BPS 42 – Chart Examples View

Abstract

This document presents the functional specifications of a new chart examples view. This allows user to immediately see the chart examples inside an Eclipse view without any configuration needed, and open the corresponding java code used to create a specific type of chart

Document Revisions

Draft	Date	Primary Author(s)	Description of Changes
1	July 24, 2006	Nina Li	Initial Draft
2	Aug 02, 2006	Nina Li	Remove XML View
3	Aug 3, 2006	David Michonneau	Minor updates

Contents

1. Introduction

1.1 Scope

This design document focuses on the UI design for the Chart Examples View. It describes how the view looks like (with mockups) and how to manipulate the view. At present, the design only supports for accessing the Examples View within Eclipse, not supported as a standalone application.

1.2 Goal

The goal of this new view is to provide a quick overview and demo of the charting features inside an Eclipse view, as well as a tool for chart API developers to access quickly some code snippets to create different kinds of charts.
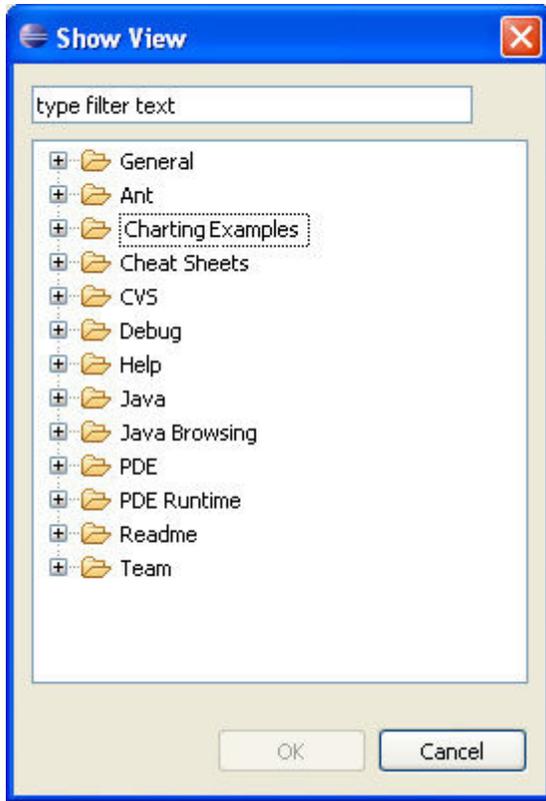
1.3 Packaging

This view will be included in the SDK and example package. It is however not part of the BIRT perspective and has to be opened manually by users
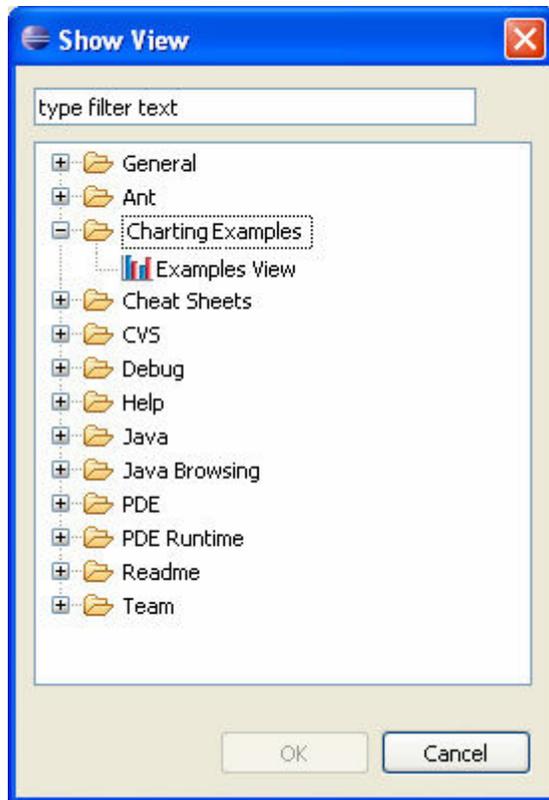
2. UI Design

2.1 Show View

BIRT chart examples view can be accessed within Eclipse Platform, go to the top menu, Window -> Show View -> Other…
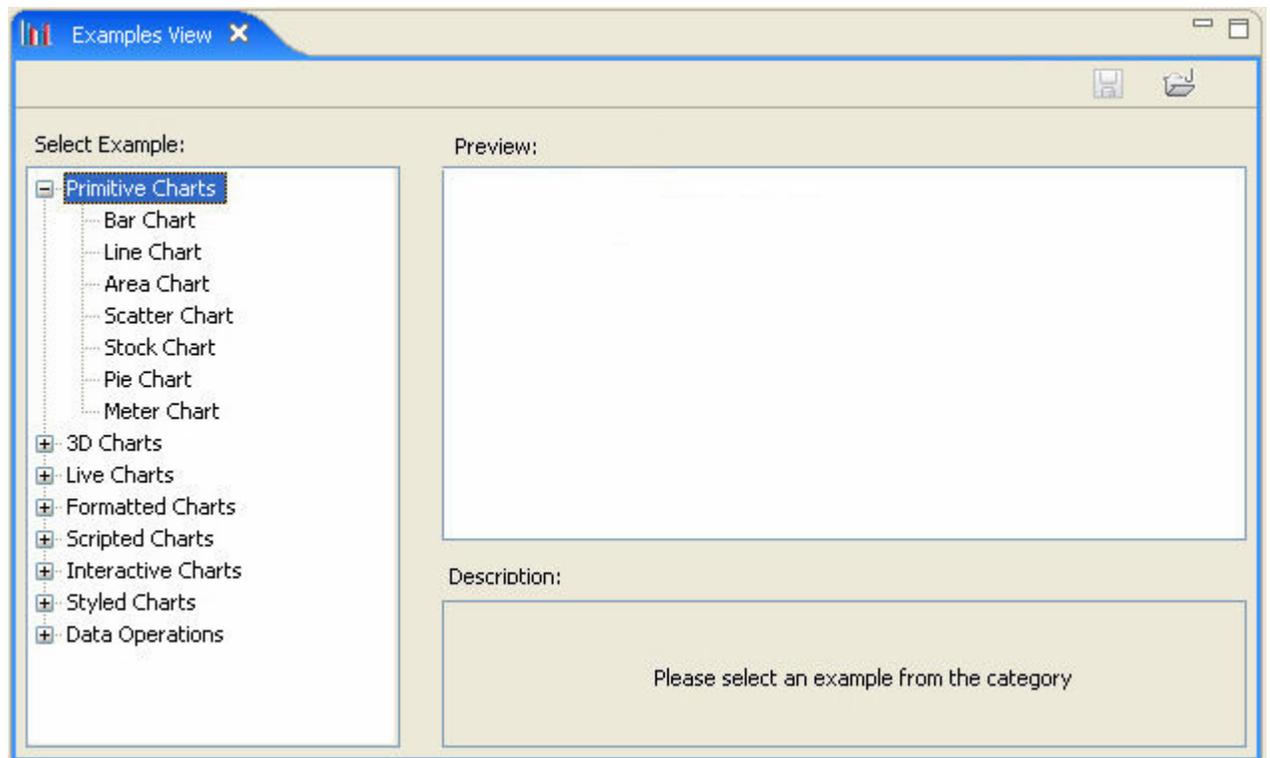
"Charting Examples" is added into the view folder list.

Expanding the "Charting Examples" folder, there is a sub-item: Examples View. The view will be opened in the South of the Eclipse platform by default.

2.2 Examples Selector

The Type Selector is placed in the left hand of the Examples View. It contains 9 example categories:

2.2.1 Primitive Charts

The primitive 2D chart examples (including all types & sub-types).

2.2.2 3D Charts

3D bar chart, 3D Line chart and 3D Area chart.

2.2.3 Live Charts

Live charts (Data is feed dynamically).

2.2.4 Combination Charts

Combination Charts (only for ChartWithAxes).

2.2.5 Formatted Charts

Formatted charts category includes the following examples: curve fitting, X/Y axis label formatting, X/Y series value formatting, percentage values, colored by category/value series, plot formatting, title formatting, and legend formatting.

2.2.6 Scripted Charts

Scripted charts category covers all supported script functions.

2.2.7 Interactive Charts

Interactive charts category includes show_tooltip, url_redirect, toggle_visibility, highlight_series and call_back with different mouse actions.

2.2.8 Styled Charts

Use the customized style to generate the chart model.

2.2.9 Data Operations

Data operations category includes multiple Y series, multiple Y axes, grouping on Y axis, grouping on X series, min slice and auto-data binding.
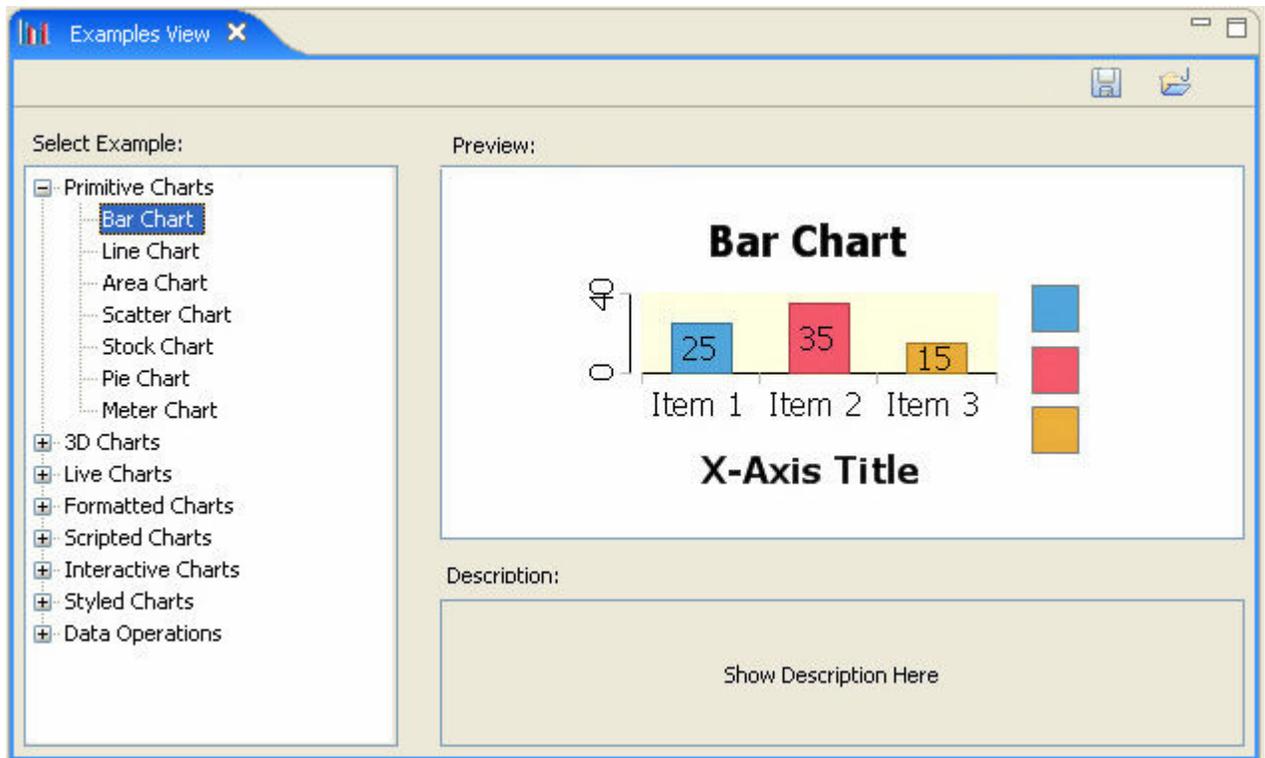
2.2.10 N/A

More categories could be added into the Examples View selector tree, if available.

2.3 Preview Canvas

2.3.1 Preview

When the user selects an item in a category from the selection tree, the generated chart is painted in the preview canvas. For interactivity charts, the mouse interactive events could be operated directly on the canvas. If the user selects a category, not an item, then leaves the canvas as blank.

2.3.2 Description

Description area is located in the right bottom of the Examples View. When the user selects an item in a category from the selection tree, the corresponding description is displayed. If the user selects a category, not an item, the description will be:" Please select an example from the category".

2.3.3 ToolBar

The ToolBar is placed on the top of the Examples View. The buttons could be added into the tool bar according to the requirements. At present, there are 2 buttons:

➢ The 1st button (from left to right): save the chart models into xml file (*.chart)

➢ The 2nd button (from left to right): open the corresponding source code

➢ Tooltips provided for these buttons

If the user selects a category, not an item (example), the 2 buttons will be disabled.

2.4 Source Code View

When the "Open Source Code" button is pushed, the corresponding source code will be opened in the Java Editor.

```
BarChartExample.java ✕
42    cwaBar.getBlock( ).setBackground( ColorDefinitionI
43    cwaBar.getBlock( ).getOutline( ).setVisible( true
44    Plot p = cwaBar.getPlot( );
45    p.getClientArea( ).setBackground( ColorDefinitionI
46            255,
47            225 ) );
48    p.getOutline( ).setVisible( false );
49
50    // Title
51    cwaBar.getTitle( ).getLabel( ).getCaption( ).setVa
52
53    // Legend
54    Legend lg = cwaBar.getLegend( );
55    lg.getText( ).getFont( ).setSize( 16 );
56    lg.setItemType( LegendItemType.CATEGORIES_LITERAL
57
58    // X-Axis
59    Axis xAxisPrimary = cwaBar.getPrimaryBaseAxes( )[0]
60
61    xAxisPrimary.setType( AxisType.TEXT_LITERAL );
```