A Step by Step Guide for Creating a Basic Visual Composer Application

Applies to:

Visual Composer enhancement package 1 for SAP NetWeaver 7.3

Summary

This step-by-step guide will help you create a simple Visual Composer application. You can use this exercise in order to learn basic Visual Composer capabilities such as how to create a new Development Component and a new model, add Data Sources, customize the data which will be displayed and deploy the application.

Author: Yogev Lidor

Company: SAP

Created on: December 2008

Updated on: May 2012

Author Bio

Yogev is a Visual Composer Solution Expert working in the Visual Composer Solution Office.

Table of Contents

Overview

Visual Composer is a modeling tool. Therefore, it uses a model paradigm as opposed to traditional development languages which use projects. Models are reusable and can be consumed by other models of the same type. Service type models can be consumed also by composite view models as data sources.

Comments

In this example we will use simulated services. Simulated services are not real services, they are a representation of a service and they hold static data

Scenario Description

In this example, we will create an application that displays a list of customer names to the sales representative. The sales representative can get some additional information on specific customers

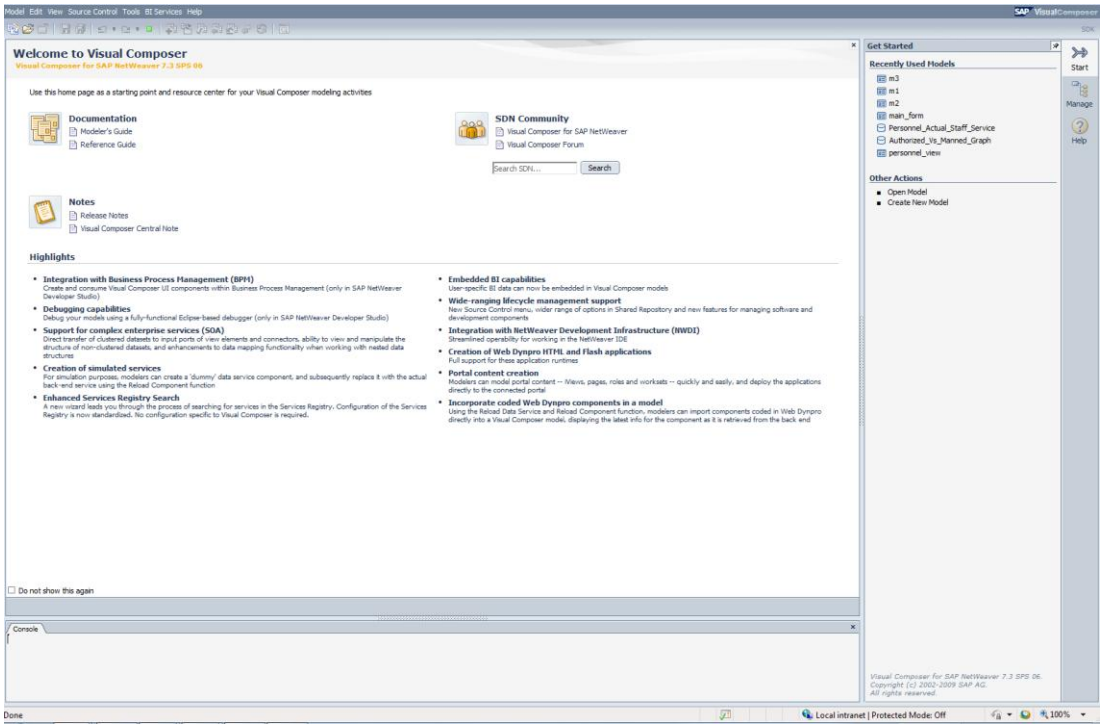
How to?

Logging on

To use Visual Composer, you activate a URL such as the following: `http://<host>:<port>/VC` and enter your user and password in the logon form:

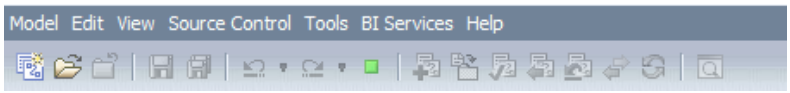
Window Structure

When you login to Visual Composer you get the following screen:

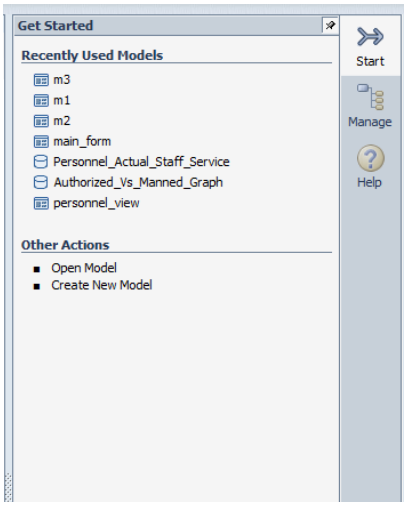


The screen is divided into several parts:

1. The main menu and main toolbar

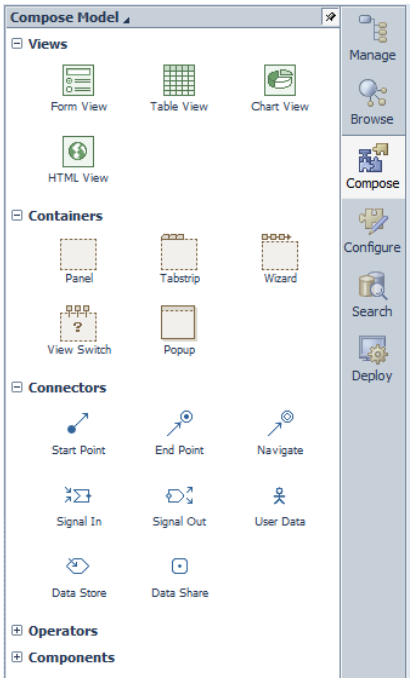


2. The right side panel

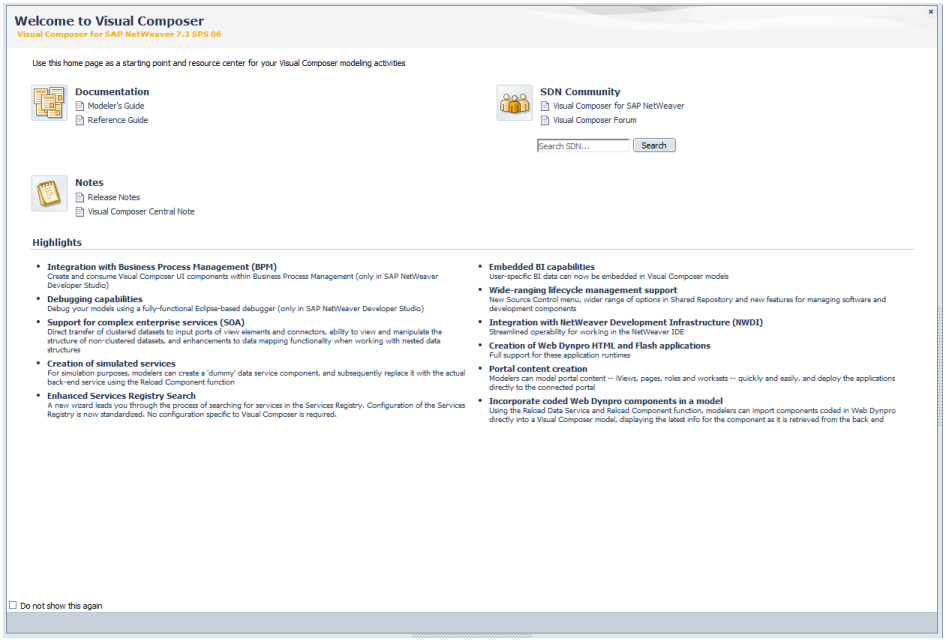


You can navigate between the different panels by clicking on the vertical toolbar.

After you will open/create a model, the toolbar will display other panels related to the different modeling options:



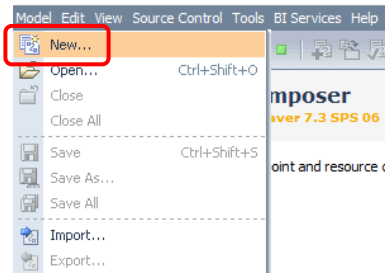
3. The Storyboard, which after login will display the Start screen, and will display a model Design and Layout when opening it



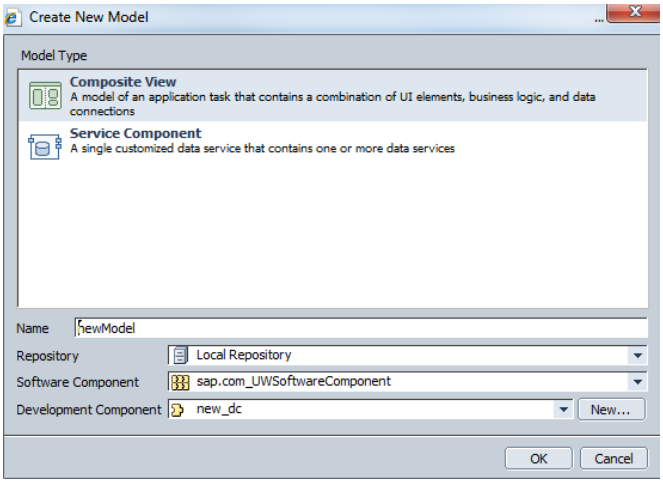
You can change some of the view options (like if to display the panel and its position) from the *View* menu

Create a new Model

1. From the Model menu, choose New



2. In the Create New Model dialog box:



   a. Choose the desired *Model Type*, for example *Composite View.* There are several types of models, depending on the Visual Composer kits that are installed on your Visual Composer server. The common ones are:

      i. *Composite View* – A model of an application task, that contains a combination of UI elements, business logic and data connections

      ii. *Service Component* – A single customized data service that contains one or more data services

   b. Enter the desired model *Name*, for example *newModel.*

   c. Select a *Repository*, for example *Local Repository*

   d. Select a *Software component* (refer to SAP component model), for example `sap.com_UWSoftwareComponent`

   e. Select a *Development Component* (refer to SAP component model) or create a new one using the *New* button, for example *new_dc*

3. Choose OK

The model is now open on your storyboard and you can start adding elements to it, such as views, operators, components and data sources

Modeling the application

Add a Data Source

Data Sources are the source of information for the application and can come from a number of different back-end systems. A Data Source can be one of several options:

- BI Data Source
- R3 Data Service

- Services Registry
- Visual Composer Components – Composite Views or Service Components created in Visual Composer and can be included in the model
- Web Services

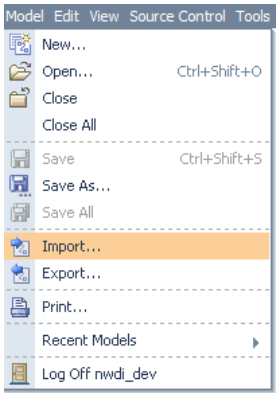
In order to consume the different data sources, there is a need to perform some preliminary configuration. For more information please refer to the *Configuring Visual Composer to Consume Data Sources* document.

For this example, we will use two simulated services as our data sources:

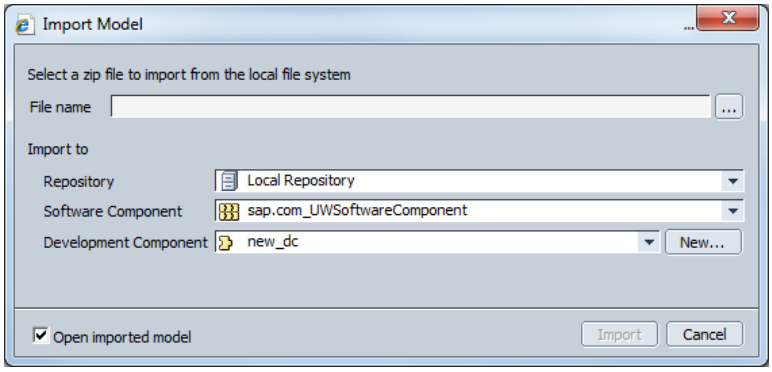
Customers (filename - **Customers.zip**): This service supplies the basic data about the customers (ID, Name and Surname).

Customers Details (filename - **Customers_Details.zip**): This service supplies more detailed information about the customers (ID, Email, Address, City and Phone).

In order to use these services as data sources for our application, we first need to import them. To do so, open the *Model* menu from the top menu and select *Import*:



In the *Import Model* dialog box, select the DC to which you would like to import the model



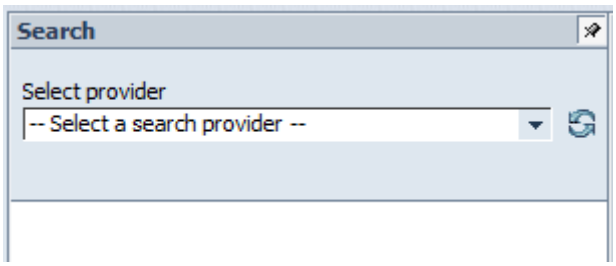
Select the **Customers.zip** file (link to download above) and click the *Import* button.

To import the second service, repeate the same steps, but this time select the **Customer_Details.zip** file (also link above).

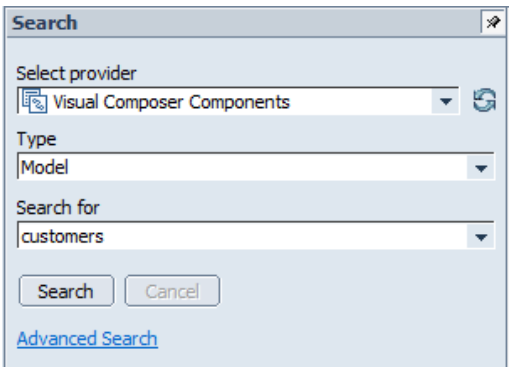
On the upper part of you storyboard you can now see three open tabs:

You new model, Customers (a simulated service) and Cusromers_Details (a simulated service)

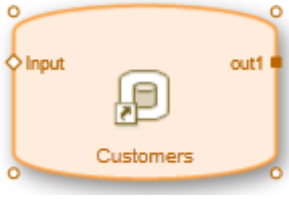
To add the imported services as data sources to your model, select the left tab (your model name). Then open the *Search* panel by clicking the *Search* button on the right side panel.



Fill in the fields as follows and click *Search*:



Drag the service from the Results window to the storyboard:

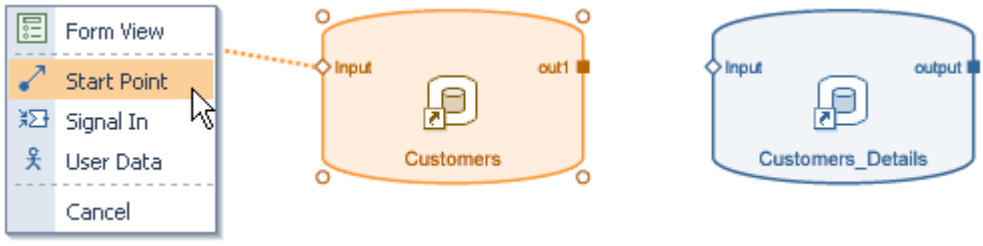


In the same way, search for the *Customers_details* service and drag it onto the storyboard:

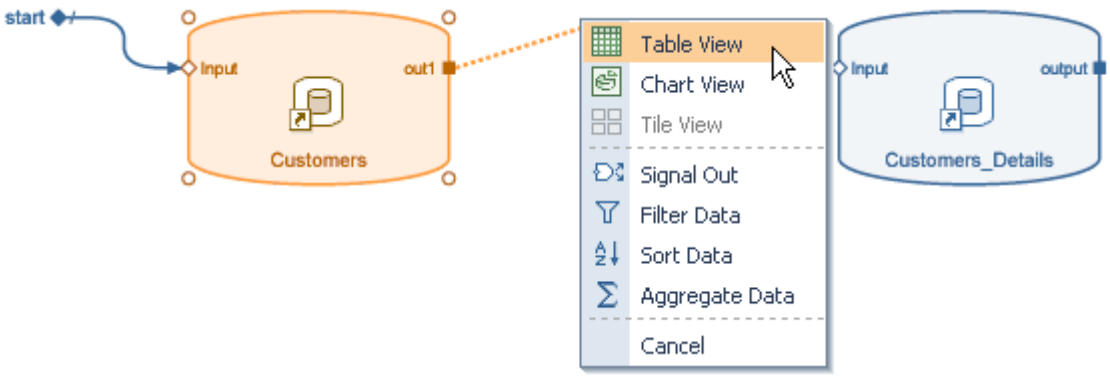
Add a View

To display the information provided by the data source on the screen, you need to add a view. For example, if you would like to display the content of the data service in a form of table, you need to initiate the *Customers* service and create a table containing all the documents.

To do that, drag a line out of the *Input* port of the *Customers* service and from the dropdown menu select *Start Point*:

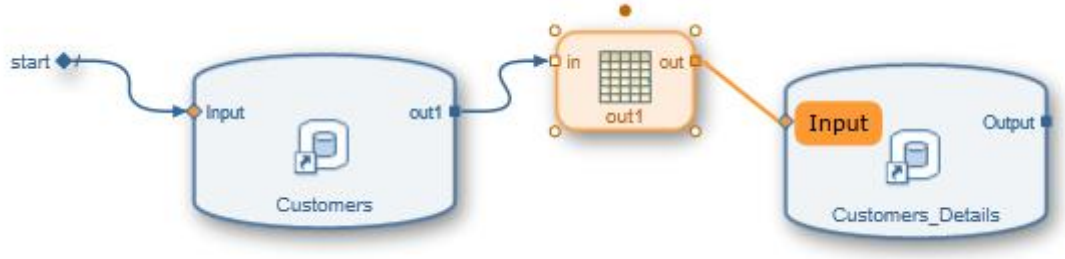


To display the data in a table, drag a line out of the *Customers* service and from the dropdown menu select *Table View*:



Link the data services

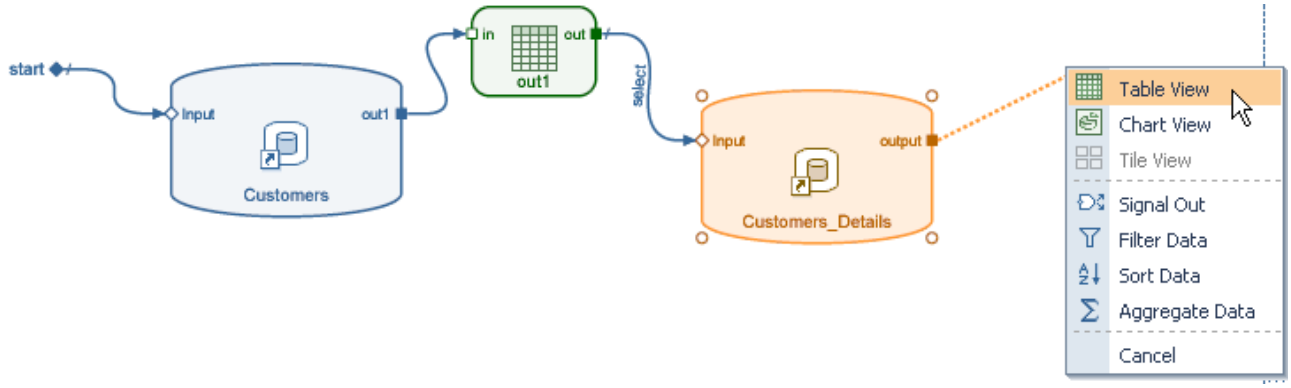
In order to link the two data services and make one service to act as the input for teh second service, drag a line out of the *out1* table to the *Input* port of the *Customers_Details* service:



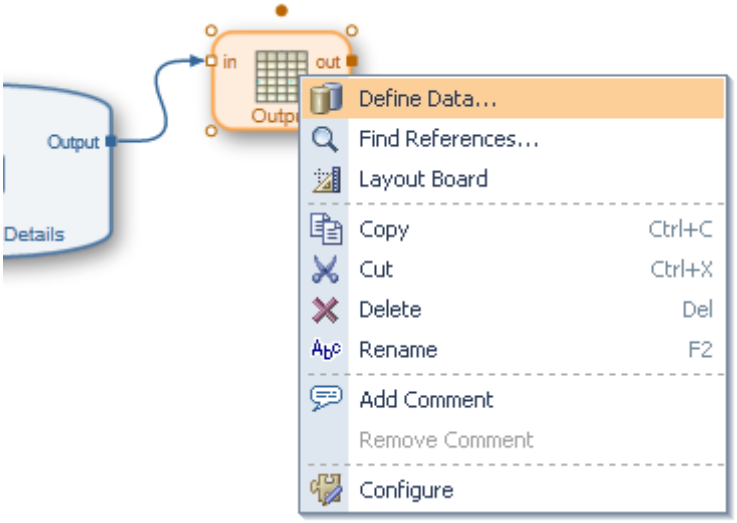
A new line with the *select* event *is* now linking the *out1* table with the *Input* port, which means that that the selected line in the table view is the input for the *Customers_Details* service.

Add additional view

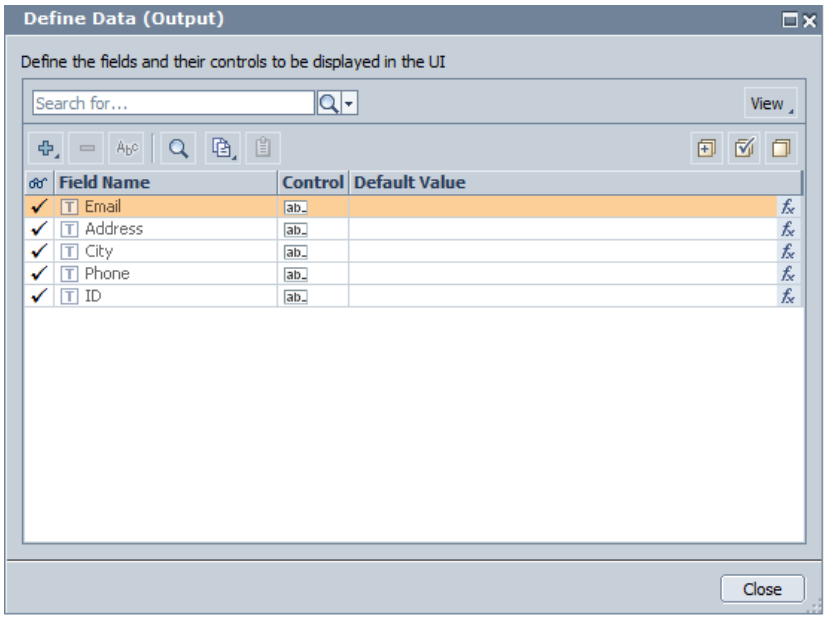
Drag a line out of the *output* port of the *Customers_Service* and from the dropdown menu select *Table View*:



The customer ID is shown in both tables. To prevent data duplicity, right-click the *output* table and from the dropdown menu select *Define Data*:

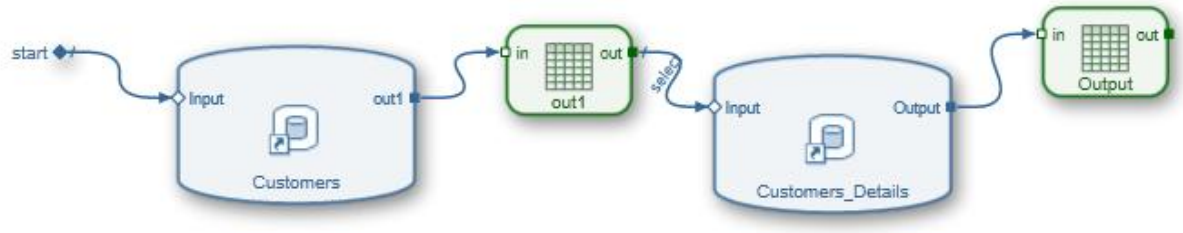


In the *Define Data* dialog box uncheck the ID box and click *Close*:



Deploying the application

The final model will look as follows (see a link to download the model in the Related Content):



You can now Deploy and Run you application.

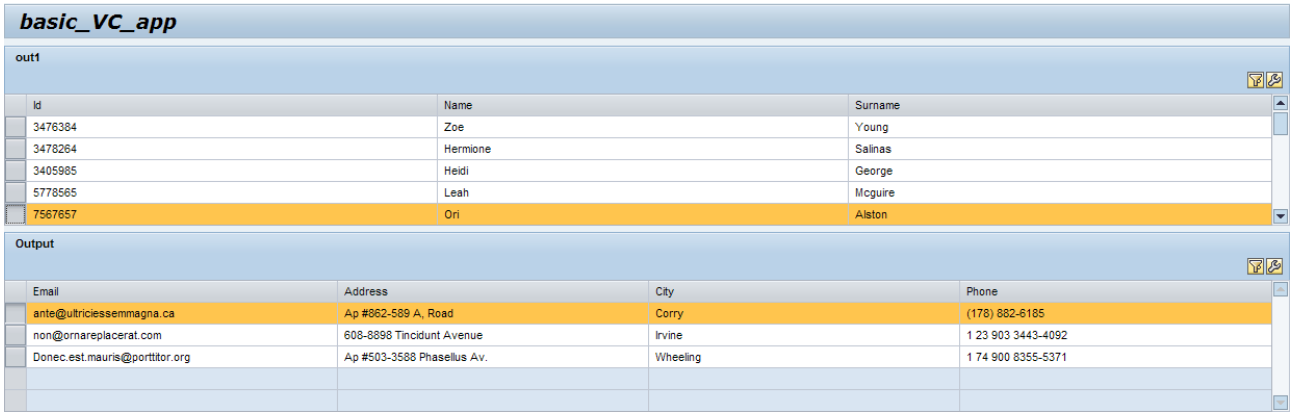
To do that, open the *Deploy* panel by clicking the *Deploy* button on the right side panel.

Click the *Deploy* button to trigger the application deployment.

To run the application you can either click the *Preview* button or click of one of the links of the deployed model for HTML or FLEX

The Runtime Application

The runtime application includes both tables. The top table holds a unique record for each customer and the buttom table supplies detaild information about each selected customer from the top table. As you can see, one person can have more than one address, phone and Email:



How does it Work?

The start point triggers the *Customers* service.

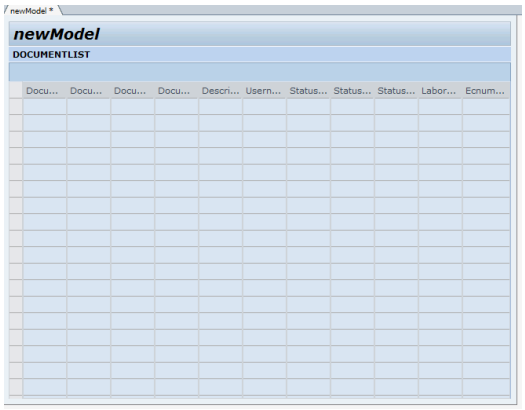
The *Customers* service fills in the out1 table.

A selected row in out1 table triggers the *Customers_Details* service.

The *Customers_Details* service presents the selected customer details in the *output* table.

Editing the Layout

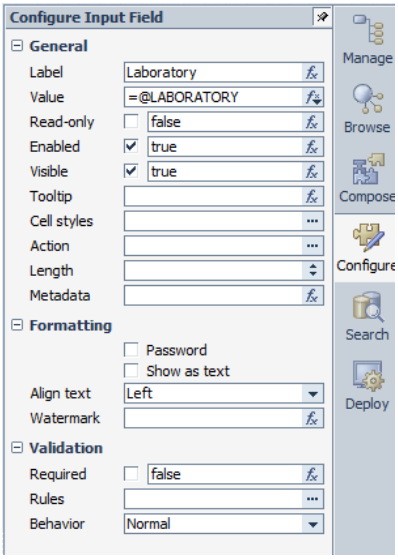
You can modify the way the application will be displayed to the user by editing the layout. You do that by clicking the clicking the Layout tab in the bottom of your storyboard and switching to the *Layout* board. The layout view will open:



In the *Layout* board you can change the location of views (such as tables and forms) by dragging them. You can change the fields and columns order in each table/form.

In addition, you can change certain properties of columns and fields,

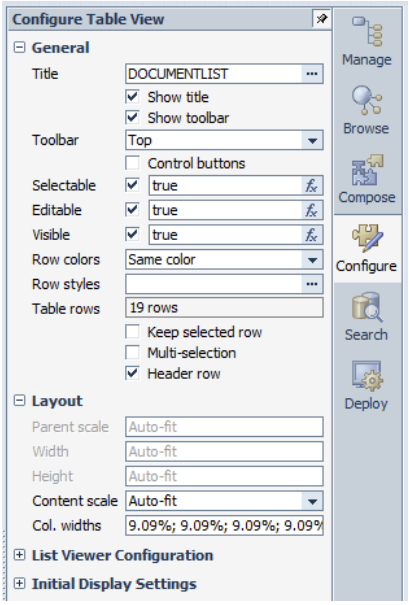
For example, if you want to change certain properties of a column, you can either double click the column or choose the *Configure* option from the context menu. The *Configure Input Field* panel will be displayed:



Here you can set the different properties, for instance:

- Label – column title
- Value – the source for the column content
- Visible – is the column displayed
- Tooltip – add a tooltip to be displayed when hovering over the column
- Cell styles – set the styling (font and color), the styling can be based on certain condition
- Show as text – relevant for numerical fields
- Align text – text alignment of the cell content

In the same way, you can open the configuration panel for the entire table:



Here you can set the different properties, for instance:

- Title – table title
- Show title – should the title be displayed or not
- Show toolbar – should the toolbar be displayed or not
- Toolbar – location of the toolbar
- Control buttons – when checked, will automatically add two buttons to the table toolbar: Add and Delete
- Visible – is the table displayed
- Row colors – you can choose one of three options: same color, alternating colors or transparent
- Row styles - set the styling (font and color), the styling can be based on certain condition
- Multi-selection – enables the user to select more than one table row
- Header row – whether or not to display the columns' titles
- Content scale – you can choose if the content scale is Auto-fit or Fixed. When selecting Auto-fit, the columns size will be adjusted according to the window size. When selecting Fixed, the column size will stay the same, without considering the window size. According to the method chose, the Column width will change from percentage to pixels

For more information of editing the layout, please refer to Visual Composer's Layout document

In addition to displaying the data in a table, you can add additional fields in the certain operators that will affect the data which is being displayed. For example, you can add a filter that will cause the table to display a certain document type.

Related Content

Configuring Visual Composer to Consume Data Sources document in 7.11, 7.2 and 7.3 NetWeaver releases

Visual Composer Layout

Visual Composer basic application – The full model

Copyright