

A project may have a pre-defined budget or a planned budget that is very crucial to every project.

- **Pre-defined budget**
  If a project has a pre-defined budget, make sure you reflect amount at a project level. To set the pre-defined budget, **Edit** the project and enter its budget in the **Advanced** tab.

- **Plan the budget**
  While planning your budget, firstly assign the required resources to individual tasks. Then assign the associated costs like the material and fixed costs. The total Estimated Cost of the project is now automatically calculated. You can use this figure as a guideline to decide the final budget. You can set budgets at individual task level if needed, which will be rolled up to its summary task. However budgets of summary tasks will not roll up to the project level. The flexibility lies with the project manager in deciding an overall budget.

## Project Costing

To be able to track a project's profitability, an accurate estimate of its costs is necessary before tracking the actual costs. You can track the following costs, individually at task level which are rolled up to the summary task level and eventually to the project level.

### Labor Cost

A project is executed by its resources and the cost of these resources is represented by Labor Cost. You can specify a per hour cost rate for each resource. For employees or contractors this rate per hour is derived from their salaries. If the resource is say an equipment, the per hour usage rate of the equipment is the labor cost.

```
Cost(Est, Labor) = User cost rate * Number of hours (in hours or %) the
resource is allocated on the task.
```

```
Cost(Act, Labor) = User cost rate * Hours (Actual) entered by resource
(Approved time entries marked as costable).
```

The estimated labor cost for a task is automatically computed when you assign resources that have an associated User Cost Rate. If multiple resources are assigned to the task, the individual costs of all resources are added to form the total Estimated Labor Cost for the task.
When the time entered by a resource is approved and marked costable, the actual labor cost of that task is automatically computed. For example, if you take up a project of painting a wall, the labor costs will be the money you pay the resources who are working on this wall.

### Material Cost

When a project requires machinery, equipment such as computers, the cost of purchasing or renting this equipment is the Material Cost. Travel or communication costs also add up as material costs. These can be incurred along the life of the project.
Material costs are entered at a task level. The actual Material Cost is computed automatically when an expense marked costable is approved.

```
Cost (Est, Non-labor) = Sum of Cost (Est, Material) entered at task level.
```

```
Cost (Act, Non-labor) = Approved Expenses entered by the resource (marked
costable)
```

### Fixed Costs

This cost represents the cost that is incurred on the project under all circumstances, independent of any activity or progress of the project. The Accrued Fixed Cost is computed automatically when a task % complete is updated.
For example, if you have hired an office to work on a project, the rent and bills add up as its fixed costs.

```
Cost (Est, Fixed) = Sum of Cost (Fixed) entered at task level.
```

```
Cost (Accrued, Fixed) = Actual Fixed Cost = Sum of Cost (Fixed) entered at
task level * % Complete of task
```

In addition to these costs there is a **Projected Cost** which is a guesstimate cost that is likely to be incurred by the time a project completes. This is automatically calculated based on the actual costs and progress of the project.

```
Cost (Projected) = Sum of Cost (Projected) of the topmost tasks
```

User Cost Rates

User cost rates are used to calculate the Estimated and Actual Costs of a task and defined at a Company level. This can however be overridden at the project level.
To define a user cost rate, you can set the regular and overtime cost rates per user. This defines the labor cost for each of the task's resource.

Please note that when you change the User Cost Rate:

- The Estimated Cost is recomputed for all projects that are Not Archived and for tasks that are incomplete.
- The New rate is applicable to all time entries that are in Saved state after submission for approval.
- Time entries with Pending approval continue to show the old rate. The project manager can manually edit the time entry to change the rate if required.
- Actual Cost remains the same.

## Project Billing

You can bill the Time and Expenses spent on a project. For every project you can decide if the project will be billed as a fixed price, or on an Hourly basis.

You can choose the Billing Model as a project setting to be either **Fixed price** or **Hourly** based.

Fixed Price

In a Fixed Price billing model, the tasks you undertake and bill for are for a fixed pre-defined price. When you opt for this model, the 'billable' option for expenses and time entries in the project is not checked, by default.
To see the value of Fixed Price, click on the **Advanced** tab on project.
As an example, you may decide to paint a wall for a fixed price of say 20k, so the billing is fixed irrespective of the number of hours spent on it.

Hourly Billing

In an Hourly billing model, the billing is based on the number of hours spent. When you opt for this model, the 'billable' option for expenses and time entries in the project is checked, by default. The applicable billing rate depends on the company level setting and can either be **User based** or **Time code based**.
When the time or expense is approved, billable amount is automatically updated for a task. Billable amounts of individual tasks are rolled up to the summary task and eventually to the project level.

```
Amount (Act, Billable) of project = Amount (Act, Billable) of all topsmost task.

Amount (Act, Billable) of task = Hours (Act, Billable) + Approved expenses marked as billable.
```

### *User based*

When the billing is user based, you can define a per user per hour bill rate that can include regular and overtime. Billing amounts are computed based on the number of hours of approved time and the user's bill rate.
As an example, for the wall painting project, when you decide to opt for the hourly user based billing model, for each of your resource you can decide a billing rate and arrive at the billable amount of this task.

User Billing Rates
If the Company billing model is User based, these user bill rates are used to calculate the Estimated Billing and Actual Billing of tasks. Rates defined at a company level can be overridden at a project level.

When you change the User Bill rate:

- Estimated Billing is recomputed for all projects that are Not Archived and for tasks which are not 100% complete.
- New rate is applied to all time entries that are in "Saved" state after they are submitted for approval.

- Those in "Pending approval", "Approved" or "Invoiced" continue to show the old rate. The manager can edit the time entry to change that rate if required.
- Actual Billing remains the same.

### Time code based

You can define time codes that represent a service or activity performed on a task. Billing amounts are computed based on the number of hours of approved time and the time code's bill rate.

The rates are defined at the Company level and can be overridden at every project level. Only time-entries and expenses marked as 'Billable' when approving are accounted towards the task or project's Bill Amount.
As an example, for the wall painting project, when you decide to opt for the hourly time code based billing model, you decide on a price for this service and arrive at a billable amount.

Once you mark a Project time code as Non-Project time code, you CANNOT convert it back to a project code.

- Editing a Time Code 'Name' – If you edit the name of the time code, all time entries (new and existing) will reflect the new name.
- Costable – If you mark the time code as costable, all new time entries will reflect it, but the old ones will not.
- Deleting a Time Code – All time entries in "saved" and "rejected" states will be cleared of that time code and moved to the 'Default' time code.

Time code Billing Rates
If the company billing model is Time-code based, the bill amounts are computed from the rates defined against the Time codes. Rates defined at a company level can be overridden at the project level.
When the rate on a Time code is changed, it is applied to all new and saved time entries. Any time entries that are in pending approval, approved, or invoiced are not changed.

Once you mark a Project time code as Non-Project time code, you CANNOT convert it back to a project code.

## Baseline

Before you start executing your project, you may want to set a snapshot in time so that you can compare it with your updated schedule. As your project progresses, this reference point helps you track what was originally planned and what changed on the project.

Celoxis allows you to create a single baseline for your project of schedules, tasks and cost information in your project plan at that point of time. You can create baseline on two options

1. Baseline for all tasks in the project.
2. Baseline for the selected tasks in the project.

**To Set a baseline :**

1. Navigate to your project.
2. Go to the **Interactive Gantt** chart for your project.
3. Click on **Baseline.**
4. Click on **Set.** Select the appropriate option.
   Clicking on **Project**, baselines all the tasks in your project. If you need to baseline specific tasks, select them before you click on **Selected Tasks.**
5. An appropriate message is shown to confirm your clicks. Saving this will baseline your project or selected tasks in the project.

> Only a user who is the Project Manager or has Edit Project privilege can set or clear a baseline for project or tasks.

**To View a baseline :**

1. Navigate to your project.
2. Go to the **Interactive Gantt** chart for your project.
3. Click on **Baseline.**
4. Select the **View** check-box. The baseline task(s) bars are shown on the Gantt chart.

**To Clear a baseline :**

1. Navigate to your project.
2. Go to the **Interactive Gantt** chart for your project.
3. Click on **Baseline.**
4. Point to **Clear** an select the appropriate options to clear the baseline for your **Project** or **Selected tasks**.
5. A message is shown to confirm this. Click on **Clear**.

To view the baselined values, you need to create a project/task report with the baseline columns.

## Project Baseline Attributes

| Attribute | Description | R/RW |
|---|---|---|
| %Complete (Planned, Baseline) | This indicates the % Complete (Planned) of the project when it was baselined. This is compared against the Deadline (Baseline) date of the project.<br>So, even if your Deadline date changes, the % Complete (Planned, Baseline) will always be calculated with respect to your Deadline (Baseline). | R |
| Budget (Baseline) | The budget of the project when the project was baselined. | R |
| Cost (Est, Baseline) | The estimated cost of the project when the project was baselined. | R |
| Deadline (Baseline) | The Finish/Deadline date of a project when it was baselined. | R |
| Deadline Variance (Baseline) | The difference in days between the current Deadline date and the Deadline date when the project was baselined. | R |
| Start (Baseline) | The start date of the project when it was baselined. | R |
| Start Variance (Baseline) | The difference in days between the current Start date and the Start date when the project was baselined. | R |
| Work (Baseline) | The Work in hours when the project was baselined | R |
| Work Variance (Baseline) | The difference between the current Work and the Work when the project was baselined. | R |

## Task Baseline Attributes

| Attribute | Description | R/RW |
|---|---|---|
| %Complete (Planned, Baseline) | It indicates the % Complete (Planned) of the task when it was baselined. This is compared against the Finish (Baseline) date of the project.<br>So, even if your actual Finish date changes, the % Complete (Planned, Baseline) will always be calculated with respect to your Finish (Baseline). | R |
| Budget (Baseline) | The budget of the task when the project/task was baselined. | R |
| Cost (Est, Baseline) | The estimated cost of the task when the project/task was baselined. | R |
| Start (Baseline) | The start date of the task when the project/task was baselined. | R |
| Start Variance(Baseline) | The difference in days between the current Start date and the Start date when the project/task was baselined. | R |
| Finish(Baseline) | The Finish date of the task when the project/task was baselined. | R |
| Finish Variance(Baseline) | The difference in days between the current Finish date and the Finish date when the project/task was baselined. | R |
| Work(Baseline) | The Work in hours when the project/task was baselined. | R |
| Work Variance(Baseline) | The difference between the current Work and the Work when the project/task was baselined. | R |

## Audit Log

The Audit log will show you the operations you performed on the entity like projects, tasks. It will show you details of the respective attributes modified by whom and date/time.

**To see the project's audit trail :**

1. Navigate to a project and from the **More** option on right click on **Audit Log.**
2. You will see the project's attribute modified By, which attribute with old and new values, and date and time of the modification.

**To see the task's audit trail :**

1. Navigate to a project.
2. Go to the **Tasks (List)** report.
3. On the action's drop-down for the task, click on **Audit Log**
   You will see the information like Modified By, attribute modified with old and new values, and date and time of the modification.

# Task

## *Task Basics*

- Task Attributes
  - Computed attributes of a task
- Summary Tasks
- Task Dependencies
  - How to add dependencies
  - Adding inter-project dependencies
- Task Constraints
- Milestones
- Critical Path

## *Creating Tasks*

- Add Task from Gantt
- Importing Tasks from Microsoft Project
- Importing Tasks from CSV
- Creating Tasks via Email
- Copying and Moving Tasks
- Copy tasks from other project

## *Editing a Task*

## *Deleting a Task*

## *Viewing Tasks*

## *Exporting Tasks*

- Exporting Tasks to Microsoft Project
- Export Tasks to CSV

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- Assigning, Reassigning, Replacing Resources on tasks
- Assigning resources in percentage(%) or hours(h)

## *Task Scheduling*

- Basics of Scheduling
- Automatic scheduling
  - Factors affecting Automatic scheduling
- Manual Scheduling
  - Impact of switching scheduling modes
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- Examples for scheduling logic

## *Interactive Gantt*

- Keyboard Shortcuts (since V6.5)
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## *Updating Task Progress*

- Mark On Track
- Updating Task Progress and Filling Time
  - From Celoxis
  - Task Update Via Email

## *Task Visual Health Indicators*

## *Task Financials*

- Task Budget
- Task Costing
- Task Billing

## *Task Colors*

## Task Basics

### *Task Attributes*
- Computed attributes of a task

### *Summary Tasks*

### *Task Dependencies*
- How to add dependencies
- Adding inter-project dependencies

### *Task Constraints*

### *Milestones*

### *Critical Path*

### Task Attributes

1. **Basic** tab

| Attribute | Description | R/RW |
|---|---|---|
| Name | A short description of task describing its purpose. | RW |
| Start | The date at which the task is scheduled to start. | RW |
| Finish | The date at which the task is scheduled to finish. | RW |
| Manually Scheduled | The scheduling mode of the task i.e Auto or Manual. For details, refer here. | RW |
| Duration | The total span of active working time (Work put in) that is required to complete a task. This is generally the amount of working time from start to finish of the task. This field is visible if the option **Manually Scheduled** is unchecked. | |
| Work (Hr) | The total hours of effort the resources is expected to work. You can enter work or is auto-calculated from the resources allocation. This field is visible if the option **Manually Scheduled** is unchecked. | RW |
| Schedule Type | **Fixed Work**: If a task is Fixed Work, Celoxis automatically shrinks/grows the task's finish date when a resource allocation is changed.<br>**Fixed Duration**: If a task is Fixed Duration, Celoxis automatically shrinks/grows the resource's allocation when task effort is increased/decreased.<br>**Fixed Units**: If a task is Fixed Units, Celoxis automatically shrinks/grows the task efforts when task duration is increased/decreased.<br><br>This field is visible if the option **Manually Scheduled** is unchecked. | RW |
| Constraint Type | For more information on Constraint Type, please click here. This field is visible if the option **Manually Scheduled** is unchecked. | RW |
| Constraint Date | For more information on Constraint Type, please click here. This field is visible if the option **Manually Scheduled** is unchecked. | RW |
| Predecessors | For more information on Predecessors / Dependencies, click here. | RW |
| Resources | For more details, click here. | RW |

2. **Advanced** tab

| Attribute | Description | R/RW |
|---|---|---|
| % Complete | Percent complete indicates the percentage of total work that has been completed for that task. Project managers can view these updates done against each task and they can keep a track of the progress of all the tasks in a project. Depending on the current rate of progress, Celoxis automatically indicates the schedule health of a task using the RAG (Red/Amber/Green) signals which helps the managers take appropriate actions before it is too late. | RW |
| Priority | If team members are managing different types of tasks, then they need to prioritize which tasks should be given more priority over others. Therefore, setting task priorities helps you identify the tasks that require immediate attention or which can be attended a little later also. Celoxis allows you to prioritize tasks which range from 'Very High' to 'Very Low'. When you add a new task to a project, by default its priority is set to 'Normal'. You can change the priority of a task anytime during the course of the project.<br>a. Tasks can be filtered by priority. This helps the task assignees get quick visibility when they work on a large number of tasks.<br>b. You can decide which task is most important and needs immediate attention.<br>c. Task priority may shift from quarter to quarter. Prioritizing helps you choose which tasks are needed, worthy and should continue. | RW |
| Allow Time? | It indicates if time can be filled against a particular task. By default it is checked. | RW |
| State | Every task within an activity has a state that describes its current status. The state of a task governs what actions can be taken on that task. Each task type can have its own configurable state. For instance, an Issue may have states like, Open, Hold and Resolved while type Bug may have states like, Open, Hold, Verified, Fixed and Closed.<br>For more information on task types, click here.<br>NOTE: Task Types have been deprecated since v8.0. Click here to know more. | RW |
| Start (Actual) | You can select the date when you actually started working on the task. When entering a progress update, Celoxis by default populates it with the planned Start date. | RW |
| Finish (Actual) | If you do not enter the actual finish date of the task, then Celoxis by default populates it with the planned finish date. If a task was previously marked 100% complete, and for some reason the actual finish was changed, the date gets cleared and will again be set to the Actual Finish when the task is 100% complete. | RW |
| Budget | Before you begin a task, you decide a certain amount which you would be spending in order to accomplish that task. This amount is your budget. Depending on the current rate of spending and % complete, Celoxis automatically indicates the budget health of a task using RAG (Red/Amber/Green) signals which helps the managers take appropriate actions before it is too late. The budget is also used to calculate the EVA (Earned Value Analysis) numbers. | RW |
| Cost (Est,Material) | Before you start working on a task, there may be some expenditure involved in purchasing software or other task related material which is necessary to procure before you begin with the task. So, in order to estimate cost on such expenses incurred, Celoxis provides you with an estimated material cost for your tasks. | RW |
| Cost (Fixed) | This is the cost which will be incurred on a task regardless of who works on the task and for how long. | RW |

3. **Custom** Fields tab
   For details, click here.


4. **Details** tab
   A detailed description of the task. You can include your notes, points here.

**Computed attributes of a task**

Some task attributes are computed from other information like time sheets, expenses and even child tasks.

| Attribute | Description | R/RW |
|---|---|---|
| ID | The unique identifier of the task | R |
| Start (Projected) | This is the date at which the successor task is expected to begin.<br><br>To illustrate, if Task T1 starts on 1st May 8:00 AM and ends on 05th May, 5:00 PM, then the Projected Start date of the task on 1st May (assuming no work is done); will be 1st May 8:00 AM.<br>If on 3rd May 10:00 AM, the % Complete of the task is 0%, then the Projected Start will be 3rd May 10:00 AM. | R |

| | | |
|---|---|---|
| Finish (Projected) | This is the date on which the task is expected to finish based on its current rate of progress. It is auto calculated based on the following formula:<br><br>```<br>Projected Finish = (No. of days spent on a task till date x 100) / (% complete of a task)<br>```<br><br>To illustrate, if Task T1 starts on 1st May 8:00 AM and ends on 10th May, 5:00 PM, then the Projected Finish date of the task on 1st May (assuming no work is done); will be 10th May 5:00 PM.<br><br>If on 5th May, the % Done of the task is 25%, then the Projected Finish will be 20th May 5:00 PM. If on 7th May 8:00 AM, the task is 0% done, then the Projected Finish date is 17th May 5:00 PM assuming that you will start work on 7th May 8:00 AM.<br><br>Since there can be some unexpected delays in the tasks, its very difficult for the project managers to assess the impact on the schedule of the task. As the team updates the progress of the task, the system continuously estimates the end date of the task and its projected finish. The project managers can then decide if the hours invested in a certain task are in compliance with the scheduled end date of the task or else they will have to accelerate the pace of the task by assigning additional resources or reworking their strategy. Managers must keep a close watch on this date to ensure that the task does not lapse. Celoxis also computes the projected finish dates of all the dependent tasks. | R |
| Milestone | Shows Yes or No depending on whether the task is a milestone task.<br>Milestones in a project represent significant events like deliverable, approvals at the end of a particular phase, etc. in the course of a project. You can use milestones to monitor the project's progress. Milestones are indicated with a symbol. The Percent complete of the tasks has to be manually entered by the team members.<br><br>NOTE: Percent complete of milestone tasks is not considered while estimating the project percent complete. | RW |
| Critical | Critical tasks are the tasks which need immediate attention and if any critical task slips, it causes delays in the project. Critical tasks are indicated with a symbol. Critical tasks are automatically calculated by the system using the critical path method and cannot be manually entered. A task is no more critical when it is marked 'Complete', because then it can no longer affect the completion of the successor tasks or the project's finish date.<br><br>The Critical path of the project is calculated based on the project's Planned Finish date. If a task has a finish date much before the planned finish date of the project; it cannot be a critical task as it does not affect the project's progress. | R |
| Hours (Est ) | These are the total hours the team would take in order to complete the task. To illustrate it further, let us consider an example: Task = T1 Duration = 1 day Resource 1 = 100% (that is works for 8 hours) {Working calendar for both = 8 hours} Resource 2 = 50% (that is works for 4 hours) Therefore, Est. hours = 8 + 4 = 12 | R |
| Hours (Act) | These are the total hours the team has worked on this task till date. It is auto calculated based on the following formula:<br><br>```<br>Hours (Actual) = Approved hours of a Task<br>```<br><br>It is used by the system to automatically compute the Projected Finish date of the task which in turn is used to show the RAG status. | RW |

| | | |
|---|---|---|
| Hours (Projected) | These are the hours expected to be spent on a task in order to complete it based on the time spent and its current rate of progress. It is auto calculated based on the following formula:<br><br>```<br>Hours (Projected) = [Hours (Actual) / % Complete of a Task<br>```<br><br>To illustrate it further, let us consider an example: Task = T1 Duration = 10 hours Therefore, every hour 10% of work should be completed. So, ideally in 5 hours, 50% of work will be completed. But if instead, 50% of work takes 7 hours then, 100 % will take = 50 % = 7 hours 100% = 'x' hours Therefore, projected hours for the task = 14 hours Projected hours help the project managers to decide if the hours invested in a task are in compliance with the planned hours of the task or if the pace needs to be accelerated in order to complete the task within the planned hours.<br><br>Projected hours for the summary task is the sum of projected hours of its child tasks. | R |
| Hours (Billable) | These are the total of approved time entries against the task which are marked billable. It is automatically computed and is used to calculate the Bill Amount for the task.<br>Time is automatically marked as Billable if the charging model for the associated project is set as Hourly. You can also change this before approving a time entry. | R |
| Hours (Non-Billable) | This is the total of approved time entries which are not marked as billable. They are auto calculated based on the following formula: For instance, you may decide not to bill the client for hours exceeding the planned hours or some activities may be internal and not billable to clients. | R |
| Cost (Est, Material) | Before you start working on a task, there may be some expenditure involved in purchasing software or other task related material which is necessary to procure before you begin with the task. So, in order to estimate cost on such expenses incurred, Celoxis provides you with an estimated material cost for your tasks. | RW |
| Cost (Est) | This is the cost expected to be incurred on the task based on your plan. It is auto calculated based on the following formula:<br><br>```<br>Cost (Est.) = [Cost (Est., Labor) + Cost (Est., Non-Labor) + Cost (Fixed)]<br>```<br><br>While the budget simply indicates an amount you expect to spend, Est. Cost is calculated from the task duration, the associated resources and their costs plus any fixed costs and non-labor cost you expect to incur. It helps the project manager ensure that your budget is realistic. Since this changes automatically every time you make a change to the task, it is recommended that the project manager regularly ensure that this amount is equal or less than the budget. | R |
| Cost (Actual) | This is the real / tangible cost incurred till date of the task. It is auto calculated based on the following formula:<br><br>```<br>Cost (Actual) = [Cost (Actual, Labor) + Exp (Costable) + Cost (Accrued, Fixed)]<br>```<br><br>It is used to automatically compute the Projected Cost, which in turn is used to show the RAG signals that warns you of cost overruns well in advance. It can also be used to decide if a task is worth continuing. | R |
| Cost (Projected) | This is the cost expected to be incurred on a task based on the current rate of spending and the % complete. It is auto calculated based on the following formula:<br><br>```<br>Cost (Projected) = [Cost (Actual) / % Complete of a Task]<br>```<br><br>Projected Cost indicates if the cost incurred in the task so far is in compliance with your task budget based on which Celoxis displays the RAG signals.<br><br>The Projected Cost of a summary task is the sum of projected cost of its child tasks.<br>If the task is 0% complete then Estimated cost = Projected Cost | R |

| | | |
|---|---|---|
| Cost (Labor) | This is the total cost of the labor for all constable time entries in a project. It is auto calculated based on the following formula:<br><br>```<br>Cost (Labor) = User Cost Rate x Hours Worked<br>``` | R |
| Update (Last) | The last or the final comment entered against a task while doing the progress update. It displays the date and time of the last update. However, date and time display is optional. | R |
| Amount(Est, Billable) | This is the estimated billing amount that the task might incur for completion. This column is only visible when you do user based billing.<br><br>It is calculated as the sum-product of user's bill rate and estimated hours on that task. | |

For baseline attributes, refer here.

## Summary Tasks

A summary task helps in organizing and managing tasks just like we use folders and sub-folders to organize documents. Summary tasks are constituted of sub tasks and they contain the summarized information associated with those sub tasks, such as work and cost involved in accomplishing those tasks.

**Summary tasks have the following implications:**

- A summary task's start date, finish date and duration are automatically calculated based on its sub tasks and therefore, cannot be entered manually. The start date is the minimum of the start dates of its sub tasks, while the finish date is the maximum of the end dates of its sub tasks.The duration is the max elapsed working days between the start and finish dates.
- Constraint dates are not applicable for summary tasks.
- Budget of a summary task is the sum of budgets of all its sub tasks.
- Estimated Cost of a summary task is the sum of estimated costs of all its sub tasks.
- Resources assigned to a summary task will not be factored into the estimated cost of the summary task, nor displayed on the RLC
- The % Complete of a summary task is automatically calculated as the weighted sum of percent complete of all its sub tasks and explained as follows :

  If p is the percentage complete of a task and w is the estimated effort on a task, then:

  ```
  Percentage complete of a summary task = (w1 x p1 + w2 x p2+...) / (w1 + w2
  +...), where 1, 2, 3... are its sub tasks.
  ```

To illustrate it further, let us consider an example :

| Task Name | Effort | Duration | Assigned To | % Complete |
|---|---|---|---|---|
| T1 | 24h | 3d | Joe[100%] | 100 |
| T2 | 0h | 2d | | 0 |
| T3 | 16h | 1d | Joe[100%], Mary[100%] | 100 |

Using the above formula, the % Complete calculation for the summary task will be done as (24x100 + 16x0 + 16x100) / 24 + 16 + 16 =71%

In cases where child tasks do not have any resource assignments, their effort (work) for purpose of %Complete for its Summary Task is considered assuming a 100% assignment. For example, in T2 above, the effort for purpose of % Complete calculation of Summary Task is assumed to be 16h  (2d task).

- When you delete a summary task, Celoxis will automatically delete all its sub tasks.
- Summary tasks will always be auto-scheduled; even though its child tasks are manually scheduled.

## Task Dependencies

Task dependency is a relationship between two tasks in which one task is dependent on the another task. For instance, in a construction project, "Building Walls" task can only begin once the "Lay Foundation" task has already been finished. Hence, the "Building Walls" task is dependent on

the "Lay Foundation" task.

### What is the impact when I create dependencies?

Once you enter the task duration and dependencies between the tasks, Celoxis automatically calculates the start and finish dates for all dependent tasks. Also, when you reschedule a task, Celoxis automatically reschedules all its dependent tasks as well. Entering dependencies ensures your project plans are always accurate and consistent.

In Celoxis, you can have 4 types of dependencies :

## FS - Finish to Start - The dependent task cannot begin until the task that it depends on is complete.
**SS** - Start to Start -  The dependent task cannot begin until the task that it depends on begins.
## FF - Finish to Finish - The dependent task cannot be completed until the task that it depends on is completed.
## SF - Start to Finish -  The dependent task cannot be completed until the task that it depends on begins.

### Lead and Lag Time

**Lead Time**: In most cases, when a task is nearing completion you may want to begin another task. For instance, 3 days prior to the construction of the walls of your home is completed, you may want to start selecting the color of the paint for the walls. So, for the 'Select Color' task you will select the 'Construct Walls' task as the predecessor and enter a lead time of 3 days. Lead time is specified as a negative number. For instance, 5[-3d] indicates a predecessor with 3 days lead time.

**Lag time**: Sometimes it may happen that a task cannot begin as soon as another task gets completed. It may take sometime. For instance, once you paint the walls, it may take another 2 days for the paint to dry and only then you can begin furnishing the room. In this case, you would select the "Paint Walls" as the predecessor of the "Furnish Room" task and enter a lag of 2 days. Lag time is specified as a positive number. For instance, 8[+4h] indicates a predecessor with 4 hours lag time.

> Lead / Lag time can be in hours(h), days(d), weeks(w), months(mo) and years(y).

### How to add dependencies

In Celoxis, there are two ways by which you can add task dependencies <u>within the same project</u>.

#### 1. By manually entering the ID of the predecessor task:

- Go to your project.
- Select the **Interactive Gantt** view from the View drop down, if its not already selected.
- Select the **Columns** button from the toolbar and add the **Predecessor** column to the grid.
- Select the task for which you need to add a predecessor and type the ID of the predecessor task in its **Predecessor** cell. The default dependency type is finish-to-start (FS). You can also indicate alternate dependencies (e.g. FF or SS) to model your project realistically.
- You can also indicate lead or lag times using square brackets. For example: 5[-3d] indicates a predecessor (ID 5) with a 3 days lead time. 8[+4h] indicates a predecessor (ID 8) with a 4 hours lag time.
- Task dependencies within the same project are visually depicted using dependency links on the Gantt Chart view.

#### 2. By dragging dependencies from Gantt Chart view:

- Hover over a predecessor task in the Gantt Chart view to bring up small bubble icons at its two ends.
- Move over the bubble at the end of the task. The mouse pointer changes to a hand-pointer.
- Left click on the bubble and drag the dependency link onto the start (left) bubble of a successor task, without releasing the click. You will notice the start (left) bubble of the successor task turns green.
- Now release the click and a finish-to-start (FS) dependency has been added between the two tasks.

- You can enter multiple dependency on a task by separating them by a comma (,). For example 3FF,4SS as seen in the example above.
- The lead/lag time can be set in hours,days, weeks, months, years. For example - 34[-10d] or 3[2w] or 45[5h] or 56[-3w] or 123[4mo] or 23[-1y]

### Adding inter-project dependencies

You can also show relationships between multiple projects by linking tasks across projects. To create an inter-project dependency, you first need the project's **System ID** of the predecessor task. This can be found on the **Project Details** view of that project.



- Go to your project on which you need to create a dependency.
- Select the **Interactive Gantt** view from the View drop down, if its not already selected.
- Select the **Columns** button from the toolbar and add the **Predecessor** column to the grid, if not already added to the grid view.
- Select the task for which you need to add a predecessor.
- Type the ID of the predecessor task prefixed with the **System ID** of the predecessor's project in its Predecessor cell. So, the dependency you set in the predecessor column will look like 147497:34. The default dependency type is finish-to-start (FS). You can also indicate alternate dependencies (e.g. FF or SS) to model your project realistically. E.g. 147497:34FF

> The inter-project dependency links cannot be shown in the Gantt View.

## Task Constraints

Constraints are applied to your tasks to impose restrictions on the way that the task's start and finish dates are calculated. **There are 8 types of constraints, which can be bucketed into the following 3 categories:**

1. Flexible constraints: These constraints do not have specific dates associated with them. Setting these constraints allows you to start tasks as early as possible or as late as possible, given other dependencies in your schedule.
2. Semi-flexible constraints: These constraints require an associated date that controls the earliest or latest start/finish dates for a task. They allow flexibility on the task's dates, given other dependencies, as long as it does not violate the added constraint.
3. Inflexible constraints: These constraints control the start or finish date for a task. They cannot move around in your schedule.

| Constraint Name | Constraint Category | Description |
| --- | --- | --- |
| **As Soon As Possible (ASAP)** | Flexible Constraint | Schedules the task to begin as early as possible. This is the default constraint for new Auto-scheduled tasks. For stand-alone tasks, this will always schedule tasks from the project's start date. |
| **As Late As Possible (ALAP)** | Flexible Constraint | Schedules the task as late as possible, without delaying subsequent tasks. For stand-alone tasks, this will always schedule tasks backwards from the project's planned finish date. |
| **Start No Earlier Than (SNET)** | Semi-flexible Constraint | Schedules the task to start on or after a specified date. Use this constraint to ensure that a task does not start before a specified date. |
| **Start No Later Than (SNLT)** | Semi-flexible Constraint | Schedules the task to start on or before a specified date. Use this constraint to ensure that a task does not start after a specified date. |
| **Finish No Earlier Than (FNET)** | Semi-flexible Constraint | Schedules the task to finish on or after a specified date. Use this constraint to ensure that a task does not finish before a particular date. |
| **Finish No Later Than (FNLT)** | Semi-flexible Constraint | Schedules the task to finish on or before a specified date. Use this constraint to ensure that a task does not finish after a particular date. |
| **Must Start On (MSO)** | Inflexible Constraint | Schedules the task to start on a specified date. |
| **Must Finish On (MFO)** | Inflexible Constraint | Schedules the task to finish on a specified date. |

> Constraints have higher precedence than task dependency, i.e. if a task is a successor task and also has a constraint date set, then the start/finish dates of the task will be determined by its constraint (type and date).

## Milestones

A milestone is generally considered to be a key event, typically a deliverable. Milestones often indicate the beginning or ending of major phases or the completion of deliverable(s). Milestones are also excellent reporting points.

- You can add a milestone task from the Add option on the Interactive Gantt or by setting the duration of the task as 0d.
- When you assign resources to this task, the allocation will automatically be pre-filled by 0%.
- A milestone has 0 duration and as such has no additional calculation effect on the schedule.
- A milestone can be linked to other tasks.
- You can set constraint dates on a milestone.
- These tasks are not shown on the Resource Load Chart.

## Critical Path

Critical tasks are those tasks which if slipped, could cause delays in the project. Critical tasks are automatically calculated by the system and cannot be manually marked. The critical tasks can be thought of as the longest dependent sequence of activities in a project plan which must be completed on time for the project to complete on the planned finish date. Tasks that have MSO/MFO/SNLT/FNLT constraint are also marked critical and will appear on the critical path. A task is no more critical when it is marked 'Complete' because then it can no longer affect the completion of the successor tasks or the project's finish date. You can view the critical path from the Interactive Gantt.



## Creating Tasks

Once a project is scheduled, the details WBS needs to be prepared by the project manager. Celoxis allows you to create tasks by using one of the following ways:

- Add Task from Gantt
- Importing Tasks from Microsoft Project
- Importing Tasks from CSV
- Creating Tasks via Email
- Copying and Moving Tasks
- Copy tasks from other project

### Add Task from Gantt

**From Interactive Gantt:**

1. Go to your project. By default, you are taken to the **Interactive Gantt**. If not, click on the Interactive Gantt from the views.
2. From the Gantt menu bar, Click on the **Add** option and then click on **Task**.
3. This will add a new task in your project plan.
4. Enter your task details and click Save.

You can also add sub-tasks, Milestones, Predecessor, Successor, etc. from the right-click option of the task.

**Add Multiple Tasks:**

At times when creating your WBS, it is more convenient to add multiple tasks in one go. With this option, you can easily create your WBS with task names or go with adding other details such as resources, dates or duration at the same time. To do this,

1. Go to the **Interactive Gantt** view of the project.
2. Click on the **Add** > **Multiple**.
3. This opens a popup where you can enter task name, resources, Start/Finish dates, etc. and click **Submit**.

Add Multiple Tasks

Enter one per line: **Task Name** | Resources | Duration | Start | Finish     Examples

Ereading Research
= Scoping | Joseph
= Sample Selection | Tom[50%], Heather [50%] | 5d
= Data Collection | Tom [25%], Peter [25%], Heather [25%], Joe [25%] | 2w
= Data Processing | Joseph, Heather | 5d
= Creating Reports | Joseph | 2d
= Presentation | Joseph | 0d

Some rules to remember:

1. If Both Start and Finish dates are specified, then the task created is manually scheduled.
2. If Duration is specified, then the task created is auto-scheduled.
3. If the system cannot determine the schedule mode from what the user has entered, it will use the user's preferences to create the task.

| Start | Finish | Duration | System Behavior |
|---|---|---|---|
| Unspecified | Unspecified | Unspecified | User preference for scheduling mode and Duration = 1d |
| Unspecified | Unspecified | Specified | Auto scheduled task with Start date = Project's start and Finish calculated from duration. |
| Unspecified | Specified | Unspecified | Use user's preference value.<br>If Auto schedule task, then add FNLT constraint and set Duration = 1d.<br>If Manual, then no constraint and calculate Start = Finish - 1 |
| Unspecified | Specified | Specified | Auto scheduled task with FNLT constraint. Will calculate Start = Finish - Duration |
| Specified | Unspecified | Unspecified | Use user's preference value. If Auto scheduled task then add SNET constraint and assume D = 1d. If Manual, then no constraint and calculate Finish = Start + 1 |
| Specified | Unspecified | Specified | Auto scheduled task with SNET constraint and calculate Finish = Start + D |
| Specified | Specified | Unspecified | Manually scheduled task |
| Specified | Specified | Specified | If the User preference is manual mode, then ignore duration, else ignore Finish date. |

## Importing Tasks from Microsoft Project

You can import tasks via CSV in a project directly. If you already have tasks in Microsoft Project (MSP), you can simply import the MPP or XML file into a project. This helps you save considerable time and effort. When you import tasks from Microsoft Project into Celoxis, complete project information such as task's parent-child relationships, dependencies, constraints, and resource assignments are imported.

**To import tasks from Microsoft Project :**

1. Save your Microsoft Project plan with tasks as an .mpp or .xml file.
2. Navigate to the project where you want to import those tasks.
3. From the page actions shown on the right of the project, click on **More** > **Import Microsoft Project** OR from the **Add** menu on Gantt, click on **Import Microsoft Project**
4. On the pop-up window, select the .MPP or .XML file by clicking on **Browse.**
5. Click on **Next.**
6. If there are resources in your file, you are prompted to **Map Resources**. By default Celoxis will map the existing users in Celoxis to the ones in your file, if found.
7. Click on **Next**.
8. If you already have tasks in the project where you are importing the file, you will be prompted to select the existing tasks if you want to delete them (overwrite) or keep them and append the new tasks to the end of the existing tasks. Select the appropriate tasks (if required) to delete and click on **Next.**
9. The tasks in the MPP/XML will be successfully imported to the project.

Celoxis will import the MS Project file with task hierarchy and will also map the following fields:

| MS Project | Celoxis |
|---|---|
| Task Name | Name |
| Start | Start |
| Finish | Finish |
| Notes | Description |
| Predecessor | Predecessors |
| Constraint Date | Constraint Date |
| Constraint Type | Constraint Type |
| Task Mode | Manually Scheduled |
| Duration | Duration |
| Work | Work(Hr) |
| Schedule Type | Schedule Type |
| Resource Names | Resources |
| % Complete | % Complete |
| Priority | Priority |
| Fixed Cost | Cost (Fixed) |

## Importing Tasks from CSV

Celoxis provides you with the ability to import tasks from CSV which saves a lot of your time and effort.

### How does it work?

You will first need the CSV file either created by you or exported from another application. The extension of the file should be .csv only. While importing the CSV file, Celoxis prompts you to map the relevant fields from CSV with the fields available in Celoxis.

Some guidelines:

- There are some mandatory fields in Celoxis like, Summary, Start, and Finish which should be present in the CSV file you are going to import.
- You can specify the number of rows to be skipped (from the top) in the CSV file.
- You need to select the appropriate date format as present in the CSV. It should be the same for all date type of fields.
- Fields that cannot be mapped via CSV include: Schedule Type, Work(h), Predecessor, Parent-Child relation, Constraint Date, Constraint Type, Priority, State, Task Type, Start (Actual), Finish (Actual), Cost (Est, Material), Cost (Fixed).
- You can map certain fields in CSV as custom fields in Celoxis.  The custom fields need to be first created in Celoxis before you can import the CSV with custom field values.

**To import from CSV**

1. Navigate to the project where you want to import those tasks.
2. From the page actions shown on the right of the project, click on **More** > **Import Tasks (CSV) OR** from the **Add** menu on Gantt, click on **Import CSV.**
3. Click **Browse** and import a file.
4. Click **Next**.
5. Under the **Field Mapping,** map the fields of your CSV file with the fields provided by Celoxis. You can also map your custom fields from the drop-down.
6. Under the **Number of top rows to skip** box, enter the number of rows you want to skip. It is pre-filled with 1 so that the row with column names is skipped.
7. From the **Date Format** drop-down list, select a date format.
8. Click **Finish**.

- Resources can be allocated in hours or in % when importing. For e.g Alice[2h] OR Alice[25%]
- You can view the sample file for the CSV import on the Import CSV page (step 3) by clicking on the Sample CSV link.

## Creating Tasks via Email

Even if your project plan is finalized, there may be a scenario, where you may need to create new tasks which were not planned during the planning phase. This gets challenging when you are traveling and you do no have the access to the application. Therefore, Celoxis provides you with the functionality of Creating Tasks via Email which is immensely helpful in such situations. The person who has the 'New Task' privilege can only create the tasks.

### How does Creating Tasks via Email works?

If you want to create tasks via email, you can send the mail to a special email address (also known as the postman address). The sender of the email is the creator of the task. When you create tasks via email,

1. Tasks is assigned 100% to all recipients of the email.
2. All attachments are added to the task documents.

| Parameter | Details |
|-----------|---------|
| Project | Name of the project where the new task should be created. |
| Start | Start date of the new task |
| Finish | Finish date of the new task |
| Parent | Name of the parent task under which the new task should be created. The new task will be created last in the hierarchy. If there are multiple tasks with the same name then, the new task will be created under the first parent task found. |
| Priority | Priority of the task |
| Duration | Can be specified in d (days), h(hours), m(minutes) |
| %Complete | % Complete of the new task |

**To create tasks via email:**

1. In the **To** box, type the special email address.
2. In the **Cc** box, type the email addresses of those who are assigned to the task.
3. In the **Subject** box, type the name of the task. The subject also indicates the project. Additional information such as start date, finish date etc. can be passed as indicated.
   The subject line of the email should be in the following format:

   **Task Name[Project:ProjectName][Parent:Name of the parent task][Start:date][Finish:date]**
   For example: Sign Contract[Project:Construction][Parent:Client Interaction][Start:11-12-2012][Finish:11-13-2012]

4. In the **Body** of the mail, type the task details.
5. In the **Attachments** column, attach a file against the task.
6. Click **Send**.

> To find postman address, click on **Administration.** Under **Project Managment** section, the email address is mentioned under **Task Inbox.**

## Copying and Moving Tasks

Copying or moving the task copies the duration, schedule type, work, resource allocation, budget, estimated costs, documents, Security (object level) etc. You can set a different start date for the clone and the finish date will be computed.

> To clone a task to a different project, you can first copy the task, and then move it across the projects. This also copies the same task attributes mentioned above.

**To copy a task in a project :**

1. Go to the Gantt of your project.
2. Select a task(s) and press Ctrl+C on the keyboard OR right-click on the task and select **Copy**.
3. Now, select the task under which you want to paste the task and press Ctrl+V on the keyboard OR right-click on the task and select **Paste**. The new task(s) is now seen under the task.

**To Move a task to another project :**

1. Go to the Gantt of your project.
2. Right-click on the task you wish to move and click on Move.
3. Now, in the new pop-up, pick the project where the task will be moved and click on **Next**. The task will move to the selected project.

Moving the task will move the costs, documents, updates made on the task to the new selected project.

## Copy tasks from other project

In some situations, you could have a set of tasks that are consistent throughout you entire project life cycle, and you just want to use them in all projects rather than create them every time.
Celoxis allows you to copy tasks from another project using the Copy from another project option.

**To copy tasks from another project**:

1. Go to the **Interactive Gantt** view of your project.
2. From the **Add** option on the Gantt, click on **Copy from another project**
3. In the new pop-up, from the **Project** drop-down, select the project whose tasks you want to copy to the existing one. Selecting the project will list the tasks of the project in the **Tasks** section below.

Copy from Project...

Project*

Sample Project - Office Setup ▼

Tasks

- Project Kickoff
- 🔲 Procure Office Space
- 🔲 Interiors
- 📁 Computers and Networking
  - Lan setup
  - Phone & Internet Setup
  - Purchase Laptops
  - Configure Laptops
- Hand over access cards to lames

[ Copy ]   [ Cancel ]

4. Select the required task(s) from the list.
5. Click on **Copy**. The list of selected tasks are copied to the end of the existing project.

The following information of the original tasks will be copied to the existing project:

- Name, Description, Resources, Work, Object level security on the task, Custom field information, Attached documents, Priority, Financial Information, if both predecessor & successor tasks are copied, then the dependency information.
- If the task is auto-scheduled, then the Schedule Type, Duration.
- If the task is manual scheduled, then the Dates

The following information will NOT be copied over:

- Constraints and dates for tasks that are auto scheduled.
- Progress updates, time, entered information will not be copied over.

## Editing a Task

To edit the task attributes:

1. Go to the **Interactive Gantt** view for your project.
2. Right click on a task and select **Edit**. Alternatively, you can press the shortcut key 'e' on the task from the Interactive Gantt.
3. The information is divided into 4 tabs : Basic, Advanced, Custom Fields, Details.
   a. The **Basic** tab shows attributes like: Name, Start, Finish, Duration, Predecessor, Resources.
      Additionally, there is a checkbox 'Manually Scheduled' which when checked will show up fields like: Work, Schedule Type, Constraint Type, Constraint Date.
   b. The **Advanced** tab shows attributes like : % Complete, Priority, Start(Actual), Finish(Actual), the 'Allow Time?' checkbox and the financial columns like: Budget, Cost (Est, Material), Cost (Fixed).
   c. The **Custom Fields** tab displays all the custom fields attached to a task. You can view/edit values from this tab; per task.
   d. The **Details** tab allows you to enter/edit the description text for a task.

For information on tasks attributes,  click here

- Certain attributes for summary tasks cannot be edited (start/end dates, duration, schedule type, effort, constraints and financials)
- Summary tasks will always be auto-scheduled.

## Deleting a Task

You can delete single or multiple task in a project at a time.

**To delete a task:**

1. Go to the  **Interactive Gantt** view for your project.
2. Right click on a task and select **Delete** OR Select the task(s) and click on the Delete icon on the Gantt. You can press the 'Delete' key on your keyboard for the same.
3. Click **OK** on the confirmation window. The task(s) will be deleted.

## Viewing Tasks

**To view tasks on dashboard:**

1. On the dashboard, click **Customize** from the right-side.
2. In the **My Settings** window, under the **Dashboard tab**, select **Who's doing what?** report from the available list of reports under right or left pane.
3. Click on Save. The selected report is displayed on the dashboard.

## Exporting Tasks

Once your project is in Celoxis you may want to share your task list with your team or stakeholders.  For this, you can download them as a CSV file, or an MS Project (.XML) file.

### Exporting Tasks to Microsoft Project

To export all the tasks in a project to Microsoft Project, click here.

### Export Tasks to CSV

Sometimes you may need to share your project plan with people who may not have the access to Celoxis application. In such a scenario, you can easily export your tasks in Excel format and share your project plan with them, thus establishing a convenient portability of your project data.

**To export tasks to Excel:**

1. Go to your **Project**.
2. Go to the **Interactive Gantt.**
3. From the Gantt menu bar, navigate to the **More** option and go to **Export** and click on **CSV**. The tasks are exported to Excel.

When you export the project as CSV, the columns that are visible on the Gantt chart are exported to your CSV. The hierarchy of the tasks is shown with the appropriate indentation.

# Resource Assignment

Celoxis lets you specify who works on a task and for how long. You can assign multiple resources on the same task having equal or different allocations.

Allocation can be specified either in percentage or in hours.
Percentage indicates "% of the working hours" the resource should spend working on a task. The hours indicate the 'total' hours that the resource should spend on the task in the duration.

### Percentage (%)

A resource 'Derek' works from Monday to Friday = 36 hours i.e 8 hours from Monday to Thursday & 4 hours on Friday as follows :

| Days | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| Work Calendar | 8 | 8 | 8 | 8 | 4 |

Now, when you allocate him as 100% and 50% on a task (starts Monday and finishes on Friday), he will be allocated as follows. You will see this on the Resource Load Chart.

| Allocation | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| 100% | 8 | 8 | 8 | 8 | 4 |
| 50% | 4 | 4 | 4 | 4 | 2 |

### Hours

If the same resource was allocated to a task for 9h for Monday to Friday, then the RLC for that week will look as follows :

| Days | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| Work Calendar | 2 | 2 | 2 | 2 | 1 |

> The allocation methods of a task should be same i.e you cannot assign resources on a task with one in % and one in hours.

## Assigning, Reassigning, Replacing Resources on tasks

**To assign resources on single task:**

1. Go to your **Project** and to the **Interactive Gantt** view.
2. Click on the **Resources** column for a task.
3. In the new pop-up, you can search for the resources by typing in the search bar or scroll down the list.
4. After you locate the resource, enter the **Units (% or Hr)** against the person to allocate on the selected task.
5. Click on **Ok**. The selected resource(s) are assigned on the selected task.

**To assign resources on multiple tasks:**

1. Go to your **Project** and to the **Interactive Gantt** view.
2. Select one or more tasks and right-click in a cell.
3. From the context menu, point to **Resources** > **Assign a Resource**.
4. In the new pop-up, check the resource you want to assign for selected tasks. You can enter the allocation in Hr or %.
5. Click **Submit**. The resource(s) are allocated to the task.

**To replace a resource on many tasks at once:**

1. Go to your **Project** and to the **Interactive Gantt** view.
2. Select one or more tasks and right-click in a cell.
3. From the context menu, point to **Resources** > **Replace a Resource**.
4. In thenew pop-up, for the **Resource** drop-down list, select a resource which you want to replace.
5. In the **By** drop-down list, select the new resource you want to assign.
6. Click **Submit**. The new resource is replaced on the task with the previous allocation.

**To remove resources on tasks:**

1. Go to your **Project** and to the **Interactive Gantt** view.
2. Click on the **Resources** column against the task whose resources you wish to remove.
3. In the new pop-up, un-check the checkbox besides the resource OR clear the allocation against that resource and click **OK**. The resource is removed from the task.

## Assigning resources in percentage(%) or hours(h)

Celoxis allows you to allocate a resource in either % or Hr.

**Allocation in percentage(%)**:

When you allocate a resource in % on a task, you tell Celoxis how much time of every hour will this resource be dedicated on a task from his work hours.
For example, a resource works from 10:00 AM to 7:00 PM and you allocate a resource 50%, it means he will work 1/2 of every hour in his working time on the task i.e 4 hours. Similarly 25% means 2 hours and 100 % 8 hours. The work is equally divided among the resources and they work according to their allocations.

When you allocate a resource in %, the formula W=D * U is applicable. For details, refer here.

**Allocation in hours(Hr)**:

When resources are allocated in hours on a task, then the allocation is done for those hours across that duration equally, till the work is exhausted. So for example, if a resource is allocated 4 hours of work across a task of duration 2 days, that in turn translates into 2 hours each day.

> When allocating resources in hours, the formula D * U = W does not apply.

## Task Scheduling

A schedule in simple terms is a list of a project's tasks and milestones along with its intended dates and resources who will perform the tasks. Without a full and complete schedule, a project manager will be unable to communicate the big picture, in terms of cost, resources and time lines, necessary to deliver the project.

Creating and managing project schedules can often be an overwhelming exercise. Once you understand the basics of scheduling, you will be better able to work with your projects.

To allow project managers a good amount of flexibility with their schedules, Celoxis offers the following two ways:

**Manual Scheduling**: With manual scheduling, the dates entered by the project manager are never touched by Celoxis. They simply never change. This provides the project manager with even more control over the schedule. For more details click here.

**Auto Scheduling**: With auto scheduling, the project manager understands that there could be a number of external factors that can affect task dates and allows Celoxis to automatically perform scheduling calculations. For more details click here.

> - The default scheduling mode of a task is remembered as a user preference across projects. To change this option, click on the gear icon
>
>   ⚙
>
>   from the right and set the option *"Mark new tasks I create as "Manually Scheduled"* accordingly.
> - You can also change the schedule mode for multiple tasks in bulk from the **Set Scheduling mode** option available under **More** on the **Interactive Gantt** of your project.

Still confused as to which scheduling mode works best for you? Click here to see more examples.

## Basics of Scheduling

A project schedule is the most important arsenal for the manager to deliver a successful project. It serves as a map of the route from project start to finish. It is a convenient form for monitoring and controlling project activities.

Scheduling essentially involves the following:

1. Identifying the tasks that need to be carried out,
2. Estimating how long they will take,
3. Sequencing them on the project's time line,
4. Allocating resources who will work on them.

**Identifying the tasks**: This is the first step and requires you to define the tasks, milestones, and other activities needed to complete the project. A

useful aid to accomplish this is to create a Work Breakdown Structure (WBS). The WBS is a hierarchical decomposition of all the work in the project into manageable chunks. Creating this provides a better understanding of the work needed to complete the project.

**Estimating**: Once you have laid out all the tasks, the next step is to estimate how long they will take. There are a number of factors need to be taken into consideration when building estimates, such as supply and demand of each resource and how it relates to your specific project, any external client commitments that need to be honored, and the sheer nature of the work.

**Sequencing tasks & allocating resources**: The next step is to start putting these activities & their estimates in order. A Gantt chart is a simple and quick way to outline the entire project. You can group logical activities, create dependencies between tasks, and exhibit their relationship to each other. Finally allocate the resources who will actually perform the work in those activities.

This becomes your project schedule that combines project milestones, task durations and relationships.

## Automatic scheduling

With auto scheduling, Celoxis computes the start and end dates for each task taking into consideration the work/effort, allocation, duration, resources work-timing, vacations etc...

The essence of automatic scheduling is governed by a simple formula:

> Effort = Duration * Resource Units OR W = D * U

Before, we understand the equation, let us understand the variables involved:

**Work or Effort:**

Work is the amount of effort ( independent of a resource) required to complete the task. Typically it is described in man-hours. Effort indicated is irrespective of holidays and resources since not all resources may be working equal hours.

**Duration:**

Duration is the length of working time between the start and finish of a task. The working time for a task is defined by the project and resource calendars. For example, If today is Monday and you say "I want this report by Friday" you are indicating a duration. It does not mean that the resource must spend all their time to prepare the report. The actual report preparation may take only 5 hours. In this case 5 hours is the effort but the duration is 5 days assuming that there are no holidays in between.

**Units:**

Resource units indicate how much of a resource's available time, according to their work calendar, is being used to work on a particular task. Allocation is a way to have a resource work on multiple activities at the same time. It can be specified as a percentage of daily working time or as a total number of hours that a resource must spend on the task.

For example, if a resource works 8 hour every day and you allocate that resource for 50% on a task, you are effectively saying - spend 4 hours on that task daily. On the other hand if you enter allocation in hours it indicates that the resource should work a total of those hours on a task.

Let's see some examples so see how it works. For all these examples, assume that the 1 Man-day = 8 hours and all resources also work 8 hours per day.

A task requires 16 hours effort to finish and you assign a resource to work full time (i.e 8 hours per day). How long would it take to complete the task? If you said 2 days, you are right. Let's see if the equation matches with our expectation. In this case, effort = 16 hours and resource allocation is 1 (i.e 100%). So duration = 16 ÷ 1 = 16 hours or 2 days since each day is 8 hours.

Now assume that you add one more resource to the task. How long would it take to finish the task? Again, it's quite easy - 1 day. Both resources will work 8 hours each and finish the 16 hour task in a day. Let's see again if the equation matches with our expectation. In this case, effort remains 16 hours while allocation is 1 + 1 = 2. So duration = 16 ÷ 2 = 8 hours or 1 day. Now let's make it a bit harder. If both resources are told to work only 2 hours per day i.e 25%, then how long would it take? Effort remains 16 hours while allocation is now 0.25 + 0.25 = 0.5. So duration = 16 ÷ 0.5 = 32 hours i.e. 4 working days.

To get the most out of scheduling, you need to understand and effectively use all three parts of the scheduling formula: W = D * U. You can control which of the scheduling formula parameter has the most influence over the task's scheduling.

There are many other factors that Celoxis takes into consideration while scheduling a task. Let us look at them.

## Factors affecting Automatic scheduling

There are 6 key factors that impact how Celoxis auto schedules tasks. It is important to understand them in detail because changes to them will impact the start and end dates of your tasks.

**Schedule Type**

Every task has its schedule type which is one of the following:

1. **Fixed Work** - Set the task to Fixed Work when you want the amount of work to remain constant, regardless of any change in duration or resource units.

   Example: Two welders are assigned full-time (100%) to build a gate in 2 days. Work/Effort is 32 hours. If you now increase the duration of the task from 2 days to 4 days, Celoxis will reduce each welder's assignment to 50%, keeping work constant.

2. **Fixed Duration** - When you choose to make a task Fixed Duration, the task's duration remains at whatever value you enter regardless of any change in work or resource units.

   Example: One welder is assigned full-time (100%) to build a gate in 2 days. Duration of this task is fixed. Thus work is 16 hours. If you now reduce this welder's assignment to 50% due to another commitment, Celoxis will reduce work to 8 hours, keeping duration constant.

3. **Fixed Units** - When you choose to make a task Fixed Units, whatever resource units you allocate, that value will remain fixed and the other two elements of the scheduling formula will be affected by changes.

   Example: One welder is assigned full-time (100%) to build a gate in 2 days. Units of this task is fixed. Thus work is 16 hours. Now if you increase duration to 4 days, Celoxis will increase work to 32 hours, keeping units the same. By specifying one of these, you can control which of the scheduling formula parameter (See: Automatic Scheduling) has the most influence over the task's scheduling.

**Dependencies**

Dependency between tasks establishes a relation between the two such that the start or finish of one task, determines the start or finish of another (dependent) task. Once you enter dependencies between the tasks, Celoxis automatically calculates the start and finish dates for all dependent tasks. Learn more about setting dependencies here.

**Constraints**

When you need to control the start or finish date of a task, you can add a constraint to the task. Constraints are the simply rules set on the tasks which help you to schedule the start and finish of the task. Flexible constraints work with task dependencies to make a task occur as soon or as late as the task dependencies will allow. Learn more about different constraints here.

**Resource Work Calendar & Exceptions**

Once a resource is assigned to a task, tasks are scheduled according to their working and non-working times. This ensures that resources are scheduled only when they are available to work. You can create work calendar exceptions or user exceptions so that you can schedule a task on a non-working day or make a resource work extra on a work day. Once you schedule a task on that day, the task automatically will be scheduled on the exception. The task's start date and time will be affected with the exception.

**Timezones**

You can allocate more than one resource from different timezones on a task. The start and end of a task will depend on the resources assigned to the task and their timezones.

**Project Dates**

If a project's start date is in the past, adding a new task today will set its start date to today with a 'SNET' constraint. If a project's start date is today or in future, adding a new task today will set its start date to the project's start with an 'ASAP' constraint. Changing Project dates, will shift all tasks with 'ASAP' or 'ALAP' constraints as appropriate.

## Manual Scheduling

Often a project manager needs more control of his schedule, in particular, the dates. For example, a vendor contract could be only for three months. All tasks assigned to this vendor need to be completed in those three months. For manually scheduled tasks, Celoxis does not change the dates on them.

**How does it work?**

For a manually scheduled task, Celoxis manages all the resource assignments within the task dates. To better understand the nature of these 'date bound' tasks, let's take some examples.

1. Joe will do support in the month of April for 25% of his working time. What this implies is that Joe will not do support on holidays and weekends. Also, if Joe remains absent on a few days, he will NOT compensate it in May. This is like an ongoing activity with fixed

allocation but variable effort.

2. Peter and Jack will build a wall starting on 1$^{st}$ April and finish it on 30$^{th}$ April. The effort of 100 hours divided as 60 hours for Peter and 40 hours for Jack. This is a time bound activity with fixed effort per resource.

In both the above examples, the nature of effort involved is different due to the nature of the activity itself. This is reflected through the resource allocation, which is either done in % (fixed allocation) or in hours(fixed effort).

> You can place a manually scheduled task anywhere in your plan, and Celoxis won't move it. This new feature gives the project manager greater flexibility and control over planning and managing their schedule. To change the default scheduling on a task, you can either edit the task directly or add the **Manually Scheduled** column on the Interactive Gantt.

For manually scheduled tasks, you cannot specify duration or work. Work is auto computed based on how the resource is allocated:

1. If allocation specified in %: work = sum (total-working-time-for-nth-resource * allocation-for-nth-resource)
2. If allocation specified in hours: work = sum(hours for each resource)

Dependencies can be specified for such tasks. However adding a dependency will not shift dates. Dependencies are only 'FYI'.

Resource exceptions within the task dates will be honored. In case of allocation in hours, it will be apportioned, while in case of allocation in %, it will be simply dropped. For example, A task is scheduled to start on 5$^{th}$ May and finish on 9$^{th}$ May. A resource is assigned to this task who has a day-off on 7$^{th}$ May.

1. If this resource is assigned for 100%, his assignment for 7$^{th}$ May will be simply dropped, since he is not available. Total work will be 32 hours (4 * 8)
2. If this resource is assigned for 20 hours, his assignment for 7$^{th}$ May will be apportioned across the remaining (available) days. Work will be 20 hours. His allocation will be 5 hours each for the other available days.

If work/effort changes, then estimated costs, hours, billing will be recomputed as appropriate.

The Start/Finish dates of summary tasks is computed from their child /sub-tasks.

> Things to remember
>
> 1. Manually scheduled tasks will not allocate resources on non-working days. You can add working exception for the resource if you want the allocation to be done on that day.
> 2. If there is no overlap between task date/time and assigned resource's working time, then a warning will be shown to the project manager when making the assignment. For example, if a task is scheduled from 8 AM to 12 PM and a resource whose working time is 1 PM to 5 PM is assigned to it, then it will warn the manager.

**Impact of switching scheduling modes**

You can change a task back and forth from manually scheduled to automatically scheduled. However please note the changes that will apply in each case.

1. **Changing auto scheduled task to manually scheduled**:
   a. Existing Constraint (Type and Date) are removed.
   b. Schedule Type will be defaulted to 'Fixed Duration'.
   c. Dependencies will remain. They will be 'FYI' only.
   d. Fields like Duration, Constraint Type, Constraint Date, and Schedule Type will not be visible from Edit Task Popup. If you add these columns to gantt, they will be non-editable and their values will not impact scheduling.

2. **Changing manually scheduled task to auto scheduled**:
   a. Task will get rescheduled as per auto logic.
   b. Fields like Duration, Constraint Type, Constraint Date, and Schedule Type will be visible from Edit Task Popup.
   c. Constraint Type will be 'ASAP'.
   d. Schedule Type will be 'Fixed Duration'.

**MS Project Import/Export**

When doing a **MSP Import**:

- MS Project files maintains dates even for a manually scheduled tasks. These dates are silently computed by MSP to indicate the dates as if the tasks are auto-scheduled.The MPP/XML file has these dates and are used Celoxis. These tasks will be imported as manually scheduled tasks in Celoxis.

When doing a **MSP Export**:

- Celoxis' manually scheduled tasks will be exported as manually scheduled tasks into MSP.
- Summary tasks will be exported as auto-scheduled tasks.

> Manually scheduled tasks will always be imported and exported with Schedule Type as 'Fixed Duration'. Schedule Type will not factor or change the manually scheduled task dates.

## Examples for scheduling logic

The following examples should give you a fair idea as to which scheduling mode works best for your projects & tasks.

**Manual Scheduling:** Manual scheduling is useful when you want to be able to manually enter start and finish dates, without causing those entries to recalculate other aspects of the schedule.

1. If you want to explicitly schedule tasks to start or end on weekends/holidays, manual scheduling is the option for you.
2. A date-bound task for which you want to assign multiple resources with different allocations.
3. Sometimes project schedules are very informal. They begin as simple lists of dates from e-mails or meetings with clients. Managers do not have complete information on these work items. For example, they may only be aware how long a task will take, but they do not know it can be started until they have approval. In such cases, the PM might just want to enter the dates agreed with the client. In such cases, manual scheduling of tasks is most efficient way of scheduling projects.

**Automatic Scheduling:** Project Managers also need a scheduling engine that automatically calculates dates when entering or changing task information.With automatic scheduling, you let Celoxis build a dynamic schedule that calculates realistic end dates.

1. In a development project, a client discussion to finalize the project details needs to be completed before the SRS can be prepared or the development team can start designing their use cases. The client meeting can be postponed or rescheduled based on availability. This causes the dependent tasks to be rescheduled. In such cases, the Manager cannot practically modify the project plan every time. The start date of the dependent tasks should be rescheduled automatically when the predecessor completes. Automatic scheduling takes this into picture and helps the Manager to set dependencies and constraints so that the required tasks adjust themselves as commitments shift.
2. For a typical construction project, where contracts, bids and permits are all dynamic in nature and delays are evident, it makes sense to let Celoxis build the project schedule based on the task durations, dependencies and constraints the Project Manager enters.
3. A specific project task needs a scarce expert resource, and it must be scheduled around the resource's availability. Auto scheduling is your best bet for such tasks.

## Interactive Gantt

Interactive Gantt in Celoxis provides a graphical overview of the project schedule. This is useful for the Project Manager to schedule his projects and keep track of them. The different features like the Export, Baseline, etc. help him with preparing and driving the project plan more efficiently. The Interactive Gantt chart can be used in 2 ways:

1. The **Grid** view: With this view, you can create/update your project plan in a worksheet format.
    a. The individual columns on the Gantt allow you to enter/modify the data of the task.
    b. You can add multiple columns to this for viewing/modifying the data.
2. The **Gantt** view: This view provides a more graphical representation of your project plan. With this view, you can
    a. Simply drag and drop or stretch task bars to change start and Finish dates,
    b.  Create/Delete dependencies,
    c. Enter Progress Updates,
    d. Open the 'Edit' task window, by double clicking on the task bars.

You can drag-drop the slider left-right to only see a particular view for your projects.

## *Configuring the Interactive Gantt*

The first time you access the Interactive Gantt of a project, you are presented with the below options to be configured. This is then remembered per person across all projects in Celoxis as a user preference.

- **Mark new tasks I create as "Manually Scheduled"**
  Whenever a new task is created in Celoxis, the scheduling mode i.e., Auto-scheduled or Manually scheduled is dependent on this selection. For more on scheduling modes, refer here.

  **Default columns**
  The default columns that are visible on the Gantt are dependent on this selection.
    a. For Auto Scheduled tasks: Name, Start, Finish, Duration, Predecessors, Resources.
    b. For Manually Scheduled tasks: Name, Start, Finish, Resources.

- **Automatically save my changes**
  This option if checked will automatically save the changes made to the project immediately; no need to click any button to save your changes. However, if you want to make multiple edits to your project plan and then confirm them, then you should leave this option unchecked. The impacts of the changes are computed after you hit the save button. Following are the actions impacted by Manual Save:
    - The incorrect dependency errors will be shown only when you click on Save.
      For e.g. You set cyclic dependency between tasks, then the error will be displayed only when you hit Save.
    - The constraint conflict due to dependency will be shown only when you click on Save.
      For e.g. when you set dependency between tasks and also add a constraint to a predecessor task whose date is early than the dependency dates, then the constraint violation error is shown only when you click on Save.
    - Navigating to other reports or options when you have unsaved changes on Interactive Gantt will show you a message that you have unsaved changes. Saving the changes or discarding them will then allow you to navigate to other options.
    - When you perform bulk actions such as Assign/Replace resource from Gantt menus, Update task progress from Gantt menus, add multiple tasks, etc these changes will be automatically saved.
    - Changes made from the "Gantt" and single edit screen are automatically saved.
    - When you try to perform any of the operations mentioned in c, d, e and you have unsaved changes on you Gantt, then you are prompted to saves those changes first before you proceed with those actions.

> You can change this setting from the
>
> 
>
> icon available on the right of the Interactive Gantt.

## Keyboard Shortcuts (since V6.5)

Keyboard shortcuts have been added for more common actions on the Gantt.

| Action | Shortcut |
|--------|----------|
| Add Task | n |

| Edit Task | e |
|---|---|
| Delete Task | Delete key |
| Indent Task | i |
| Outdent Task | o |
| Up | u |
| Down | d |
| Copy | Ctrl+C |
| Cut | Ctrl+X |
| Paste | Ctrl+V |
| Save | Ctrl+S |

## Printing the Interactive Gantt

Celoxis offers you various options to print your project schedule.

- **Visible** - The downloaded PDF will have the copy of what you see on screen.
- **Complete** - The downloaded PDF will have the copy of your entire project with the selected width.
- **Custom** - You can select the **Start** and **End** date of your project's schedule that you wish you view.

The **Fit Width** option lets you choose the paper width for the PDF to adjust to that size. After you hit **Submit**, the PDF of your project plan will be downloaded.



- Your hidden columns, i.e., the open ones that are overlapped by the Gantt Schedule will not appear in the PDF.
  So will the collapsed parent-child nodes; you will have to manually expand them. Only when you print the **Complete** schedule, will they be expanded by default.
- The Scale and the print option you select will decide the what will be printed. If the image size exceeds 25,000 (height) and 10,000 (Width), you will be prompted to reduce size. In such cases, you can select the **Custom** option and select date ranges to print the Gantt.

After printing the Gantt, if the PDF/PNG image does not download, then ensure that the pop-up is not blocked. You will see an icon indicating this in the browser's URL on the right-side. After you allow this, the PDF/PNG will be downloaded successfully.

## Updating Task Progress

As a project progresses, it is important for team members to keep the Project Manager updated of their work progress. This can be done through weekly meetings. As the number of tasks increases and team gets more distributed (sometimes even across different time zones), it is

challenging for the manager to manually track progress of tasks. Celoxis offers a simpler way to update and track progress of tasks you are assigned to.

You can update % complete, put in comments, even enter time when updating your task progress. Celoxis sends an email notification to the managers of the latest updates done on the task. You can choose to inform your team members too in addition to the manager. The updates are stored in a central place and can be referred to at any time to understand how a task progressed. Based on the % complete for a task, Celoxis automatically calculates how long it will take for the entire task to be completed and displays a color coded indicator (RAG status) which informs both the project managers and the team members of the current status of the tasks.

## Mark On Track

Celoxis helps you compute the % Complete of the task depending on the elapsed duration of the task with the help of **Mark on Track** option.

For e.g. A task T1 with duration of 10 days. You have been working on the task and today is the end of 5th day, but haven't yet entered any progress updates on the task. As the progress of the task is as expected, you can just click on the option seen in the screenshot which should change the % Complete of the task to 50%.

**To mark progress on track**:

1. From a task report, click on the action's drop-down menu.
2. From the *Status Update* section, click on **On Track**. The task's progress will be updated.



## Updating Task Progress and Filling Time

Celoxis provides you with two ways to update your task progress and fill time. You can either log into Celoxis or for people on the move, you can also achieve the same via email.

*From Celoxis*

*Task Update Via Email*

## From Celoxis

**To fill time while updating task progress:**

1. Go to your **Project**.
2. Click **Tasks** from the list of project specific reports view.
3. Point at a task and click the action drop-down

   ≡

4. Click on **% and Comments** from the *Status Update* section.

5.  In the **%*** box, type the % Complete.

> If the **% Complete** box is grayed out, it means that the task progress can only be updated via the time-entries.

6.  In the **Hours** box, enter the hours as HH:MM. You can pick appropriate timecode from here.
7.  Selecting/De-selecting the Send for Approval will Send or Save the time-entry accordingly.
8.  Enter update comments in the text area provided.
9.  Click on Submit.

> The details of all the updates can be seen in a **Task Update** report. You can see updates for a particular date/date range by adding the **Date** filter.

The comments entered when entering a progress update can be edited from the **Task Update** Report.

**To edit the task update comments**:

1.  Create a **Task Update** report.
2.  Add filters like 'Date', 'Update By' to see the update you want to edit.
3.  Under the **Comments** column, click on the actions drop-down



.
4.  Click on **Edit**.
5.  Remove/Edit the original comments to add new ones.
6.  Click on **Save**. The new comments will be added to the update.

> - Only the user who has added the comment will be able to edit them. The PM or any other administrator user cannot perform

this operation.
- The PM/Approver will receive every time changes are made to the comments.
- The comments added against a time-entry is not editable.
- To delete the existing comments, edit and remove them. Save the changes.

**Task Update Via Email**

A user can update progress and fill time via email.

1. The Project Manager will request the progress of the task by clicking on the **Request Progress Update** on a task.
2. An email notification is sent to resource(s) on the task.



3. Now, all the resource(s) needs to do is click on **Update Progress** button in the e-mail. Doing so opens a new email with the appropriate email address filled in "To".
   The "Subject" line is populated with the required format. All you have to do is substitute the values and add your update in the body of the mail.

Completed. The slides have been shared with them. Feedback form sent.   Enter Comments here

Reply awaited.

Regards,

Bella.

Points to note:

- Entering %Complete is optional. You can only enter comments and send the email.
- You can specify the Hours spent on the task in the subject. For example:
  Re: TM1 Actual Training [%: 25][Hours: 1.5][Timecode:Training][Project:173136][Task:4769167]
  When you specify hours, you need to specify the timecode. When there is only one timecode in application, there is no need to specify the timecode. When there are multiple timecodes, you need to specify it.
- You cannot specify a non-project timecode for updating task via email. You will receive a bounce back email.
- You will get a bounce back email when:
  - Time is not allowed on the task.
  - You company policy does not allow you to fill time on 'In Planning'/'Archived' project.
  - Time is not allowed on completed task.
  - The user sending a mail does not have privileges to add time against that task.

## Task Visual Health Indicators

Celoxis provides visual, traffic signal like indicators to inform the task assignees and the project managers of the current status of the tasks.

These indicators are only shown for projects which are in progress i.e. in Execution stage.

| Signal | When |
|---|---|
| On Track | A task is On Time if its Projected Finish is before or on its finish date.<br><br>[ Projected Finish <= Finish date ] |
| At Risk | Task is not expected to be completed by the deadline based on its % complete so far.<br><br>[ Projected Finish > Finish date AND Present Date < Finish date ]<br>Note: This will only be shown for projects in "Execution" phase. |

| | |
|---|---|
| **Off Track** | Task has not been completed by the finish date. |
| | [ Task is not 100% complete AND Present date > Finish date ] |
| Blocked | The task was supposed to start but could not because of its incomplete predecessors. |
| Future | The task has not yet started, and the task date is in Future. |
| Completed | The task is 100% complete. |

When a task is marked as complete, i.e., %Complete=100%, then the health indicators are shown depending on the Planned Finish and Actual Finish. For e.g. if a task had a planned finish of 22nd October but finished on 1st November, i.e., Finish(Actual)= 1st November, and then the health indicator will reflect Off Track since the task was completed late.

> You can also define your own visual indicators based on your company requirements. To know more, please refer Define your own Visual Indicators section.

Celoxis calculates the projected finish date of a task based on the % complete i.e. the rate (speed) of work assuming equal progress every day for the entire duration of the task. For instance, a 10-day task is expected to make progress of 10% each day. Thus, if the task is marked 50% complete after five days, at the current rate, the task will be completed on time. But if a task is marked 30% or 40% complete after five days, at the current rate, the task will not be completed on time. By this estimation, Celoxis displays the RAG signals and also computes the projected finish dates of all dependent tasks which allow the project manager to take corrective actions in advance and avoid task delays. In real life scenarios, a task cannot make equal progress each day. However, the idea is to have a fair estimate that provides some value to your everyday working

### Budget Health

Based on the task % complete and the actual cost incurred, the projected cost is derived. **The projected cost is then compared with the budget or Cost (Est) if Budget is not specified**, based on which Celoxis displays the visual (Budget) health indicators.

| Signal | When |
|---|---|
| **On Track** | Projected cost is less than or equal to the budget |
| | [ Projected Cost <= Budget OR Cost (Est) if Budget is not specified ] |
| At Risk | Projected cost has exceeded the budget. |
| | [ Projected Cost > Budget OR Cost (Est) if Budget is not specified ] |

| | Actual cost is more than the budget.<br><br>[ Actual Cost > Budget OR Cost (Est) if Budget is not specified ] |
|---|---|
| **Off Track** | |

For instance, your budget for a task is $200 (this includes labor, material, and fixed cost if any). Now, when you spend $200 on the task, ideally your task should have been 100% completed. If your task is 50% complete and you have spent $100, Celoxis displays the green signal indicating that your project is "On Budget".
But if you have spent $150, and your project is only 50% completed, that means by the time your project is 100% complete, you would have spent $300 by the current rate of spending. In such a situation, Celoxis displays the signal indicating that your task budget is At Risk. And if your actual cost spent exceeds $200 Celoxis displays the signal indicating your task is Over Budget.

## Task Financials

The cost of a project is a roll-up of all the tasks. You can plan your estimates such that these can then sum up to finalize the cost of your project.



- Task Budget
- Task Costing
- Task Billing

### Task Budget

You can enter the budget of the task at each level. This helps you to  get an estimate on how much cost you might incur for the project completion. This budget can then be rolled up to finalize the project's budget.

The Budget Status of the task helps you to identify if the task is on budget or not.

**To enter budget on a task**:

1. Go to your project.
2. Edit the task for which you want to enter a budget.
3. On the Edit task pop-up, navigate to the **Advanced** tab.
4. Enter the amount in the **Budget** box under the **Financials** section.
   Note: The financials section is only visible for users having View and Edit Financials privilege.

## Edit Task

     ?

Basic    **Advanced**    Custom Fields    Description

**% Complete** *

| 0 | ↕ |

**Priority** *

| Normal | ▼ |

☑ Allow Time

**Start (Actual)**

| | 📅 |

**Finish (Actual)**

| | 📅 |

Financials

**Budget**

| 0 | ↕ |

**Cost (Est, Material)**

| 0 | ↕ |

**Cost (Fixed)**

| 0 | ↕ |

[Save]    Cancel

## Task Costing

To understand your task profitability, a PM would need to arrive at estimated costs, finalize a budget and then track the actual costs as the project progresses. In Celoxis, you can track 3 kinds of project costs:

- Labor Cost i.e Cost (Est)
- Material Cost i.e Cost (Est, Material)
- Fixed Cost i.e. Cost(Fixed)

Each of these can be tracked individually at a task level which then roll up to calculate the total for the summary task. The costs at the summary or topmost level then roll up to calculate the project's cost.

**Labor Cost**

This represents the cost incurred on the resources working on the task. In Celoxis you specify a per hour cost rate for every resource. The cost can be entered per project or at company level.
When you assign resources against tasks, if they have a User Cost Rate entered, then the estimated labor cost is automatically computed. If multiple resources are assigned to the task, then the individual costs of all resources are added to form the total Estimated Labor Cost for the task.

```
Estimated Labor Cost [Cost (Est, Labor)] = User cost rate * Hours the
resource is allocated on the task
```

Similarly, when time entered by a resource is approved and marked costable, the actual labor cost of that task is automatically computed.

```
Actual Labor Cost [Cost (Actual)] = User cost rate * Approved (costable)
Hours entered by resource.
```

### *Material Cost*

If your project requires machinery, equipment such as computers, the cost of purchasing or renting this equipment is your Material Cost. Or you may add your travel or communication costs of your project here. These are costs that you may incur along the life of the project. These are entered at the task level.

```
Cost (Est, Non-Labor) = This is the Cost (Est, Material) that can be
entered per task.
```

### *Fixed Cost*

Fixed cost is a fixed cost that will be incurred on the project no matter what.

```
Cost (Fixed) = This amount can be entered per task.
```

The accrued Fixed Cost is automatically computed by Celoxis when a task % complete is updated.

```
Cost (Accrued, Fixed) = Estimated Fixed Cost * % Complete of task
```

### *Projected Cost*

In addition to the 3 costs above, Celoxis computes an additional cost called Projected cost. This is a guesstimate cost that you are likely to incur by the time your project completes. Celoxis automatically calculates this based on the actual cost and progress of your project.

```
Cost (Projected) = [Cost (Actual) / % Complete of a Task]
```

## Task Billing

Celoxis allows you to bill the time-entries and expenses spent on your project.

On every project you can decide if your project follows a Fixed price or Hourly based billing. To set this value, edit your project and click on the **Advanced** tab and navigate to the Financials section, you can select the project's billing model. Only the time-entries of "Hourly" billing model are automatically marked as billable. The billing rates can be entered at project or company level.

The billing amount of a task is calculated as:

```
Amount (Act, Billable) of a task = Hours (Act, Billable) + Approved and
Billable expenses.
```

The Bill rate (Time code or User) is used to calculate the Hours (Act, Billable).

## Task Colors

Task colors allow you to pick different colors for tasks. This helps you to visually differentiate between different tasks in your plan.

You can pick from a set of predefined colors that are available on the right-click of a task on the Interactive Gantt.



The task color will be shown in task reports and the Interactive Gantt.  When you copy or move a task, the color is retained.

## Resources

### Resource Basics

- Virtual Resources
- External Users
- Resource Skill Sets (Keywords)
- Resource Work Calendar
- Resource Cost
- Resource Off-Time & Vacation

### Creating and Deactivating Resources

### Importing Resources from CSV

### Managing Resources

- Resource Load Chart
    - Re-allocating Resources and Adding Exceptions
- Resource Load Chart (Real-time)

## Resource Basics

A resource can be thought of as any person, role, equipment or facility that would be required for completion of the project activity. Resources in Celoxis would be defined by the admin user from the User interface. A named user with a login password would be a licensed user in Celoxis. However, you can have unlimited number of unlicensed users (no login/password) defined. These are termed as Generic Resources. You can use these to define:

- equipment (eg. lathe machine, crane, servers and so on)
- facilities (eg. labs, conference rooms, auditorium etc)
- roles (developer, architect, graphics designer, project manager etc.)

You can define skills for every resource and specify a user cost. A resource can have a work calendar defined that indicates the time zone and work timings the resource is available in. Additionally, you can also track the availability of the same from the Resource Load Chart.

### Virtual Resources

While planning a project, one rarely knows who will be working on it, since this largely depends on the availability of resources at that time. What is known is the job function needed for the task, for instance, a Java developer, an Architect, or a Supervisor. You can create such resources as virtual - Unlicensed users and assign tasks to them. At the appropriate time, these resources can be replaced by specific users. There are a couple of advantages of using virtual Resources when planning your project.

- If you specify an approximate cost for these resources, the estimated project cost calculated by Celoxis will be more realistic.
- You can look at the resource load charts for these virtual resources and ensure that you have the right capacity in the future.

### External Users

In an organization, apart from the full-time employees, you may work with external contractors with whom you may not want to share your client details, project financials, and other confidential data. Celoxis allows you to manage your external resources in a way where you can restrict them from viewing certain part of information in the project.

Celoxis provides you with a default role called **External Users**. You should assign your external contractors this role. This role has been provided with a set of default security settings so that users in that role CANNOT:

- View a client,
- Create new project,
- View and edit project financials. These users will see asterisk marks (*) in all the places where the finance related data is displayed.

### Resource Skill Sets (Keywords)

Skill sets for resources are entered and searched by keywords.
To enter keywords

1. From the main menu, click on View > People > Users.
2. Click on the three-line menu icon

   ≡

   next to the user's name from the Name column.
3. On the **Edit User** window, enter keywords in the **Keywords** field.
4. Alternately, you can also create a specific custom field for Skills.
5. Click **Save.**
6. You can search resources based on the keywords.

### Resource Work Calendar

Not all resources have the same working hours. This is especially true for consultants and contractors who work only a few hours a day or even just a few days a week. When resources work different hours, accurate scheduling becomes very important in project planning. Celoxis allows you to specify different work times for resources and these working hours in the selected time zones are used while scheduling tasks assigned to them. Let's take an example. Consider the following working hours. The first row is the default working hours of the company where Joe works while the next depicts Joe's working hours:

| Working Hours | Mon | Tue | Wed | Thu | Fri | Sat | Sun |
|---|---|---|---|---|---|---|---|
| Default (Company) | 8 AM - 1 PM<br><br>2 PM - 5 PM | 8 AM - 1 PM<br><br>2 PM - 5 PM | 8 AM - 1 PM<br><br>2 PM - 5 PM | 8 AM - 1 PM<br><br>2 PM - 5 PM | 8 AM - 1 PM<br><br>2 PM - 5 PM | NA | NA |

| Joe | 8 AM - 1 PM | NA | 2 PM - 5 PM | NA | 8 AM - 1 PM | NA | NA |
| | | | | | 2 PM - 5 PM | | |

Let us assume that a task of 1 day duration is assigned to Joe, which starts from Monday. Usually, the task should complete end of the day, Monday. However, since Joe's working hours are not the usual 8 hours a day from Monday to Friday; Celoxis schedules the task to complete on Wednesday at 5 PM. This is because, in order to complete the day's task, which is of 8 hours, Celoxis considers 5 hours of Monday and 3 hours of Wednesday.

### Default Work Calendar

Celoxis provides a default calendar to every organization. The default work calendar in Celoxis represents the default work timings in an organization.
In Celoxis, the default work calendar is set from 8 AM to 1 PM and from 2 PM to 5 PM. However, Celoxis also allows you to set your working hours as per your own requirement. While setting your work calendar, you can select the working days in a week. You can set the time when your work day starts and ends. You can also decide the first working day of the week as per your own requirement. You can pick a timezone for your default work calendar. If you have not assigned any resource on a task in a project, then Celoxis calculates the schedule as per its own default working calendar.

> The default calendar cannot be deleted and its name cannot be changed.

To view or modify the default calendar

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Work Calendars.**
3. In the new pop-up window, you will see a list of the calendars. Choose **Default** from the list of calendars.
4. Change the work timings, and click **Save.** Your work calendar is saved.

To set different work calendars for resources working in different time zones and timings

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Work Calendars.**
3. Click on **Add**.
4. Enter a name for this **Work Calendar**, pick a **Time Zon**e and set the **Work Timings** for the same.
5. Click **Save.** Your new work calendar is saved.

You can assign the calendar to a user when adding/editing a user.

## Resource Cost

In Celoxis you can define a regular per hour **cost rate** for your resource. This is done at the Company level by a person having Admin access.

You can override the company level user cost rate at a **project level** if required.

> Note: To override rates at the project level, the user (or the Project Manager role) will need to have View and Edit project financials permission.

## Resource Off-Time & Vacation

When a resource goes on vacation or is going to be unavailable due to say training or other events, this impacts the project schedule. Celoxis allows a resource to enter off-time and vacation in their calendar. There is a company level setting that lets a resource specify if the time off impacts working hours or not. If a resource enters vacation or time off in their calendar and marks the event as impacts scheduling - 'Yes - non working', Celoxis will automatically reschedule the tasks the resource is assigned to, factoring in the time off. Alternately, if the company level setting is disabled, someone with admin access will need to create a work calendar exception and set those days as 'non working' for that resource.

**To enter vacation or time off:**

1. Login with a user with administrator privileges and click on **Calendar** option under the user profile.
2. On the Calendar page, click the plus icon to add an event.

> Only an user with administrative privileges can add events/vacation for other users.

3. In the **Impacts Scheduling** drop-down list, select **Yes - Non-Working.**
4. From the **Start** date picker, select a start date of the vacation.
5. Click **All Day** option button if the vacation is for the entire day.
Or
6. Click **At** option button to select time from the time drop-down list, and select duration from the **Duration:** drop-down list.
7. From the **Repeat** tab, select the vacation type. For instance, if it is a daily, weekly, or an yearly vacation.
8. Click **Submit.** The vacation is set.

> Note: Impacts Scheduling – the possible values are
>
> - No (the event does not impact scheduling)
> - Yes - working (event impacts scheduling, make this period Working - used to make a day from non working to working - say you want to work on a Sunday)
> - Yes - non working (event impacts scheduling, make this period non-working)

## Creating and Deactivating Resources

For more information on how to create or archive a resource please click on the links below.

Creating/ adding a user
Deactivating or deleting users

## Importing Resources from CSV

For information on how to import resources from CSV,  click here.

## Managing Resources

Celoxis provides you with the capability to view the accurate load of your resources, their actual utilization, capacity and efficiency which enables data driven planning and decision making across the project lifecycle. This helps the project manager for better resource planning and management. Using these reports, the manager can move resources across projects or add more free resources on tasks to complete the schedule as expected and thereby get a good hold on resource management.

Celoxis provides 5 pre-defined reports, which are the perfect set of tools for managers to plan and manage their resources. With the ability to track resource load, utilization and efficiency, these enable data driven planning and decision making across the project life cycle.

1. Resource Load Chart
2. Resource Load Chart (Real-time)
3. Resource Utilization (Planned v/s Actual)
4. Resource Efficiency
5. Resource Capacity

Additionally, you can also create a report to suit your requirements. To create a report, click here.

These reports contain one or more of the below columns:

| Column | Description | Formula / Example |
|---|---|---|
| Hours (Est) | These are the number of hours a resource is allocated or expected to spend on an assigned task. | |
| Hours (Actual) | These are the approved number of hours a resource has actually spent on a task, app item or non-project activity. The Hours(Actual) for a resource on a task is calculated even if the resource is not allocated on that task and has filled time on it. | |
| Hours (Available) | The working hours of a resource depending on the work calendar timings and exceptions; if any. | A work calendar for Monday to Friday with work timings as: 8:00 - 12:00, 13:00 - 17:00 means that a resource assigned to this calendar has Hours (Available)=8 for any particular working day and 40h for a week. If the resource has a non-working exception on say Wednesday, then the Hours (Available) for that week are 32. |

| Free Hours(Est) | These are the remaining estimated hours the resource is available. | • At Task and Project levels, this column will show the estimated hours.<br>• At resource level, this column will show the Hours (Available) - Hours (Est) |
|---|---|---|
| Free Hours (Realtime) | This is a dynamically computed column that shows free hours based on actual approved hours for all past dates and free hours based on remaining effort for present and future dates till the task's finish date. | • For Resource:<br>  • Past dates = Hours (Available) - Hours (Actual)<br>  • Present & Future dates = The free hours based on remaining planned effort spread proportional to the resource availability.<br>• For Task and Project:<br>  Past dates = Hours (Actual)<br>  Present & Future dates = The remaining planned effort spread proportional to the resource availability. |
| Utilization (Est) | The estimated resource utilization. | Hours (Est)/Hours (Available) as a percentage |
| Utilization (Actual) | The actual resource utilization. | Hours (Actual)//Hours (Available) as a percentage |
| Capacity (Est) | The estimated resource capacity. | 1- Utilization (Est) as a percentage |
| Capacity (Actual) | The actual resource capacity. | 1- Utilization (Actual) as a percentage |
| Efficiency | The efficiency or performance of a resource. | Hours (Est)/Hours (Actual) as a percentage |
| Hours (Act, Billable) | The actual approved and billable hours.<br><br>This is applicable for Task, Project, Resource, Apps. | |
| Hours (Act, Non-Billable) | The actual approved and non-billable hours. | |
| Hours (Invoiced) | The actual invoiced hours. | |

You can also define grouping in the report with the available columns as listed:

- Resource: Name
- Resource: Workspace
- The custom fields of type: Date, Formula (with output type Text), Single line text and Single select drop-down are available for grouping.
- Project: Manager: Name
- Project: Name
- Client:Name

**Defining Optimal Load**:

You can also define the range for **Optimal Load Between**(Settings > Company > Under the 'Projects & Tasks' section) desired for the resources. For example, if you define your optimal load between 80% to 90% means that the resource load between 80% and 90% will show up in green (optimal) whereas anything below 80% will show up in Blue(Underallocated). Similarly, anything above 90% is Red(Overallocated).

1. The following legend are used to indicate the load:
   Blue: Underallocated.
   Green: Optimal.
   Red: Overallocated.
   Gray (dotted): Exceptions (Working/Non-Working).
   Yellow (NW): Non Working day.

   The color coding is only available for Hours (Est) and Utilization (Est) column.

2. The grand total row at the bottom and the period totals are also displayed in the report.

3. All resources; irrespective to whether they have allocation in the selected period are visible on the report.

4. You can also use the options: **Cumulative** and **Show Totals Only.**
   Cumulative: This option will show you the successive additions of the selected column for that row.
   Show Totals Only: This will only show the totals per grouping that you have selected; instead of the entire data.

# Resource Load Chart

The Resource Load Chart displays estimated allocations per resource in the selected period. Using this chart, the project manager can drill down further to identify available resources and problematic allocations. You also have the ability to add resource calendar exceptions to set working times, client meetings or holidays that can affect your project schedule.



Let's look at an example highlighted in the screenshot above:
A resource Peter Parker is assigned to a task 'Survey commercial spaces'

- Task Schedule: From 1st to 4th in a month i.e 4 days
- Work: 32 h (Work)
- Allocation: 100%

So, the allocation for Peter (Hours (Est)) will be divided across the planned dates for the task (32h / 4d) which is as follows:

| 1st | 2nd | 3rd | 4th |
|-----|-----|-----|-----|
| 8   | 8   | 8   | 8   |

As the resource is optimally allocated, the legend for the resource shows up in green for that assignment.

**To view the Resource Load Chart:**

1. From the main menu, click on **View**.
2. The report will be listed here as a favorite report by default.

> Green:  Resource is optimally allocated.
> Blue:  Resource is under allocated.
> Red:  Resource is over allocated.
> Gray: Exceptions.
> Yellow (NW) : Non-Working.

## Re-allocating Resources and Adding Exceptions

The Resource Load Chart (RLC) also helps you change resource assignments to quickly resolve problematic allocations. From the same screen, it is possible to add working/non-working exceptions.

**To re-allocate resources:**

1. Click the expand icon besides the groupings to expand to the list of tasks the user is assigned to.
2. For any particular task, click on the **Edit** link besides the task name.
3. In the new-pop-up, change the allocation of the resource and click on **Ok**.
4. The new allocation of the resource is saved.

**To enter working / non-working time:**

1. Set your Zoom Filter to 'Day'.
2. Click in the cell on a resource row for any particular day where you want to add an exception.
3. Select the appropriate option from the list.
4. An exception is added for the selected option.



## Resource Load Chart (Real-time)

As projects progress, the project manager might want to get a real-time view of his resources' work loads based on actual approved time. This report provides visibility of free resources & helps the PM adjust allocations to ensure optimal resource utilization.

This report is a dynamic report that displays the Free hours for resources (resource row) and real-time estimated hours based on actual-approved hours and remaining work at the task and project rows. For past dates, the free hours are based on the actual-approved hours, whereas for present & future dates, the remaining work is computed real-time and spread proportional to the resource's availability.

# Resource Load Chart (Real-Time) ≡

Period: **This Month**  Zoom: **Day**  Project : Phase: **In Planning, In Progress**  Change

▼ Open All  ▶ Close All

Underallocated  Optimal  Overallocated  Exception  Non Working

| Resource > Project > Work Item | | Sep | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| ▼ 👤 Arnold Dorson | | 8 | 8 | 8 | 8 | 8 | | | 8 | 8 | 8 | 4 | 5.3 | | | 2.7 | 8 | 8 | 8 | 8 | | | 8 | 8 | 8 | 8 | 8 | | | 8 | 8 | 164 |
| ▼ 🗓 Sample: Office Setup (Aut... | | | | | | | | | | | | 4 | 2.7 | | | 5.3 | | | | | | | | | | | | | | | | 12 |
| Project KickOff | Edit | | | | | | | | | | | 4 | 2.7 | | | 5.3 | | | | | | | | | | | | | | | | 12 |
| ▶ 👤 Peter Parker | | | 4 | 8 | 8 | 8 | | | 8 | 8 | | 5.7 | -19.5 | | | -7.1 | -7.1 | 5.7 | 8 | 8 | | | 8 | | 8 | 6 | 6 | | | 6 | 6 | 85.7 |
| ▶ 👤 Stacy Lambert | | 8 | 8 | 8 | 8 | 8 | | | 8 | 8 | 8 | 8 | 8 | | | 8 | 8 | 8 | 8 | 8 | | | | 8 | 8 | 8 | | | | 8 | 8 | 160 |
| Grand Total | | 16 | 20 | 24 | 24 | 24 | | | 24 | 24 | 16 | 17.7 | -6.2 | | | 3.6 | 8.9 | 21.7 | 24 | 24 | | | 16 | 16 | 24 | 22 | 22 | | | 22 | 22 | 409.7 |

Lets take an example:

A resource Arnold is assigned to a task 'Project KickOff'

- Task Schedule: From 11th to 13th in a month i.e 3 days
- Allocation: 50%
- Work: 12h (Work)

So, the allocation for Arnold (Hours (Est)) will be divided across the planned dates for the task according to availability and allocation (50%) which is as follows:

| 11th | 12th | 13th |
|---|---|---|
| 4 | 4 | 4 |

Arnold fills time-entry of 4 hours for 11th. Today is 12th, 12 PM. This is reflected on 11th (past) for that task row. The remaining effort for the task is now (12 - 4) = 8 hours, which will be spread over today and future duration of the task proportional to Arnold's availability.

As 4 hours of Arnold's working time today has already elapsed (regular working times: 8 AM-5 PM), the remaining available hours for today is 4 and for next day is 8. So, Arnold's remaining availability is 12 h to complete the 8 h of remaining work over the remaining duration of the task. Today(at 12:00 PM), Arnold will have to do 2.7 h of work, i.e For 8 hours of remaining work, Arnold is available for 12 hours. So, how much work should he do for 4 hours of availability? (8*4)/12=2.7

And remaining 5.3h (8-2.7) is for 13th.

So, for Arnold, remaining availability (free hours) for the dates is as follows:

| 11th (past) | 12th (present) | 13th (future) |
|---|---|---|
| **4** (8-4 approved hours) | **2.7** (8-5.3) | **5.3** (8-2.7) |

> If a task is completed before schedule (i.e. %Complete = 100%) then the remaining work (if any) will not be spread over the future duration of the task.

## Finding Available Resources

A huge challenge for any project manager is finding available resources to assign to their tasks. Typical questions that a PM has are

1. Does a user have free/available hours in a given time period?
2. If a task is completed before schedule, will the resources be freed?
3. If a project is put on hold, will the resources be freed?
4. Can I locate resources with a specific skill set in a given time period and in a specific department?

**Does a user have free/available hours in a given time period?**

By default the Resource Load Chart (RLC) displays all resources irrespective of whether they are assigned to tasks or not. This helps you quickly identify free resources to allocate to incoming work items. You can also use sophisticated filters such as Resource : Workspace or Resource : Search to narrow down on specific resources by workspace or specific keywords.

If you wish to explicitly see the Free hours for a resource, you can edit the RLC report by clicking on its three-line menu icon

≡

and add the Free (Est) column from the View Tab. Alternately, you can also view the Resource Load Chart (Real-time) report. This report provides visibility of free resources in real-time & helps the PM adjust allocations to ensure optimal resource utilization.

### If a task is completed before schedule, will the resources be freed?

Celoxis does not automatically free up any resources. However, you can use the RLC to show all resources in the given time period, who are assigned to tasks that have a Task Status as Completed (**Task : Schedule Status : Completed**). This will show all resources and their allocations on tasks in that period that are already completed. Since these tasks are already completed, the allocated hours against those tasks are potentially free. Then, you can assign those resources to other tasks.

You can also view this through the Resource Load Chart (Real-time) report. By applying Task Status as Completed filter, you will see free hours against those assigned resources in the appropriate cell.

### If a project is put on hold, will the resources be freed?

Once again, Celoxis does not automatically free up any resources. However, you can filter the RLC to show all resources in the given time period, who are working on tasks in projects that are On Hold (**Project : Phase : On Hold)**. Since you know that project is on hold, potentially all that allocation you see on the chart is freed up and you can choose to assign those resources to your tasks.

### Can I locate resources with a specific skill set in a given time period and in a specific workspace?

You can set your **Period** filter to the desired time period and use the **Resource : Workspace** filter to filter into specific workspaces. You can then use the filter **Resource : Search** to search for resources who have the skills specified as **Keywords**. You can also explicitly filter on specific custom fields. To read more about **Keyw ords**, please click here.

### Resource Utilization (Planned v/s Actual)

This report helps the project manager align the projects in pipeline with the planned & actual resource utilization on planned activities to get insight into long-term capacity plans. This helps in informed data-driven decisions to ensure the most efficient use of the resources for ensuring project success.

Estimated Utilization is computed as a percentage of estimated to available resource hours, while Actual Utilization is computed as a percentage of actual-approved to available resource hours. This report shows the Utilization of the resources for the last quarter.

## Resource Utilization (Planned v/s Actual) ≡

▼ Period: Last Quarter   Zoom: Month   Resource: Peter Parker, Fliss, Rashmi Likhite   Change

▼ Open All    ▶ Close All                                                                                   Under

| Workspace > Resource | | 2015 | | | | | | Total | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | Jul | | Aug | | Sep | | Utilization (Est) | Utilization (Act) |
| | | Utilization (Est) | Utilization (Act) | Utilization (Est) | Utilization (Act) | Utilization (Est) | Utilization (Act) | | |
| ⌄ Applications | | 25% | 24% | 94% | 11% | 42% | 33% | 54% | 22% |
| 👤 Fliss | | 74% | 73% | 95% | 33% | 127% | 98% | 99% | 67% |
| 👤 Peter Parker | | | | 150% | | | | | |
| 👤 Rashmi Likhite | | | | 38% | 6% | | | | 2% |
| Grand Total | | 25% | 24% | 94% | 11% | 42% | 33% | 54% | 22% |

Lets take an example of Peter Parker.

Peter works 8 hours a day from Monday to Friday. The 'Hours(Available)' column will show you this information.

| Apr | May | June |
|-----|-----|------|
| 176 | 176 | 168 |

Assume, Peter's Hours(Est) for last quarter is as follows. The Resource Load Chart or the 'Hours(Est)' column will show you this information.

| Apr | May | June |
|-----|-----|------|
| 131 | 168 | 214 |

Assume Peter's Hours(Actual) on planned activities for last quarter is as follows. The 'Hours(Actual)' column will show you this information. e g

| Apr | May | June |
|-----|-----|------|
| 128 | 58 | 164 |

So, the **Estimated Utilization** of Peter is as follows:
Utilization (Est) = Hours (Est)/Hours (Available) as a percentage.
For Apr (131/176)*100=74%.

| Apr | May | June |
|-----|-----|------|
| 74% | 95% | 127% |

Similarly, the **Actual Utilization** is as follows:
Utilization (Actual) = Hours (Actual)//Hours (Available) as a percentage.
For Apr (128/176)*100=73%

| Apr | May | June |
|-----|-----|------|
| 73% | 33% | 98% |

Using this, the PM can see how a particular resource is utilized for a period and can plan smarter.

> If your users play multiple roles in different workspaces, then we recommend creating a custom field  (single select dropdown) on users -
> "Primary Department" and group on that field, instead of Workspace .

## Resource Efficiency

Resource efficiency chart is specially provided for the Project Manager for monitoring resource performance. This helps the PM with tighter control on resource efficiency and thereby improve performance and success rate. This is the percentage of the resource estimated hours v/s the hours they actually spent on planned activities.

Resource Efficiency: Hours (Est)/Hours (Actual) as a percentage.
Let's look at an example: User - Peter who has Estimated hours as follows:

| Apr | May | June |
|-----|-----|------|
| 141 | 168 | 214  |

and Actual hours on planned activities as follows:

| Apr | May | June |
|-----|-----|------|
| 128 | 36  | 164  |

So, the Efficiency for April is (141/128)*100=110%.

The efficiency should always be measured on Tasks as Hours(Est) can only be entered against the tasks.

> If Hours (Est) or Hours (Actual) is 0, then the cell will not have any value.

> If your users play multiple roles in different workspaces, then we recommend creating a custom field (single select dropdown) on users - "Primary Department" and group on that field, instead of Workspace.

## Resource Capacity

As a Project Manager, you may want to measure the resource capacity at any point in order to meet changing project demands and make informed resourcing decisions for new projects. This view helps you to understand the estimated capacity of his resources in the selected period to aid in capacity planning.

This is calculated as 1- Utilization (Est) as a percentage.

Lets look at an example: Peter's estimated utilization is as follows:

| Sept | Oct |
|------|-----|
| 17%  | -   |

So, Peter's capacity for September is [(1-(17/100))*100] = 83%. For the remaining months, he is at full capacity, since he has no allocations.

Often when planning projects, for tasks in the future, managers may not be able to exactly tell which resource would be allocated on which task. Celoxis provides a unique capability to create and assign tasks to Virtual Resources which you can replace later with the appointed resource on the task. For instance, you can assign a task to a generic resource called 'Graphic Designer' and replace this resource with a specific user later.

Celoxis allows you to create as many virtual Resources as you may wish. You can then see the allocation of hours against these Generic Resources on the Resource Load Chart in tandem with this report to decide how to schedule your tasks, whether they can be done in parallel, how many resources you would need to hire if you were to execute the tasks in parallel etc... Using these reports you can define resource plans for proposed projects and work and analyze these plans against estimated resource capacity.

> If your users play multiple roles in different workspaces, then we recommend creating a custom field  (single select dropdown) on users - "Primary Department" and group on that field, instead of Workspace .

## Time Sheet

### Time Concepts
- Time Codes
- Time Entry Workflow

### Weekly Time
- Filling Weekly Time
    - Auto fill Workitems
    - Filter Work Items
    - Some Tips
- Filling Time while Updating Task Progress
- Using the Timer
- Filling Time for another user
- Non-Project Time

### Viewing Time Sheets

### Editing and Deleting Time

### Approving or Rejecting Time

## Time Concepts

Celoxis allows users to enter the time spent performing activities on their tasks. Let us look at some basics of time sheets.

- Who can fill time – Any user who plays a role that has the "Add Time" privilege can fill time. For example
    - If you want your Task Team (resources assigned to a task) to be able to fill time, you should grant "Add Time" to the **Task Team** role.
    - If you want resources to fill time on all tasks in a project, the grant the "Add Time" to the **Project Team** role.
    - If you want anyone in your organization to be able to fill time on any tasks, even those not assigned to them, you can grant "Add Time" to the **Staff** role.
    - Celoxis also offers a "proxy" privilege which lets a user fill time on behalf of another user
- Against what tasks – Anyone who has "View Tasks" and "View Project" privilege can see them in the drop down list when filling time
- Against what time codes – You can define time codes to determine the various activities you wish to track.
- Non-project time – Celoxis lets you capture time spent on non-project activities like meetings, company events, etc.

### Time Codes

When tracking time against a task, it is important to know what service/activity was performed. A time code is used to represent the service/activity performed. For an IT company, examples of time code can be "design", "development", "bug fixing" etc. For a marketing company it could be "campaigns", "events" and so on.

If your Company bills clients based on services provided, then you can set your Company billing model as "Time code based". In that case, Celoxis lets you define "billing rates" on your time codes. These are used when computing the billable amounts of the tasks from approved time entries. If you wish to factor in the service/activity into costing, you can mark the time code as Costable.

At times, a time code may not be specific to projects. For example vacations or company meetings. Celoxis allows you to define "non-project" time codes.

To add/edit timecodes, refer here.

### Time Entry Workflow

Celoxis provides a basic workflow to time entries. They can be in one of 5 states.

1. **Saved** - When a time entry is saved, it is in the Saved state. It appears in the color black and the user can edit the time entry. At times people prefer to submit their time once at the end of the week. Keeping the time entry in Saved state helps check if you have accounted for a minimum work period. For instance, 40 hours per week
2. **Pending Approval** (or Submit for Approval) - In this state, the time entry is amber. It is submitted to the manager (by default) to approve. The user cannot edit a time entry in the Pending for approval state.
3. **Approved** - When the manager (or anyone with Approve Time privilege) approves a time entry, it shows in blue. An approved time entry can be edited by the person who has the right privileges.
4. **Rejected** - When the manager (or anyone with Approve Time privilege) rejects a time entry, it shows in red. If the time entry is rejected, you will be notified by email and can then make changes and re-submit/delete it.
5. **Invoiced** (since V6.5) - Time entries that are billable and approved can be marked as invoiced to indicate that the client has been invoiced this amount. **Invoice** is a separate privilege that needs to be granted. Invoiced time entries are shown in green.

Celoxis allows you to **Auto Approve** time entries. For more information**,** click here. Only **Approved** time entries impact task and project financials

## Weekly Time

Users have different needs on how they wish to fill their time. So Celoxis provides many ways to enter time.

**Filling Weekly Time**
- Auto fill Workitems
- Filter Work Items
- Some Tips

**Filling Time while Updating Task Progress**

**Using the Timer**

**Filling Time for another user**

**Non-Project Time**

## Filling Weekly Time

**To fill weekly time:**

1. On the main menu, click **Add** and click **Timesheet**.



2. The Auto-Fill option if checked will pre-fill the Weekly Time page with the project and Work Items on which you can fill time directly. For more on Auto-Fill option, refer here.
3. You can also select a different project by adding more rows. Click on the cell where you see **Select** and pick a different project. The type-ahead feature for drop-down helps you locate the project quickly. Just start typing and projects matching your criteria will come up. The project and Work Items fetched on this screen depends on the Filters. For details, refer here.
4. Once, you select a project, the Work Items (Tasks and Workflows assigned to you) in the project start showing up under the **Work Item** drop-down. You can type to find work item related to your search.
5. Pick the relevant **Timecode** for your time-entry. If you only have one project time-code, then this drop-down will not appear.
6. In the **% Complete** box, enter the %Complete for the task. If the % Complete box is grayed out for a task, it means either:
    - The Default Task % Complete Method of the task is *Auto-calculated from resource time sheet* from the project actions. OR

- The selected task is a summary task, and you have selected *Auto calculate % complete of summary tasks from child tasks* from the project actions.

7. Type the weekly hours as HH: MM. For instance, 8:30 for 8 hours 30 minutes.
8. Add your comment by clicking on the plus icon.
9. Click **Save** or **Submit**.

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- You can edit saved time entries by clicking on it.
- You can edit submitted time-entries only if you have sufficient privileges.
- You can re-submit rejected time-entries.
- You will be shown an appropriate error message if you are trying to enter time-entry against a project/task
  a) that is archived, and your company policy does not allow time for archived projects.
  b) the time-code for the earlier time-entry is now deleted.
  c) the rate type you selected earlier is now not allowed (Overtime).
- You will get a warning message when you try to navigate from the page and you have unsaved changes on the page.

## Auto fill Workitems

With this handy feature, your weekly time screen comes pre-filled with all tasks and app items on which you need to log your time. It is a convenient way of filling hours directly without having to pick the project and Work Item everytime. This is available as an option on your Weekly Time page. This is checked by default.

Your work items will be pre-filled on the following logic:

- Work Items on which you have filled time in this Week will be first, followed by
- Work Items on which time has been filled last week and are still incomplete, followed by,
- Other Work Items that are active in the last 2 weeks.

Pre-fill will populate work items up to a maximum of 40 rows.

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- Toggling the Auto-Fill option will show a message. The changes will reflect only after re-opening the screen.
- This feature only prefills the work items and NOT its hours.
- The Work Items on this page are sorted alphabetically in the order mentioned above.
- A proxy user can fill time against work items which he/she has view privilege.

## Filter Work Items

The projects and work items that you can select on the Weekly Time page are controlled by the Filter Work Items option.

The following filter options are available:

- **Work Item is**: This has 2 values - In Progress, Completed. Essentially suggests the state a work item is in.

- **Project is**: This has 3 values - In Planning, Archived, In Progress. Suggests which projects are available for selection on the Weekly Time screen. This option will only be visible if the company policy "Allow time on archived/in-planning projects" is selected.

- **Assigned to**: This has 2 values - Me, Anyone. Essentially suggests work items (only tasks), which are either assigned to me or anyone. Although you have selected 'Anyone' in this filter, you will still need the View privilege on Task and Project, for the project and task to be visible to you and Add Time privilege to fill time on it.

- **In range**: This filter option controls the range for projects and work items available for selection. There are a number of range options you can select from. Refer here.

## Some Tips

1. After selecting a project, if there is only one Work Item in the project, then it is automatically selected.
2. After selecting the task, on mouse-over, you will see the following information : Parent, Hours (Est), Hours (Submitted).



3. By default, only tasks assigned to a user will be displayed in the Task drop-down list. If you want to allow people not assigned on a task to fill time against a task, you can do that by granting them View Project, View Task and Add Time privileges to the appropriate roles.
4. By default you are taken to the current week on the Weekly Time screen. You can pan back or forward, one week at a time. Alternately you can jump to any specific week by clicking on the pull down arrow next to the week.
5. ### If a Work Item you are expecting to view is not listed, do the following:
   a. Check that the Work Item matches the filters (click on **Filter Work Items...**). For more details, refer here.
   b. The Work Item may be part of an archived/In Planning project and time entries may be turned off for archived/In-Planning projects.
   c. Check with your manager if time is allowed against that Work Item.
   d. Check that you are either assigned to the Work Item or that you have view project and view and add time privileges on Work Items not assigned to you.
6. The **% Comp** option behavior:
   a. The % Complete of a task is updated as soon as you submit the time-entries for Approval (Send For approval). This does not require the time-entries to be approved. You will not see the % Complete you entered after you have submitted the time-entries for approval.
   b. The % Comp entered for saved time-entries will not affect the % Complete of the task till such time-entries are Sent for Approval.
   c. The %Comp is a convenient way to enter % Complete of the task when filling time. You cannot only enter %Comp against the task; time-entries also need to be made against them for the %Comp to be reflected.

## Filling Time while Updating Task Progress

Celoxis provides you a quick and easy way to fill time against the Work Items

- when doing a progress update against a task. You can either log into Celoxis and fill time for you or others (Proxy). You can also achieve the same via email. To read more, please click here.
- when doing a state transition for a workflow assigned to you. For details, refer here.

## Using the Timer

Timers allow you to accurately track time spent on Work Items. You 'Start' the timer when you start working on the Work Item and 'Stop' it when you are done. You can also 'Pause' the timer if you temporarily stop working on a Work Item and 'Resume' it when you work on it again. For example, assume you have two Work Item; Task T1 and a Workflow W1. When starting on T1 you start its timer. After a couple hours you need to switch to W1. You can either click 'Pause' for the timer for T1 and then 'Start' the timer for W1 or you can directly click 'Start' the timer for W1 which will automatically pause the timer for T1. When you need to switch back to working on T1, click 'Resume' for the timer for T1.

You can have only one 'active' (ticking) timer at a time and is indicated in Red.

**To use timer to record time:**

1. From the actions menu  of the work item (App item or Task), click on **Timer**.



2. The new timer on the selected task is started. You can see the timer on the top-right of your menu bar.



3. Click on the timer to see the different options for this.
   To add time, click on fill time icon. This will open an Update Progress & Time window with the time pre-filled. You can modify the hours if required. After you fill time the timer for that Work Item is reset. To remove the Work Item from the list click on 'Delete' icon.

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- Adding a timer on a new work item will start the new timer. Any existing one will be paused.
- If you add the timer again on the existing work item again, then no action will be taken i.e. the timer will continue counting.

If the 'Timer' option is not available on a particular work item, then check the following:

- The 'Allow Time' option on the work item is unchecked.
- The project under which the work item is present is in 'In Planning' or 'Archived' phase and your company does not allow time on these phases.
- The 'Time Sheet' module of your company is disabled.

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## Filling Time for another user

Celoxis lets you fill time on behalf of another user; login as well as non-login users. You need to have the "Proxy" privilege granted.

1. On the main menu, click **Add > Timesheet**.
2. Click the arrow near the username and select/search the user for whom you want to make time-entry.
3. Once the page reloads, pick the relevant work items and fill  time-entries for the user.
4. Click **Save** or **Submit**.

Timesheet : 2 Nov 15 - 8 Nov 15

User : Rashmi Likhite

Rashmi Likhite

Beena Wankar

Bella Swan

Billing Team

BW - Girish D

If you are not able to fill time for another user, check if any of the following is true:

1. The Proxy privilege is not granted to any role played by you.
2. The **View Task** and **View Project** permission is not granted to the role played by you in the project.
3. The value of **Assigned To** filter is **Me**.

## Non-Project Time

Apart from investing time in project activities, resources may spend some time in activities which may not be directly related to the project. For example, staff meetings, training, vacations, etc. However, you may want to track this time. Celoxis provides you with the option of filling Non-Project time. Celoxis allows you to create time codes, which capture the activities done as part of non-project time. Non-Project time is not considered in the project cost.

**To enter Non-Project Time:**

1. From the main menu, click on **Add** > **Timesheet**.
2. From the **Non-Project** section below, select the time code from the drop-down list.
3. Enter hours across the week.
4. Click **Save**. The Non-Project time entry is saved.

   OR

   Click. **Submit**. The Non-Project time entry is automatically approved.

- Non-Project time-entries are directly approved. As these time-entries are not specific to any project, they are not sent to anyone for Approval.
- Non-Project time-entries cannot be marked as billable.

## Viewing Time Sheets

**To view Time Sheets:**

1. From the main menu, click on **Add** > **Timesheet**.
2. By default, the **current week** is displayed. The arrows allow you to navigate between weeks.
3. Alternately, if you click on the pull down next to the week number, it displays a calendar and you can directly jump to any specific week.
4. The color of the time-entry signifies their state:
   **Blue** : Approved time-entries.
   **Amber** : Pending i.e Submitted for approval time-entries.
   **Black** : Saved time-entries.
   **Green**: Invoiced time-entries.
   **Red** : Rejected time-entries.

## Editing and Deleting Time

You can edit and delete time entries if you have not sent them for approval.

**To edit submitted time entries:**

You need to have edit and Approve privileges for this.

1. From the main menu, click on **Add** > **Timesheet**.

2. Click on the time entry that you want to edit.
3. An edit pop-up is displayed. Click in the hours box to type hours.
4. Select a date from the **Date Picker**. You can change the other fields such as the time-code, task name, etc.
5. Click **Save**. The time entry is edited.

**To delete submitted time entries:**

You need to have delete privileges for this.

1. From the main menu, click on **Add** > **Timesheet**.
2. Click on the time entry that you want to delete.
3. On the pop-up window, click on **Delete**. The time entry will be deleted.

> To delete a saved time-entry, just clear the time in the box and click on **Save**.

## Approving or Rejecting Time

Project managers are automatically designated as the approvers of time entries. The approvers can approve or reject the time entry. The Approver Comments can also be entered at this time.The project financials are automatically updated after the time entries are approved. If entries are rejected, the submitter is notified through an email. The submitter will see the rejected entries in the same week for which they were submitted and can make changes, and resubmit the time for approval. They may also choose to delete the entry and fill it again. Celoxis also displays the Pending, Approved and Total Hours of the users on the time entry window.

**To approve or reject time entries:**

1. From the main menu, click on

   **•••**

   and then **Approve Time**.
2. On the pop-up window, you will see a drop-down for **User**, incase you need to view and approve time-entries for any particular user.
3. You can select a **Date** for which you want to approve time-entries.
4. Selecting **Only projects managed by me**, will show you only those time-entries for projects where you are the Project Manager (Primary or secondary).
5. Select the time-entries to approve.
6. Do one of the following:
   - Click **Approve** link to approve or reject all time entries at once.
     Or
   - Click the check boxes under the week day columns and click **Timesheet.**
7. You can now choose to **Approve** or **Reject** single or multiple time entries.
8. You can also display previously approved time entries on the same screen.

## Auto-Approve Time

If you do not want to approve time entries manually, you can use the Auto approve option. This is a Company level setting. If checked, time entries are automatically approved and the project financials updated as soon as they are submitted for approval. Managers will not receive email notifications to approve time. You can reject time even if it is approved automatically.

**To enable automatic approval:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Timesheets* section, click on **Timesheet Options**.
3. Check the box for **Auto approve time**.
4. Click **Save**. The auto approve option will be enabled.

## Finding Incomplete Time Sheets

**To find incomplete Time Sheets:**

1. From the main menu, click on **View**. This will list all the favorite reports. The Incomplete Timesheet report is marked as a favorite by default.
2. Pick a date range form the **Period** picker.
3. From the **Expected hours**: drop-down list, select either **less than working hours** or **less than** and specify the hours
4. Select a specific User or leave it as Any
5. Click **Submit.**

Your administrator user of Celoxis can setup the application such that daily incomplete time reminders are send to your users. To set this up, follow the steps below:

**To set automatic (daily) email reminders (Since v8.0):**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Timesheets* section, click on **Timesheet Options**.
3. Check the **Send incomplete timesheet reminder emails to users daily at** option**.**
4. Select the time you want the email notifications to be triggered.
5. Click on Save in that section. This will enable the notifications to be sent to the users; however, the user need to enable the **Daily Incomplete Timesheet reminder** under their user preferences for this.

> The notification will be sent to user at the particular time set as per his timezone.
> For example, the company's timezone is IST, but a particular user in that company works in AUS-EST timezone. The daily notification is set at 5:00PM. Then users in IST will receive the notification at their 5PM and the user in AUS-EST timezone will get it when its 5PM in his timezone.

**To send email reminders manually:**

1. First find the incomplete time sheets.
2. Select the users you want to remind by selecting the on the user's check box.
3. From the actions drop-down, Click **Send Email Reminder**. The reminder is sent to the user.



> Incomplete entries can either be viewed based on working hours of a user (For instance, if a user works 20 hours a week, their time sheet is incomplete only if it has less than 20 hours although others might be working 40 hours) or based on fixed work hours per week (For instance, any time sheets that have less than 40 hours).
> Similarly, if the user has entered a non-working exception for a day then the Expected hours will always be the hours minus the non-working hours. For instance, if a user works 40 hours a week, but on a particular day, if he is on vacation, the expected hours for the week will be 32 hours.

## Invoice Time

In the real world, after time that is to be billed is approved by the manager, the client gets invoiced. Celoxis lets you mark approved and billable time entries as 'invoiced'. This helps to ensure that time is not double invoiced to your clients. Invoicing has been provided as a special privilege which you can choose to grant to the person in your organization who will be responsible for invoicing.

**To Invoice time-entries :**

1. **From the main menu, click on**

   

   and then **Invoice Time**.
2. On the new page, select the time entries to be invoiced. You can use the **Date** and **P : Client : Name** filter to filter the time-entries.
3. Click on **Invoice**.
4. The invoiced time entries will be removed from this report.

**To Un-Invoice time entries :**

1. Run a time-entry report.
2. Edit the report and add the **State** filter to the report. You need to select the **Invoiced** state in the filter to be able to view the time-entry to be un-invoiced.

3. Now, run this report and select the time-entry to Un-invoice and click on **Edit**.
4. Click on **Un-Invoice**.

- Only time-entries that are marked as billable and are approved will appear on the **Invoice Time** page.
- You need to grant the **Invoice** privilege to the role who will be invoicing the time-entries.
- After Invoicing the time-entries, the **State** of the time-entry will be **Invoiced**. They will appear in Green on the Weekly Time page. You can run a time-entry report with the **State** filter set to **Invoiced** to view the invoiced time-entries in a specific period.
- The Task attribute **Amount (Time, Invoiced)** will show you the sum of billable amounts of time-entries against that task that are marked 'invoiced'
- Time entries that are marked 'invoiced' can be 'un-invoiced'. This will reset the state back to 'approved' (blue). Only a person who has 'Invoice' permissions can un-invoice
- If an invoiced time entry needs to be edited, a person who has 'Invoice' permissions and 'Edit' permissions can do so.

For more on Invoicing Expenses, click here.

## Bulk Actions on Time Entries

V6.5.1 release introduces advanced features that let you manipulate time entries in various states. You can now create a detailed time entry report that displays information like billable/costable, the rates etc and then directly perform bulk actions from the report itself. This is particularly useful when approving or invoicing time OR updating the billable / costable or bill/cost rates.

### Bulk Actions

The bulk actions appear on any time entry report that you create. You can Edit, Send for approval, Approve, Reject, Invoice, Un-invoice or Delete selected time entries. This is particularly helpful when you want to see additional information such as billable/costable, time codes and rates before Approving/Invoicing the time-entries. Some points to note:

- You need the appropriate privileges to perform the bulk actions.
- Even if there is a single time entry that causes a conflict, an appropriate message will be shown. The remaining time entries will not be affected till you un-select the problematic time-entry.
- Even if you have delete time entry privilege, but the time entry is in Approved/Invoiced state, then you cannot delete the time-entry. You need Approve/Invoice privilege in combination with delete for this.



### Bulk Edit of Time Entries

Once you select the time entries for editing, you can click on the **Edit** link in any time entry report.

- The changes you make on the bulk edit screen will impact all the selected time entries on that page.
- You can select EITHER the checkbox options or the 'Update bill/cost rates to latest' option on the edit screen.
- Selecting the **Update bill/cost rates to latest** option will fetch the latest bill/cost rates for the selected time-entries. This is helpful when your rates change and you want to update the rates to the latest for the existing time-entries.
- Selecting the individual option (checkboxes) is helpful when you want to specify the rates/date, etc for select time-entries. For example, if a timecode changes from non-costable to costable, in such cases, you can select the time entries you want to mark as costable and then

specify a rate to apply.

- Even if there is one time entry that can cause conflict, an appropriate message is shown. Till you un-select that time entry, the changes cannot be saved. For e.g you are updating a bill rate of some entries, which include a time entry which is non-billable. In such cases, a message will be shown. You need to un-select the non-billable time entry and then edit the time entries again.
- When you specify a rate or update the rates to latest, this will affect time entries in all states, including Invoiced provided you have the appropriate permissions.
- Non billable/non costable time-entries need to first be made billable/costable and then specify a rate for them. Only specifying the rate will not suffice.
- You need appropriate privileges to perform bulk actions. For details, refer here.



## Permissions for updating time entry attributes

Different privileges are required to edit different time entry attributes depending on the state of the time entry

| | Basic Attributes (Hours/Date/Project/Task/Time Code/Rate Type) | Billable | Costable | Bill Rate | Cost Rate | Time Code |
|---|---|---|---|---|---|---|
| **Saved** | Edit Time | Edit + Approve | Edit + Approve | Edit + Edit Financials | Edit + Edit Financials | Edit Time |
| **Rejected** | Edit Time | - as above - | - as above - | - as above - | - same as above - | Edit Time |
| **Pending Approval** | Edit + Approve Time | - as above - | - as above - | - as above - | - same as above - | Edit + Approve Time |
| **Approved** | Edit + Approve (or Edit if Auto Approve) | Edit + Approve/Invoice | Edit + Approve/Invoice | - as above - | - same as above - | Edit + Approve Time |
| **Invoiced** | Edit + Invoice | Edit + Invoice | Edit + Invoice | - as above - | - same as above - | Edit + Invoice |

## Auto-Update of Billable/Costable/Bill Rate/Cost Rate attributes

When a time entry is created, the Billable, Costable, Bill Rate and Cost Rate of the time entry is computed based on the project, time code and rates specified. After an entry is created, if any of the parameters change that impact the 4, then Celoxis auto computes them if the user has not specified a value for them. The table below indicates which attribute impacts what. Time Entries in Invoiced state are not modified automatically by Celoxis.

| Auto compute B/C/BR/CR based on change in Time Entry Attributes unless User Specified otherwise (all states EXCEPT 'Invoiced') | Billable (B) | Costable (C) | Bill Rate (BR) | Cost Rate (CR) |
|---|---|---|---|---|
| Project | Yes | | Yes | Yes |
| Time Code | | Yes | Yes (if Time code based billing) | |

> **Exceptions**:
>
> - If 'Update bill/cost rates to latest' is selected from Bulk Edit Screen then all entries INCLUDING invoiced are auto synced with latest rates. You cannot combine auto-sync with any other changes
>
> **Note**:
>
> - Non-project time will always be saved as non-billable and it's bill rate is always 0 regardless of any edits.
> - Bill/Cost rate is 0 for non billable/ non costable entries.
> - The system does not auto-update Billable/Costable/Bill Rate/Cost Rate in the following scenarios
>     1. Company's billing model is changed (User vs Time Code based)
>     2. Project's billing model is changed (Hourly vs Fixed Price)
>     3. Time code's costable attribute is changed
>     4. Bill/Cost rates of time codes/users is changed.
>   It is the user's responsibility to update existing time entries using the bulk edit feature. Time entries created after the above changes will use the new values.

# Expenses

Expenses affect project costs. You can create expense codes for your organization to track where the money is being spent. e.g. photocopying, travel, food. Reports can be used to analyze expenses.

For example, it is possible to see photocopying expenses for the year to facilitate a decision on whether to purchase a photocopying machine instead of using the local store. As the project progresses, the approved expenses against a task should be compared against the Estimated Material cost of the task to ensure no budget overruns.

## *Expense Concepts*

- Expense Codes
- Expense Workflow

## *Adding Expenses*

## *Viewing Expenses*

## *Editing and Deleting Expenses*

## *Approving or Rejecting Expenses*

## *Invoice Expenses*

## Expense Concepts

When entering expenses, you enter/select the following:

- You need to first pick the project and task against which you wish to enter the expense.
- When you click on the **Add Line Item**, you can pick the code against which you incurred the expense.
- The **Reimbursable** option is an indicator that the expense needs to be compensated. It is only for reference purposes and does not affect the expense entry in any way.
- The **Billable** and **Costable** option when submitting the expense indicate if the expense is billed to the client or incurred by the company. These options are remembered in the preferences an will be remembered next time an expense entry is made.
  Billable: This indicates that the expenses is billed to the client. Upon approving the expense as billable, the amount is added to the **Amount (Act, Billable)** of a project or task.
  Costable: This indicates that the cost is incurred by the company. Upon approving the expense as billable, the amount is added to the **Cost (Actual)** of a project or task.
  An expense can be both costable and billable.

## Expense Codes

When tracking expenses it is important to know where the money was spent on. for instance, travelling, photocopying, etc. When filling an expense you will be prompted to select the expense code for each line item. You can report on expense codes to see how money is being spent across projects.

**To enter the expense codes:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Expenses* section, click on **Expense Codes**.
3. Click **Add** button.
4. In the **Name**\* box, type the name of the expense.
5. Fill in the other details and click **Save**. The expense code is added.

> Editing the expense code, affects the approved and Submitted for Approval expenses.
>
> Deleting the expense code, maintains it for the approved expenses. You will not be able to use the deleted expense code for new expense entries.

## Expense Workflow

When a user enters an expense, it goes to the manager for approval. Looking into the expense, the manager may approve or reject the expense entry. If the expense entry is approved, it is added to the project cost/bill amount but if it is rejected, it goes back to the user. The user can edit it, and send it again for the manager's approval or delete it and fill a new expense entry.

Celoxis provides a basic workflow from the time an expense is submitted for approval to it is approved.

- **Pending Approval** - When a resource submits an expense against the task for approval to the PM. The Project Manager is notified via email whenever an expense is submitted. Only a user with 'Approve' expense privilege can approve the expenses. The user who submitted the expense cannot edit the expense any more after submitting it. Only the user who has '**Edit**' permissions can edit the expense.

- **Approved** -  The Project Manager or the user with Approve privileges can approve the expenses. The Cost (Actual) and/or Amount (Act, Billable) of the task and the project is affected after the expense is approved. The submitter receives a notification that the expense has been approved. Only the user with appropriate privileges (Edit + Approve) can edit the approved expenses.

- **Rejected** - The Project Manager or the user with Approve privileges can reject the expenses. The submitter receives a notification that the expense has been rejected. The user who submitted the expense can now edit the expense and resend it for approval.

- **Invoiced** (since V6.5) - Expenses that are billable and approved can be marked as invoiced to indicate that the client has been invoiced this amount. **Invoice** is a separate privilege that needs to be granted. Invoiced entries are shown in green.

## Adding Expenses

**To add expenses:**

1. From the main menu, click **Add** > **Expense**.
2. On the pop-up window, select either of the options: **In-Progress Task** OR **Other.**
   The **In Progress** option will show you tasks you have recently visited.
   The **Other** option, will let you select the **Project** and **Task** from the respective drop-down list.
3. Click **Next**.
4. In the **Summary** box, type the summary of the expense.
5. Click **Add Line Item** to enter the expense details.
6. On the new pop-up, under the **Expense Code** drop-down list, select an expense code.
7. In the **Description** box, enter the description of the expense.
8. In the **Amount** box, enter the amount.
9. Select a date from the **Date** picker on which the expense was incurred.
10. If this expense item is reimbursable, then check the **Reimbursable** option.
11. Click **Save**.
12. On the main page, select the **Billable** or **Costable** option, if you want the expense to be billed to the client or incurred as cost.
13. Click **Save**. The expenses are added to that project.

> The **Costable** or **Billable** option is remembered as a user preference i.e when you select this when submitting an expense, it will be remembered when entering expenses in future.

## Viewing Expenses

You can view your expenses through reports.

**To view expenses:**

1. From the main menu, click on **View**. This will list all the favorite reports. The **All Expenses** report is marked as a favorite by default.
2. Click on the report to view all the expenses.

## Editing and Deleting Expenses

**To edit an expense:**

1. Run the **All Expenses** report.
   Or
   If you are aware of the task against which expense is entered, go to the Task Detail page and click on the **Expense** report from the left pane.
2. From the expense report, under the **Expense** column, click the expense you want to edit.
3. On the Edit Expense pop-up, click on the pencil-shaped icon to edit the individual line items**.**
4. In the popup window, make changes as per your requirement and click on **Save**.
5. Click **Save** under the main Expense window.

> Editing an approved expense will affect the **Cost (Actual)** and/or **Amount (Act, Billable)** of the project. If the expense were not approved before editing, no cost factors change.

**To delete an expense:**

1. Run the **All Expenses** report.
   Or
   If you are aware of the task against which expense is entered, go to the Task Detail page and click on the **Expense** from the left pane.
2. From the expense report, under the **Expense** column, click the expense you want to delete.
3. On the Expense screen, click **Delete**.

> - Deleting an approved expense will reduce the **Cost (Act)** and/or **Amount (Act, Billable)** of the project and task with the amount for the deleted expenses.
> - To edit an approved expense, you will require both 'Edit' and 'Approve' privileges.
> - To delete an approved expense, you will require both 'Delete' and 'Approve' privileges.

## Approving or Rejecting Expenses

**To approve the expenses:**

1. From the main menu, click on

   **●●●**

   and then **Approve Expenses**.
2. The approver or the PM can approve expenses individually by checking one expense at a time OR approve all of it by clicking on the **One Click Approve**.
3. To approve expense individually, click on the hyperlink for Expense name.
4. To approve expense at one go, select those expenses and click on **One Click Approve**.

**To reject the expenses:**

1. From the main menu, click on

   **●●●**

   and then **Approve Expenses**.
2. The approver or the PM can reject expenses individually by checking one expense at a time.
3. To reject expense individually, click on the hyperlink for Expense name.
4. Click on the **Reject** button to reject the expense.

## Invoice Expenses

In the real world, after expense that is to be billed is approved by the manager, the client gets invoiced. Celoxis lets you mark approved and billable expenses as 'invoiced'. This helps to ensure that expense is not double invoiced to your clients. Invoicing has been provided as a special privilege which you can choose to grant to the person in your organization who will be responsible for invoicing.

**To Invoice expenses :**

1. From the main menu, click on

   **•••**

   and then **Invoice Expense**.
2. On the new page, select the expenses to be invoiced. You can use the **Created** and **P : Client : Name** to filter the expenses.
3. Click on **Invoice**.
4. The invoiced expenses will be removed from this report.


**To Un-Invoice expenses :**

1. Run a expense report.
2. Edit the report and add the **State** filter to the report. You need to select the **Invoiced** state in the filter to be able to view the expenses to be un-invoiced.
3. Now, run this report and select the expenses to Un-invoice and click on **Edit**.
4. Click on **Un-Invoice**.

- Only expenses that are marked as billable and are approved will appear on the **Invoice Expense** page.
- You need to grant the **Invoice** privilege to the role who will be invoicing the expenses.
- After Invoicing the expenses, the **State** of the expenses will be **Invoiced**. You can run a expenses report with the **State** filter set to **Invoiced** to view the invoiced expenses in a specific period.
- The Task attribute **Amount (Expense, Invoiced)** will show you the sum of billable amounts of expenses against that task that are marked 'invoiced'
- Expenses that are marked 'invoiced' can be 'un-invoiced'. Only a person who has 'Invoice' permissions can un-invoice
- If an invoiced expense needs to be edited, a person who has 'Invoice' and 'Edit' permission can do so.

For more on Invoicing Time, click here.

# Collaboration

## *Notification Center*

## *Collaborating on work items*
- Followers
- Replying from Emails

## *Activity Stream*

## *Discussions*
- Starting a discussion topic
- Posting a Reply in a discussion
- Following Discussions

## *Files*
- Uploading Files
- Creating Folders
- Adding Links
- Deleting and Moving Files/Folders
- Version Control
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## *Calendar*
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- Sending Invites for Group Event

- iCal Export to Programs like Outlook Google etc.
    - Export to Google Calendar
    - Export to Outlook
    - Export to Thunderbird

## Notification Center

With Notification Center, you can see all your important incoming messages and @mentions at a glance. Notifications keep you informed whenever you are assigned new work, or when something has changed on the items you follow. You can also @mention teammates in your conversations and they'll instantly see your message in the application.

The Notification Center includes the following:

- In-app Notifications
- @mentions

Note: The Notification Center is not available for Client logins.

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**IMPORTANT**

The Notification Center does not impact security. You need to have 'View' Privilege to the item that you are receiving the notification or @mention about.

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### In-app Notifications

In-app notifications include new work assignments, modification to items one is currently working on, and updates or conversations on tasks and discussions that one is following.  The notifications are only shown for projects which are in Execution stage. To view your notifications, click on the bell icon in the menu. If you have unread messages, then a number appears in the top right-hand corner of the bell icon and indicates the number of unread notifications you have.



You can click on a particular notification to view the related task, discussion or other work items. You can click on "Mark all read" in the lower right-hand corner of the Notifications panel to mark all unread notifications as read.

### @Mentions

@mentions is the best way to grab your colleague's attention to a work item. You can mention a user while:

- Adding a comment on a task or updating its progress.
- Performing an action, reassigning or adding a comment to an app item.
- Participating in discussions.



You can @mention a user using the Name or Login; whichever is unique. If there are more than one users matching the @mention, then you will be shown a message prompting you to pick the relevant user. To view your @mentions, click on the @ icon in the menu. If you have unread messages, then a number appears in the top right-hand corner of the @ icon and indicates the number of unread @mentions you have.

---

**INFO**

- You can also mention users when accessing Celoxis on mobile, email, or API.
- You cannot @mention a client. Clients, however, can mention users when replying to conversations either from the application or from their inbox.
- After you mention a user, he/she will be automatically added as a follower on that work item.

---

## Collaborating on work items

Celoxis collaboration platform lets you communicate with team members, managers and other stakeholders keeping everyone updated about the work items such as tasks and app items.

With the collaboration features, you will discover a whole new way to collaborate on tasks and app items. Our collaboration platform gives you

- An easy way to collaborate on day-to-day work items, and make clear, accurate communication.
- Ability to follow relevant work items to receive updates on them.
- An up-to-date Activity Stream that keeps all your ongoing conversations and updates in one place.

### Followers

At times, you need to track updates on work items where you are not assigned but are related to the work you're doing. By following a work item:

- You get updates via email notifications about the updated on the work items.
- You can even reply to the emails, which will then add your comments against that work item.

Following a work item is a great way to stay up-to-date with its updates and comments. If you follow a task, you see its updates in the Activity Stream and receive instant email notifications.

***Follow a Work item***

Assignees of a task or app item and the State Manager/Project Manager automatically follow that task or app item. To begin following a work item:

1. Click on "Follow this item" link from the work item's view pane.
2. Alternatively, go to the task or app item's three-line actions menu and click "Follow this item".

[Project] Sample Office -123 Crown Street > Iteration 0 > Setup Environment

## Task : Setup Environment ≡

### Task Details ▾

| General | | | Schedule | |
|---------|---|---|----------|---|
| Name | Setup Environment | | Start | 16-Oct-2015 8:00 AM |
| Project | Sample Office -123 Crown Street | | Finish | 19-Oct-2015 5:00 PM |
| Hierarchy | Iteration 0 | | Constraint | Start No Earlier Than · 16-Oct |
| Resources | Unassigned | | % Complete | 0% |
| Priority | Normal | | Hours (Est) | 0 |

| Custom Fields | | Followers |
|---------------|---|-----------|
| Task Type | Task > Open | - Project Managers -, - Assignees - |
| | | Follow this item |

*From a Work item's View Pane*

## Open Bugs ≡

▼ App: Bug   Change

Summary

Fix the scrolling issue for Chrome browser (latest) ≡

Bug Confirmed
Not A Bug
Need Additional Information

Start Timer
Add Documents
Copy
Move
Follow this item
View Audit Trail

*From a Work item's three-line actions menu*

**Managing Followers**

The creator of a work item (or anybody who can edit the work item) can also manage the follower list for that work item. To do so, click on the pencil-shaped icon under the Followers section from the work item's view pane.

## Bug : Custom field not visible ≡

### Overview ▾

**General**

| | |
|---|---|
| System ID | 102726 |
| Project | BGF-765 Support |
| Assigned To | Rashmi Likhite |
| Requestor | Bella Swan |
| Priority | Normal |
| Hours (Actual) | 0 |
| Cost (Actual) | $0.00 |
| Bill Amt. | $0.00 |
| Last Updated | 8-Aug-2014 1:29 PM |
| Created | Rashmi Likhite · 8-Aug-2014 1:29 PM, 1y ago |

**Followers**

- Project Managers -, State Managers, - Assignees
Follow this item

### History

- To unfollow a work item, click on **Unfollow this item** from its three line actions menu or its view pane. To unsubscribe from emails, click here.
- You need to be able to view a work item to be able to follow it or receive updates on it.

## Replying from Emails

Celoxis sends email notifications on work items when you are either:

- Implicitly associated with that work item, e.g., assigned to the task/app item, or a Project Manager, or a State Manager for a particular app item.
OR
- Explicitly following work items that you do not own and need updates.

You can reply to any work item email notifications received from Celoxis, which will then add a comment to the respective work item. You can even attach files to your reply. These notifications also include a link to that work item for viewing within the application.

### Managing Email Preferences

Users implicitly associated with work items (e.g. task assignees) can toggle their email notifications as needed from "My Settings" under the user avatar. For exact steps, refer here. On the other hand, when users are explicitly added as followers either by themselves (i.e. clicking on the 'Follow this item') or by another user, emails are automatically sent to them on updates to work items. There are no separate email preferences for explicitly added followers.

### Unsubscribe from Emails

All emails from Celoxis contain a link to unsubscribe from emails or manage email preferences. For users implicitly associated with work items, clicking on the link will pull up their email preferences view in Celoxis. Users can then manage their email preferences from here.

For followers, clicking on the "Unfollow this item" link from the email will automatically remove them from the Follower's list for that work item.

## Reply only above this line ##

**CELOXIS**

### Task: Purchase carpet as per order

Task progress is updated.
Rashmi, can you verify if this was completed as per agreed?

Bella Swan

Project          87665 - Rennovation for 123 Crown street

You are receiving this email because you are following this Task. Unfollow this item.

You need to have **View** task privilege to be ale to receive emails about the updates. Similarly, you need **Add Comment** privilege to add comments to work items via email.

## Activity Stream

The "Activity Stream" provides up-to-the-minute streaming updates and keeps all your conversations around work items, projects and files in one place. You can directly add your comments to work items or discussions you are following and have viewing rights.

## Activity Stream ≡

ϸ **System requirement not adequately identified**
Project: Network Setup

**Mary Jane** • now
One common way to document a requirement is stating what the system must do. Example: 'The contractor must deliver the product no later than the specified date.' Other methods include use cases and user stories.

**Joe Cool** • now
Requirements are usually written as a means for communication between the different stakeholders. This means that the requirements should be easy to understand both for normal users and for developers.

**Joe Cool** • Created • Yesterday

View All

ϸ **System outages**
Project: Network Setup

**Joe Cool** • 13min ago
One of the biggest causes of downtime is misconfiguration, where a planned change goes wrong. Typically organisations rely on manual effort to manage the process of configuration backups, but this requires highly skilled engineers with the time to manage the process across a multi-vendor network.

**Mary Jane** • 14min ago
Risk management techniques can be used to determine the impact of network outages on an organisation and what actions may be required to minimize the risk. Risk may be minimized by using reliable components, by performing maintenance, such as upgrades, by using redundant systems or by having a contingency plan or business continuity plan.

**Joe Cool** • Created • Yesterday

View All

The default Activity stream will show you entries for updates to tasks, files, discussions and app items that you are following. You can always edit this report and change filters as necessary.

Activity stream will be sorted by date such that the latest block will be shown first in the report. The report is limited to show activities in last 5 days (per entity) and will show a maximum of 25 cells.

### Activity Stream Filters

| Filter Name | Values | Description |
|---|---|---|
| Action | Created | Lists details of created work items |
| | Modified | Lists details of modified work items (attribute modifications). |
| | Updated | Lists details of updates to work items (tasks and app items), files and discussions. |
| Following | Yes \| Any | Lists work items, you are following or not depending on selection. Set the filter to **Any** to see all work items that you have 'view' rights to. |
| Work Item Type | Task \| Files \| Discussion \| Project \| Apps | Filter specific items for display in the activity stream. |
| By | - | You can pick resource whose activity you wish to view. |

By default, the activity stream does not display project related information (such as creations and attribute modifications). It only displays day-to-day work items, a discussion, and files. To also view this project related information in the Activity Stream, you will have to make the following changes to the report definition:

**Action**: Created, Modified, Updated

**Following**: Any (Since you cannot "follow" a project)

Activity Stream is provided out-of-the-box for new sign-ups after 17th October 2015. You can always create your own Activity Stream from View -> All Reports -> New Report -> Activity Log. For more details on creating reports click here.

## Discussions

*Starting a discussion topic*

*Posting a Reply in a discussion*

*Following Discussions*

### Starting a discussion topic

**To start a discussion:**

1. Go to your Project.
2. Click on **Start a Discussion** option under the **More** option on right.

ALTERNATELY

From the main menu, click on **Add** > **Discussion**. Select the project where the discussion should be created.

1. In the **Summary** box, type the Discussion name.
2. In the **Detail** box, type comments.
3. You can add users to follow the discussion. The followed users will receive an email notification.
4. Select the **Share with client** check box, if you want it to make it visible to the client.
5. Click **Save**. The topic is created.

If your company policy **Auto subscribe team members to new discussion topics**, is selected the all the members of the project team

## Posting a Reply in a discussion

**To post a reply:**

1. Go to the discussion by running a project-specific discussion report or from a report.
2. Click on the Discussion or from the actions drop-down menu of the discussion click on **Reply**.
3. On the discussion's page, click on **Reply** button and enter your comments.
4. Click **Browse** to upload files, if any.
5. Click **Save**. Your comments are posted against that discussion topic.

[Project] Sample Project - Office Setup > Area for Reception/Lobby

Discussion: Area for Reception/Lobby ≡

↩ Reply                                                                    ▲ Sort

**Mark Duncun** • Today • Edit • (Last Modified: Today)

There is a small nook at the entrance which could be converted into the reception area. However that would only seat a couple people (guests) If we were to use the entire area upfront, that would make a good lobby, but would reduce the number of cubes by 2. What would you like to do?

**Mark Duncun** • Today • Edit • Delete

Maybe we could put in a temporary partition and save space for one cube and convert part of the area into a reception/lobby.

**Nick Hill** • Today • Delete

I think if Mark's suggestion is possible, I will prefer it that way. I cannot afford to lose 2 cubes.
If we cannot implement Mark's idea, lets save both cubes and have a small reception area.

**Maria Fernanda** • Today • Delete

BTW, here is the company logo.

📎 logo.png (8 KB)

🚀 **A5 Rockets**

**Participating via mail**

Once a topic is created, the follower gets an email notification. The follower can reply to the email to add posts to the discussion. Attachments can also be added when replying to the email. Once the follower replies to the discussion, other followed users will also receive an email with the post/attachment.

The email will show the entire thread of the discussion (upto 10 posts).

## Following Discussions

Users "following" a discussion can view posts by other users against that topic. Once a discussion is followed, the user can add posts, attachments by even replying to the emails.

**To follow a discussion:**

1. Create or Edit and existing discussion topic.
2. On the New/Edit pop-up, click on the **Followers** drop-down to select users to add as followers.
3. Click on **Save**.

You can also click on **Follow this item** from the actions drop-down menu of a discussion.

**To unfollow a discussion:**

1. Create or Edit and existing discussion topic.
2. On the New/Edit pop-up, click on the **Followers** drop-down to remove the users to unfollow as followers.
3. Click on **Save**.

You can also click on **Unfollow this item** from the actions drop-down menu of a discussion.

- On the actions drop-down of the discussion and clicking on View Details, shows you the list of users subscribed to the discussion.

## Files

Celoxis allows you to upload, share your documents online helping you to manage your work. The documents can be searched, shared, downloaded anytime and also helping you to maintain versions.

- Uploading Files
- Creating Folders
- Adding Links
- Deleting and Moving Files/Folders
- Version Control
    - File Check Out
    - File Check In
    - File Revert
    - Getting notified on New versions
- Downloading Files and Folders
- File History
- Discussion on a File
- File Security
- Adding Files and Folders to your Favorites
- Finding relevant Files

## Uploading Files

You can add files from either your local drive or Google drive.

**To upload files to project:**

1. Go to your project and click on **More** option on the right side.
2. Now, click on Attach Filed
3. In a new popup, select the appropriate Project/task folder where the file needs to be uploaded. This option will not appear if you do not have folders.
4. Click on **Next**.
5. You will be shown 2 tabs on this pop-up from where you can select if the file is present on your local drive or Google drive. You can add one or more file from each tab.
6. Click on **Browse** or **Add Google Doc** under appropriate tab to select the file(s).
7. More information about the file can be added in **Details**. These details are same even if you add one file from local drive and one from Google drive.
8. Click on **Client Shared** if you wish to share this file with your project's client.
9. Click **Submit**. The files are uploaded in your projects / tasks.

**To attach files to tasks:**

1. Go to your Project
2. Go to the **Tasks** view from the list of project specific reports panel.
3. Point at a task and click on the action selector and then click on **Attach Files**.
4. Click **Browse** to attach a file.
5. You can enter a description for the file.
6. Click **Submit**. The file is added to the task.

**To upload an entire folder structure containing files:**

At times you may need to upload an entire folder structure containing a large number of files into Celoxis. You must create a ZIP archive of the folder (or files) using WinZip. When you upload that file into Celoxis, the ZIP archive will be unzipped on the server and the folders and files created in the selected folder.

1. For a project, go to the **Files/Documents** section.
2. From the besides the project folder or any other folder under which you wish to upload the archive, click on the actions drop-down.
3. Click on **More** and then **Upload Archive**.
4. In the popup enter the name of the **Target folder** and select the **Zip file**.
5. Click **Submit**.

A new folder (by the name you specified in the Target folder) is created under the chosen Folder. The zip file is unzipped there.

(SaaS)Maximum file size of a file uploaded cannot be more than 50 MB. On-Premise customers can set this value.

Target Folder name has to be unique. Please upload only .ZIP (Winzip) files only. Other archive software like the 7z, etc are not

## Creating Folders

Every project in Celoxis has a project folder by default.  Before you start uploading files in it, you may want to create a folder structure to better organize your files.

**To create a folder :**

1. Navigate to the project where you want to create folder.
2. Click on the project specific **files** report in the project from the list of reports on the left panel.
3. By default, you will see a folder which has the project name. This is your project's folder. You can create folders in this.
4. Click on the action selector drop-down for the project folder.
5. Click on **Add Subfolder**.
6. On the pop-up window, enter the **Name** and **Details** (if required).
7. Click on **Submit**.
8. The folder is created. You can now add files under this folder. You can also add sub-folders to the new created folder. All the folder related actions are available for this folders also



- To add sub-folders to the folder, click on the action-drop-down of the parent folder under which you want to create a sub-folder.
- You cannot add sub folders to a task folder.

## Adding Links

**To add a web link:**

1. Select a folder in which you want to add the web link.
2. From the actions drop-down, click on **Add Link**.
3. In the **Name** box, type the Name of the URL.
4. In the **URL** box, type the url.
5. In the **Details** box, type the description.
6. Select the **Share with client** check box, if you wan it to be visible to your clients.
7. Click **Save**. The web link is added.

You can also link a file which is present on your network share.

**On Windows**:

- Add a web link in Celoxis with the url like file://///servername/sharename/file.ext.
- Both, IE and Firefox will load the local file. Note that the directory must be accessible to the user that wants to see the file.

**On Linux**:

- If you use Linux, (use NFS to mount remote shares), use a url like  file:///net/server/folder/file.ext.
- A local file on Linux can be stored using file:///home/user/folder/file.ext

- To add web links to local file in Celoxis all your users must either be running Windows or Linux. This does not work for MAC users.
- Firefox users must read http://kb.mozillazine.org/Links_to_local_pages_don%27t_work. You must modify your user.js file to disable the security as mentioned.
- Files stored on local machines will not be accessible in Celoxis search if the URL is not 'reachable' from the Celoxis server. So, it will not work for hosted users (SaaS) but will work for product customers (On-Premise) that use a common file server.

## Deleting and Moving Files/Folders

**To delete the file / folder:**

1. Go to your project and from your project-specific reports, open the Files/Documents report.
2. Point to the file/folder and click on the actions drop-down and navigate to **More** and then click **Delete**.
3. Confirm the deletion by clicking on **Yes.**

**To move the file / folder:**

1. Go to your **project**.
2. On the left hand side of the window, click **files** from the list of project specific reports panel.
3. Point to the file/folder and click on the actions drop-down and navigate to **More** and then click **Move**.
4. Select the **Project** and **Folder** where you want to move the file.
5. Click **Next**.

You can delete, move the files on tasks the same way as you do it for the projects.

## Version Control

Files often go through an evolutionary process and undergo a series of revisions. Also, the same file is often worked upon by different people at the same time. Without some kind of control, questions like the ones below become impossible to answer.

1. Do I have the latest version of the file?
2. Am I overwriting someone else's changes to this file?
3. Who all are working on this file?
4. What changes were made since the last version that we sent to the customer?

The Celoxis Version Control System answers these and many other kinds of questions by following the check-in/check-out process that is simple, intuitive and user-friendly.

### File Check Out

Checking out a File tells the system and other users that you are working on the File. You can check out a File in **'exclusive'** or **'non-exclusive'** mode. Exclusive check out means no one else can make changes to the File until you check it in. Non-exclusive check out means someone else can also check out the File in a non-exclusive mode and edit it. If someone else checks in a File while you are working on it you will be notified. For instance, if you have a version 1.3 of a File and some one checks in a version 1.4, you will be notified that you have an older version.

**To check out Files:**

1. Go to your project and click on the **Files** link from the left panel
2. From the actions drop-down of the File click on **Checkout**.
3. Pick the mode - **Exclusive - Yes/No.**
4. Select the appropriate option and then click on **Submit**
5. The File will display the version number and the **user** who has checked it out.
6. If checked out in **exclusive** mode, it will display an **X** next to it.

After check-out, you can keep this copy on your personal computer and make changes to it and then check it back in. When you can exclusively checked out the File, no other user can check this out till you either revert back or checkin a new File.

### File Check In

Once you are done with your changes to the File you must check it in for others to see it. The system maintains a history of all such changes. The system warns you of potential conflicts. For instance, consider the following scenario:

1. You checked out version 1.3 of a File on Monday in a non exclusive mode and made changes to it.
2. Joe checks out the same version 1.3 (that you checked out) on Tuesday to correct a few spelling mistakes. He immediately checks it back in to create version 1.4. Now these corrections obviously don't show up in your File since you have an earlier copy. You will

however receive an email notification indicating that a new version of the File is available.

3. You check-in your version of the File to give version 1.5 and over-write Joe's changes! The spelling mistakes that were in 1.3 and that were corrected in 1.4 are still back in 1.5

The Celoxis Version Control System will warn you when you try to check-in your version. It detects that there has been a checkin on the same File while you were making your changes and hence a potential for conflict. After this warning, you will need to merge the changes (e.g. using Microsoft Word's merge feature) and check the File back in.

**To check in Files:**

1. Go to your project and click on the **Files** link from the left panel
2. From the actions drop-down for the File you have checked out and click **Checkin**.
3. In the **Checkin** dialog box, click **Browse** to attach the updated file in the **File** box.
4. In the **Comments** box, type the comments.
5. Select the **Version** number if this is a major version or minor.
6. Click **Submit**. The File is checked in.

> If you try to upload a file which has no modifications, Celoxis will not create a version. Instead you will be prompted to select a different file. Or you can Revert the file.

## File Revert

If you have checked out a file but decided that you do not need to update it, you can **Revert** the check-in.

**To Revert documents:**

1. Go to your project and click on the **Files** link from the left panel or any report of type **File**.
2. From the actions drop-down of the file you have checked out, click on **Revert**.

The file will be reverted and the checkout sign against it will be removed.

## Getting notified on New versions

You can get notified when filess are uploaded or when new versions of filess are available. To do this, you will have to first add filess or folders to your favorites and then turn on the corresponding options in your email notification preferences.

## Downloading Files and Folders

**To download files :**

1. Go to your project and go to any project-specific File report
2. From the actions drop-down of the Files, click on **View Details**.
3. On the pop-up window, click on the **Download** link for downloading the required version of the Files.

## To download folders:

1. Go to your project and click on the **Filess** link from the left pane
2. Point at a folder and from its actions drop-down, point to **More** and then click **Download (.zip)**.
3. You will be asked the path to save it. The folder is downloaded in the form of a Zip file.

## File History

Celoxis allows you to view details of files uploaded such as

1. Who is the owner of the file
2. What is the current version of the file
3. Who has it currently checked out
4. What are the different versions of the files
5. Which version was checked in by whom
6. Comments on the versions
7. Date of checkin

**To view the history:**

1. Go to your project and click on project-specific File report.
2. From the actions drop-down of the file, click on **View Details**.

The pop-up window that opens will show you all the details with the history.

**To download previous versions:**

1. Go to your project and click on project-specific File report.
2. On the pop-up window, click on the **Download** link for downloading the required version of the file.

The file will be downloaded in the specified location.

## Discussion on a File

At times, you may need to discuss and collaborate on files. You can do that by initiating a discussion on the file. Users can add comments on files. This is useful if you want to conduct a review or approval process. For instance, you can upload your Project Plan file in the client folder and conduct the discussion on that file with your client. If you are subscribed to this discussion, then you can participate right from your email client.

**To start a discussion on files:**

1. Go to your project and click on the **files** link from the left panel.
2. From the actions drop-down against the file, navigate to **More** and then click on **Start Discussion.**
3. Enter the name of the Discussion topic.
4. You can **Subscribe** the team members to participate in the discussion.
5. You can also include your client by selecting **Share with client.**

## To view discussions on files:

1. Go to your project and click on the **files** link from the left panel
2. Click the column Selector on the extreme right corner next to the column names displayed.
3. Select the column **Messages** and drag to the right to display
4. Click on **Save**
5. When the file report refreshes, the column Messages will display any **discussion posts** that have happened on that file.
6. You can click on that to access the **Discussion**

## File Security

You can set up security on a specific file. You can also share files with your client.

**To set security for files:**

1. Go to your project and click on project-specific File report.
2. Click the **Action Selector** against the file and select **More** > **Set Security**
3. For that specific file you can **set privileges** for which roles can perform the file specific actions.

Only files shared with client are visible to the client.

## Adding Files and Folders to your Favorites

If you are interested in specific folders and / or files and would like quick access to them, you can add them to your favorite report in Celoxis. To create your Favorite files report, please follow the instructions below.

**To add files and folders to your favorites:**

**Create Report My Favorite files**

1. First create a report with type **file** and call it **My Favorite files**
2. Select filter **'My Favorite'** and select value **'Yes'.**
3. Select other columns as per requirement and save.
4. Now click on the Action Selector of that report and click on **Add to Favorites**

## Add your files/folders to My Favorite files

1. Go to your project and click on project-specific File report.
2. Click the **Action Selector** against the respective files(or folder), click on **More > Favorite.**
3. The selected file is now visible in your **My Favorite files** report

### Finding relevant Files

You might have files attached to a task, project, process, discussion, etc. Finding them is a difficult task as the number of file starts increasing. Celoxis helps you filter the files attached to a particular entity with the help of the **Attached To** filter.

To add this filter:

1. Create/Edit the **File** report.
2. On the Add/Edit file pop-up, click on the **Filters** tab.
3. Type **Attached To** for the filter to be selected. Make this filter prompt? so that you can select values while running a report.
4. Click on **Save**.

## Calendar

With the Celoxis Calendar you can set up events and schedule meetings. Multiple views (monthly, yearly, weekly and daily) are available. Project and Task dates are also shown in the Calendar. You can view other's calendars but only events marked as public will be shown.



### Adding, Editing, and Deleting Calendar Event

**To add an event:**

1. Login with a user with administrator privileges and click on **Calendar** option under the user profile.
2. Click the **Add** icon

   ✛

3. In the **For Whom**\* drop-down list, select a user and click **OK**.
4. In the **Impacts Scheduling** drop-down list, select an option. (Please click here to understand what this means)
5. In the **Summary**\* box, type the summary of the event. For instance, Meeting, vacation, etc.

6. In the **Sharing** drop-down list, select the type of event.
7. From the **Starts**\* date picker pick a start date of the event.
8. Click **All Day** if the event is for the entire day Or Select the time from the **From** and **To** drop-downs after unchecking the All Day checkbox.
9. From the **Repeat** tab, select the event type. For instance, if it is a daily, weekly, or a yearly event.
10. From the **Reminder**, drop-down, select the appropriate time when you want to receive a prompt regarding the event. The user will receive an email notification from the system at the date/time of the reminder.
11. Click **Invitations** tab**.**
12. Type the email addresses of the **Invitees**.
13. Click **Save**.

**To add events for other users:**

1. Login with a user with administrator privileges and click on **Calendar** option under the user profile.
2. Click the **Add** icon on the day and date for which you want to add the event.
3. In the **For Whom**\* drop-down list, select a user for whom you wish to add to the event and click **OK**.
4. Fill in other details and click **Save**.

> Only a user with administrator privileges can add events for other users.

**To edit an event:**

1. Login with a user with administrator privileges and click on **Calendar** option under the user profile.
2. Click on the event on the calendar.
3. Edit the information.
4. Click **Save**.

> Only the user who is an owner or a user with administrator privileges can edit an event.

**To delete an event:**

1. Login with a user with administrator privileges and click on **Calendar** option under the user profile.
2. Click on the event on the calendar.
3. Click **Delete**.

## Calendar Exceptions

To first understand what is meant by a Calendar exception, please click here. There is a company level policy, which decides if the users can define their own work calendar exceptions by creating events. If this policy is set, then a user can **create an event** in their calendar and mark that event as either **Impacts Scheduling** - Yes / No. If Yes, there are 2 options.

1. **Yes - Working** – This means that although the time of the event is "non-working" (maybe a weekend or holiday), this exception is created to make that time as working and Yes, it will impact the schedule accordingly. So if you plan to work 4 hours on a Saturday, you may want to create an event in your calendar, mark that as "Impacts Scheduling - Yes - Working". Celoxis will then schedule your tasks for that time.
2. **Yes - Non working** – Similarly, this means that although the time of the event is "working", this exception will make that time as non-working and your tasks will be rescheduled accordingly. For eg, A user going on vacation for 3 days will mark off his/her time on the Calendar with "Impacts Scheduling - Yes - Non Working". It will mark off those 3 days as non working and schedule tasks accordingly.

Here are some important points to remember when adding events :

- When you create an event for a work calendar, then those events will always Impact schedule i.e "Yes, Working" OR "Yes, Non Working".
- Only user with administrator privileges can add events for other users or for work calendars which Impacts Scheduling.
- A non-admin user can add non-impacting (i.e Impacts Scheduling = No) events for Everyone.
- The **Timezone Independent** checkbox is only visible when the event is created for Work calendars or Everyone.
- The Reminder can be set for an event when the event is for a specific user only; not for Work Calendar or Everyone.
- When an event impacts schedule, then the event Sharing type is always **Public**.

To create exceptions, refer here.

## Understanding Calendar Sharing

**Sharing types:**

You can use work calendar to reflect events, holidays, special days, meetings, conferences etc. during a project life-cycle. Events in Celoxis are of following types :

- **Private,do not show event**: The event is not visible to any user other than the one who created it.

  - **Show as busy, hide details**: The event is shown in others calendar with a 'Busy' message. The details are hidden.

  - **Public, show details**: The event is shown to everyone. Mostly company events or holidays are of this type. Everyone can see these events in their calendar.

### Viewing Calendars of multiple users

You can view calendar of other users. Events marked as "Public" by that user are shown and you can view details of the events. Events marked as "Busy" will show as "Busy" for the duration of the event. "Private" events are not shown.
To view multiple calendars

1. Login with a user with administrator privileges and click on **Calendar** option under the user profile.
2. From the **Users** drop-down list, select the users of which you want to see the calendars and click **Go**.

### Sending Invites for Group Event

When setting up an event you can invite others (even non-Celoxis users). All you need is the email address of the invitees. Specify if the invitee is "Required", "Optional" or simply "Copied" on the event. An email is sent to all the invitees with the event details. They can "accept" or "reject" the invite and you will be notified by email. If the event is changed or canceled by the proposer, all invitees are notified by an email.
To send group invites for events

1. Login with a user with administrator privileges and click on **Calendar** option under the user profile.
2. Click the Add icon. Enter other details as per your requirement.
3. Go to the **Invitees** tab expand button.
4. You can select users from the appropriate drop-down : Required Invitees, Optional Invitees, Invitees Cc.
5. Click **Submit**. The invites are sent.

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- If the invitee is a Contact or non-login user (Generic), the invitation e-mail sent will have the link to Accept/Decline the event with the other details of the event. Upon clicking Accept or Decline, the Status of the event in the email notification changes to reflect the selection.
- If the invitee is a login user, then the tasks are not re-scheduled for the day of the event even if the event Impacts Scheduling.
- Only after an event is accepted, will it show up on the user's (login) calendar.

---

### iCal Export to Programs like Outlook Google etc.

iCal is a standards based file format for exchanging scheduling information (like events and to-dos) between different applications. You can view your Celoxis events in another application such as Microsoft Outlook®, Mozilla, Thunderbird or Google Calendar.

**To export an event:**

1. Login with a user with administrator privileges and click on **Calendar** option under the user profile.
2. Click **Export to Outlook, Google etc.** option from the actions menu.
3. Copy the **URL** and click **Close**.
4. Paste the URL in your calendar. The events are exported in your calendar.

---

Celoxis allows you to export events as VEvents and you can view the events in the calendar.
Tasks are exported both as VToDo and VEvents, and you can view the tasks in the calendar but they are not visible in the tasks list.

Not all applications support VToDo. For instance, Outlook does not support VToDo and hence, you will not be able to view your tasks in Outlook Tasks.

---

1. When you export the calendar from Celoxis, only the events, projects and tasks of the logged in user are exported, even though you might see other users events in Celoxis Calendar.
2. This export is a one way synchronization i.e. when you export the Celoxis calendar to say Outlook, then changes made to any particular event/project/task in Outlook will not be reflected in Celoxis. Changes to a event/project/task in Celoxis will be reflected in Outlook with some delay. This time depends on the refresh period of the Calendar (Outlook, etc) and for that, please refer the documentation of your application.

**Export to Google Calendar**

Follow the steps below to export the Celoxis Calendar to Google Calendar.

1. Get the URL of the Celoxis Calendar (Go to Calendar > From the actions drop down, click on **Export to Outlook, Google etc**.)
2. Copy the link.
3. Now, login to your Google Calendar account.
4. Under **Other calendars**, click on the 'Actions' drop down.
5. You will see an **Add by URL** option, which will ask you to add the URL. Paste the URL copied from Celoxis and click 'Add Calendar'.
6. You will now see the Celoxis calender exported to you Google calendar.



The duration after which the changes made in Celoxis Calendar are reflected in Google Calendar depends on the Refresh rate of the Google Calendar; not Celoxis.

**Export to Outlook**

Follow the steps below to export the Celoxis Calendar to Outlook.

1. Get the URL of the Celoxis Calendar (Go to Calendar > From the actions drop down, click on **Export to Outlook, Google etc**.)
2. Copy the link.

**Export to Thunderbird**

Follow the steps below to export the Celoxis Calendar to Thunderbird.

1. Get the URL of the Celoxis Calendar (Go to Calendar > From the actions drop down, click on **Export to Outlook, Google etc**.)
2. Copy the link.
3. Now, go to your Thunderbird application.
4. From the **Events and Tasks** option, click on **Calendar.**
5. Right click on the existing calendar and click on **New Calendar**.
6. Select the **On the Network** option and click on **Next**.
7. Select the **iCalendar (ICS)** option and paste the link (copied from Celoxis) in the **Location** box.
8. Click Next. Give a suitable name and a color of your choice and click on Next.
9. Click on **Finish.**

You need to have the **Lightning** add-on of Thunderbird installed to see the **Events and Tasks** option.

## Apps

Apps give you the power to quickly create and manage  well defined, repetitive project and business processes or routines. E.g. In a software, a bug is a single piece of work that moves through different "states" like open, verified, fixed, closed, re-opened and so on.

**Risk App**



**Issue App**

Processes like help desk requests, to-do lists, issue tracking, sales lead tracking, leave approval, etc... are typical examples of apps in Celoxis. The key difference between project and apps is that while a project is a collection of multiple tasks, a app is a single piece of work that "flows" through a series of steps before completion and different people work on the same piece of work. In the bug example, while a developer may fix the bug, a tester is responsible for testing it.

- Apps helps you get the most out of your business processes with an easy and intuitive Apps creator. We understand your processes will change over time and let you easily revise your apps.
- You can also capture business specific data as required using custom fields.
- Timeout policies allow you to do things like "1 hour - Gold Support", "5 hour - Silver Support". You can also use timeouts for reminders.

## Essentials of an App

Every app that you create in Celoxis has the following elements:

**States**: States represent "Stages" in your app. Each state is a logical check point in the process where a specific activity is expected to be performed. Every state has a Start start and end state.
For instance, for an issue the following states may exist: "Unresolved", "On Hold", and "Resolved", while for a risk the states are "Not Occurred", "Occurred", "Deferred" and "Mitigated".

**Workflow**: These are the actions you can perform in an app. For instance, a bug in the state "Bug" can be transitioned from "In Verification" to "Bug Confirmed" once it is verified by a member of the QA team.

**Requestor**: The initiator for an app. E.g. in an issue app, the requestor can be a customer or another employee. You can define templates for emails sent to a requestor of an app item

**Triggers**: Celoxis provides a way to perform actions based on email triggers from the requestor.

**State Managers**: State managers are users who are responsible when an app is in a particular state. They receive notifications (if enabled) for delayed items, etc.

**Timeout Policies**: Timeout policies help you define rules on what should happen if an app remains in a state for a given time. For example, In a bug tracking app, if the bug remains in the "In Verification" state for 24 hours then it may be required to notify the state manager.

**Security**: With each custom app, you can define roles, assign permissions and specify users who can play those roles.

## Creating Apps

<p><br/></p>

Before you start using custom apps in the system, you need to first create and configure them. Each app belongs to a Workspace, which establishes the context it resides in.

**To create an App**:

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the **Custom Apps** section, click on **Apps**.
3. Click on the

   **＋ Add**

   icon to add a new app.

| Apps | | ? |
|---|---|---|
| **＋ Add**   Import ▼ | | |
| **Name** | **Active** | |
| Bug | 51 | ✏ 🔔 ✖ |
| Issue | 0 | ✏ 🔔 ✖ |
| My Test | 1 | ✏ 🔔 ✖ |
| Risk | 0 | ✏ 🔔 ✖ |
| To Do | 2 | ✏ 🔔 ✖ |

Close

Let's look at each tab in detail:

1. Basic
2. States
3. Workflow
4. Triggers

## Basic tab

This tab lets you define some essential information for your app.

- **Name**: The name of your app or business process. This name will appear under the main menu option Apps or under the **Add** option in a project.

- **Plural**: The plural name for the name. This name is used to create the relevant "View" for this app.

- **Initially Assign To**: You can select the user who will be automatically assigned to the app once it is initiated.

- **Use Requestor Field?**: By default the creator or initiator of an app item is also the Requestor for that app item. However there could be cases where one would want to initiate an app on someone's behalf and have notifications/updates sent to them. For example, if your help-desk ticketing app is set up such that your support agent opens a ticket on behalf of a customer,  it makes sense to keep the customer as the "Requestor" of that ticket. When enabled, you will see a "Requestor" field on Add/Edit form. A secondary check-box "Visible to requestor" further establishes whether the requestor can see the app item in Celoxis.

- **Allow Time?**: Checking this option will allow users assigned to this app to fill time against it during transitions or from the Weekly Time page.

- **Clients can Initiate**: You can keep this option unchecked, if you do not wish your clients to create an app items for this definition. This will ensure that the clients do not see this app item under the Add option in a project. Existing app items will continue to be visible.

- **Description**:  A brief description for your app.

- **Followers**: This drop-down allows you to select the users who by default will receive an email whenever there is any update on the initiated app item. You can add/remove user from this drop-down even from the initiated app item; changes made there will only apply to that specific app item.
  Notifications will only be sent when there is an reassignment, state change or new comments on an app item.

  > You need to have **View Privilege** to receive the follower emails.

- **Active**: Keeping this option unchecked is a way by which you can define apps and keep them in 'draft' state without publishing them to their users to use. Only after checking this option will your users, clients be able to initiate a new app item of this type.

## Edit App

**?**

<u>Basic</u>  States  Workflow  Triggers  State Managers

Name*
Bug

Plural* ⓘ
Bugs

Initially Assign To*
- Prompt for User -  ▾

Use Requestor Field ⓘ
☑

Allow Time
☑

Clients can Initiate
☐

Followers

☑ Active

Description

**Save**  <u>Cancel</u>

## States tab

States represent "Stages" in your app.

1. Add states by clicking on the

   **➕ Add**

   icon.
2. Enter the appropriate **Name** for your state.
3. Define the Start state and the End state for the app.
     a. **Start** state: This is the default or the first state in which the app item will be created.
     b. **End** state: This is the last state of the app item after which it is marked as 'Completed'.

- For every new app, Celoxis creates 2 states by default: **Open** and **Closed**. You can modify these to suit your requirements or even delete them and add your own states.
- Every new state you add will dynamically appear in the other (relevant) tabs without the need of saving the changes. This let's you quickly draw up your app definition.

## Workflow tab

Workflow are the actions you can perform in an app.

1. Click on

   **➕ Add**

   to add actions for your app.

2. Under **Action**, enter the name for the action.
3. Under **Change State**
    a. Under **From**, choose the previous state of your process. This is the state before the intended action is performed.
    b. Under **To**, select the next state of your process. This is the state after the action is performed.
4. Under **Assign To** you need to select the user to whom the process will be assigned to after the action is performed. Following are the available options:
    a. **Unchanged** - When performing the action, the same user will be assigned to the new state.
    b. **Unassigned** - No user will be assigned to the new state after the action is performed.
    c. **State Manager**- The user defined as state manager for that state.
    d. **Previously Assigned**- The user previously assigned to that state.
    e. **Requestor**- The user who initiated the process.
5. The option **Allow User** determines whether this action can be performed by a user. It may be required that some actions be performed only as a result of timeout by the system and not by an end-user.

## Triggers tab

With triggers, you can specify the actions to be initiated when the system receives an email from the requestor.

1. Click on

   **+ Add**

2. Select the state on which you want to define the trigger. You can select the state under **When in State...**
3. Under the **Perform Action**, select the action to be performed when the requestor sends in an email.

## State Managers tab

State managers are users who are responsible when an app is in a particular state. Through this tab you can specify who will play State Managers for specific states in your app.

1. You can define State Managers at
    a. Company level (i.e. - All Workspaces -)
    b. Workspace level
    c. Project level
2. Defining State Managers can each subsequent levels will override its parent value. For example, defining a state manager for a state at - All Workspaces - will automatically apply to all workspaces and projects under them. Now you can choose to override the defaults for a specific workspace or a specific project.

## Timeout Policies tab

Timeout policies help you define rules on what should happen if an app remains in a state for a given time.

Adding timeouts to your app is a two-step process.

**Step 1**: Create timeout policies

1. From the main menu, click on

   **•••**

   and then **Company Settings**.
2. Under the **Custom Apps** section, click on **Apps**.
3. For a particular app, click on the Timeout Policies icon.
4. Click on

   **+ Add**

5. Give a suitable **Name** to the timeout policy.
6. Under
    a. For the State listed, define the timeout (in hours) depending on the app's priority.
    b. You can either do a state transition when the timeout occurs
       OR
       Ask the User to enter the Timeout for the state by clicking on Override. In this case when doing a transition, you can set the date and time for the new state for timeout.
    c. You can also mark process as delayed by checking the 'Flag as delayed' option for that state. The process will show up as 'Delayed' after the timeout occurs.
7. Click on **Save**.

You can define multiple timeout policies for your app.

**Step 2**: Define default time out policy

1. For a particular app, click on the Edit icon.
2. Go to **Timeout Policies** tab.
3. Select the appropriate workspace and specify the default timeout policy for that workspace.
4. Click on Save.

## Defining security

With each custom app, you can define roles, assign permissions and specify users who can play those roles.

**To assign or un-assign privileges to roles:**

1. From the main menu, click on

   ● ● ●

   and then **Company Settings**.
2. Under the Security section, click on **Role Privileges**.
3. Navigate to the **Apps** tab.
4. Select the App and apply the desired privileges.
5. Click on Submit.

The following security privileges are available in apps:

- View
- Edit
- Delete
- Add Comment
- Perform Action
- Reassign
- Add

To know more about Security, click here.

## Defining templates for emails sent to Requestor

You can define templates for emails sent to a requestor of an app item. Celoxis provides a default template. You can customize it per workspace.

1. From the main menu, click on

   ● ● ●

   and then **Company Settings**.
2. Under the **Custom Apps** section, click on **Requestor Email Templates**.
3. You will see list of all workspaces defined in the system.
4. To customize a particular template, click on the Edit icon for a workspace.
5. Apply the necessary customization.
6. Click on Save.
7. To revert to default template, click on the Reset icon for a workspace.

## Editing or Deleting Apps

**To edit an App**:

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the **Custom Apps** section, click on **Apps**.
3. Click on the pencil-shaped icon to edit the specific app.
4. Make the necessary changes and click on **Save**.

**To delete an App:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the **Custom Apps** section, click on **Apps**.
3. Click on the delete icon to delete the specific app.
4. Confirm your deletion by clicking on the *Yes, I understand the consequences and still want to delete* checkbox and then click on Delete.

> This is a permanent action and cannot be undone. All the app items, time-entries, documents associated with this app will be

delete and cannot be recovered.

## Using Apps

Users can start using Apps by creating items for an app. For example, a bug in the Bugs App or a lead in the Leads App.

An app can be initiated from:

- **Add** from main menu (**Apps** section)
- any project.

### Add/Edit/Delete an App item

**To create an App item:**

#### From Apps menu option (For both Project and Non project Apps)

1. From the main menu, click on **Add** and from the **Apps** section, click on the appropriate app name whose instance you wish to initiate.
2. Select the appropriate App for which you want to create an item.
3. You can initiate Apps under a project or non-project (Workspace). Make a selection.
4. Click on **Next**.
5. Fill in the information in the different tabs as necessary.
6. Other fields like the **Assigned To**, **Requestor**, etc are visible depending upon your Apps Definition.
7. You can also attach local documents or a Google Documents at this stage if required.
8. Click **Submit.**

#### From a Specific Project.

1. Go to the project where you want to initiate an App.
2. From the project actions

   ≡

   , navigate to **Add** and then click on the appropriate App name.
3. Fill in information in the different tabs as necessary.
4. Click **Submit**

**To edit an App item:**

1. Go to the app item you want to edit.
2. From the actions

   ≡

   , click on **Edit.**
3. Edit the required attributes.
4. Click **Submit**. The changes will be saved.

**To delete an App item:**

1. Go to the app item you want to edit.
2. From the actions

   ≡

   , click on **Delete.** The item will be deleted and will no more be seen in reports or when filling time on Weekly Time screen.

### Import via CSV

Celoxis allows you to import your app items in a project via a CSV file.

**To Import App items:**

1. Go to your project and click on **More** option on the right side.
2. Now, click on **Import Apps(CSV).**
3. Click **Browse** and select a CSV file.
4. Click **Next.**
5. Under the **Map To** drop-down list, map the fields of your CSV file with the fields provided.
6. In the **Number of top rows to skip** box, enter the number of rows you want to ignore if you have headers in your CSV.
7. From the **Date Format** drop-down list, select the appropriate date format.
8. Click **Finish**.

You can view the sample file for the CSV import on the Import CSV page (step 3) by clicking on the Sample CSV link.

## Performing an action

After a user has completed his/her activity, he can perform an action to move the item into the next state.

**To perform an action:**

1. Go to the app item.
2. Click its actions

   ≡

   . The possible action(s) for the item are listed first.
3. Enter your **Comments**.
4. Click the **Assigned To** drop-down list and select the assignee for the next state. This is only visible if the intended action requires a next assignee to be selected by the user.
5. For project items, you can also enter the **Hours** you have spent on the item and select the appropriate **Time Code**. This is only visible if time-logging is enabled on the App.
   Checking the **Send For Approval**, will submit the time-entries for approval to the PM.
6. Select **Notify Requestor** option, if you want to notify the requestor of the app item. This field is only visible if the **Use Requestor Field?** is checked when defining the App.
7. Click **Submit.**

A user who is assigned to the App item state has implicit privileges to perform any actions defined from that state. If you need others to be able to perform actions then you need to explicitly give them **Perform Action** privilege.

## Adding comments

When working on an app item, the assignee or the manager at times might need to record comments on it.

**To add comment**:

1. Go to the App item.
2. From its actions

   ≡

   , click on **Add Comment**.
3. Enter the **Comments**.
4. For project items, you can also enter the **Hours** with the **Timecode** for the time spent on it. This is only visible if time-logging is enabled on the App.
   Checking the **Send For Approval**, will submit the time-entries for approval to the PM.
5. Select **Notify Requestor** option, if you want to update the requestor. This field is only visible if the **Use Requestor Field?** is checked when defining the App.
6. Click **Submit.** The item will be updated with the new comments.

By default, the user assigned to the app item or the user with **Add Comment** privilege can add comment to the item.

## Reassign an app item

Ocassionally you may want to re-assign an item. There could be several reasons like work restructuring or the assigned user is on leave or is busy with other activities.

**To reassign an App item:**

1. Go to your app item.
2. From its actions

   ≡

   , click on **Reassign**
3. Select the user to reassign the item from the **Reassign To** drop-down.
4. You can enter suitable comments for the change if required.
5.  Click on **Submit**. The item will be re-assigned to the user new.

- The new assignee will receive a notification that the App item is assigned to him.

- The original assignee will no longer see the App item when filling time or in reports.
- Only the user with **Reassign** privilege will be able to perform this action.

## Adding Files

You can also add documents to your app item.

**To add documents**:

1. Go to your app item.
2. From its actions

   ☰

   click on **Add Files**.
3. You can add one or more documents from your local files or Google drive.
4. Click on **Submit**. The documents will be attached to the item and will be visible on the details page of the app item.

Any user who can view the app item can add documents to it.

## Copying or Moving an App item

You can make a copy of an existing app item or move it across projects or workspaces.

**To copy an app item**:

1. Go to your app item.
2. From its actions

   ☰

   , click on **Copy**.
3. You make changes as necessary to the duplicated app item.
4. Select a new **Assigned To** or **Requestor** if required.
5. Click on Submit. A new instance of the App item is created. The original remains untouched.

**To move an app item**:

1. Go to your app item.
2. From its actions

   ☰

   , click on **Move**.
3. Select the new project or workspace where you want to move the item.
4. Click on Next. The app item is moved under the new selection.

## Viewing the audit trail

An audit trail keeps track of what is going on inside the app item.

**To view the audit trial**:

1. Go to the app item.
2. From its actions

   ☰

   , click on **View Audit Trail**.
3. A new pop-up window opens showing all the activities performed on the item.

## Marking app item delayed

You can mark the app item delayed by using any of the following methods. This basically is an indicator that the work on the item has stopped and needs attention. The PM or State manager is also informed via email of the delay.

1. You can explicitly check the **Delayed** box on the New/Edit app item.

2. You can set the **Due Date** of an app item.
   When creating/editing an app item, you can enter the due date. Once, the entered date and time has passed, the app item will be marked as delayed. The Due Date indicator is specific to the assigned user.
   For e.g. An app item is assigned to Mary who is working in US with a due date of 26th May 2016 AM. John, who is working in Australia is also viewing the app item. Now, although it is 27th in Australia, the app item will not show delayed for John, till it is 27th in US.

3. Using Timeout Policy.

## Filling time on Apps

Celoxis allows you to fill time on your bugs, tickets and other app items. You can fill time on Apps that have time-logging enabled.

> **Time can only be filled against apps defined on projects. You cannot fill time on Workspace level app items.**

Time can be filled in the following ways:

1. When performing an action
2. When adding comments
3. From Weekly Time screen
   Once you select the project, you can select your app item from under the **Work Item** column.
   - In the **Work Item** dropdown, the project app items are visually differentiated from tasks
   - Time can only be filled on app items that are assigned to you. Once, the item is re-assigned to another user, it is no longer available on your Weekly Time page.
   - Items created or last updated in the 'Work items in range' filter will be shown.
   - Time is not allowed on non-project app items.
   - Time is not allowed on completed app items.
4. From Timer.
5. From Mobile.
   Click on **Time** under the **Add** option. Selecting the **Project** will list all the relevant app items under the **Work Item** drop-down. You can then select a relevant item and fill time on it.

- Once you submit the time-entries for approval, the PM or Approver can Approve/Reject the time-entries. If your company auto-approves time, these time-entries will also be auto-approved.
- Time entered against Apps will be used to calculate your Expected hours.
- Cost(Actual), Amount(Act, Billable) and Amount(Time, Invoiced) will be calculated if time-entries are Approved, Billed and Invoiced.
- Moving the App item from one project to another will copy its existing time-entries to the new project. This will affect the new project's financials.
- Proxy user can fill time on Apps for other user provided the app item is assigned to the other user.

## Email Integration

Custom Apps can be initiated by emails. Emails can either be free form (sent by people) or structured (generated by filling a web form).

### Direct Interface
This helps configure your app items so that they can be initiated by a simple email. Each custom app has a unique email address to which the email must be sent. A mail sent to this email address will trigger off the app item. For example you may have a Help-desk app that you wish to be triggered by a person sending mail to a specific email address.

### Indirect Interface
This helps you integrate an existing system  with one of your custom apps. For example you have a web based form on your web site that users fill and submit to initiate an App in Celoxis.

## Direct Email Integration

This method allows anyone to initiate an App by sending a email to a unique email address. The email address has encoded information about the App, Workspace and the specific state the item must be placed. For instance, you want a Support Ticket to be initiated when your customers send an email to a given address.

**Direct Email Interface:**

1. From the main menu, click on

   **•••**

    and then **Company Settings**.
2. Under **Apps** section, click **Email Integration**.
3. Under the **Direct Email Interface** section, click **on Find Email Address.**
4. Select the appropriate **App, Workspace, State** from the drop-down list and click **Submit**.  An email address for your app is created which will then create app items under the selected workspace and state.

## Indirect Email Integration

This method also uses an email to initiate an App. However, the App may have many custom fields or there may be various conditions based on which you want to decide the initial state of the item. For example, say you have a New Quote app where users can fill in what they want and you will provide a quote. This cannot be achieved by sending a "free form" email to specific address as in Direct Interface. This will be better achieved by having a web form where users can pick which product they want, any specific parts or configuration and then submit their request. The form processing script can now generate an email with all the data including custom fields and send the email to the relevant address.

**Indirect Email Interface:**

1. From the main menu, click on

   **•••**

    and then **Company Settings**.
2. Under **Apps** section, click **Email Integration**.
3. Under the **Indirect email integration** section, you will find the email address for your company using which you can initiate the process.
4. The email body needs to be in a specific format as mentioned on the same page.

## Predefined Apps

To get you up and running quickly, Celoxis provides predefined apps for most commonly used business processes. You can directly use them or edit them to suit your business needs.

**To import an app**:

1. From the main menu, click on

   **•••**

and then **Company Settings**.

2. Under the Custom Apps section, click on **Apps**.
3. In the new pop-up, click on the **Import** drop-down and select the app you want to import.
4. The selected app will be imported.



- Importing an app will import all its related custom fields, default security and reports.
- You can import the pre-defined apps provided by Celoxis in cases you have deleted them earlier.

Following are the predefined Apps:

**Risk**

**Bug**

**Issue**

**To Do**

**Change Request**

**Project Approval**

## Risk

Risks are usually caused by uncertainty – unpredictability in the project requirements, legal liabilities, unplanned resource loss, financial state of the organization or market, force majeure, competition, etc... The objectives of Risk Management are to decrease the probability and impact of negative events on various organizational and project activities.

Celoxis provides a risk management process, which you can directly use for your projects.

A risk typically has the following states: Not Occured, Occured, Deferred and Mitigated. Each risk also has a Probability, Impact and a Risk Score associated with it.



**Risk App**

Each risk has the following custom fields:

- Risk Probability
- Risk Impact
- Risk Score

**Workflow Steps:**

1. You can identify all the risks in your system (organizational or project). Each risk will have a probability of occurrence and associated impact. Based on these parameters, Celoxis will calculate a risk score. All risks entered are in 'Not Occurred' state.
2. Once a risk occurs, the risk is moved to 'Occurred' state and is assigned to the person responsible for handling the risk.
3. The Risk can then move to any of the following states:
    a. 'Mitigated' because the impact of the Risk is reduced. The State Manager is responsible for this risk in this state.
       OR
    b. 'Deferred' because it is unlikely to occur now or impact the project progress. The State Manager is again responsible for this risk in this state.
4. A 'Deferred' risk can also be 'Mitigated' at a later point in time.

Celoxis provides a predefined **Risk Register** Report where you can view all the risks (organizational or project specific) and their impact, probability i.e. likelihood and score.

## Bug

Our Bug tracking App lets you keep track of all reported bugs and defects in software development projects.

**Bug App**

Each bug has the following associated information as custom fields:

- Bug Type
- Severity
- Component

- Resolution
- Affects Version
- Fix Version

**Workflow Steps:**

1. QA member reports a bug.
2. Bug is set in the 'Reported' state and assigned to a development team member. The developer can
    a. Fix the bug and mark it as 'Resolved'
    b. 'Close' it stating it is not a bug.
3. In 'Resolved' state, the QA member can either reopen the bug or close it.

## Issue

With Celoxis Issue tracking App, you can manage and maintain list of issues for your projects.



**Workflow Steps**:

1. Customer or a user reports an issue.
2. The added issue goes into the 'Unresolved' state.
3. If more information or clarification is needed, it can be put 'On Hold'.
4. Once the issue is resolved, it moves into the 'Resolved' state.

## To Do

Our To Do app lets you create quick To Dos for yourself or action items for other users.

A To Do has 2 states: Planned and Completed.

Once a To Do is created, it is in 'Planned' state. Once the task/to-do is complete, the person assigned to it can do the 'Mark Complete' transition.

## Change Request

Change Request app helps you track and implement any change requests in the system.

**Workflow Steps:**

1. When a new Change Request is initiated it is in 'Impact Analysis' state.
2. On performing Impact Analysis, the Change Request can either be 'Rejected' due to large impact, or can be chosen for Implementation.
3. Once the implementation is complete, the Change Request is scheduled for Testing.
4. During testing, if any issues are found, the Change Request is sent back to the implementation team.
5. Once testing is complete, the Change Request is deployed and moved to 'Deployment' state and is then 'Closed'.

## Project Approval

This app helps you channel your incoming project requests through a formal approval process.



**Workflow Steps:**

1. A new request enters the 'Feasibility Check' state. At this level, the request can be rejected for not meeting any organizational criteria or can be moved ahead into the 'Proposal Preparation' state.
2. During the preparation state, there can additional information that is required. Here the request is in 'Needs Additional Information' state.
3. Once the proposal is prepared, it is sent for Internal Review. At this stage, it can go back and forth with review comments.
4. Once the Internal Review is completed, the proposal is sent to the customer. It is now in 'Proposal Sent' state.
5. The customer can reject the proposal for certain reasons or can approve it for the next stages of the project. When approved, the request is in 'Approved' state.

## App Reports

Celoxis provides out-of-the-box reporting for the predefined Apps. Additionally, you can also define your own reports.

**To create a report of an app item you defined:**

1. From the main menu, click on **View** and then **All Reports**.
2. In the new pop-up, click on the **New Report** drop-down.
3. Under the Apps section in the list, click on the App you created.
4. Enter the mandatory details; select columns, sorting grouping of your choice and click on Save.
   You can then add the report to your favorite list or add it to the dashboard.

The following list of reports are available by default in your account (for trail customers after v8.0 release):

1. Global Reports
    a. Change Requests (Shared with client)
    b. My Bugs
    c. My Change Requests
    d. My Issues
    e. My To Dos
    f. Project Approval Requests
    g. Risk Register

2. Project-Specific reports
    a. Bugs
    b. Issues
    c. Risk Register

## Views

Views provide all your users a common point to find and manage different objects like projects, tasks, bugs, files and other work items in Celoxis. All Views will be visible to all users. There is no concept of private views.

## Projects ≡

State: In Planning, In Progress    Start : Date: Last Quarter to Next Quarter    Change

| Name | Client | Schedule Status | % Complete | Deadline ▲ | Manager |
|------|--------|-----------------|-----------|-----------|---------|
| Website Creation | Dell | Off Track | 70 | 5-Feb-2016 | Joe Cool |
| E-learning Project | HBO | Not Active | 0 | 5-Feb-2016 | Mary Jane |
| ERP Software | Dell | Off Track | 100 | 12-Feb-2016 | Mark Duncan |
| Banking Software | RCB | On Track | 0 | 12-Apr-2016 | Mark Duncan |
| Marketing Project | Dell | At Risk | 0 | 12-Apr-2016 | Peter Parker |
| Book Publishing | Dell | At Risk | 28 | 12-Apr-2016 | Mark Duncan |
| New Office Setup | Dell | On Track | 66 | 15-Apr-2016 | Mark Duncan |
| Product Testing | Deloitte | On Track | 0 | 29-Apr-2016 | Peter Parker |

All the views are available under the **Views** option in the main menu. The following Views are available in your account:

1. Projects
2. Tasks
3. Time Entries
4. Expenses
5. Discussions
6. Files
7. Resource Load
8. Bugs
9. Issues
10. To-Dos
11. Users
12. Clients

---

> **INFO**
>
> 1. When you create a new app and make it active, it's relevant view will be automatically set up by the system.
> 2.  If a particular module is disabled, then its associated view will not be visible on the menu.
> 3. Views are not available for Client logins.
> 4. Although views are available to all users, the data shown in the View is still governed by security.

## Editing Views

Views, being lightweight lists, users cannot customize their columns or grouping information. The definition of any view can be edited only by a user with administrative privileges. To modify a view, click on the **Edit** option under the View's  menu. Here the admin can set up filters and select columns to be displayed in the view. The changes made here will be reflected for all users. Users can, however, filter data (using dynamic filters) or sort on visible columns.

> **NOTE**
>
> Views cannot be created or deleted by any user in Celoxis.

# Reports

## Overview on Reports

Reports provide you with insight of the working within your organization. Celoxis has a very powerful reporting engine that allows you to generate practically any kind of report you require. And the beauty of the reporting engine is that you need not create a thousand reports. Celoxis lets you define fewer reports, at the same time providing you the flexibility of deciding how you want to organize the data in a way you prefer. The user can pick the columns they wish to view, they can choose to group and sort the data, the promptable filters let them narrow down data. And all this is without altering the basic report definition. So 1 report defined can potentially be modified by every user to display data as per their specification. Other key features like **- Running User -** also help in generating multiple reports from a single report definition.

You need 'Add' Report privilege to be able to generate reports in Celoxis. Reports created and shared with users can be tweaked by the users to organize the data in a way they prefer (columns, group, sort and promptable filters) This does not require a permission. To read more about Report Security, please click here.

Reports can be created on one of the following entities.

**Project**
This will help you to generate reports which will show the project information like the category, project financials, custom fields, etc.

**Task**
This will help you to generate reports on the task information like the schedule dates, task financials, custom fields, etc.

**Time Entry**
This will help you to generate reports on time entries. So, you can see your project wise, task wise, resource wise time submitted, by time code for a particular time period.

**Expense**

This will help you to generate reports on the expenses. You can see expense code wise project wise totals, etc.

**Document**

This will help you to generate reports on your documents. You can choose to see all documents in your project, grouped by the projects along with the path, type, size, checkouts, discussions if any, whether the doc is shared with your client, etc.

**Discussion**

This will enable you to generate reports on your discussions. You can view the discussion posts, replies etc

**Apps**

This will enable you to generate reports on your App items.

**Task Status Update**

This will enable you to generate reports on the progress updates of your tasks.

## Assignment

This is a very important entity which helps you analyze your resource assignments/load on the different tasks. You can use it to generate a report that will display resource wise, task wise, allocated/estimated hours versus actual hours (approved). You can filter over the period of your choice.

**Activity Log**

This is like an audit trail or history of changes done on projects, tasks in it, documents, discussions attached to the project etc. This gives you an idea of what changes have happened, when and by whom.

## Time Phased

It is used to generate the very key Resource Load Chart report. To read more, please click here.

> To find out more on what data you can report on for each entity, you can create a new report of that entity, click on the **Output** tab and look at the columns.

## Pre-defined Reports

Celoxis offers a number of pre-defined reports to get you started. In most cases, these should suffice your needs. Predefined reports will show **Celoxis** as the creator. Privileges on these are preset to allow for the most common requirements. You can modify any of the above reports to suit your requirements or make copies and modify the copies.

*For Executives*

- Budget Allocations.
- Projects (by Schedule)
- Revenue per Client
- Project Portfolio Analysis

*For Managers*

- My Projects
- Tasks Status
- Project Status (Top level Tasks)
- Project Status (Gantt)
- Cost Overruns
- Who's Doing What
- Resource Load
- Resource Utilization
- Resource Capacity
- Incomplete Timesheets
- Activity Stream
- Discussions

- Documents
- Open Issues
- Open Bugs
- My To Dos

***For Team***

- My Tasks
- My Expenses
- My Time Entries
- My Open Items
- Activity Stream
- Discussions
- Documents

***For Client***

- Project Status
- Project Documents
- Project Discussions
- My Existing Requests

***For Administration***

- Billing Summary
- Billed Time
- Billed Expenses

***Project-Specific reports***

- Unassigned Tasks
- Tasks (List)
- Discussions
- Documents
- Issues
- Bugs

## Creating, Editing, and Deleting a Report

Although canned reports would meet most of the reporting requirements, you can also create custom reports for special needs.

**To Create a Report:**

1. From the main menu, click **Reports** > **All Reports**.
2. From the **New Report** drop-down list select a report template and click **Go**.
3. Give a name to the report.
4. Select required filters from **Filter Tab**, **Sort by, Group by,** and **Output** columns as per your requirements from **View** tab.
5. Click **Save.**

**To Edit a Report:**

1. From the main menu, click **Reports** > **All Reports**.
2. Search for the report by typing the name in the Search box OR scroll down the reports list.
3. After the report is displayed after searching or from the list page, click on **Edit** from the actions drop-down menu beside the report name.
4. Make the required changes.
5. Click **Save** if you want to only save your report.

**To Delete a Report:**

1. From the main menu, click **Reports** > **All Reports**.
2. Search for the report by typing the name in the Search box OR scroll down the reports list.
3. After the report is displayed after searching or from the list page, click on **Delete** from the actions drop-down menu of the report.
4. Click **OK** in the confirmation message window.

## Report Views Types

There can be a lot of information which project managers need to view and analyze during the planning and execution phase of the project.

Reports can be created to show information in tabular form or chart reports. Celoxis provides a variety of different visualizations based as needed.

A popular one is drill-down graphical charts which present a large and complex chunk of information in a concise and simplified form. This allow the managers to see a high level chart view and quickly click these drill-down charts to view the detailed tabular task information right below these charts. Celoxis also provides the option to create charts on Custom Fields thereby tailoring the reports to your business needs.

**Additional columns**:
Celoxis also provides some additional columns on certain date fields, where the month or year part of the date is crucial in reporting and decision making. These columns can be used in sorting and grouping.
The following date fields will have Month and Year components:

| Entity | Column name |
| --- | --- |
| Project | Deadline |
| Project | Start |
| Project | Any custom field of type 'Date' |
| Task | Any custom field of type 'Date' |
| Time Entry | Date |
| Expense | Created |
| Apps | Created |
| Apps | Any custom field of type 'Date' |

Let 'X' be an entity of type "Project", then selecting X: Month will be shown as the date without the date and X: Year will be shown as the year without the date and month.
For example, if date format is May-12-2014, then Month will be May-2014 and Year will be 2014. If however, the display date format is 2014-05-12, the month would be shown as 2014-05.



The above screenshot is an example of understanding project trends in an organization. Looking at this, the management can understand how different projects stacked up over the past years.

 Tabular

**To Create a Tabular report:**

1. From the main menu, click **Reports** > **All Reports**.
2. In the new pop-up, from the **New Report** drop-down list select a report template.
3. In the new pop-up, enter the name of the report in the **Name\*** box.
4. In the **Description** box, type the description.
5. From the **Visible to Users** drop-down list, select the appropriate option with whom you want to share the report.
6. From the **Visible to Clients** drop-down list, select the clients with whom you want to share the report.
7. In the Filters section, from the **Add filter...** drop-down list, select a filter. The selected filters are displayed under the **Filter** column.
8. Select the **Prompt?** check box if you wan to display the selected filters in the report output window.
9. In the **View** section, select **Tabular**
10. Do either of the following :

    Click **Save** to save the report.

    Click **Save And Run** to run the report. The pie chart report is displayed.

| Client : Name | Name ▲ | Start | Deadline | Budget | Cost (Actual) | % Complete | Schedule Status | Budget Status | |
|---|---|---|---|---|---|---|---|---|---|
| **Dell** (3) | | | | **$108,000.00** | **$99,000.00** | | | | |
| | Agile Project Template | 10-Feb-14 | 6-Jun-14 | $23,000.00 | $25,000.00 | 50 | ● On Time | ● Over Budget | |
| | New office setup | 26-Feb-14 | 3-Apr-14 | $35,000.00 | $20,000.00 | 40 | ● Schedule At Risk | ● Budget At Risk | |
| | Office in SFO-seats 200 | 4-Feb-14 | 2-Apr-14 | $50,000.00 | $54,000.00 | 90 | ● On Time | ● Over Budget | |
| **ACME Inc** (3) | | | | **$74,000.00** | **$7,200.00** | | | | |
| | Sample Demo Project | 7-Apr-14 | 29-Apr-14 | $15,000.00 | $3,200.00 | 20 | ● Future, in 18d | ● Budget At Risk | |
| | Sample Project - Website Design 1 | 3-Mar-14 | 3-Mar-14 | $25,000.00 | $0.00 | 0 | ● Overdue, 17d ago | ● On Budget | |
| | Software Development Project | 27-Feb-14 | 14-Apr-14 | $34,000.00 | $4,000.00 | 10 | ● On Time | ● Budget At Risk | |
| **Internal** (3) | | | | **$135,000.00** | **$515.00** | | | | |
| | Sample Project - Office Setup | 4-Mar-14 | 31-Mar-14 | $20,000.00 | $315.00 | 16 | ● On Time | ● On Budget | |
| | Sample Project - Website Design | 4-Mar-14 | 5-Mar-14 | $25,000.00 | $200.00 | 17 | ● Overdue, 15d ago | ● On Budget | |
| | Website Design | 18-Mar-14 | 16-Apr-14 | $90,000.00 | $0.00 | 0 | ● On Time | ● On Budget | |
| | | | | $317,000.00 | $106,715.00 | | | | |

▼ Phase: In Planning, In Progress   Change

## Pie Chart

**To Create a Pie Chart:**

1. From the main menu, click **Reports** > **All Reports**.
2. In the new pop-up, from the **New report...**drop-down list, select a report template and click **Go**.
3. In the **Name\*** box, type the name of the report.
4. In the **Description** box, type the description.
5. From the **Share with users** drop-down list, select the appropriate option with whom you want to share the report.
6. From the **Share with clients** drop-down list, select the clients with whom you want to share the report.
7. In the Filters section, from the **Add filter...** drop-down list, select a filter. The selected filters are displayed under the **Filter** column.
8. Select the **Prompt?** check box if you wan to display the selected filters in the report output window.
9. In the **View** section, select **Charts** and **Pie**.
10. In the **Slice the pie by** drop-down list, select an option.
11. In the **Size of slices indicates** drop-down list, select an option.
12. In the **Maximum number of slices to show box**, type the number of slices you want to see on your screen.
13. Click **Save** to save the report. The pie chart report is displayed as follows:

## Task Status ≡



On Time (5%)

Overdue (20%)

Completed (71%)

On Time :

▼ Start: Last Year    Change

| ☐ ≡ | Name | Start | Finish | Re |
|---|---|---|---|---|
| ☐ | U300SC PHASE II | 06-Jan-2014 | 03-Dec-2015 | |

## Bar Chart

**To Create a Bar Graph:**

1. From the main menu, click **Reports** > **All Reports**.
2. In the new pop-up, from the **New Report** drop-down list select a report template.
3. In the new pop-up, enter the name of the report in the **Name\*** box.
4. In the **Description** box, type the description.
5. From the **Visible to Users** drop-down list, select the appropriate option with whom you want to share the report.
6. From the **Visible to Clients** drop-down list, select the clients with whom you want to share the report.
7. In the Filters section, from the **Add filter...** drop-down list, select a filter. The selected filters are displayed under the **Filter** column.
8. Select the **Prompt?** check box if you wan to display the selected filters in the report output window.
9. In the **View** tab under **Chart** section, select **Bar**.
10. In the **Each bar indicates** drop-down list, select an option.
11. In the **Further divide each bar by** drop-down list, select an option.
12. In the **Size of bar indicates** drop-down list, select an option.
13. In the **Maximum numbers of bars** to show box, select number of bars that you want to be displayed on your window.
14. Click **Save.**

## All Projects By Category And Schedule ≡



Marketing & On Time :

| Name | Deadline | % Complete | Schedule Status | Budget Status |
|------|----------|-----------|-----------------|---------------|
| Celoxis Review in magazines | 31-Oct-2012 | 65 | ● On Time | ● On Budget |
| New Website Plan | 30-Mar-2012 | 85 | ● On Time | ● On Budget |

## Scatter Chart

### To Create a Scatter Chart:

1. From the main menu, click **Reports** > **All Reports**.
2. In the new pop-up, from the **New Report** drop-down list select a report template.
3. In the new pop-up, enter the name of the report in the **Name\*** box.
4. In the **Description** box, type the description.
5. From the **Visible to Users** drop-down list, select the appropriate option with whom you want to share the report.
6. From the **Visible to Clients** drop-down list, select the clients with whom you want to share the report.
7. In the **Filters** section, from the **Add filter...** drop-down list, select a filter. The selected filters are displayed under the **Filter** column.
8. Select the **Prompt?** check box if you want to display the selected filters in the report output window.
9. In the **View** tab under **Chart** section, select **Scatter**.
10. In the **X Axis** indicates drop-down list, select an option.
11. In the **Y Axis** indicates drop-down list, select an option.
12. In the **Size of scatter indicates** drop-down list, select an option.
13. In the **Color indicates** drop-down list, select an option.
14. Click **Save**. The scatter chart is displayed.

## Calendar View

### To Create a Calendar View

1. From the main menu, click **Reports** > **All Reports**.
2. From the **New Report** drop-down list select a report template (Project or Task).
3. In the new pop-up, enter the name of the report in the **Name\*** box.
4. In the **Description** box, type the description.
5. From the **Visible to Users** drop-down list, select the appropriate option with whom you want to share the report.
6. From the **Visible to Clients** drop-down list, select the clients with whom you want to share the report.
7. In the **Filters** tab, from the **Add filter...** drop-down list, select a filter. The selected filters are displayed under the **Filter** column.
8. Select the **Prompt?** check box if you want to display the selected filters in the report output window.
9. In the **View** section, select **Calendar**.
10. **Save** the report.

## Gantt Chart

**To Create a Gantt View of your project with their tasks :**

1. From the main menu, click **Reports** > **All Reports**.
2. From the **New Report** drop-down list select a report template (Project or Task).
   If you do not which to see the tasks in the project than, you can create a report of type **Project**.
3. In the new pop-up, enter the name of the report in the **Name\*** box.
4. In the **Description** box, type the description.
5. From the **Visible to Users** drop-down list, select the appropriate option with whom you want to share the report.
6. From the **Visible to Clients** drop-down list, select the clients with whom you want to share the report.
7. On the main menu, click **Reports.**
8. In the Filters tab , from the **Add filter...** drop-down list, select a filter. The selected filters are displayed under the **Filter** column.

> To view tasks if selected projects, select filters like P:Open Projects, Projects.

9. Select the **Prompt?** check box if you want to display the selected filters in the report output window.
10. In the **View** section, select **Gantt**
11. Click **Save** to save the report. The following report will be shown :

## Project Views

You can create project reports/views which allow you to see data specific to that project.
For example, if you create a 'Bug' view, it will appear across all projects, however, when you run this from your project, you will see bugs initiated in this specific project only.

**To create a project view:**

1. Login as an user with administrative privileges and click on **Administration** under the user icon.
2. From the *Project Management* section, click on **Project Views**.
3. Click **Add** and select the type of report you wish to create.

## Project Views

Project views enable you to see project specific data like Files, Discussions, Time Logs and even view Analytics per project. These views appear as tabs under projects. To change the order drag the row.

**+ Add ▾**

| Task |
| Time Entry |
| Expense |
| Discussion |
| File |
| Task Status Update |
| Task Assignment |
| Activity Log |
| Time Phased |

**APPS**

| Bug |
| Issue |
| Risk |

**Close**

4. In the **Name\*** box, type the name of the report.
5. Fill in the other details. Select columns, filters, Sort by and Group By as per your requirement.
6. Click **Save.** The report is added to the list.  Now, when you go to a project, you will see this view in one of the tabs.

### Project : Sample: Plan Event (Manually scheduled)  [In Progress]  [⊘ Off Track]  [$ On Track]

| Project Details | **Interactive Gantt** | Bugs | Discussions | Files | More ▾ |

**+ Add ▾** | Baseline ▾ | More ▾

| ID | Name | Start | Finish | Resources | %... | Manually S |
|---|---|---|---|---|---|---|
| | ▼ **Sample: Plan Event...** | 22-Jul-16 8:00 AM | 8-Aug-16 5:00 PM | | | |
| 1 ⓘ | Prepare event b... | 22-Jul-16 8:00 AM | 22-Jul-16 8:00 AM | Sanket[0%] | 100 | ✓  are e |
| 2 | ▶ **Location** | 22-Jul-16 8:00 AM | 25-Jul-16 5:00 PM | | 100 | |

**To edit a project-specific report :**

1. Login as an user with administrative privileges and click on **Administration** under the user icon.
2. From the *Project Management* section, click on **Project Views**.
3. Click on the pencil-shaped icon besides the View name to edit it.
4. Make necessary changes and click on Save. The changes are applied to the view across projects.

**To remove a project-specific report :**

1. Login as an user with administrative privileges and click on **Administration** under the user icon.
2. From the *Project Managemen*t section, click on **Project Views**.
3. Click on the delete icon besides the View name to delete it.
4. Click on **Yes** to confirm the deletion. The view is removed across all the projects.

## Time Phased

Time phased report is a special report that allows you to view data in a time-phased manner. These report data over a defined time period with a particular zoom level. Zoom can be Day, Week or Month. For complete visibility of your resources, see our resource management section here.

**To create a Time Phased report:**

1. From the main menu, click **Reports** > **All Reports**.
2. From the **New report.**..drop-down list, select **Time Phased**.
3. In the **Name\*** box, type the name of the report.
4. In the **Description** box, type the description.
5. From the **Visible to U**s**ers** drop-down list, select the appropriate option with whom you want to share the report.
6. From the **Visible to Clients** drop-down list, select the clients with whom you want to share the report.
7. In the Filters section, from the **Add filter...** drop-down list, select a filter. The selected filters are displayed under the **Filter** column.
8. Select the **Prompt?** check box if you wan to display the selected filters in the report output window.
9. In the **View** section, under **Tabular**, select the columns and options of your choice.
   a. Choose 'Show totals only' to see totals at each level of grouping without bothering about the individual details.
   b. Choose 'Cumulative'  to see increasing quantities by successive additions.
10. Click **Save** to save the report. The created report will be displayed.

## Filtering, Sorting, and Grouping in Reports

In reports, you can filter, sort and group data by different column.

- Selecting the filters help you to streamline your search and have a quick view of the reports that you want to view.
- You can select and prompt the filters that you want to display on your report output window.
- You can do sorting in ascending and descending order.
- Custom fields can also be sorted, filtered, and grouped.
- Celoxis also provides you advanced filter options for all your reports.

For some helpful videos, click here.

**To Filter, Sort, and Group reports:**

1. From the main menu, click **Reports** > **All Reports**.
2. From the **New Report** drop-down list select a report template.
3. In the new pop-up, enter the name of the report in the **Name\*** box.
4. In the **Description** box, type the description.
5. From the **Visible to Users** drop-down list, select the appropriate option with whom you want to share the report.
   - Everyone in Workspaces: All users in the selected workspace can view this report
   - -All-: All users in the organization can see this report.
6. From the **Visible to Clients** drop-down list, select the clients with whom you want to share the report.
7. In the **Filters** tab, from the **Add filter.**.. drop-down list, select a filter. The selected filters are displayed under the **Filter** column.
8. Select the **Prompt?** check box if you want to display the selected filters in the report output window.
9. Do the following:
   - In the **Filters** tab, select one or more columns.
   - In the **View** tab, **Sort By** section, select a column from the **Available** options.
   - In the **View** tab **Group By** section, select a column from the **Available** options.
10. Click **Save**.

## Filtering in Reports

These are the conditions that must be satisfied for records to be shown. If multiple parameters are selected, only those records that match ALL conditions are shown.

**Prompt option for filters**

When you select a filter on the New/Edit report page, you can mark them as 'Prompt' filters. These are called promptable filters which means that the filters having the **Prompt?** option checked, will appear after you
run the report. This is helpful when you want to change the filter values and then see the result.

An example as seen in below screenshot would be to see Projects in Phase: In Progress phase and In Planning and Managed by the resource running the report and for some clients and category. However, after you run the report, you want to see projects of another manager OR Client OR Category. In such cases, you will have to edit the report and change the values in the filters. However, in Celoxis, you can make these filters as Promptable i.e check the **Prompt?** checkbox against that filter so that it appears even after you run the report. To see how you see the promptable filters after running the report, click here.

**Edit Task Assignment Report**                                        ⑦

Details    Filters    Output

| Type a few characters to search for a filter | ▼ |

| Filter | Prompt? ⑦ | | |
|--------|-----------|---|---|
| Task : Finish | ☑ | Last Week to This Week     📅 | ✖ |
| Task : Milestone | ☐ | No ✖     ▼ | ✖ |
| Task : Summary Tasks | ☐ | No ✖     ▼ | ✖ |
| Project : Manager | ☑ | - Running User - ✖     ▼ | ✖ |
| Project : State | ☑ | In Progress ✖     ▼ | ✖ |

[ Save ]    Close

> A special option named **Report Runner** is provided in the user drop down. When selected, this option maps to the user that is running the report. Use this for creating reports like "My Projects", "My Tasks" where a single custom report should show data depending on the user running the report. This avoids having to create a report for every user. For example, say a custom report called "Late tasks for my projects" is created with the Manager filter set to "Report Runner". When Mary runs this report she will see late tasks for projects managed by her. Similarly Jack will see late tasks for projects managed by him.

**Promptable Filters**

Celoxis lets you mark as filter as promptable which allows you to change the filter values at run time. The advantage of this is that you can change the values by clicking on the **Change** option rather than editing the entire report.

★ Who's Doing What    **Filters marked promptable**

**Click this to edit filters**

| Task : Finish: Last Week to This Week | Manager: - Me - | Project : State: In Progress | Edit Filters |

| User | Task | | Task : Start |
|------|------|---|-------------|

**Team Member** (4)

| | Design Logo ≡ | | 13-Sep-2016 8:00 AM |
| | Finalize on desgin items | | 13-Sep-2016 8:00 AM |

**Advanced Filter Options**

Celoxis also provides you advanced filter options for all your reports to help you refine your search.

For a **text** you can select

- Is Blank: **{}**
  Returns the rows where the specified field is empty.

- Is Not Blank: **!{}**
  Returns the rows where the specified field is not empty.

- Contains: **~** < your value >
  Returns the rows where the specified field contains the text mentioned in < your value >

- Not Contains: **!~** < your value >
  Returns the rows where the specified field does not contains the text mentioned in < your value >

- Starts with: **^** < your value >
  Returns the rows where the specified field starts with the text mentioned in < your value >

- Ends with: **$** < your value >

  Returns the rows where the specified field ends/finishes with the text mentioned in < your value >

- Equals: **=** < your value >

  Returns the rows where the specified field equals to the text mentioned in < your value >

- Not Equals: **!** < your value >

  Returns the rows where the specified field does not contains the text mentioned in < your value >

If it is a **numerical** value, then you can select

- Equals: **=** <your value>

  Returns the rows where the specified field equals to the number mentioned in < your value >

- Not Equals: **!** < your value >

   Returns the rows where the specified field does not contains the number mentioned in < your value >

- Greater than: **>** < your value >

  Returns the rows where the specified field number is greater than mentioned in < your value >

- Less than: **<** < your value >
  Returns the rows where the specified field number is less than mentioned in < your value >

- Greater equals: **>=** < your value >
  Returns the rows where the specified field number is greater than or equals than mentioned in < your value >

- Less equals: **<=** < your value >
  Returns the rows where the specified field number is less than or equals than mentioned in < your value >

> You can add multiple criteria in a single filter. For example, you want to find all project names starting with 'New' and ending with 'Supplier'. So, your filter will look like ^New && $Supplier.
> Similarly, if you want to find tasks which are 0% Complete or 100 % Complete, then your **% Complete** filter will look like =0 || =100.

For a **date** range, Celoxis already provides default options like Any, Today, Tomorrow, Yesterday, This Month, Next Year, All Dates Before, All Dates After... and many more. You can also enter your custom date pattern like follows:

- -2m to This Month
  Returns rows where the date range is from last 2 months to This Month (included). You can similarly say 2w (weeks), or 2y (years) or 2q (quarters)

- This Week to Next Week
  Returns rows where the date range is from current week to end of next week.

- Last month to Today
  Returns rows where the date range is from last month to today.

> Please note that broader the date range, the slower would be the performance. For e.g if you enter -2y to This Year, then Celoxis needs to fetch the data for 3 years.

## Sorting in Reports

Sorting helps you to view the data as per your requirement in ascending or descending order.

The data in reports is sorted in the order the columns are arranged. For example, in the screenshot above, the data will be first sorted by Name (of Manager) and then the Start date; in ascending order.

## Grouping in Reports

Grouping helps you :

- Organize all information under a particular subject i.e. project, client etc.
- Total numeric data. Each group displays its sub-total.
- For instance, grouping project information by client, will show the total costs and the total revenue generated from each client for their projects.

In the above screenshot, the tasks will be grouped by the Project Name and then the Finish date.

> Custom fields are also available for grouping in a report. The custom fields of type: Date, Formula (with output type Text), Single line text and Single select drop-down are available for grouping.

## Sharing Reports

You can share reports with users within your department and between multiple departments. You can also share reports with clients as well.

**To Share Reports:**

1. From the main menu, click **Reports** > **All Reports**.
2. Edit the existing report or create a new one to be shared.
3. On the New/Edit report page,
   a. Under **Visible to Users**, select the appropriate option to make the report visible to users.
      - All: The report will be visible to all users in Celoxis
      - Everyone in Workspace: The report will be visible to only users part of te selected workspace.
      - The report will be a private (not visible to anyone) when the drop-down is blank.
   b. Under **Visible to Clients**, select the appropriate client you wish to share the report with.
4. Click on Save.

## Report Security

Celoxis provides a multi level security on Reports. You can control

**Who creates reports:**
This is controlled by the **Add** Report privilege**.** You need to grant this privilege to a role who should be able to create reports in Celoxis.

## Who accesses reports:

When a report is created, there is a **Visible to Users** option. You can either create a private report (not shared with anyone), or choose to share it with all users in a Specific workspace, or share it with all users in your organization.

## What data is visible on the reports

Finally, when the report displays data, the information has its own security layer. For e.g. if a user does not

have View Financials privilege, and such a user accesses a report which contains financial information, then that user will see '*' in those columns. Similarly, if a user has privileges to see only his/her own tasks, then the 'All Tasks' report will show only the tasks assigned to that user.

## Exporting Reports

Reports in Celoxis can be exported in any of the following formats:

- HTML
- PDF
- CSV
- CSV (Grouped)

***To export a report:***

1. Run the report you want to export.
2. Click on the actions drop-down of the report and point to **Download**. The available options to download will be visible.
3. Click on the option of your choice. The report will be downloaded.

> When exporting the report to CSV, certain custom fields will show HTML tags in the file. This is because, you have applied special formatting which the Excel or the text editor cannot comprehend. To fix this,
>
> 1. Open the CSV in Excel.
> 2. Select the mentioned column and do the "Find and Replace" (CTRL + H).
>     a. For "Find What" field, enter <*>
>     b. Leave the "Replace" field blank. This will remove all the HTML tags and only show the text contained in your output.
>
> In case, you are using LibreOffice/OpenOffice, replace **<*>** with **<[^>]+>**

## Starred Reports

When you mark a report as  "starred", that report gets listed under the **Reports** main menu thus easily accessible when you wish to run it.

**To mark a report as Starred:**

1. Run the report you wish to mark as Starred.
2. Click on the

   ⭐

   besides the report name. The report is marked as Starred and will appear under the Reports menu.

> The **Reports** menu shows a total of 12 starred reports in the list. To view other reports, click on **Reports** and then **All Reports.** The **Starred** tab will show you all the other report marked as favorite.

## Resetting Filters

The options allows you to reset the selected filters, columns, grouping, sorting to the definition level; i.e the individual customizations are reverted back to the defination level.

For example, Celoxis provides a canned report "My Expenses" which shows you the expenses created by you in the current week (This Week). However, you might want to see the expenses for the entire month; which you can achieve by selecting "This Month" in the "Created" filter.

After viewing the data, you might want to set the report to its default i.e 'This Week'. The **Reset** option under the report actions **More** lets you revert back to the original filter values.

> The option will reset the filters, columns, grouping for only that user who clicked on 'Reset'. Rest all will see the Filters as set by them.

## Limits

As your data grows fetching all that data slows down the loading of your pages. In order to keep the application responsive we have enforced some limits. The table below lists the the limits, the error/warning messages and the actions you can take to reduce the data.

| Error Message | Reason and Actions required to fix it |
|---|---|
| Report exceeded limit of 15,000 records. | A limit of 15,000 rows for any report is enforced. <br><br> To fix this edit the report and add filters or use the promptable filters defined. For Example, <br><br> • In 'Project' reports, use filters such as "Manager", "Client", "Phase" or "Category". <br> • In 'Time entry' reports, use filters such as "Date", "State", "Time code". <br><br> In most cases you are interested in recent data. So the easiest way to limit data in any report is to use date filters. |
| For any Time-Phased report: Date range exceeds limit of 'n' months | The **Period** filter on the Resource Load Chart is limited based on the **Zoom** level. The value of 'n is' <br><br> • 3 months for **Day** zoom <br> • 12 months for **Week** or **Month** zoom. <br><br> You can change this or it will be enforced automatically. |
| Timesheet: Work Items exceed 1000 | The Work items on the Timesheet are limited to show 1000 records (tasks and app items on which you can fill time). |

> The Resource Load chart and the Gantt reports are not available for the dashboard as they cause performance degradation.
> These limits can be changed by the Product/On-Premise customer. For details, refer here.

## Administration

As an administrator user, you can enable/disable features as per your company requirements. Enabling/Disabling a feature can cause certain options to be hidden or shown in the application.
For example, if your company does not do "Billing", and hence, you pick - None - as your Billing model, then the associated columns like Bill Amount, Bill Rates, Billable Flag are not available in reports or task/project details page. Similarly, while creating/editing a project, the *Billing Model* field is not shown.

### Account Management
- Company Information
- Work Calendar
- Work Calendar Exceptions
    - Work Calendar Exceptions for Calendar
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### Custom Fields
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### People
- Users
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# Account Management

## Company Information

You can set company preferences as per your requirements. These are global settings and are applicable to all the users in your company irrespective of the time zone they are working in, or the currency that is used as a mode of transaction.

**To set the company information:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Account Management* section, click **Company Information**.
3. On the new pop-up window, enter the details.
4. Click **Submit**.

The following information can be edited:

**Decimal Format**
Amounts are displayed using this format.

**Currency Symbol**
This is used to display all currency amounts in Celoxis. For instance. project cost, budget, billing amounts etc.

**Time Zone**
The company's 'Default' work calendar is created with the timezone specified here. Any user created is assigned the Default work calendar which can be changed.

**Document Language**
Celoxis offers a sophisticated search capability which searches through documents.The Document Language refers to the language used in the documents uploaded into Celoxis. Searching is not limited to matching exact words. For instance, you may want to search for non-English characters such as á, é, í, ñ. In that case searching for those exact characters is also required. Currently only a few languages are supported. Instead of prompting the user for the language for each document uploaded, this setting is assumed for all documents uploaded into Celoxis. The documents must also be encoded using UTF-8.

**Week Starts On**
In some countries the first day of the week is Sunday while others it is Monday. This is used for displaying information in Calendar format such as in the Calendar, Time sheet and Project Calendar and Calendar style reports.

**Company Code**
There could be a rare occurrence in our hosted version where two users from different companies have the same log in name and password. At such time the user is prompted to enter this to identify the company they belong to.

## Work Calendar

Celoxis allows you to create work calendars for your users who may work in different time zones or have work timings. Celoxis creates 1 work calendar called "Default". This will have the timezone that your company account was set up for. The default work timings for this are set up as Mon-Fri, 8 AM-12 and 13-17. Celoxis will schedule the tasks according to the resources working calendar.

**To create a work calendar :**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Work Calendars.**
3. Under the **Work Calendars** tab, click on **Add**.
4. Enter a suitable **Name** for the calendar.
5. Select the appropriate **Time Zone**.
6. Enter the Work Timings for the calendar. You need to enter time as 9:00 - 13:00, 14:00 - 18:00 with the 1 hour break. Do not enter anything for Off-days.
7. Click on Save.

**To edit a work calendar** :

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Work Calendars.**
3. In the new pop-up, besides the work calendar, click on the Edit icon (pencil-shaped).
4. You can edit the Name, Time Zone, Work Timings.
5. Click on **Save**.

**To delete a work calendar :**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Work Calendars.**
3. In the new pop-up, besides the work calendar, click on the delete icon.
4. A confirmation message is shown to confirm your deletion. Click on **Yes** if you want to delete the calendar.

- You can create multiple calendars with different work timings and timezones.
- A user is associated with only one work calendar.

- Deleting a work calendar will move the users under it to the Default work calendar.
- Editing or Deleting a Work Calendar will reschedule all the incomplete tasks assigned to the resources based on the new work calendar or its changes.
- The default Calendar cannot be deleted.

## Work Calendar Exceptions

A work calendar exception is a way to mark out a chunk of time as an exception to what is defined as the rule. You can create Working exceptions or Non working exceptions. These can be defined for a Work Calendar or for a User.

- For example, a user is on vacation for 2 days (Monday/Tuesday). His/her regular work calendar considers Mon/Tue as "working". So you have to create a "work calendar exception" for that user and mark his/her Mon/Tue as "non-working".
- Or you use a work calendar exception to mark a regular "non working" time as "working". For e.g., One of your users works on every Saturday. You will define a work calendar exception for that user to mark his/her Saturday as "working".
- Similarly, 25th Dec which say happens to fall on a Monday is to be flagged as a Company Holiday. So you have to define a "work calendar exception" to mark this day as a "non-working" day for the Work Calendars applicable.

Celoxis schedules tasks after factoring work calendar exceptions.

- Work Calendar Exceptions for Calendar
- Work Calendar Exceptions for Resource

### Work Calendar Exceptions for Calendar

**To add Work Calendar Exceptions for Work Calendar:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile
2. Under the *Project Management* section, click on **Work Calendars.**
3. Navigate to the **Exceptions** tab.
4. Click **Add**.
5. From the **For** drop-down, select the Work Calendar for whom you want to enter an exception.
6. In the **Summary** box, type the details of your event/exception.
7. From the **Impacts Scheduling** drop-down list select an option - Working / Non working.
8. From the date picker select a date. You can create the event for a whole day or for a specific time (un-check the **All Day** checkbox).
9. From the **Repeat** tab, select an appropriate option.
10. Click **Submit**. The exception is added.

**To delete Work Calendar Exceptions**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Work Calendars.**
3. Navigate to the **Exceptions** tab.
4. For the exception you wish to delete, click on the delete icon.
5. Confirm the deletion by click on **Yes**. The exception is deleted.

Adding or Deleting work calendar exceptions would impact the task schedule. For example, if you make a working day as Non-working, then the task's finish date will shift to the next available date. Similarly, if you make a Non-working day as working, the task will be re-scheduled to finish earlier.

### Work Calendar Exceptions for Resource

**To add Work Calendar Exceptions for User :**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Work Calendars.**
3. Navigate to the **Exceptions** tab.
4. Click **Add**.
5. From the **For** drop-down, select the user for whom you want to enter an exception.
6. In the **Summary** box, type the details of your event/exception.
7. From the **Impacts Scheduling** drop-down list select an option - Working / Non working.
8. From the date picker select a date. You can create the event for a whole day or for a specific time (un-check the All Day checkbox).
9. From the **Repeat** tab, select an appropriate option.
10. Click **Submit**. The exception is added.

## Set Company Holidays

After setting up company Work Calendars in Celoxis, one should set up the Company Holidays for the different work calendars. Celoxis schedules tasks around company holidays. For instance, assuming that 25th December is a holiday for Christmas, a task scheduled to start on 24th December of duration 2 days will finish on the 26th and not on the 25th.

Celoxis allows you to set your holidays as Work Calendar Exceptions. Company holidays can be setup for specific Work Calendars or across all Work Calendars.

**To add a Company Holiday:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Work Calendars.**
3. Navigate to the **Exceptions** tab.
4. Click **Add**.
5. From the **For** drop-down, select 'Everyone'.
6. In the **Summary** box, type the name of your Holiday.
7. From the **Impacts Scheduling** drop-down list select option - Non working.
8. From the date picker select a date. You can create the event for a whole day or for a specific time (un-check the **All Day** checkbox and select the **From** and **To** dates).
9. Select the check box **Time zone independent** if you want the holiday to be on that specific date, regardless of the time zone.
10. From the **Repeat** tab, select an appropriate option.
11. Click **Submit**. The exception is added.

## Upload Company logo

You might want to customize your Celoxis login to show your company logo. This logo appears in the email notifications also.

**To change the Celoxis logo**:

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Account Management* section, click on **Upload Logo**.
3. Select the logo image. Ensure that the logo file is in dimensions as mentioned in the pop-up (Recommended Logo dimension: 136px x 50px)
4. Click on **Apply**.

## Custom Fields

Depending on your industry and business practices you may need to capture additional information for projects and tasks.

For example, a company may wish to capture custom stages in the project, or they may want to know the project overruns. Celoxis provides the ability to create custom fields to capture any such information.

- Custom fields can be attached to Project Categories, Tasks, Workflow processes, Workflow state Transitions, Users, Contacts and Clients.
- Celoxis allows you to define a custom field and then determine what entities that field can be attached to thus increasing reusability, maintains uniformity and reduces maintenance.

You can create custom fields of the following type :

- **Currency**: A numeric field with decimals which when displayed will be prefixed with the currency symbol.
- **Date**: A date field. Includes a convenient calendar picker for the user.
- **File Chooser**: A file attachment field.
- **Formula**: A field whose value can be computed based on that of other attributes.
- **Multi-line Text Area**: A field which allows you to enter rich text.
- **Text**: A single line text field.
- **Multi-select drop-down**: A drop down that allows multiple options to be picked.
- **Numeric (No Decimals)**: A numeric field without decimals.
- **Numeric (With Decimals)**: A numeric field with decimals.
- **Single-line Text**: A textual field allowing you to enter text data.
- **Single-select Pick List**: A drop down that allows only one option to be picked.

## Adding/Editing/Deleting Custom fields

**To add custom fields:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Account Management* section, click on **Custom Fields.**
3. On the **Manage Custom Fields** pop-up, click on **Add**.
4. Select an appropriate type of custom field you want to create.
5. In the **Add Custom Field**, type name in the **Name**\* box.
6. In the **Formula Key**\* box, type the formula key.

Formula Key should be unique, must start with a letter (capital or lower case) and can contain underscores and numbers. It should not contain special characters like #,!, etc and should not start with a number. This key is used when referencing the custom field in API.

7. Under the **Attached to** tab, select the appropriate entity.
8. Fill in other details and click **Save**.

Some important points to note:

1. A custom field when attached to an entity will appear on its details page.
   For example a custom field attached to a User will appear on its details page.
2. The value of the custom field can be viewed from the details page. You will be able to enter/edit its value its from the 'Custom Fields' tab by editing that entity.
3. Only a custom field of type Multi-select drop-down can be attached to a Task.

**To edit custom fields:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Account Management* section, click on **Custom Fields.**
3. Point to a custom field, and click on the Pencil icon to edit the field.
4. In the new popup, edit the required details under the different tabs (**Basic** and **Attached To**) and click **Save**.
   The custom field is saved with the new changes.

**To delete custom fields:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Account Management* section, click on **Custom Fields.**
3. Point to a custom field and click **Delete** icon.
4. Confirm the deletion by clicking on **Yes**. The custom field is deleted.

## Re-ordering Custom fields

You can decide the custom fields order as you want them to appear on the details page. The **Reorder** function  on the custom field page, lets you do this.

On the Reorder page, drag-drop the custom fields in the order you want them to be seen on the details page.

For example, you have created 3 custom fields : Risk, Risk Impact, and Risk Likelihood for you tasks and this is the order you want them to be seen on the details page or when entering data. In such case, you can Re-order them to first see Risk Impact, Risk Likelihood and Inherent Risk.

## Security on Custom Fields

Sometimes, you need to store some financial information for a project but, keep it hidden from your project clients or team members. Celoxis allows you to create such custom field.

When creating a custom field, you will see a **Requires financial privilege to view?** check-box; which when checked, will only show the data in the custom field to users having financial privilege resulting in the client not viewing the details as they do not have Financial privilege.

> The users playing the role where the **View Financials** privilege is granted will be able to view the data in this custom field.
> Only the users having the **Edit Financials** will be able to edit the data in this field.

## Formula Fields

A Formula Field is a type of custom field, whose value is automatically computed by Celoxis based on the formula's logic. It enables users to define complex data manipulations and perform arithmetic, logical or conditional operations, which are all calculated at run-time.

> 1. Formula fields are read-only for all users.
> 2. For this reason, formula fields will not be displayed when editing records.  The value of the formula is only calculated after the record is saved. Formula fields can be viewed in Reports as columns.
> 3. You can also filter in Reports based on formula fields.

Let us say your business practice is to take 10% of the budget as an advance. Instead of manually computing it and changing it every time the budget changes, you would like to define a formula field that will compute it as 10% of the budget. To further complicate the scenario, let us assume that your policy is to take an advance of 10% for projects with budget up to $1000 and 15% above that. This further increases the chances of errors in manually computing this field. This is where formula fields come to the rescue.

You could use a currency field which managers will fill when creating or modifying projects. The problem is that managers must manually calculate the advance from the budget and remember to change it every time the budget changes. This is error prone. To make things a bit more complicated, assume that the policy is to take an advance of 10% for projects with budget up to $1000 and 15% above that. This increases the chances of errors. This is where formula fields come to the rescue. You would create a formula field called say 'Advance amount'. On the same, you will define the formula

${entity.budget <= $1000 ? entity.budget * .10 : entity.budget * .15}

For a project with a budget of $500, the advance amount will show $50 (10% of $500) while that for a budget of $5000 will show $750 (15% of $5000).

> Since custom fields can be attached to task, project category, user, client, contact, state transitions, they are referred to with the handle 'entity'. If the field is attached to a task, 'entity' will translate to 'task'. If the field is attached to a project, 'entity' will translate to project and so on.

Formula fields have many benefits :

- The value of this field is auto-calculated from the formula and is not entered by the user, thus avoiding errors.
- The amount will be automatically updated when the budget changes.
- Most importantly, if the policy changes all you need to do is update the formula. The advance amount for all projects will automatically reflect the new value.

> You can also filter, sort and group reports using the formula fields.
>
> If your formula field returns multiple values, it will not appear as a option when creating chart reports.

## Syntax

Formula fields can either be

- Expressions as in ${entity.budget * 0.10} where entity is the project OR
- contain a mix of expression and text as in The Project ${entity.name} was created on ${entity.created}.
  This will print the output as : The Project Sample Project - Office Setup was created on Thu Jun 20 08:30:16 EDT 2013.
- contain a mix of expression and text as in <a href="http://mywikiserver/project/${entity.id}>Wiki Link</a>.
  This will print 'Wiki Link' as the output which is hyperlinked with the link substituted with the entity's ID.

When formulas are evaluated, anything enclosed in ${..}is treated as an expression and evaluated. Everything outside it is copied to the output verbatim as is.

- ${entity.budget} will display the budget of the entity.
- {entity.name} will be printed as {entity.name} in your report or the details page.

You can also use conditional logic in the formula.

## Operators and Literals

### Operators

In addition to the . and [] operators, the expression language provides the following operators:

- **Arithmetic**: +, - (binary), *, / and div, % and mod, - (unary)
- **Logical**: and, &&, or, ||, not, !
- **Relational**: ==, eq, !=, ne, <, lt, >, gt, <=, ge, >=, le.
  Comparisons can be made against other values, or against boolean, string, integer, or floating point literals.
- **Empty**: The empty operator is a prefix operation that can be used to determine whether a value is null or empty.

The precedence of operators highest to lowest, left to right is as follows:

[] .
() - Used to change the precedence of operators.
- (unary) not ! empty
* / div % mod
+ - (binary)
< > <= >= lt gt le ge

== != eq ne
&& and
|| or
? :

**Some Examples**:

| Formula | Output |
|---|---|
| ${5 + 3} | 8 |
| ${5 - 3} | 2 |
| ${5 / 3} | 1.67 |
| ${5 * 3} | 15 |
| ${5 % 3} | 2 |
| ${5 > 3} or ${5 gt 3} | Yes |
| ${5 >= 5} or ${5 >= 5} | Yes |
| ${5 < 3} or ${5 lt 3} | No |
| ${5 <= 5} or ${5 le 3} | Yes |

### *Literals*

The JSP expression language defines the following literals:

**Boolean**: true and false. For example, ${entity.critical == true}, where entity is a task
**String**: with single and double quotes; " is escaped as \", ' is escaped as \', and \ is escaped as \\.
**Null**: null

## Conditional Logic

You can perform conditional logic in the formulas. This is done using the syntax

**${**BOOLEAN CONDITION **?** If true, DO THIS **:** Else, DO THIS**}**

Boolean condition means any condition that evaluates to true or false. The question mark (?) indicates the end of the condition. If the condition is true, expressions to left of the (:) are evaluated. If the condition is false, the expression to the right of the (:) are evaluated. You could nest the conditions. This means that the 'If true' and 'If false' blocks could themselves be conditions.

The formula below will check if the actual cost of a project exceeds 90% of its estimated cost and would print 'Cost Alert!' if it exceeds and 'Cost OK' if it does not.
${entity.actualCost > (entity.estCost * .9) ? Cost Alert! : Cost OK}

Example of an nested condition :

```
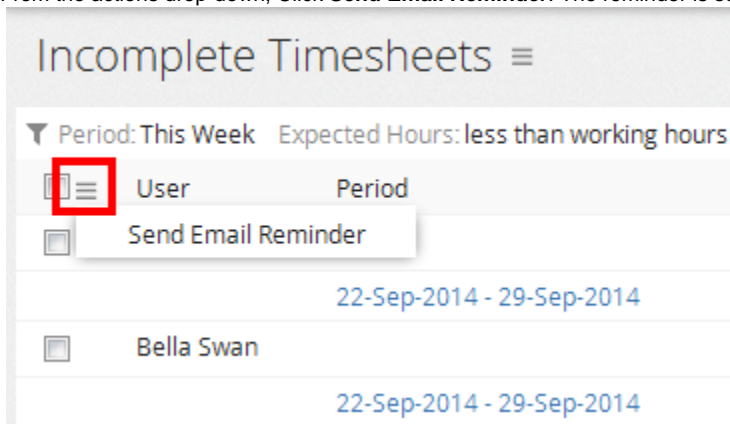${
   entity.risk_impact == 1 ? 'High' : ' ' ||
   entity.risk_impact == 2 ? 'Normal' : ' ' ||
   entity.risk_impact == 3 ? 'Low' : ' '
}
```

This formula will print High if the task's impact is 1, similarly Normal when 2 and Low when 3.

**Using custom fields created by you**
You can use custom fields created by you in formulas as well. You have to use the 'Formula Key' to refer to them. This is the unique 'key' that you define when defining a custom field. In the above example, Risk_Impact is a formula key of a custom field defined by a user.

To find the formula key, refer here.

## Functions

A few predefined functions are also available. The purpose of these will be obvious as stated below:

| Variable | Usage | Description |
|---|---|---|
| formatDate | ${formatDate(entity.start)} | Prints a project date as per the format specified in the viewer's preferences. |
| Date.format | ${Date.format(entity.startCalendar, "MM-MMMM")} | Prints the Month of project's start date. 11-November |
| formatDateTime | ${formatDateTime(entity.start)} | Prints project date and time as per viewer's preferences. |
| formatCurrency | ${formatCurrency(entity.budget)} | Prints a currency field prefixed with the currency symbol as specified in the company profile. |
| formatNumber | ${formatNumber(entity.bcws)} | Prints a number as per the viewer's locale. Especially useful when printing floating pointing number. |
| hoursToHHMM | ${hoursToHHMM(entity.estimatedHours)} | Prints hours in the form HH:MM. For example, ${hoursToHHMM(3.5)} will print 3:30 |
| ceil | ${ceil(5.3)} | Returns the nearest integer larger than the input. For example ${ceil(5.3)} will return 6 |
| floor | ${floor(4.8)} | Returns the nearest integer smaller than the input. For example ${floor(4.8)} will return 4 |
| abs | ${abs(-3.2)} | Returns the absolute value of a number. For example ${abs(-3.2)} will return 3.2 |
| round | ${round(3.6)} | Returns the rounded value of input. For example ${round(3.6)} will return 4 |
| Date.now() | ${Date.now()} | Prints today's date. |
| entity.created | ${entity.created} | Prints the created date of the entity. For e.g, the date when a project was created. |
| Date.addDays(Date, days) | ${Date.addDays(entity.Create_Invoice_Date, 30)} | Prints the date after adding the entered days. For example, Create_Invoice_Date is a custom field having a date 13-Oct-2015. So adding 30 days will result in 13-Nov-2015. |

## Field References

When defining a formula custom field, one can reference the variables defined by Celoxis and the custom fields defined by you. To refer to a list of available variables, you can access the **Field Reference** tab. Click on the plus icon to expand the list of available variables for the various entities.

Let us see an example: You are creating a custom field which will calculate a new budget depending on your Client's markup %.

${entity.budget * entity.client.client_percentage}

where client_percentage is the formula key of the custom field attached to a client where you enter the client's markup.

## Add Custom Field : Formula

?

Basic     Attached To     Field Reference

| Field | Variable |
|-------|----------|
| BCWS | entity.bcws |
| Benefit | entity.benefit |
| Billing Model | entity.chargingModel |
| Budget | entity.budget |
| Budget (Baseline) | entity.baselineProjectBudget |
| Client | entity.client.name |
| Client : % of Client | entity.client.client_percentage |
| Client : Email | entity.client.email |
| Client : Last Access | entity.client.lastAccess |
| Client : Login | entity.client.loginName |
| Client : Parent | entity.client.parent.name |
| Client : Phone | entity.client.phone |

Save     Cancel

### Error handling

If the formula has a syntax error it is reported while adding/editing the formula fields. However, other errors cannot be determined until runtime and hence you will see ERR! while viewing the fields in reports and other places. You can move your mouse over the icon to see the exact error message.

You can then edit the formula and fix it.



From the error message in the screenshot you can see that the formula returns a value which cannot be converted to a date. Hence, the application shows a message accordingly. You now, need to edit the formula to select the appropriate **Formula Data Type** for fixing this.

### Some examples

Assume that we have a project with the following data.

| Field | Data |
|-------|------|
| ID | 1234 |
| Name | Sample Project: Setting up office space |

| Start | June 10, 2011 |
|---|---|
| Manager | Mark Duncan |
| Budget | 5000 |
| Cost (Est) | 4000 |
| Cost (Actual) | 3800 |

Based on this data, the table below shows sample formulas, the output of that formula and also provides an explanation.
Examples of the formula field

| Formula | Output (In Browser) | Explanation |
|---|---|---|
| ${entity.id * 10} | 12340 | Id is multiplied by 10. |
| entity.id * 10 | entity.id * 10 | Not enclosed in ${} and hence copied to the output verbatim. |
| ${10* 10} | 100 | Formulas need not use variables. |
| <b>${entity.name}</b> | **Test Project** | You can use html tags. |
| ${entity.name + 100} | ERR! | Cannot perform arithmetic on String type. |
| <a href="http://mywikiserver/${entity.id}"> Wiki Link</a> | Wiki Link | If you use a Wiki, you can create hyperlinks to pages in your Wiki. Notice that we have simply used the HTML Anchor tag to generate a hyperlink. |
| ${entity.abcd} | ERR! | Formula contains error. No variable entity.abcd exists. |
| ${formatDate(entity.start)} | Jan 10, 2011 | Formats the start date as per the user's date format style. |
| ${entity.actualCost > (entity.estimatedCost * .9) ? 'Cost Alert!' : 'Cost Ok'} | Cost Alert! | If...then.. logic |
| ${formatCurrency(entity.budget)} | $ 5,000 | Assuming your currency symbol is $ |

Now, lets try creating some formula using custom fields and using some logic :

- **Accessing a custom field attached to Client in a formula attached to Task.**
  Let us say that you have a requirement to flag all tasks in a project where the custom field of client is rated as 1 as your 'High' priority tasks, 2 as 'Normal' tasks and 3 as 'Low' priority tasks. There is a custom field for Client which rates the client as 1 or 2 or 3 depending on the client's value to your business. The custom field is called 'Rating' and has a formula key 'client_rate'. Now, you need to create a custom formula field on task. Let us name this 'Task Importance'. The formula will look like this :
  ${entity.project.client.client_rate == 1 ? (High) : ' ' || entity.project.client.client_rate == 2 ? (Normal): ' ' || entity.project.client.client_rate == 3 ? (Low) :' '}

  Now if display 'Task Importance' column in a task report and you will know the importance of the task and can follow up accordingly.

- **Date Arithmetic**
  Let us assume that one of the projects where you are a PM has completed. Now, you want to compare which of your resources, took more days to complete their task.
  For this, you need the Finish(Actual) date (entity.actualFinishCalendar) of the task and the planned finish date of the task (entity.finishCalendar).
  Since, these two fields are of type date, you cannot perform a direct operation on them.  You need to convert them to a number and then perform the operation. So, the formula will look like:
  ${(entity.finishCalendar.time.time - entity.actualFinishCalendar.time.time)/86400000}

  When you write **".time.time"** it means that the date field is first converted to milliseconds for both the fields, then the subtraction is done. The result is again in milliseconds which needs to be converted again in days and hence, it is divided by 86400000. The result is the extra or less days taken by the resources to complete the task. The PM can pick this custom field as a column in a task report to see the difference.

**Define your own Visual Indicators**

Your company may have a different logic on how a budget/schedule status for your task/project is calculated. Lets take an example that you actually want the schedule status to show the status depending on the baseline dates; instead of the projected dates. To create such a field, do the following:

a) You need to create a formula field which will have the below formula
b) The Output type of the custom field will be **Text**.
c) Attach the custom field to 'Task' or the entity for which you want to create the custom field.
d) The field references like entity.projectedFinishCalendar.time.time, entity.baselineFinish.time, etc can be taken from the Field References tab.

```
${set ("label", 'Unknown')}
${set ("label", entity.projectedFinishCalendar.time.time <=
entity.baselineFinish.time && entity.percentComplete!=100 ? 'On Time' :
label)}
${set ("label", entity.percentComplete!=100 && Date.now().time >
entity.baselineFinish.time ? 'Overdue' : label)}
${set ("label", entity.projectedFinishCalendar.time.time >
entity.baselineFinish.time && Date.now().time < entity.baselineFinish.time
? 'At Risk' : label)}

${set ("color", 'Neutral')}
${ set ("color", label eq 'On Time' ? '#008000' : color)}
${ set ("color", label eq 'At Risk' ? '#FFA500' : color)}
${ set ("color", label eq 'Overdue' ? '#FF0000' : color)}

<span class="label label-outline" style="border-color: ${color}; color:
${color};">${label}</span>
```

## People

- Users
- Clients

## Users

- Licensed Users
- Virtual Users
- Adding / Editing a User
- Deactivating a User
- Importing Users

### Licensed Users

Only users with login credentials can logon and access the application and are referred to as Licensed users. Such users can use all features of the system such as create projects, view tasks assigned to them, update the status of tasks, fill time / expenses, upload documents and so on. They receive email alerts for various actions within the system e.g when tasks are assigned to them.

Once, a licensed user is created, an automatic email is sent to the user with the login credentials.

### Virtual Users

These are users that do not have a login and hence will not be able to access Celoxis. You can have an unlimited number of such users. Reasons to add such users are listed below:

- At times non-human resources like computers, conference rooms and other equipment/machinery may need to be booked prior to use. They may even have a cost associated with their use. By assigning tasks to these resources Celoxis can determine their availability and adjust project plans accordingly. If applicable, the project cost is also updated.
- While planning for projects at times one does not know who will be working on it. This will depend on the availability of a resource at that time. What is known is the job function needed for the task, for instance, Java developer, Architect, Supervisor. You can create such resources and assign tasks to them. At the appropriate times these resources can be replaced by specific users.
- If you specify an approximate cost for these resources, the estimated project cost calculated by Celoxis will be more realistic.
- The other benefit of this is that you can look at resource charts for these virtual resources and ensure that you have the right capacity in

the future.

What all can an virtual user do in Celoxis:

1. Receive all assignment related email notifications - task, discussions, etc if an email address is specified.
2. Users with proxy privilege can fill time for virtual users. Virtual resources can themselves fill progress updates/time on task via email. For details, click here.
3. Can participate in discussion via email.
4. Add comments to app items via email.

---

- For creating a virtual user, leave the **Login**, **Password**, **Confirm Password** fields blank.
- Once a virtual resource is converted to a licensed user, an automatic email is sent to that user with the login details.

---

### Adding / Editing a User

Only users with administrator privileges can add/edit other users.

**To add a User:**

1. From the main menu, click on **Add** and point to **New User** under User.
2. In the new pop-up, select the **Create Like User**. By default, the logged-in user's name is populated in the drop-down.
   The following details of the user will be copied over to the new user:
   - Work Calendar
   - Keywords
   - Cost Rate
   - Bill Rate
   - Custom Fields data
   - Security: Workspace: Roles, Administrator privilege.
   - Dashboard reports
   - Preferences
   - Favorite reports of the user (Shared reports i.e reports which are not private).
   You can make changes before saving the new user.
3. Click **Save**. The new user is added.

---

- When you add users, an email is sent to them with instructions on logging in to Celoxis.

---

**To edit a single User:**

1. From the main menu, click on **View** and click on **Users**.
2. Point to the user and from the actions menu   click on **Edit**.
3. In the new pop-up, edit the required information and click **Save.**  The changes are saved.

---

- When you edit a user to change password, the user receives an email that the password was changed. The email does NOT contain the new password. You need to update the customer with the new password separately.
- When creating Virtual users, all you need to do is create a user without Login and Password.
- When you convert a virtual user to a login-able resource i.e provide login details, an email is sent to the new user.

---

**To edit users in bulk:**

1. From the main menu, click on **View** and click on **Users**.
2. Select the users whose below attributes you wish to edit and click on **Edit** from the  option.

The following attributes can be modified. You need to select the checkbox besides the option to set the new value. You can check multiple options at one time.

    a. **Administrator Privilege**: You can mark the selected users can Admin users or not with this option.

    b. **Change Roles**: Assign the Workspace :: Role to the selected user. The earlier assignments are removed.

    c. **Dashboard like:** The dashboard of the selected users can be set with this option. You need to pick the user whose dashboard will be copied.

    d. **Work Calendar:** Change the Work Calendar of the selected resources. The existing active task will be rescheduled to reflect this change.

    e. **Cost Rate ($/Hour):** Specify a cost rate to the selected users.

    f. **Custom Fields**: All custom Fields attached to a User are available.

3. Click on **Save**. The changes are applied to the selected users.

## Deactivating a User

Celoxis does not delete users from the application; instead, they are deactivated. This is because a lot of data associated with the resource (documents, discussion posts, timesheets and status updates) forms a part of an organization's knowledge base and needs to be preserved. Deactivating the licensed users frees up their license and you can use that license for a new user.

**To deactivate a User:**

1. From the main menu, click on **View** and under **People** section, click on **Users**.
2. From the actions drop-down beside the user name, click on **Deactivate.**
3. From the drop-down, select the user to whom all the current responsibilities of the user being deactivated need to be re-assigned.
4. Click **Deactivate**. The resource is Deactivated.



The responsibilities of the user being deactivated include the following:

1. Open Projects where the user is the PM.
2. Open tasks assigned to the user.
3. States in Apps where the user plays the State Manager role.
4. App items assigned to the user.
5. Role memberships for Projects and Apps.
6. User-specific data like events, contacts, etc. are deleted.

- Only a user with administrative privileges can perform this operation.
- The Deactivated User cannot log into the system.
- You can reactivate a deactivated resource if you have available licenses.
- If you do not wish to reassign the responsibilities of the user you wish to deactivate, you can simply clear off the login details of the user. This will free up your license, and the responsibilities will still be under the original user.

## Importing Users

### Importing Users from CSV

If you have a list of users in a CSV, Celoxis provides you with quick way of importing them thus saving you time and effort.
How does it work?

While importing, Celoxis prompts you to map the relevant fields from the CSV with the fields available in Celoxis.

- There are some mandatory fields in Celoxis like, "Name" and "Email address".
- Other optional fields like login (not required for generic users) can be mapped as per your requirement.
- You can also map the custom fields created for users through the CSV file. For e.g the Date of Birth, Anniversary Date, etc.
- You can ignore or skip starting rows in the CSV by mentioning them under the Number of Top rows to skip box.
- You can also choose the required date format in Celoxis.

**To import Users:**

1. From main menu, click on **View** and under **People** section, click on **Users**.
2. From the action drop-down

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   click on **Import CSV.**
3. Click **Browse** and select a file.
4. Click **Next**.
5. Select the **Workspace** under which you want to import these users. The users by default will play 'Staff' role in that department.
6. Under the **Field Mapping**, map the fields of your CSV file with the fields provided. You can now map the custom fields created for a user through the CSV file.
7. In the **Number of Top rows to skip** box, enter the number of rows you want to ignore.
8. From the **Input Date Format** drop-down list, select a date format.
9. Click **Finish**.

You can view the sample file for the CSV import on the Import CSV page (step 3) by clicking on the Sample CSV link.

### Exporting users

Celoxis allows you to export the list of users in one of the following ways:

- HTML
- PDF
- CSV
- CSV (Grouped)

**To export user list**:

1. Select the columns of your choice.
2. From the action drop-down

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   point to **Download** and select the format you want the report to be expected.

## Clients

Clients are people/organizations for whom projects are done. Client accounts are different from user accounts in that they are free and hence have limited functionality and Celoxis does not notify clients when their accounts are created. You must inform clients.

Clients can

- View their projects,
- check project status,
- Initiate and participate in designated project discussions
- Upload/download documents (shared with them) from a designated project folder.

You can further limit what the client can see/do. A special client (**Internal**) is created for internal projects.

> **Client accounts are FREE irrespective of whether they have a log in or not.**

**To add/edit a Client:**

1. From the main menu, click on **Add** > **Client.**
2. In the new pop-up window, enter the login credentials : Login, Password and Confirm Password. These fields can be left blank if you do not want the client to login.
3. Enter the other details like the Name, Email, Phone, Time Zone, etc
4. Under the **Client Hierarchy** drop-down, select the parent client if you are creating a child client. For more on client hierarchy, refer here.
5. Fill in other details under the different tabs.
6. Click **Save**.

> A Client can configure his/her own dashboard by clicking on the **Dashboard** tab to see reports after logging in. The client will only see those reports which are shared with them.

### Defining your client hierarchy

In Celoxis, clients can be arranged in an hierarchy.



Client Hierarchy

**To define your Client hierarchy:**

In the above example Express Pty Ltd is an Client with 3 client users (John, B Parry, Smith)

1. First, create an client without login credentials for the client company (Express Pty Ltd).
2. Now, create the client users (For e.g. John).
3. For this login, under the **Client Parent** select the client company name (Express Pty Ltd).
4. Fill in the other details.
5. Click **Save**.

## Setting up Client Privileges

Celoxis allows you to actively involve your clients when executing projects. You need to first configure your client accounts to decide if you wish to share your task / project information (excluding financial information) with them. You can let them view progress updates and even perform progress updates on tasks.

**Allow client to view task information, excluding financial information.**
Selecting this option will allow you to share your task list with the client.

**Allow client to view details of progress update on tasks.**
When your clients are actively involved in the project, they would want to keep themselves abreast / well-informed of the latest developments. As the team members update the progress, your clients may want to view the details of the updates on some specific tasks / all tasks in order to make sure that the project is moving as per plan. This setting would let your clients view the details of progress updates done on tasks by the project team.

**Allow client to do progress update on tasks.**
In some rare scenarios, your client's involvement in the project may be so high, that they may want to decide for themselves whether the activities in the project are proceeding as per the schedule. In such a case, you may want to assign this privilege to your clients. If your clients feel that a task is not fully completed or some significant changes need to be made to a particular task, they can change the updates done by team members on the tasks. While updating the task progress, clients can also add their comments pertaining to the task which notifies the resources of the probable actions to be taken.

**To assign these Client Privileges:**

1. From main menu, click on **View** and under **People** section, click on **Clients**.
2. Point to a Client and click **Edit** from the **Actions** drop-down list.
3. In the **Security tab**, select the privileges you want to give to the client.
4. Click **Save**.

> Even when you grant the above privileges to the client, you still need to share the reports like the 'Tasks' report, etc so that the client can see the tasks in the project. To read about how to do that, click here.

## Deactivating a client

Celoxis allows you to deactivate a client instead of deleting them. This is because a lot of data of the client is present which needs to be preserved. Once you deactivate a client, all its sub-clients are also deactivated.

**To deactivate a Client:**

1. From the main menu, click on **View** > **People** > **Clients**.
2. On the displayed page, point to a client, and from the actions drop-down click, **Deactivate**. You will be prompted to select a new client to reassign the responsibilities.
3. Select the client and click **Deactivate**. The client will be deactivated and will not be able to login to Celoxis.

The following responsibilities of a client will be assigned to the new client:

- Open Projects
- Open app items
- Open Discussions

> You can reactivate the user by clicking on the action drop-down of the client and then click on **Reactivate**.

## Importing/Exporting Clients

### Importing clients via CSV

Celoxis provides you with importing clients from spreadsheet which saves a lot of your time and effort.
How does it work?

While importing, Celoxis prompts you to map the relevant fields from the CSV with the fields available in Celoxis.

- There are some mandatory fields in Celoxis like, "Name" and "Email address".
- Other optional fields like login (not required for generic users) can be mapped as per your requirement.
- You can also map the custom fields created for users through the CSV file. For e.g the Date of Birth, Anniversary Date, etc.
- You can ignore or skip starting rows in the CSV by mentioning them under the Number of Top rows to skip box.
- You can also choose the required date format in Celoxis.

**To import Clients:**

1. From main menu, click on **View** and under **People** section, click on **Clients**.
2. In the new page, from the action drop-down click on **Import CSV**.
3. Click Browse and select a file.
4. Click Next.
5. Under the Field Mapping, map the fields of your CSV file with the fields provided. You can now map the custom fields created for a user through the CSV file.
6. In the **Number of Top rows to skip box**, enter the number of rows you want to ignore.
7. From the **Input Date Format** drop-down list, select a date format.
8. Click Finish.

> You can view the sample file for the CSV import on the Import CSV page (step 3) by clicking on the Sample CSV link.

### *Exporting clients*

Celoxis allows you to export the list of clients in one of the following ways:

- HTML
- PDF
- CSV
- CSV (Grouped)

**To export user list**:

1. Select the columns of your choice in the Client report.
2. From the action drop-down

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   point to **Download** and select the format you want the report to be expected.

## Client Collaboration

Client collaboration in Celoxis is an effective way to share your project plan, documents and reports with the client while planning and executing a project. It helps you to seek approval from the client on various activities related to the project. You can collaborate on documents and conduct online discussions with the clients. If you are using work flows in Celoxis for your business processes like issue / change request, approval processes etc., your clients can participate in these processes.

Let us look at how you can leverage client collaboration for enhancing project deliveries.

- Share information with your clients on their tasks / project, progress etc
- Invite them to work on documents
- Participate in discussions
- Participate in project processes

- Share Information with your clients
- Work on Documents
- Participate in Discussions
- Project Apps

### *Share Information with your clients*

During the life of a project, there is a lot of information that you may require to share with your client. Celoxis allows you to define any report and "share" it with a specific client or with all clients. A report shared in this manner will appear in the list of reports when the client logs into Celoxis. The client can customize their own dashboards to display any of these shared reports. All information EXCEPT financial information can be shared with your client. Financial information for example is, cost, rates, billing amounts or the custom fields which you mark as financial field.

**To share reports with clients:**

1. From the main menu, click **Reports** > **All Reports**.
2. Edit the existing report or create a new one to be shared.

3. On the New/Edit report page, under **Visible to Clients**, select the appropriate client you wish to share the report with.
4. Click on Save.

### *Work on Documents*

On numerous occasions you may require to share documents with your client and get their inputs. You may need to get their inputs on sections in the document, or have them actually edit versions of the same. To share a document you must make them client visible when uploading the document. Only those documents that are marked 'shared with client' will be visible to the client. Clients can download the document, make amendments and upload a new copy and version control. Since document changes are versioned automatically you will know if and when a document is modified by the client and you can always retrieve the old copy to compare it with the changes made to the new one.

## To mark a document Client Visible:

1. Go to your Project.
2. Click on **Document** report from the list of project specific reports panel.
3. Point to a document and click the action drop-down list, and then click **Edit.**
4. In the **Edit** dialog box, select the **Share with client**.
5. Click **Submit.**

### *Participate in Discussions*

Online forums are an interactive way to have discussions on the project. Clients can participate in topics that are marked 'share with client'. Clients can post their comments and the subscribed users associated with that forum get an email notification to which they can acknowledge by replying through these online forums. It is an excellent way to receive feedback from the client and clarify a doubt or raise a query if any, thus establishing an instant mode of communication between you and your client.

**To invite a client to a discussion:**

1. Go to your Project.
2. Click **Start** a **Discussion** from the **More** menu on right.
3. In the **New Discussion** dialog box, type name in the **Summary** box.
4. In the **Detail** box, type your comments.
5. Select the **Share with client** check box.
6. Click **Save**.

**For a client to initiate a discussion:**

1. Login as a client.
2. Goto to the project.
3. From the action selector of the project, point to **Add** > **Discussion**.
4. Enter the mandatory fields and click on **Save**.
5. The discussion will be created. By default, the PM is added as a follower to the discussion. If the project option Auto subscribe team members to this discussion is checked, then the team members are also added as followers.

### *Project Apps*

You can choose to allow clients to initiate certain project apps (processes) such as help desk requests, issue / bug tracking, change requests, etc... This can be done by keeping the "Clients can initiate" check-box checked for the App definition.

**To initiate project apps:**

1. Clients can go to their specific project.
2. Click on the three-line menu

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3. Go to Add and then to the specific app item.
4. In the **Summary** box, type the summary for this app item.
5. Fill in the other details and you can attach files if any.

---

A Client can also be an assignee for a specific state or a requestor of an app item.

## Access Control

Security helps you control access to information within Celoxis. Security in Celoxis is determined by 3 simple things

- What role a user plays (Workspace- Role membership)
- Privileges for that role (Grant, Deny, Unspecified)
- Within what context (Company vs Object level)

In large organizations, workspace provide a way to group users and projects. Workspaces provide a way to segregate, view and control information. For example, a user may be 'Staff' of the Accounts workspace, but also play an 'Accountant' role across the other workspace.

Roles are granted privileges to perform actions on certain information.  Actions can be "View", "Edit", "Add", "Delete" and so on. Privileges can be either a specific Grant, or a specific Deny or left Unspecified.

Celoxis lets you set security at the Company level or at the Object level. To read more, click here.

- Roles
- Workspace
- User Workspace - Role Membership
- Security Privileges
- Security Context
- How Security Works
- Common mistakes when setting up the security
- Default Security settings at Company level
- Default Security settings For Apps

### Roles

Users in an organization play different roles like system administrator, accountant, sales manager, project manager etc. and it is these roles that have privileges associated with them. Users who play a role automatically inherit the privileges granted to that role. In Celoxis too, you can define roles, assign privileges to roles and finally assign roles to the users. Privileges are never assigned to users directly but only through roles.

In Celoxis you have 2 types of roles

- **User defined Roles**
- **System Roles**

### User defined Roles

These are roles that you can define based on the roles existing in your organization. You can assign users to these roles at the Company level, or you can define who plays a role at a specific Project level too.

### System Roles

These are **pre-defined** in Celoxis and are referred to as **'system roles'**. Let us look at the system roles

- Administrator - Administrators are super users. They can manage users, roles, privileges, company settings, security, etc.
- Staff - Every user plays this role. When you add a user, the user automatically plays a staff role. This is useful when you want to give privileges to everybody.

 The next 4 roles are system roles but they are Contextual in nature. They work within the context of a project.

- Project Manager - the person you assign to play the Manager role on a project is automatically assigned to this role
- Project Team - any users who are assigned to tasks automatically are part of the project team role for that project.
- Project Client - the client of a project is automatically assigned to this role
- Task Team - users who are assigned to a specific task are part of the Task Team role

Privileges granted or denied to these roles work within the context of that specific project or task (in case of Task Team). The example below explains in further detail.

Example – For instance, a company wants to enforce a policy that only project managers should be able to "add tasks" to their projects i.e. if Joe and Mary are project managers of projects P1 and P2 respectively, then Joe should be able to "add tasks" to P1 but not to P2 and Mary should be able to "add tasks" to P2 and not P1. This is easily achieved by granting "add task" privilege to the Project Manager role.

> You can assign more than 1 PM or client on a project by setting the project level role membership.

### Adding, Editing, and Deleting Security Roles

**To add Roles:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.

2. Under the *Account Management* section, click **Access Control**.
3. In the new window, click **Add Role** button.
4. In the Add Role popup, type the role name in the **Name**\* box.
5. In the **Details** box, type the comment, if any and click **Save**.

**To edit / delete Roles:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Account Management* section, click **Access Control**.
3. In the new window, click on the pencil-shaped icon beside the role name.
4. Make the necessary changes and click on **Save**.
5. To delete a role, do the following:
   - Point at a role, and click the Delete icon beside the role name.
   - Click on Yes to confirm the deletion.

After deleting the role, the user will play only the **Staff** role in that workspace.

## Workspace

In large organizations, a workspace provides a way to group users, projects and apps with specific responsibility. Having workspaces ensure that the users have restricted access to what they can see and what is not in their purview.

The flexibility of workspaces is such that they can be used in functional as well as matrix project management environments. For functional or traditional vertical business units, workspaces can often be used as departments. For matrix project management, workspaces provide a way to manage cross functional and cross business groups.

- Adding, Editing and Deleting Workspace

## Adding, Editing and Deleting Workspace

**To add Workspace:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the Account Management section, click **Workspaces**.
3. Click **Add**.
4. In the **Name**\* box, type name of the Workspace.
5. Click **Save**. The Workspace is added.

**To edit Workspace:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the Account Management section, click **Workspaces**.
3. Click on the pencil-shaped icon besides your Workspace name.
4. Make necessary changes and click on **Save**.

**To delete Workspaces:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the Account Management section, click **Workspaces**.
3. Click on the delete icon besides the Workspace name you wish to delete.
4. Click on **Yes** to confirm the deletion.
5. You will be prompted to select a workspace to reassign the existing projects to an existing workspace.

## User Workspace - Role Membership

In Celoxis, users can belong to multiple workspaces but, they must belong to one workspace at least.

Users can play one or more roles in one or more workspace. For instance, a user can belong to a Human Resource workspace and be responsible for hiring people, resource management in the company, organizing events, etc. and can look after the accounts and finance workspace of the company also. Since, access control is defined for roles, users are granted / denied permissions based on the roles they play. Therefore, one user can play more than one role in an organization.

- Set Single User Workspace Role Memberships

## Set Single User Workspace Role Memberships

You can assign a User to a Role within a workspace in one of the following ways.

**Assign a Role or multiple roles when Creating a User**

1. From the main menu, click on **Add** and point to **Users** > **New User.**
2. In the Add User pop-up, under the **Basic** tab, select the **Workspace :: Role** for the new user under the Access Control section.
   If you have only 1 Workspace, the Workspace will not be shown, instead only Role selection is visible.

3. Click **Save**. The user is assigned the selected role in that workspace.

## Edit User to Assign Workspace :: Role

1. From the main menu, click on **View** > **Users.**
2. From the  menu besides the user, click on **Edit**.
3. Under the Access Control section, select the **Workspace :: Role** for the resource. You can pick multiple Workspace : Role combination for the selected user.
4. Click on **Save**. The user is assigned to the new Workspace, Role selected.

### Security Privileges

In Celoxis you can set 3 types of privileges. These are:

- **Grant**, which allows you to perform a certain action,
- **Deny**, which does not allow you to perform a certain action, and
- **Unspecified**, which shifts the responsibility of checking to the next level. If all levels are unspecified, permission is denied.

To take any action, a user needs to have been granted the appropriate privilege. For instance, to view a project, the user will need to be granted the "**View Project**" privilege, while for creating a task in a project, the "**New Task**" privilege will be required.

### Access Control

Celoxis lets you define privileges for the different roles to perform actions on various objects in Celoxis. Based on your company policy, you can either Grant/Deny or leave Unspecified the permission each role can play. To understand more on privileges, please click here.

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the Account Management section, click **Access Control**.
3. Set appropriate privileges for the roles across the different tabs visible. The changes are stored automatically.

### Security Context

Security in Celoxis works within a context. It can be set at two levels.

- Company Level
- Object Level

When a user performs any action in Celoxis, security is first checked at the Company level to see if the user has the privileges. If there is an explicit Grant/Deny privilege for that user, then the user is permitted/or not. If there is an "Unspecified" at the Company level, then the Object level security is consulted. If the Object level security too has an "Unspecified" then the action is Denied.

#### Company level

The security at the company level is applicable for all the projects, tasks, documents, time entries and expenses in the company. Company level policies should be defined at this level. Care should be taken when you set explicit Grants or Deny to ensure that this needs to be mandated as a Company policy. A Company level explicit Grant or Deny cannot be overridden at the Object level. To read on how to set company level privileges, please click here.

> If a user plays multiple roles, and if ANY of those roles has an explicit deny, it will result in a Deny

#### Object level

Object level security allows the ability to set security for specific objects. For example, a View Financials privilege at the Company level for the role QA Lead may be "Unspecified", but for a specific project you may want your QA Lead (role) to have View Financial privileges. In that case you can grant them to the QA Lead at the Project level. To read on how to set project level privileges, please click here. For the other 3, go to the object. Click on **More**, then select **Access Control**.
You can set specific object level security for

- Project
- Task
- Document / Folder
- Discussion

### How Security Works

Let us understand how these privileges work with respect to the roles. If a role is granted a privilege to "view project" at the company level, and not at the object level, then the user can still "view project", whereas, if the user is denied the privilege at the company level and granted the privilege at the object level, then the user cannot "view project". Similarly, if a user's privilege to "view project" is unspecified at the company level but granted the privilege at the object level, then the user will be able to "view project". Let us understand the concept of Roles and Privileges through the illustration below:

| "View" Project privilege | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Company level** | ✓ | ✓ | ✓ | <unspecified> | <unspecified> | <unspecified> | ✗ | ✗ |
| **Object Level** | <unspecified> | ✓ | ✗ | <unspecified> | ✓ | ✗ | ✓ | <unspecified> |
| **Result** | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ |

Now, let us understand this concept in a user's context who has the following roles in a company: Mark Duncun: is a staff ( since he is a user) is also a developer. If Mark is assigned the privilege of "viewing a task", he will have the following privileges:

| "View" Task privilege | | | | | |
|---|---|---|---|---|---|
| **Staff** | ✓ | ✓ | ✓ | <unspecified> | <unspecified> | ✗ |
| **Developer** | <unspecified> | ✓ | ✗ | <unspecified> | ✓ | ✗ |
| **Result** | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ |

Lets understand security with respect to the workspace and roles. There is a workspace Sales, and Mark Duncun plays the role of Sales Manager of that workspace. Now, it is possible that Mark may belong to another workspace, say, Accounts, and he may not play the role of a manager in Accounts but he may just be a staff in that workspace. Therefore, the privileges that Mark gets in the Sales workspace, is not what he gets in the Accounts workspace. Let's assume, there is one workspace "Human Resource" with Joe as the head of the workspace. The "Human Resource" w orkspace is responsible for two different projects, with Joe as the manager of P1 and John as the manager for P2. Now, since Joe is the head of the workspace of "Human Resource", he has the privileges which over-rides his privileges as manager of P1. In other words, Joe has more authority on the workspace, but less on P1. Whereas, even if Joe is the head of the workspace of "Human Resource", he still has limited privileges in P2 as compared to John, who has more privileges in P2 since he is the manager.

| Privileges at W orkspace Level | View Project | Edit Project | Delete Project | View Financial | Edit Financial | Add Project |
|---|---|---|---|---|---|---|
| Mark (Sales Manager) | ✓ | ✓ | ✗ | ✗ | <unspecified> | <unspecified> |
| **Privileges at Project level** | **View Project** | **Edit Project** | **Delete Project** | **View Financial** | **Edit Financial** | **Add Project** |
| Mark (Staff) | ✓ | ✗ | ✗ | ✓ | ✓ | <unspecified> |
| **Result** | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ |

## Common mistakes when setting up the security

**1st Scenario** :-

- **Scenario** :

Restrict users in some particular role from performing some action on some particular object, like project, task.
For example, restrict users from role 'Sales Manager' from editing the project 'Administration Target'.

  - **Security settings** :
    On company level, the 'Edit Project' permission is denied for the role 'Sales Manager'.

  - **Result** :
    Sales managers can not edit any project.

  - **Solution**:
    1. Keep the 'Edit Project' permission as 'Unspecified' for the role 'Sales Manager' at company level.
    2. On 'Administration Target' project, select 'Deny' option for role 'Sales Manager' to edit the project.
    3. On the other hand, select grant option for role 'sales manager' to edit the project which they are suppose to.

**2nd Scenario** :-

- **Scenario**:

There are two roles in a company, say 'Sales Manager' and 'Sales Executive'. You want users in the 'Sales Manager' role to view 'Project A' and 'Project B' and 'Sales Executive' should only see 'Project B' and not 'Project A'. A simple example becomes complicated when one user is playing two roles sales manager and sales executive.

- **Security settings** :
  On company level, the 'View Project' permission is Granted to 'Sales Manager' role.

- **Result** :
  The user playing both the roles is able to view both the projects.

- **Solution** :
  1. Keep the 'View Project' permission as 'Unspecified' at company level.
  2. For the 'Project B' grant 'View Project' for both the roles.
  3. For 'Project A' deny the 'View Project' privilege for 'Sales Executive'

3rd Scenario :-

- **Scenario** :
  A user plays a role 'Sales Manager' in an workspace 'Sales' for which the 'Edit Project' permission is 'Granted'. But, he is not able to edit the project created for 'Engineering' workspace though he is part of the project team.

- **Security Settings** :
  The 'Edit Project' permission is 'Granted' for 'Sales Manager' role.

- **Result** :
  The user is not able to edit the project.

- **Solution** :
  1. The user only plays the 'Project Team' role in the project. Hence, he is not able to edit the project.
  2. The user needs to play the 'Sales Manager' role also in the project for editing the project. You need to Set the role of the user.

## Default Security settings at Company level

### Permissions for Company

- **Staff** (i.e. every user) can create project and view clients.
- **External Users** can not create project and view clients.

### Permissions for Project :

- **Project Manager** can View & Edit the Project, Add New task in project, View and Edit project financials.
- **Executive** can View Project, Add New task in project, View and Edit project financials.
- **External Users** cannot View & Edit project and project financials.
- **Project Team** can View Project.

### Permissions for Task :

- **Project Manager** can View, Edit, Delete Tasks and Add Comment, Add Task and Add Expense against the tasks.
- **Executive** can View & Add Comment against a task.
- **Accountant** can view the task.
- **Task Team** can View Tasks, Add Comment, Add Expense, Add time against tasks they are assigned.

### Permissions for Time & Expense :

- **Project Manager** can View, Edit, Delete, Approve, Invoice time entries of the projects where the user is the project manager.
- **Accountant** is also a proxy user and can Invoice time entries.
- **Task Team** can view their own time-entries.

### Permissions for Apps :

### Permissions for Discussion:

- **Project Manager** can Create new discussion, View, Edit, Reply and Delete the discussion.
- **Project Team, Task Team** can vreate new discussion, View and Reply the discussion.
- **Project Stakeholder and Executive** can View and Reply the discussion.
- **Staff** ( i.e. every user) can create new discussion in project.
- **Owner** (i.e. user who initiates the Discussion) can View, Edit, Reply, Delete the Discussion.

***Permissions for Document:***

- **Executive,  Project Stakeholder, Project Team, Task Team** can View the documents.
- **Project Manager** can View and Check in/ out the documents.
- **Task Team** can Check in/ out the documents where they are owners.
- **Owner** (i.e. user who has uploaded the Document) can View, Edit, Check in/ out, Delete the Document.

***Permissions for Folder:***

- **Project Manager and Executive** can View the Folder.
- **Project Team** can View and Add the Folder.
- **Owner** (i.e. user who has created the Folder) can View, Edit, Delete and Add the Folder.

***Permissions for Report***

- **Staff** (i.e Every user) can create new report.

All resources can View, Add updates and Add time entries against the task assigned to them.

## Default Security settings For Apps

***Permissions for Bug***

- **Project Manager** can View, Edit, Delete, Add Comment, Perform Actions, Reassign and Add the Bug.
- **Staff** can View & Add the Bug.
- **Developer and QA** can View, Add Comment and Reassign the Bug.

***Permissions for Change Request***

- **Project Manager** can View, Edit, Delete, Add Comment, Perform Actions, Reassign and Add the Change Request.
- **Staff** can View & Add the Change Request.
- **Developer and QA** can View, Add Comment and Reassign the Change Request.

***Permissions for Issue***

- **Project Manager** can View, Edit, Delete, Add Comment, Perform Actions, Reassign and Add the Issue.
- **Staff** can View & Add the Issue.

***Permissions for Project Approval***

- **Project Manager** can View, Edit, Delete, Add Comment, Perform Actions, Reassign and Add the Project Approval app.
- **Staff** can View & Add the Project Approval app.
- **Project Approver** can View, Add Comment and Reassign the Project Approval app.

***Permissions for Risk***

- **Project Manager** can View, Edit, Delete, Add Comment, Perform Actions, Reassign and Add the Risk.
- **Staff** can View & Add the Risk.

***Permissions for To Do***

- **Project Manager** can View, Edit, Delete, Add Comment, Perform Actions, Reassign and Add the To Do.
- **Staff** can View & Add the To Do.

## Project Management

***Adding, Editing, and Deleting Project Categories***

***Adding, Editing and Deleting Project States***

***Projects Settings***

***Person day calculation***

## Adding, Editing, and Deleting Project Categories

**To add Project Categories:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Project Categories**.
3. In the new pop-up, click the **Add** button.
4. Type name of the project category in the **Name** box.
5. In the **Description** box, type the description and click **Save**. The new project category is added for projects.

**To edit Project Categories:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Project Categories**.
3. Click on the pencil -shaped icon besides the category name to edit it.
4. In the new pop-up, make the necessary changes and click on **Save**. The project category is edited.

**To delete Project Categories:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on **Project Categories**.
3. Click on the delete icon besides the category name you wish to delete.
4. Click on **Yes** to confirm the deletion. Now, you need to pick a new category to reassign all the projects to and then click on **Delete**. The project category is deleted.

> Deleting a category will prompt the user to move all projects to a different category. However, custom fields attached only to that category will be deleted permanently.

## Adding, Editing and Deleting Project States

Celoxis allows you to define your project states which depict the current stage of your project.

**To add a Project State:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on Project States.
3. In the new pop-up, click on the **Add** button.
4. A new line will appear where you can type the name of your state.
5. Under the *Stage* drop-down, select the appropriate stage. For more information on Project Stages, refer here.
6. Check the *Allow Time* checkbox if you want users to fill time on projects in this state.
7. Click on **Save**. The new state will get saved and will appear under the 'State' drop-down on New/Edit Project page.

> - The order of the States you see here is the same as you will see under the 'State' drop-down on the New/Edit project page. You can re-order this by dragging-dropping the states here.
> - You can create a maximum of 15 states.
> - The State name can only have the maximum of 30 characters.

**To edit a project State:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on Project States.
3. Click on the pencil-shaped icon to edit the *Name*, *Stage*, *Allow Time* (checkbox) of the State.
4. Click on **Save**. The changes are applied.

> - Changing the 'Stage' of the State will impact the health indicators and projected dates.
> - Changing the 'Allow Time' policy will toggle the ability to add new time or submit saved entries. Ensure this before editing the state.

**To delete a project State:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Project Management* section, click on Project States.
3. Click on the small cross icon to delete the project phase.
4. Click on **Save**. You will be prompted to select a state for the projects which are in the state you are deleting.

5.  After selecting the new state, click on **Save**. All the project which were in that state will now have the new state you selected.

> - While deleting a state, you will be prompted to select a state to which the existing projects in that state will be re-assigned.
> - There needs to be at least 1 phase in Execution and Closure stage individually.

## Projects Settings

**Show task start/finish dates with time:** E.g. shows task start date as 25-Dec-2012 5:00 PM instead of 25-Dec-2012.

**When assigning tasks to user, show all users, not just users in project team:** If you select this option, all users in the company are visible when you allocate task to resources. However, if you clear this option, then while creating a new project, only the users in your team are shown. Therefore, when you assign resources to tasks, only the users from your team are visible.

**Allow users to add events impacting work hours like holidays. Projects are rescheduled immediately:** If you select this option, then while adding events, users can specify if this event impacts scheduling and their tasks get impacted.

### Person day calculation

The Person day setting (in hours) help you to determine the day calculation. This is used to calculate the **Duration** of the tasks.

For example, if your 1 Person-Day=8, then  this number is used to calculate your task duration which will then be 1day.

> If you have multiple work calendars with different work timings, we suggest that you set this value to the maximum work hours of the calendars i.e Work Calendar 1 has 8 hours working and Work Calendar 2 has 9 hours working, then the **1 Person Day** setting should be set to 9.

## Timesheets

### Timesheet Options

### Billing Model

- Switching between Billing Models

### Adding, Editing, and Deleting Time Codes

### Adding, Editing, and Deleting Expense Codes

### Timesheet Options

**Auto approve time:** If you select this option, then the time entries submitted by the users are automatically approved.

**Show all hours (Timesheet, Est/Act. Hours) in decimal (2.5) instead of HH:MM (2:30)**: If this option is selected, time will be displayed for example as 2.5 instead of 2:30. in Timesheets, Est/Act. Hours etc.

**Send incomplete timesheet reminder emails to users daily at**: Selecting this option will send automatic reminder to all users who have filled incomplete timesheet for that day at the time you have set. The default time is set to 4:00 PM.

### Billing Model

Celoxis supports 2 types of billing models. User based billing and Time code based billing. This is a setting you have pick for a Company and will apply to all projects.

- **User** based
  With this option, you can enter bill rates for every user and these will be applied for calculating the estimated billing and actual billing amount for the projects. The bill rates can be entered while adding/editing users (Company rates) and can be overridden at the project level.

- **Time code** based
  With this option, you can enter billing rates against the time codes or services provided by the user. The time codes can be defined at the company level. The rates for these time codes can be entered at company or at project level.

> When you switch billing models there are financial impacts. Please read the next section carefully.

## Switching between Billing Models

When you switch between billing models there are financial impacts. You are changing the way you want to compute billing amounts on your projects. Billing amounts are computed based on rates - user rates or time code rates. To read more about these, refer to the Project Billing section.

- Impact of switching from Time code based (service) to User based billing :

  a. Estimated Cost and Actual Cost will remain unchanged.
  b. **Amount (Est, Billable)** column will show up in reports and on project details page and will be computed based on the User billing rates and allocations.
  c. The Estimated billing will only be calculated for projects which are not Archived and tasks which are not completed.
  d. The **Amount (Act, Billable)** amount (if already calculated), will remain unchanged.
  e. Users will still see the 'Time Code' on the Weekly Time page, although its rates are not applied.
  f. Switching from Time Code based billing to User based billing will not affect the existing time entries in any state. New time entries created after switching the billing model will be computed using the rates defined in the new model.

- Impact of switching from User based billing to Time code based billing :

  a. Estimated Cost and Actual Cost will remain unchanged
  b. **Amount (Est, Billable)** column will not be present. If it was originally calculated, it will be set to 0.
  c. The **Amount (Act, Billable)** (if already calculated), will remain unchanged.
  d. Switching from User based billing to Time Code based billing will not affect the existing time entries in any state. New time entries created after switching the billing model will be computed using the rates defined in the new model.
  e. Users will see the 'Time Code' on the Weekly Time page, and its rates will be applied.

## Adding, Editing, and Deleting Time Codes

**To add Time Codes:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the Timesheets section, click on **Time Codes**.
3. On the new pop-up, click the **Add** icon.
4. In the **Add Time Code** dialog box, type name in the **Name** box.
5. In the **Accounting Code** box, type an accounting code if you have any.
6. Select the **Costable** check box, if you want the time entry for this time code to be calculated towards the actual cost of the project.
7. Select the **Non-Project** check box, if the time filled is not for this project. For instance, vacation or sick leave.
8. Define **Regular** billing rates per hour
9. Fill in other details and click **Save**. The time code is added.

**To edit Time Codes:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the Timesheets section, click on **Time Codes**.
3. Point to a Time Code and click on the pencil-shaped icon.
4. In the **Edit Time Code** dialog box, edit the required details and click **Save**. The time code is edited.

**To delete Time Code:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the Timesheets section, click on **Time Codes**.
3. Point to a Time Code and click on the **Delete** icon.
4. Confirm the deletion by clicking on **Yes**. The time code is deleted.

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1. Once you mark an Timecode as Non-Project time code, you CANNOT convert it back to a project code.
2. Editing a Time Code
   a. Name – If you edit the name of the time code, all time entries (new and existing) will reflect the new name.
   b. Costable – If you mark the time code as costable, all new time entries will reflect it, but the old ones will not.
   c. Rates – If you update the rates of a time code at the Company level, they will impact only the new projects. Existing projects (and their time entries) are not affected. If you wish to change rates of your project's time codes, you need to do that at your project level. To read how to do that, please click here.
3. Deleting a Time Code – All the existing time entries will retain that timecode for the time-entry. You will not be able to make new time-entries against that time code.

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## Adding, Editing, and Deleting Expense Codes

**To add Expense Codes:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Expenses* section, click on **Expense Codes**.
3. Click **Add** button.
4. In the **Name**\* box, type the name of the expense.
5. Fill in the other details and click **Save**. The expense code is added.

**To edit Expense Codes:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Expenses* section, click on **Expense Codes**.
3. In the **Expense Codes** window, click **Edit** under the **Actions** column for the expense code you want to edit.
4. On the **Edit Expense Code** pop-up, edit the required details and click **Save**. The expense code is edited.

**To delete Expense Codes:**

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Expenses* section, click on **Expense Codes**.
3. In the **Expense Codes** window, click **Delete** icon the **Actions** column for the expense code you want to.
4. Confirm the deletion by clicking on **Yes**. The expense code is deleted.

## License Information

**To view your license details**:

1. Login with a user with administrator privileges and click on **Administration** option under the user profile.
2. Under the *Account Management* section, click on **View License Information**.

From this page itself, you can add more users, extend your current subscription or add more disk space. The History of your purchases is also visible on the same page.

- Understanding User Licensing
- Account Renewal and Additional License Purchase

## Understanding User Licensing

You can add users with or without logins. Only users with logins are considered towards your licenses. Further, licenses are not named. i.e. at any given time, the total number of users with login should not exceed your licensed users.

> Since SaaS customers can purchase licenses at different points of time, it is possible that their "loginable" users exceed the licensed users when one of their licenses expire. In this case their account is locked (only the administrator can log in) unless they extend their license or the administrator archives the excess users. In order to prevent such situations, the application shows a warning message to all users for one week prior to license expiration.

### *Licensed Users (Users with login account)*

Only users with logins can logon and access the application. Licensed users can use all features of the system such as create projects, view tasks assigned to them, update the status of tasks, fill time/expenses, upload documents and so on. They receive email alerts for various actions within the system e.g when tasks are assigned to them.

### *Unlicensed Users (users without login account)*

These are users that do not have a login and hence will not be able to access Celoxis. You can have an unlimited number of such unlicensed users.

## Account Renewal and Additional License Purchase

One week prior to your account expiration, your users will see an appropriate warning message when they log into the system. The day after your account expires, your account will be locked. To reactivate your account, you will need to log in as an user with Administrator privileges.

### *Renew Account*

This option '**extends**' the expiration date of your existing licenses. This should be used if you wish to extend the duration of your current licenses. Do NOT use this to add more licenses.

For example -- You have a 10 user license valid till 12 Aug 2012. On the 13th of Aug, you will be locked out from your account and will require to renew your account. If you select this option it will take you to a screen where your current 'active' license count is populated for convenience. In this example, it will be pre-populated with 10. If you wish to reduce or increase this count, change the number, select the appropriate package and renew. If you reduce this count, and you have a higher number of active licensed users, you will first need to deactivate those after your purchase. For this you will need to login as the 'Administrator' user.

*Add More Users/Licenses*

If you wish to increase your licensed user count, use this option to purchase **additional** licenses. Please do not use this option if you wish to extend your existing account. Whenever you purchase additional licenses, you will only be able to purchase them for the remainder of the term of your existing license and the cost will automatically be pro-rated.
Building from the previous example, let us assume after you extend you 10 user account for 3 months, you now wish to increase your licensed user count from 10 to 12. You will need to purchase **additional** user licenses. Click on this option and enter 2. Your total license count will become 12 instead of 10, all of which expire on 12 Nov 2012.

> When you click on 'Renew Account' and pay to extend your licenses, your account is automatically extended till the new end date.
> When you click on 'Add More Users' and purchase additional licenses, your licensed user count is automatically increased.

# Personal Settings

**Changing Profile**

**Changing Preferences**

**Selecting Email Notifications**

**Customizing your Dashboard**

## Changing Profile

Any users can edit their own profile to make changes to name, login details, phone, locale, etc. From v9.5, a user can upload his/her own photo to personalize your Celoxis login. This photo then appears in emails, discussions etc.

**To Change your Profile:**

1. On the main menu, click **My Settings** under your user avatar.
2. In the new pop-up, make the required changes and click **Save**. Changes are updated in your profile.

To change the user avatar/photo, click on the **Change**, under the user avatar.



## Changing Preferences

Preferences allow you to customize the following information:

- Locale
- Input Date Format
- Display Date Format
- Your Photo.
- Notifications.

**To set/change the preferences:**

1. From the main menu, click **My Settings** under your photo.
2. Click on the **Preferences** tab.
3. You can select the one or all of the above to customize your preferences. Click on **Save** after selecting/changing desired preferences.

## Selecting Email Notifications

You can control which email notifications you wish to receive.

**To Change your Notifications:**

1. On the main menu, click on your profile picture, and then click **My Settings**.
2. On the pop-up window, click on the **Preferences** tab.
3. Under the **Email Notifications** section, select the checkboxes for the categories for which you want email notifications.
4. Click **Save**. Your email notifications are customized.

| For | Notification | Who will receive it. |
|---|---|---|
| **Projects managed by me** | Task is off track. | Any task in the project, where the user is the PM becomes Overdue. |
| | Task did not start because of incomplete predecessors. | The PM will receive a notification if any task is/are not able to start because of incomplete predecessors.<br>(The project option: **Tasks should start when all predecessors are complete**. should be checked for this). |
| | Work Item progress is updated | The PM receives this notification when team members update their tasks (Progress Updates and Time-entries against tasks). When the 'Cc' is selected when making a progress update, the team members are also notified. |
| **Tasks assigned to me** | Task is modified. | The assignee of the task will receive this when task attributes like - Start Date, Duration, Finish date, Resource allocation, etc is changed. |
| | Task is assigned to you. | The resource who is assigned to the task will receive this mail. |
| | Task starts in the next 24 hours. | A notification prior to 24 hours task start will be sent to user assigned to the task. |
| | Task is off track. | A notification sent to the user assigned to the task when its Finish date is crossed and yet Incomplete. |
| | Task progress is updated. | The PM receives this email when team members update their tasks (Progress Updates and Time-entries against tasks). When the 'Cc' is selected when making a progress update, the team members are also notified. |
| **Time** | Time is submitted on your behalf. | The user assigned to the task will get a mail when another user with proxy privilege fills time for him/her. |
| | Time submitted by you is rejected. | The user will get this notification when the PM rejects his time entries. |
| | Daily Incomplete Timesheet reminder | If the daily incomplete timesheet reminder setting is enabled at the company level, the user will receive an email if his/her timesheet for the day is incomplete. |
| **Expense** | Expense is submitted to you for approval. | The PM will get an email when an expense is submitted against a project he is managing. |
| | Expense submitted by you is approved. | The user who submitted an expense will get a notification when expense submitted by him/her is approved. |
| | Expense submitted by you is rejected. | The user who submitted an expense will get a notification when expense submitted by him/her is rejected. |
| **Files** | New version of your favorite or checked-out document is available. | The user will receive this notification when a new version of the document marked as favorite by him/her or is being edited is available. |
| | New documents or versions are available in your favorite folders. | The user will receive this notification when a new document or version of the document is available in folder which is marked as favorite by you. |
| **Apps** | Item is assigned to you. | The user receives this notification when an app item is assigned to him/her |
| | Item assigned to you is updated. | The user assigned to an app item receives this notification when a comment is added or the attributes of the item are changed. |
| | Item assigned to you is delayed. | The user assigned to an app item receives this notification when the Due Date of the item is crossed. |

| | Item for which you are the state manager is delayed. | The State Manager of the item state receives this notification when the Due Date of the item is crossed. |
| | Item for which you are the state manager is unassigned | The State Manager of an app item state receives this notification when a new item is created with the 'Assigned To' field blank. |
| | Item is assigned to a state for which you are the manager | The State Manager of the project receives this notification when the app item is assigned to him/her. |

> For blocked and Overdue tasks, the notifications are sent out at 1 AM, 7 AM, 1 PM, 7 PM (server time)

### Customizing your Dashboard

The dashboard provides quick access to frequently needed information such as "My Projects", "My Tasks", "My Favorite Tasks" and so on. You can customize your dashboard to select the reports that you want displayed along with the position of the data. You can also decide the width of the left and the right panes of your dashboard.

**To Customize your Dashboard:**

1. On the main menu, click **Dashboard**
2. Click on **Customize** button on the right.
3. In the new pop-up, you can drag the report to be visible on the left and right panes. You can also specify the width of the panes.
4. Click **Save**. Your dashboard will be refreshed to show you the new reports.

> - Reports like Cross-Project Gantt, Resource Load chart cannot be added to the dashboard and hence not listed under the "Available" list.
> - It is highly recommended that you add minimum reports to your dashboard. Also, if a report on dashboard returns many rows, you need to add appropriate filters and pagination. This will ensure faster loading of your dashboard.

## Search

When you search for any particular phrase in Celoxis, that phrase is searched within some attributes for the type selected, and the result will be shown accordingly. The following table explains what attributes are searched for each type.

| Type | Attributes that are searched |
| --- | --- |
| Project | Name, Detail, Custom Fields, Code |
| Task | Name, Detail, Custom fields. |
| Document | Name, Details, Document content. |
| Discussion | Name, Details, Content of the posts. |
| Process/App item | Name, Detail, Summary, Custom fields, Updates. |
| Person | Name, Email address, Keywords, Custom fields. |

> - You can search for a particular phrase in all the types by selecting **All** under the **Type** drop-down.
> - To search for a phrase, enclose it in quotes e.g. **"sales tax"**
> - To exclude a term, prefix it with **-** e.g. -Microsoft
> - To make a term mandatory, prefix it with **+** e.g.  +penguin
> - To search for a prefix, suffix it with a **\*** e.g. docu* will search for all words starting with 'docu'

> Any entity (type) that was created three years before is not available in the search results.

# Installation Guide (On-Premise)

## Prerequisites

## Database Setup

## Installation Process

## Starting and Stopping Celoxis

## Accessing Celoxis using SSL

## How to move the application to another machine

## How to move your hosted data to your local server

## Debugging SSL issues with your SMTP, POP3, IMAP or LDAP servers

## Major Upgrades

- Upgrading from 9.6 to 10.0
- Upgrading from 9.5 to 9.6
- Upgrading from 9.1 to 9.5
- Upgrading from 9.0 to 9.1
- Upgrading from 8.0 to 9.0
- Upgrading from 7.0 to 8.0
- Upgrading from 6.5.X to 7.0.Y
- Upgrading from 6.0.X to 6.5.Y
- Upgrading from 5.1.X to 6.0.Y
- Upgrading from 5.0.X to 5.1.Y
- Upgrading from 4.5.X to 5.0.Y
- When an Upgrade fails

## Applying a minor release

- Bug fix for 9.1
- Bug fix for 9.0
- Bug fix for 6.0
- Bug Fix for 5.1.0 to 5.1.2
- Bug fix for 5.0.X to 5.0.20

## Regular Maintenance

- Backing-up your database and data directory
- Maintenance for PostgreSQL Database
- Maintenance for Microsoft SQL Server Database

## Miscellaneous Topics

- How to apply a new license file
- How to send us the Debug Bundle
- How to Reset your Administrator password?
- How to know your Site Administrator password

# Prerequisites

Following pages mention the essential software, hardware, etc. required before you start installing Celoxis on your premise. The diagram below depicts a typical installation of Celoxis.

Celoxis: Network Diagram

- Hardware (Minimum Requirements)
- Software Requirements
- License Request

## Hardware (Minimum Requirements)

1. **Processor**: A modern server processor.

2. **Memory**: Minimum 2 GB. 4 GB recommended.

3. **Disk space**: 100MB for the software. Space requirements for your data will depend on the size of the data (number of projects, tasks, status updates etc) and documents you upload. We recommend that you consider at least 10GB.

## Software Requirements

1. **Operating System:** Linux, Microsoft Windows XP, Windows Server 2003, 2008 and later, Mac OS X .

2. **Java:** Java SE 8. If you have a 64 bit Operating system, then you need a 64 bit version Java. Similarly for 32-bit OS, you need a 32-bit Java.

   > NOTE : You need to download Java JDK; not JRE .

3. **Database:**
   - MS SQL Server 2008, 2012, 2014 (including Express editions).
   - Oracle 11g, 12c.
   - PostgreSQL 9.0 to 9.3.

   > End of support for following DB versions from v8.0: MS SQL 2000, MS SQL 2005, Oracle 9i, Posgres 8.X.

4. **Email Server**: with SMTP and IMAP4 or POP3

5. **Browser:** IE 11 (since v7.0), Edge, latest stable version of Firefox and Chrome, Safari on Mac O.S.

> It is mandatory that you use one of the supported browsers for installation. We cannot anticipate the behavior during installation if you use an unsupported version.
>
> The support for IE9 (since v8.0), IE 10 (since v9.6) has been deprecated.

**Some more on ports :**

The following ports are required by the application to execute. You can change them as per your requirement.

1. By default, the application uses the following port :
   - 8888 - Non-SSL startup port.
   - 8843 - SSL port startup port.
   - 8005 - Shutdown port.
2. The default ports of the database you will be using. For example, 5432 for Postgres, 1433 for SQL Server, etc.

## License Request

You need to send us a license request from www.celoxis.com/license.php after which you will receive the license file and installation details.

Some tips :

1. The **Company** should be the name of your Company for which the software is purchased. This will be present on the administrator details page after you install the application.
2. **Email** should be the email address of the person responsible for installation. The installation details and the license file will be mailed to this address.
3. **Hardware ID** is the 12 digit address of your server where Celoxis will be installed. You can run the program on the license request page to find this ID.
4. The **Platform** is the Operating system on which Celoxis will be installed.
5. The **Database Software** is the database type you will be using for Celoxis. For supported types, refer the 3rd point here.
6. The **Database Host** is the server where the database resides. You can enter the IP address or server name here. In case you have installed an named instance for your database, it should be mentioned over here.
   For example : server_name\instance_name
7. The **Database Port** is the port on which your database is listening. In case, it is your default installation, you can leave this blank.
8. The **Database Name** is the name of the Celoxis database.

## Database Setup

Celoxis currently supports the following databases :

- PostgreSQL 9.x
- Microsoft SQL Server 2008/2012/2014
- Oracle 11g, 12c

If you have issues connecting to the database from the server where you are installing Celoxis, click here.

### PostgreSQL 9.x

> The instructions are for example only, please talk to your database and system administrator to secure your database server.

First ensure that your PostgreSQL server is accepting TCP/IP connections from local host and from the machines on your internal network.

1. Enable TCP/IP connections
   a. Edit postgresql.conf (On Linux, this will be most likely in **/var/lib/pgsql/data** while on Microsoft Windows, it is easily accessible from pgAdmin's **File > Open postgresql.conf...**
   b. Search for Connection Settings.
   c. Uncomment the line (if not already) **listen_addresses = '*'** i.e. it should not have **#** as the prefix.
   d. Save the file and exit.
2. Allow connections from your local network:
   Assuming your network address is **192.168.0.0** and network mask is **255.255.255.0**
   a. Edit **pg_hba.conf** (On Linux, this will be most likely in **/var/lib/pgsql/data** while on Microsoft Windows, it is easily accessible from pgAdmin's **File > Open pg_hba.conf...)**
   b. Add the following lines to that file. If Celoxis will be running on the same server as your Postgresql server, then you only need the first line below.

```
local all all trust
host all all 127.0.0.1 255.255.255.255 trust
host all all 192.168.0.0 255.255.255.0 trust
```

     c. Save the file and exit.

       Once you do the above changes, restart Postgresql. (On Linux, as root, type : **/etc/init.d/postgresql** restart and on Microsoft Windows choose **Stop service** and then **Start service** from **All Programs > Postgresql)**

3. Create a database user with name celoxis with a password. Note this down, you will be asked for this during installation.

On Linux, to create a user, use the **createuser** command as shown below:

```
$ createuser celoxis
Shall the new role be a superuser? (y/n) n
Shall the new role be allowed to create databases? (y/n) y
CREATE ROLE
$
```

**On Microsoft Windows:**
    a. Open **pgAdmin** program.
    b. Open the appropriate server node.
    c. Right click **Login Roles** and choose **New Login Role...**
    d. Enter celoxis as the Role name and optionally enter a password. Ensure that Account expires is empty.
    e. Select the **Can create database objects** option from **Role Privileges**.
    f. Click **OK**.

4. Create a database with UNICODE (or UTF8) character encoding where owner is the user celoxis. The database name should be the same as specified in your license request.

On Linux, to create a database with name celoxis, use the **createdb** command as shown below:

```
$ createdb -E UNICODE -U celoxis celoxis
CREATE DATABASE
$
```

**On Microsoft Windows:**
    a. Open **pgAdmin** program.
    b. Open the appropriate server node.
    c. Right click on the **Databases** node and choose **New Database...**
    d. Enter the correct database name, pick celoxis as the owner and choose UTF8 as the encoding.
    e. Click **OK**.

## Microsoft SQL Server 2008, 2012, 2014

Before starting with the installation process, the blank database for Celoxis must be created. The following are instructions can be followed for Microsoft SQL Server 2008/2012/2014 Express Edition.

To create a database, and database user, you need to login as **sa** (the database administrator user).

**To create a database:**

1. Open the **SQL Server Management Studio**.
2. Right click the **Database** node and click **New Database...**
3. Enter the same database name as specified in your license request.
4. Select celoxis as the owner.
5. Choose **SQL_Latin1_General_CP1_CI_AS** as the Collation (available from the Options page on the left)
6. Click **OK**.

You should ONLY use SQL authentication mode for accessing the database; Windows authentication will not work.

**To create a database user:**

1. Right click on the **Security** node of the database created and click **New** > **Login**.
2. Enter login name as celoxis.
3. Choose SQL server authentication.
4. Enter a password. Note the user name and password down as you will be asked for this later during installation.
5. Uncheck the Enforce password policy.
6. Click **OK**.

If you face issues connecting to the SQL Server, check the following :

1. You have specified the correct details like the DB port number, instance name, etc when making the license request.
2. Go to Microsoft SQL Server 2008/2012/2014 from your Start programs menu and point to **Configuration Tools** and then click on **SQL Server Configuration Manager**.
   a. In the SQL Server Configuration Manager select the node SQL Server Network Configuration > Protocols for MSSQLSERVER
   b. Right-click on the TCP/IP node and select Enable
   c. Restart the SQL Server (SQLEXPRESS) service (In Control Panel > Adminstrative Tools > Services, right-click on the SQL Server (SQLEXPRESS) service and select Restart)
   d. Also Turn off the firewall/ check the firewall settings.
   e. In SQL Server Configuration Manager in the TCP/IP settings, clear the "TCP Dynamic Ports" field in "IP All" section and set the TCP Ports to 1433 for IP/ALL and the other IPs, restart the server again.

If you still face issues, use our debugging tool.

## Oracle 11g, 12c

You will need to first create the database before Celoxis installation can be started. Your database administrator will be the right person to set this up for you.

**To create a database:**

1. Using the Database Configuration Assistant, create the blank database with name **celoxis**.
   Create a database with UTF8 character encoding. The database name should be the same as specified in your license request.
2. Once the database is created, you can create the DB user which is required during the installation process.
   Grant this user all permissions on the database. Also, give this user unlimited quota for tablespace users.

If you face issues connecting to the database, verify the following:

- You have specified the correct details like the DB port number, DB server name, etc when making the license request.
- Ensure that the Oracle SID/Service name and database name match.
- The DB listener is configured and running.

If you still face issues, use our debugging tool.

## Testing your Database Setup

Celoxis JDBC Probe is a java program that helps to understand connection issues with your database server.

### Download

Click here to download the jdbc-probe.zip file.

> **IMPORTANT**
> This test needs to be run on the server where Celoxis is installed; NOT on the database server.

### Usage

1. Unzip the jdbc-probe.zip file. It should create a folder with the file JDBCProbe.class in it.
2. Open a command prompt and cd to the folder that contains the JDBCProbe.class file.
3. On Microsoft Windows run the program (substituting values according to your configuration) as:

```
java -cp .;drivers/* JDBCProbe product=oracle name=celoxis user=tim
password=fox host=localhost
```

On Linux or Mac OS run the program (substituting values according to your confiuration) as:

```
java -cp '.:drivers/*' JDBCProbe product=oracle name=celoxis user=tim
password=fox host=localhost
```

You will receive a success message if the connection was successful. If the connection fails, the message returned by the driver is printed. This error message will give you a clue about the possible causes as explained later in this document.

**Options**:

| product | one of the following:<br>**oracle** (for Oracle), **pgsql** (for Postgresql 9.0), **mssql** (for SQL Server 2008, 2012, 2014) |
|---|---|
| name | The name of your database |
| user/password | The username and Password to be used to connect to the database.<br>NOTE:  In case of SQL server, the login and database must be configured to use the SQL Authentication mode (or Mixed mode), not Windows authentication mode only. |
| host | The machine name of the server where the database is running |
| port | The port of the database server. This is an optional field and when unspecified the default port will be used. |

You will receive a success message if the connection was successful.  If the connection fails, the message returned by the driver is printed. If you don't understand the output simply send us the output.

### Understanding the Error Messages

## Common errors for Oracle

| ERROR MESSAGE | POSSIBLE CAUSES |
|---|---|
| The Network Adapter could not establish the connection | <ul><li>The host name cannot be resolved by the DNS server.</li><li>Database server is not running on the host.</li><li>The database port on the database server is inaccessible because of a firewall</li></ul> |
| Invalid username/password; logon denied | Username or password is incorrect |
| Connection refused(DESCRIPTION=(TMP=)<br>(VSNNUM=153092352)(ERR=12505)<br>(ERROR_STACK=(ERROR=(CODE=12505)(EMFI=4)))) | <ul><li>The database name is incorrect</li><li>The user doesn't have privileges to logon to the database</li></ul> |
| FAILURE: Listener refused the connection with the following error: ORA-12505, TNS:listener does not currently know of SID given in connect descriptor. [java.sql.SQLException] | One of the parameter you are passing is incorrect or the database does not exist on the connection properties you are specifying. |

**Common errors for MSSQL**

| ERROR MESSAGE | POSSIBLE CAUSES |
|---|---|
| Error establishing socket. | <ul><li>The host name cannot be resolved by the DNS server.</li><li>Database server is not running on the host.</li><li>The database port on the database server is inaccessible because of a firewall</li></ul> |
| Login failed for user | Username or password is incorrect. |
| Cannot open database requested in login | <ul><li>The database name is incorrect.</li><li>The user doesn't have privileges to logon to the database</li></ul> |
| Not Associated with a trusted SQL Server Connection | This occurs typically when Microsoft Sql Server installation is configured to use only Windows authentication and not SQL Server authentication. To solve the problem: Change the Authentication change the authentication mode to sql server authentication. |

| The TCP/IP port is disabled or not accepting connections | <ul><li>Go to Microsoft SQL Server 2008, 2012, 2014> Configuration Tools > SQL Server Configuration Manager</li><li>In the SQL Server Configuration Manager select the node SQL Server Network Configuration > Protocols for MSSQLSERVER</li><li>Right-click on the TCP/IP node and select Enable</li><li>Restart the SQL Server (SQLEXPRESS) service (In Control Panel > Adminstrative Tools > Services, right-click on the SQL Server (SQLEXPRESS) service and select Restart)</li></ul>Also, check that the firewall is not blocking the connection. |

**Common errors for Postgresql**

| ERROR MESSAGE | POSSIBLE CAUSES |
| --- | --- |
| The connection attempt failed | <ul><li>The host name cannot be resolved by the DNS server.</li><li>Database server is not running on the host.</li><li>The database port on the database server is inaccessible because of a firewall</li></ul> |
| Connection rejected: FATAL: password authentication failed for user | Username or password is incorrect |
| Backend start-up failed: FATAL: database "celoxis" does not exist | <ul><li>The database name (abc) is incorrect.</li><li>The user doesn't have privileges to logon to the database</li></ul> |

# Installation Process

After you have completed the pre-requisites and setup the Database successfully, you can now start the installation process. Please follow each and every step to ensure that the installation is successful.

## 1. Before you begin

1. Your database server must be up and running and you must have created a database and a database user for Celoxis. If not, first do that as described in Database Setup.
   Keep your database information ready: database name, login, password. You will be asked to input these during the installation process.

   > It is advisable that you test your database setup before you proceed with the actual installation. For steps, refer here.

2. Download and install JDK 8 from http://java.sun.com/javase/downloads/index.jsp
   The version of Java (32-bit or 64-bit) should be as per your Operating system (32-bit or 64-bit). Note : You need to install JDK and not JRE.

3. Download the Celoxis directory (psa_version_no) to the server where Celoxis needs to be installed. The download link must be in the mail sent to you by our Support Team.
   Create a folder where Celoxis will be installed: C:\celoxis on Microsoft Windows using Windows Explorer and /usr/local/celoxis on Linux. Place the zipped file in that folder and unzip it using your favorite unzip tool. You should now have C:\celoxis\psa_x.y.z directory and this directory should have sub directory like bin, conf, webapps, etc.

4. You should have received a license.properties file in an email from us that contains your license information. Save that file on to your server where Celoxis will be installed; in the folder you created in point 3. You will be asked to upload this file during the installation process.

## 2. Setting up JAVA_HOME

For starting the application you need to set the JAVA_HOME environment variable to the path where JDK is installed.

# To set JAVA_HOME on Microsoft Windows:

1. Right click My Computer.
2. Click Properties.
3. Click the **Advanced** tab (or click **Advanced system settings** in Windows Vista.)
4. Click the **Environment Variables**.
5. Under System variables, click New.
6. Set Variable name to JAVA_HOME and Variable value to the path of JDK (C:\Program Files\Java\jdk1.8.0_05).
7. Click OK.

8. Click OK on the Advanced tab to close the window.



**To verify if your JAVA_HOME is set, follow the steps below :**
Open a command prompt and type **java -version** and you should see something as shown below:

```
C:\>java -version
java version "1.8.0_05"
Java(TM) SE Runtime Environment (build 1.8.0_05-b13)
Java HotSpot(TM) 64-Bit Server VM (build 25.5-b02, mixed mode)
C:>
```

*To set JAVA_HOME on Linux:*

1. Open a terminal and login as the user who can start Celoxis application.
2. In the appropriate profile file (e.g. .bash_profile or .profile), type: export JAVA_HOME=/usr/java/jdk1.8.0_05
   ( You need to replace the /usr/java/jdk1.8.0_05 with the path where you have installed Java)
3. Save the file.
4. Logout and Login again.

**To verify if your JAVA_HOME is set, follow the steps below :**
Open the Linux shell and type $JAVA_HOME/bin/java -version and you should see something as shown below :

```
$ JAVA_HOME/bin/java -version
java version "1.8.0_05"
Java(TM) SE Runtime Environment (build 1.8.0_05-b13)
Java HotSpot(TM) 64-Bit Server VM (build 25.5-b02, mixed mode)
$
```

**Points to note**:

1. Always verify that the JAVA_HOME variable is set properly by verifying the steps mentioned above. If it is set correctly, the version of Java will be printed. Else, you should get an error.
2. For v8.0, we only support Java SDK 8.
3. Only one version of Java should be installed on your server where you are installing Celoxis.
4. If your operating system is 32-bit, you will have to download 32-bit Java. Similarly, 64-bit OS will need 64-bit Java.

## 3. Allocating Memory to Tomcat

By default Tomcat (the bundled web server) is configured to use a maximum of 2 GB of memory which is quite sufficient in majority of cases. In case this proves insufficient for you, you can increase it as follows:

1. First determine the amount of memory you want to allocate. Typically, it should not exceed half of your installed RAM. For example, if you have 4 GB of RAM, then you can safely allocate 2 GB to Tomcat. Let's assume you want to set it to 4 GB i.e. 4000 MB.
2. Stop Celoxis
3. Set the system environment variable **CATALINA_OPTS** to **-Xms512M -Xmx4000M** (Note the dash in front of the X.)



**On Microsoft Windows:**

1. Right click My **Computer**.
2. Click **Properties**.
3. Click the **Advanced** tab (or click Advanced system settings in Windows Vista).
4. Click the **Environment Variables** button
5. Under **System variables**, click **New.**

6. Set variable name to **CATALINA_OPTS** and variable value to **-Xms512M -Xmx4000M**
7. Click **OK**.
8. Click **OK** on the **Advanced** tab to close the window.

**On Linux:**

1. Open a terminal and login as the user that starts Celoxis.
2. In the appropriate profile file (e.g. .bash_profile or .profile), type: export **CATALINA_OPTS=-Xms512M -Xmx4000M**
3. Save the file.
4. Logout and Login again.
5. Start Celoxis.

Celoxis needs to start with a minimum of 512 MB and hence, we set the -Xms value to 512M.

For 32-bit operating system, you need to set both the -Xms and -Xmx parameters as seen in the above screenshot. However, the Xmx parameter should only be set to 1GB i.e 1024M.

## 4. Starting the Installation Process

Before you actually start the process, make sure that you have completed the prerequisites. Follow the simple steps mentioned below for installing Celoxis successfully at your end.

- Start the Tomcat server. For steps, refer here.
- Open one of the supported browsers.
- In the address bar, type http://your-server-name:8888 and press enter.
- In the new window, select I**nstall Celoxis vX.X.X**

In the URL, *your-server-name* needs to be replaced by

- **localhost** if you are on the server itself and doing the installation i.e. http://localhost:8888
  OR
- Name or IP address of the server http://cel0806RM:8888/ OR http://192.168.0.9:8888/

Following are the 6 easy steps you will need to follow. If you face any issues, during the following steps, refer here.

**Step 1:**

- Once the Tomcat server is up and running and you access the URL mentioned above, you should see the EULA, similar to the screenshot seen below.
- If you do not get this page, check the following :
  - Ensure that the window of the Tomcat server remains open.
  - Verify that you have typed the correct URL.
  - Confirm that the port 8888 is not blocked by your firewall.
  - Ensure that you are using one of the supported browsers.
- Click on **Yes, I Agree!**

**Step 2:**

- You need to enter the Site administrator password here which is used to access the **Settings** > **Site** menu in the application which is used for setting up your mail server, LDAP, etc.
- Click on **Next**.



**Step 3:**

- Here, you need to attach the license file which must have been sent to you in a separate mail. The file needs to be unzipped before use. If the license file is tampered with, then the installation will not proceed.
- Click on **Browse** to select the license file.
- After the file has been selected, click on **Upload**.

**Upload License**

You should have received a license file from Celoxis support. Upload it now.

License File

license.properties     Browse...

Upload

- If the license details are correct, you will see something similar. These are the license details as mentioned by you in the license request.
- Click on **Continue**.



**License Details**

| Licensed Users | 10 |
|---|---|
| Database Name | fresh70 |
| Database Machine | 192.168.0.2 |
| Database Port | 5432 |

Continue

### Step 4:

In this step, you need to enter the database details so that the application can connect to the database.

- **Database** : Select the database type and version.
- **Username** : Enter the username of Celoxis database user.
- **Password** : Enter the password of Celoxis user.
- Click on **Submit**.

After entering the details, Celoxis will attempt to connect to the database. However, if you get errors, check the following :

- Ensure that the Username and Password are correct.
- In case of SQL Server, you need to mention the instance name if this is not the default SQL Server installation.
  Please note that the instance name should be mentioned correctly during the license request else, the installation will fail.
- Verify that there are no connectivity issues when the database and Celoxis server are on 2 different servers. No firewall is blocking the connection.
- For debugging, refer here.

**Step 5:**

- You need to specify the path where the data directory will be stored. This includes your documents. The data directory should not be created already and will be created during this step.
  For example, in the screenshot, the 'data' folder should not already exist.
- Click on **Submit**. Your data directory will be created.

## Step 6:

- You need to specify the Company details here.
- Click on **Add**.



After this step, you will be shown your dashboard.

***Congrats! You have installed Celoxis successfully at your end.***

For post-installation steps, refer here.

## 5. Post - Installation

Following pages will guide you the setup you can do after Celoxis is successfully installed at your end.

- Configuring the application
- Configuring Site Settings
- Setting up Celoxis as service
- Configuring the Email settings
- LDAP (Optional)
- Configuring the Limits
- Setting up the Google Client ID (Since v8.0)

### Configuring the application

After the application has been installed, you can login as an user with administrator privileges and enter the Company details like:

- Complete the information about your company.
- Setup holidays.
- Setup working hours.
- Add users/clients.

For details on setting up, refer here.

## Configuring Site Settings

Once, Celoxis is installed successfully, you can configure your Incoming/Outgoing mail settings, LDAP, etc. from the Site Settings page by clicking on

**•••**

and then **Site Settings.**

- **Basic**

    1. Celoxis URL: This URL will be used in your email notifications, printing, and logo.

    2. Data Directory Path: The path where all your documents are stored.

    3. Maximum size of file upload: This determines that maximum file size of a single file that can be upoaded at a particular time.

    4. Google Client Id (Optional): The Google ID for your Google client Integration.

- **Outgoing Mail**

    For setting this up, refer here.

- **Incoming Mail**

    For setting this up, refer here.

- **LDAP**

    For setting this up, refer here.

- **Email aliases**

    You can enter user-friendly email aliases for the system-generated app email addresses. For details, refer here.

- **Limits**

    For setting this up, refer here.

## Setting up Celoxis as service

Setting up a service for Celoxis will help you start the Tomcat server even after the server reboot. You need not run the startup.bat/startup.sh file everytime.

### For Linux

In `/etc/rc.local` (or your Linux flavor equivalent), write the following lines:

```
export JAVA_HOME=/usr/jdk_1.6.0

/usr/local/celoxis/psa_X.Y.Z/bin/startup.sh
```

Please make sure that the path for **JAVA_HOME** and **startup.sh** is correct

.

## For Windows

Before you install Celoxis as a service, ensure that the application has been installed successfully.

1. Go to the following path : <Celoxis install directory>/psa_x.y.z/bin
2. To install the service, double click on **celoxis-service-install**
3. Similarly, to remove the service, double click on **celoxis-service-remove**

> You need to run the above files as an administrator user.

You can also achieve this using the following steps :

**To install Celoxis as a Windows Service:**

1. Open a command prompt (if you are using Vista or Windows 2008 server, you will need to run the command prompt using "run as administrator")
2. cd to **<CELOXIS-INSTALL-DIR>/psa_x.y.z/bin** directory.
3. Install the service by typing the command: **service.bat install**
4. The above step will register a service by the name of Celoxis.
5. Go to **Control Panel > Administrative Tools > Services > Celoxis** and right click **Properties** to verify the settings are correct.

**To remove Celoxis as a Windows Service:**

1. Go to **Control Panel > Administrative Tools > Services > Celoxis** and stop the service. (if you are using Vista or Windows Server 2008 server, you will need to run the Services application using "run as administrator")
2. Open a command prompt (if you are using Vista or Windows 2008 server, you will need to run the command prompt using "run as administrator")
3. cd to **<CELOXIS-INSTALL-DIR>/psa_x.y.z/bin** directory.
4. Remove the service by typing the command: **service.bat remove**.

### *Error attempting to start Celoxis service (Windows)*

Sometimes, even after setting up the Celoxis service, you might get an error when attempting to start the service. In such situation, follow the steps below:

1. Ensure your **CATALINA_OPTS** variable is set to use minimum of 1024M. For steps refer here.
2. The service needs to be set as an administrator user. Even after doing this, if face issue, follow the steps below:
   a. Set Celoxis as service. Do not attempt to start it.
   b. Now go to <Celoxis install directory>psa_7.0.0/bin directory.
   c. Here you should see a **celoxisw.exe** file. Run this file as administrator.
   d. Navigate to the **Java** tab in the new pop-up.
   e. For **Max Memory**, enter 1024M as the value in the box besides it.
   f. Save this.
   g. Now, try to start the Celoxis service.

## Configuring the Email settings

You need to configure the **Incoming mails** for creating tasks, task updates, etc while the **Outgoing mai**l for receiving notifications. The following pages will help you set that up.

Celoxis requires a dedicated email account to work for which your system administrator needs to create a mail account on the mail server. If you use an ISP then, you can create an account with your ISP provider.

> We recommend the mail-user-name as 'celoxis'. Celoxis will read and send emails using this email account just like you do from your email client.

Once you create the email account, you now have to setup Celoxis with this account.

## Outgoing mails (Notifications)

These settings are used by Celoxis to deliver notifications like the task assignments, Request Progress updates, etc.

- Go to **Settings** > **Site** > **Edit Site Settings.**
- Under the **Outgoing Mail** tab, set the following:



- The **Enable Email Notifications** must be checked for sending/receiving email notifications from Celoxis.
  If the result of any action causes emails to be delivered, then the email delivery takes place before the action is completed and control returned to the user. The rationale is that in case of any errors the user is notified right then and there. If however, your mail server is slow in delivering emails, you can select this option so that the emails will be delivered in the background, thus improving performance for the end users.

- The **Send emails in background** option should be checked for better performance. This send the emails in background without waiting for the response and hence improving performance.

- The **Host** is the name of your server on which mail server is installed. It can be the IP address or server name of the machine.
  You can write *localhost* if you are going to install Celoxis on the same machine where you have your mail server setup.

- Enter the appropriate **SMPTPort** number of SMTP.

- Select the appropriate **Authentication Type** from the drop-down.

- Select appropriate **Protocol** from the list.

- The **UserName** will be the name of your email account. In our example, celoxis@domainname.com is the mail account name and hence, the Login name is celoxis.

- The **Default Sender Name** you enter will be the name used for the notifications sent from Celoxis. You can enter that as per your choice.

- Save and Restart the application for the changes to be affected.

If this is setup correctly, you will receive all the notifications sent by Celoxis. In case you have issues, please refer here.

**Incoming mails**

These settings are used by Celoxis to create tasks, update task's progress, etc from email.

- Go to **Settings** > **Site** > **Edit Site Settings.**
- Under the **Incoming Mail** tab, set the following



- The **Email Address** is the email account you created for sending mails to Celoxis.

- Select the **Protocol** from the list available in the drop-down for receiving mails.

- The **Host** is the name or IP address of your mail server .

- The **User Name** and **Password** are of the mail account you have setup for Celoxis to receive mail.

- The **Plussed Symbol** needs to be selected according to the symbol supported by your mail server. This symbol is used to generate your Indirect process, create task via email addresses.

  - [ ] For example, the Exchange server does not support the + or - symbol. Hence, you will need to select Do not use plussed addressing.

- Restart the application after saving the changes.

If you have issues, refer here.

### How an alias works

Celoxis allows you to use alias for creating a custom app item. Let us look at how it works.

Assume that you have created the following on your mail server:

1. Email account celoxis@acme.com which is also called the postman address.
2. An alias bugs@acme.com which forwards mail to celoxis@acme.com. For this you will have to set a forwarder in your mail server.

In Celoxis,

- You have added a mapping such that emails received by Celoxis at bugs@acme.com are redirected to celoxis+NI-17f-2433@acme.com for creating an app item i.e bug
  (bugs@acme.com:celoxis+NI-17f-2433@acme.com)

1. Joe sends an email to bugs@acme.com from his email client with the email in the format required to create an app item.
   The email client then connects to the mail server for sending the mail.
2. Once the mail server receives the mail, it checks the following:
   a. The **To** from the email to verify if the mail is from an authenticate user.
   b. The **From** to verify if its knows the recipient. Here, the recipient is bugs@acme.com. The mail server then checks if there is any forwarder for this.
   c. The mail server then deposits the email in the mail-box for "celoxis".
3. Celoxis connects to the mail server periodically to check if there are any emails.
4. Now, Celoxis finds that in its mail box, there is an email in which the **To** is bugs@acme.com
   So, the application looks if there is any email alias set for the same address; which it finds as celoxis+NI-17f-2433@acme.com and hence understanding that with this information an app item is to be created.
5. Celoxis now creates an app item using the email details.

If your app item is not created, try sending the email to celoxis+NI-17f-2433@acme.com directly from your email client. If the app item is created, it means that either:

- Your Incoming email is not setup properly. For debugging, refer here.
  OR
- Your email server is not forwarding the email to Celoxis.

## Email Aliases

Email alias are user-friendly addresses that Celoxis lets you use instead of the long system generated addresses for the custom apps.
For example, the email address generated for creating custom app item; lets say your Bug Tracking application looks like: celoxis+NI-17f-2433@celoxis.com. This address is complex and not easy to remember. For this purpose, Celoxis lets you use an alias which is a simple address which maps to the complex address.

### Site Settings

Basic    Outgoing Mail    Incoming Mail    LDAP    **Email Aliases**    Limits

Create user-friendly aliases for system-generated app email addresses. E.g support@mycompany.com to initiate a support workflow. Firstly collect all the email addresses from administration page. Secondly enter one alias per line in the following format: user-friendly-email-address:celoxis-app-email-address.

bugs@acme.com:celoxis+NI-17f-2433@celoxis.com

[Save] [Cancel]

The alias name should be different than the one you have created for your Incoming or Outgoing email address.

## Testing your mail setup

The mail settings for Celoxis are no different than the settings made on a mail account. So, if you are able to send/receive mails from this account, then you should receive or send mails to Celoxis. To test this:

1. Your mail administrator must have created an email account on the mail server; for e.g celoxis@acme.com
2. On the server where you have installed Celoxis, setup your mail client (Outlook, Thunderbird, etc) with the following:
    a. For sending mails from this account (Outgoing Mails in Celoxis), setup the email address in the email client as celoxis@acme.com
    b. For this account to receive mails (Incoming mails in Celoxis), setup the email address in the email client as celoxis@acme.com
3. Now, send an email to this account from any other email account (from the same server). Check if the mail is received by celoxis@acme.com

    This confirms that the Incoming mail is working.
4. Again, from the same server, send an mail from celoxis@acme.com to any other email address. If the mail is received by that email account, it means that the Outgoing settings is working.

If however, you are unable to send/receive emails to/from Celoxis, then check the following:

1. On your mail server, the email account is enabled (with their respective protocols).
2. You have entered the details carefully the same way you have entered when testing your mail account i.e. the port number, the protocol, etc.
3. The Celoxis server is able to reach the mail server i.e there is no connection, firewall issue blocking the connection.

If you are not able to investigate, then open a ticket with the following:

1. The debug bundle; 4-5 minutes after you have performed an operation.
2. Mention the operation performed (task assigned, create task via email) with the name of task or the email subject which was sent to Celoxis.

## Frequently Asked Questions

1. How do I disable all email notifications?
    a. From the main menu, go to **Settings** > **Site** and then click **Edit Site Settings**.
    b. Click on the **Outgoing Mail** tab.
    c. Un-check the **Enable Email Notifications** option and click on **Save**.
    d. Restart the application.

2. How does a user customize the emails that he/she receives?
    Any user can customize their own email notifications.
    a. From the main menu bar, point on your photo and click on **My Settings**.
    b. Under the **Preferences** tab, you can select/un-select the notifications from the **Notifications** section.

3. Sending email fails for email addresses external to the organization. Why?
    When the application tries to send an email to an external address, it contacts your SMTP server and asks it to relay the email. Your SMTP server is responsible for relaying, not the application. The configuration of this server determines whether such relaying is allowed, and which addresses are considered internal vs. external.
    **Check the following:**
    a. Whether your email client is configured with the same server as that configured for Celoxis. It should in most cases be the same.
    b. Check whether you have SMTP authentication enabled in Celoxis and whether the authentication type, the user name and password are correct.
    c. Contact your system administrator and ask him/her to check one of the bounced email and/or mail server log files. It will most likely have a reason on why the email is being rejected.
    If you still don't understand, forward one of the bounced email (as attachment, not inline) to our support team and we will assist you.

4. Can I use a GMail account for Celoxis?
    Yes. GMail is a free, secure and reliable alternative to creating accounts for Celoxis on your email server. Instead of creating an email account with your ISP, you can create an email account for Celoxis (say user name like **celoxis.abc@gmail.com**) in GMail. Sample settings are shown below. Replace celoxis.abc and celoxis123 with your GMail user name and password.

## LDAP (Optional)

You can integrate Celoxis with LDAP so that users are authenticated against your LDAP. In many organizations, there is centralized authentication mechanism which means that the users credentials are stored on a server and the same can be used across all the applications used in that organization.

Celoxis provides you with the option to authenticate its users against your LDAP users. Once you enable this authentication, it means that Celoxis will consult your LDAP server for verifying the credentials; not its database.
For the authentication to work, you need to create users in Celoxis and in your LDAP server. Some important points to note:

1. If you enable LDAP after you have setup users in Celoxis, all the users will now be authenticated against LDAP. If they have different credentials in LDAP and in Celoxis, then they should now start using the one setup in LDAP.

2. If your LDAP settings change or you made some error when setting up LDAP, you can directly access the LDAP setup by typing the below URL in the browser:
http://server-name:port-number/psa/site.Admin.wm?
You will be prompted to enter the Site Admin password.You can then click on **Edit Site Settings** > **LDAP** tab and make the required changes.

3. Your clients will still be authenticated against the Celoxis database; NOT LDAP.

To setup LDAP authentication, refer here.

Following are the common issues that you might face when setting up the LDAP. You need to check the log files for the error message.

1. **Error:** No route to Host.
**Solution:** The domain name of the directory service you entered is not reachable from the Celoxis server. Ensure that the domain name is resolvable and Celoxis server can connect to the host.

2. **Error:** javax.naming.NamingException: [LDAP: error code 1 - 000004DC: LdapErr: DSID-0C0906E8, comment: In order to perform this operation a successful bind must be completed on the connection., data 0, v1db1
**Solution**: The Admin DN User name and Password combination is incorrect. After your correct the details, restart the application.

3. **Error:** Authenticate resulted in 0 users: * No users found
**Solution**: Ensure that you have created users in Celoxis with the same login name as the sAMAccountName and that you are entering correct credentials.

If you are unsure about the error in log files, open a ticket and attach the log file so that we can investigate.

Setting up Celoxis to authenticate with LDAP

Follow the steps below to setup Celoxis to use LDAP authentication :

1. From main menu, click **Settings** > **Site.**
2. Click **Edit Site Settings**
3. In the new pop-up, go to the LDAP **tab**.
4. Now, enter the LDAP details as follows:
    - Select the **Enable LDAP?** checkbox.
    - In the **LDAP URL** box, type your LDAP server name or IP address.
    - In the **Base DN** box, enter the root node of Active Directory from where Celoxis will search the users.
      e.g. cn=Users,dc=celoxis,dc=com
      You can verify the path with the following command on Command Prompt (on your LDAP server).
      *dsquery user CN=Users,DC=celoxis,DC=com*
    - In the **Search Attribute** box, enter uid or sAMAccountName (if you are using Microsoft Active Directory).
    - In **Admin DN** box, enter the administrator username.
    - In **Admin Password** box, enter the password.
5. Click **Save.**
6. Restart the application.

---

- Even if you integrate with LDAP, you will need to create users in Celoxis with the same login name as the sAMAccountName. LDAP will be used only to verify password.
- Client accounts are not verified against LDAP.

---

If you get any error message while setting up LDAP for Celoxis, please send us the debug bundle.

Testing your LDAP setup

Celoxis LDAP Quest is a java program to debug connection and authentication issues with an LDAP server. First, it connects to an LDAP server and authenticates using the specified admin DN and password. If successful, tries to connect as the specified combination of end-user and password.

***Download***

Click here to download the zip file.

> This program should be run on the same machine where Celoxis is running, not on the machine that runs your LDAP server.

### *Usage*

1. Unzip the ldap-quest.zip file. It should create a folder that contains the LDAPQuest.class file.
2. Open a terminal window on Unix/Linux OR Command prompt in Windows.
3. Go to the folder (cd ldap-quest) that contains the LDAPQuest.class file and then type:

```
java LDAPQuest <ldap-url> <admin-DN> <admin-password>
<ldap-search-attr> <base-dn> <username> <password>
```

You will receive a success message if the connection and details were correct.  If the connection fails and you don't understand the output simply send us the output.

Note:
   a. For Microsoft Active Directory Service, ldap-search-attr should always be sAMAccountName
   b.  If any of the program arguments (e.g. password), contains a space or special characters, enclose it within single quotes.

### *Examples*

---

#### Connect to Celoxis Active Directory

```
$ java LDAPQuest ldap://ldap.celoxis.com
cn=Administrator,cn=users,dc=celoxis,dc=com kaboom1 sAMAccountName
cn=users,dc=celoxis,dc=com Joe joeIsKing1
```

---

1) Trying to connect to LDAP and bind as Admin...

--------------------------------------------------------------------------------
SUCCESS: Admin authenticated successfully.

2) Trying to authenticate end user...

--------------------------------------------------------------------------------
Searching for Joe in cn=users,dc=celoxis,dc=com
FOUND DN: CN=Joe,CN=Users,DC=celoxis,DC=com

3) Connecting as CN=Joe,CN=Users,DC=celoxis,DC=com with specified password...

--------------------------------------------------------------------------------
SUCCESS: Joe authenticated successfully.

---

```
$ java LDAPQuest ldap://ldap.celoxis.com 'cn=Marcia
Overstrand,cn=users,dc=celoxis,dc=com' kaboom1 sAMAccountName
ou=Sales,dc=celoxis,dc=com Joe joeIsKing1
```

---

1) Trying to connect to LDAP and bind as Admin...

--------------------------------------------------------------------------------
SUCCESS: Admin authenticated successfully.
2) Trying to authenticate end user...

--------------------------------------------------------------------------------
Searching for Joe in ou=Sales,dc=celoxis,dc=com
FOUND DN: CN=Joe,OU=Sales,DC=celoxis,DC=com
3) Connecting as CN=Joe,OU=Sales,DC=celoxis,DC=com with specified password...

--------------------------------------------------------------------------------
SUCCESS: Joe authenticated successfully.

```
$ java
LDAPQuest ldap://ldap.forumsys.com cn=read-only-admin,dc=example,dc=com
password uid dc=example,dc=com euler password
```

1) Trying to connect to LDAP and bind as Admin...

--------------------------------------------------------------------------------

SUCCESS: Admin authenticated successfully.

2) Trying to authenticate end user...

--------------------------------------------------------------------------------

Searching for euler in dc=example,dc=com
FOUND DN: uid=euler,dc=example,dc=com

3) Connecting as uid=euler,dc=example,dc=com with specified password...

--------------------------------------------------------------------------------

SUCCESS: euler authenticated successfully.

## Configuring the Limits

Celoxis enforces certain limits on data retrieval for reports. For details, refer here. However, these limits are configurable (only On-Premise customers) for you.

**To edit the limits**:

1. Go to  **Settings** > **Site** > **Edit Site Settings**.
2. Click on the **Limits** tab.

| Limit to configure | Default limit | Meaning |
|---|---|---|
| Records from database | 15000 | This number indicates the records fetched for a single report from the database. |
| Records per page on dashboard | 50 | This number indicates records fetched for a single page of a report when it is displayed on dashboard. |
| Records per page on individual report | 250 | This number indicates records fetched for a single page of a report when it is accessed individually. |
| Timesheet months | 3 | This number indicated the months set for the **In Range** option under "Filter Tasks" on the Weekly time screen. |
| RLC Day Months | 3 | On the RLC, when "Zoom" is **Day**, the data will be limited to the number (in months) you set here. |
| RLC Week Months | 12 | On the RLC, when "Zoom" is **Week**, the data will be limited to the number (in months) you set here. |
| RLC Year Months | 12 | On the RLC, when "Zoom" is **Year**, the data will be limited to the number (in months) you set here. |

> Please note that default limit set are generous and increasing them can negatively impact performance and hence, we recommend against changing the defaults.

## Setting up the Google Client ID (Since v8.0)

You need to setup the Google Client ID so that Celoxis can connect to your Google drive.

**To obtain a Google Client ID**:

1. Go to the Google Developers Console.
2. Create a new project with a suitable name say 'Celoxis' from under the **Projects** tab on left.

3. Now, click on the new project you created.
4. From the left panel, select **APIs & auth**.
5. In the list of APIs shown, make sure that the status is **ON** for the **Drive API**.
6. Again, from the left panel, select **Credentials**.
7. Click on **Create New Client ID**.
8. In the the pop-up, do the following
   a. Select **Application Type** as **Web Application**.
   b. Under **Authorized JavaScript origins**, enter the URL you have entered as the **Celoxis URL**. (Under **Settings** > **Site**. Click on **Edit Site Settings**). For example https://acindia.acme.com:8843/
9. Click on **Create Client ID**.
10. A client ID will be created. This ID needs to be now added to your Celoxis account as mentioned below.

**To add your Google Client ID**:

1. Login as administrator user.
2. Navigate to **Settings** > **Site**. Click on **Edit Site Settings**.
3. In the new pop-up, enter the ID under the text box for **Google Client ID**.
4. Click on Save.
5. Restart the application for the changes to take effect.

For some common issues, refer here.

Some common issues setting up the Client ID

Following are some common issues when setting up the Google client ID.

1. **Error:** 400. That's an error.
      origin_mismatch

   **Solution**:
   You are entering the incorrect application URL.
   - The URL you typed in the browser with which you are accessing Celoxis, is not the one you have entered when creating the Google client.
     OR
   - You have not entered the correct application URL when creating the Google client. Change this to match the URL with which you access Celoxis.

2. **Error**: Invalid_client.
       no application name

   **Solution**:
   This happens because you are using an existing project which does not have a Product Name entered. To resolve:
   a. Go to the Google Developers Console.
   b. Select the project you created.
   c. From the sidebar on the left, select **APIs & auth**.
   d. Under this, click on the **Consent screen**.
   e. Select the **Email address** for your account.
   f. Under **Product name** enter a product name/name of the project.

      g.  Click on Save.

## General Issues

Following are the typical issues you can face during installation :

**Issue 1**: The tomcat window (after running startup.bat or startup.sh) does not remain open.
**Solution**:

- You have not set the JAVA_HOME or is set incorrectly. To set this, refer here.
  OR
- The Tomcat does not have enough free memory to start. If you run startup.bat from command line, you should see an error like : "*Error occurred during initialization of VM. Could not reserve enough space for object heap Could not create the Java virtual machine.*"
  You need to setup the CATALINA_OPTS variable. To set this, refer here.

**Issue 2**: Incorrect login (DB) credentials message even if you are entering them correctly.
**Solution** :

1. Try to login to SQL Management Console using the same credentials using SQL Authentication. This is just to verify that the credentials are correct.
2. If you have created a database instance, then you need to mention that when making the license request.
3. The SQL Server should be installed with SQL Authentication only.

**Issue 3**: Error when connecting to your database server when it is not on the same machine where Celoxis is installed.
**Solution**:

1. Ensure that the DB host name is correct and accessible from the machine running Celoxis. To verify, open a command prompt on the Celoxis machine and ensure that the command **ping host-name**
   runs successfully.
2. The DB port is open and accepting connections.
3. In case of SQL Server 2005/2008, the TCP/IP node is enabled. For steps, refer here.
4. In case, you have changed the default port of the database, it should be mentioned in the license request.

> For more troubleshooting, refer here. If you still have issues after referring the above checklist, drop a mail to support@celoxis.com with the exact error message (preferably a screenshot) and the debug bundle

### *Steps to restart the Installation:*

1. Delete the existing psa_x.y.z directory in which the installation failed.
2. Drop the Celoxis database.
3. Re-create the Celoxis database.
4. Unzip the psa_x.y.z directory again. Make sure you have unzipped it correctly. There should be a psa_x.y.z directory having directories like bin, conf, webapps, etc.
   There should NOT be a psa_x.y.z directory inside a psa_x.y.z.
5. Start the Installation process again.

## Starting and Stopping Celoxis

**Starting the Application (Tomcat server)**

**Stopping the Application (Tomcat server)**

**Restarting the Application (Tomcat Server)**

## Starting the Application (Tomcat server)

If you have set Celoxis as a service, then you can start the application from **Control Panel > Administrative Tools > Services > Celoxis**.

Else,

# For starting the Tomcat server for the first time (while installation) :

**On Windows :**

- Open Command Prompt as an administrator user.
- Change directory to <Celoxis install-dir>\psa_x.y.z\bin

- Run **startup.bat**



Or

- Open Windows Explorer
- Go to the directory <Celoxis install-dir>\psa_x.y.z\bin
- Double click the **startup.bat**

**On Linux :**

- Open Terminal
- Change directory to <Celoxis-install-dir>/psa_x.y.z/bin
- Run **startup.sh**

> This window should remain open. If it does not stay open, then it means that your JAVA_HOME is not set properly.

## Stopping the Application (Tomcat server)

If you have set Celoxis as a service, then you can start the application from **Control Panel > Administrative Tools > Services > Celoxis**.

Else,

**For starting the Tomcat server for the first time (while installation) :**

**On Windows :**

- Open Command Prompt
- Change directory to <Celoxis install-dir>\psa_x.y.z\bin
- Run shutdown.bat

Or

- Open Windows Explorer
- Go to the directory <Celoxis install-dir>\psa_x.y.z\bin
- Double click the shutdown.bat

**On Linux :**

- Open Terminal
- Change directory to <Celoxis-install-dir>/psa_x.y.z/bin
- Run shutdown.sh

## Restarting the Application (Tomcat Server)

- First, Stop Celoxis.
- Now, Start Celoxis.

# Accessing Celoxis using SSL

When web applications are being accessed across the internet, there is always the possibility of user names and passwords being intercepted by intermediaries (eg. between your computer and the server). It is often a good idea to enable access via HTTPS (HTTP over SSL), and require its use for pages where passwords are sent. Celoxis is bundled with a self-signed certificate and is accessible with SSL using:
**https://server-name:8843/psa/user.do**

**Using your own SSL Certificate**

**Changing the Default SSL port**

**Disabling non SSL access**

**Redirecting URL: "HTTP" to "HTTPS"**

## Using your own SSL Certificate

If you want to use your own certificate, provided by companies like Verisign, Thawte, etc., you will need to:

- Follow certificate issuer's instructions on how to obtain and install their certificate into Tomcat 8.
- The certificate should be installed into the file **.keystore** in **psa_x.y.z** directory with passphrase **celoxis**.
- In case you want to change the passphrase, you will have to update the **psa_x.y.z/conf/server.xml** and enter the new passphrase.
- Restart the application after you are done.

> Any changes you make to **.keystore** or **server.xml** files must be manually copied over to the new psa_p.q.r directory after every upgrade.
>
> **Celoxis Support does not provide assistance in installing and debugging issues arising when using your own SSL certificate**.

## Changing the Default SSL port

You can change the default SSL port which is 8843 to configure on of yours. For this, you will need to,

- Edit **psa_x.y.z/conf/server.xml** file and replace 8843 with the desired value.
- Restart the application.

> Any changes you make to the **web.xml** and **server.xml** must be manually made in the respective files after every upgrade. DO NOT copy the files after each upgrade.

## Disabling non SSL access

If you want to exclusively use SSL (HTTPS) and disable HTTP, do the following:

1. Delete the line <Connector port="8888"/> from the **psa_x.y.z/conf/server.xml** file.
2. From the main menu, click **Settings** > **Site**.
3. Click **Edit Settings**.
4. Change the http to https in the **URL prefix**.
5. Click **Save**.
6. Restart the application

> Any changes you make to the **web.xml** and **server.xml** must be manually made in the respective files after every upgrade. DO NOT copy the files after each upgrade.

## Redirecting URL: "HTTP" to "HTTPS"

If you want to redirect non-SSL URL (HTTP) to SSL URL (HTTPS), do the following:

1. Go to **psa_x.y.z/conf/web.xml** file
2. Insert the following code  before the closing tag of **</web-app>** and save the file.

<table>
<tr><th>Redirection Code</th></tr>
</table>

```
<security-constraint>
    <web-resource-collection>
      <web-resource-name>Protected Context</web-resource-name>
      <url-pattern>/*</url-pattern>
    </web-resource-collection>
    <!-- auth-constraint goes here if you requre authentication -->
    <user-data-constraint>
      <transport-guarantee>CONFIDENTIAL</transport-guarantee>
    </user-data-constraint>
  </security-constraint>
```

3. Go to **psa_x.y.z/conf/server.xml** file.
4. Make sure that the **redirectPort** in the "<Connector port="8888">" block is set to the SSL port.
5. Save the file.
6. Restart the application

Any changes you make to the **web.xml** and **server.xml** must be manually made in the respective files after every upgrade. DO NOT copy the files after each upgrade.

## How to move the application to another machine

Assume that M1 is the old server and M2 is the new server. Further assume that the application is installed at C:\celoxis on M1 and we want to move it to
the same location on M2.

**Before you begin**

- Know your data directory location. Data directory is where the application keeps all uploaded files.
  To know your data directory:
  1. Login to the application on **M1**.
  2. From the main menu, click **Settings>Site**.
  3. Click **Edit Settings**.
  4. Check under the Data Directory section.

- **Create new database and copy data from old database (if required)**

1. If you are changing your database server, you will need to create and configure a new database for the application. Note down the new database's host name, database name, user name and password. This will be required later. For instructions on how to create a new database, please read : Database Setup
2. Once you create this new database, copy over the database from the old server to the new server.

**Apply for a license**

- You will require a license from us to install the software on your new server. Use the same information used to create the new database to apply for a license else the license file will be invalid. To apply for a license, please visit : http://www.celoxis.com/license.php. You will receive the license file from us in one business day.

  **License Issue Policy**

  The Celoxis license is tied to a hardware. In order to avoid abuse, our policy is to give 2 free licenses a year. This should cover hardware failures/upgrades/reorganization.
  Temporary licenses are not counted towards 2 free licenses. Additional license request need to go through an approval process and will be charged.

- You need to send us a signed disclaimer document (attached with this page) so that we can send you the new license file.

**Install and configure Java on M2**

- You will need to install and configure Java on the new machine. For instructions please read Before You Begin

**Copy application binaries to M2**

1. Copy the entire C:\celoxis directory from M1 to M2. Now you will have **C:\celoxis** on M2.
2. Save the license.properties file that you have received in email from us for M2 on your computer.
3. Copy the license.properties file to **C:\celoxis\psa_x.y.z\webapps\psa\WEB-INF\conf** on M2.

**Copy data directory to M2**

1. Assuming data directory is **C:\celoxis\data** on M1. Copy it to **C:\celoxis\data** on M2.
2. Ensure that **C:\celoxis\data** has requisite permissions.

**Update new database settings on M2**

1. Open the file **C:\celoxis\psa_x.y.z\webapps\psa\WEB-INF\conf\db.properties** on M2.
2. Change the user name and password properties in the file to their new values. If you are using the same database login and password, you will not need to change anything.
3. Save the file.

**Stop application on M1**

- Stop the application on the old server. Read Stopping the Application (Tomcat server) on how to stop the application.

**Start application on M2**

- Start the application on the new server. Read Starting the Application (Tomcat server) on how to start the application.

**To edit settings on M2**

1. Logon to the application on M2.
2. From the main menu, click **Settings** > **Site**.
3. Click **Edit Settings**.
4. Change the URL prefix to use M2 instead of M1. E.g. then you will have to enter something like **http://M2.mycompany.com:8888/**
5. Click **Save**.
6. Restart the Application.

**After the migration**

After you finish moving the application to the new server, check the following by logging in with different user accounts, to ensure that the migration was successful.

1. Check if the dashboard loads correctly with all the reports you had selected before the migration.
2. Try to upload some documents in different projects.
3. Try to download and open an previously uploaded document.
4. Search for any particular document, project, task, etc.
5. Run some reports

# How to move your hosted data to your local server

### *Complete and verify your local installation*

Complete your local installation. Verify that you are able to login. This will mean that the application is able to connect to the database.

### *Download your database and documents*

You will be provided with a FTP link to download the database and the documents. You will see two files:

- database.backup.zip - the backup of the database
- data.zip - the backup of the documents you have uploaded

### *Unzip the two files*

Download the two files and unzip them. You should now have 2 directories :

1. A **database.backup** directory
2. A directory called **data**. Verify that the data directory has two sub-directories **indices** and **documents**.

### *Restore the database backup and data directory*

1. Stop Celoxis - run shutdown.bat (or .sh on unix) from psa_x.y.z/bin
2. Drop the existing database.
3. Recreate the database using the same database user that Celoxis will use to connect to the database.
4. Restore the database.backup (or database.bak in case of SQL Server versions) file (On how to restore, see below.)
5. Delete your existing data directory. To know your data directory, go to Setup->Site from the toolbar and click on "Edit Settings". Check the "Path" attribute in "Data Directory" section.
6. Copy the data directory to that location.
7. Run the following sql: **update db_config set value='C:\data' where name='local_storage_root';**

   Substitute the C:\data with the path where your data directory resides.
8. Run the following sql: update db_company set server_name='yourservername:8888';
9. The 'yourservername'  should be the same as what you would like your users to access Celoxis. For example if you would like users to access Celoxis as http://projects.mycompany.com:8888, then run: update db_company set server_name='projects.mycompany.com:8888';
10. Start Celoxis - run startup.bat (or .sh on unix) in psa_x.y.z/bin
11. Goto the "Edit Settings" (From toolbar Setup->Site) and re-enter your Settings

### *Restoring database in Postgresql*

pg_restore -Fc -d <dbname> -O -U <username> database.backup

### *Restoring database in Microsoft SQL Server*

Using Enterprise Manager, right click on the database node and choose "Restore" from "All Tasks"

# Debugging SSL issues with your SMTP, POP3, IMAP or LDAP servers

Celoxis SSL Poke is a java program that connects via SSL to a host and port of your choice. The server could be a web server, mail server or any other server that supports SSL. The primary objective is to determine whether Java can authenticate the server's certificate using its trusted CA certificate store. This program also verifies whether the host and port are correct.

### Download

Click here to download ssl-poke.zip.

#### Usage

1. Unzip the ssl-poke.zip file. It should create a folder that contains the SSLPoke.class file.
2. Open a terminal window on Unix/Linux or Command prompt in Windows and cd to the folder that contains the SSLPoke.class file
3. Then type:

```
java SSLPoke <host> <port>
```

#### Examples

1. Connect to our web server

```
$ java SSLPoke www.celoxis.com 443
SUCCESS
```

2. Connect to a server with a self-signed certificate

```
$ java SSLPoke localhost 8843
FAILURE: javax.net.ssl.SSLHandshakeException : PKIX path building
failed
          unable to find valid certification path to requested target
```

3. Connect to our IMAP+SSL mail server

```
$ java SSLPoke secure.emailsrvr.com 993
SUCCESS
```

- Ensure you are executing the program using JDK; **not** JRE.
- You need to run the SSLPoke from command prompt of the application server such that the JDK used by Celoxis application will be the same one used SSLPoke tool.

**Error Messages**

- **javax.net.ssl.SSLHandshakeException : sun.security.validator.ValidatorException: PKIX path building failed**
  Java cannot authenticate the server's SSL certificate because its Certificate Authority (CA) is not present in its trusted CA store.

- **java.net.UnknownHostException**
  The host name is invalid i.e. not resolvable by your DNS server

- **java.net.ConnectException : Connection refused**
  Port is invalid. No server is listening on that port.

- **java.net.ConnectException : Operation timed out**
  The host: port combo cannot be connected. Most likely your firewall is blocking the connection, or, the IP address of the host is incorrect.

- **javax.net.ssl.SSLProtocolException: handshake alert: unrecognized_name**
  The mismatch between host specified in input and host name in the SSL certificate.

# Major Upgrades

- From v9.6 to v10.0 (Latest)

- From v9.5 to v9.6

- From v9.1 to v9.5

- From v9.0 to v9.1

- From v8.0 to v9.0

- From v7.0 to v8.0

- From v6.5.X to V7.0.Y

- From v6.0.X to v6.5.Y

- From v5.1.X to v6.0.Y

- From v5.0.X to 5.1.Y

- From v4.5.X to 5.0.Y

## Upgrading from 9.6 to 10.0

**To upgrade**

1. Download Celoxis 10.0.0 from the link provided by Support in a separate mail.

2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up, database and data directory will have to be restored.
   To get this information, login as user with administrator privileges and
   - Click on

     

     and then **Site Settings.**
   - Click on **View License Info** to know your database information.
   - To know your Data Directory path, click on **Edit Site Settings** > Under the **Basic** tab, check the location mention under **Data Directory Path**.

3. **Upgrading**
   a. Unzip the downloaded psa_10.0.0.zip file into <Celoxis-install-dir>
   b. You should now have: <Celoxis-install-dir>\psa_10.0.0 directory.
   c. Open a command prompt (terminal on Linux)
   d. Stop Celoxis 9.6.0: Go to <Celoxis-install-dir>\psa_9.6.0 directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
   e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
   f. Type: cd <Celoxis-install-dir>\psa_10.0.0 (cd <Celoxis-install-dir>/psa_10.0.0 on Linux)
   g. Type: bin\startup.bat (bin/startup.sh on Linux)
   h. http://<your-server-name>:8888/psa/**site.Upgrade.do**
   i. Follow the instructions there to complete the upgrade.
4. After the upgrade is successful, you need to install the Celoxis as a service again.

If the Upgrade fails, refer here.

## Upgrading from 9.5 to 9.6

**To upgrade**

1. Download Celoxis 9.6.0 from the link provided by Support in a separate mail.

2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up, database and data directory will have to be restored.
   - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_9.5.0\webapps\psa\WEB-INF\conf
   - To know your data directory, click on

     

     and then **Site Settings.**
   - On the new page, click on **Edit Site Settings** and look for **Data Directory Path**.

3. **Upgrading**
   a. Unzip the downloaded psa_9.6.0.zip file into <Celoxis-install-dir>
   b. You should now have: <Celoxis-install-dir>\psa_9.6.0 directory.
   c. Open a command prompt (terminal on Linux)
   d. Stop Celoxis 9.5.0: Go to <Celoxis-install-dir>\psa_9.5.0 directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
   e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
   f. Type: cd <Celoxis-install-dir>\psa_9.6.0 (cd <Celoxis-install-dir>/psa_9.6.0 on Linux)
   g. Type: bin\startup.bat (bin/startup.sh on Linux)
   h. http://<your-server-name>:8888/psa/**site.Upgrade.do**
   i. Follow the instructions there to complete the upgrade.
4. After the upgrade is successful, you need to install the Celoxis as a service again.

If the Upgrade fails, refer here.

## Upgrading from 9.1 to 9.5

**To upgrade**

1. Download Celoxis 9.5.0 from the link provided by Support in a separate mail.
2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
   - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_9.1.0\webapps\psa\WEB-INF\conf
   - To know your data directory, click on

     

     and then **Site Settings.**
   - On the new page,click on **Edit Site Settings** and look for **Data Directory Path**.
3. Upgrading
   a. Unzip the downloaded psa_9.5.0.zip file into <Celoxis-install-dir>
   b. You should now have: <Celoxis-install-dir>\psa_9.5.0 directory.
   c. Open a command prompt (terminal on Linux)
   d. Stop Celoxis 9.1.0: Go to <Celoxis-install-dir>\psa_9.1.0 directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
   e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
   f. Type: cd <Celoxis-install-dir>\psa_9.5.0 (cd <Celoxis-install-dir>/psa_9.5.0 on Linux)
   g. Type: bin\startup.bat (bin/startup.sh on Linux)
   h. http://<your-server-name>:8888/psa/**site.Upgrade.do**
   i. Follow the instructions there to complete the upgrade.
4. After upgrade is successful, you need to install the Celoxis as a service again.

If the Upgrade fails, refer here.

## Upgrading from 9.0 to 9.1

Please install Java 8 and set your JAVA_HOME to use this before you proceed with the upgrade.

### *To upgrade*

1. Download Celoxis 9.1.0 from the link provided by Support in a separate mail.
2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
   - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_9.0.0\webapps\psa\WEB-INF\conf
   - To know your data directory, from the main tool bar go to **Setup** > **Site** and then click on the link **Edit Site Settings** and look at **Data Directory Path**.
3. Upgrading
   a. Unzip the downloaded psa_9.1.0.zip file into <Celoxis-install-dir>
   b. You should now have: <Celoxis-install-dir>\psa_9.1.0 directory.
   c. Open a command prompt (terminal on Linux)
   d. Stop Celoxis 9.0.0: Go to <Celoxis-install-dir>\psa_9.0.0 directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
   e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
   f. Type: cd <Celoxis-install-dir>\psa_9.1.0 (cd <Celoxis-install-dir>/psa_9.1.0 on Linux)
   g. Type: bin\startup.bat (bin/startup.sh on Linux)
   h. http://<your-server-name>:8888/psa/**site.Upgrade.do**
   i. Follow the instructions there to complete the upgrade.
4. After successful upgrade, you need to install the Celoxis as a service again.

If the Upgrade fails, refer here.

## Upgrading from 8.0 to 9.0

Please install Java 8 and set your JAVA_HOME to use this before you proceed with the upgrade.

### *To upgrade*

1. Download Celoxis 9.0.0 from the link provided by Support in a separate mail.
2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
   - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_8.0.0\webapps\psa\WEB-INF\conf
   - To know your data directory, from the main tool bar go to **Setup** > **Site** and then click on the link **Edit Site Settings** and look at **Data Directory Path**.
3. Upgrading
   a. Unzip the downloaded psa_9.0.0.zip file into <Celoxis-install-dir>
   b. You should now have: <Celoxis-install-dir>\psa_9.0.0 directory.
   c. Open a command prompt (terminal on Linux)

     d. Stop Celoxis 8.0.0: Go to <Celoxis-install-dir>\psa_8.0.0 directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)

     e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove

     f. Type: cd <Celoxis-install-dir>\psa_9.0.0 (cd <Celoxis-install-dir>/psa_9.0.0 on Linux)

     g. Type: bin\startup.bat (bin/startup.sh on Linux)

     h. http://<your-server-name>:8888/psa/**site.Upgrade.do**

     i. Follow the instructions there to complete the upgrade.

4. After successful upgrade, you need to install the Celoxis as a service again.

If the Upgrade fails, refer here.

## Upgrading from 7.0 to 8.0

From v8.0, Celoxis required Java 8. Please install Java 8 and set your JAVA_HOME to use this before you proceed with the upgrade.

### *To upgrade*

1. Download Celoxis 8.0.0 from the link provided in a separate mail sent by support
2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
   - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_7.0.0\webapps\psa\WEB-INF\conf
   - To know your data directory, from the main tool bar go to **Setup** > **Site** and then click on the link **Edit Site Settings** and look at **Data Directory Path**.
3. Upgrading
   a. Unzip the downloaded psa_8.0.0.zip file into <Celoxis-install-dir>
   b. You should now have: <Celoxis-install-dir>\psa_8.0.0 directory.
   c. Open a command prompt (terminal on Linux)
   d. Stop Celoxis 7.0.0: Go to <Celoxis-install-dir>\psa_7.0.0 directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
   e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
   f. Type: cd <Celoxis-install-dir>\psa_8.0.0 (cd <Celoxis-install-dir>/psa_8.0.0 on Linux)
   g. Type: bin\startup.bat (bin/startup.sh on Linux)
   h. http://<your-server-name>:8888/psa/**site.Upgrade.do**
   i. Follow the instructions there to complete the upgrade.
4. After successful upgrade, you need to install the Celoxis as a service again.

If the Upgrade fails, refer here.

## Upgrading from 6.5.X to 7.0.Y

### *To upgrade*

1. Download Celoxis 7.0.Y from the link provided.
2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
   - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_6.5.X\webapps\psa\WEB-INF\conf
   - To know your data directory, from the main tool bar go to **Setup** > **Site** and then click on the link **Edit Site Settings** and look at **Data Directory Path**.
3. Upgrading
   a. Unzip the downloaded psa_7.0.Y.zip file into <Celoxis-install-dir>
   b. You should now have: <Celoxis-install-dir>\psa_7.0.Y directory.
   c. Open a command prompt (terminal on Linux)
   d. Stop Celoxis 6.5.X: Go to <Celoxis-install-dir>\psa_6.5.X directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
   e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
   f. Type: cd <Celoxis-install-dir>\psa_7.0.Y (cd <Celoxis-install-dir>/psa_7.0.Y on Linux)
   g. Type: bin\startup.bat (bin/startup.sh on Linux)
   h. http://<your-server-name>:8888/psa/site.Upgrade.do
   i. Follow the instructions there to complete the upgrade.
4. After successful upgrade, you need to install the Celoxis as a service again.

If the Upgrade fails, refer here.

## Upgrading from 6.0.X to 6.5.Y

### *To upgrade*

1. Download Celoxis 6.5.X from the link provided.

2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
    - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_6.0.0\webapps\psa\WEB-INF\conf
    - To know your data directory, from the main tool bar go to **Setup** > **Site** and then click on the link **Edit Site Settings** and look at **Data Directory Path**.
3. Upgrading
    a. Unzip the downloaded psa_6.5.X.zip file into <Celoxis-install-dir>
    b. You should now have: <Celoxis-install-dir>\psa_6.5.X directory.
    c. Open a command prompt (terminal on Linux)
    d. Stop Celoxis 6.0.0: Go to <Celoxis-install-dir>\psa_6.0.0 directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
    e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
    f. Type: cd <Celoxis-install-dir>\psa_6.5.X (cd <Celoxis-install-dir>/psa_6.5.X on Linux)
    g. Type: bin\startup.bat (bin/startup.sh on Linux)
    h. http://<your-server-name>:8888/psa/site.Upgrade.do
    i. Follow the instructions there to complete the upgrade.
4. After successful upgrade, you need to install the Celoxis as a service again.


If the Upgrade fails, refer here.

## Upgrading from 5.1.X to 6.0.Y


### *To upgrade*

1. Download Celoxis 6.0.Y from the link provided.
2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
    - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_5.1.X\webapps\psa\WEB-INF\conf
    - To know your data directory, from the main tool bar go to Setup > Site and then click on the link Edit Settings (Mail Server, etc.) and look at Data Directory Path.
3. Upgrading
    a. Unzip the downloaded psa_6.0.Y.zip file into <Celoxis-install-dir>
    b. You should now have: <Celoxis-install-dir>\psa_6.0.Y directory.
    c. Open a command prompt (terminal on Linux)
    d. Stop Celoxis 5.1.X: Go to <Celoxis-install-dir>\psa_5.1.X directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
    e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
    f. Type: cd <Celoxis-install-dir>\psa_6.0.Y (cd <Celoxis-install-dir>/psa_6.0.Y on Linux)
    g. Type: bin\startup.bat (bin/startup.sh on Linux)
    h. http://<your-server-name>:8888/psa/site.Upgrade.do
    i. Follow the instructions there to complete the upgrade.
4. After successful upgrade, you need to install the Celoxis as a service again.


If the Upgrade fails, refer here.

## Upgrading from 5.0.X to 5.1.Y


### *To upgrade*

1. Download Celoxis 5.1 from the link provided
2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
    - To know your database, go to license.properties file into <Celoxis-install-dir>\psa_5.0.X\webapps\psa\WEB-INF\conf
    - To know your data directory, from the main tool bar go to Setup > Site and then click on the link Edit Settings (Mail Server, etc.) and look at Data Directory Path.
3. Upgrading
    a. Unzip the downloaded psa_5.1.Y.zip file into <Celoxis-install-dir>
    b. You should now have: <Celoxis-install-dir>\psa_5.1.Y\webapps directory
    c. Open a command prompt (terminal on Linux)
    d. Stop Celoxis 5.0.X: Go to <Celoxis-install-dir>\psa_5.0.X directory and type : bin\shutdown.bat (bin/shutdown.sh on Linux)
    e. If you have installed Celoxis as a Windows Service, remove it. Type : bin\service.bat remove
    f. Type: cd <Celoxis-install-dir>\psa_5.1.Y (cd <Celoxis-install-dir>/psa_5.1.Y on Linux)
    g. Type: bin\startup.bat (bin/startup.sh on Linux)
    h. http://<your-server-name>:8888/psa/Upgrade.do
    i. Follow the instructions there to complete  the upgrade.
4. After successful upgrade, you need to install the Celoxis as a service again.


If the Upgrade fails, refer here.

## Upgrading from 4.5.X to 5.0.Y

> If you are using an older version than 4.5 and wish to upgrade to version 5.0 then please contact support team.
>
> You cannot upgrade directly from V4.5 to V5.1

**To upgrade:**

1. Download Celoxis 5.0. We will send you the download link
2. Backup your existing database and data directory. If the upgrade fails for any reason, the backed up database and data directory will have to be restored.
   a. To know your database, go to license.properties file into <**Celoxis-install-dir>\psa_4.5.0\webapps\psa\WEB-INF\conf**.
   b. To know your data directory, from the main tool bar go to **Setup > Site** and then click on the link **Edit Settings** (Mail Server, etc.) and look at Data Directory Path.

**Upgrading**:

   a. Unzip the downloaded psa_5.0.zip file into <**Celoxis-install-dir>(<Celoxis-install-dir**> on Linux)
   b. You should now have: <**Celoxis-install-dir>\psa_5.0.x\**webapps directory **(<Celoxis-install-dir>/psa_5.0.x/webapps** on Linux)
   c. Open a command prompt (terminal on Linux)
   d. Stop Celoxis 4.5.0: Go to <**Celoxis-install-dir>\psa_4.5.0** directory and type : **bin\shutdown.bat** (**bin/shutdown.sh** on Linux)
   e. If you have installed Celoxis as a Windows Service, remove it. Type : **bin\service.bat** remove
   f. Type: cd <**Celoxis-install-dir**>\psa_5.0.x (cd **<Celoxis-install-dir>/psa_5.0.x** on Linux)
   g. Type: **bin\startup.bat (bin/startup.sh** on Linux)
   h. **http://<your-server-name>:8888/psa/Upgrade.do**
   i. Follow the instructions there to complete  the upgrade.

If the Upgrade fails, refer here.

## When an Upgrade fails

### Typical reasons for an upgrade to fail :

1. You need to upgrade the versions in order they were released i.e you cannot upgrade from a v5.1 to v6.5 directly.
   You need to first do a v5.1 to v6.0 and then v6.5 in the same order.

2. The Upgrade URL you are entering is incorrect. Verify that it is http://server_name:8888/psa/**site.Upgrade.do?**
   Typing anything else, will give you an error.

3. You have copied the *license.properties*, *site.properties*, *db.properties* from the old installation directory to the new directory.
   The upgrade process that you run will copy the 3 files to the new directory. Hence, you are asked for your current installation directory.
   DO NOT copy these 3 files manually.

4. During the upgrade process, you are prompted to enter the current installation directory. Please enter the correct path.

5. Your Upgrade has failed once and you are restarting the Upgrade process without deleting the psa_x.y.z directory where the upgrade failed.
   You need to delete the directory and unzip it again before starting the upgrade.

6. Make sure that your existing installation is working fine before you proceed with the upgrade again. Earlier failed upgrade can leave your database in an inconsistent state. Hence, restore the working database before proceeding with the upgrade.

7. If you have made any customization to the default port number (which is 8888) in your current installation, you will have to manually copy it to the new *psa* directory and then start the upgrade. Else, use the URL as mentioned in point 1.

8.  It does not matter if you click on *startup.bat* file from the install directory/psa_x.y.z/bin directory or from the command prompt, as both will have the same result. Its important that the window remains open during the upgrade process.

Even after following the correct steps mentioned above, your upgrade fails, drop a mail to support@celoxis.com with the debug bundle.

### Steps to roll back to your earlier version if upgrade fails :

1. Delete and recreate the Celoxis database again.
2. Restore a working backup of the earlier database version.
3. Start the application from the earlier version.

***Steps to restart the Upgrade:***

1. Delete the existing (new) psa_x.y.z directory and unzip the directory again. Make sure you have unzipped it correctly. There should be a psa_x.y.z directory having directories like bin, conf, webapps, etc.
   There should NOT be a psa_x.y.z directory inside a psa_x.y.z.
2. Delete and recreate the Celoxis database again.
3. Restore a working backup of the database. Ensure that the current version of Celoxis you are on is up and working correctly.
4. Start the Upgrade process again.

# Applying a minor release

1. Browse (or 'cd' on Linux) to the CELOXIS-INST-FOLDER. This is the folder in which you have installed Celoxis. For example, if your psa_10.0.0 folder is in C:\Celoxis, then go to this folder.
2. Stop Celoxis
3. If you have installed Celoxis as a Windows Service then remove the service
4. Rename psa_10.0.0 folder to psa_10.0.0.old
5. Download the new psa_10.0.0.zip and copy it to CELOXIS-INST-FOLDER
6. Unzip
7. Now you should have two folders psa_10.0.0 and psa_10.0.0.old in CELOXIS-INST-FOLDER
8. Copy the files: db.properties, site.properties & license.properties from psa_10.0.0.old/webapps/psa/WEB-INF/conf to psa_10.0.0/webapps/psa/WEB-INF/conf
9. Start Celoxis
10. Once you see that everything is working fine, delete psa_10.0.0.old
11. If you want, you can install Celoxis as a Windows Service.

## Bug fix for 9.1

1. Browse (or 'cd' on Linux) to the CELOXIS-INST-FOLDER. This is the folder in which you have installed Celoxis. For example, if your psa_9.1.0 folder is in C:\Celoxis, then go to this folder.
2. Stop Celoxis
3. If you have installed Celoxis as a Windows Service then remove the service
4. Rename psa_9.1.0 folder to psa_9.1.0.old
5. Download the new psa_9.1.0.zip and copy it to CELOXIS-INST-FOLDER
6. Unzip
7. Now you should have two folders psa_9.1.0 and psa_9.1.0.old in CELOXIS-INST-FOLDER
8. Copy the files: db.properties, site.properties & license.properties from psa_9.1.0.old/webapps/psa/WEB-INF/conf to psa_9.1.0/webapps/psa/WEB-INF/conf
9. Start Celoxis
10. Once you see that everything is working fine, delete psa_9.1.0.old
11. If you want, you can install Celoxis as a Windows Service.

## Bug fix for 9.0

1. Browse (or 'cd' on Linux) to the CELOXIS-INST-FOLDER. This is the folder in which you have installed Celoxis. For example, if your psa_9.0 folder is in C:\Celoxis, then go to this folder.
2. Stop Celoxis
3. If you have installed Celoxis as a Windows Service then remove the service
4. Rename psa_9.0 folder to psa_9.0.old
5. Download the new psa_9.0.zip and copy it to CELOXIS-INST-FOLDER
6. Unzip
7. Now you should have two folders psa_9.0 and psa_9.0.old in CELOXIS-INST-FOLDER
8. Copy the files: db.properties, site.properties & license.properties from psa_9.0.old/webapps/psa/WEB-INF/conf to psa_9.0/webapps/psa/WEB-INF/conf
9. Start Celoxis
10. Once you see that everything is working fine, delete psa_9.0.old
11. If you want, you can install Celoxis as a Windows Service.

## Bug fix for 6.0

1. Browse (or 'cd' on Linux) to the CELOXIS-INST-FOLDER. This is the folder in which you have installed Celoxis. For example, if your psa_6.0.0 folder is in C:\Celoxis, then go to this folder.
2. Stop Celoxis
3. If you have installed Celoxis as a Windows Service then remove the service
4. Rename psa_.6.0.0 folder to psa_6.0.0.old
5. Download the latest psa_6.0.0.zip and copy it to CELOXIS-INST-FOLDER
6. Unzip
7. Now you should have two folders psa_6.0.0 and psa_6.0.0.old in CELOXIS-INST-FOLDER
8. Copy the files: db.properties, site.properties & license.properties from psa_6.0.0.old/webapps/psa/WEB-INF/conf to psa_6.0.0/webapps/psa/WEB-INF/conf
9. Start Celoxis
10. Once you see that everything is working fine, delete psa_6.0.0.old
11. Re-install the Celoxis Service if you had set earlier.

## Bug Fix for 5.1.0 to 5.1.2

1. Browse (or 'cd' on Linux) to the CELOXIS-INST-FOLDER. This is the folder in which you have installed Celoxis. For example, if your psa_5.1.0 folder is in C:\Celoxis, then go to this folder.
2. Stop Celoxis
3. If you have installed Celoxis as a Windows Service then remove the service
4. Rename psa_5.1.0 folder to psa_5.1.0.old
5. Download psa_5.1.2.zip and copy it to CELOXIS-INST-FOLDER
6. Unzip
7. Now you should have two folders psa_5.1.2 and psa_5.1.1.old in CELOXIS-INST-FOLDER
8. Copy the files: db.properties, site.properties & license.properties from psa_5.1.0.old/webapps/psa/WEB-INF/conf to psa_5.1.2/webapps/psa/WEB-INF/conf
9. Start Celoxis
10. Once you see that everything is working fine, delete psa_5.1.0.old
11. If you want, you can install Celoxis as a Windows Service

## Bug fix for 5.0.X to 5.0.20

1. If you are running 5.0.10 or earlier, run the SQL : CREATE INDEX idx_te_state ON db_time_entry (state)
2. Browse (or 'cd' on Linux) to the CELOXIS-INST-FOLDER. This is the folder in which you have installed Celoxis. For example, if your psa_5.0.X folder is in C:\Celoxis, then go to this folder.
3. Stop Celoxis
4. If you have installed Celoxis as a Windows Service then remove the service
5. Rename psa_5.0.X folder to psa_5.0.X.old
6. Download psa_5.0.20.zip and copy it to CELOXIS-INST-FOLDER
7. Unzip
8. Now you should have two folders psa_5.0.20 and psa_5.0.X.old in CELOXIS-INST-FOLDER
9. Copy the files: db.properties, site.properties & license.properties from psa_5.0.X.old/webapps/psa/WEB-INF/conf to psa_5.0.20/webapps/psa/WEB-INF/conf
10. Start Celoxis
11. Once you see that everything is working fine, delete psa_5.0.X.old
12. If you want, you can install Celoxis as a Windows Service
13. For any questions, please contact our help desk.

# Regular Maintenance

**Backing-up your database and data directory**

**Maintenance for PostgreSQL Database**

**Maintenance for Microsoft SQL Server Database**

## Backing-up your database and data directory

It is recommended that you regularly backup the database and data directory (that stores uploaded documents and other information).

**To find the location of your data directory:**

1. From main menu, click **Settings > Site**.
2. Click **Edit Site Settings**.
3. In the new pop-up, under **Basic** tab, under **Data Directory Path**, is the location of your data directory.

## Maintenance for PostgreSQL Database

**To backup the database (on Linux):**

1. Open a command prompt
2. Type:

**pg_dump -U [database-user] -Ft [database-name] > [filename]**
This will create a dump file which can be restored using the **pg_restore** command. Please read the Postgresql administration guide for more options and details.

**To backup the database (on Microsoft Windows):**

1. Open **pgAdmin** tool.
2. Open the server node and navigate to your database.
3. Right click on your database and choose Backup...
4. Enter a file name. Leave the other defaults as is.
5. Click **OK**

It is recommended that you set the autovacuum parameter in postgresql.conf to on. This will automatically optimize your database.

## Maintenance for Microsoft SQL Server Database

To create a database user and database, open SQL Server Management Studio and login as sa (the database administrator user).

**To backup the database:**

1. Open the **Databases** node.
2. Right click Celoxis database node and click **Tasks** > **Backup...**
3. Select the appropriate options.
4. Click **OK**.

> To keep your database optimized, we suggest that you rebuild your database indexes regularly. Contact your database administrator for more information.

# Miscellaneous Topics

**How to apply a new license file**

**How to send us the Debug Bundle**

**How to Reset your Administrator password?**

**How to know your Site Administrator password**

## How to apply a new license file

You will receive a **license.zip** file from us. Unzipping it will return in a **license.properties** file.

**To apply the new license file:**

1. Stop Celoxis
2. Copy the license.properties file to **<CELOXIS-INSTALL-DIR>/psa_X.Y.Z/webapps/psa/WEB-INF/conf**
3. Start Celoxis

> **License Issue Policy**
>
> The Celoxis license is tied to a hardware. In order to avoid abuse, our policy is to give 2 free licenses a year. This should cover hardware failures/upgrades/reorganization.
> Temporary licenses are not counted towards 2 free licenses. Additional license request need to go through an approval process and will be charged.

## How to send us the Debug Bundle

Debug bundle is a ZIP file containing your log files and other configuration. It helps our engineers and support representatives and results in a speedy resolution. To send us the debug bundle :

1. Reproduce the issue.
2. Log in as a user having administrator privileges.
3. From the main menu, click on

   **•••**

   and then **Site Settings** OR type following in the browser: http://<your-server-name>:<port-number>/psa/site.Admin.wm?
   You might be prompted for a password.
4. On the new page, click on **Download Debug Bundle.**
5. You will be prompted to save a ZIP file. Save it on your computer.
6. Attach the file to your support ticket.

In case and upgrade/install has failed, go to the following location and send us the file:

- Go to <Celoxis-install-directory>\psa_x.y.z\webapps\psa\WEB-INF\logs
- Zip the entire logs directory and send it to us.

> It is important that you send us the log file immediately after reproducing the issue. Else, the log files will be overwritten and we will not be able to investigate further.

### How to Reset your Administrator password?

In some cases you might have forgotten the Administrator account and then only way is to reset the password. Follow the steps below to reset the password :-

Run the following queries on your database :

- First you need to find the ID of your company. Run the following query to find the vdb_id of your company :-
  select vdb_id, company_code, name from db_company

- Now run the below query to change the password :

  update db_person set pwd = 'Y2Vsb3hpczE=' where login_name = 'administrator' and vdb_id = 'enter the vdb_id of the company you got from the above query'

  This query will change the password of administrator 'celoxis1' (without quotes).

### How to know your Site Administrator password

To know your site administrator when accessing **Settings** > **Site:**

- Go to <install-directory>\celoxis\psa_9.1.0\webapps\psa\WEB-INF\conf
- Open the site.properties file in notepad.
- You should see the password here.
- To reset the password, change the password here and restart the application .

# API Guide

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- Authentication
    - With PHP API
    - With XML/JSON
- Calling a Function
- Examples
    - Examples of PHP API
    - Examples of XML/JSON API
- Error Handling and Debugging
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## Function Reference
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- Query Utilization
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- Clone Projects
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- Update Tasks
- Clone Tasks
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- Create Users
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- db_custom_report
- db_discussion
- db_discussion_subscription
- db_document
- db_document_ci
- db_document_co
- db_event_invitation
- db_expense
- db_expense_code
- db_expense_item
- db_favorite
- db_folder
- db_fs_file
- db_group
- db_membership
- db_message
- db_message_attachments
- db_note
- db_person
- db_process
- db_process_state_mgr
- db_process_type
- db_process_update
- db_project
- db_project_category
- db_project_state
- db_rate
- db_reminder
- db_report_customization
- db_sla
- db_sla_assignment
- db_sla_entry
- db_state
- db_state_transition
- db_task
- db_task_dependency
- db_task_exception
- db_task_update
- db_time_code
- db_time_entry
- db_working_calendar
- db_working_time

## PHP API

## Introduction

The Celoxis Application Programming Interface (API) is another way to access Celoxis — one that makes it easy for third-party and custom tools to programatically access and interact with the service.

The principal design objectives behind the API are:

- Simplicity and easy of use
- Language independence - you should be able to use any programming language like Java, .NET.
- Flexibility - you should be able to leverage the full power of SQL

Celoxis provides you with 2 ways to extract data from the database:

- XML/JSON
- PHP-API

## Representation Formats

- The API uses XML or JSON for requests as well as responses. This is governed by the parameter **data-format** that is to be passed in every request. All XML documents sent to and returned from the service should be XML 1.0, encoded as UTF-8. In case of JSON, all strings are encoded in UTF-8 format. For example refer here.

- Date and time is represented as: YYYY-MM-DD hh:mm:ss e.g. 10 August 2011, 1:45 PM will be represented by 2011-08-10T13:45:00

- Boolean values are to be represented as strings true and false. Booleans in database columns are stored as 't' for true and 'f' for false.

- When the format is XML, property names and their values are returned as XML elements and its contents respectively. In case of JSON, they become the object property name and value respectively.

For PHP, refer the sample file in the zip file here.

## Authentication

The first step in using the Celoxis API is to authenticate to the server. This user *must* have administrative privileges. We recommend that you create a special user dedicated to using the API. On successful authentication, you will receive a token that should be passed in every API call else the call will be rejected with an authentication error.

### With PHP API

To authenticate using PHP, use the following:

```
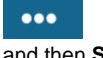$api->login('User_name', 'Password', 'Company_Code');
```

You will get the authentication token as the result.

### With XML/JSON

An Administrator user can authenticate as follows. This generated token then needs to be passed in any API function that you execute. To see how to pass the token, refer here.

```
http://yourservername:portnumber/psa/api.do?function=login&username=userna
me&password=password&company-code=company code
```

For example:
http://acmeindia:8888/psa/api.do?function=login&username=janet&password=diamond45&company-code=acme_com

If data format is **XML** and your authentication is successful, you will receive XML with two elements: token and user_id. For example:

```
<result>
    <token>a1dc42fb-d420-10feb-aaks9-89f5c0e8sk3c</token>
    <user_id>112233</user_id>
</result>
```

In case the data format is **JSON**, you will receive an object with properties token and user_id respectively.

```
{"result":{"token":"a1dc42fb-d420-10feb-aaks9-89f5c0e8sk3c","user_id":1122
33}}
```

On how to handle errors, see  Error Handling and Debugging

## Calling a Function

Once you authenticate, you are ready to use the API. To call a function, you should specify at least the following parameters:

**function**

The name of the function.

**token**

The authentication token that you received on Authentication.

**data-format**

One of **xml** or **json**. If nothing is specified, it defaults to **xml**. This specifies format in which data will be sent and received.

In addition, you should specify the parameters required by the function you are calling. See the function reference for more details. On success, the X-Success HTTP header has the value 1 while in case of failure it has the value 0. An error message is present in the X-Error-Message header.

> All parameter names and values are case sensitive. Token,TOKEN and token are treated differently.

For examples, refer here.

For PHP, refer the sample file in the zip file here.

## Examples

Following pages have some examples of how you can use the API to fetch data from Celoxis database.

## Examples of PHP API

You will have to create a file with .php extension for executing this.

1. To fetch all projects where percent complete is > 0 and manager_id is 29863

```
$rows = $api->query(array('table'=>'db_project',
'db_project.percent_complete.>' => 0, 'manager_id' => 29863));
foreach ($rows as $row)
{
echo 'id=' . $row['id'];
echo 'summary=' . $row['summary'];
echo '<br/>';
}
```

2. To create a project

```
$api->create("projects", array(
          array('project_category_id'=> 7864,
                'summary'=>'create by api 1',
                'plan_start' => $api->encodeDate(2013, 6, 1),
                'deadline' => $api->encodeDate(2013, 12, 31),
                'manager_id' => 29863,
                'client_id' => 29862)
          )
     );
```

For more details, download the PHP API here.

## Examples of XML/JSON API

All the URLs in the following examples must be prefixed by **http://<celoxis-server-name>:<port>/psa/**

1. Find the list of all projects that are in progress

```
api.do?function=query&table=db_project&status_id=1&data-format=json&t
oken=a1dc42fb-d420-10feb-aaks9-89f5c0e8sk3c&data-format=xml
```

2. Fetch details of task with id 100

```
api.do?function=query&table=db_task&id=100&token=a1dc42fb-d420-10feb-
aaks9-89f5c0e8sk3c&data-format=json
```

Not specifying the data-format, defaults the result to XML format.

3. Fetch tasks assigned to user with id 200

```
api.do?function=query&table=db_task&join-with=db_assignment.task_id&d
b_assignment.user_id=200&data-format=json&token=a1dc42fb-d420-10feb-a
aks9-89f5c0e8sk3c
```

4. Execute a query using SQL (This example can only be used by On-Premise customers)

```
api.do?function=query&table=generic&sql=select+id+from+db_project+whe
re+fixed_price+>+100000
```

## Error Handling and Debugging

On success, the X-Success HTTP header has the value 1 while in case of failure it has the value 0. On success, the HTTP status code will be the standard 200 OK. On error, an error message is present in the X-Error-Message HTTP header. In case of failure, the following HTTP status codes are returned :

### 401 - Unauthorized

This means that the authentication token is invalid. You will have to authenticate before calling the operation.

### 404 - Not Found

In case something (e.g. table) is not found.

### 400 - Bad Request

There is some other error.

### 403 - Forbidden

Either the function call you are making is not allowed or you have exceeded the rate limit.

In addition, the following headers are present that can help in further debugging :

### X-Last-SQL

The last SQL statement executed.

### X-Error-Exception

The name of the error class e.g. SQLException, NotFoundException, etc.

## Limitations

1. SaaS customers cannot use the **generic** table (table=generic) when executing multiple queries.

2. SaaS customers are allowed 600 requests every hour. This is enough to make just over ten requests per minute, per hour, which should meet the needs of most applications. Rate limiting applies only to authenticated API requests. Rate limiting does NOT apply for on-premise customers.
   Notification that a client has exceeded the rate limit will be sent via HTTP status code of 403. The X-Error-Message header will describe the error. In order for you not to exceed the limits, we recommend that your application that uses the Celoxis API cache items that change infrequently e.g. time codes, expense codes and users. We also recommend that you submit items in bulk while updating through the API.

# Function Reference

**Query**

**Query Utilization**

**Create Projects**

**Clone Projects**

**Update Projects**

**Create Tasks**

**Update Tasks**

**Clone Tasks**

**Create Task Updates**

**Create Time Entries**

**Import Time Entries (Since v9.1)**

**Create Users**

**Update Users**

**Verify Password**

**Create Clients**

**Update Clients**

## Query

This function is used to query the database. Celoxis API has two ways to query the database.

- One is a simple version where you specify the table and the filter conditions .
- In the other way, you write the SQL yourselves. This is available only for install-able/On-premise version customers.

### *Function name*

**query**

### *Parameters*

**table** (Required)

One of the valid table names as mentioned in the table reference or **generic** for running any SQL query (only for On-Premise customers).

**Filtering conditions** (Optional)

You can specify filter conditions for rows in one of the following formats:

a. &lt;column-name&gt;=&lt;value&gt;
b. &lt;table-name&gt;.&lt;column-name&gt;=&lt;value&gt;
c. &lt;table-name&gt;.&lt;column-name&gt;.&lt;operator&gt;=&lt;value&gt;

In case of 1, table name is assumed to be the table parameter. In case of 1 and 2 the operator is assumed to be '='. You can have operators like '=', '>', '<', '>=', '<=' and '!='. For example, **db_task.plan_start.>=2008-10-1** would mean tasks that start after 1st of October 2008.

You can specify multiple such conditions, separated by the '&' sign. If you specify the column name more than once, it is assumed that you want an 'OR' condition between its multiple values. For example to fetch a list of incomplete tasks in project whose id is 200 you should specify:

```
api.do?function=query&table=db_task&project_id=200&db_task.percent_complet
e.<=100
```

Below query will return names of users who have a login in the application.

```
api.do?function=query&table=generic&sql=select name from db_person where
login_name IS NOT NULL
```

This query will show tasks which do not have 'Details' entered i.e details field is blank.

```
api.do?function=query&table=generic&sql=select summary from db_task where
detail like ''
```

**join-with** (Optional)

If you want the table to be joined with another table, you specify the 'join-with' parameter. This will be of the form &lt;table-name&gt;.&lt;column-name&gt;. The main table (specified by the table parameter) will be joined on its primary key with the table and column specified with the 'join-with' parameter. For example to fetch a list of tasks assigned to user with id 7 with project phase 1, you should specify :

```
api.do?function=query&table=db_task&join-with=db_assignment.task_id&db_ass
ignment.user_id=7&db_task.project_phase_id=1
```

**order-by** (Optional)

The column on which to order the results by. You can even append **asc** or **desc** to the column to sort that column in ascending or descending order. Separate multiple columns by comma. For example, in case of the db_task table, to order the tasks by **plan_start** ascending and **plan_finish** descending, specifying the **order-by** parameter as **plan_start asc, plan_finish desc**. This is not applicable when sql is specified.

**where** (Optional)

The SQL **where** clause. This provides more flexibility than filter parameters.

**sql** (Optional)

The entire SQL query. This is only available for On-Premise customers.

**skip** (Optional)

The number of rows to skip before returning the remaining rows. This is not applicable when **sql** is specified.

**take** (Optional)

The number of rows to return. This is not applicable when **sql** is specified.

**Return values:**

In case of XML data format, you will be returned an XML string with two elements: **count** (the number of rows) and **rows** (this will contain multiple **row** elements). In addition to the requested columns, computed values (see table reference for more information) and custom field values are also returned. For example

```
<result>
  <count>8</count>
   <rows>
      <row>
         <f><n>id</n><v>3246247</v></f>
         <f><n>guid</n><v>156E02DD-66B8-476E-8083-B86120BD99</v></f>
         <f><n>vdb_id</n><v>10961</v></f>
         <f><n>created</n><v>2012-10-09T06:03:37</v></f>
         <f><n>ts</n><v>2013-10-17T01:55:36</v></f>
         <f><n>creator_id</n><v/></f>
         <f><n>project_id</n><v>111829</v></f>
         <f><n>src</n><v/></f>
         <f><n>parent_id</n><v/></f>
         <f><n>folder_id</n><v>1199815</v></f>
         <f><n>priority</n><v>3</v></f>
         <f><n>summary</n><v>T</v></f>
         <f><n>detail</n><v/></f><f></row>
       ...
       ...
      </row>
    </rows>
  </result>
```

In case of JSON, it will return an object with two properties: **count** (the number of rows) and **rows** (an array of objects).

```
{"count":8,
    "rows":
     [
       [
         {"v":"3246247","n":"id"},
         {"v":"156E02DD-66B8-476E-8083-F2B86120BD99","n":"guid"},
         {"v":"10961","n":"vdb_id"},
         {"v":"2012-10-09T06:03:37","n":"created"},
         {"v":"2013-10-17T01:55:36","n":"ts"},
         {"v":"","n":"creator_id"},
         {"v":"111829","n":"project_id"},
         {"v":"","n":"src"},
         {"v":"","n":"parent_id"},
         {"v":"1199815","n":"folder_id"},
         {"v":"3","n":"priority"},
         {"v":"T","n":"summary"},
         {"v":"","n":"detail"},
         ...
         ...
       ]
     ]
  }
```

## Query Utilization

Query the planned, available and actual utilization and cost of resources in a given time period.

Businesses have their own way of organizing resource utilization data and this function provides a flexible way to achive that. Although XML could have been used to organize the information hierarchically thereby reducing the size of the data by avoiding duplication, we have deliberately returned the data as 'rows'. We think that the best way to use this information is to create temporary SQL tables on your client side, insert the data returned into those tables and then use the power of SQL to query to generate suitable output.

### *Function name*

**query-utilization**

### *Parameters*

- **from**. Date from which utilization is required.
- **to**. Date till which utilization is required.
- **project_phase_id** (Optional). Only include data for projects with these phase ids.
- **zoom** (Optional). Groups utilization data by day, week or month (the default). Valid values: 5 for Day, 3 for Week and 2 for Month.
- **user_id** (Optional). You can mention the user ID, email address or name here.

---

- Even if a task is not planned in that duration, but the resource has filled time-entry or expense for the task in that period, then the task will appear in the return values.
- If **to** and **from** values are not specified, then the return values are fetched for the current month.

---

### *Return values*

In case of XML data format, you will be returned an XML string with two elements: **count** (the number of rows) and **rows** (this will contain multiple **row** elements). For instance,

```
<result>
  <rows>
    <row>
      <f>
        <v>62237</v><!--ID of the resource-->
        <n>resource_id</n>
      </f>
      <f>
        <v>Martha Young</v> <!-- Name of the resource-->
        <n>resource_name</n>
      </f>
      <f>
        <v>3502553</v><!-- ID of the task-->
        <n>task_id</n>
      </f>
      <f>
        <v>Start production of commercial product quantities</v> <!-- Name
of the task-->
        <n>task_name</n>
      </f>
      <f>
        <v>35</v> <!-- %Complete of the task-->
        <n>task_pc</n>
      </f>
      <f>
        <v>86780</v> <!-- ID of the project-->
```

```xml
      <n>project_id</n>
    </f>
    <f>
      <v>Build v89.986 Register</v> <!-- Name of the project-->
      <n>project_name</n>
    </f>
    <f>
      <v>0</v> <!-- % Complete of the project-->
      <n>project_pc</n>
    </f>
    <f>
      <v>In Progress</v> <!-- Phase of the project-->
      <n>project_phase_name</n>
    </f>
    <f>
      <v>Risk Management</v> <!-- Category of the project-->
      <n>project_category_name</n>
    </f>
    <f>
      <v>DAGS</v> <!-- Client of the Project-->
      <n>client_root_name</n>
    </f>
    <f>
      <v>12690</v> <!-- Available minutes for this resource in this period
taking into account holidays and vacations-->
      <n>availability</n>
    </f>
    <f>
      <v>480</v> <!-- Planned minutes for this task for this period for
this resource -->
      <n>planned</n>
    </f>
    <f>
      <v>2000</v><!--Estimated billing for this task for this period for
this resource-->
      <n>estimated_labour_billing</n>
    </f>
    <f>
      <v>600</v><!--Estimated labor cost for this task for this period for
this resource-->
      <n>estimated_labour_cost</n>
    </f>
    <f>
      <v>2013-01-01T00:00:00</v> <!--start date of the period--><--This is
important when the Zoom is day so that you see the planned minutes on the
task for that date-->
      <n>period_start</n>
    </f>
    <f>
      <v>65</v> <!-- Actual minutes for this task for this period for this
resource-->
      <n>actual</n>
    </f>
```

```xml
    <f>
      <v>650</v> <!-- Actual cost for this task for this period for this
resource-->
      <n>actual_time_cost</n>
    </f>
    <f>
      <v>0</v> <!-- Actual billable amount for this task for this period
for this resource-->
      <n>actual_time_billable_amount</n>
    </f>
    <f>
      <v>0</v><!-- Actual expense amount for this task for this period for
this resource-->
      <n>actual_expense_cost</n>
    </f>
    <f>
      <v>0</v><!-- Actual billable expense amount for this task for this
period for this resource-->
      <n>actual_expense_billable_amount</n>
    </f>
    </row>
  </rows>
</result>
```

In case of JSON, it will return an object will have the property **rows** (which will be an array of objects with **n** and **v** properties respectively)

```
{
 "rows":
   [
     {
       "row":[{"f":{"v":"91199","n":"resource_id"}}
              {"f":{"v":"Manasi (Mike)","n":"resource_name"}},
              {"f":{"v":"3793302","n":"task_id"}},
              {"f":{"v":"1","n":"task_name"}},
              {"f":{"v":"100","n":"task_pc"}},
              {"f":{"v":"134008","n":"project_id"}},
              {"f":{"v":"Build v89.986 Register","n":"project_name"}},
              {"f":{"v":"3","n":"project_pc"}},
              {"f":{"v":"In Progress","n":"project_phase_name"}},
              {"f":{"v":"Risk Managment","n":"project_category_name"}},
              {"f":{"v":"DAGS","n":"client_root_name"}},
              {"f":{"v":"14880","n":"availability"}},
              {"f":{"v":"0","n":"planned"}},
              {"f":{"v":"2013-10-01T00:00:00","n":"period_start"}},
              {"f":{"v":"0","n":"actual"}},
              {"f":{"v":"0","n":"actual_time_cost"}},
              {"f":{"v":"0","n":"actual_time_billable_amount"}},
              {"f":{"v":"0","n":"actual_expense_cost"}},
              {"f":{"v":"0","n":"actual_expense_billable_amount"}}

           ]
       }
       ....
     ]
   }
```

## Create Projects

### *Function name*

**create-projects**

### *Parameters*

- data (Required). It is an array of project fields. The details of the fields are as follows:

  **project_category_id** (Required). ID or Name of the project category.
  **summary** (Required). A short description of the project.
  **plan_start** (Required). Date. The planned start date of this project.
  **deadline** (Required). Date. The planned finish date of this project.
  **manager_id** (Required). ID or Name of the project manager.
  **client_id** (Required). ID or Name of the client.
  **code** (Optional). A unique code for the project.
  **priority** (Optional). Integer between 1 (Very High) and 5 (Very Low)

**detail** (Optional). A detailed description for this project.
**state_id** (Optional). The ID or Name of the project phase.
**budget** (Optional). Number. The budget for this project.
**workspace_id** (Required). ID or Name of the project's department.
**billing_model** (Optional). Integer. 1 for Fixed and 2 for Hourly.
**fixed_price**(Optional). Integer. The amount if your billing model is fixed price.
**custom_field_1** (Optional). The custom field attached to a project. You need to use the Formula Key of the custom field.

## *Return Values*

**project_id(s)**

When your data format is XML, you should post something like this:

```xml
<data>
    <item> <!--create projects-->
      <code>PRJ-101</code>
      <project_category_id>Animation</project_category_id>
      <manager_id>Mary Jane</manager_id>
      <client_id>Acme Consulting</client_id>
      <state_id>In Planning</state_id>
      <workspace_id>Technical</workspace_id>
      <summary>Project #1</summary>
      <priority>2</priority>
      <plan_start>2010-11-02T08:00:00</plan_start>
      <deadline>2010-11-04T17:00:00</deadline>
      <Start_up_cost>500</Start_up_cost> <!--Start_up_cost is the formula
key of a custom field attached to a project>
      <budget>100000</budget>
    </item>
    <item>
      <code>PRJ-102</code>
      <project_category_id>100</project_category_id>
      <manager_id>101</manager_id>
      <client_id>201</client_id>
      <state_id>2</phase_id>
      <workspace_id>3</workspace_id>
      <summary>Project #2</summary>
      <priority>1</priority>
      <plan_start>2010-11-02T08:00:00</plan_start>
      <deadline>2010-11-04T17:00:00</deadline>
      <budget>200000</budget>
    </item>
</data>
```

In case of JSON, you should submit an array of objects with the same properties.

```
[
  {
    "project_category_id" : "Animation",
    "manager_id" : "Mary Jane",
    "client_id" : "Acme Consulting",
    "state_id" : "In Planning",
    "workspace_id" : "Technical",
    "summary" : "Project #1",
    "priority" : "2",
    "plan_start" : "2010-11-02T08:00:00",
    "deadline" : "2010-11-04T17:00:00",
    "Start_up_plan: : "500",
    "budget" : "100000",
  }
  {
    "project_category_id" : "101",
    ...
  }
]
```

## Clone Projects

### *Function name*

**clone-projects**

### *Parameters*

- data (Required). It is an array of project fields. The details of the fields are as follows:

   **id** (Required)The project  ID to clone.
   **plan_start** (Required). Date. The planned start date of this project.
   **manager_id.** ID or Name of the project manager. If not specified, defaults to the same manager of the original project.
   **client_id** Integer. ID or Name of the client. If not specified, defaults to the same client as the original project.
   **state_id**. Number. The id or name of the project phase. If not specified, defaults to the same phase of the original project.
   **summary** (Required). A short description of the project.
   **formula_key**(Optional). The custom field for this project. You need to use the formula key of the custom field here.

### *Return Values:*

**project_id**

When your data format is XML, you should post something like this

```xml
<data>
    <item> <!--clone projects-->
      <code>PRJ-101</code>
      <id>100</id>
      <manager_id>Mary Jane</manager_id>
      <client_id>Acme Consulting</client_id>
      <state_id>In Planning</phase_id>
      <summary>Project #1</summary>
      <plan_start>2010-11-02T08:00:00</plan_start>
      <Other_Details>500</Other_Details> <!-- "Other_Details" is the
formula key of the custom field>
    </item>
    <item>
      <code>PRJ-102</code>
      <project_id>100</project_id>
      <manager_id>101</manager_id>
      <client_id>201</client_id>
      <state_id>2</phase_id>
      <summary>Project #1</summary>
      <plan_start>2010-11-02T08:00:00</plan_start>
    </item>
</data>
```

In case of JSON, you should submit an array of objects with the same properties.

```json
[
  {
    "code" : "101",
    "id" : "100",
    "manager_id" : "Mary Jane"
    "client_id" : "Acme Consulting",
    "state_id" : "In Planning",
    "summary" : "Project #1",
    "plan_start" : "2010-11-02T08:00:00",
    "Other_Details" : "500",
    "budget" : "100000"
  }
  {
    "code" : "102",
    ...
  }
]
```

## Update Projects

*Function name*

**update-projects**

### Parameters

- data (Required). It is an array of project fields. The details of the fields are as follows:

  **id** (Required). Integer. ID of the project.
  All other fields are same as those for the create projects function but all fields are optional.

### Return values:

Nothing

When your data format is XML, you should post something like this

```
<data>
    <item> <!-- update projects.
     <id>1919191 </id> <!--id of the project to update-->
     <budget>100000</budget>
    </item>
    <item>
     <id>19198192</id>
     <summary>Project #2</summary>
     <priority>1</priority>
     <plan_start>2010-11-02T08:00:00</plan_start>
     <deadline>2010-11-04T17:00:00</deadline>
     <budget>200000</budget>
     <formula_key>500</formula_key> <!--You need to use the formula key of
the custom field -->
    </item>
</data>
```

In case of JSON, you should submit an array of objects with the same properties.

```
[
  {
    "id" : "1919191",
    "budget" : "100000"
  }
  {
    "id" : "19198192",
    "summary" : "Project #2",
    "priority" : "1",
    "plan_start" : "2010-11-02T08:00:00"
    "deadline" : "2010-11-04T17:00:00"
    "formula_key" : "500"
  }
]
```

## Create Tasks

### Function name

**create-tasks**

### HTTP Parameters

**data** (Required). It is an array of task fields. The details of the fields are as follows:

**project_id** (Required). Integer. ID of the project

**summary** (Required). Name of the task.

**is_manual** (Optional). True or False. Indicates if the task is manually scheduled. If unspecified, will create the task as per project option.

**plan_start** (Required if the task is manually scheduled) Date. The planned start date if the task is manually scheduled.

**plan_finish** (Required if the task is manually scheduled). Date. The planned finish date if the task is manually scheduled.

**constraint_type** (Required if the task is auto-scheduled). Date. One of the following: ASAP, MSO, MFO, SNET, SNLT, FNET, FNLT, ALAP.

**constraint_date** (Required). Date of the above constraint to be set.

**duration** (Optional). Can be specified in days, hours, weeks, etc. (10d, 5h, 2w). Cannot be entered if the task is manually scheduled.

**work** (Optional). Efforts on the task specified in hours. Cannot be entered if the task is manually scheduled.

**parent_id** (Optional). Integer. ID of the parent task.

**predecessors** (Optional) Primary Key of the predecessor task; not the ID.

**assignments** (Optional). A string in the form user-id-1[<allocation-1],user-id-2[<allocation-2], etc. E.g. 10001[20%],Mary Jane[40h].

**schedule_type** (Optional). String. Applicable to auto-scheduled tasks. One of the following: FIXED_WORK, FIXED_DURATION or FIXED_UNITS. If unspecified, will create the task as per the project's "Default Task Schedule Type" option.

**schedule_type_override** (Optional). String. Applicable only while modifying auto-scheduled tasks. One of the following: FIXED_WORK, FIXED_DURATION or FIXED_UNITS. In the case of auto scheduled tasks, $W = D \times U$ always holds true. So if D is changed, the system changes W or U to keep the equation consistent. The choice of whether to change W or U is dependent on the schedule type of the task. If it is "Fixed Work", then U (assignment units) is changed and if it is "Fixed Units", then W is changed. But what if the schedule type is "Fixed Duration"? Now the system doesn't know whether to change U or W. This parameter answers this question for the system. Let's assume that D is changed and the task's schedule type is "Fixed Duration". If this parameter is specified as FIXED_WORK, then U is changed and if specified as FIXED_UNITS, then W is changed. This value is not saved.

**priority** (Optional). Value between 1 (Very High) and 5 (Very Low).

**detail** (Optional). A detailed description for this task.

**can_fill_time** (Optional). Boolean. Whether time can be filled against this task.

**budget** (Optional). Number. The budget for this task.

**est_non_labor_cost** (Optional). Number. The estimated non-labor cost (a.k.a material cost) for this task.

**fixed_cost** (Optional). Number. The fixed cost for this task.

**formula_key** (Optional). The custom field attached to the task. You need to use the formula key of the custom field.

## Return values:

**tasks_id**

When your data format is XML, you should post the data parameter something like this

```
<data>
    <item> <!--create tasks-->
      <project_id>100</project_id>
      <summary>Task #1</summary>
      <detail>This is the task description</detail>
      <is_manual>true</is_manual>
      <plan_start>2010-11-02T08:00:00</plan_start>
      <plan_finish>2010-11-04T17:00:00</plan_finish>
      <parent_id>12345</parent_id>
      <predecessors>121121SS,454322FF</predecessors>
      <priority>2</priority>
      <assignments>10001[20%],100010[50%]</assignments>
      <c459099>500</c459099> <!--Formula key of the custom field>
    </item>
    <item>
      <project_id>100</project_id>
      <is_manual>false</is_manual>
      <constraint_type>MSO</constraint_type>
      <constraint_date>2010-11-04T17:00:00</constraint_date>
      <duration>10d</duration>
      <summary>Task #2</summary>
      <detail>This is the task description</detail>
      <assignments>10001[50h]</assignments>
     </item>
  </data>
```

In the case of JSON, you should submit an array of objects with the same properties as the data parameter.

```
[
  {

    "project_id" : "100",
    "summary" : "Task #1",
    "detail" : "This is the task description",
    "parent_id" : "12345",
    "predecessors" : "123121",
    "priority: : "2",
    "plan_start" : "2010-11-02T08:00:00",
    "plan_finish" : "2010-11-04T17:00:00",
    "assignments" : "10001[20%]",
    "c459099" : "500"
  }
]
```

## Update Tasks

**Function name**

**update-tasks**

**Parameters**

- **data** (Required). It is an array of task fields. For example, in case the data format is XML, you should post something like this:
  - **id** (Required). Integer. ID of the task.
    All other fields are same as those for the create tasks function but all fields are optional.

```
<data>
    <item>  <!-- update tasks  -->
      <id>101311</id>  <!-- id of the task to update  -->
      <plan_start>2010-11-02T08:00:00</plan_start>
      <dependencies>121121SS,454322FF</dependencies>
    </item>
    <item>
      <id>100</id>  <!--id of the task to update  -->
      <summary>Task #2</summary>
      <plan_start>2010-11-03T08:00:00</plan_start>
    </item>
</data>
```

In case of JSON, you should submit an array of objects with the same properties.

```
[
  {
    "id" : "101311",
    "budget" : "100000"
  }
  {
    "id" : "19198192",
    "plan_start" : "2010-11-02T08:00:00"
    "dependencies" : "123121",
    "formula_key" : "500"
  }
]
```

**Return values**

**Nothing**

## Clone Tasks

### Function name

**clone-tasks**

### Parameters

- data (Required). It is an array of project fields. The details of the fields are as follows:

  - **id** (Required)The task ID to clone.
  - **project_id** (Required)The project id.
  - **plan_start** (Required). Date. The planned start date of this task.
  - **formula_key** (Optional). The custom field for this task. You need to use the formula key of the custom field.

### Return Values

**tasks_id**

When your data format is XML, you should post something like this :

```xml
<data>
    <item> <!--clones tasks-->
      <id>12</id>
      <project_id>100</project_id>
      <plan_start>2010-11-02T08:00:00</plan_start>
      <formula_key>500</formula_key> <!-- Formula key of the custom field
needs to be used here>
    </item>
    <item>
      <id>13</id>
      <project_id>100</project_id>
      <plan_start>2010-11-02T08:00:00</plan_start>
    </item>
</data>
```

In case of JSON, you should submit an array of objects with the same properties.

```json
[
  {
    "id" : "12",
    "project_id" : "100",
    "plan_start" : "2010-11-02T08:00:00"
    "formula_key" : "500"
  }
  {
    "id" : "13",
    ...
    ...
  }
]
```

## Create Task Updates

### *Function name*

**create-task-updates**

### *Parameters*

- **data** (Required). It is an array of fields. The details of the fields are as follows :

    **creator_id** (Required). The user ID or Name on behalf of which the time entry is being submitted.
    **date** (Required). Date. The date for this update. The same date is used for the time entry.
    **task_id** (Required). Integer. The task against which the task update needs to be made.
    **percent_complete** (Optional). Integer between 0 and 100. The percent complete for this task.
    **actual_start** (Optional). Date. The date this task started being worked on.
    **actual_finish** (Optional). Date. The date this task was finished. Valid only when percent complete is 100.
    **comments** (Optional). The comments for this task update. The same will be used while filling time.

**hours_worked** (Optional). Float. The number of hours. If not present, only task status is updated and no time entry is added.
**time_code_id** (Optional, Required if hours_worked parameter is submitted). The time code ID or Name for this time entry.
**send_for_approval** (Optional). Boolean. Whether this time entry is to be sent for approval. If false, this will be saved.

### Return values

Nothing

When your data format is XML, you should post something like this

```xml
<data>
    <item>  <!--  update task status and fill time..-->
      <creator_id>Mary Jane</creator_id>
      <date>2010-11-01</date>
      <task_id>12345</task_id>
      <percent_complete>50</percent_complete>
      <actual_start>2010-11-02T08:00:00</actual_start>
      <comments>Am half way there</comments>
      <hours_worked>2.5</hours_worked>
      <time_code_id>Meeting</time_code_id>
     </item>
    <item>  <!--  the following just fills an update..-->
      <creator_id>100</creator_id>
      <date>2010-11-01</date>
      <task_id>18381</task_id>
      <percent_complete>100</percent_complete>
      <actual_finish>2010-11-02T17:00:00</actual_finish>
      <comments>Done!</comments>
    </item>
</data>
send-for-approval=false
```

In case of JSON, you should submit an array of objects with the same properties.

```
[
    {
        "creator_id" : "Mary Jane",
        "date" : "2010-11-01",
        "task_id" : "12345",
        "percent_complete" "50",
        "actual_start" : "2010-11-02T08:00:00",
        "comments" : "Am half way there",
        "hours_worked" : "2.5",
        "time_code_id" : "Meeting",
        "rate_type_id" : "1"
    }
    {
        "creator_id" : "100",
        "date" : "2010-11-01",
        "task_id" : "18381",
        "percent_complete" : "100",
        "actual_finish" : "2010-11-02T17:00:00"
    }
]
send-for-approval=false
```

## Create Time Entries

Creates a list of time entries and optionally sends them for approval.

### *Function name*

**create-time-entries**

### *Parameters*

- **data** (Required). It is an array of time entry fields. The details of the fields are as follows:

    **creator_id** (Required). The user ID or Name on behalf of whom the time entry is being submitted.
    **for_date** (Required). Date. The date for this time entry.
    **hours_worked** (Required). Float. The number of hours.
    **task_id** (Required). Integer. The task for which this time entry is being filled.
    **process_id** (Required). Integer. The workflow for which this time entry is being filled.
    **time_code_id** (Required). The time code ID or Name for this time entry.
    **user_comments** (Optional). The comments entered by user for this time entry.
    **send-for-approval** (Optional). Whether the entries submitted are to be sent for approval.

### *Return values*

**time_entries_id**


When your data format is XML, you should post something like this :

```
<data>
    <item>
        <creator_id>Mary Jane</creator_id>
        <hours_worked>2.5</hours_worked>
        <user_comments>Fixed Bugs</user_comments>
        <for_date>2010-11-01</for_date>
        <task_id>12345</task_id>
        <time_code_id>Meetings</time_code_id>
    </item>
    <item>
        <creator_id>100</creator_id>
        <hours_worked>2</hours_worked>
        <for_date>2010-11-02</for_date>
        <task_id>89019</task_id>
        <time_code_id>13</time_code_id>
    </item>
</data>
send-for-approval=false
```

In case of JSON, you should submit an array of objects with the same properties.

```
[
  {
    "creator_id" : "100",
    "hours_worked" : "2.5",
    "user_comments" : "Fixed Bugs",
    "for_date" : "2010-11-01",
    "task_id" : "12345",
    "time_code_id" : "Meetings"
  }
  {
    "creator_id" : "100"
    ...
    ...
  }
send-for-approval=false
]
```

## Import Time Entries (Since v9.1)

Imports a list of time entries in different states.

### Function name

**import-time-entries**

### Parameters

- **data** (Required). It is an array of time entry fields. The details of the fields are as follows:

  **creator_id** (Required): The user ID or name of the user on whose behalf the time entry is being submitted.

**for_date** (Required): Date. The date for this time entry.
**hours_worked** (Required): Float. The number of hours.
**task_id** (Required). Integer: The task for which this time entry is being filled.
**time_code_id** (Required): The time code ID or Name for this time entry.
**user_comments** (Optional): The comments entered by user for this time entry.
**state** (Optional). Integer: The state in which the time-entry needs to be imported. The state needs to be an integer and one of the following: 0 - Saved, 1 - Sent for Approval, 2 - Rejected, 3 - Approved, 6-Invoice. Default is 'Sent for Approval'.
**bill_rate** (Optional): The rate at which the time-entry needs to be billed.
**cost_rate** (Optional): The rate at which the cost of the time-entry will be calculated.
**is_billable** (Optional): If the time-entry needs to be marked as billable. The value needs to be True or False.
**is_costable** (Optional): If the time-entry needs to be marked as billable. The value needs to be True or False.
**approver_id**: Required field if the time-entry is imported in approved (3) state. It can be an ID or the Name.
**approver_comments** (Optional): The comments entered while approving.
**invoiced_by_id**: Required field if the time-entry is imported in invoiced (6) state. It can be an ID or the Name.
**rejected_by_id**: Required field if the time-entry is imported in rejected (2) state. It can be an ID or the Name.
**rejection_comments** (Optional): The comments entered  while rejecting.


### *Return values*

**time_entries_id**


When your data format is XML, you should post something like this :

```
<data>
  <item>
      <task_id>876925</task_id>
      <creator_id>Mary Jane</creator_id>
    <state>1</state>
      <for_date>2014-11-01</for_date>
      <user_comments>Had the first meeting with client representative
today.</user_comments>
    <hours_worked>1</hours_worked>
    <time_code_id>Default</time_code_id>
    <is_billable>true</is_billable>
    <is_costable>false</is_costable>
  </item>

    <item>
      <task_id>9201093</task_id>
      <creator_id>Eva Cross</creator_id>
    <state>2</state>
      <rejected_by_id>Mary Jane</rejected_by_id>
      <for_date>2014-11-01</for_date>
    <hours_worked>4</hours_worked>
    <time_code_id>Default</time_code_id>
    <is_billable>true</is_billable>
    <is_costable>true</is_costable>
      <bill_rate>100</bill_rate>
    <cost_rate>50</cost_rate>
  </item>
  </data>
```

In case of JSON, you should submit an array of objects with the same properties.

```
[
  {
    "task_id" : "876925",
    "creator_id" : "Mary Jane",
    "state: : "1"
    "for_date" : "2014-11-01",
    "user_comments" : "Had the first meeting with client representative
today.",
    "hours_worked" : "1",
    "time_code_id" : "Default",
    "is_billable" : "true",
    "is_costable" : "false"
  }
  {
    "task_id" : "9201093" ,
    "creator_id" : "Eva Cross",
    ...
    ...
  }
]
```

## Create Users

### *Function name*

**create-users**

### *Parameters*

- data (Required). It is an array of fields. The details of the fields are as follows :

  **name** (Required). String. Either the first, last name or both must be present.
  **login** (Optional). String. Login name of the user. If login is present, the user will be counted towards your license count.
  **password** (Optional). String. Password of the user.
  **email** (Optional). String. Email of the user. For users with login, email is mandatory.
  **bill_rate** (Optional). A decimal value specifying the billing rate of the new user.
  **cost_rate** (Optional). A decimal value specifying the cost rate of the new user.
  **phone** (Optional). A numeric value.
  **calendar_id** (Optional). The name or ID of the work calendar with which the new user is to be created.
  **keywords** (Optional). String.
  **privileged** (Optional). True or False, For creating user with admin privileges or not respectively.
  **role_id**(Optional). The name or ID of Workspace and role in the format Workspace:Role. Not specifying this will create user to play Staff role in All/Default department.
  **template_user_id** (Optional). The ID of the user whose dashboard, favorite reports, date preferences will be copied to create the new user.
  **custom_field_1** (Optional). The custom field attached to user. You need to use the Formula Key of the custom field.

### *Return values*

**user_id**

When your data format is XML, you should post something like this:

```
<data>
    <item>
      <name>Joe Cole</name>
      <login>joe.cole</login>
      <password>kaboom1</password>
      <email>joe.cole@celoxis.com</email>
      <template_user_id>1738</template_user_id>
      <client_ref_no>AIQ_87</client_ref_no>              <!-- Custom field
attached to user>
    </item>
    <item>
      <name>Eva Brown</name>
      <login>eva.brown</login>
      <password>thunder45</password>
      <email>joe.cole@celoxis.com</email>
      <role_id>Support:CCA,Testing:QA</role_id>
    </item>
 </data>
```

In case of JSON, you should submit an array of objects with the same properties.

```
[
  {
    "name":"Joe Cole",
    "login":"joe.cole",
    "password":"kaboom1",
    "email":"joe.cole@celoxis.com"
    "client_ref_no":"AIQ_87"        <!-- Custom field attached to user>
  }
  {
    "name":"Eva Brown",
    "login":"eva.brown",
    ...
  }
]
```

## Update Users

### *Function name*

**update-users**

### *Parameters*

- data (Required). It is an array of fields. The details of the fields are as follows :

    **id** (Required). Number. The ID of the user to be updates
    **name**(Optional) String. Either the first, last name or both must be present.
    **login** (Optional). String. Login name of the user. If login is present, the user will be counted towards your license count.
    **password** (Optional). String. Password of the user.
    **email** (Optional). String. Email of the user. For users with login, email is mandatory.

When your data format is XML, you should post something like this:

```xml
<data>
    <item>
      <id>768709</id>
      <name>Joe Cole</name>
      <login>joe.cole</login>
      <password>kaboom1</password>
      <email>joe.cole@celoxis.com</email>
      <client_ref_no>AIQ_87</client_ref_no>              <!-- Custom field
attached to client>
     </item>
    <item>
       <id>7687087</id>
      <name>Mary Jane</name>
    </item>
</data>
```

In case of JSON, you should submit an array of objects with the same properties.

```json
[
  {
    "id":"223232",
    "name":"Joe Cole",
    "login":"joe.cole",
    "password":"kaboom1",
    "email":"joe.cole@celoxis.com",
    "client_ref_no":"AIQ_87"        <!-- Custom field attached to client>
  }
  {
    "id":"98798",
    "name":"Mary Jane",
    "login":"mary.jane",
    ...
  }
]
```

## Verify Password

This function is used to verify a user's password.

**Function name**

**verify-password**

**Parameters**

**username** (Required)

Login name of the user whose password needs verification.

**password** (Required)

Password of the user.

```
http://yourservername:portnumber/psa/api.do?function=verify-password&usern
ame=username&password=password
```

**Return values**:

In the case of XML data format, you will be returned an XML string with two elements: **uid** (the user id of the user) and **result** (true if the password is correct, false otherwise). For example:

```
<result>
   <uid>90458</uid>
   <match>true</match>
</result>
```

In the case of JSON, the resultant object will have these two properties i.e. uid and result.

```
{"result":{"uid":13891,"match":true}}
```

## Create Clients

### Function name

**create-clients**

### Parameters

- data (Required). It is an array of fields. The details of the fields are as follows :

    **name** (Required) String. Name of the client.
    **login** (Optional). String. Login name of the user. If login is present, the user will be counted towards your license count.
    **password** (Optional). String. Password of the user.
    **email** (Optional). String. Email of the user. For users with login, email is mandatory.
    **privileges** (Optional). Numeric. Values of 0, 1 or 2.  0 means view tasks, 1 means view updates, 2 means add updates.
    **template_client_id** (Numeric). ID of the client whose preferences (Input/Display date format, dashboard, privileges) to be copied.
    **custom_field_1** (Optional). The custom field attached to client. You need to use the Formula Key of the custom field.

When your data format is XML, you should post something like this:

```
    <data>
        <item>
          <name>Jack Miller</name>
          <login>jackmiller</login>
          <password>castles123</password>
          <email>jack@celoxis.com</email>
          <template_client_id>232334</template_client_id>
          <client_ref_no>AIQ_87</client_ref_no>              <!-- Custom field
    attached to client>
         </item>
        <item>
           <name>Mary Jane</name>
           <privileges>0,1</privileges>
        </item>
    </data>
```

In case of JSON, you should submit an array of objects with the same properties.

```
    [
      {
        "name":"Joe Cole",
        "login":"joe.cole",
        "password":"kaboom1",
        "email":"joe.cole@celoxis.com",
        "template_client_id":"232334",
        "client_ref_no":"AIQ_87"        <!-- Custom field attached to client>
      }
      {
        "name":"Mary Jane",
        ...
      }
    ]
```

## Update Clients

### Function name

**update-users**

### Parameters

- data (Required). It is an array of fields. The details of the fields are as follows :

    **id** (Required). Number. The ID of the user to be updates
    Rest all fields are the same as that of create-clients

When your data format is XML, you should post something like this:

```xml
<data>
    <item>
      <id>768709</id>
      <name>Jack Miller</name>
      <login>jackmiller</login>
      <password>castles123</password>
      <email>jack@celoxis.com</email>
      <privileges>0,1</privileges>
     </item>
    <item>
        <id>7687087</id>
      <name>Mary Jane</name>
    </item>
</data>
```

In case of JSON, you should submit an array of objects with the same properties.

```json
[
  {
    "id":"223232",
    "name":"Joe Cole",
    "login":"joe.cole",
    "password":"kaboom1",
    "email":"joe.cole@celoxis.com"
  }
  {
    "id":"98798",
    "name":"Mary Jane",
    "login":"mary.jane",
    ...
  }
]
```

## Tables

**Table Reference**

| Table | Comments |
| --- | --- |
| db_acl_entry | |
| db_assignment | Describes resource assignment for this task |
| db_audit | Audit trail on objects |
| db_baseline | Baselined attributes for projects and tasks |
| db_calendar_event | Describes an event object in the calendar |
| db_company | Stores organization related information. Every record corresponds to an organization. |

| | |
|---|---|
| db_custom_field_def | |
| db_custom_field_rel | |
| db_custom_field_val | |
| db_custom_report | Custom report |
| db_discussion | |
| db_discussion_subscription | User subscription to a discussion. When a user subscribes to a discussion he/she will receive emails of any posts in this discussion. |
| db_document | |
| db_document_ci | Checkin of a document |
| db_document_co | Checkout of a document |
| db_event_invitation | Event invitation |
| db_expense | Describes an expense |
| db_expense_code | Describes expense codes |
| db_expense_item | Describes line item in an expense |
| db_favorite | Favorites |
| db_folder | Details of the folder object. Folder stores other folders, documents, urls and forums |
| db_fs_file | Details of a file that is stored on the disk |
| db_group | |
| db_membership | Maps group versus user |
| db_message | Details of emails sent and received |
| db_message_attachments | Email attachments |
| db_note | Notes associated with tasks and contacts |
| db_person | Stores resources, contacts, clients and users |
| db_process | Describes a process |
| db_process_state_mgr | Process state managers. A user is a manager of a particular state in a particular category. |
| db_process_type | Describes a process type |
| db_process_update | Updates on a process includes assignee changes, comments or state transitions |
| db_project | Describes a project |
| db_project_category | Describes the project category |
| db_project_state | Describes project states |
| db_rate | |
| db_reminder | Describes a reminder of a calendar event |
| db_report_customization | Customization of a report |
| db_sla | Time out policy |
| db_sla_assignment | Assignment of SLAs to groups or projects |
| db_sla_entry | Timeout rules |
| db_state | Workflow process state |
| db_state_transition | Workflow state transition |

| db_task | Describes a task |
|---|---|
| db_task_dependency | Describes task dependencies |
| db_task_exception | Describes a task exception |
| db_task_update | Status updates on tasks |
| db_time_code | |
| db_time_entry | Describes an individual time entry in the time sheet |
| db_working_calendar | Working calendar. There is always a default calendar for every company. |
| db_working_time | Describes the working time for a day. It supports 3 intervals for now. |

## db_acl_entry

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| acl_id | Integer | | |
| permission_id | Integer | | |
| is_negative | Boolean (t or f) | | |
| user_id | Integer | db_person.id | |
| group_id | Integer | db_group.id | |
| process_type_id | Integer | | |

## db_assignment

Describes resource assignment for this task

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| user_id | Integer | db_person.id | User ID |
| unit_type_value | Integer | | Assignment unit type 1 = %age, 2 = hours |
| units | Float | | Units assigned to the resource |
| project_id | Integer | db_project.id | Project ID |
| task_id | Integer | db_task.id | Task ID |
| work_time | Float | | Effort |
| est_cost | Float | | Estimated cost |
| est_labour_billing | Float | | Estimated billing |
| labour_cost | Float | | Actual labour cost |
| time_hours | Float | | Actual hours (approved) |
| time_money | Float | | Actual billing (approved) |
| submitted_hours | Float | | Submitted hours (approved + for approval) |
| start_utc | Date | | Start of assignment |
| finish_utc | Date | | End of assignment |

## db_audit

Audit trail on objects

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| object_id | Integer | | Object ID |
| object_type | Integer | | Object type |
| project_id | Integer | db_project.id | |
| user_id | Integer | db_person.id | User ID |
| document_id | Integer | db_document.id | Related document ID |
| message_id | Integer | db_message.id | Related message ID |
| task_update_id | Integer | db_task_update.id | Related task update ID |
| process_update_id | Integer | db_process_update.id | Related process update ID |
| created | Date | | Date |
| event_code | String | | Event code - one of CREATED \| MODIFIED \| UPDATED \| DELETED |
| event_sub_code | String | | Event sub code |
| xml_string | String | | REMOVE AFTER v9.5 |
| params_json | String | | |
| message | String | | Additional comments e.g. of task or process update |

## db_baseline

Baselined attributes for projects and tasks

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| baseline_number | Integer | | |
| summary | String | | A small summary |
| creator_id | Integer | | |
| created | Date | | |
| project_id | Integer | db_project.id | When not-null and task and resource ids are null, means this is for the project level |
| task_id | Integer | db_task.id | When not-null and resource id id nul, means this is for the task level |
| resource_id | Integer | | When not-null means this is for the assignment level |
| start_date | Date | | Plan start date |
| finish_date | Date | | Plan finish date |
| project_start | Date | | Project start date |
| project_deadline | Date | | Project finish date |
| duration_value | Float | | |
| duration_type | Integer | | |
| effort | Float | | |
| labour_cost | Float | | |
| non_labour_cost | Float | | |
| fixed_cost | Float | | |
| project_budget | Float | | |
| budget | Float | | |

## db_calendar_event

Describes an event object in the calendar

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| kind | Integer | | Kind of event. Meeting, Vacation, etc. |
| scheduling_impact | Integer | | Indicates if this is impacts scheduling and if yes, whether it is working or non-working. |
| object_type | Integer | | |
| object_id | Integer | | |
| owner_id | Integer | db_person.id | Owner of the event |
| creator_id | Integer | db_person.id | Creator ID |
| summary | String | | Summary of the event |
| detail | String | | Detail of the event |
| sharing | Integer | | |
| is_all_day | Boolean (t or f) | | Is this an all day event? |
| tz_independent | Boolean (t or f) | | Is this a timezone independent event e.g. Christmas 25th Dec. On the other hand, a company wide CEO presentation at 10:00 AM EST will be as per each user's timezone |
| start_date_utc | Date | | Start date of the event |
| end_date_utc | Date | | Finish date of the event |
| repeat_sub_type | Integer | | The sub-type qualifier for the repeat type. e.g. if EVERY_MONTH, then whether it is on a specific day of the week or last day of month etc. |
| repeat_pattern | String | | ICalendar Repeat pattern |
| repeat_until_utc | Date | | Date until which this event repeats |
| work_calendar_id | Integer | db_working_calendar.id | |
| project_id | Integer | db_project.id | |

## db_company

Stores organization related information. Every record corresponds to an organization.

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| name | String | | The name of the company |
| campaign | String | | |
| gclid | String | | |
| referrer | String | | |
| currency_symbol | String | | |
| contact_name | String | | |
| contact_email | String | | |
| country | String | | |
| server_name | String | | |
| industry | String | | |

| created | Date | | |
|---|---|---|---|
| fl | Integer | | |
| document_fo_id | Integer | db_folder.id | ID of the document folder |
| project_owner_gid | Integer | db_group.id | ID of the project manager dynamic security role |
| project_team_gid | Integer | db_group.id | ID of the project team member dynamic security role |
| task_team_gid | Integer | | ID of the task team member dynamic security role |
| staff_gid | Integer | db_group.id | ID of the staff security role (db_group) |
| company_code | String | | The company code. This should be used while logging in to the API |
| locale_id | String | | |
| time_zone_id | String | | The default time zone of the organization |
| te_on_cp | Boolean (t or f) | | Indicates whether time can be filled on archived project |
| te_on_any | Boolean (t or f) | | Allow time on any task |
| te_auto_approve | Integer | | Auto approve time |
| te_is_hours_in_decimal | Boolean (t or f) | | Is Time entered in decimals |
| te_billing_model | Integer | | |
| te_remind_at | String | | |
| te_limit_allocated | Boolean (t or f) | | |
| all_in_alloc | Boolean (t or f) | | Show all users during allocation of tasks to resources (true) or just the project team members (false) |
| allow_users_wte | Boolean (t or f) | | Allow users to specify whether they are working (true)/non-working (false) when entering calendar events. If true, exceptions will immediately impact scheduling. |
| process_client_user_visibility | Integer | | Does the client see only the PM (1) or all users (0) |
| first_day_of_week | Integer | | The first day of the week in calendar. 1 for Sunday, 2 for Monday, 3 for Tuesday, etc. |
| min_days_in_first_week | Integer | | The minimum number of days in the first week |
| minutes_in_day | Integer | | Minutes in day. This is used for scheduling. Default is 8 hours i.e. 480. |
| task_start_before | Integer | | The number of hours to start the task before |
| task_with_time | Boolean (t or f) | | Whether to show time in task start and finish |
| affiliate_unique_id | String | | |
| load_optimal_low | Float | | |
| load_optimal_high | Float | | |

## db_custom_field_def

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| label | String | | |
| help_text | String | | |
| display_order | Integer | | |
| field_type | Integer | | |
| display_width | Integer | | |
| raw_options | String | | |
| is_required | Boolean (t or f) | | |
| raw_default_value | String | | |

| | | | |
|---|---|---|---|
| max_length | Integer | | |
| max_value | Float | | |
| min_value | Float | | |
| formula_key | String | | |
| formula_value | String | | The formula |
| formula_data_type | Integer | | The formula data type |
| validations | String | | |
| is_summable | Boolean (t or f) | | |
| is_groupable | Boolean (t or f) | | |
| is_sortable | Boolean (t or f) | | |
| is_financial | Boolean (t or f) | | |
| depends_on_id | Integer | db_custom_field_def.id | |

## db_custom_field_rel

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| custom_field_def_id | Integer | db_custom_field_def.id | |
| object_id | Integer | | The id of the object_type to which this custom field is attached. Null indicates all objects of object_type. |
| object_type | Integer | | The object to which this custom field is attached. e.g Project, Task, Process Type etc. |

## db_custom_field_val (Dropped in v9.1)

> **(v9.1)** This table has been **dropped** in v9.1. All custom field values are now stored as part of their attached entity.

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| field_type | Integer | | Indicates type of field. e.g integer, string, date etc. |
| raw_value | String | | |
| document_id | Integer | db_document.id | Primary key of the document table in case the custom field is of file type |
| object_id | Integer | | Primary key of the object that this entry represents e.g. ID of a document |
| object_type | Integer | | Type of the object that this entry represents. E.g. 9 = folder, 6 = document, 32 = url |
| custom_field_def_id | Integer | db_custom_field_def.id | |

## db_custom_report

Custom report

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| created | Date | | |
| guid | String | | |

| | | | |
|---|---|---|---|
| vdb_id | Integer | | |
| name | String | | Short name |
| description | String | | Description |
| type_id | Integer | | Report template id |
| version | Integer | | |
| creator_id | Integer | db_person.id | Owner of the report |
| params | String | | Report parameters |
| specificity | Integer | | BO type of project or task |
| sharing | Integer | | Indicates who the report is shared with |
| shared_workspace_ids | String | | If shared with workspace, csv of workspace ids |
| all_client_sharing | Boolean (t or f) | | If true means all clients can see this report |
| acl_id | Integer | | |
| repeat_sub_type | Integer | | The sub-type qualifier for the repeat type. e.g. if EVERY_MONTH, then whether it is on a specific day of the week or last day of month etc. |
| repeat_pattern | String | | ICalendar Repeat pattern |
| repeat_until_utc | Date | | Date until which emails are to be sent |
| run_as_user_id | Integer | | User to run report as for delivery |
| subscribers | String | | The subscribers for this report |
| schedule_start_date | Date | | The date to start sending the report and time at which to send report 0-23 |
| scheduled | Boolean (t or f) | | Is scheduled for delivery |
| is_view | Boolean (t or f) | | Is VIEW type report |
| process_type_id | Integer | db_process_type.id | |

## db_discussion

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| created | Date | | Date this topic was created |
| project_id | Integer | db_project.id | |
| document_id | Integer | db_document.id | |
| message_id | Integer | db_message.id | Root message ID of this topic |
| last_message_id | Integer | | Last message ID of this topic |
| last_posted | Date | | Date of the last post in this topic |
| replies | Integer | | Number of replies in this topic |
| client_visible | Boolean (t or f) | | Whether this topic is visible to client |
| is_open | Boolean (t or f) | | Open or Closed |

## db_discussion_subscription

User subscription to a discussion. When a user subscribes to a discussion he/she will receive emails of any posts in this discussion.

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |

| | | | |
|---|---|---|---|
| vdb_id | Integer | | |
| created | Date | | |
| discussion_id | Integer | db_discussion.id | Topic subscribed to |
| user_id | Integer | db_person.id | ID of the subscriber |

## db_document

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| guid | String | | |
| name | String | | Name of the document |
| description | String | | Description |
| created | Date | | Date this document was created |
| creator_id | Integer | db_person.id | ID of the owner |
| url | String | | The actual URL |
| kind | Integer | | URL or Document |
| path | String | | Path of this document (folder IDs separated by /) |
| content_type | String | | Mime type of this document |
| last_checkin | Date | | Date the last version of this document was checked in |
| n_co | Integer | | Number of open checkouts |
| head_release | Integer | | Current release number of this document |
| head_revision | Integer | | Current revision number of this document |
| head_file_id | Integer | db_fs_file.id | ID corresponding to the head revision |
| head_size | Float | | Size of the latest revision |
| sz | Float | | Sum of sizes of all its revisions |
| provider | String | | One of celoxis|google|dropbox |
| provider_data | String | | JSON encoded data from the provider |
| folder_id | Integer | db_folder.id | ID of this document's folder |
| project_id | Integer | db_project.id | |
| task_id | Integer | db_task.id | |
| task_update_id | Integer | db_task_update.id | |
| process_id | Integer | db_process.id | |
| process_update_id | Integer | db_process_update.id | |
| message_id | Integer | db_message.id | |
| expense_item_id | Integer | db_expense_item.id | |
| custom_field_def_id | Integer | db_custom_field_def.id | |

## db_document_ci

Checkin of a document

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| created | Date | | Date of checkin |

| | | | |
|---|---|---|---|
| document_id | Integer | db_document.id | ID of the document for which this checkin was done |
| co_id | Integer | db_document_co.id | Corresponding checkout ID |
| release | Integer | | Release number of this checkin |
| revision | Integer | | Revision number of this checkin |
| ci_by | Integer | db_person.id | User who checked this in |
| comments | String | | Comments for this checkin |
| file_id | Integer | db_fs_file.id | File that was checked in |

## db_document_co

Checkout of a document

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| created | Date | | Date of the checkout |
| document_id | Integer | db_document.id | The document for this checkout was done |
| ci_id | Integer | db_document_ci.id | Corresponding checkin ID, if null means there was no checkin |
| co_by | Integer | db_person.id | User who checked-out |
| release | Integer | | Release number of this checkout |
| revision | Integer | | Revision number of this checkout |

## db_event_invitation

Event invitation

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| owner_id | Integer | db_person.id | Owner ID |
| calendar_event_id | Integer | db_calendar_event.id | Calendar event ID |
| status | Integer | | 0 = unknown, 1 = invitee accepted, 2 = invitee declined |
| invitation_type | Integer | | 0 = required, 1 = Optional, 2 = Copy |
| invitee_id | Integer | db_person.id | Invitee user id in case the invitee is a user of the system |
| invitee_email | String | | Invitee Email |
| comments | String | | Invitee entered comments (e.g. reason for refusal) |

## db_expense

Describes an expense

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| created | Date | | Date of this expense |
| creator_id | Integer | db_person.id | Creator ID |
| task_id | Integer | db_task.id | Task ID |
| summary | String | | Short summary |

| | | | |
|---|---|---|---|
| is_billable | Boolean (t or f) | | Whether this expense is billable |
| is_costable | Boolean (t or f) | | Whether this expense is costable |
| state | Integer | | 0 - saved but not submitted for approval, 1 - sent for approval, 2 - rejected, 3 - approved, 6 - invoiced |
| approver_id | Integer | db_person.id | Approved by ID |
| approved_on | Date | | Date of approval |
| approval_comments | String | | Approver comments |
| rejected_by_id | Integer | db_person.id | Rejected by |
| rejected_on | Date | | Date of rejection |
| rejection_comments | String | | Reason for rejection |
| invoiced_on | Date | | Invoiced on |
| invoiced_by_id | Integer | | Invoiced by ID |
| is_temp | Boolean (t or f) | | Whether this expense is 'temporary'. Temporary expenses are not to be considered for any calculations. They are a temporary creation of the system and will be deleted from time to time. |
| amount | Float | | Amount |

## db_expense_code

Describes expense codes

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| deleted | Date | | Date this expense code was deleted |
| name | String | | Short name |
| description | String | | Description |
| ref_no | String | | Accounting code for this expense code |
| markup | Float | | |
| is_taxable | Boolean (t or f) | | |

## db_expense_item

Describes line item in an expense

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| expense_id | Integer | db_expense.id | The expense object |
| expense_code_id | Integer | db_expense_code.id | The expense code |
| item_date | Date | | The date of this expense item |
| description | String | | A short description of the expense |
| amount | Float | | Amount of this expense |
| is_temp | Boolean (t or f) | | If this is a temporary line item |

## db_favorite

Favorites

| Column | Type | References | Comments |
|---|---|---|---|

| id | Integer | | Primary key |
|---|---|---|---|
| vdb_id | Integer | | |
| user_id | Integer | db_person.id | User ID |
| object_id | Integer | | Favorite object ID |
| object_type | Integer | | Favorite object type |

### db_folder

Details of the folder object. Folder stores other folders, documents, urls and forums

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| name | String | | Name of this folder |
| description | String | | Description of this folder |
| parent_id | Integer | db_folder.id | ID of this folder's parent. |
| creator_id | Integer | db_person.id | ID of the creator of this folder. |
| project_id | Integer | db_project.id | |
| task_id | Integer | db_task.id | |
| path | String | | Path of this folder from its root. IDs are separated by /. |
| root_id | Integer | db_folder.id | Root ID of this folder. |
| sz | Float | | Size of this folder |
| leaves | Integer | | Number of descendant documents |
| last_checkin | Date | | Max date of last checkin in this folder (including descendants) |

### db_fs_file

Details of a file that is stored on the disk

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| content_type | String | | Mime type of this file |
| local_path | String | | Path on the disk |
| name | String | | Name of this file |
| sz | Float | | Size of this file |

### db_group

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| deleted | Date | | When this group was deleted |
| name | String | | The name of the group |
| comments | String | | |
| kind | Integer | | Allows this group to be used in different contexts like security role, group, user group, etc. |
| can_user_set | Boolean (t or f) | | Means end users can assign members |

## db_membership

Maps group versus user

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| discriminator | Integer | | Indicates what this record is for. For example, 56 is Workflow App, 17 is Project, 61 is group, 58 is Custom Report |
| role_id | Integer | db_group.id | ID of the role played by user |
| user_id | Integer | db_person.id | ID of the user |
| workspace_id | Integer | db_group.id | ID of group if group membership. Null otherwise |
| project_id | Integer | db_project.id | ID of project if project membership. Null otherwise |
| report_id | Integer | db_custom_report.id | ID of report if report/client membership record. Null otherwise |

## db_message

Details of emails sent and received

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| summary | String | | Subject of the email |
| detail | String | | Body of the email |
| creator_id | Integer | db_person.id | Creator ID |
| sender | String | | Sender email address |
| to_recipients | String | | To recipient email addresses |
| cc_recipients | String | | Cc recipient email addresses |
| bcc_recipients | String | | Bcc recipient email addresses |
| reply_to | String | | Reply to email address |
| is_html | Boolean (t or f) | | Whether this is HTML email |
| task_id | Integer | db_task.id | |
| discussion_id | Integer | db_discussion.id | |
| created | Date | | Date this mail was created |
| parent_id | Integer | db_message.id | ID of this email messsage this was a reply to |
| root_id | Integer | db_message.id | Root ID of the email thread |
| num_attachments | Integer | | Number of attachments |

## db_message_attachments

Email attachments

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| message_id | Integer | db_message.id | ID of the email message |
| attachment_id | Integer | db_document.id | ID of the document correponding to an attachment |

## db_note

Notes associated with tasks and contacts

| Column | Type | References | Comments |
|--------|------|------------|----------|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| created | Date | | Date this note was created |
| detail | String | | The text of this note |
| creator_id | Integer | db_person.id | Creator |
| task_id | Integer | db_task.id | |
| contact_id | Integer | db_person.id | |

## db_person

Stores resources, contacts, clients and users

| Column | Type | References | Comments |
|--------|------|------------|----------|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| guid | String | | |
| created | Date | | |
| name | String | | Name of the user |
| login_name | String | | Login name |
| pwd | String | | Encrypted password |
| pwd_changed_at | Date | | |
| phone | String | | |
| email | String | | Email Address |
| keywords | String | | Keywords related to this user e.g. skills, qualifications |
| archived | Date | | Date on which this user was archived |
| discriminator | Integer | | 4 = contact, 24 = user, 63 = client |
| folder_id | Integer | db_folder.id | ID of the personal document folder of this user |
| is_public | Boolean (t or f) | | Is this record viewable by anyone in the company |
| creator_id | Integer | | Creator Id |
| in_out_status | String | | |
| in_out_updated_on | Date | | |
| is_in | Boolean (t or f) | | If this user is in or out |
| last_access | Date | | The last time the user accessed the system |
| parent_id | Integer | | The parent of this record. In case of client this is the ID of the parent. |
| path | String | | Path separated by '/' from root user object. |
| locale_id | String | | |
| time_zone_id | String | | Time zone ID of this user |
| calendar_id | Integer | db_working_calendar.id | The working calendar of this user |

## db_process

Describes a process

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| created | Date | | Date created |
| summary | String | | Short summary |
| detail | String | | Detailed description |
| due_date | Date | | Due date |
| is_delayed | Boolean (t or f) | | Is this process delayed? |
| priority | Integer | | Priority : 1 = highest, 5 = lowest |
| type_id | Integer | db_process_type.id | Process type ID |
| workspace_id | Integer | db_group.id | Workspace ID |
| project_id | Integer | db_project.id | Project ID |
| last_state_changed | Date | | Last state change on |
| last_updated | Date | | Last process update on |
| requestor_id | Integer | db_person.id | Requestor ID |
| requestor_name | String | | Requestor name (in case requestor is not a user of the system) |
| requestor_email | String | | Requestor email (in case requestor is not a user of the system) |
| creator_id | Integer | db_person.id | Creator ID |
| assigned_to_id | Integer | db_person.id | Current owner |
| state_id | Integer | db_state.id | State this process is in |
| completed | Date | | Completed on |
| followers_csv | String | | Person ID CSV (-1 means project team), (-2 means PM) |
| is_requestor_visible | Boolean (t or f) | | Is visible to requestor? |
| my_b_time_money | Float | | Total billable time entries billing |
| my_b_time_hours | Float | | Total billable time (hours) |
| my_nb_time_money | Float | | Total non-billable time entries billing |
| my_nb_time_hours | Float | | Total non-billable time (hours) |
| my_c_time_hours | Float | | Total costable time (hours) |
| my_i_time_money | Float | | Total invoiced time |
| my_i_time_hours | Float | | Total invoiced hours |
| my_labour_cost | Float | | Actual labour cost for this process |
| my_cost | Float | | Actual cost for this process |
| time_entry_count | Integer | | Total number of time entries associated with this process |

## db_process_state_mgr

Process state managers. A user is a manager of a particular state in a particular category.

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| user_id | Integer | db_person.id | Manager ID |
| project_id | Integer | db_project.id | Project ID |
| workspace_id | Integer | db_group.id | Group ID |

| | | | |
|---|---|---|---|
| state_id | Integer | db_state.id | State ID |

## db_process_type

Describes a process type

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| name | String | | Name |
| name_plural | String | | Plural Name |
| description | String | | Description |
| requestor_reqd | Boolean (t or f) | | Whether requestor makes sense for this process type |
| initial_assignee_id | Integer | | |
| initial_assignee_type | Integer | | 1 = None , 2 = Specific user, 3 = State manager |
| allow_time | Boolean (t or f) | | |
| allow_client | Boolean (t or f) | | |
| active | Boolean (t or f) | | |
| followers_csv | String | | Person ID CSV (-1 means project team), (-2 means PM) |

## db_process_update

Updates on a process includes assignee changes, comments or state transitions

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| guid | String | | |
| created | Date | | Date of update |
| process_id | Integer | db_process.id | Process ID |
| comments | String | | Comments |
| creator_id | Integer | db_person.id | Creator ID |
| assignee_id | Integer | db_person.id | Assignee ID |
| state_id | Integer | db_state.id | From state ID |
| transition_id | Integer | db_state_transition.id | State Transition ID, if none then empty |
| next_state_id | Integer | db_state.id | To state ID |
| name | String | | Name of the person doing the transition if not a Celoxis user |
| email | String | | Email of the person doint the transition if not a Celoxis user |

## db_project

Describes a project

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| code | String | | A unique project code |
| vdb_id | Integer | | |
| guid | String | | |
| created | Date | | Date this project was created |

| project_category_id | Integer | db_project_category.id | ID of its project category |
|---|---|---|---|
| workspace_id | Integer | db_group.id | ID of the group this project belongs to |
| working_calendar_id | Integer | | |
| client_id | Integer | db_person.id | Client ID |
| manager_id | Integer | db_person.id | Primary Project Manager ID |
| priority | Integer | | Priority. 1 is for highest and 5 for lowest. |
| summary | String | | Short name of this project |
| detail | String | | Detail |
| markdown_detail | String | | Detail |
| charging_model | Integer | | |
| fixed_price | Float | | |
| budget | Float | | Budget |
| folder_id | Integer | db_folder.id | ID of its document folder |
| archived | Date | | Date when the project is in an 'end' phase |
| archived_by_id | Integer | | ID of the user who archived this project |
| state_id | Integer | db_project_state.id | |
| projected_hours | Float | | Projected cost |
| projected_cost | Float | | Projected cost |
| projected_finish | Date | | Projected finish date |
| plan_start | Date | | Planned start date of this project |
| plan_finish | Date | | Planned finish date of this project. This will be the max of plan_finish of its tasks. |
| actual_finish | Date | | The time when all tasks report 100% |
| deadline | Date | | The deadline of this project |
| duration_hours | Float | | Duration of the project in hours |
| percent_complete | Integer | | % complete |
| fixed_cost | Float | | Accumulated fixed cost for this project |
| user_cost | Float | | Accumulated user cost for this project |
| cost | Float | | Total accumulated cost |
| c_expense | Float | | Total costable expense |
| nc_expense | Float | | Total non-costable expense |
| b_expense | Float | | Total billable expense |
| nb_expense | Float | | Total non-billable expense |
| est_work | Float | | Total estimated work in minutes |
| est_labour_billing | Float | | Estimated labour billing |
| est_labour_cost | Float | | Total estimated labour cost |
| est_non_labour_cost | Float | | Total estimated non-labour cost |
| est_fixed_cost | Float | | Total estimated fixed cost |
| b_time_money | Float | | Total billable time sheet billing |
| nb_time_money | Float | | Total non-billable time sheet billing |
| b_time_hours | Float | | Billable time sheet hours |
| nb_time_hours | Float | | Non-billable time sheet hours |
| c_time_hours | Float | | Costable time sheet hours |
| i_expense | Float | | Total invoiced expense |

| | | | | |
|---|---|---|---|---|
| i_time_money | Float | | | Total invoiced time |
| i_time_hours | Float | | | Total invoiced hours |
| percent_complete_method | Integer | | | Default % complete method for tasks |
| default_schedule_type | Integer | | | Default schedule type for tasks |
| note_count | Integer | | | Total number of notes associated with its tasks |
| message_count | Integer | | | Total number of email messages associated with its tasks |
| status_update_count | Integer | | | Total number of task status updates associated with its tasks |
| expense_count | Integer | | | Total number of expenses associated with its tasks |
| time_entry_count | Integer | | | Total number of time entries associated with its tasks |
| risk | Integer | | | PPM risk. 1 is for Very Low and 5 for Very High. The potential negative impact that may arise from this project. |
| benefit | Integer | | | Number between 0 to 100. The potential for financial or operational gain upon successful completion. |
| alignment | Integer | | | Number between 0 to 100. The measure of how closely this project's requirements fit within the organizations business model, goals, skill sets, and resources. |
| default_baseline | Integer | | | The default baseline to use in baseline comparisons |
| **Computed Columns:** | | | | |
| spi | Float | | | The schedule performance index using earned value method |
| cpi | Float | | | The cost performance index using earned value method |
| bcws | Float | | | The budgeted cost of work scheduled using earned value method |
| bcwp | Float | | | The budgeted cost of work performed using earned value method |
| acwp | Float | | | The actual cost of work performed using earned value method |
| schedule_status | String | | | The schedule status. Will be one of: ON_TIME, AT_RISK, OVERDUE, BLOCKED, FUTURE and COMPLETED |
| budget_status | String | | | The budget status. Will be one of: ON_BUDGET, AT_RISK, OVER_BUDGET |
| client_root_name | String | | | The name of the client root in this project's client hierarchy |
| client_name | String | | | The name of this project's client |
| manager_name | String | | | The name of this project's manager |

## db_project_category

Describes the project category

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| deleted | Date | | Date this category was deleted |
| name | String | | Name of the project category |
| description | String | | Description of the project category |

## db_project_state

Describes project states

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| position | Integer | | Position in drop-down lists |

| name | String | | A short name |
|------|--------|--|--------------|
| stage | Integer | | PRE, EXEC, POST |

## db_rate

| Column | Type | References | Comments |
|--------|------|-----------|----------|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| object_id | Integer | | Object ID associated with the rate. ID of time code OR User |
| object_type | Integer | | 22 = time code, 24 = user |
| context_id | Integer | | The context in which this rate is defined. For example, user cost rates can be defined either at a company level OR at a project level. ID of project or company |
| context_type | Integer | | 17 = project, 3 = company |
| amount | Float | | Rate amount |
| kind | Integer | | Which rate: 1 = cost, 2 = client billing |

## db_reminder

Describes a reminder of a calendar event

| Column | Type | References | Comments |
|--------|------|-----------|----------|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| owner_id | Integer | db_person.id | Owner ID |
| calendar_event_id | Integer | db_calendar_event.id | ID of the calendar event object this reminder corresponds to |
| last_reminded_at_utc | Date | | Date last reminded at (in case of recurring events) |
| due_date_utc | Date | | Date of the reminder |

## db_report_customization

Customization of a report

| Column | Type | References | Comments |
|--------|------|-----------|----------|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| report_id | Integer | | |
| creator_id | Integer | db_person.id | |
| params | String | | Report parameters |

## db_sla

Time out policy

| Column | Type | References | Comments |
|--------|------|-----------|----------|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| name | String | | Short name |
| process_type_id | Integer | db_process_type.id | Process type ID |

## db_sla_assignment

Assignment of SLAs to groups or projects

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| sla_id | Integer | db_sla.id | Sla ID |
| project_id | Integer | db_project.id | Project ID |
| workspace_id | Integer | db_group.id | Group ID |
| process_type_id | Integer | db_process_type.id | Process type ID |

## db_sla_entry

Timeout rules

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| sla_id | Integer | db_sla.id | SLA ID |
| state_id | Integer | db_state.id | State ID for timeout |
| ttl_minutes | Integer | | Timeout in minutes |
| priority | Integer | | Priority: 1 = highest, 5 = lowest |
| transition_id | Integer | db_state_transition.id | State transition to follow on timeout |
| user_specific_ttl | Boolean (t or f) | | If timeout is to be entered by user doing the state transition |
| mark_delayed | Boolean (t or f) | | Whether to mark the process as delayed when timeout happens |

## db_state

Workflow process state

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| name | String | | Short name |
| description | String | | Description |
| is_start_state | Boolean (t or f) | | Is this a 'start' state? |
| is_end_state | Boolean (t or f) | | Is this an 'end' state? An end state means that the process is assumed to be completed. |
| process_type_id | Integer | db_process_type.id | |
| deleted_on | Date | | Date this state was deleted |
| position | Integer | | Order in its siblings |

## db_state_transition

Workflow state transition

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| guid | String | | |

| name | String | | Short name |
|---|---|---|---|
| state_id | Integer | db_state.id | State ID |
| next_state_id | Integer | db_state.id | Next state ID (in case next state type is specific) |
| next_assignee_type | Integer | | Next assignee type: 0 = unassigned, 1 = same, 2 = state manager, 3 = prompt user in role, 4 = last assigned for this state, 5 = reporter |
| next_assignee_id | Integer | db_person.id | Next assignee ID (in case next assignee type is 3 i.e. prompt user in role) |
| position | Integer | | Order in its siblings |

### db_task

Describes a task

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| project_id | Integer | db_project.id | ID this task's project |
| parent_id | Integer | db_task.id | Parent ID |
| folder_id | Integer | db_folder.id | Document folder ID |
| priority | Integer | | Priority. 1 for highest 5 for lowest |
| summary | String | | Short name |
| detail | String | | Detailed description |
| flags | Integer | | Bit string of flags |
| duration_value | Float | | Duration value (e.g. if duration is 2.5days this field will be 2.5) |
| actual_start | Date | | Actual start |
| schedule_type_value | Integer | | |
| plan_start | Date | | Planned start |
| plan_finish | Date | | Planned finish |
| is_critical | Boolean (t or f) | | True if task is on critical path |
| is_milestone | Boolean (t or f) | | True if milestone |
| is_manual | Boolean (t or f) | | True if manually scheduled |
| is_hold | Boolean (t or f) | | True if on hold |
| early_start | Date | | Early start |
| early_finish | Date | | Early finish |
| late_start | Date | | Late start |
| late_finish | Date | | Late finish |
| actual_finish | Date | | Actual finish |
| percent_complete | Integer | | % complete |
| percent_complete_method | Integer | | % complete method |
| budget | Float | | Budget |
| fixed_cost | Float | | Fixed cost |
| est_non_labour_cost | Float | | Estimated non labour cost |
| work_time | Float | | Effort in minutes |
| my_b_time_money | Float | | Total billable time entries billing |
| ru_b_time_money | Float | | Total rolled-up billable time entries billing |
| my_nb_time_money | Float | | Total non-billable time entries billing |

| | | | |
|---|---|---|---|
| ru_nb_time_money | Float | | Total rolled-up non-billable time entries billing |
| my_nb_time_hours | Float | | Total non-billable time (hours) |
| ru_nb_time_hours | Float | | Total rolled-up non-billable time (hours) |
| my_b_time_hours | Float | | Total billable time (hours) |
| ru_b_time_hours | Float | | Total rolled-up billable time (hours) |
| my_c_time_hours | Float | | Total costable time (hours) |
| ru_c_time_hours | Float | | Total rolled-up costable time (hours) |
| my_b_expense | Float | | Total billable expense |
| ru_b_expense | Float | | Total rolled-up billable expense |
| my_nb_expense | Float | | Total non billable expense |
| ru_nb_expense | Float | | Total rolled-up non billable expense |
| my_c_expense | Float | | Total costable expense |
| ru_c_expense | Float | | Total rolled-up costable expense |
| my_nc_expense | Float | | Total non costable expense |
| ru_nc_expense | Float | | Total rolled-up non costable expense |
| my_i_expense | Float | | Total invoiced expense |
| ru_i_expense | Float | | Total rolled-up invoiced expense |
| my_i_time_money | Float | | Total invoiced time |
| ru_i_time_money | Float | | Total rolled-up invoiced time |
| my_i_time_hours | Float | | Total invoiced hours |
| ru_i_time_hours | Float | | Total rolled-up invoiced hours |
| my_est_cost | Float | | Estimated cost to complete this task |
| ru_est_cost | Float | | Rolled-up estimated cost to complete this task and its descendants |
| my_est_labour_cost | Float | | Estimated labour cost |
| ru_est_labour_cost | Float | | Rolled-up estimated labour cost |
| my_labour_cost | Float | | Actual labour cost till now |
| ru_labour_cost | Float | | Rolled-up actual labour cost till now |
| my_cost | Float | | Actual cost for this task |
| ru_cost | Float | | Actual cost for this task's descendants |
| my_est_labour_billing | Float | | Estimated labour billing for this task |
| ru_est_labour_billing | Float | | Estimated labour billing for this task's descendants |
| billing_amount | Float | | |
| can_fill_time | Boolean (t or f) | | Can fill time on this task? |
| is_dep_solved | Boolean (t or f) | | Have all predecessors finished? |
| last_status_update | Date | | Date of the last status update |
| is_assigned | Boolean (t or f) | | Is this task assigned to anyone |
| constraint_date | Date | | Constraint date |
| constraint_type_value | Integer | | Constraint type: 1 = ASAP, 2 = ALAP, 3 = MSO, 4 = MFO, 5 = SNET, 6 = SNLT, 7 = FNET, 8 = FNLT. |
| duration_type | Integer | | Duration units: 1 = Day, 2 = Hour, 3 = Week, 4 = Month, 5 = Year, 6 = Minute |
| is_summary | Boolean (t or f) | | Is this a summary task i.e. does this task have any sub tasks |
| is_duration_estimated | Boolean (t or f) | | Is the duration an approximation |
| is_duration_elapsed | Boolean (t or f) | | Is the duration calendar elapsed time |

| | | | |
|---|---|---|---|
| projected_start_date | Date | | Projected start date |
| projected_deadline | Date | | Projected deadline |
| project_state_id | Integer | | State of this task's project |
| archived | Date | | Date when project was archived |
| child_number | Integer | | Number in siblings |
| local_key | Integer | | |
| tree_level | Integer | | |
| note_count | Integer | | Total number of notes associated with this task |
| message_count | Integer | | Total number of email messages associated with this task |
| status_update_count | Integer | | Total number of task status updates associated with this task |
| expense_count | Integer | | Total number of expenses associated with this task |
| time_entry_count | Integer | | Total number of time entries associated with this task |
| document_count | Integer | | Total number of documents associated with this task |
| projected_start | Date | | Projected start date |
| projected_finish | Date | | Projected finish date |
| followers_csv | String | | Person ID CSV (-1 means project team), (-2 means PM) |
| **Computed Columns:** | | | |
| spi | Float | | The schedule performance index using earned value method |
| cpi | Float | | The cost performance index using earned value method |
| bcws | Float | | The budgeted cost of work scheduled using earned value method |
| bcwp | Float | | The budgeted cost of work performed using earned value method |
| acwp | Float | | The actual cost of work performed using earned value method |
| schedule_status | String | | The schedule status. Will be one of: ON_TIME, AT_RISK, OVERDUE, BLOCKED, FUTURE and COMPLETED |
| budget_status | String | | The budget status. Will be one of: ON_BUDGET, AT_RISK, OVER_BUDGET |
| project_summary | String | | The name of the project |

## db_task_dependency

Describes task dependencies

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| predecessor_id | Integer | db_task.id | The predecessor task |
| task_id | Integer | db_task.id | The successor task |
| lag_value | Float | | Lag duration value |
| lag_type | Integer | | Lag duration type (see task duration for valid values) |

## db_task_exception

Describes a task exception

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| task_id | Integer | db_task.id | Task ID |

| | | | |
|---|---|---|---|
| user_id | Integer | db_person.id | Resource ID |
| exception_date | Date | | Date of Exception |
| hours | Float | | Hours |

## db_task_update

Status updates on tasks

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| guid | String | | |
| vdb_id | Integer | | |
| created | Date | | Date of update |
| task_id | Integer | db_task.id | Task associated with this update |
| creator_id | Integer | db_person.id | Creator of this update |
| percent_complete | Integer | | % complete |
| comments | String | | Comments |
| actual_start | Date | | Actual start |
| actual_finish | Date | | Actual finish |

## db_time_code

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| created | Date | | |
| deleted | Date | | Date this time code was deleted |
| name | String | | Short name |
| description | String | | Description |
| ref_no | String | | Accounting code |
| is_taxable | Boolean (t or f) | | |
| is_costable | Boolean (t or f) | | if true, time entries filed against this time code will be marked as costable by default |
| is_non_project | Boolean (t or f) | | if true, time entries filed against this time code will be non-project |

## db_time_entry

Describes an individual time entry in the time sheet

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| for_date | Date | | Date for this time entry was filled |
| hours_worked | Float | | Hours |
| creator_id | Integer | db_person.id | User that created this entry |
| user_id | Integer | db_person.id | User for whom the entry is for |
| task_id | Integer | db_task.id | Task ID |
| process_id | Integer | db_process.id | Process/Issue ID |
| process_state_id | Integer | | State ID in which the process existed ad the time of this time entry |

| | | | | |
|---|---|---|---|---|
| project_id | Integer | db_project.id | Project ID | |
| time_code_id | Integer | db_time_code.id | Time code ID | |
| user_comments | String | | Comments | |
| approver_comments | String | | Approver comments | |
| approved_on | Date | | Approved on | |
| approver_id | Integer | db_person.id | Approved by ID | |
| rejected_by_id | Integer | db_person.id | Rejected by ID | |
| rejected_on | Date | | Rejected on | |
| rejection_comments | String | | Reason for rejection | |
| invoiced_on | Date | | Invoiced on | |
| invoiced_by_id | Integer | | Invoiced by ID | |
| state | Integer | | 0 - saved but not submitted for approval, 1 - sent for approval, 2 - rejected, 3 - approved, 6 - invoiced | |
| is_billable | Boolean (t or f) | | Is billable? | |
| is_costable | Boolean (t or f) | | Is costable? | |
| cost_rate | Float | | the cost rate for this time entry | |
| bill_rate | Float | | the bill rate for this time entry | |

### db_working_calendar

Working calendar. There is always a default calendar for every company.

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| name | String | | Name of this calendar. |
| time_zone_id | String | | The time zone of the calendar |
| is_default | Boolean (t or f) | | Whether this is the default calendar. |

### db_working_time

Describes the working time for a day. It supports 3 intervals for now.

| Column | Type | References | Comments |
|---|---|---|---|
| id | Integer | | Primary key |
| vdb_id | Integer | | |
| calendar_id | Integer | db_working_calendar.id | ID of the working calendar this record belongs to |
| s1_from | Integer | | Start time in minutes of the 1st interval. |
| s1_to | Integer | | Finish time in minutes of the 1st interval. |
| s2_from | Integer | | Start time in minutes of the 2nd interval. |
| s2_to | Integer | | Finish time in minutes of the 2nd interval. |
| s3_from | Integer | | Start time in minutes of the 3rd interval. |
| s3_to | Integer | | Finish time in minutes of the 3rd interval. |
| dow | Integer | | Day of week this working time refers to. 1 for Sunday, 2 for Monday, etc. |

## PHP API

Celoxis allows you to fetch data or do your integration via PHP also. We have provided the basic functions and a sample file in the attachment below. You can download this from the link below and use this for your purpose.

Unzip the attached file for use: Celoxis_API_PHP.zip

# Release Notes

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## Celoxis v10.5 Release Notes

**Release Dates:**

- For SaaS - 24th September 2016
- For On-Premise - Coming Soon!

**Breaking Behavioral Change**

1. The 'is_manual' parameter in Creation of Tasks via API is a mandatory parameter.

**New Features**

1. Ability to add task colors for better visualization of project plans. These colors will be seen on the Gantt and Task Reports.
2. New custom field formulae and improved syntax. Changes include string concatenation operators, shorthand syntax, sets, lists and maps data structures.
3. Ability to change task's Schedule mode (Auto or manual) in bulk from the Interactive Gantt.
4. Ability to specify additional scheduling information such as resources, duration or dates while adding multiple tasks to a project  in one go.
5. Ability to create multiple milestones in a project at one go.
6. New Scatter charts to give you the ability to slice and dice your data and uncover correlations between them.
7. Ability to set user's roles, dashboards, rates, work calendar and custom fields in bulk.
8. Multiple select and bulk editing for projects.

**Improvements**

1. Improved Timer Interface. The "Timers" menu option is removed from the  menu. The Timers will appear in the menu bar once you start a timer for the very first time on a work item. Improved look and feel of running and paused timers.
2. Project's Billing Type includes a 'None' value in addition to Fixed Price and Hourly types.
3. Clone Project renamed to Copy Project. This Copy Project popup will now expose all project parameters, so that the user can modify them as needed while copying the project.
4. The project page has been re-skinned with a new design making it easier to access project specific views.
5. Improved Gantt toolbar and context menu.

6. 'Add Column' option on the Gantt is moved from the toolbar to the last column in the Gantt.
7. Improved context menu for projects, tasks, and other items. Expanded page actions for project page, task page, reports, views, etc.
8. Administration page Improvements:
    a. Company Settings renamed to Administration. This option is moved under the user icon in the upper right-hand corner.
    b. The Administration page has been re-skinned with a new design. The admin can now easily toggle optional features that are not used. Optional features include
        i. Portfolio
        ii. Costing
        iii. Discussions
        iv. Files
        v. Contacts
        vi. Timesheets
        vii. Billing
        viii. Expenses
        ix. Apps
    c. The Site Settings option now available on the Administration page. *This is applicable to On Premise customers only*.
9. New Inclusions under the User icon in the upper right-hand corner:
    a. Administration
    b. Calendar
    c. Help related links
10. Report Changes:
    a. Improved representation of prompt (dynamic) filters.
    b. You can simply select report columns by double clicking the column name in the Available list. Earlier you could only drag-n-drop items.
    c. The 'Show totals only' label on Add/Edit report page is moved near 'Group by' section to better indicate its purpose.
    d. The default pagination is removed from Add/Edit report page. It has been explicitly set to 25 records when the report is run by itself and to 10 records when the report is placed on the dashboard. The end user can change the page size while viewing the report.
    e. Improved organization of a report's available columns. The most commonly used columns are brought up in the list and the remaining columns are moved under a 'More' label.
    f. Maximize icon for Reports placed on the Dashboard.
    g. Improved starring/unstarring reports for quick access.
    h. Reset option has been moved under prompt (dynamic) filters and column customization pop ups, each action for its intended purpose (reset to default values).
11. The color-coded legend on Resource Load, Utilization and other Time-phased reports is shown only when Hours(Est) or Utilization(Est) columns are selected. These colors only make sense on these columns when viewing Resource allocations or utilization.
12. Simplified Security screens
    a. On Administration Page, Roles, Role Privileges and Role Membership screens have been merged into a single Access Control screen. You can define/modify roles, manage role permissions and specify role members from the same screen.
    b. On Project Page, Security and Role Membership screens have been merged into a single Access Control screen. The screen is similar to the screen under Administration with reduced scope of actions.
    c. The Grant/Deny permissions are now color-coded for better readability. On Project's Access Control screen, the permissions that are inherited from global settings are indicated with a lighter color shade and a tooltip.
    d. Security tab on Add/Edit User or My Settings has been removed. An Access Control section is available under the Basic Tab.
    e. Role column added to Users View.
13. Workspace Simplifications: If you have not defined multiple workspaces, the workspace-related labels will not appear anywhere in the system. This will help simplify UI screens and eliminate unnecessary complexity.
14. When an admin changes another user's password, an automatic email will be sent out to that user.
15. A better and improved warning message when deleting the App definition in the Administration section.

## Behavioral Changes

1. Project's Deadline field will be an optional field. If entered, it will only be for informational purposes. For schedule status calculations, the project's estimated finish date will be used.
2. Project's Client will be optional.
3. The project option "*New tasks will be manually scheduled*" is removed from the project's Add/Edit screen and will now be remembered as a user preference. This is accommodated in the Gantt toolbar's gear icon in the toolbar.
4. Creation/Deletion/Reorganization of Project specific views is now restricted only to Admins. This action has been moved to the "Administration" section under "Project Views" link.
5. Project Views will be seen as Tabs on the Project Page. We will show 5 tabs (as organized by the admin) with a More option. Users will be able to set their Default Tabs or download reports as before.
6. The "*Completed*" Schedule Status for tasks is being reintroduced due to popular demand. You will now see Completed as one of the Schedule Status values for tasks.
7. Task RAG indicators will only be shown for Active Projects i.e. projects that are in execution stage. For all other tasks, the RAG values will be 'Not Active', similar to that of projects.
8. The Reset option for Interactive Gantt will now default to columns based on the user's preference of manually or auto scheduled tasks. For Auto scheduled, the default columns will be Name, Duration, Predecessors, Resources, Start, Finish. For Manually scheduled, the default columns will be Name, Start, Finish, Resources.
9. Creation of tasks via email will allow creation of manually scheduled tasks.

10. Importing tasks from a CSV file will allow specifying task durations or creating manually scheduled tasks.
11. The task's Last Update field will reflect the %Complete changes made from the Interactive Gantt and the Edit task pop up.
12. All dates in the system will now be stored in ISO formats.
13. Sorting on 'Update (Last)' column in any report will sort by 'Last Update' date.
14. Sorting on 'Last Post' column will sort by 'Last Post On' date.
15. "Size Indicates" option on a Bubble Chart is now optional, thus allowing a new scatter charting option.
16. Recalculate Projections operation is now a manual activity; the projections will not be updated daily.

## Label Changes

1. Company Settings renamed to Administration
2. Security renamed to Access Control
3. Clone Project renamed to Copy Project. Clone renamed to Copy
4. % Complete renamed to % Comp
5. % Complete (Planned) renamed to % Comp (Est)
6. Finish (Planned) renamed to Finish (Est)
7. Add Update renamed to % and Comments
8. Add File renamed to Attach Files
9. Upload Archive option under File Folders renamed to Upload Zip
10. Download (.zip) option under File Folders renamed to Download Zip
11. Add Time renamed to Log Time
12. Favorites tab under All Reports renamed to Starred
13. Assignment (Report) renamed to Task Assignment
14. Task Update (report) renamed to Task Status Update in New Reports action
15. Task Update renamed to Status Update (on Task page)
16. Bubble (Chart option) renamed to Scatter
17. - ReportRunner- option in report filters has been changed to -Running User- in Add/Edit Report and to -Me- in Report's prompt (dynamic) filters.
18. View tab on Add/Edit Reports renamed to Output.

## Bug Fixes

1. Manually Scheduled tasks could not be scheduled on Weekends. This issue is now fixed.
2. Virtual users were unintentionally available under the 'Assigned To' drop-down when initiating app items. This has now been removed.

# Celoxis v10.0 Release Notes

**Release Dates:**

- For SaaS - 16th April 2016
- For On-Premise - 01st June 2016

## Breaking Changes

1. **Individual Report Customizations Lost for People > Users, Clients, Contacts:** Apologies! There is nothing we could really do about this 🙁. In this release, we are changing the People Lists (Users, Clients, and Contacts) as lightweight, shared "Views" (new feature in v10.0). In our previous version, these being reports could have their individual customization of columns and grouping. However, our new Views do not allow individual customization of columns and grouping. We have given a standard definition to these Views. Only your Admin can Edit them and make the necessary filter/column/grouping changes. These changes will be applicable sitewide.
2. **Existing favorite Reports moved under the new "Reports" menu**.
3. **Resource Load** is created as a default view under the new "View" menu. However, your existing Resource Load Chart Report continues to exist as-is under the "Reports" menu. While you cannot delete the Resource Load View, you can update its definition to match your existing Resource Load Report and then delete the old report.

## New Features

1. **Views** as a primary way of managing different objects (Projects, Tasks, Time Entries, Expenses, one view for all active Apps) in the system. Each object in Celoxis will have its associated view.



2. **Notification Center** - A demanded feature to be able to view all notifications in the application itself. The in-app notification center notifies you about new work assignments, modifications to items you are is currently working on, and updates or conversations on tasks

and discussions you are following.

3. **@Mentions** - Another demanded feature allowing you to mention your teammates on tasks, apps, or discussions in order to get their attention to your message.

4. New-look | **BADGES** | to highlight important content such as project schedule and budget health or time and expense entry states.

5. Faster reports rendering engine.

6. "Clear" filters option added to Reports Filter pop up. This provides a graceful way to clear all filter values.

7. New UI design elements for improved readability.

## Changed Items

1. All your reports, including favorites, are moved to separate menu option: **Reports**.

2. Label Changes:
   a. "**Document**" renamed to "**File**".
   b. "**Filter**" button in Report Filters changed to "**Apply**".

3. Under Company Settings(Administration page):
   a. User Accounts & Clients Accounts link is removed. This can now be accessed from new View menu under **People** section.
   b. Workspaces moved under "Company" section.

## Discontinued Items

1. Custom field type "**Multi-select Checklist**" is being discontinued. All the existing custom fields of this type are automatically converted to "**Multi-select drop-down**". No action is required at your end.

## Bug Fixes

1. The % Complete calculation for summary tasks was incorrect when all the child tasks were milestone tasks (0d). This is now calculated correctly.
2. In a Gantt report of type project, no information about the project was shown on mouse-over of the project bar. The information is now visible.
3. Fixed the error that was shown after clicking on Edit of the project link in a report with output type Gantt.

**Minor Release on 19th May 2016**

1. Custom field of type "Date" will now truncate to 00 hour and minutes.
2. Daily Timesheet alerter bug fixed. It was sending alert for an entire week instead of just today.

**Minor Release on 25th May 2016**

1. Increased width of the non-project drop down on Add > Time screen.
2. Daily Incomplete Timesheet reminder was not sent for On-premise customers. This is now fixed.
3. Incorrect License count problem for On-premise customers when archiving users fixed.
4. The "Delayed" indicator on App items Issue will now be marked based on timezone of the "Assigned To" user.
5. Canned report names are now internationalized.
6. **Important Change**: Add > Timesheet displayed a warning when the "In Range" filter exceeded 3 months. The data will now be limited to 3 months (90days).
7. You can now set due date of an app item like bug, to-do, etc while creating app via email. The parameter to be passed is DUE_DATE
8. Finish (Actual) was blank for tasks with % Complete as 100 when imported via MS Project.

# Celoxis v9.6 Release Notes

**Release Dates:**

- For SaaS - 5<sup>th</sup> March 2016
- For On-Premise - 01<sup>st</sup> April 2016

## Breaking Changes

1. The **Completed** "Schedule Status" for Project and Task is removed.
   Users who have explicitly set **Schedule Status** filters to include/exclude the "**Completed**" option will have to manually change their report

definitions to get their report data correct.

**To fix this**: A new filter **Display Tasks** is available in "Task" report which has a value "Completed" which you can pick to view all completed tasks.

To exclude the completed tasks, you can add the filters %Complete with value < 100.


## New Features/Enhancements

1. Ability to define your own Project States: Earlier known as project "Phase", this has been one of the most demanded feature requests. For details, refer here.

> Customers using "phase_id" in the formula fields or API's will have to change their respective code to apply the new change. For API, refer here.

**Migration for existing customers**:

   a. All existing project "phases" will be automatically migrated to the project "states".

| Phase Name | State Name | Allow Time | Send email notifications |
|---|---|---|---|
| In Planning | In Planning | Will depend If the company policy "Allow time on archived/In planning projects" was checked, then time will be allowed. | No |
| In Progress | In Progress | Yes | Yes |
| On Hold | On Hold | No | No |
| Archived | Archived | Will depend If the company policy "Allow time on archived/In planning projects" was checked, then time will be allowed. | No |

   b. The policy "Allow time on archived/In planning projects" will be removed. The corresponding states will automatically have the 'Allow Time' checkbox enabled for it after the migration.
   c. The 'Recalculate Projections' option will not be visible when the stage is either "Planning" or "Closure".
   d. The "Completed" status (schedule status) of a project/task is removed. It will now be one of the following: On Track, Off Track, Blocked (for task), Future, At Risk. The Completed status will now reflect as follows:

| Condition | New Schedule Status |
|---|---|
| Finish(Actual) > Finish | Off Track |
| Finish (Actual) <= Finish | On Track |

2. Support for Microsoft Edge browser.
3. Bulk Edits for Timecodes: Ability to change "Timecode" in bulk.
4. The ability for a client to initiate a project discussion.
5. Warning on Timesheet of unsaved changes: This has been another most asked feature - a system warning when the user tries to navigate away from the timesheet with unsaved changes.


## Infrastructure Improvements

1. The latest version of our framework Sencha Ext JS 6. This brings in improved performance and code security.


## Changes

1. Label changes on Timesheet:
   a. **Save, I'll submit later** renamed to **Save**.
   b. **Send for approval** renamed to **Submit**.
2. Label changes for Schedule and Budget Status Indicators. This is for better readability and real-estate usage.
   a. **Schedule Status Indicators**: On Time renamed to On Track, Overdue renamed to Off Track, Schedule at Risk renamed to At Risk, with a time icon.
   b. **Budget Status Indicators**: On Budget renamed to On Track, Over Budget renamed to Off Track, Schedule at Risk renamed to At Risk, with a currency icon.


## Discontinued Items

1. Support for IE 10.

2. "Switch to old menu" option will no longer be shown. All users will now see the new menu released in the earlier version.
3. RSS feed in an Activity Log report.
4. The ability to add a document from the main menu.
5. "Favorite" option (under actions menu) for a project, task and discussion.

**Bug Fixes**

1. While creating a new client, the data in custom fields of the logged in user was copied over to the client.
2. Document report when sorted by "Path" was displaying an error.

# Celoxis v9.5 Release Notes

**Release Dates:**

- For SaaS - October 17, 2015
- For On-Premise - December 7, 2015

**New Features**

1. **New and Improved Charts**: New look and feel, improved colors, impressive animations, and rich interactivity to our chart library. You can also adjust your perspective by toggling data series in grouped and bubble charts. Our new charting framework is cross-platform and cross-browser yet lightweight, which translates into high performance and responsive charts across any of our supported browsers and mobiles.
2. **Improved Collaboration on work items**: Collaborate directly on tasks, bugs, issues, change requests and even documents. Follow work items and project discussions, reply straight out of your inbox to emails (notifications) and add your comment.
3. **"New-look" Activity Stream**: We have revamped our Activity Stream.  You can get up-to-the-minute streaming updates and keep all your conversations in one place.  You can also quickly comment on work items directly from the activity stream. Please note that if your account had an old Activity log report, it will automatically be migrated to the new Activity stream. Alternatively, you can create your own Activity Stream report from the "All Reports" view.
4. **Ability to download Reports as PDF**: Quite a nifty addition in itself.
5. **Support for The Russian Language**: We have expanded our multi-lingual library to include The Russian language.
6. **Support for Client Locales**: Clients can now change language capabilities making it easier for them to work in their native parlance.
7. **Ability to fill Non-project time from Mobile**: Teams on-the-go can easily enter non-project times (meetings, training, etc.) directly from their mobile devices.
8. **Upload User Photo**: Users can now upload their photos or avatars directly from the application.
9. **Quick Search**: We have added a quick search capability to help you locate your mission-critical projects, documents or work items instantly.
10. **Import Apps**: We keep adding pre-built apps from time to time. This feature allows admins to quickly bring in the ones relevant to their businesses.
11. **Fill time for "email-only" (or generic) users**: Admins or Users with "Proxy" privilege can now fill weekly time for "email-only" (or generic) users.

**Infrastructure Improvements**

1. Several server software improvements to better utilize server capabilities and protect against new-day web application vulnerabilities. Tomcat version upgraded.

**Usability Enhancements**

1. A modernized navigation, bolder section headers, improved form usability and pick lists.
2. Improved and faster Gantt rendering and new colors.
3. **All Reports View**: The different tabs have been consolidated into "Favorites" and "All". A quick search box has been added for easy finding. The view is now a lightweight  popup.
4. **Add Report**: Label and control changes to "Share with users" and "Share with clients" to better express its purpose of access control. The labels are now "Visible to Users" and "Visible to Clients".
5. **Upload Company Logo and New Specifications**: Admins can now directly upload their organization's logo from the Company Settings page. We have also provided for a larger height and decoupled the rigid dimensions for your logo. This logo will also flow into your email notifications.
6. **Enhanced Project Discussions**: Discussion emails now include a running conversation of 10 posts with a link to the entire post. New column "Last Post" added to reports.
7. **Mark on Track**: Easily mark all of your tasks  up-to-date without guessing the correct % progress.
8. **Create Subtasks via Email**: Users can create subtasks via email by appending the parent task in the email's subject.
9. **Download User List**: Administrators can now export the users' list to CSV/HTML/PDF for account management purposes.
10. **Auto-focus on Gantt**: Enables faster data entry using keyboard shortcuts saving you a click.

### Behavioral Changes

1. **New User**: Admins can create new users from another selected user with all security, preferences and favorite reports.
2. **Add Update from Email**: Adding an update via email does not mandate a % complete value in the Subject line. If left untouched, the system retains the previous values.
3. A user's private reports (i.e. Visible to Users: No, Visible to Clients: No) will not be visible to Admin users in their Reports List. This makes the Admin's list less cluttered.
4. Email address will be cleared off automatically when a user is deactivated.
5. Printing the Interactive Gantt will now download as a PDF file. For option -'Original Size-, a PNG image will be downloaded. This is done for cross-browser consistency.
6. **Remotely loaded pick lists** (e.g. User pick list) will show 25 records max in the pick list with a typeahead capability for more results. You will have to type at least 3 characters to narrow down search results in the pick list.

### Limits

1. For PDF download, the max number of records for tabular reports is 250 (i.e. max page size in reports). For Time-phased reports, the limit is set to  1 month.
2. Recent items are restricted to 15.

### Discontinued Items

1. In/Out Board (unsupported from v4.5) has been discontinued.
2. Import CSV File for Project containers option has been removed.

### Bug Fixes

1. Changes to Requestor Email Templates for All workspaces was not saved.
2. Schedule Status of the summary tasks having milestones task as child reflected incorrect schedule status.
3. Hours(Actual) column in time-phased reports did not consider hours filled on tasks not assigned to the user.
4. Variation of finish dates on task details page and reports caused due to constraints.

# Celoxis v9.1 Release Notes

### Release Dates:

- For SaaS - January 10, 2015
- For OnPremise - January 27, 2015

Following are the highlights of v9.1 release:

1. **Celoxis App for QuickBooks Online:** Send all your billable and approved time entries from Celoxis directly into QuickBooks Online and synchronize them as 'Invoiced' once attached to customer invoices in your QBO company. Works only with QuickBooks Online versions that support time entries. Currently released in beta.
2. **Performance Improvements:** To keep up with increasing customer requirements and data throughput, our engineers have tuned several portions of the software to be as fast as possible. With multilevel code & database schema  improvements and re-architecture, we have achieved an overall 20-25% improvement in performance. Key areas like MSP, CSV import and RLC reports are a whooping 50% faster.
    a. **For On-Premise Installations:** There are some database schema changes as part of this release. For exact details, please contact our support team.
3. **Usability Enhancements:**
    a. A better representation of tasks that are 'blocked' because of incomplete predecessors, so that managers can easily distinguish them among other tasks and address them promptly. They remain as 'Blocked' even if their finish date is in the past.
    b. "Remember Me" on the Login page is renamed to "Stay signed in" to better reflect its purpose.
4. **API Additions:** Easily import time entries in any state from external systems into Celoxis using our 'import-time-entries' API call. Refer he re for the function arguments and examples.
5. **Bug Fixes:**
    a. Reject Button on Approved Expenses has been fixed.
    b. After creating a new account, some users were not receiving the account creation email containing their credentials. This has now been resolved.
    c. There was a scheduling bug with "As Late As Possible (ALAP)" task constraint. This is now corrected.
    d. The unmeaning mouse click on "

    ★

    Reports" label in the top navigation menu has been removed.

The "Incomplete Timesheets" report can no longer be added to the dashboard. For existing users who have this report on their dashboards, it will be automatically removed. This report is a performance deterrent and causes extremely slowly loading dashboards. The report can be easily accessed from "

★

Reports" under the Time menu.

## Celoxis v9.0 Release Notes

### Release Dates:

- For SaaS - September 13, 2014
- For OnPremise - October 09, 2014

Below are the highlights of v9 release:

### New Features

1. **Complete Visibility for Resource Management**: Get an accurate view of resource load, utilization, capacity and efficiency for better resource planning and management. Get 5 out-of-the-box reports for total resource workload. management. You can fully customize these or even create new reports to suit your business needs. You can also specify a range for optimal resource load.
2. **Salesforce.com Integration**: With Celoxis' Salesforce.com app, sales teams can initiate, assign, manage and track customer projects within the bounds of Salesforce. This integration is currently in the final stages of Salesforce.com app security review and will be available in Salesforce.com's AppExchange soon.
3. **Slice-n-dice your date-specific data**: With new month and year columns, leave the guesswork out and directly abstract valuable information from your date-specific data to aid in decision making.
4. **Custom Apps**:
   a. Create 'Draft' apps: Start defining your custom apps and leave them as inactive till you are ready to launch them in your organization.
   b. Restrict clients from initiating certain project apps: Shield your internal business processes from project clients by restricting access.
   c. Support Subscriber List for an app: Attach subscribers to always receive notification on changes or updates to app items.

### Usability Enhancements

1. Copy Tasks from Project: Quickly copy repetitive tasks across projects and build your WBS faster.
2. Task Timers: Directly start timers from your tasks or project apps. Active timer is prominently displayed on the main menu for quick recall.
3. Collapse All in Interactive Gantt: The 'Collapse All' button in the Interactive Gantt now collapses all sub-tasks to the summary nodes.
4. Simplify Task Update via Email: Quickly send your updates without logging time. The subject line has been simplified to prevent user errors.
5. Simplify Task's Action Dropdown: We have refreshed the task's action drop down to make it easier for users to report updates on their activities.

### Security Improvements

1. Changing your password will now prompt you to also enter your old password.
2. The "Forgot Password or Login" page now requires the CAPTCHA  to prevent bots or automated programs.

### Other Improvements

1. Custom field of type Multi-select drop-down can now be attached to a Task and its value can be entered/modified from the Interactive Gantt.
2. The Incomplete timesheet reminder emails can now be toggled as a user preference.

### Bug Fixes

1. The Celoxis logo appeared in large size in some email clients like Outlook, GMail. This has now been fixed.
2. API: Cloning a project will also clone the custom field information.
3. The 'One Click Approve' for time-entries approved all time-entries visible to the Approver; although the user did not have Approve privilege for it.

4. The number representation of system id's in reports had commas. This is now fixed.
5. The 'Work Item' column did not show the data properly when exporting the report via CSV.
6. The User:Workspace filter in the Incomplete/Missing time report was not working. This is now corrected.
7. Converting a generic (non-login) resource to a login resource now sends an email to that user with the login details.
8. The constraint of new tasks will now remain as 'ASAP'.
9. Changing the date of predecessor task changed the 'ASAP' constraint of the successor task to SNET. This will now remain 'ASAP'.

## Discontinued Items

1. Task Types: Task Types, which were deprecated in v8 have been removed in this release. Existing task types have been migrated as custom fields (attached to tasks).
2. Support for IE9 has been discontinued.

# Celoxis v8.0 Release Notes

## Release Dates:

- For SaaS - May 24, 2014
- For OnPremise - July 02, 2014

Following are the highlights of v8.0 release:

## New Features

1. Manual scheduling: Manual scheduling lets you create your project plan without shifting any dates. Available as a flag under Project Options and on each task. Default schedule mode is 'Manual'.

   *This feature is attributed to the following users: Assel Gubaidullina, Ben Murray, David Comas, Jeffrey Heaton, Victor Chang*
2. Google Drive integration: You can now link your existing Google documents with Celoxis' out-of-the-box Drive integration. You can attach documents to projects, tasks, discussions and workflows.
3. Automatic timesheet reminders: With our automatic timesheet reminders, you can send out daily notifications to users who have not filled in their time as per expected hours. Configuration at company level.

   *This feature is attributed to the following users: Dan Morris, David Comas, Kevin Shayne, Lijo Jose, Lois Compton, Paula Coleman*
4. Fill time on your business processes: Now account for any time spent on your bugs, issues and other project processes that are assigned to you.

   *This feature is attributed to the following users: Adi Blumberg, Lijo Jose, Marc Hull, Mark Smit, Oma Taiga, Scott Stock*
5. Pre-fill your weekly time work items: With this option, you can now have your weekly time screen pre-filled with all tasks and project workflows on which you need to fill time. Another handy time-saving feature! By default this option is enabled for all users.
6. Edit comments on progress updates: You can now edit or delete your comments filled against a progress update. Just open your progress update report and edit your comments.

   *This feature is attributed to the following users: Douglas Slovensky, Joanne Donahue, Kees Keet, Lois Compton*

## Enhancements

1. Workflow Improvements: We have improved workflow administration and configuration which directly translates into quick definition, easy configuration and more intuitive business & project processes.
   a. Bugs, Issues, and other custom processes will be **Custom Apps** within Celoxis.
   b. **Process** menu is renamed to **Apps**.
   c. **Process Types** renamed to **Apps**.
   d. **Transitions** renamed to **Workflow**.
   e. **Department** renamed to **Workspace**, which better expresses its flexibility in the context of the workflow improvements.
   f. Apps Security (Roles, Privileges and Memberships) are now merged with the overall application security.
   g. App Workflow definition, including defining timeout policies and configuring state managers/timeout policies can be done from workflows screen.
   h. Apps configuration (State Managers and Timeout Policies) can be done at:
      - Company level (i.e. All Workspaces) and Workspace level
      - Project level (for Project workflows)
   i. You can now directly add Reports for your Custom Apps (such as Bugs, To-Dos, etc...) from the New Report action drop down under Reports.
2. **Task** Column is renamed to **Work Item** on Weekly time, Edit time, & Approve time screens.
3. Work flow filters and columns are now available in Time entries report. In addition a new column **Workitem** will also be available, which will show both Task Name/Workflow Summary under a single column.
4. Automatic **Scroll into view** when a task is selected in Gantt.

5. Define your own RAG indicators using formula fields.
6. Custom fields will be organised in 2 column layout; except File Chooser, Checkbox and Text Area for better visual appearance.
7. The **Custom fields** tab on the Add/Edit app item page is merged on a single page.
8. The custom fields attached to State transition will now retain the value of the previous transition. All such fields will now be available on the Add/Edit App item page.
9. Custom field of type 'Formula' cannot be attached to a state transition.
10. Improved user notification to enhance readability.
11. An option **Add Another** available when adding app items, tasks, roles, times codes, expense codes, project categories and People for adding the objects easily.
12. Download as CSV option available for Resource Load chart.

## Enforcing Limits

* With 7.0 we had apprised users about certain reports that caused performance issues due to large volumes of data. With this release, we are enforcing these limits. If you have not already fixed those areas, you will get an error message.

## Discontinued Items

1. Overtime Rates: Overtime rates (for user and time code based rates) have been discontinued. We have performed an automatic one-time migration for existing time code users who had overtime rates.
2. **Copy Previous Week** option on Weekly Time screen removed.
3. Project Policy **Auto calculate % complete of summary tasks from child tasks**: This policy has been removed. By default, all summary tasks will have their % complete auto calculated from child tasks.
4. Workflow Application: Workflow Application is discontinued. All roles that are currently defined at Application level will be migrated to Roles section in Security under Company Settings page.
   **Manage Project Workflows** option under Company Settings will be removed. By default all workflows will be available in all projects.
5. Process Categories: Process Categories have been discontinued. All existing categories (including sub-categories) will be mapped to Workspaces.
6. Task Types: Task Types are deprecated (since v8.0) and will be removed in a future release. We will migrate existing task types as custom fields (attached to tasks) at that time.
7. Support for IE9 browser deprecated. Will not be supported from future release.
8. The Administrator user (i.e login name=administrator) has been removed. An user will administrator privileges can login and perform the same actions when your account is locked or your active users exceed licensed users.

# Celoxis v7.0 Release Notes

## Release Dates:

* For SaaS - March 22, 2014
* For OnPremise - April 28, 2014

Following are the highlights of v7.0 release:

1. Visual importance given to your data. See less of application interface.
   a. Font size increased for better readability.
   b. Font typeface changed to 'Open Sans', which is optimized for web and print.
   c. Flat design for a modern and trendy look.
   d. Removal of design elements that do not add value.
   e. Light weight form pop ups.
2. HTML, JavaScript improvements to load data up to 30% faster.
3. Usage of icon fonts, which scale better, load faster and perform consistently across browsers.
4. Cleaner, and sleeker project specific reports.
   a. Helps reclaim as much as 40% of page real estate.
   b. More intuitive action selector and marking report as default.
5. Interactive Gantt:
   a. Single row toolbar ensures better readability.
6. Reports:
   a. Docked report promptable filters.
   b. Bulk actions moved under 'check-all' cell in the report header row.
7. RLC:
   a. Fixed left pane (Users/Projects/Tasks).
8. Support for IE 10 and 11.

**Enhancements**:

1. Editing a project from dashboard would take you the project page itself. It will now remain on dashboard only.

## Celoxis 6.5.1 Release Notes

**What's New:**

1. Bulk Actions for 'Time Entry' reports. Currently in beta, this feature allows you to perform
   - Basic bulk edit on time entries. More attributes will be added in due course.
   - One-click actions such as Send for Approval, Approve, Reject, Invoice/Uninvoice and Delete can now be performed from any time entry report.
     NOTE: The existing "Approve Time" and "Invoice Time" screens will be deprecated in the up-coming releases.

**Enhancements:**

1. Auto-update of billable, costable, bill and cost rate attributes of a time entry based on changes to time code, rate type and project. For details refer here.
2. Rates removed from single edit time entry screen. These can be changed via Bulk edit time entry screen. For details refer here.

**Bug Fixes:**

1. 'Auto approve time' policy implied 'Approve' privilege. This policy now only implies 'Edit Time' privilege.
2. A project's client is available in the 'Requestor' list when initiating a process from a project.
3. The lead/lag time on the successor task is now copied when the predecessor/successor task is duplicated.
4. In a rare situation a user could not copy a parent-child task relationship. This has now been corrected.
5. Moving a child task under a different parent did not correctly reorder the Ids. This caused the task to revert to its original position on save.
6. Incorrect calculation of projected dates for tasks with dependencies has been fixed.
7. The inability to remove a state manager from a process state has been rectified.
8. The Hours (Act) column in an 'Assignment' report did not record non-billable (and approved) hours. It now displays both billable and non-billable (approved) hours.
9. Updating resource allocations from the RLC did not function correctly.
10. "User : Department" filter in reports has been fixed.

For **v6.5 Release Notes**, refer here.

## Celoxis 6.5 Release notes

With v6.5, Celoxis continues with the philosophy of providing most-wanted features, improving usability and enhancing speed.

**What's New:**

1. Interactive Gantt :

   a. Manual save mode has been introduced and is now the default save mode. In this mode every change is not sent to the server; rather you can make multiple changes and click on save, resulting in increased productivity.
   b. Keyboard shortcuts have been added for more common actions.
   c. Printing capabilities have been greatly enhanced. The "Fit" to a paper-size option makes it easy to print your views on the paper of your choice.
   d. Performance has been increased by 200%. Working with thousands of tasks is a breeze.
2. Invoicing : Time-entries and expenses can now be marked as "Invoiced". A special privilege "Invoice" has also been introduced.
3. User-based Billing : You have the option of choosing between User-based billing and Time code-based billing at an organisation level. In User-based billing, billing rates can  be defined on a user.
4. Estimated Billing: If you choose user-based billing, you can view the estimated billing for projects and tasks.
5. Usability Enhancements:
   a. Search capability has been added while selecting columns, sort by and group by in reports.

        b. You can search across multiple objects (projects, tasks, documents, etc.)

        c. The favorite reports have been moved back into the main menu from the sub-menu to reduce clicks.

6. Improved form accessibility : Submit forms by hitting the 'Enter' key.

**Changes :**

1. Rate history has been removed. From support tickets and analysis of data, we realized that rate history was confusing and not used correctly by end users. It ended up causing more problems rather than simplifying rate management. We finally took the tough call to eliminate rate history i.e. there is no longer an  "effective since" date for the user cost rate and the bill rates. The screen to add or modify rates is now greatly simplified. The side effect is that to update rates in the past, you will have to manually enter them in time entries. Something that will be made even easier when we introduce bulk-edit for time entries.
2. The Load checking when assigning resources to a task has been removed for performance purposes.
3. You will now be able to change the cost rate and bill rates per time entry via the edit screen itself.
4. The **Start** and **Ceiling** Price on the New/Edit project page has been removed.
5. The **Charging Model** section on the New/Edit project page renamed to Billing Model.
6. Changes to the Add/Edit User page :
        a. The fields on the page re-organized for better comprehension.
        b. Ability to enter User cost rate or Bill rate (incase of User based billing model) when adding/editing a user.
        c. Fields like - Locale, Input date format, Display date format, Photo now available under the "Preferences" tab.

# Celoxis 6.0 Release Notes

# Release Dates:

- For SaaS - March 23, 2013
- For OnPremise - June 03, 2013

Major release after version 5.1. It has numerous enhancements and behavioral changes.

**User Interface**

1. Minor reorganization helped reclaim up to 40% more screen real estate.
2. Many actions are performed via speedy AJAX pop-ups which helps retain context, reduce clicks and improve overall speed
3. Consolidated toolbar
        a. All resources (users, clients, contacts) consolidated under single People menu.
        b. Directly open a ticket, view documentation, access the community forums from the Help menu
        c. Personal settings and Logout options consolidated under profile menu
4. Improved ability to quickly add task, documents, discussions to recent or current projects and tasks
5. LHS report panel under projects can be collapsed to gain more real estate
6. Client dashboard introduced similar to user dashboard

**Project Management**

1. Task worksheet replaced with interactive Gantt
2. Interactive Gantt enhancements
        a. Ability to resize the LHS/RHS panes of the Gantt
        b. Collapse Gantt part to make it work like Task worksheet
        c. Ability to add multiple tasks.
        d. Drag and drop to reorder tasks
        e. Added Print ability
        f. Export as image/PDF (with multi-page option) to share with others (Beta)
        g. Add documents, time and expense using Gantt menu.
        h. The 'Search' on Gantt searches for task names and Resources.
        i. Removed 'Full Screen'.
        j. Move tasks across projects.
        k. Export plan to CSV
3. Baselining
        a. Import/Export baseline from/to Microsoft Project
        b. EVA now based on baseline
4. Scheduling enhancements
        a. Tasks with no resources now factored in when computing % complete of summary tasks and project
        b. Projected dates for tasks with no progress calculated assuming today as the start date
        c. Resources can have > 100% allocation
        d. For tasks with multiple resources, the work is proportionately divided based on their individual allocation
5. Ability to add and edit tasks individually.
6. Enter billing details while creating projects

7. Phone logs attached to tasks migrated to task notes
8. Convenient progress update shortcuts 25, 50, 75 and 100% for tasks
9. Added dynamic role 'Task Team' for more customizable access control
10. Exposed the 'Edit Time entry' privilege. This is automatically granted to the 'Approver' and 'Owner' role.
11. Project document report now includes documents attached to tasks, discussions and processes.
12. Ability to set multiple timers on tasks.


**Timesheets**

1. Enter %complete and update on tasks when filling weekly time
2. Simplified approval process
3. Added one-click approve option
4. Removed detailed bulk approve screen
5. Removed policy 'Allow users to fill time on tasks not assigned to them' as tasks visible are controlled by security
6. Customize number of rows visible for non project time on weekly screen


**Expenses**

1. Simplified approval workflow
2. Added one-click approve option
3. Expenses editable after approval


**Collaboration**

1. Improved workflow to move documents across folders
2. Improved presentation of discussions
3. Discussions can be moved across projects
4. Discussion posts can be sorted by date
5. Unified interface to add work calendar exceptions -- for individuals, work calendars and the organization
6. Organization wide events must now include timezone


**Reports**

1. Improved column picker -- columns are grouped hierarchically
2. Improved presentation of promptable filters -- reduces clutter and improves readability
3. Expand/Collapse in hierarchical reports remembered across log in sessions
4. Additional financial columns


**Custom Fields**

1. Now available for users, clients and contacts
2. Same field shareable across entities
3. Mark fields as secure -- visible only to users with financial privileges


**Users and Clients**

1. Import custom fields via CSV for users and clients
2. Set profile pics from FaceBook and Twitter
3. Simplified workflow when archiving users and clients
4. Extract and insert custom fields via API


**Internationalization**

Celoxis is available in French, German, Spanish, Chinese and Portuguese languages.


**Search**

Simplified interface and improved algorithm


**API**

1. db_user should now be referred as db_person

# Integrations

# Celoxis App for QuickBooks Online

Celoxis App for QuickBooks Online helps you to synchronize **billable time entries** with Celoxis and your QuickBooks Online company. It facilitates quick and accurate Invoice generation. Users can sync all approved and billable time entries from Celoxis to QuickBooks for Invoicing and once they are Invoiced in QuickBooks they can be updated back in Celoxis as Invoiced.

<p><br/></p>

**BETA**

This app is being released as a **beta version**. Only time entries can be synced with QuickBooks Online. You need to have a QuickBooks Online Plus Edition that supports time entries.
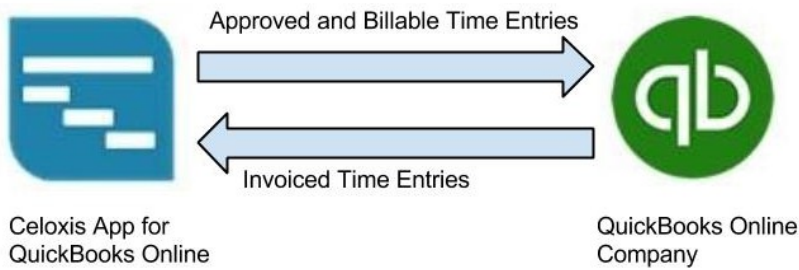


**High level Data flow between Celoxis and QuickBooks Online**

**Data Mapping between Celoxis and QuickBooks Online**

The terms used in QuickBooks Online are different than those in Celoxis. For example, a **Time Entry** in Celoxis is known as **Time Activity** in QuickBooks Online. The below table explains the field mapping between Celoxis and QuickBooks Online.

Celoxis

QuickBooks Online

| User | ⟷ | Employee |
| Client | ⟷ | Customer |
| Time Code | ⟷ | Service Item |
| Time Entry | ⟷ | Time Activity |
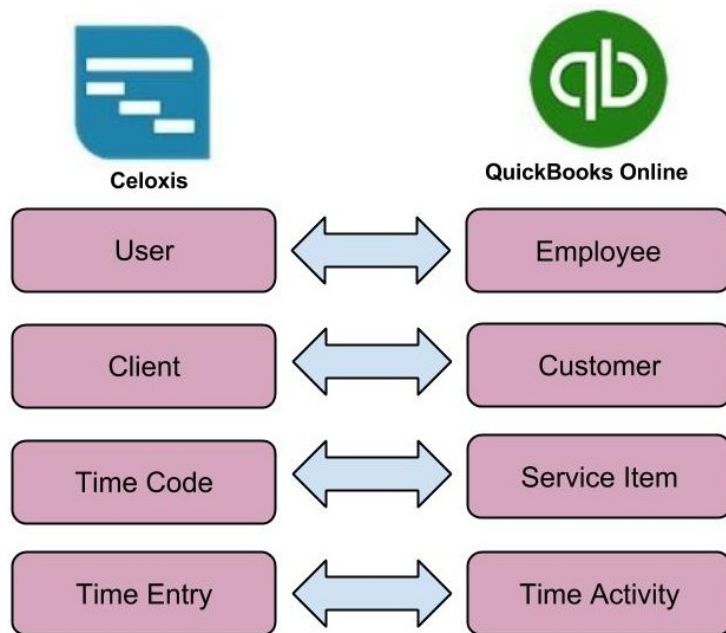
The following sections will detail out the behavior of this app.

- Before Using the App
- Connect Celoxis to QuickBooks Online
    - Access Expiration
    - Disconnect from QuickBooks Online
- Sync Time Entries
    - Sync Rules
    - Common errors while syncing entries
- Switching to QuickBooks Online

## Before Using the App

Celoxis does not create or import supplementary data associated with time entries from QuickBooks Online. Supplementary data includes users, clients and time codes. It is imperative to follow the below steps.

**Mapping Users**

- You need ensure all your existing **Users in Celoxis** exist in **QuickBooks Online as Employees.**
- The display name of an employee in QuickBooks Online should be identical to display name of an user in Celoxis.
- Celoxis performs name based matching between associated entries during sync operation.

**Mapping Clients**

- You need ensure all your existing **Clients in Celoxis** exist in **QuickBooks Online as Customers.**
- The display name of a customer in QuickBooks Online should be identical to display name of a client in Celoxis.
- Celoxis performs name based matching between associated entries during sync operation.

**Mapping Time Codes**

> This is applicable only if billing model is Celoxis is set to **Time Code Based**

- You need ensure all your existing **Time Codes in Celoxis** exist in **QuickBooks Online as Service Items.**
- The display name of the Time Code in QuickBooks Online should be identical to display name of a Service Item in Celoxis.
- Celoxis performs name based matching between associated entries during sync operation.

## Connect Celoxis to QuickBooks Online

Only users with admin privileges can connect to QuickBooks Online. Once the connection is established all users *(with Invoice Privilege)* can sync time entries between the two systems.

Before you connect to QuickBooks Online, please ensure that you have completed all steps listed in the Before Using the App section.

Following steps will guide you to connect the Celoxis App to your QuickBooks Online company:

> If you are an existing Celoxis user and have been "Invoicing" time entries in Celoxis, please refer to Switching to QuickBooks Online, before connecting to QuickBooks Online.

1. From the main menu, click on

   [ ●●● ]

   and then **Company Settings**.
2. Under Time & Expense section, click on "**Connect with QuickBooks Online (BETA)**"



3. You will get a pop-up to Connect to Quick Books Online. Click on "Connect to QuickBooks" button. This will initiate Intuit's authentication process.

## Connect with QuickBooks Online

Connecting Celoxis to your invoicing system impacts the Invoicing behavior of Celoxis time entries. Please read the documentation before you connect.

**CONNECT TO QuickBooks**

---

**On Premise customers** may see the following message on Intuit's "Sign in" pop up.

"*The web-site domain of the application requesting access to your Intuit data does not match what we have on file. Please proceed at your own risk*".

When we register our App with Intuit, we have to provide a host domain. This in our case is "celoxis.com". Since on-premise users are trying to access from their own server (and domain), Intuit tries to warn you of this domain mismatch. Please be assured there is no security risk involved and you can safely ignore this message.

---

4. On the next screen, you will be prompted to enter your QuickBooks Online credentials.

Don't have an account? Sign up now.

# Sign in

**Email or user ID**

[                                        ]

**Password**

[                                        ]

☐ Remember me

**Sign In**

Forgot your password?

Forgot your user ID?

5. Click on the **"Authorize"** button. By doing this, the admin authorizes QuickBooks Online company to securely share data with Celoxis App for QuickBooks Online.

## Authorize Intuit to securely share your data to Celoxis App for QuickBooks Online



ADTRIN Corporation          Celoxis App for QuickBooks Online
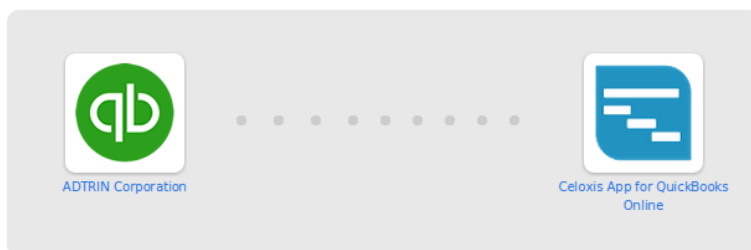
By clicking the Authorize button, I authorize Intuit to share my data with **Celoxis App for QuickBooks Online** . Additionally, I acknowledge that **Celoxis App for QuickBooks Online's** Terms and Conditions, including Privacy Policy apply to this app and developer's use of my data.

No, Thanks                                    Authorize

6. The pop up automatically closes and your Company Settings page is refreshed. You are now connected to QuickBooks Online.

## Access Expiration

Every authenticated connection remains active for **180 days**, after which QuickBooks Online automatically expires it for security reasons. Admins are required to Connect to QuickBooks Online again.

If your connection expires, your users will not be able to sync time entries with QuickBooks Online. They will see an authentication failure message. Once the admin reconnects to QuickBooks Online, they will be able to resume normal operation.

## Disconnect from QuickBooks Online

At times you may want to explicitly discontinue using QuickBooks Online. Only admins are authorized to disconnect from QuickBooks Online. Once the app is disconnected, users can no longer sync time entries with QuickBooks online and all Celoxis time entries will resume the default Invoicing behavior.

 Please refer the following steps to disconnect access from QuickBooks Online company.

1. From the main menu, click on

   **•••**

   and then **Company Settings**.

2. Under Time and Expense section, click on **Disconnect from QuickBooks Online**.



3. You will have to confirm your action.



   4. The Company Settings page will reload and your connection to QuickBooks Online will be disconnected. You will again see **Connect with QuickBooks Online** option.

## Sync Time Entries

The Celoxis app for QuickBooks Online provides "Sync with QuickBooks Online (BETA)" report which lists all your Celoxis **Approved & Billable Time Entries**. This is particularly helpful when you want to see details of entries, if they are synced and date when they were synced. You can also apply dynamic filters (Date, Client name and Manager name) to further refine the data in your reports.

> The "Sync with QuickBooks Online (BETA)" report is a special report that is enabled only when Celoxis is connected to QuickBooks Online. This report can be accessed from the Time menu.
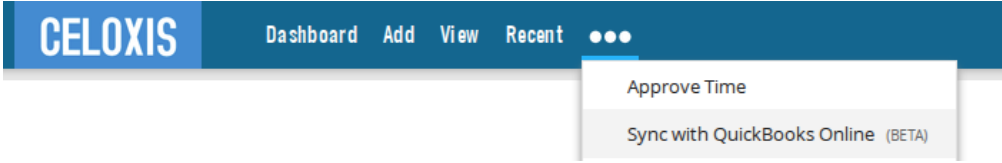
Sync with QuickBooks Online report provides two new columns, **"QuickBooks Online Id"** and **"Last synced at"** . "QuickBooks Online Id" column displays the time entry's corresponding ID in QuickBooks Online and "Last synced at" column shows the time stamp when the entry was synced. Blank values indicate the entry is yet to be synced with QuickBooks Online company.



"The QuickBooks Online Id" and "Last synced at" columns are available in any time entry report if your Celoxis account is connected to QuickBooks Online.

**Steps to sync time entries**



Invoice privilege is required.

1.  Select the time entries you want to sync.



2.  Click on bulk actions menu icon

    

    and select **Sync with QuickBooks Online** action.



3.  The system will sync the selected time entries and corresponding QBO Ids and Last synced at values will be updated.

## Sync with QuickBooks Online

▼ - No filters - Change

| ☐ ≡ | User : Name | Date : Date | Hours | Billing | QuickBooks Online Id | Last synced at ▼ |
|---|---|---|---|---|---|---|
| ☐ | Mark(IST) Warn | 5-Feb-2015 | 1:00 | $80.00 | 35 | 5-Feb-2015 |
| ☐ | mak warn | 2-Feb-2015 | 3:24 | $272.00 | 34 | 5-Feb-2015 |
| ☐ | Mark(IST) Warn | 29-Jan-2015 | 10:00 | $800.00 | 19 | 30-Jan-2015 |
| ☐ | Mark(IST) Warn | 29-Jan-2015 | 8:00 | $640.00 | 15 | 29-Jan-2015 |
| ☐ | Mark(IST) Warn | 29-Jan-2015 | 4:30 | $2,250.00 | 14 | 29-Jan-2015 |

Please note the following:

1. Once entries are synced, users will see a "Last synced at" label on the time entry's single edit screen.
2. Once entries are Invoiced, they will no longer appear under the "Sync with QuickBooks Online" report.

## Sync Rules

Invoice privilege is required to perform below actions.

**Using the 'Sync with QuickBooks Online' action from Sync with QuickBooks Online Report**

- The below table explains actions performed by the system when sync operation is explicitly performed from the Sync with QuickBooks Online Report

| If the Billable Time Entry in Celoxis | | but Time Activity 'State' in QuickBooks Online is | Sync with QuickBooks Online will perform the following action (s) |
|---|---|---|---|
| Has QBO Id | & 'State' is | | |
| No | Approved | NA | System with create Time Activity record in QuickBooks Online and save corresponding QBO Id and Last synced at values |
| Yes | Approved | Deleted | Create a new Time Activity record in QuickBooks Online and update corresponding QB Id and Last synced at values |
| Yes | Approved | Invoiced | Update* Time entry in Celoxis and change its state to 'Invoiced' |

*For Invoiced Entries, only the following additional fields from QuickBooks Online will be updated back in Celoxis: Date, Hours, Bill Rate and Time code (only if Celoxis billing model is set to time code based billing)

Please note that once a time entry is Invoiced, it will not be seen in the "Sync with QuickBooks Online" report.

**Single/Bulk Actions of Approved & Billable Time Entries (Previously synced with QuickBooks Online)**

Actions include Edit, Reject and Delete.

- The below table explains the system behavior for Bulk or Single edit actions performed on previously synced approved & billable time entries. System will dynamically sync the selected time entries.

| Time Activity in QuickBooks Online is | Action performed by end user in Celoxis | Corresponding action system will take |
|---|---|---|
| Deleted | Reject | Delete QB Id from Celoxis and reject the time entry |
| Not Invoiced | Reject | Delete Time Activity in QuickBooks Online and reject time entry in Celoxis |
| Deleted | Save | System will save the time entry in Celoxis, but will not sync it with QBO since it was deleted there. You will have to manually Sync the entry from the "Sync with QuickBooks Online" report |
| Not Invoiced | Save | Update corresponding Time Activity record in QuickBooks Online |
| Deleted | Delete | Delete time entry from Celoxis |
| Not Invoiced | Delete | Delete Time Entry record in Celoxis and also the corresponding Time Activity record in QuickBooks Online |
| Invoiced | Reject OR Delete OR Save | Display warning message that entry is already Invoiced and will not allow corresponding operation. |

**Special Conditions if Billable flag is "unchecked" on Approved & Billable Time Entries (Previously synced with QuickBooks Online)**

| Time Activity in QuickBooks Online is | Action performed by end user in Celoxis | Corresponding action system will take |
|---|---|---|
| Deleted | | Clear QB Id of the corresponding Time Entry in Celoxis |
| Not Invoiced | Uncheck billable flag on the time entry and save changes | Delete Time Activity record in QuickBooks Online and clear associated QB Id in Celoxis |
| Invoiced | | Display warning message that entry is already Invoiced and will not allow corresponding action |

**Single Edit Screen for Invoiced Time Entries**

Once Entries are Invoiced in QuickBooks Online, and synced back into Celoxis, their state will be updated to 'Invoiced'. Such entries will be locked for any further edits (edit or delete) from Celoxis. On the single edit screen, you will have a "Sync" button. This button allows you to update* entries in Celoxis, if they have been altered in QuickBooks Online.

> *For Invoiced Entries, only the following additional fields from QuickBooks Online will be updated back in Celoxis: Date, Hours, Bill Rate and Time code (only if Celoxis billing model is set to time code based billing)

- The below table explains actions performed by the system when sync operation is explicitly performed on Invoiced Time entries from the Single edit screen.

| Time Activity in QuickBooks Online is | Corresponding action system will take |
|---|---|
| Deleted | Inform user that corresponding time entry in Celoxis will also be deleted and delete it |
| Invoiced | Update* associated Time entry in Celoxis |
| Not Invoiced (If user has detached it from a QBO Invoice) | State of the corresponding time entry in Celoxis will be changed back to 'Approved' |

> *For Invoiced Entries, only the following additional fields from QuickBooks Online will be updated back in Celoxis: Date, Hours, Bill Rate and Time code (only if Celoxis billing model is set to time code based billing)

> Syncing an Invoiced time entry that has been deleted in QuickBooks Online, will also delete the time entry from Celoxis. This action is irrevocable.

## Common errors while syncing entries

Below are few errors that you may encounter while syncing time entries with QuickBooks Online.

1. **Error: Employees Missing in QuickBooks Online**
   **Reason:**
   This error occurs when the user's name in Celoxis and QuickBooks Online company is not identical or the user is not available QuickBooks Online.

   **Solution:**
   a. Confirm if user has been set up in QuickBooks Online
   b.  Make sure that the Name in Celoxis matches the Display Name in QuickBooks Online.

2. **Error: Customers Missing in QuickBooks Online**
   **Reason:**
   This error occurs when the client's name in Celoxis and QuickBooks Online is not identical or the client is not available in QuickBooks Online.

   **Solution:**
   a. Confirm if client has been set up in QBO
   b. Make sure that the Name in Celoxis matches the Display Name in QuickBooks Online.

3. **Error: Time codes Missing in QuickBooks Online**
   **Reason:**
   This error occurs when the time code's name in Celoxis and QuickBooks Online is not identical or the time code (service item) is not available in QuickBooks Online.

   **Solution:**
   a. Confirm if the service item has been set up in QBO
   b. Make sure that their names are identical.

4. **Error: ERROR CODE:3200, ERROR MESSAGE:message=ApplicationAuthenticationFailed; errorCode=003200; statusCode=401, ERROR DETAIL:null**
   **Reason:**
   This error occurs typically when your access token has expired.

   **Solution:**
   a. Please ask your admin to connect to QuickBooks Online from the Company Settings page in Celoxis.

5. **Error: Feature Not Supported**
   **Reason:**
   This error occurs when you connect to a QuickBooks Online Edition that does not support Time Entries

   **Solution:**
   a. You need upgrade your current version of QuickBooks Online to a version which supports Time Entries. For more information about supported features, please refer to QuickBooks website.

## Switching to QuickBooks Online

If you are an existing Celoxis user and have been Invoicing Time entries in Celoxis, please take note of the following:

1. Agree at an organization level on the date on which you would switch to invoicing with QuickBooks Online. This is important because once you connect to QuickBooks Online, your users cannot explicitly Invoice time entries (i.e. using the 'Invoice' action) in Celoxis.
2. All Previously Invoiced time entries will continue to exist as is. They will not be automatically synced with QuickBooks Online. These entries will continue the default Invoicing behavior till the time they are explicitly  "UnInvoiced" by a privileged user. Once "UnInvoiced" they can be synced with QuickBooks Online.

---

Once you connect to QuickBooks, users will not see the "Invoice Time" option in their Time menu. Instead they will see the "Sync with QuickBooks Online" option.

Please a note the behavior of the system when you switch to QuickBooks Online, i.e. using "Connect to QuickBooks" on Company Settings page.

- Existing Invoiced entries will continue to function as-is, i.e. they can be UnInvoiced/Deleted/Edited as before. Once "UnInvoiced", they can only be Invoiced through QuickBooks Online using the sync functionality.

**Bulk Actions (Any Time entry report)**

| | Project : Name | Date : Date | Hours | Quickbooks Online Id | Last synced at | State |
|---|---|---|---|---|---|---|
| ☑ | Send For Approval | 30-Jan-2015 | 2:18 | | | Invoiced |
| ☑ | Approve | 28-Jan-2015 | 6:00 | 10 | 30-Jan-2015 | Invoiced |
| ☐ | UnInvoice | 29-Jan-2015 | 8:00 | 15 | 29-Jan-2015 | Approved |
| ☐ | Reject | 29-Jan-2015 | 4:30 | 14 | 29-Jan-2015 | Approved |
| ☐ | Edit | 29-Jan-2015 | 10:00 | 19 | 30-Jan-2015 | Approved |
| ☐ | Delete | | 30:48 | | | |

**Single Edit Screen**

Edit Time                                                    Invoiced ?

User
Mark(IST) Warn

Creator
Mark(IST) Warn

Project
Test Project ▼ ✕

Work Item
Invoiced time ▼ ✕

Hours *
2:18

Date *
2015/1/30

Time Code *
Default ▼

☑ Costable

Comments

B  I  U | T^ T˅ | T ▼  T ▼ | ≡ ≡ ≡ | ⊘ | ≔ ≔ | ✐

[ UnInvoice ]  Save  Delete  Close

# Google Drive Integration

You can upload documents available in your Google drive directly into Celoxis. For this, you need to setup Celoxis to connect to your Google drive. Once, this is setup, you are presented with an option whether to upload documents from your Google drive or your local drive.

- Setup Google Client ID
- Some common issues in setup

## Setup Google Client ID

You need to setup the Google Client ID so that Celoxis can connect to your Google Drive.

**To obtain a Google Client ID**:

1. Go to the Google Developers Console.
2. You will have to create a new project by clicking on the **Create Project** button.
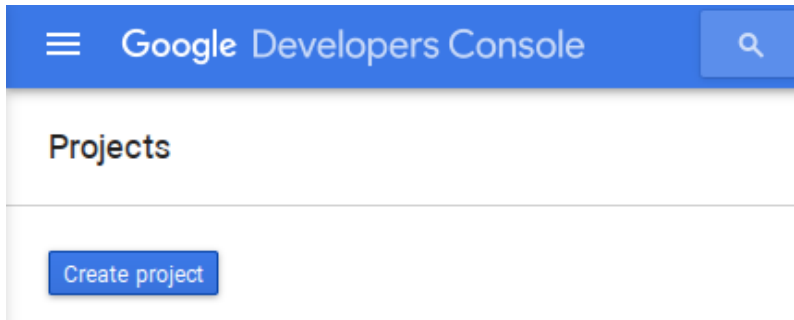


3. In the new pop-up, type the name of your project. For e.g. Celoxis and click on **Create**.
4. Once, the project is created, click on **Enable and Manage APIs**.
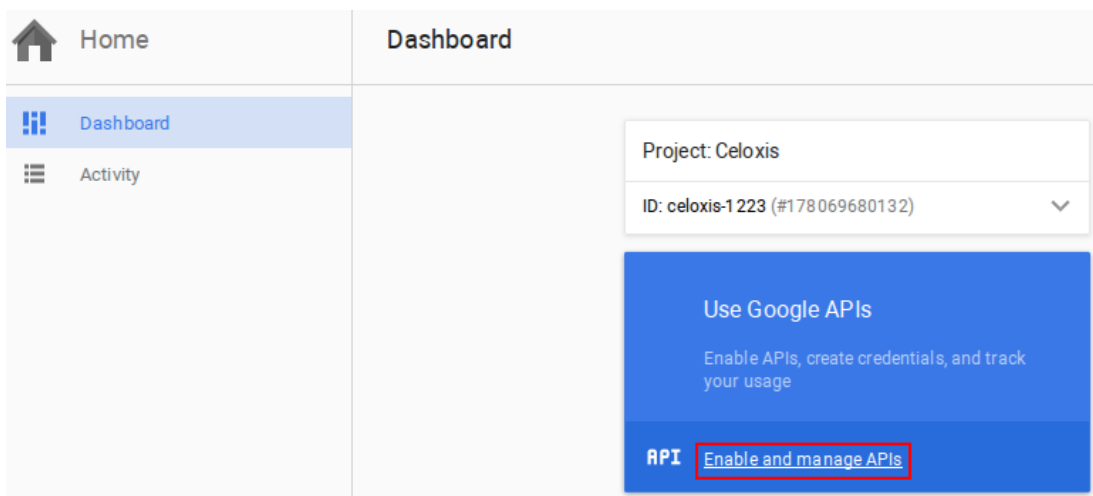


5. Under the Google APIs tab, search for **Drive API**.
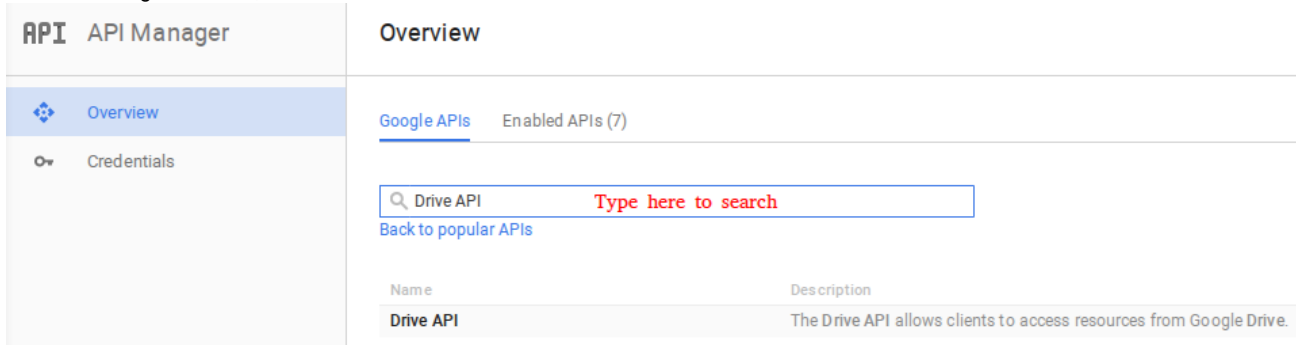


6. Once, you get the result, click on **Drive API** and then **Enable API**.
7. Once, the API is enabled; you will see the following message:
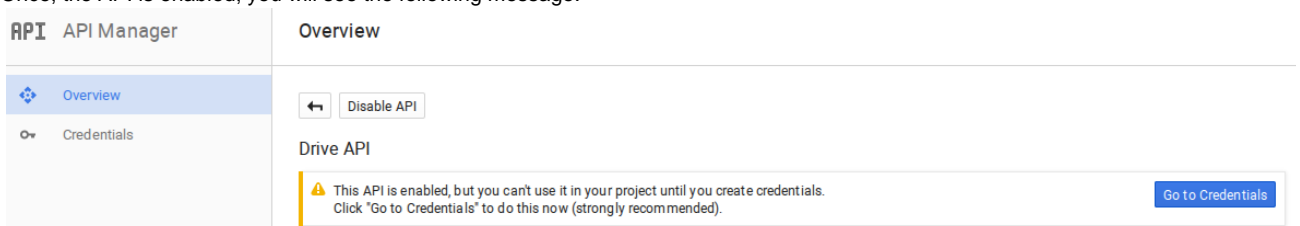


8. Click on the **Go to Credentials** or from the left panel, click **Credentials**.

9. Now, click on **Create Credentials**.

APIs

## Credentials

You need credentials to access APIs. Enable the APIs you plan to use and then create the credentials they require. Depending on the API, you need an API key, a service account, or an OAuth 2.0 client ID. Refer to the API documentation for details.

Create credentials ▼
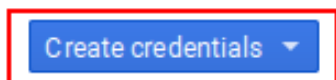
10. You will be prompted to select an appropriate option. Click on **OAuth client ID**
11. In the new window, click on **Configure consent screen**

Credentials

↩

Create client ID

⚠ To create an OAuth client ID, you must first set a product name on the consent screen    Configure consent screen

12. Click on **Create New Client ID**.
13. On the new page, enter the following
    a. Ensure the correct **Email address** is picked**.**
    b. Under **Product name shown to users** type *Celoxis*
    c. You can enter other details shown on the screen.
    d. Click on **Save**.
14. Now, on the visible page, select **Web application** and
    a. Enter a suitable Name.
    b. Under **Authorized JavaScript Origins**, enter the URL you have entered as the **Celoxis URL**. (Under **Site Settings** > **Site**. Click
       on **Edit Site Settings**). For example https://acindia.acme.com:8843/
    c. Click on **Create.**
15. Your client ID will now be created and displayed in a new popup. Copy this ID as this needs to be now added to your Celoxis account as mentioned below.


**To add your Google Client ID**:

1. Log in as the administrator user and from the main menu, click on

   ● ● ●

   > **Site Settings** > **Edit Site Settings**.
   OR
   type the following in the URL **http://servername:port-number/psa/Site.Admin.wm?**
2. In the new pop-up, enter the ID you got from the above steps and paste it into the text box for **Google Client ID**.
3. Click on Save.
4. Restart the application for the changes to take effect.

For some common issues, refer here.

## Some common issues in setup

Following are some common issues when setting up the Google client ID.


1. **Error:** 400. That's an error.
      origin_mismatch

**Solution**:
You are entering the incorrect application URL.
- The URL you typed in the browser with which you are accessing Celoxis, is not the one you have entered when creating the Google client.
  OR
- You have not entered the correct application URL when creating the Google client. Change this to match the URL with which you access Celoxis.

2. **Error**: Invalid_client.
   no application name

   **Solution**:
   This happens because you are using an existing project which does not have a Product Name entered. To resolve:
   a. Go to the Google Developers Console.
   b. Select the project you created.
   c. From the sidebar on the left, select **APIs & auth**.
   d. Under this, click on the **Consent screen**.
   e. Select the **Email address** for your account.
   f. Under **Product name** enter a product name/name of the project.
   g. Click on Save.

# Salesforce Integration

Celoxis Salesforce app helps bridge the gap between your sales and delivery teams, thereby improving business outcomes. This app is freely available on Salesforce.com AppExchange at: http://bit.ly/Celoxis-Salesforce-app

This App allows sales representatives to create one Celoxis project per Salesforce.com opportunity. In addition, there is a 'Celoxis Projects' Tab, which lists all Celoxis projects created across all opportunities for quick and aggregate viewing at account/client level. This app can be used across all Salesforce.com editions.

- Installing Celoxis App in Salesforce
  - Common Issues
- Configuring Celoxis app for Salesforce
  - Common issues while configuring
- Working with Celoxis App for Salesforce
- Un-installing the app

## Installing Celoxis App in Salesforce

<p> </p>

Installing the Celoxis App for Salesforce is a one-time activity that needs to be done by the admin or developer of Salesforce.

1. Go to the AppExchange and search for Celoxis App.
2. Click on the **Get it Now** button.
3. You will be prompted to login to the AppExchange.
4. On the **Package Installation Details** page, click on **Continue**.
5. **Step 1. Approve Package API Access**, you do not have to make any changes; just click on **Next**.

These settings control the access that s-controls and other components in this package have to standard objects via the API. The access will still be constrained by the user's profile. You can view and edit the package API access to standard objects after the package is installed from the package detail page. Tell me more

**Package Custom Objects**

This Package will have the user's access (via the API) to all custom objects in your organization.

**Extended Object Permissions**

| | Read Create Edit Delete | | Read Create Edit Delete |
|---|---|---|---|
| Accounts | ✓ ✓ ✓ ✓ | Goal Links | ✓ ✓ ✓ ✓ |
| Assets | ✓ ✓ ✓ ✓ | Ideas | ✓ ✓ ✓ ✓ |
| Campaigns | ✓ ✓ ✓ ✓ | Leads | ✓ ✓ ✓ ✓ |
| Cases | ✓ ✓ ✓ ✓ | Opportunities | ✓ ✓ ✓ ✓ |
| Coaching | ✓ ✓ ✓ ✓ | Orders | ✓ ✓ ✓ ✓ |
| Contacts | ✓ ✓ ✓ ✓ | Performance Cycles | ✓ ✓ ✓ ✓ |
| Contracts | ✓ ✓ ✓ ✓ | Price Books | ✓ ✓ ✓ ✓ |
| Documents | ✓ ✓ ✓ ✓ | Products | ✓ ✓ ✓ ✓ |
| Feedback | ✓ ✓ ✓ ✓ | Push Topics | ✓ ✓ ✓ ✓ |
| Feedback Questions | ✓ ✓ ✓ ✓ | Rewards | ✓ ✓ ✓ ✓ |
| Feedback Question Sets | ✓ ✓ ✓ ✓ | Reward Funds | ✓ ✓ ✓ ✓ |
| Feedback Requests | ✓ ✓ ✓ ✓ | Reward Fund Types | ✓ ✓ ✓ ✓ |
| Goals | ✓ ✓ ✓ ✓ | Solutions | ✓ ✓ ✓ ✓ |
| Goal Collaborators | ✓ ✓ ✓ ✓ | | |

**General User Permissions**

This Package will be able to use all of the general user permissions from the user's profile.

**Administrative Permissions**

This Package will be able to use all of the administrative privileges from the user's profile.

[ Next ] Cancel

6. **Step 2. Choose security** level, select option **Grant access to all users** and click on **Next**. This option is only visible for Enterprise and higher editions.

Select security settings:

○ Grant access to admins only    Users with your profile get full access (best for limited deployments)
◉ Grant access to all users    All internal custom profiles get full access
○ Select security settings    User access set by profile (recommended for most packages)

[ Previous ] [ Next ] Cancel

7. **Step 3. Install Package**, click on **Install**.

The package is ready to be installed. Click Install to continue.

[ Previous ] [ Install ] Cancel

8. There is no progress bar when the app is being installed. You will see the below screen when the installation is complete.

9.  You will also see the Celoxis App listed under the **Installed Packages**:



Congratulations! You have successfully installed the Celoxis Salesforce App. Lets move on to configuring this app for the Sales team to use.

## Common Issues

Following are the common errors/issues you might encounter when installing the Celoxis App:

1.  **Error**: Package install error. There are problems that prevent this package from being installed.
    **Reason**:  You might already have an instance of the Celoxis app installed in Salesforce.

2.  **Error:**  Package Install Error. There are problems that prevent this package from being installed. Missing feature: Apex Classes
    **Reason**: Celoxis Salesforce App uses Apex classes, which are not supported on 30 day trials. Please purchase your Salesforce.com edit ion before you can install the app. Alternately, you can install the app in a free Developer Edition trial account to get a test drive.

## Configuring Celoxis app for Salesforce

The Celoxis Salesforce App needs to be configured before you can start creating project from Salesforce. The following steps will guide you with the same:

### *Configuring the App:*

1.  Once the Installation is complete, click on the **Configure** button

OR
Go to the Setup page, by clicking on the Setup menu.
On your left-side, under the **App Setup** section, click on **Installed Packages**.

2.  For the Celoxis App, click on **Configure**.



3.  In the new-pop-up window, under **Url**, enter the URL of your application.
    In case of SaaS customers, the Url will be populated with https://app.celoxis.com/psa/force.do
    If you are an SaaS user, you do not have to change anything here. On-Premise customers need to enter URL as https://servername:port number/psa/force.do

> Ensure that the URL reads **https** instead of http.

4.  Under the **Project Templates**, enter a term which will be used to search for projects in Celoxis and only matching projects will be shown in the list for creating a project. This field is optional; not speciying anything will show the entire list of projects.

5.  Click on **Save** and close the pop-up window.

6.  ONLY FOR ENTERPRISE AND HIGHER VERSIONS:
    Salesforce editions that support Profiles are recommended to manage their user profiles to set who can access the Celoxis app. For this, you need to set the profiles and users so that the users can access the app.
    a.  Go to the Setup page, by clicking on the Setup menu.
    b.  On your left-side, under the **Administration Setup**, expand the **Manage Apps** and click on **Connected Apps**.

Connected Apps

Manage the apps that connect to your Salesforce organization.

View: All ▾   Create New View

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | **All**

| Action | Master Label ↑ | Application Version | Permitted Users |
|--------|----------------|---------------------|-----------------|
| Edit   | Celoxis Salesforce App | 10.0 | Admin approved users are pre-authorized |

c.  Click on **Edit** and under OAuth policies section, for the drop-down ***Permitted Users**, select **Admin Approved users are pre-authorized**.

Connected App
## Celoxis Salesforce App

Help for this Page

### Connected App Edit

| Version | 10 |
|---------|----|
| Description | Celoxis' project management tool integrates with Salesforce to closely connect your sales team with project teams, thereby improving business outcomes. |

**Basic Information**

   = Required Information

Start URL [                ] ⓘ          Mobile Start URL [                ] ⓘ

**OAuth policies**

Permitted Users  [ Admin approved users are pre-authorized ▾ ]          IP Relaxation  [ Enforce IP restrictions ▾ ]

Refresh Token Policy:  ⦿ Refresh token is valid until revoked

**Session Level Policy**

☐ High Assurance session required

[ Save ]  [ Cancel ]

d.  Click on **Save**.

e.  Now, click on the Celoxis Apps.

f. Scroll down to profiles and click on **Manage Profiles**.

## Celoxis Salesforce App
« Back to List: Connected Apps

**Connected App Detail**     [ Edit ]

**Version**      10

**Description**   Celoxis' project management tool integrates with Salesforce to closely connect your sales team with project teams, thereby improving business outcomes.

**System Info**

| | | | |
|---|---|---|---|
| **Installed By** | Nikhil Daddikar | **Installed Date** | 8/19/2014 4:25 AM |
| **Last Modified By** | Nikhil Daddikar | **Last Modified Date** | 8/19/2014 5:23 AM |

**This App Supports**

Force.com Canvas   ✓

**Basic Information**

| | | | |
|---|---|---|---|
| **Info URL** | https://celoxis.atlassian.net/wiki/x/hgCUAg | **Start URL** | |
| | | **Mobile Start URL** | |

**OAuth policies**

| | | | |
|---|---|---|---|
| **Permitted Users** | Admin approved users are pre-authorized | **IP Relaxation** | Enforce IP restrictions |
| **Usage** | View OAuth Usage | **Refresh Token Policy:** | Refresh token is valid until revoked |
| **This application has permission to:** | Provide access to custom applications | | |
| **This application has permission to:** | Access your basic information | | |
| **This application has permission to:** | Provide access to your data via the Web | | |
| **This application has permission to:** | Access and manage your data | | |

**Trusted IP Range for OAuth Web server flow**

No application-defined IP ranges

**Profiles**      [ Manage Profiles ]

No profiles associated with this app.

**Permission Sets**      [ Manage Permission Sets ]

No permission sets associated with this app.

**Custom Attributes**      [ New ]

No Custom Attributes

---

    g. Ensure that you have selected the appropriate profiles which will be accessing the app and click on **Save**.

7. You can also edit OR create a new profile which can access the Celoxis App.
    a. Go to the Setup page, by clicking on the **Setup** menu.
    b. On your left-side, under the **Administration Setup** section, click on **Manage Users** and then **Profiles**.
    c. You can edit an existing profile and let this profile access Celoxis app
       OR
    d. Create a new profile which can access the Celoxis app. Ensure that when creating the profile, under **Connected App Access**, you you checked the Celoxis App.

8. You need to now add new users or edit existing Users to use this profile.
   a. Go to the Setup page, by clicking on the **Setup** menu.
   b. On your left-side, under the **Administration Setup** section, click on **Manager Users** and then **Users**.
   c. You can edit and existing user to use the profile you created or edited to use Celoxis App
      Create new user and select the profile created for or edited to use Celoxis App.



## Customizing the Opportunity layout

You now need to configure your Opportunity page layout to start using the Celoxis App.

1. Go to the Setup page, by clicking on the **Setup** menu.

2. On your left-side, under the **App Setup** click on **Customize** > **Opportunities** > **Page Layouts**. This takes you to the list of your Opportunity page layouts.
   In Group and Professional editions, you need to click on **Page Layout**.
3. Create a new layout (recommended for Salesforce edition supporting multiple layouts)



   a. Select an existing layout from the drop-down for **Existing Page Layout**.
   b. Give the new layout a suitable name for **Page Layout Name** such that it is easy to distinguish
   c. Click on **Save**.



   d. Now, you need to edit the new layout OR for the existing layout, click on **VisualForce Pages** and from the adjacent section drag-drop the **Section** to the location you desire below.
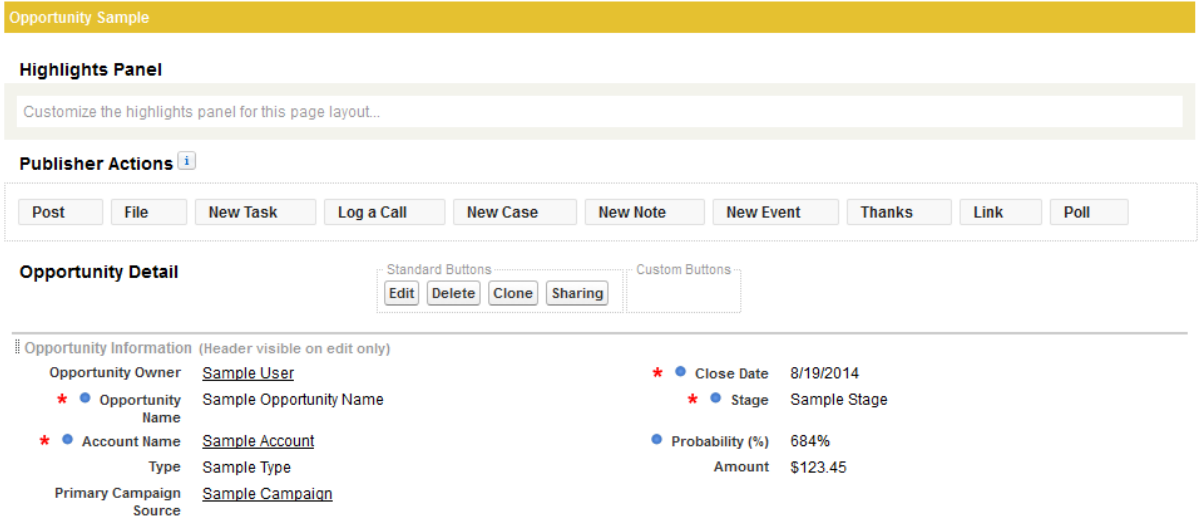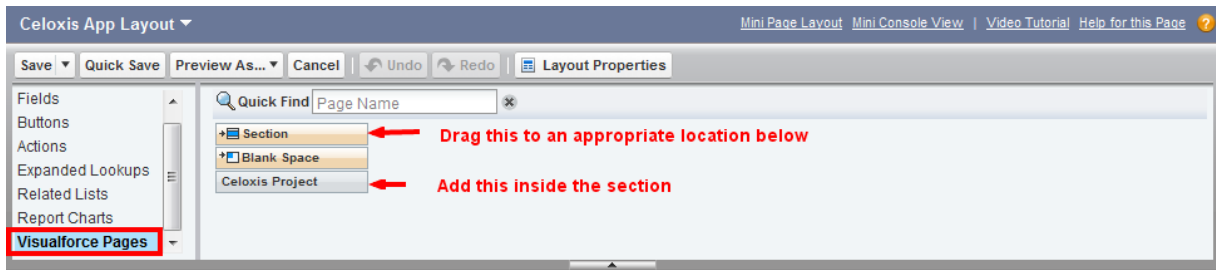
e. After you drag the section:
   i. Give the section a suitable name say "Celoxis Projects".
   ii. Under **Layout**, select 1-Column
   iii. Click on **OK**.
f. Now, drag the **Celoxis Project**, in the "Celoxis Project" section.
4. Edit the Celoxis Project you just dropped and set the **Height (in pixels)** to 600.
5. Check the Show scrollbars box.
6. Click on **Save**.
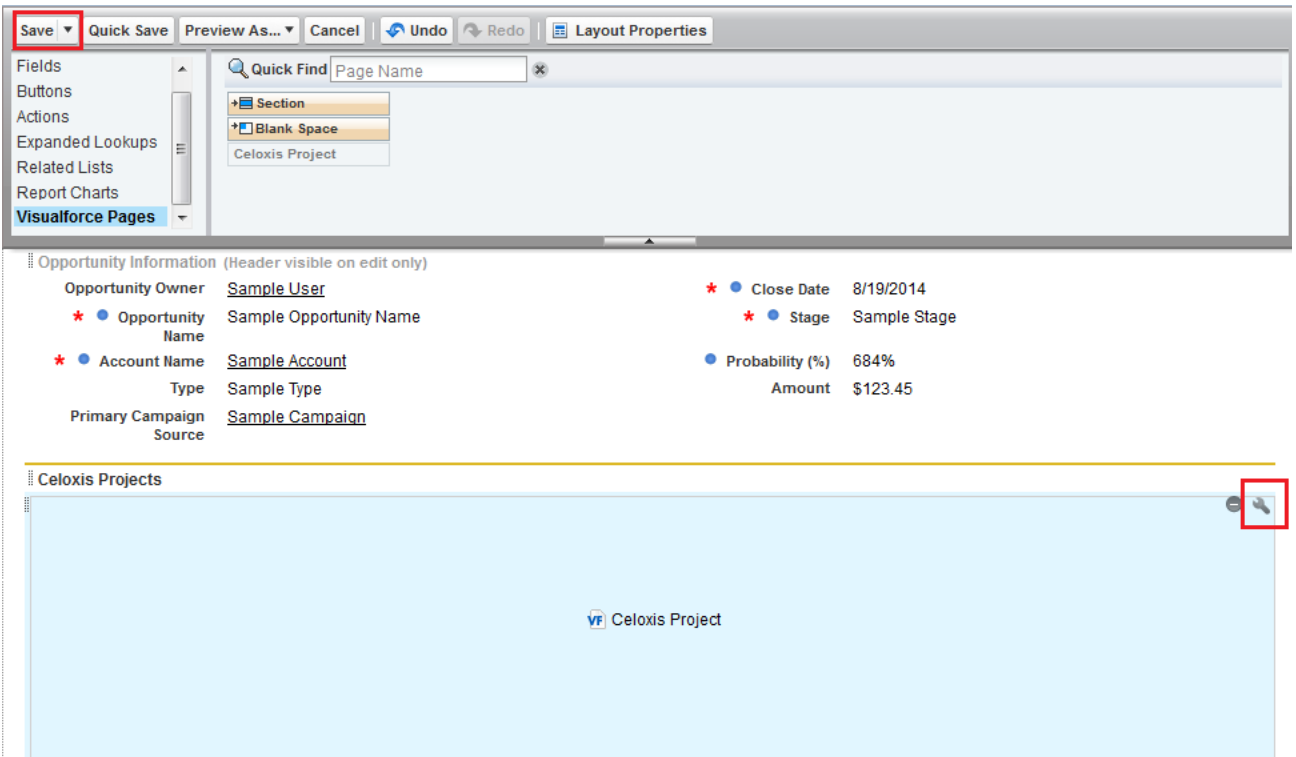
7. Now, on the **Opportunity Page Layout** page, click on **Page Layout Assignment**.
   This step is valid for Salesforce editions at support multiple layouts i.e Enterprise and higher.

## Opportunity Page Layout

This page allows you to create different page layouts to display Opportunity data.
After creating page layouts, click the Page Layout Assignment button to control which page layout users see by default.

| Opportunity Page Layouts | | New   Page Layout Assignment | | |
|---|---|---|---|---|
| **Action** | **Page Layout Name** | **Created By** | **Modified By** | **Feed-Based Layout** |
| Edit | Del | Celoxis App Layout | Nikhil Daddikar, 8/19/2014 5:53 AM | Nikhil Daddikar, 8/19/2014 6:03 AM | ☐ |
| Edit | Del | Opportunity Layout | Nikhil Daddikar, 8/13/2014 6:10 AM | Nikhil Daddikar, 8/17/2014 10:52 PM | ☐ |

8. Click on **Edit Assignment**.
9. Select the profiles for which you want to assign the page layout.
10. Under the **Page Layout To Use** drop-down, select the layout you just created.

Edit Page Layout Assignment

## Opportunity

The table below shows the page layout assignments for different profiles. Use SHIFT + click or click and drag to select a range of adjacent cells. Use CTRL + click to select multiple cells that are not adjacent. Then choose a new page layout from the drop-down.

Save   Cancel

Page Layout To Use: Celoxis App Layout ▼   2 Selected   2 Changed

| Profiles | Page Layout |
|---|---|
| Celoxis | *Celoxis App Layout* |
| **Contract Manager** | Opportunity Layout |
| **Gold Partner User** | Opportunity Layout |
| **Marketing User** | Opportunity Layout |
| **Partner Community Login User** | Opportunity Layout |
| **Partner Community User** | Opportunity Layout |
| **Read Only** | Opportunity Layout |
| **Solution Manager** | Opportunity Layout |
| **Standard User** | *Celoxis App Layout* |
| **System Administrator** | Opportunity Layout |

Save   Cancel

11. Click on **Save**.

You have now configured the Celoxis Salesforce App. Lets look at using it for creating project.

## Common issues while configuring

Following are the general error you will observer if you have missed a step:
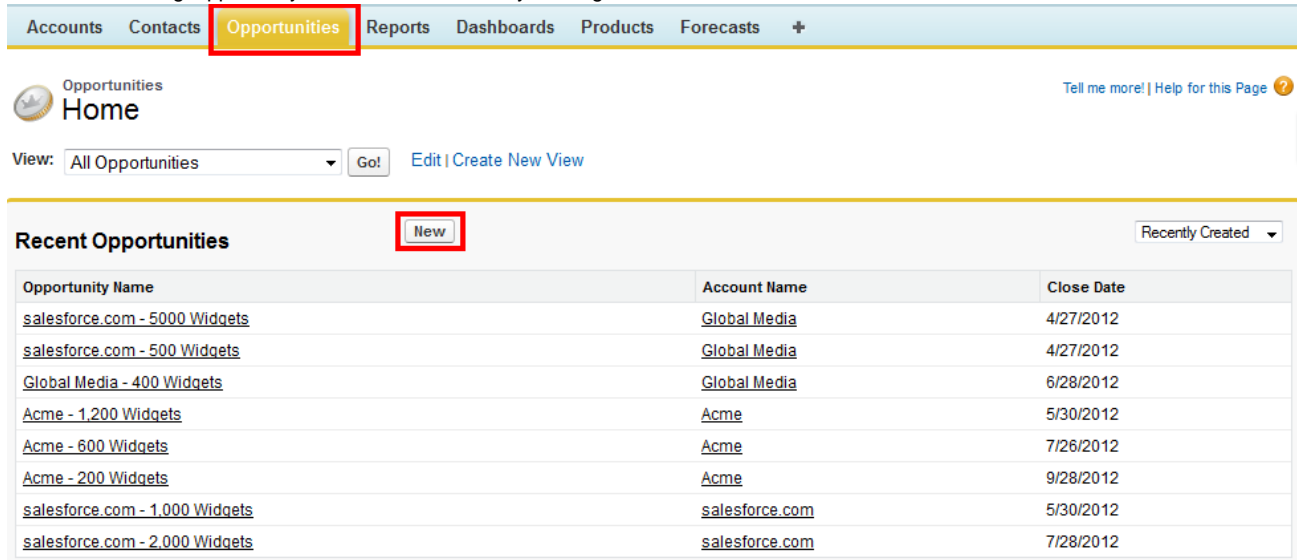
1. **Error**: Load unsafe content or Please reload your browser message (even after refreshing browser window)
   **Reason**: Occasionally your Celoxis configuration URL may not have 'https' that may cause this issue. Please verify that your configuration URL has 'https://'. Login in as administrator into your Salesforce.com account.
   Go to Setup > Installed Package. Click on 'Configure' link next to "Celoxis". In the URL field, change the http to https. Save changes. Now try accessing your Salesforce Opportunity page.

2. **Error**: Oops, there was an error rendering Force.com Canvas application [CeloxisApp].
   You don't have permissions to view application with namespace [celoxis] and API name [CeloxisApp]. Click to configure
   **Solution**: When accessing an Opportunity, in the Celoxis section you see this. To resolve
      a. Go to **Administration Setup** > **Manage Apps** > **Connected Apps** > Click on the Celoxis App.
      b. On the new page, scroll down to the **Profiles** section and click on **Manage Profiles** button.
      c. Select the profiles you want to enable access for Celoxis app and click on **Save**.
         You should now see the Celoxis section.

3. **Issue**: You see the Celoxis section on the opportunity page, but its grayed out.
   **Solution**: You need to increase the **Height in Pixels** of the Celoxis section to min 600 on the opportunity layout page.

4. **Error**: SSL protocol error on app layout page in the Celoxis layout.
   **Solution**: When configuring Celoxis app, check that the Celoxis URL is entered correctly with the correct protocol (use: https://) and correct portnumber.

5. **Issue**: The section to create project in Celoxis is not visible on the Opportunity page.
   **Solution**: The Opportunity layout page either not configured correctly OR the user's profile is not selected for the layout created for Celoxis (For enterprise and higher editions).

6. **Issue**: The Celoxis Salesforce App might not be visible properly using an IE browser.
   **Solution**: It is recommended to use one of the supported versions of IE and set the options mentioned in the link below:
   https://help.salesforce.com/apex/HTViewHelpDoc?id=getstart_browser_ie.htm&language=en_US#getstart_browser_ie

## Working with Celoxis App for Salesforce

Once you have installed and configured the Celoxis Salesforce app, you can then create a project in Celoxis via the **Opportunities** module in Salesforce. Lets look at how:

1. Click on an existing Opportunity or Create a new one by clicking on **New**.



2. Go to an existing Opportunity page or add a new opportunity. For this app, if the **OAuth policies** is set to **All users may self-authorize**, you will see a pop-up window as below.
   Click on **Allow** to authorize yourself.

> If you do not see the below pop-up window, check that your browser is not blocking the pop-ups. After you allow pop-ups, ensure to refresh the page again.

3. After you click Allow, you will see the Celoxis login page in the Celoxis Project section.
4. Upon logging in with the Celoxis credentials, you will see a message "*You do not have a project. Click here to create a project for this opp*:"
5. Click on the **Click here** link to create a project for this opportunity.
   NOTE: You can only create one project per opportunity.
6. You can select the Project Template from the available list.
7. The Client drop-down will be automatically populated with the client (Account Name in Salesforce) if the client already exists in Celoxis. Else, you are shown the option to create the client in Celoxis.

▼ Celoxis Projects

You do not have a project for this opportunity. Click here to create one.

CreateSfProject

ProjectTemplate *

GetOnSales

Client *

Acme

Next ▶    Cancel

8. Click on **Next**.
9. On the Clone Project pop-up, Enter a new name or it will be auto-populated with opportunity name as entered in Salesforce.
10. Select the **Manager**, **Start Date**, and the **Phase** of the project as required.
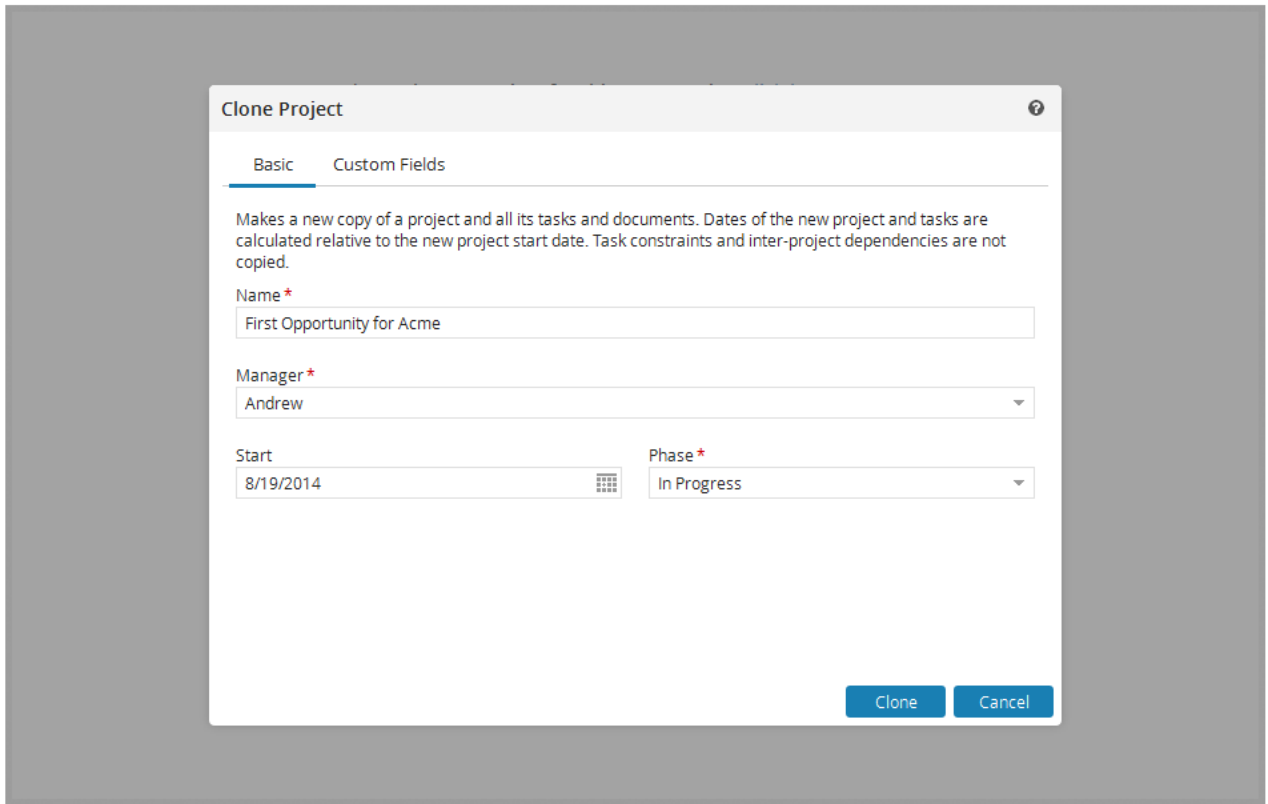
11. On the same pop-up, under the **Custom Fields** tab, a custom field: **SF Opportunity Id** is shown which has the same ID of the opportunity in Salesforce. This helps in mapping.

> The SF Opportunity Id custom field is used for when mapping the projects to be displayed for the particular opportunity in Salesforce. Modifying this is not recommended.

12. Click on **Clone**.
13. A new project is created in Celoxis and the details page of the project is displayed.

### Reports

You can customize your view to see the projects you have created in Celoxis via Salesforce by clicking on the '+' sign and then click on **Customize My Tabs**.

By default, the projects where you are the creator will be shown in the report. The Name of the project is clickable. You can use the browser back button to go to the original report if you navigate to any project.



## Un-installing the app

Before you proceed with the actual uninstall steps, you need to first delete the references made to the Salesforce Opportunity page layout.

To remove the page layout reference:

1. Go to the Setup page, by clicking on the Setup menu.
2. On your left-side, under the **App Setup** section, expand the **Customize** option.
3. Under this option, expand the **Opportunities** option and then click on **Page Layouts**.
   In Group and Professional editions, you need to click on **Page Layout**.
4. Now, on the **Opportunity Page Layout**, click on the **Edit** link and remove the section you have added for Celoxis Projects.
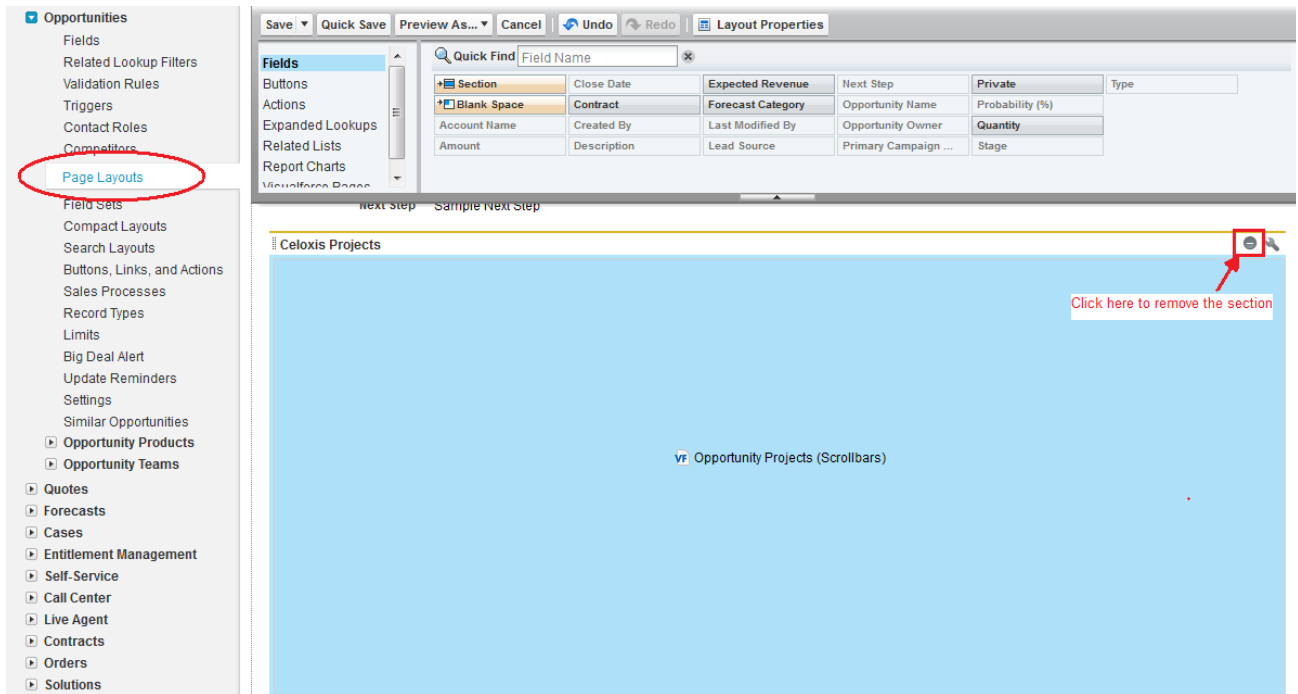
Alternatively, in Enterprise or Developer editions, you can delete the layout itself if you had created a separate one. You will have to select a new layout for the replacement.

Once, this is done, you can proceed with the actual un-installation steps.

1. Go to the Setup page, by clicking on the Setup menu.
2. On your left-side, under the **App Setup** section, click on **Installed Packages**.
3. Click on **Uninstall** link besides the Celoxis app.
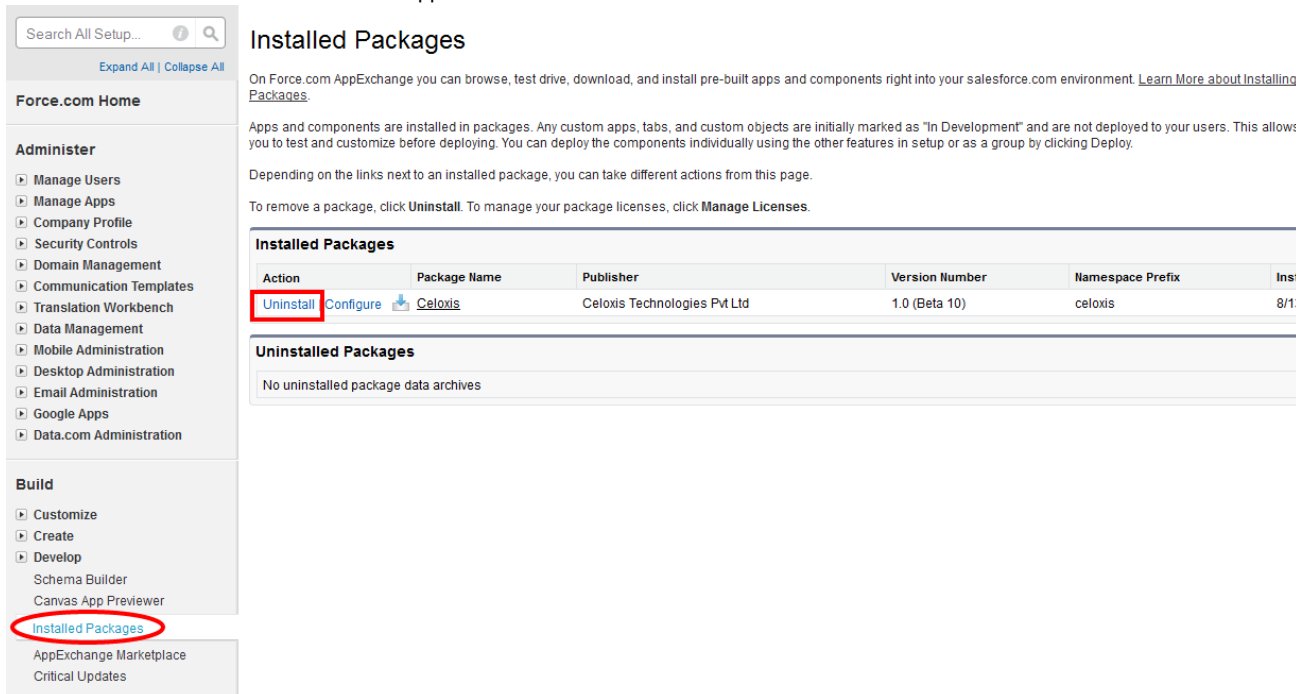


4. On the Uninstalling a Package page, scroll to the bottom and
   a. Select **Do not save a copy of this package's data after uninstall**. Click on the Ok button displayed on the message box.
   b. Check the option **Yes, I want to uninstall this package and permanently delete all associated components.**
   c. Click on **Uninstall** button.

The Celoxis app will be deleted from your Salesforce account.

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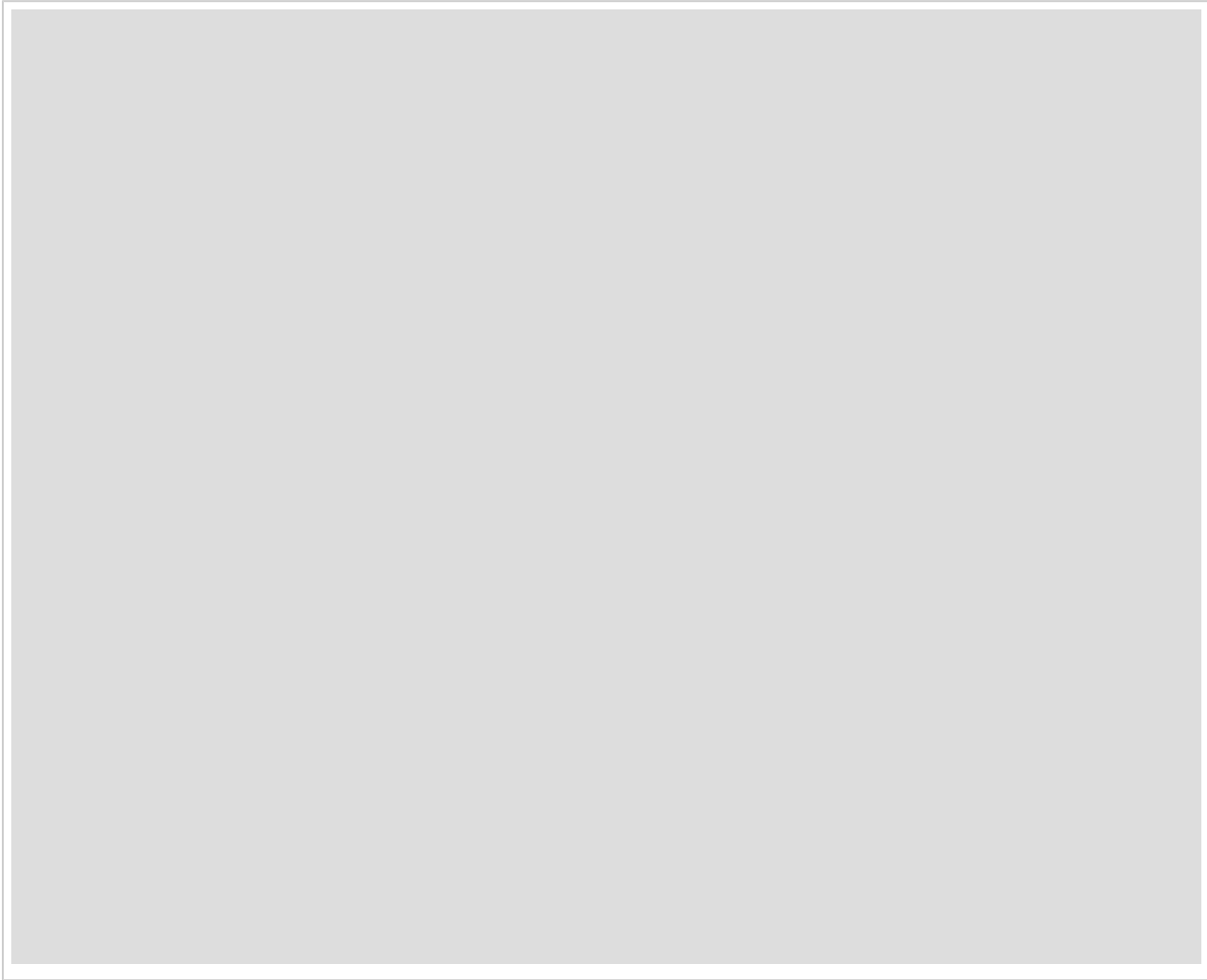
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