Creating Dashboard Widgets

Intellicus Enterprise Reporting and BI Platform

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For details, visit: http://www.intellicus.com/acknowledgements.htm .

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Creating Dashboard Widgets

Dashboards and dashboard widgets

Dashboard displays multiple pieces of information arranged on a single screen so that it can be viewed and monitored at a glance. A dashboard can have reports as well as web content. It acts as an interface for business analysts and application administrators to analyze their systems in a comprehensive and personalized manner.

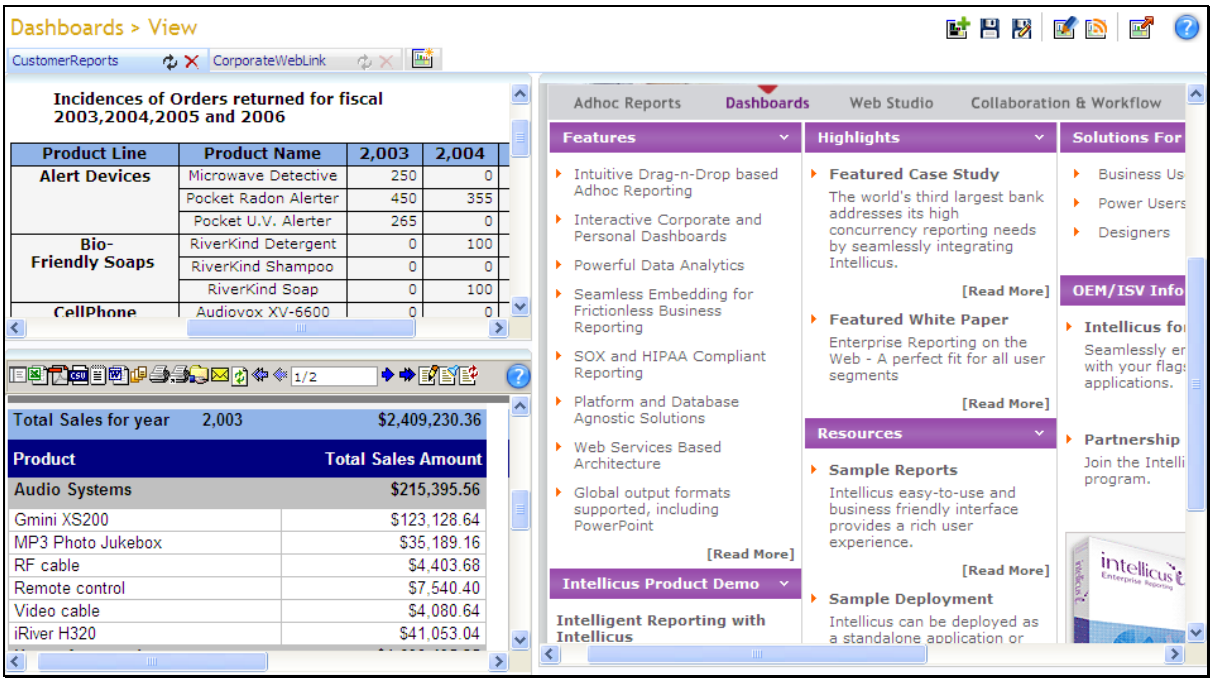

Figure 1: Dashboard

When using Intellicus' Enterprise edition, you can design multiple-dashboards. Each of the dashboards may have multiple widgets on them.

Your dashboard may have:

- **Reports:** This includes Adhoc reports, standard reports as well as OLAP reports.
- **Published reports:** These are the reports that are already executed and saved on report server.
- **Web links:** The way we specify URL of a web site on browser, you can set a URL to be viewed on dashboard.

Report, Published report or web link is set on dashboard-widgets. Multiple widgets are then placed on dashboard.

Super Administrator can design dashboard widgets and Dashboards for private use as well as make them available to all Intellicus-users (public dashboards).

Administrators can design dashboard widgets and dashboards for private use as well as make them available to users of his/her organization (public dashboards).

All **End users** can make use of pre-designed dashboard widgets and design dashboards for private use. End users can also subscribe to dashboards made available to them by Administrator / super administrator.

End users having **Widget Designer** system privilege can design and save private as well as public widgets.

Dashboard Widget Designer

Designing a dashboard widget is the first step in the process of dashboard designing.

A dashboard-widget is a single visual information provider that cannot be further subdivided.

Dashboard-widget is designed on **Widget Designer** page. You can also open and update a previously designed dashboard-widget. As a part of dashboard-widget designing, you set report or a web link on the widget and save it as an application object.

A widget can be placed on multiple dashboards.

To open widget designer page,

- Click Navigation > Dashboards > Widget Designer or
- Click Reports > Select Category > Select a report > Single click on report to view options like Quick run, Run, Run in background, Create Dashboard Widget or
- Click Repository >Dashboard Widgets > Create Dashboard Widget

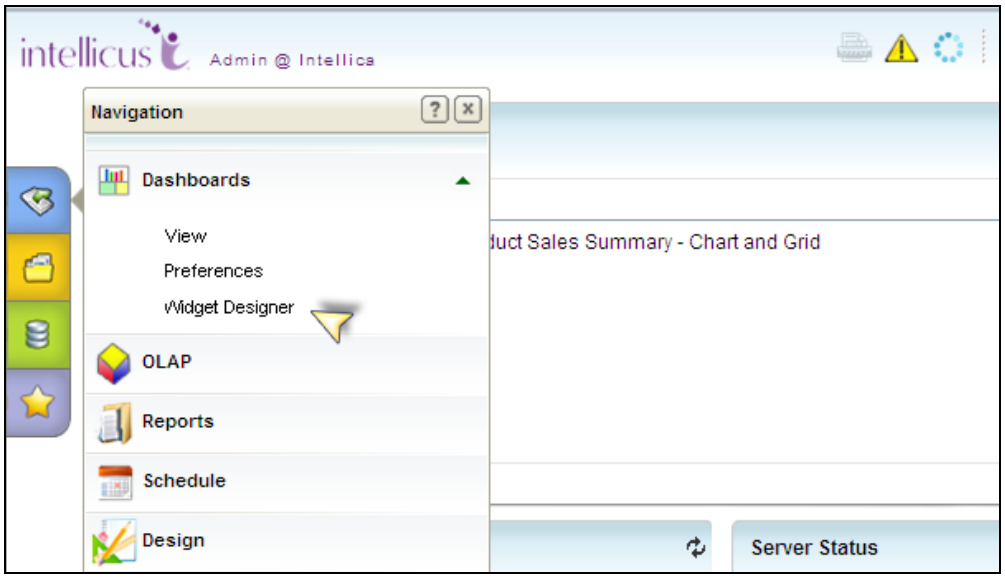

Figure 2: Create Dashboard Widget(a)

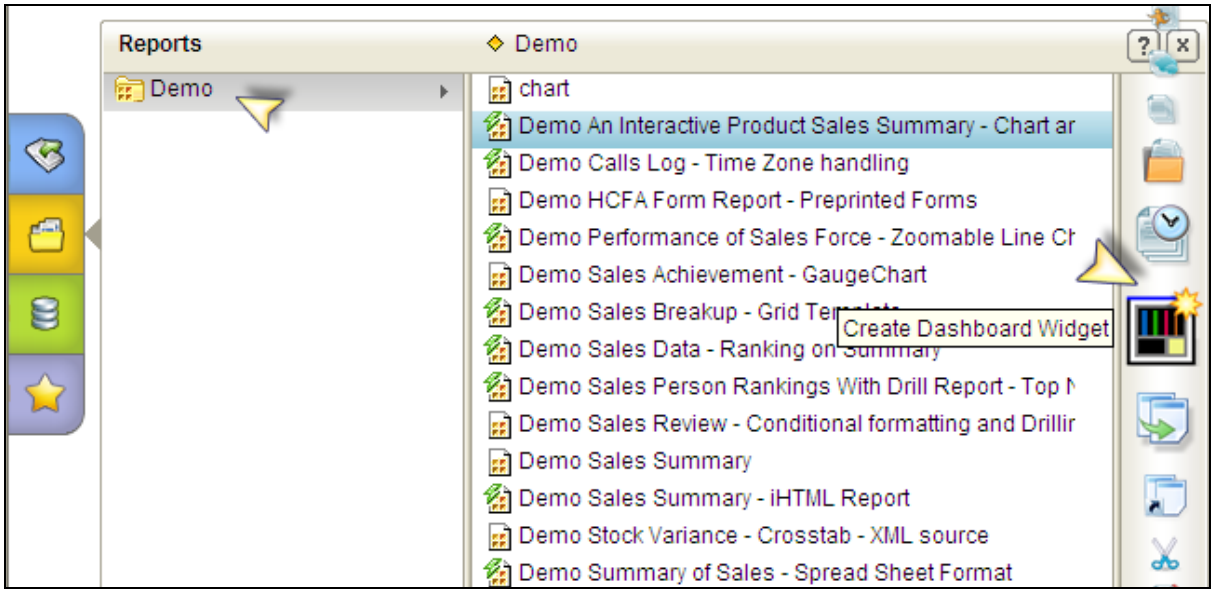

Figure 3: Create Dashboard Widget (b)

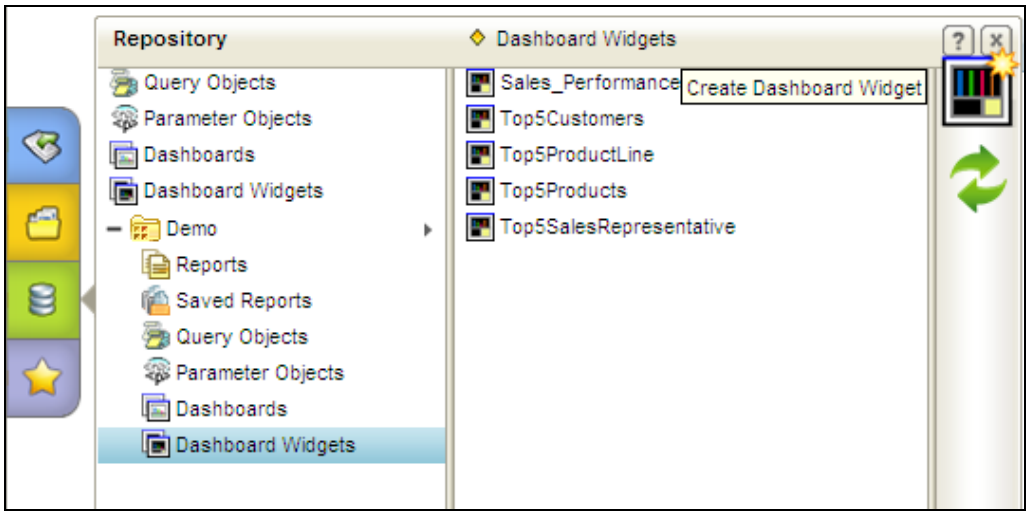

Figure 4: Create Dashboard Widget (c)

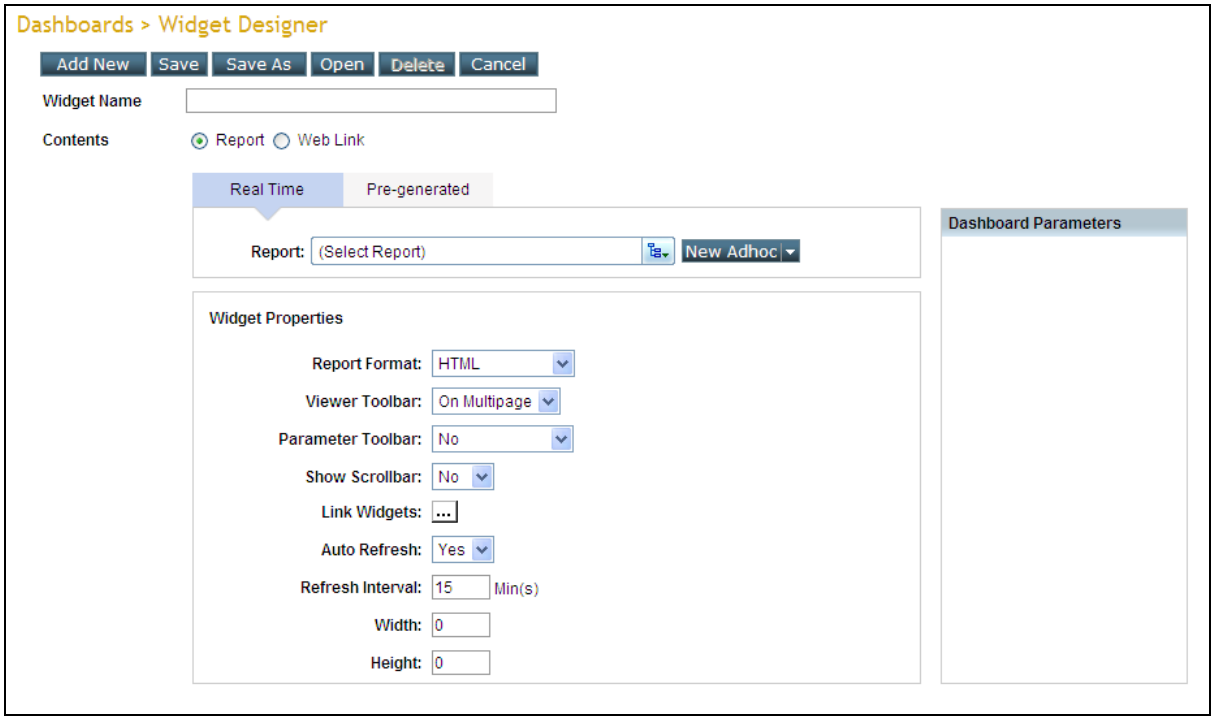

Figure 5: Widget designer

Every dashboard-widget has a unique **Widget Name**.

In **Contents**, select the item that the widget should display:

- To display report output, select **Report**.
- To view content available at a URL, select **Web Link**.

Other details you need to provide for a dashboard-widget depends on the Contents.

Report Widget

To place a report layout on the widget, create a new OLAP layout or an adhoc report, click **Select Existing** tab. When such a widget is placed on dashboard, the report is executed and output is displayed on the widget.

To place a pre-generated report output (output of a published report) on the widget, click **Pre-generated** tab. This is a report, which is already generated. When such a widget is placed on dashboard, pre-generated output is displayed on the dashboard as it is.

Select Existing

Click **Select Existing** tab to place a report on the widget.

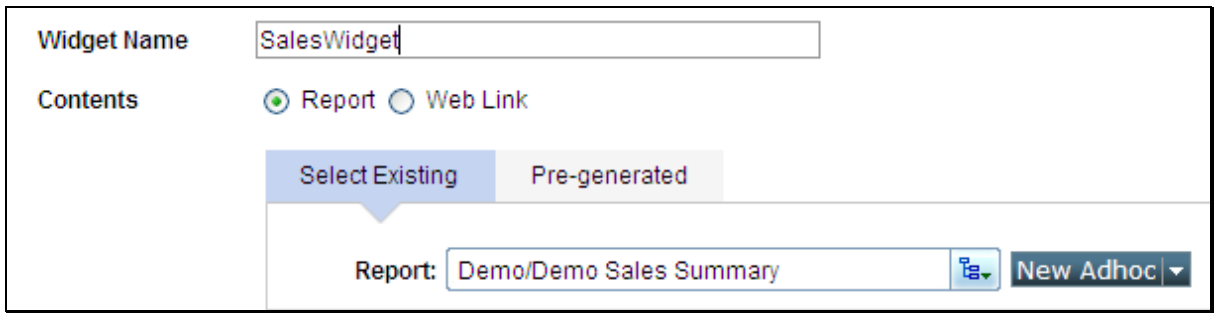

Figure 6: Selecting a report for widget

Select a **Report**.

If selected report has runtime user parameters, then **Input Parameter Form** will be displayed below the property area, where you will need to provide parameter values. When dashboard having this widget will be viewed, the report will run using the parameter values provided on the form.

You can also create an OLAP layout or an adhoc report from this tab:

- Click **New OLAP** button to open OLAP viewer. There, you can design an OLAP layout, save it and return to widget designer page.
- Click **New Adhoc** button to open Adhoc Report Wizard. There, you can create a new adhoc report, save it and return to widget designer page.

Pre-generated

Click **Pre-generated** tab to place a published report on the widget. You can filter the reports by selecting values in **Report**, **By Job** and **In Category**.

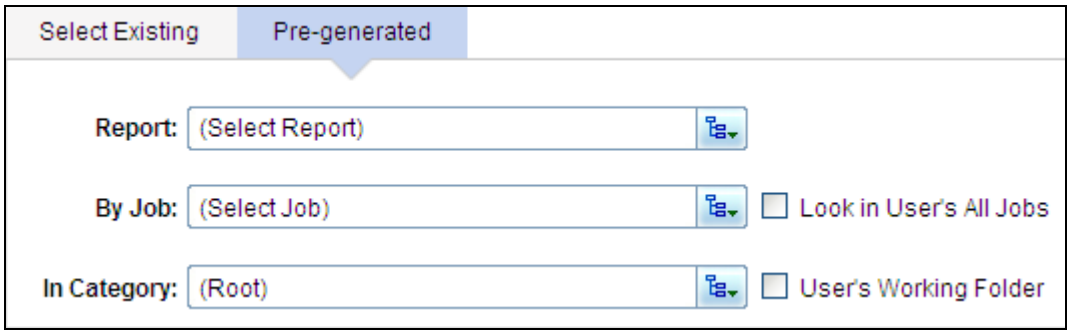

Figure 7: Selecting a pre-generated report on widget

To get last published instance of:

- **A report**: You need not make any selection in **Report**, **By Job** as well as **In Category**.
- **A specific report:** From **Report**, select the report. You need not make any selection in **By Job** as well as **In Category**.
- **A report executed by a specific job:** From **By Job**, select a job. You need not make any selection in **Report** as well as **In Category**.
- **A report deployed in a specific category and executed by a specific job:** From **In Category** select a category and from **By Job** select a job.
- **Any of the reports from the jobs you own:** You own the jobs that you created or were created on your behalf. Check **Look in User's all jobs** checkbox.
- **Any of the reports deployed in your default category:** Check **User's working folder** checkbox.

Widget Properties: Web Link

Select Web Link to view content available at a URL. In **URL**, specify the URL you want to display in the dashboard-widget.

Properties

Widget related common information and information specific to what is placed on widget is provided in **Properties** area of the page.

Report Widget Properties

- **Report Format:** Select the format in which report should be displayed on the dashboard-widget.
- **Viewer Toolbar:** Select *Yes* to always show the toolbar, *No* to keep the toolbar in hidden state and *On MultiPage* to show toolbar only if the report is a multi-page report.
- **Parameter Toolbar:** The report selected for dashboard-widget may have parameters. Parameter value for such a report needs to be provided during dashboard-widget design. Select *Yes* if the user should provide values at runtime (when the report is actually executed) also (on dashboard viewer, Input Parameter Form in collapsed state will be displayed where user will need to provide parameter values). Select *No* to provide parameter values during dashboard-widget design only. Select Yes, Expanded when the Input Parameter Form is displayed in expanded format.

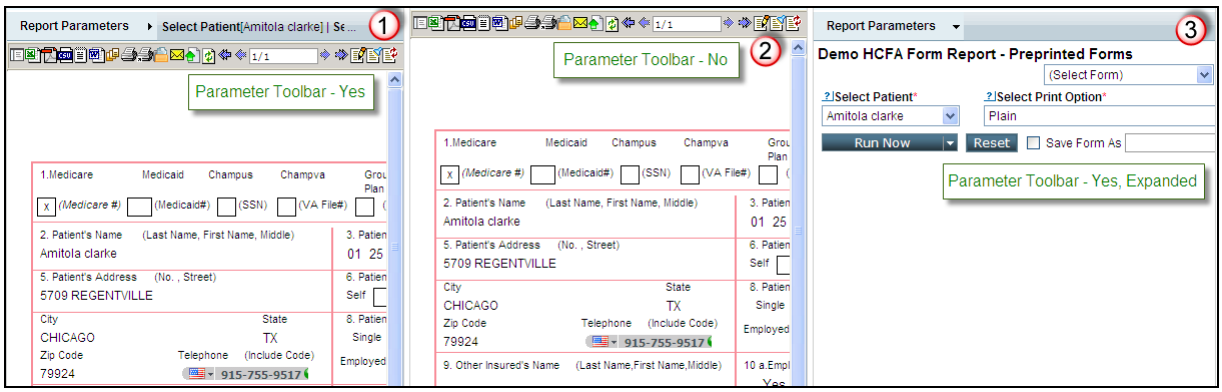

Figure 8: Parameter Toolbar as Yes, No and Yes, Expanded

> **Note:** If the report uses parameter "By Ref", then such parameters are candidates for "Dashboard Parameters". On Dashboard, a common Input Parameter Form (among all the reports) will be displayed to receive values for all such Dashboard Parameters. Even if, here **Ask at run time** is set to *No*, user will be able to provide values for Dashboard parameters on dashboard viewer.

- **Show Scrollbar:** Click *Yes* to forcefully get viewer scrollbar when user adds a dimension on the grid.

- **Link Widgets:** This is used to link this widget with another widget. This will appear if report has a chart component. When you click this button, a dialog will open. On the dialog, in **Items**, select the series and in **Widget(s)** select the widget to be opened when the selected series is clicked. Both the widgets need to be placed on the dashboard.

Steps to Link Widgets

- Create a report containing chart as widget.
- From 'Widget Properties' go to Link Widgets. Click on the button beside the Link Widget.
- Under 'Item(s)' select the value you want to link.
- Under 'Widget(s)' select the report with which you want to link the report. The report you select needs to have the y-axis attribute as its one of the fields.
- Click Ok to save the changes and close the window.
- Save the report.

You can add more links by clicking crosshair adjacent to 'series'.

Place the widgets on the dashboard. When you click on the chart on widget you would notice that the linked widget is refreshed.

Widget linking at multiple levels

Multiple widgets can be placed on a dashboard. To link a widget with another widget there is a pre-requisite that the widget which will be linked to another widget needs to have a chart in it. If the widget which is linked to the widget is again linked with another widget then this widget shall also contain a chart in it. The widget which will be refreshed now will contain the links of both the widgets.

Example: Widget one is chart report with patient id (y-axis) and Hospital Name (x-axis). Widget two is chart report with Patient Id (y-axis) and Doctor's Name (x-axis). Widget three is a patient report with attributes Patient id, Hospital Name, Doctor's Name etc. The widget one is linked with Widget two and widget two is linked to widget three. When you click on Hospital Name, all the doctors working for the selected hospital are displayed in widget two. When you click on a Doctor's name then, the widget three displays all the report of selected doctor for the already selected hospital.

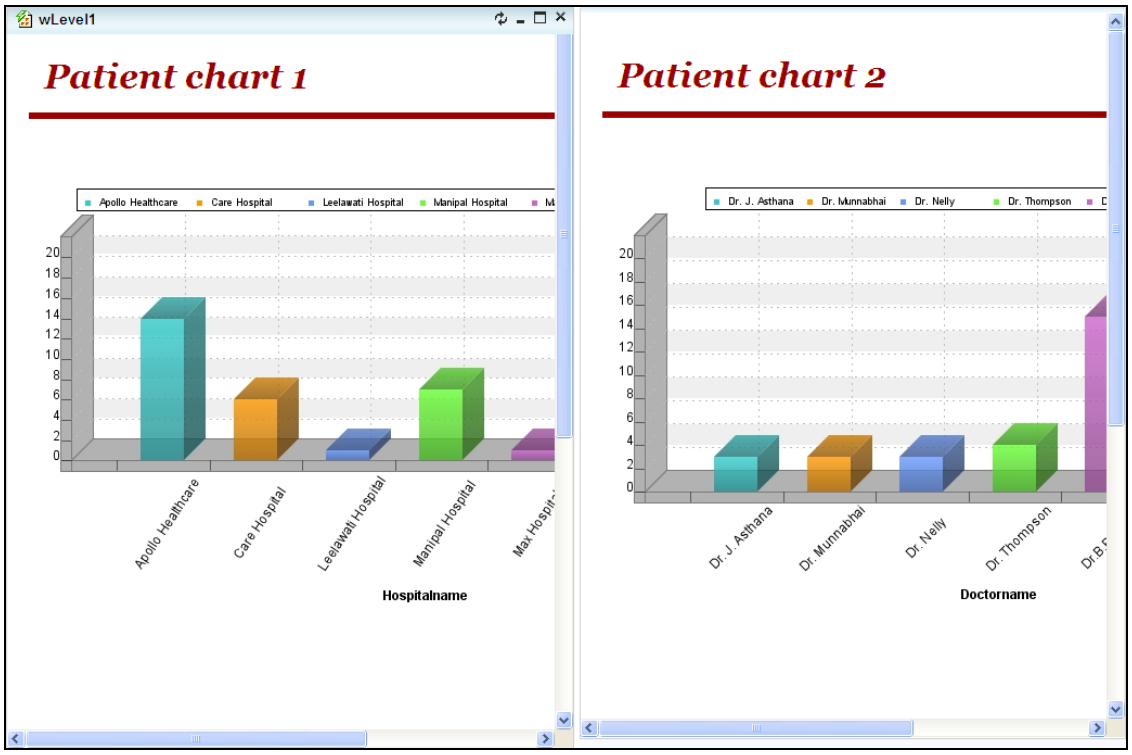

Figure 9: Widget Linking

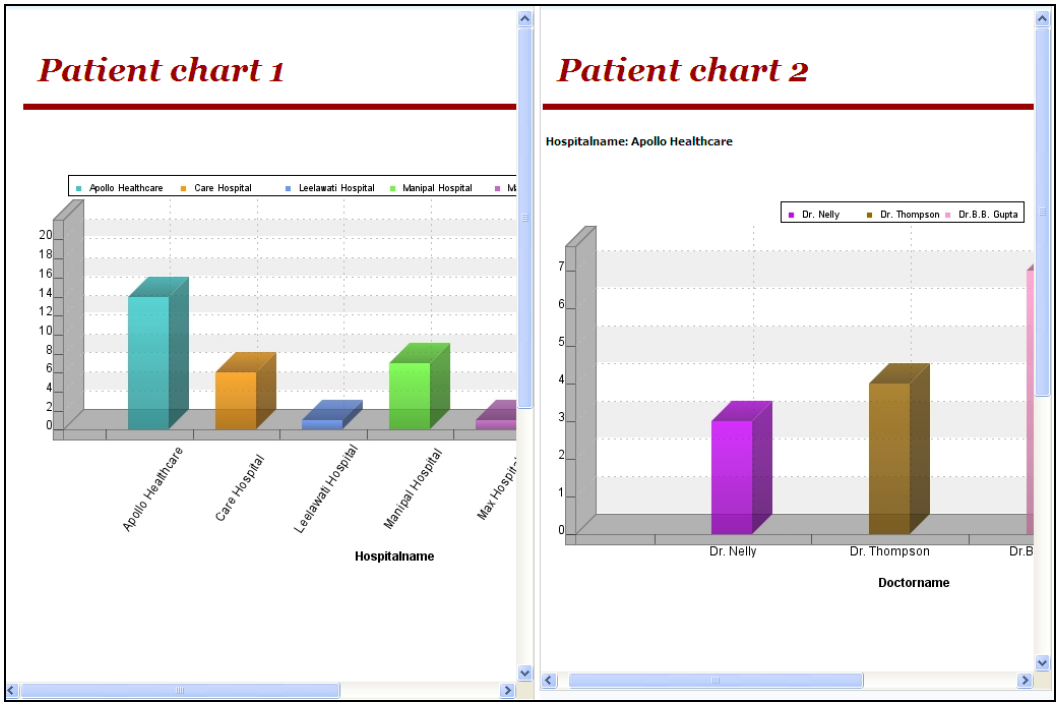

Figure 10: Linking Widget for Apollo Healthcare

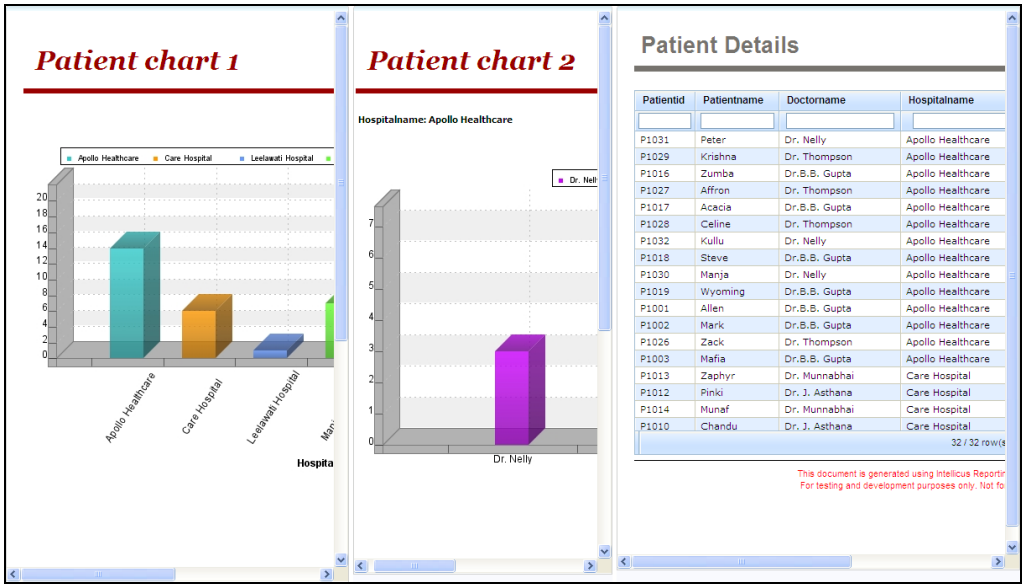

Figure 11: Linking Widget-Patient Details

OLAP Object (OLAP Layout) Widget Properties

- **View Mode:** OLAP viewer can display an OLAP Layout as a chart as well as a grid. Select *Default* to open the layout in the view in which it was saved. Select *Grid* to open as grid. Select *Chart* to open in Chart view. Select *Dual* to get grid as well as chart on viewer.
- **Data Actions:** Actions like modifying the OLAP Layout, like drilling and collapse/ expand, are considered as data actions. Select *Yes* if the user should be able to take such actions on the dashboard-widget.
- **View Actions:** This includes grid actions and chart actions like swapping of fields and changing chart type. Select *Yes* if the user should be able to take such actions on the dashboard-widget.
- **Layout Actions:** Actions like Save, Delete and Open. If you select *Yes*, buttons will appear and user will be able to take such actions. Select *No* to hide the buttons.
- **Toolbar:** Using buttons on the toolbar, can carry out tasks like change views and swap axis. Select *Yes* to make the toolbar visible so that user can take such actions if desired. Select *No* to hide the toolbar.
- **Show Scrollbar:** Click *Yes* to forcefully get viewer scrollbar when user adds a dimension on the grid.
- **Explorer:** It lists OLAP connections accessible to the user, cube objects in the selected connection as well as measures/dimensions in the selected cube object. Select *Show* to show the explorer on dashboard-widget. Select *Collapsed* to get explorer, but in closed state. Explorer will not be displayed if you select Hide.

Pre-generated Widget Properties

- **Report Format:** Select the format in which report should be displayed on the dashboard-widget.
- **Toolbar:** Select *Yes* to always show the toolbar, *No* to keep the toolbar in hidden state and *MultiPage* to show toolbar only if the report spreads over multiple pages.
- **Instance Navigation:** This is applicable when the report placed on the dashboard was already run and saved multiple times. Click *Yes* to get a dropdown box to select one of the saved reports and view it. Click *No* to view report as per preference set in Instance Type.

Web link Widget properties

- **Show Scrollbar:** The content at the URL may be more than what can be displayed on the widget. If toolbar is displayed, you can scroll down to view the parts that are not visible on the dashboard-widget. Select *Yes* to show scrollbar. Select *No* to keep the toolbar hidden.

Properties common to all

- **Auto Refresh**: If the report-data changes frequently, you may wish to refresh (regenerate) the report to view the latest report-data. Select *Yes*, to automatically refresh the report. Select *No* to continue viewing the report that was generated when dashboard was loaded for the first time.
- **Refresh Interval**: If Auto Refresh is *Yes*, specify the time in minutes after which the report should be regenerated. For example, to refresh the report every 15 minutes, set 15 in the box.
- **Width** and **Height**: In Width, specify width (in pixels) of the widget. In Height, specify height (in pixels) of the widget. When the widget will open on dashboard viewer, it will occupy the size specified in these boxes.

Saving a Dashboard Widget

Use this dialog box to save the dashboard widget. This dialog box opens up when you click **Save** button for the first time after working on a new dashboard widget or you click **Save As** button.

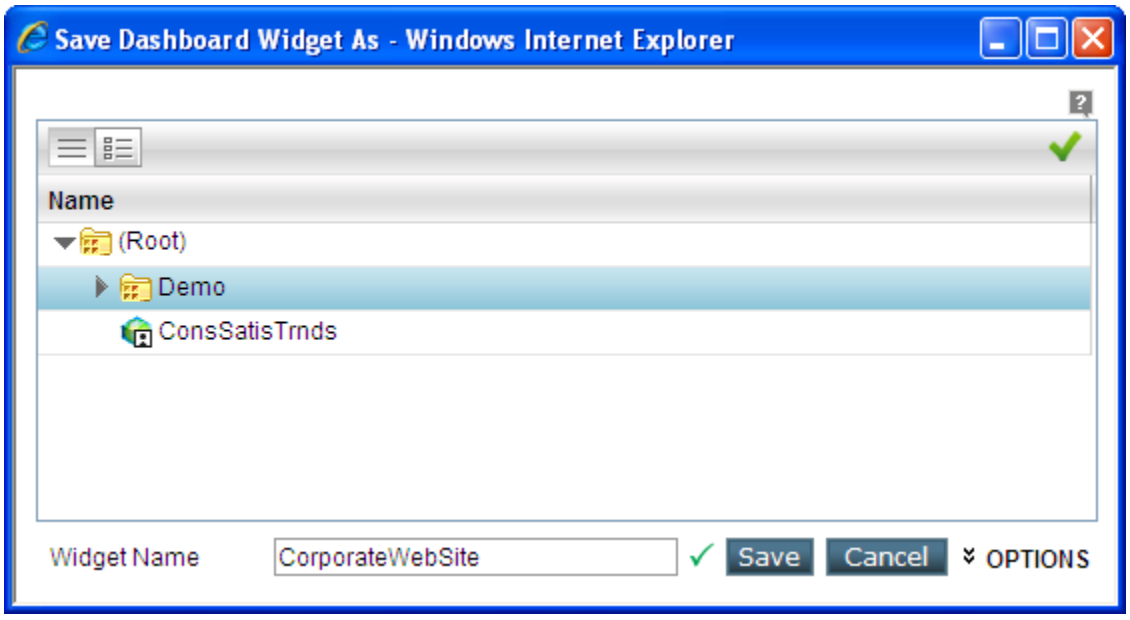

Figure 12: Save Dashboard Widget As dialog

A Dashboard-widget is saved in a folder. Folders are available as multi-level structure in the repository. Navigate to the folder in which you want to save the dashboard widget.

At the time of saving, you need to provide a unique **Widget Name**. Naming guidelines are provided below. Along with the layout name application also saves **Owner** (the organization and user ID who created the dashboard-widget) and **Last Modified Date**.

Naming guidelines

Name needs to be a unique name across all layouts.

Use alphabets (A - Z, a-z), numbers (0-9), dash (-), dot (.) and underscore (_) to make the name.

Opening a Dashboard widget

When Widget Designer is already open, click **Open** button to open **Open Dashboard Widget** dialog.

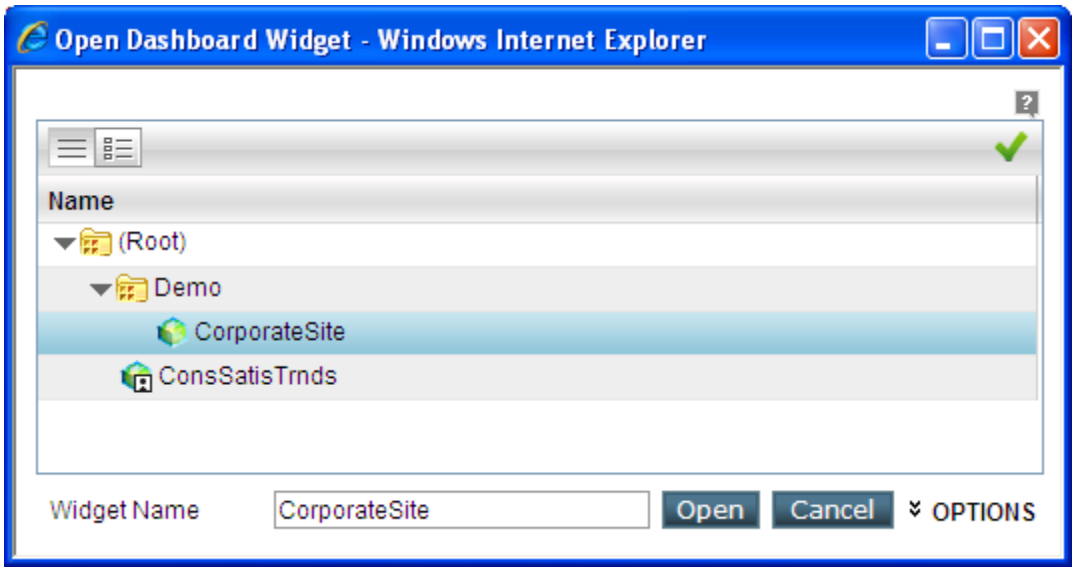

Figure 13: Open Dashboard Widget dialog

Navigate to the desired folder and select the dashboard widget you want to open.

Deleting a Dashboard widget

To delete a dashboard widget, open it on Widget Designer and click **Delete** button.

If **Widget Designer** is already open, you can open a widget using **Open** button. If **Widget Designer** is not open, you can open the widget from **Repository Explorer**.

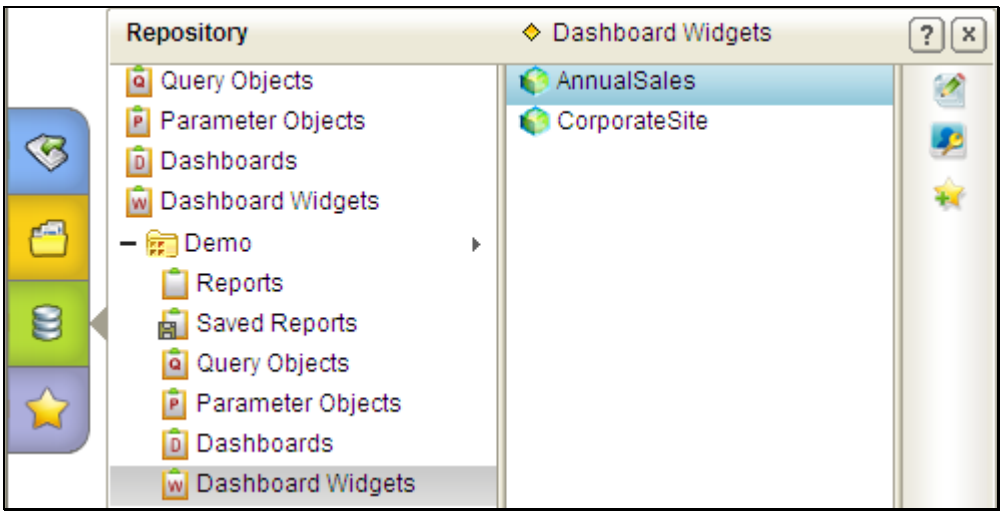

Figure 14: Opening a dashboard widget from Repository Explorer

When a dashboard uses a widget that is deleted, an error message will be displayed in that widget of the dashboard, which will keep the user informed that the widget has been deleted.

Adhoc toolbar on Dashboard widget

Dashboard Designers can now display the Adhoc toolbar on the Widget containing an Adhoc report. This Facilitates the end user to change the filters, sorting order or grouping as per their need and see the effects on the dashboard immediately. Widget designer need to enable the Adhoc toolbar and choose what all TABS they want in the toolbar and then include the same widget on the dashboard.

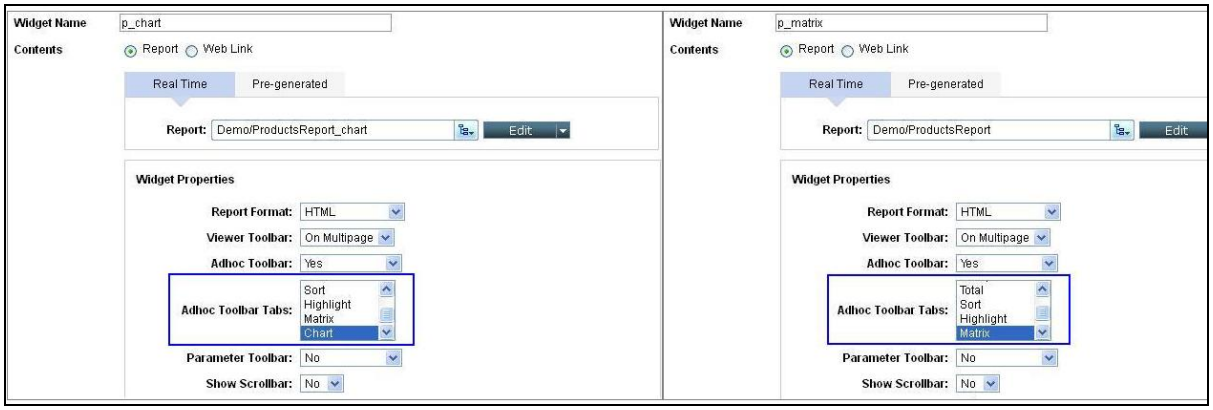

Figure 15: Adhoc Toolbar in Dashboard Widgets

As shown in figures, above two widgets when visualize on a dashboard will come with the respective TAB enabled on the Adhoc toolbar.

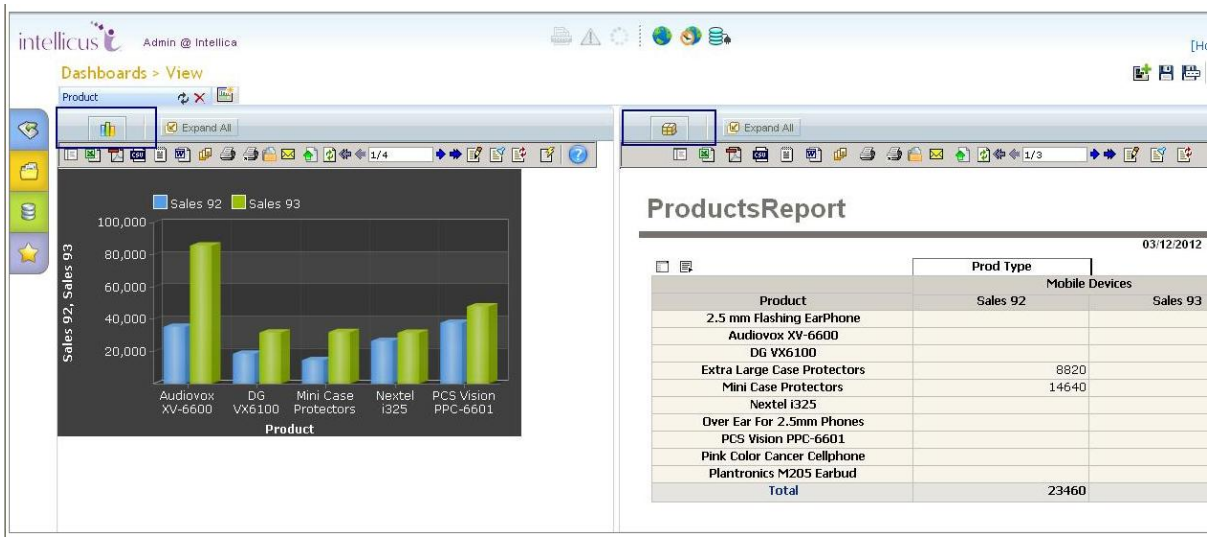

Figure 16: Adhoc Toolbar in Dashboard

Repository Explorer

You can access a dashboard widget from Repository Explorer. Repository Explorer not only provides hierarchical view of folders and Dashboard Widgets

within each folder, it also allows you to carry out many operations on selected widget.

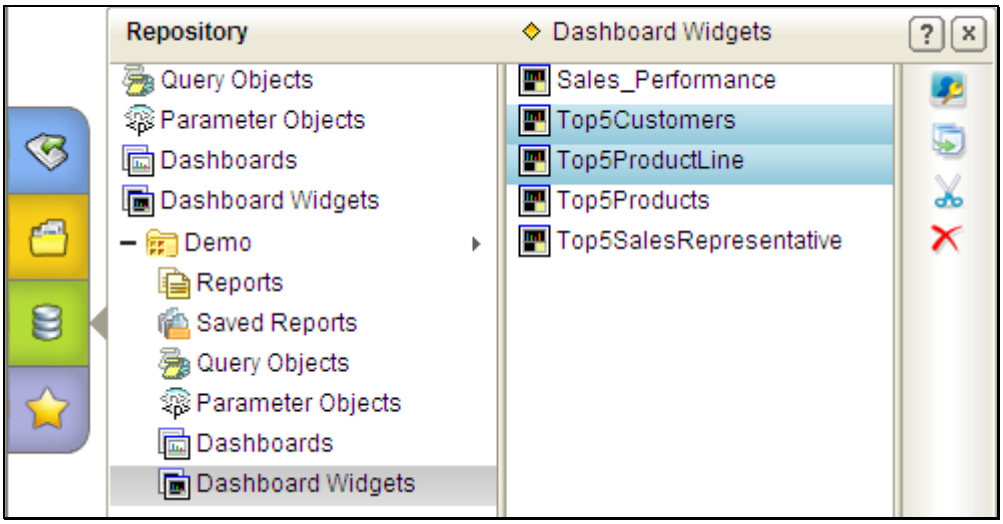

Figure 17: Multiple widgets selected on Repository Explorer

You can do following when you select multiple dashboard widgets at a time:

- Set Access Rights
- Copy, paste and cut paste the widget
- Delete the widget

If you select only one widget, you can also do following in addition to the above:

- Edit the selected widget
- Add the selected widget to favorites

Refer to online help to know more on for each of these actions.