SAP

Design Studio

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About the Tutorial

SAP Design Studio can be defined as an Application Development Tool for creating advanced level Dashboards using SAP BW, HANA and Universe Data Sources. These interactive dashboards can be accessed on mobile devices like iPad, mobile phones, and tablets.

This Design Studio can also create applications that allow you to interact with data by applying different components like filters, drill down to dimensions and aggregated data detailed analysis, etc.

This is an introductory tutorial that covers the basics of SAP Design Studio and how to handle its various components and sub-components.

Audience

This tutorial will be extremely useful for professionals who aim to understand the basics of SAP Design Studio and implement it in practice. It is especially going to help professionals who are associated with Universe Data Sources, SAP Business Warehouse and HANA (High-Performance Analytic Appliance).

Prerequisites

It is a straightforward tutorial and the readers can easily understand the concepts explained here with a basic knowledge of how an organization deals with their application development tools and advanced dashboards. However, it will help if you have some prior exposure to HANA, SAP BW, SAP BusinessObjects BI Platform.

It will also be an additional help if the reader has a basic knowledge on how to interact with data by applying different components like filters, aggregated data detailed analysis, user interface components and applications, etc.

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Table of Contents

About the Tutorial i

Audience i

Prerequisites i

Copyright & Disclaimer i

Table of Contents ii

1. SAP DESIGN STUDIO – OVERVIEW 1

Design Studio Terminology 1

Roadmap of SAP Design Studio 4

2. SAP DESIGN STUDIO – KEY FEATURES 5

3. SAP DESIGN STUDIO – HOW TO LOGON 7

4. SAP DESIGN STUDIO – NAVIGATION 8

Welcome Page 8

Design Studio Navigation Views 9

Maintaining Settings in the Design Tool 13

5. SAP DESIGN STUDIO: CREATE AN APPLICATION 14

How to Create a New Analysis Application? 14

How to Set a Layout for a Component? 17

6. SAP DESIGN STUDIO – ADD DATA SOURCE 19

7. SAP DESIGN STUDIO – HANA CONNECTIVITY 22

How to Create a New Connection? 23

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8. SAP DESIGN STUDIO – SETTING UP BOOKMARKS 26

Loading Bookmarks Using Scripting **26**

Loading Bookmarks Using URL **26**

Listing Bookmarks **27**

Saving and Sharing Bookmarks **28**

Deleting Bookmarks **28**

9. SAP DESIGN STUDIO – WORKING WITH DATA SOURCES 30

How to Add More Dimensions in the Data Source? **31**

10. SAP DESIGN STUDIO – CONNECT TO A UDS 34

How to Add Universe as a Data Source? **34**

11. SAP DESIGN STUDIO – EXPORTING DATA 39

12. SAP DESIGN STUDIO – HANA MODE INTERACTIVE 42

Connect to a Streaming Data Source **42**

Create a Time-Based Line on Real Time Streaming **44**

13. SAP DESIGN STUDIO – WORKING WITH INFO CHARTS 46

Info Chart Feeding Panel **46**

Changing the Visualization Type **47**

14. SAP DESIGN STUDIO – WORKING WITH FILTERS 51

Setting up an Analytic Component as a Filter **51**

Adding a Dimension Filter **52**

Editing a Filter **55**

Removing filter **56**

15. SAP DESIGN STUDIO – GEOMAP 57

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16. SAP DESIGN STUDIO – EXPORTING AN APPLICATION 60

17. SAP DESIGN STUDIO – EXPORTING AS TEMPLATES 63

18. SAP DESIGN STUDIO – VISUALIZATION TEMPLATES 67

Creating Visualizations 67

Renaming a Visualization 68

19. SAP DESIGN STUDIO – CUSTOM DASHBOARDS 69

Sharing Dashboards 70

20. SAP DESIGN STUDIO – REFRESH A DOCUMENT 71

Refresh a Document in Web/Mobile (BW) 71

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1. SAP Design Studio – Overview

SAP BusinessObjects Design Studio can be defined as an **Application Development Tool** for creating advanced level Dashboards using SAP BW, HANA and Universe Data Sources. These interactive dashboards can be accessed on mobile devices like iPad, mobile phones, and tablets.

To create applications and advanced Dashboards you don't need any knowledge of HTML and UI5 programming and you can subset of Java scripts and bookmarks for application development.

SAP Design Studio can be used with following data sources:

- SAP Business Warehouse (BW)
- SAP HANA
- SAP BusinessObjects BI Platform

It allows you to **design applications** and enter data manually in Crosstabs or you can also add data using planning objects while using SAP BW as the backend system. Applications developed in Design Studio can have real time connection to SAP HANA or the Business Warehouse System.

Using **SAP BusinessObjects Design Studio SDK**, you can also add 3rd party custom components in your application. These components can get data from different data sources to create interactive visualizations. Apart from this, SDK components can also act as data source for other SDK components.

Design Studio Terminology

Design Studio allows application developers to **create and edit applications** that are saved in the XML format. These applications contain interactive dashboards and advance data visualizations by using charts, crosstabs, etc. and alias of data source.

Data Source and Binding

You can create applications using different components like charts, crosstabs and data source alias. A Data source alias is defined as an instance of SAP BW or HANA data source. If you want to see the list of components that are used in an application, you can check this in outline view of Design tool.

Data Binding

To use different components like charts, crosstabs you need to bind the data from data source alias to these components. Data binding defines the simple mapping of data to components in application. When data in data alias is changed, Design Studio automatically updates all the components that are bound to that data alias.

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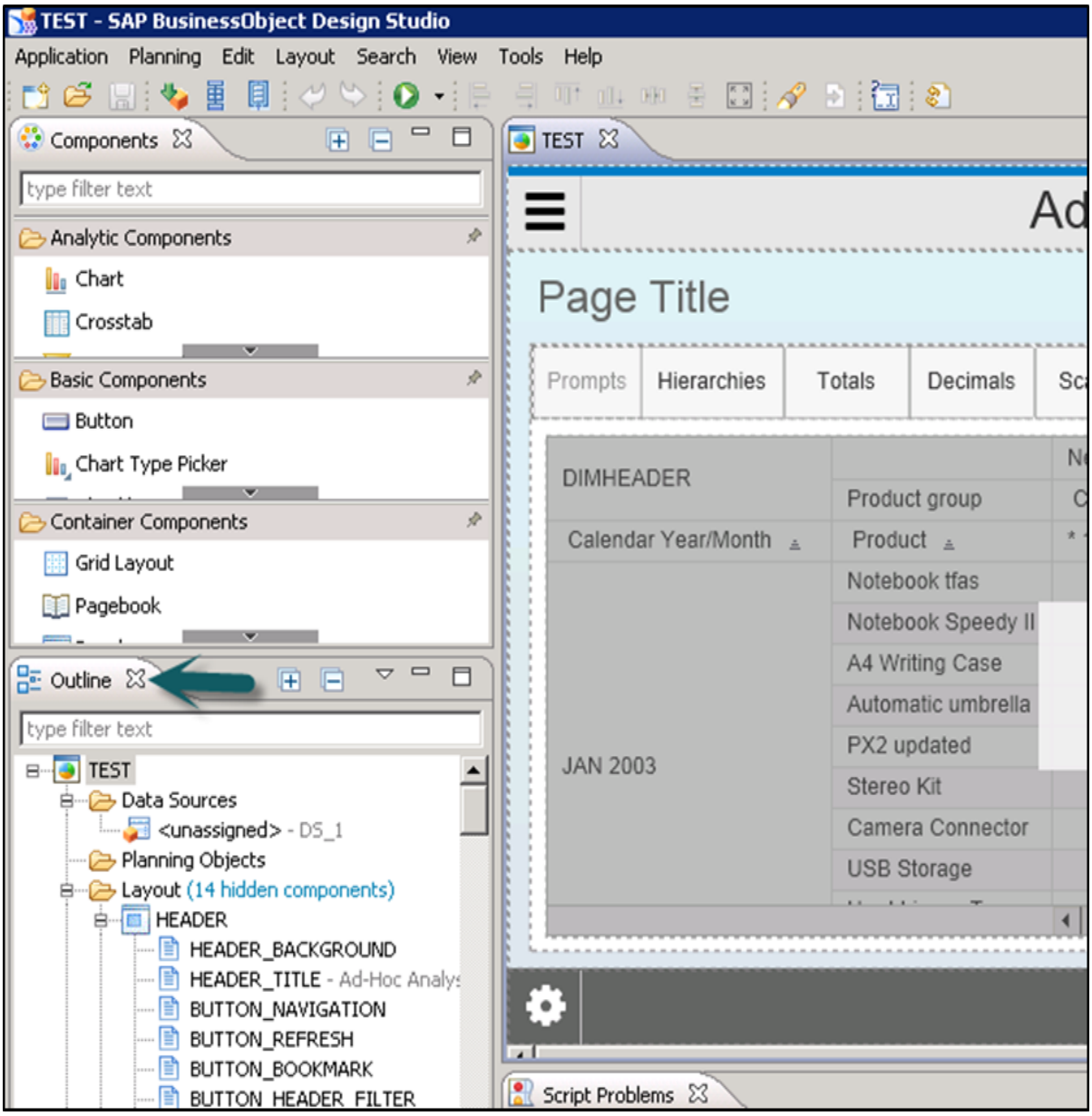
To see the data binding relationship between components and data sources, you can go to the outline view.



In SAP BusinessObjects Design Studio, you can create applications that allow you to interact with data by applying different components like filters, drill down to dimensions and aggregated data detailed analysis, etc.

To enable users to interact with data, you need to add UI components in the application.

Example

You can create a Radio button on top of the chart to visualize the data for different regions in a sales analysis.

You can set an event with each button in a user interactive application. To see the list of all available components, you can navigate to Properties view of the Design Studio. All the

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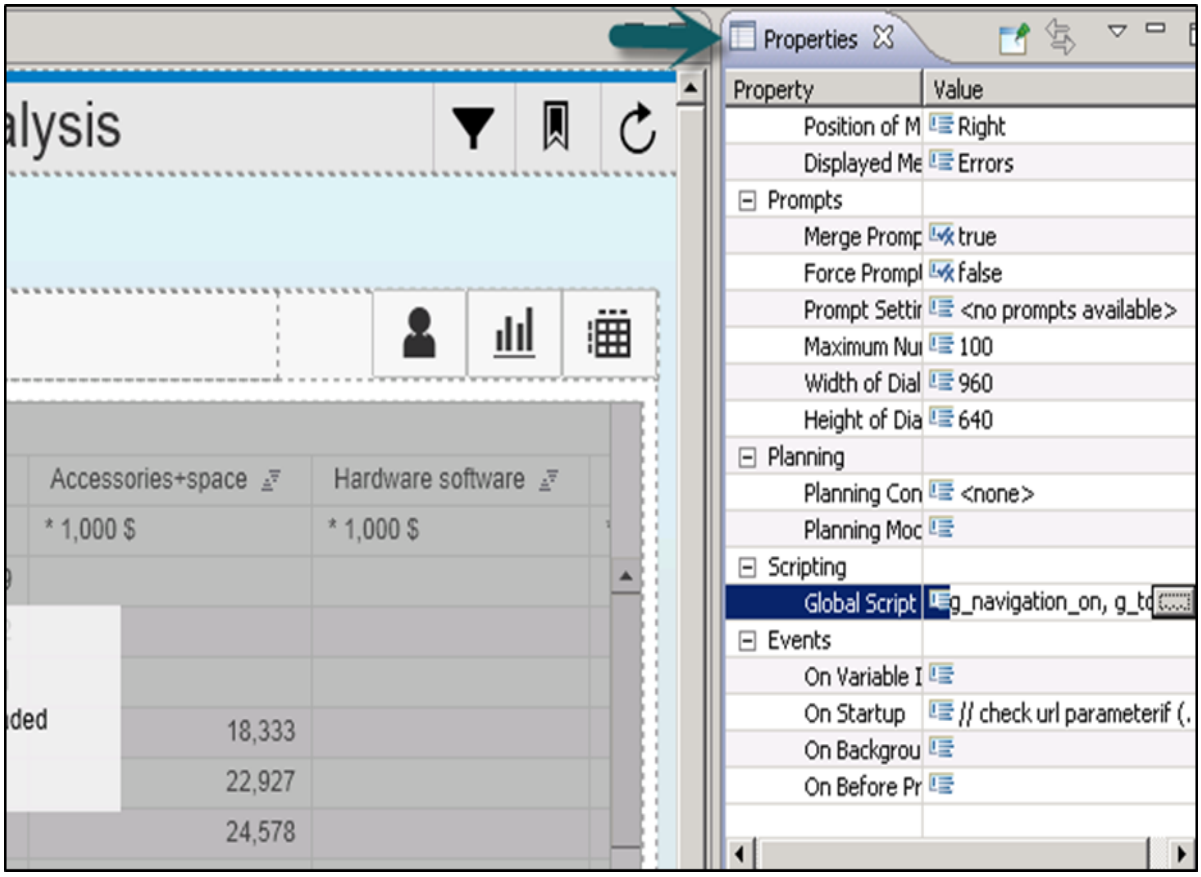
events are defined in the script editor where you can mention the action to take place when an application user triggers a specific event.

The scripting language used in the script editor is a subset of Java script and you can define multiple sequences of API methods call.



Apart from scripting properties, there are various other properties that are defined in the Properties view. Some of the properties are common for all the components however a few are specific.

Example

Display properties define theme applied, position of message, message window, etc. and other properties of application. Layout property defines the positioning of the following components in an application:

- Top Margin
- Left Margin
- Right Margin
- Width
- Height

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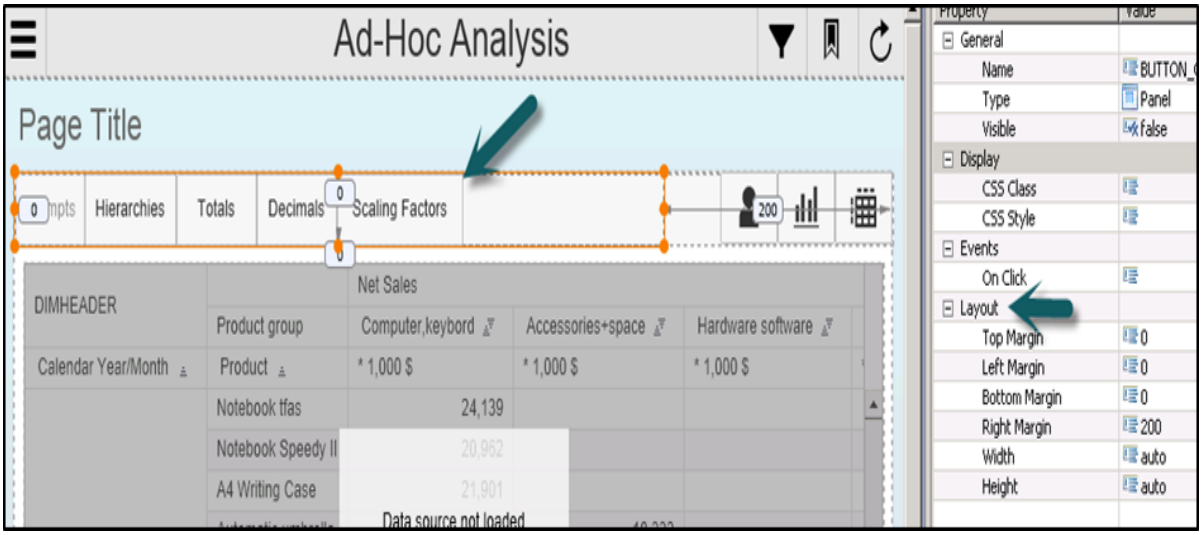
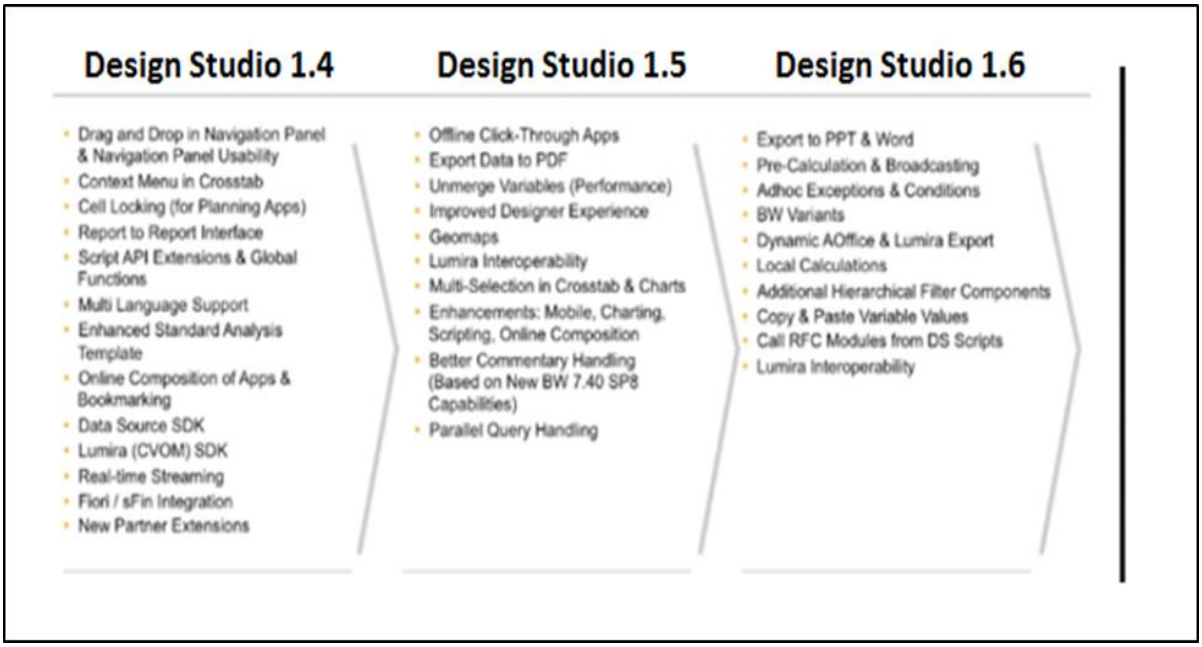


Roadmap of SAP Design Studio

Here is the roadmap of the SAP Design Studio along with its release month and year.

- SAP BusinessObjects Design Studio 1.4 Released Date: Nov, 2014
- SAP BusinessObjects Design Studio 1.5 Released Date: May, 2015
- SAP BusinessObjects Design Studio 1.6 Released Date: Dec, 2015



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2. SAP Design Studio – Key Features

As per the Design Studio roadmap strategy, the following are the key features that are covered in the latest version of the SAP BusinessObjects Design Studio 1.6 SP2.

Features for the End-Users

- Resizable, movable dialogs
- Display scaling factors in Info Chart
- Waterfall Info Charts

Features for the Analyst

- Ad hoc currency conversion
- Build virtual hierarchy of stacked dimensions
- Cascading Filter for Universe and CSV as Data
- Source

Features for the Designer, Developer, and Administrators

- New standard components, e.g. Dialog, Filter Bar, Link, MultiLine Text Input, Switch, Progress Bar (SAP Fiori Library).
- Info Chart Enhancements
- Initial View Editor: Simple Calculations
- Designer UI Enhancement: Compact Palette View

Resizable, movable Dialog

- New component available in SAP Fiori library
- Container component
- Free defined buttons for dialog footer
- Movable, resizable and full screen maintained in property sheet

Displaying Scaling Factors in Info Chart

- Showing data label including scaling factor with Tooltips.

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Waterfall Info Chart

- New chart type
- Semantic coloring (e.g. Negative, Positive and Total)
- Configurable connection line
- "Set as Total" possible in design time.

Adhoc Currency Conversion

- New API for opening currency conversion dialog
- Conversion based on target currency and conversion type defined in SAP BW backend
- Can be added as custom entry in context menu

Filter Bar

- New component in SAP Fiori library
- End user can select dimension filters to show and set filter value
- Toggle button to show or hide filter bar
- Defining "On Toggle" event via API

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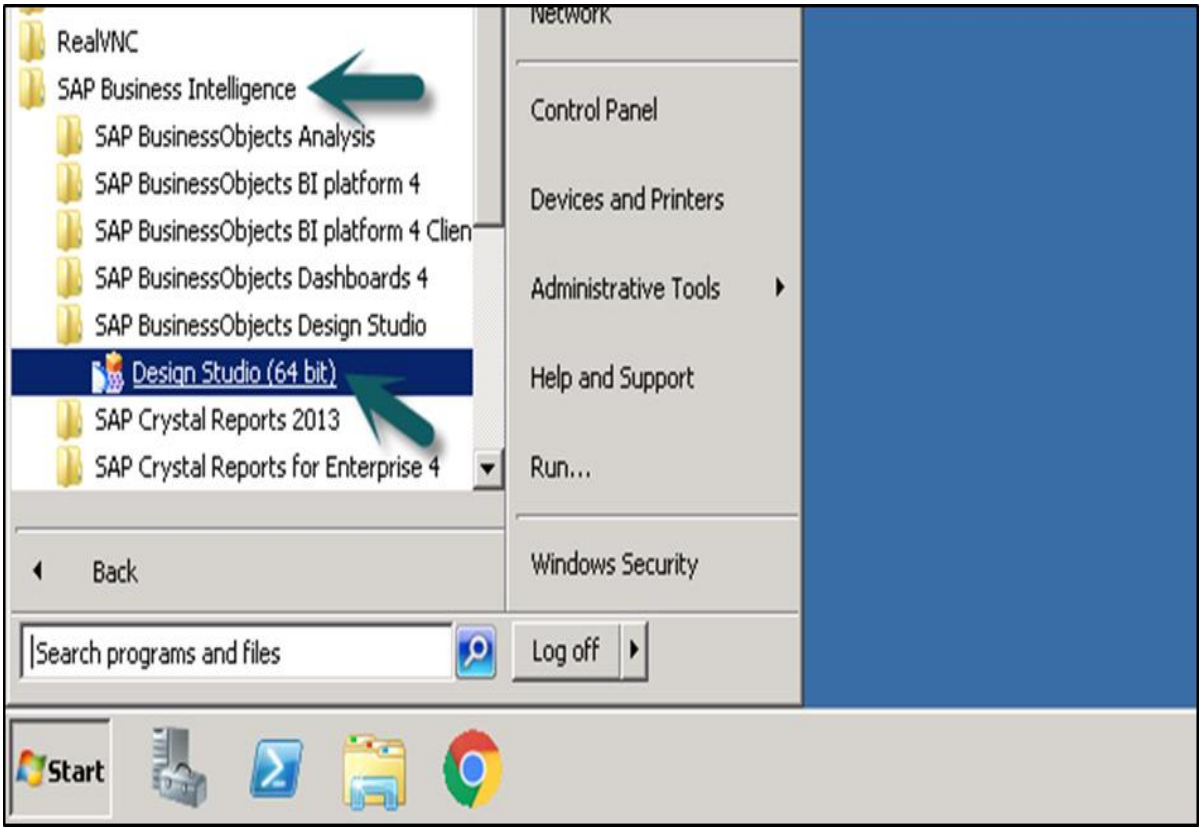
3. SAP Design Studio – How to Logon

To open SAP BusinessObjects Design Studio, go to **Start -> All Programs -> SAP Business Intelligence -> SAP BusinessObjects Design Studio -> Design Studio**



In the Logon to SAP BusinessObjects BI Platform dialog box, type in your user name and password for the BI Platform. When Design Studio is launched first time, you need to enter the following details:

- Host Name
- Port into the Web Service URL
- Select the authentication.
- Click OK

When you want to use SAP BW as backend, in the logon to SAP NetWeaver dialog box, select BW system from the drop down list and enter the system details and the username as well as the password.

In a similar way, you can also logon to SAP HANA dialog box, enter username and password for the HANA system.

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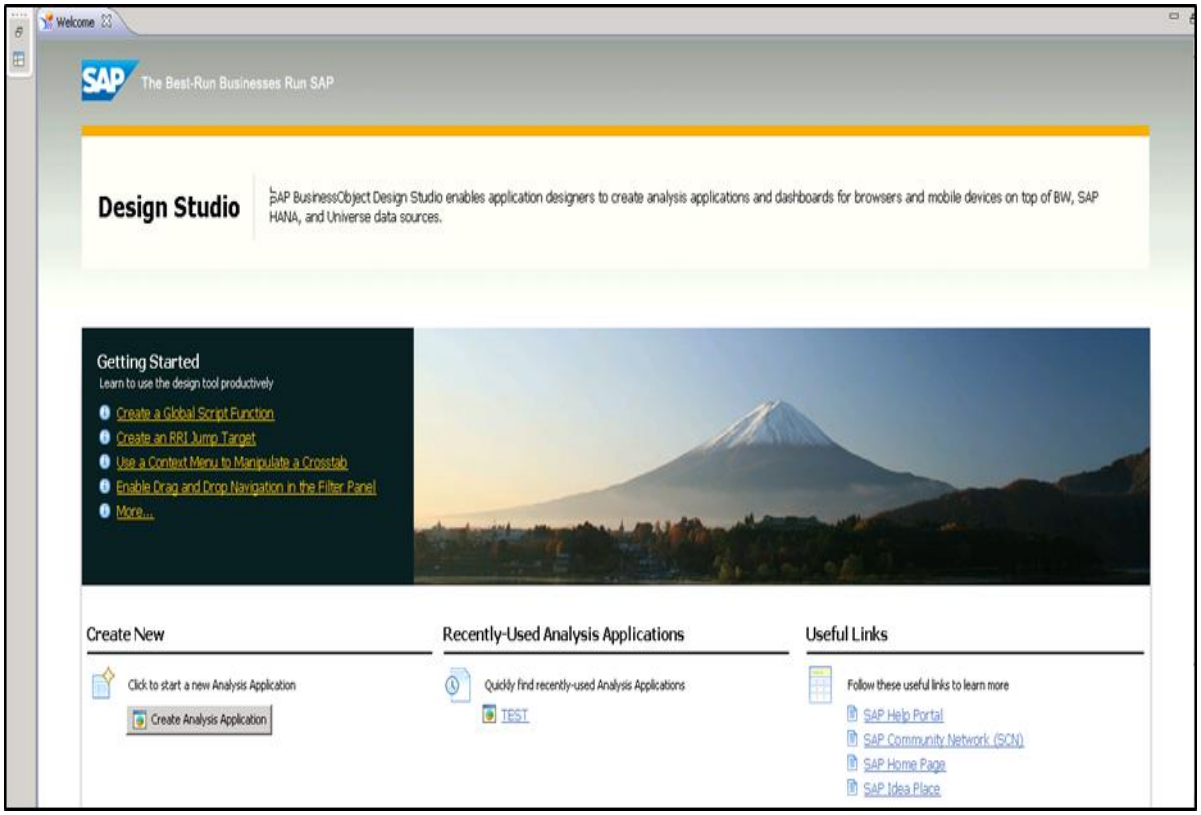
4. SAP Design Studio – Navigation

In this chapter, we will discuss regarding the various navigation functions when you open SAP Business Objects Design Studio.

Welcome Page

When you open SAP BusinessObjects Design Studio, you land on the welcome page first. It consists of different sections, which are as follows:



Design Studio at the Top

SAP BusinessObjects Design Studio enables application designers to create analysis applications and dashboards for browsers and mobile devices on top of BW, SAP HANA, and Universe data sources.

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Getting Started

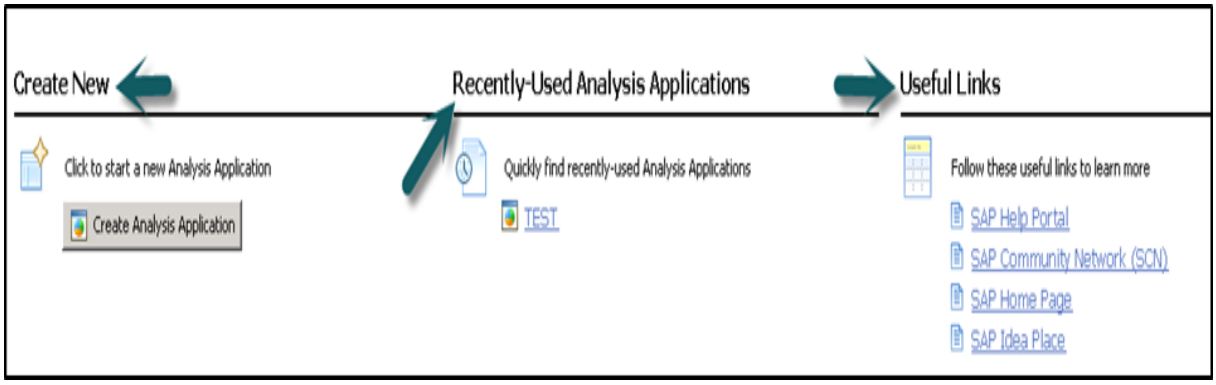
This section allows you to access the help material to make you familiar with the tool and you can go through the video which will help you in how to document the tutorial guide to learn key features, concepts, and tasks of the Design Studio.

Other features include:

- **Create New:** This can be used to create a new analysis application.
-
- **Recently Used:** This can be used to access recently opened analysis applications in Design Studio.

Useful Links

This allows you to find useful information and access SAP Community Network, SAP Idea Place and SAP Help Portal.



Design Studio Navigation Views

When you start to create a new analysis application, you can see the following views in the Design Studio user interface:

Components View

This view provides you with a list of all the components that you can use to create a new analysis application. You can drag and drop different components in the layout to create the content of that application.

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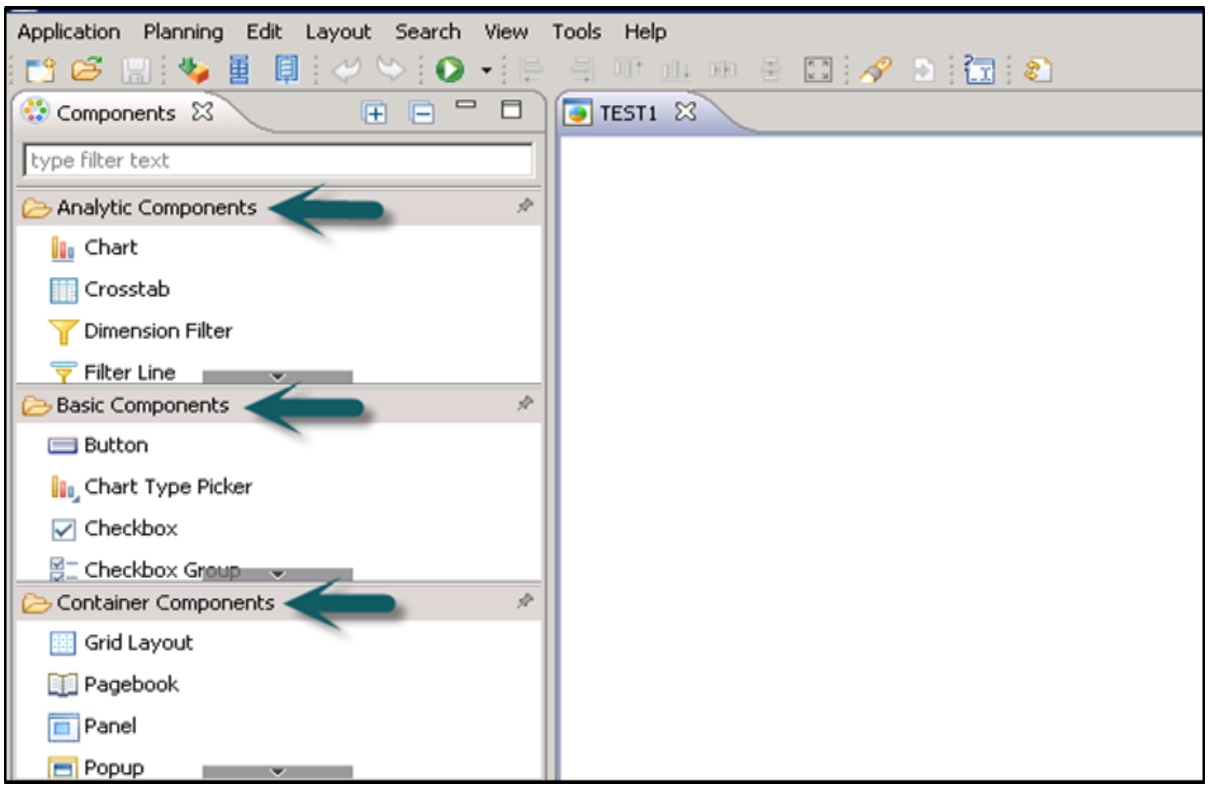
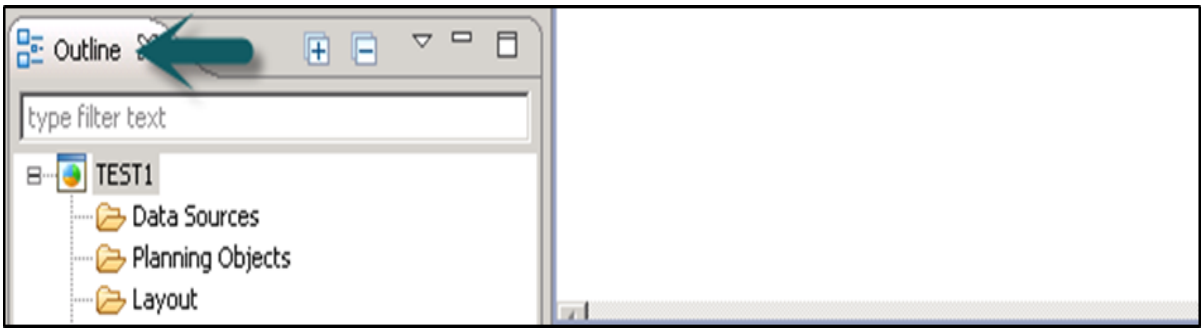
These components are grouped in different folders:

- **Analytic Components: You can use different analytic components like charts and cross tabs.**
-
- **Basic Components:** This folder contains basic components like check box, date field, image, input field, list box, etc.
-
- **Container Component:** This allows you to group and structure the content of an application.



Outline View

This view gives you a hierarchical structure of all objects in the currently active application. It consists of all the data sources and all the UI components.



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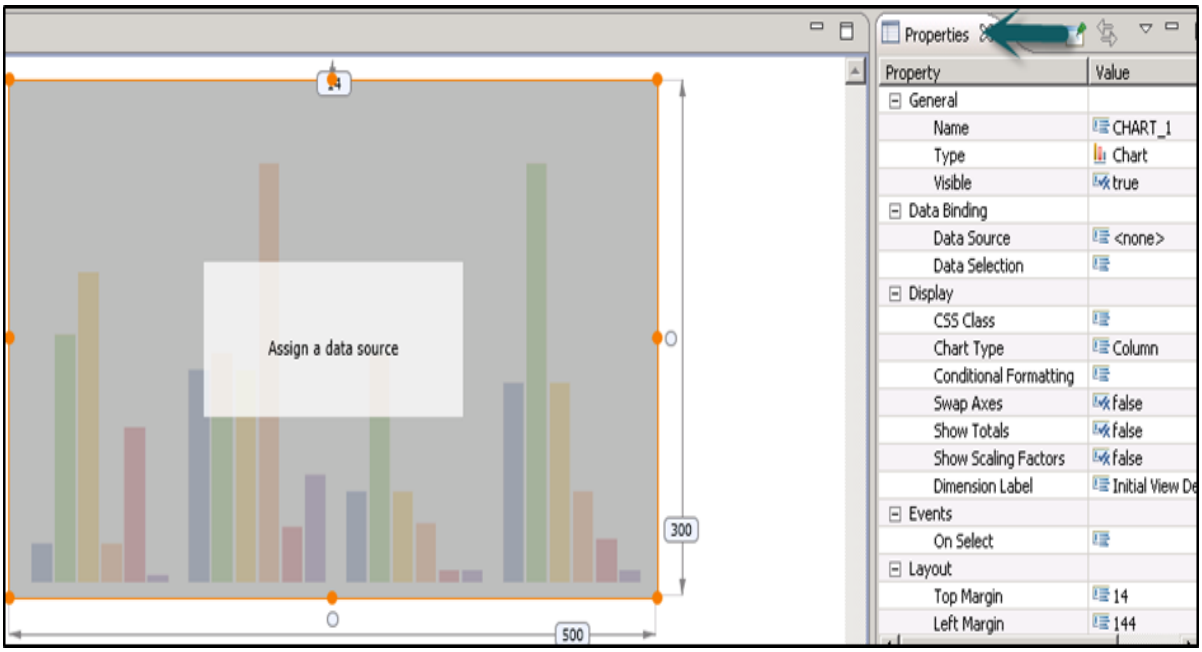
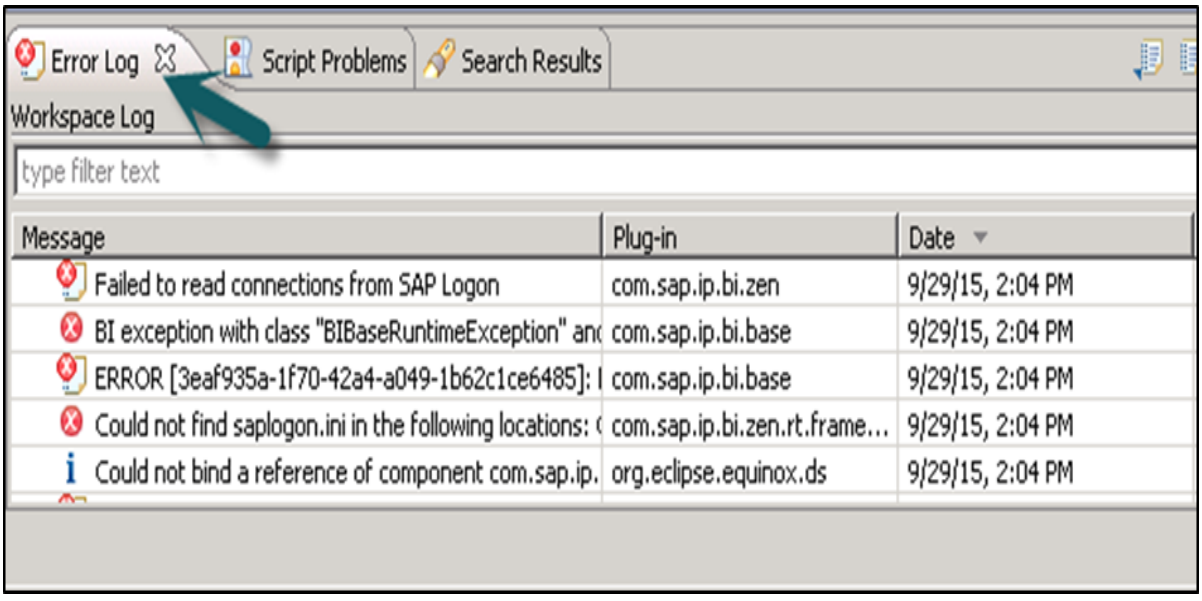
Properties View

This shows the properties of the currently active object in an analysis application. It displays the property of the currently selected object in an outline view tree node or in the component editor.



Error Log View

This is used to display general errors related to system or messages for script validation.



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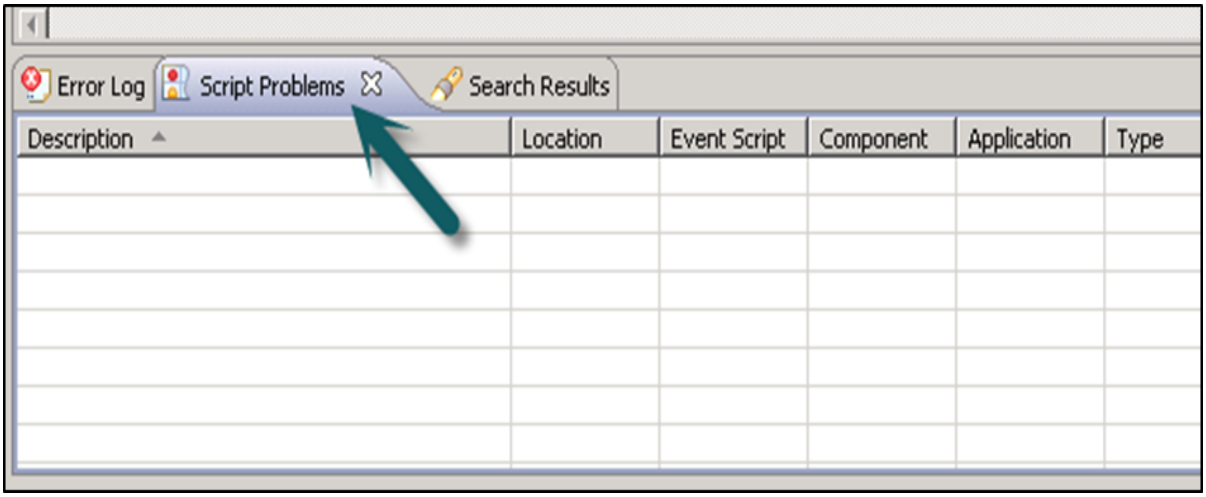
Problems View

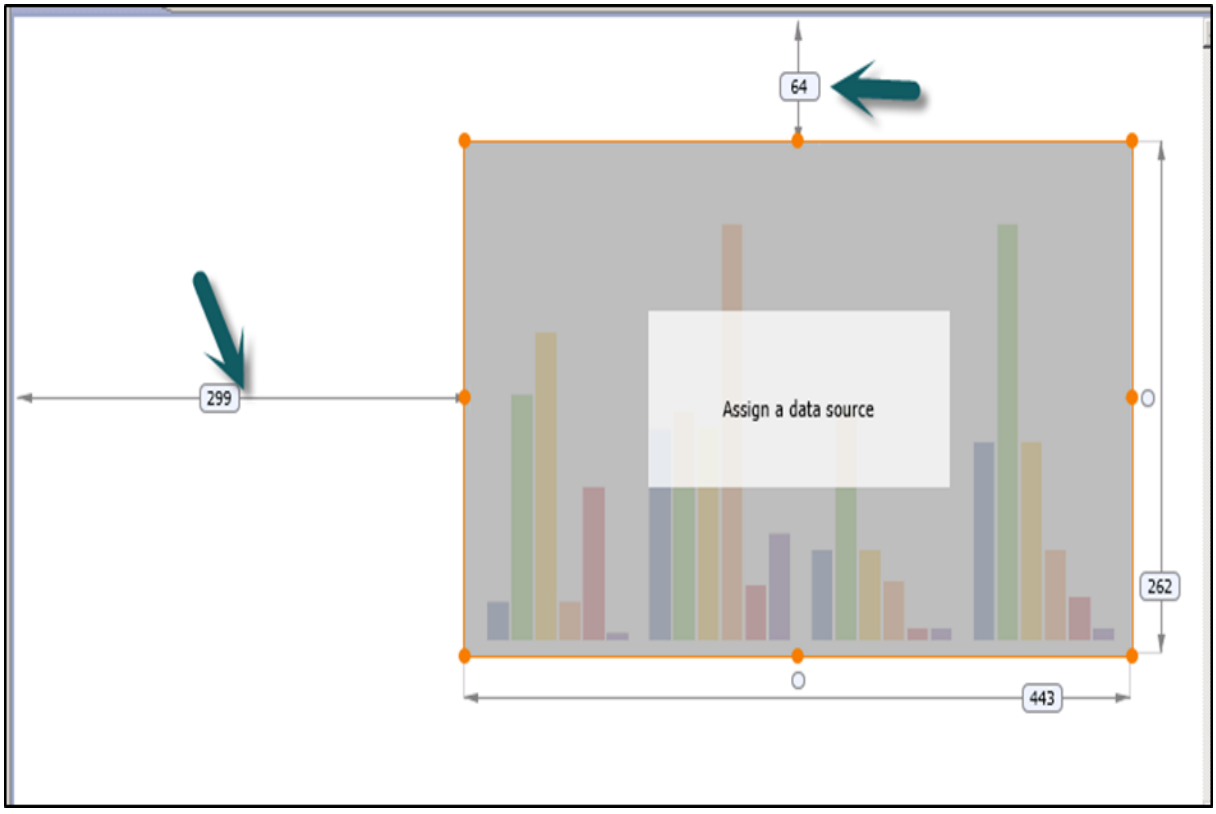
This is used to display the problem in scripting during the design time, when you save the application.



Layout Editor

For each application, an editor is opened that contains components for the application. When you make any changes to a component in editor area, it automatically reflects these changes to other views in the Design tool.

If you resize a component in the editor, it automatically changes the layout values under the Properties view of the Design tool. The same applies to the Outline and other views.



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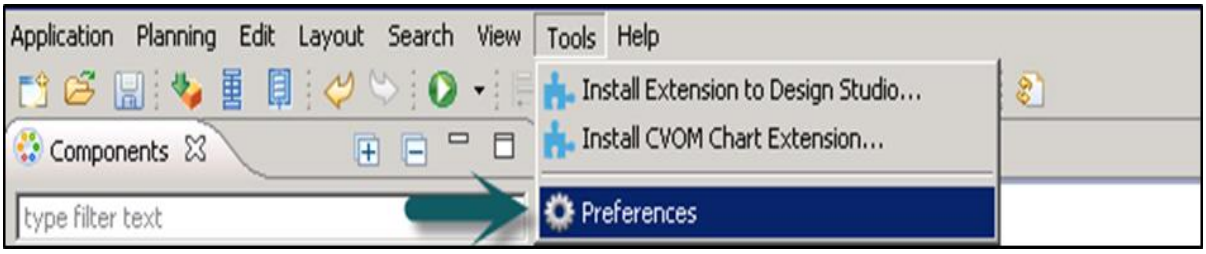
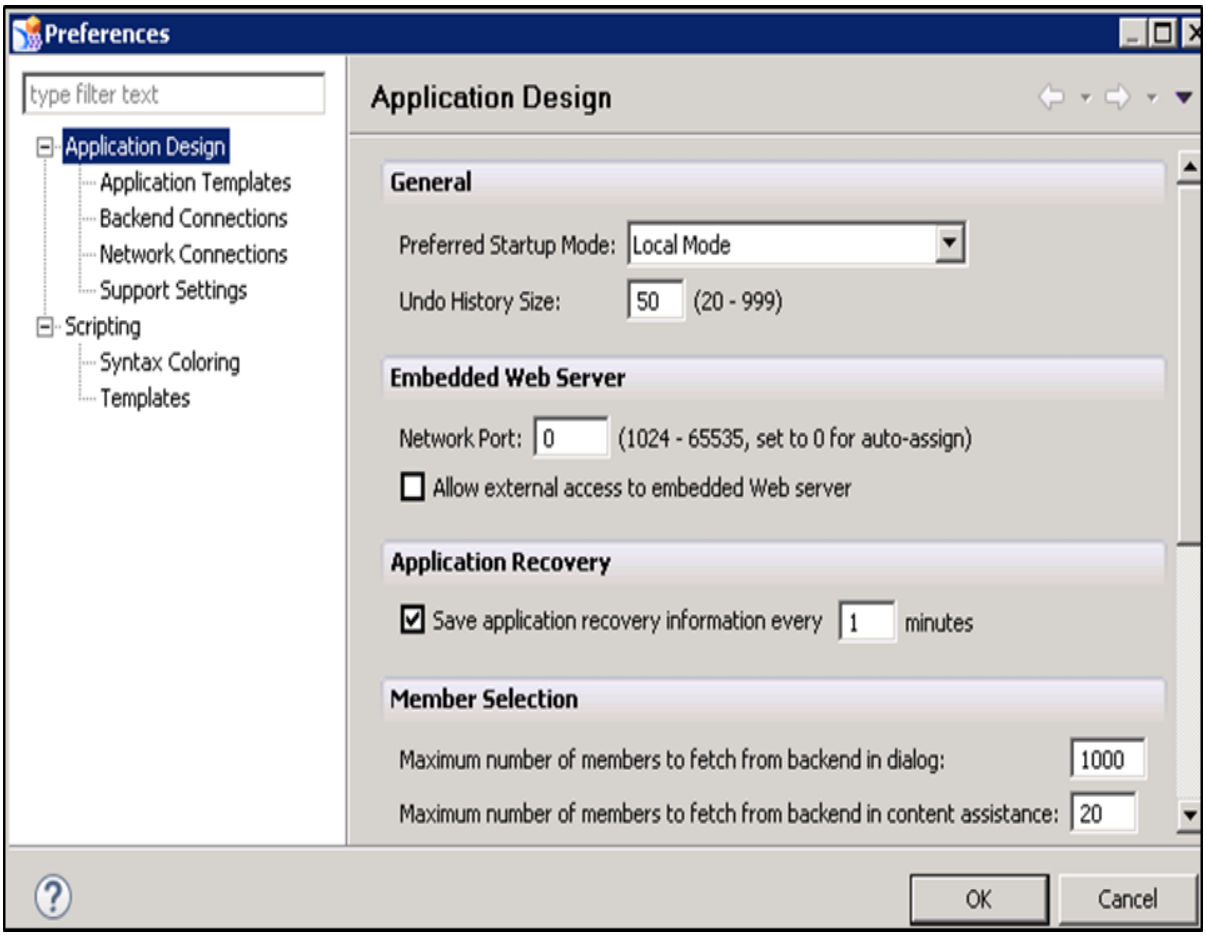
Maintaining Settings in the Design Tool

This is used to define the settings for a Design tool in the Preferences tab. To open the Preferences dialog box, go to **Tool -> Preferences -> Application Design.**





Storage of Applications and Images

Application files and images are stored in a folder on the BI platform. It is also possible to use images and logos in the analysis application from the internet.

- **Analysis Applications History:** The analysis applications history in the Application menu is persisted in your cache file **– <home directory>\.sap\com.sap.ip.bi\cache**.
-
- **Data Source History:** The data source history in the Add Data Source dialog box is persisted in **– <home directory>\.sap\com.sap.ip.bi\cache**.

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End of ebook preview

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