Reports and Dashboards

Introduction to Building Reports and Working with Clarizen’s Reporting Engine
Clarizen Reports and Dashboards

- Robust Reports and Dashboards module
- Fully integrated with Clarizen’s work graph
- Built on the configurable Clarizen platform
- Easy to create, review, and collaborate

Visibility for all stakeholders
Key Benefits

**INSIGHTFUL**

Predict and understand your business

- Real-time visibility into performance & KPIs
- Prompt business questions & highlights for smarter decision making
- Capture snapshots of historical data

**ACTIONABLE**

Take action from reports to drive change

- Pivot data in multiple ways for a 360° view of your business
- Create discussion posts, share decisions & take action directly from within reports

**ROLE BASED**

Access breadth and depth of information, in multiple formats

- Generate dashboards, displaying consolidated metrics of cross business objects, to share with your stakeholders
- Scheduled reports, emails, attachments/downloads
- Deliver value to all stakeholders, from PMs to Executives
Key Features

**Multiple Pivots & Business Questions**

- Business-question-driven report
- Ability to pivot the data from multiple perspectives, answering different business questions from the same data, each presenting it differently with different highlights

**Highlights, Charts, Summary Tables**

- Build summary highlights on the report
- 8 types of charts, including advanced cluster & stacked options
- Metric groupings in tables and formula columns

**Sharing, Collaboration & Snapshots**

- Folder- & report-sharing options – across users, groups, profiles, etc.
- Discussion-able reports & Dashboards
- Ability to store reports snapshots through advanced scheduler, share by email or Clarizen social and discuss in context of the report
- Share dashboards with the outside world as widgets

**Powerful Dashboards**

- Dashboards to consolidate reports across objects, and display multiple formats in one page
Accessing the Reports and Dashboards Module

- **Folders**
- **Reports List**
- **Relations**
Out of the Box Reports – For Reference

The Report and Dashboard module comes with several OOTB reports covering common use cases to help users when getting started:

<table>
<thead>
<tr>
<th>Budget</th>
<th>Projects</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Milestones Exceeding Budget Managed by Me</td>
<td>All Projects at Risk</td>
<td>Projects in the Works per Customer</td>
</tr>
<tr>
<td>All Milestones Exceeding Budget per Project</td>
<td>All Projects off Track</td>
<td>Work Items</td>
</tr>
<tr>
<td>All Projects Exceeding Budget</td>
<td>Current Projects</td>
<td>All Work Items with a Specific Manager</td>
</tr>
<tr>
<td>All Tasks Exceeding Budget Managed by Me</td>
<td>Project Schedule Status</td>
<td>All Work Items with a Specific Manager per Project</td>
</tr>
<tr>
<td>Budget Utilization vs Progress</td>
<td>Project Revenues</td>
<td>All Work Items with a Specific Resource</td>
</tr>
<tr>
<td>Budget Utilization vs Progress Managed by Me</td>
<td>Project Profitability</td>
<td>Date Variance for Specific Project(s)</td>
</tr>
<tr>
<td>Cost &amp; Revenue forecast all Customers</td>
<td>Project Costs</td>
<td></td>
</tr>
<tr>
<td>Cost &amp; Revenue forecast all Projects</td>
<td>Number of Projects Per Project Manager</td>
<td></td>
</tr>
<tr>
<td>Cost &amp; Revenue forecast by Customer</td>
<td>Late Projects - Schedule Overrun</td>
<td></td>
</tr>
<tr>
<td>Cost Revenue forecast by Project</td>
<td>Dashboard - Project Management</td>
<td></td>
</tr>
<tr>
<td>Customer Expense Summary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Expenses Summary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projects with an Unfavorable Cost Variance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projects with Cost Overruns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Due by Customer for a Selected Timeframe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total due by project for a selected timeframe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User Expense Summary</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Tracking</th>
<th>Tasks</th>
<th>Cases (Issues, Risks, Requests, Bugs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Customer's Summary</td>
<td>All Assigned Tasks by Group, Job Title, or Skill</td>
<td>All Assigned Cases by Group, Job Title, or Skill</td>
</tr>
<tr>
<td>All Reported Hours in a Specific Project</td>
<td>All Tasks at Risk Managed by Me</td>
<td>All Cases Assigned to a Specific User</td>
</tr>
<tr>
<td>Customer Summary</td>
<td>All Tasks Last Updated by Project</td>
<td>All Cases in a Specific State</td>
</tr>
<tr>
<td>Detailed Report by Customer for a Selected Timeframe</td>
<td>All Tasks Last Updated by User</td>
<td>All Cases to be Resolved in a Project</td>
</tr>
<tr>
<td>Project Summary</td>
<td>All Tasks off Track Managed by Me</td>
<td>All Opened Cases Committed to Customers</td>
</tr>
<tr>
<td>Project Utilization</td>
<td>All Tasks on a Critical Path Managed by Me</td>
<td>All Opened Cases per Customer</td>
</tr>
<tr>
<td>Resource Summary</td>
<td>All Tasks on a Critical Path per Project</td>
<td>All Project Related Work</td>
</tr>
<tr>
<td>Resource(s) Hourly Report</td>
<td>All Tasks per Project</td>
<td>Cases of a Specific Type Assigned to a User</td>
</tr>
<tr>
<td>Total Hours Reported by a User for a Selected Timeframe</td>
<td>All Tasks Starting in a Given Time Range</td>
<td>Cases of a Specific Type in a Certain State</td>
</tr>
<tr>
<td>Total Reported Hours by User Per Project</td>
<td>All Tasks with a Certain Status</td>
<td>Number of a Specific Case Type (e.g. Bugs, Risks) by State</td>
</tr>
<tr>
<td>Total weekly reported hours by user</td>
<td>All Tasks with no Resource Assignment</td>
<td>Number of Cases by State</td>
</tr>
<tr>
<td>Total weekly reported hours by selected users</td>
<td>All Tasks with no Resource Assignment per Project</td>
<td>Number of Customer Cases by State</td>
</tr>
<tr>
<td></td>
<td>Date Variance Report for Actual Tasks of a Specific Project</td>
<td>Open Cases Assigned to a Specific User</td>
</tr>
<tr>
<td></td>
<td>My Tasks this Week</td>
<td>Risk Register</td>
</tr>
<tr>
<td></td>
<td>Resource Planned Work per Project</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risks Sorted by Risk Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Users</th>
<th>Resource load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tasks by Group, Job Title, or Skill</td>
<td>Total Number of non-working hours by user</td>
<td>Resource Availability</td>
</tr>
<tr>
<td>Tasks with a Specific Manager</td>
<td>Users &amp; Licenses Summary</td>
<td>Resource Load</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource Load per Task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource Overload</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource Overload per Task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource Underuse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resource Underuse per Task</td>
</tr>
</tbody>
</table>

The Report and Dashboard module comes with several OOTB reports covering common use cases to help users when getting started:

- All Milestones Exceeding Budget Managed by Me
- All Milestones Exceeding Budget per Project
- All Projects at Risk
- All Projects off Track
- Current Projects
- Project Schedule Status
- Project Revenues
- Project Profitability
- Project Costs
- Number of Projects Per Project Manager
- Late Projects - Schedule Overrun
- Dashboard - Project Management
- Dashboard - Executive Management
- All Assigned Tasks by Group, Job Title, or Skill
- All Tasks at Risk Managed by Me
- All Tasks Last Updated by Project
- All Tasks Last Updated by User
- All Tasks off Track Managed by Me
- All Tasks on a Critical Path Managed by Me
- All Tasks on a Critical Path per Project
- All Tasks per Project
- All Tasks Starting in a Given Time Range
- All Tasks with a Certain Status
- All Tasks with no Resource Assignment
- All Tasks with no Resource Assignment per Project
- Date Variance Report for Actual Tasks of a Specific Project
- My Tasks this Week
- Resource Planned Work per Project
- Total Number of non-working hours by user
- Users & Licenses Summary
- Resource Load
- Resource Load per Task
- Resource Overload
- Resource Overload per Task
- Resource Underuse
- Resource Underuse per Task
Report Folders

Folders can be used to divide or group all the reports and dashboards created in the system.

Available folders:

• Out of the box folders (Budget, Cases, Customer, etc.)
• Folders created by the user
• Special folders:
  • My reports – each user in the org has their own “my reports” folder, that acts as a private folder only for the current user which can be used to save personal reports & dashboards
  • All reports – displays a list of all the reports & dashboards that you have permissions to view
  • Unfiled – a public folder available to everyone in the org
Create and Manage Folders

You can create New folders by clicking the + icon located under the list of folders.

Arrange your reports and dashboards by dragging and dropping them between folders you have sharing permissions on.
Report Sharing and Permissions

Each of the folders has sharing permissions inherited based on the reports/dashboards within. They can be further defined in the Folder property popup screen.

Sharing permissions can be defined for Users, User groups, special groups, and profiles in several levels:

- **Owner** – can add/remove/edit reports and dashboards and the folder itself
- **Editor** – can add/remove/edit reports and dashboards and the folder itself
- **Contributor** – can add/remove reports and dashboards
- **Viewer** – can run relevant reports and dashboards
Additional Report Module Interface Elements

Depending on your permission level, one can:
1. Add – create new report or dashboard
2. Edit
3. Delete
4. Mark an item as favorite
5. Follow discussions on an item
6. Export – send or download items in Excel or PDF

Filter to find specific types of reports or dashboards
Search for an item
Related Panels

Reports includes the following out of the box relations:

Scheduled runs (reports only)
- The scheduled report runs automatically and is displayed in the Scheduled runs relation panel
- The exported data can be saved either as PDF or Excel allowing you to access and analyze past results

Discussions
- Allows you to collaborate with all team members around reports/dashboards and their results using social

Note: If the user does not have permission on the report he will receive discussion notifications but will not be able to access the results themselves
Dashboards Module Overview

Dashboards allows you to create a one glance view of reports spanning multiple data objects.

For example, you could have a dashboard consolidating different reports on timesheets, expenses, project status, requests, and resources – where each report could be displayed in a different format (chart, grid, or highlights).

Just like in the Reports editing feature, you can define sharing permissions for each dashboard.
Exercise: Build a Basic Report
Create a New Report

Click **Reports** on the Navigation Bar

Click **New Report**

Enter “**Current Project Report**” as the Report Name.
Select **Change** to put the report in a specific folder.

Note: Users who have access to the folder the report is created in will automatically inherit permissions for this report.
Set Sharing Permissions

The **Owner** will default to you and you can define who to share your report with (who can edit and view it) in the **Sharing** section. You can share with specific Users, User Groups or Profiles.

*Note: If System Setting 3.9 is enabled, only Admins and Super Users will be able to create shared reports*
Define the Reporting Object

Select “Project” from the Report On menu options
Add Filters

• Click Filters

• Choose Not Relevant for “Where my role is”

Note: Click Advanced to turn on Runtime Parameters (which allow users to define filter criteria when a report is being run) and enable advanced logic

• Set Filter criteria as State is one of Draft or Active
Add Business Question and Report Highlights

Under Business Question enter “What are my current Projects?”

Click Add Highlight

Enter the following:
Caption: Total Active Projects
Summary Type: Count
Select Field: Name
Filter Related Items: Check
Filter Rule (If TRUE): $State = ‘Active’

Note: “Business Question” is the title or header for each tab. Use something descriptive to help you understand the data you are viewing.

Note: Use highlights to see the most critical data from your report. You can add up to 3 highlights or KPIs per pivot tab.
Add a Chart to the Report

A chart can be added to each pivot tab of a report in order to provide a graphical display of the received results.

Clarizen offers eight (8) different graphical charts with multiple options:

- Bar – includes stacked and cluster bar chart
- Horizontal-bar – includes stacked and cluster horizontal bars
- Pie
- Starburst – a unique radial scatter chart
- Scatter
- Bubble
- Gauge
- Line

When viewing the results of a report, you have the ability to drill down into different areas of the chart to further view and analyze the data.

Click Add Chart

Chart Type: Standard (Horizontal Bar)
X-Axis: State
Y-Axis: Display: Number of Projects
Define the Result Table

Click **Columns** to select the fields that will show in the table as columns.

Select the checkbox **Wrap column titles** to enable text wrapping of columns.

Click **Group By** to group results (choose **State**).

**Additional Display Options**
- You can drag and drop columns to change the order of appearance.
- The “Totals” row allows you to summarize your results by sum/avg./min/max.
- Click on a column header to sort. For multi-sort, hold the CTRL key while clicking on a column header.
Add Pivot Tab

Each report can contain several pivots or dimensions on the same data, allowing you to quickly view the data in different perspectives.

For instance, a report on running projects can be viewed grouped by project manager in one pivot, profitability in another, and overall success rate on the third.

By default, each Tab will report on the same data set, but you have the option of setting unique Filters Per Tab as well.

- Click Add pivot tab
- Enter Status by PM for the second tab
- Click the toggle to Enable Tab Filters
- Choose Status by PM Tab
- Set Filter to return only Active Projects: State [Equals] Active

Note: You can reorder the tabs using drag and drop or rename/delete by clicking on the name.
Define the New Pivot Tab

Follow the same approach from the first tab and create a report using the following rules:

**Business Question:** How are my PMs Performing?

**Chart Options**
- **Chart Type:** Stacked Bar
- **X-Axis:** Project Manager
- **Y-Axis:** Number of Projects
- **Grouping:** Status

**Grid Options**
- **Group By:** Project Manager
- **Second Grouping:** Status
Run the Report

Click **Save and Run** to generate your report.

You can click on the individual segments/bars or values to narrow results and focus on a particular area of interest.

Click the gear icon and choose “Show Summary” to revise your column set of view a summary of the data instead.
Exercise: Build an Advanced Report
Create an Advanced Report: Data from Multiple Objects

Click New Report
Report Name: Cases by PM
Report On: Cases
Include Related Data: Resolved In Project*

*Because Project Manager is not an attribute of Case Objects, but rather on the Project a Case is related to, you must determine how to relate the data so that it can be included.

Familiarity with the Clarizen Data Model (shown to the right and accessible via www.usermanual.clarizen.com/simplified-data-model) will assist with this. In this example, the Project Object is linked to the Case Object via the “Resolved in Project” field. By adding that as a Related Data set, you will have access to fields on the Project Object such as Project Manager.
Add Filters and Define Report Options

Filters
Where my role is: **Not Relevant**
<a>Cases</a>.State [Is Not One Of]: Closed, Resolved, Rejected
<a>Cases</a>.Importance [Is One Of]: Critical, High
<a>Cases</a>.Resolved In Project>.Name [Non-Blank]

Business Question
What Critical/High Importance Cases Must Our PMs Resolve?

Chart Options
Chart Type: Stacked Bar
X-Axis: <a>Cases</a>.<Resolved in Project>.Project Manager
Y-Axis: Number of Cases
Grouping: <a>Cases</a>.State

Grid Options
Group By: <a>Cases</a>.<Resolved In Project>.Name
Add Column: <a>Cases</a>.<Resolved in Project>.Project Manager
Run the Report

Click **Save and Run** to generate your report.

You can click on the individual segments/bars or values to narrow results and focus on a particular area of interest.

Click the gear icon and choose “Show Summary” to revise your column set of view a summary of the data instead.
Exercise: Build a Dashboard
Create a New Dashboard

Click **Reports** on the Navigation Bar

Click **New Dashboard**

Enter “My First Dashboard” as the Dashboard Name

Select **Change** to put the dashboard in a specific folder.

Note: Folder permissions are inherited and applied to the dashboard
Set Sharing Permissions

The Owner will default to you and you can define who to share your report with (who can edit and view it) in the Sharing section. You can share with specific Users, User Groups or Profiles.

*Note: If System Setting 3.9 is enabled, only Admins and Super Users will be able to create shared reports*
Choose the Dashboard Layout

Under Layout define the display of the Dashboard
Choose **Two Columns Layout** for our example

**Layout Options:**
- You can choose 1, 2 or 3 column layouts for different dashboards
- You also have the choice of even columns or to have one column larger than the other(s)
Set the Running User (Admins only)

The **Running User** of a dashboard determines under which user’s permissions the reports within the dashboard will run, and thereby affect the results of the dashboard:

- By default, the Running User is set to the current user, meaning that each user that runs a dashboard will see only the data they have permissions to view.
- Admin users can set the Running User to any user in the system.
- Once a specific user is selected, the dashboard shows the data as per the permissions of that user, and therefore all users who have access to the dashboard will see the same resulting data.
Define Scheduled Refresh (Admins only)

Once the Running User is set, the Admin user can select to schedule a refresh by clicking on the Scheduled Refresh button

- This enables the automatic refresh of a dashboard on a defined schedule
- Notifications can be sent in a variety of formats to defined users including and export of the data, if selected
- When scheduled a refresh, the Admin can choose to disable manual refreshing of the dashboard, ensuring that data is only updated on the defined schedule
Add First Component to the Dashboard

- **Report Name**: Enter a title for the report—If not manually set, this field will be automatically filled with the selected report’s name [enter *Active Project Status by PM*]

- **Report to display**: Type in the report to display (or click the ellipse) which allows you to select the relevant report [select *Current Project Report*]

- **Report Tab to Display**: Allows you to select the relevant pivot tab of a report (this is only available if the report has multiple tabs) [Select *Status By PM*]

- **Style**: allows you to select the report element(s) to display [Select *Chart*]
  - In wide columns, you can choose to see the highlight (where applicable) AND either the chart or the table
  - In narrow columns, you can choose to see either the highlights, chart, or table
  - When selecting table, you can choose which fields to view (fields available are only those already selected in the report itself)
Add Additional Components to the Dashboard

Continue Dashboard setup by adding Report components as shown to the right.

To include an additional component on the dashboard, simply click the link at the top of the column where you would like to place it.

Feel free to explore the various display options and add more panels if you would like.
Run the Dashboard

Click **Save and Run** to generate your dashboard, which may take some time to render depending on the amount of data that is being pulled.

Click any report name to drill into the underlying report.

You can quickly access any Recently viewed Dashboards from the "Recent Dashboards" menu in the Ribbon.

The last refresh time is displayed to the right of the dashboard name at the top left of the screen.
Get it done.

Clearer visibility than you ever had so you can move faster than you ever could.