

Operations Bridge Reporter

Software Version: 10.22 Windows® and Linux operating systems

OBR Content Designer Guide

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Introduction to Content Development

Operations Bridge Reporter (OBR) Content Development Environment (CDE) is a platform, which enables a content developer to create content packs that can be deployed on OBR platform. Content packs are datamarts that are deployed on OBR platform; content packs are broadly categorized as ETL, domain and application components.

The Content Development Environment (CDE) consists of a set of utilities for developing content. These utilities use XML files authored by the content pack developer or XML files auto-generated by OBR Content Designer to generate the installable Content Pack component packages.

Content can be developed in either of the following ways:

• Content Designer - An interactive user interface to generate content quickly.

OBR Content Designer uses a **simplified method** of creating a content pack and allows you to create Domain, ETL and Application components at the same time. The simplified method supports CSV files, generic database, and Operations Agent as the datasources for content creation.

The **simplified method** can be used by a content developer to develop end-to-end (Domain, ETL, and Application) content pack for a new domain. The following conditions have to be satisfied for creating content:

• When a content has fact tables that are associated with one or more dimensions (star schema) and the dimensions are not further normalized (dimensions without a parent table).



- When all the facts are to be reconciled against host (when Operations Agent is the datasource).
- When the generated reports do not require any roll up or drill down of data.
- Command-based CDE a command-based utility for expert users to create content.

For more information, see Operations Bridge Reporter Content Development Guide.

Content Designer Overview

OBR Content Designer uses the simplified method of creating a content pack and allows you to create, deploy, and install Domain, ETL, and Application components from the following datasources:

- CSV files
- Generic database
- Operations Agent

OBR Content Designer can be used in following scenarios:

With OBR:

- OBR on Windows Operating System
- OBR on Linux Operating System

Without OBR:

• Standalone (Non-OBR) on Windows Operating System

Installing and Deploying the Content Designer

This section helps you with the steps to install and deploy the Content Designer.

Downloading Content Development Environment (CDE)

Follow these steps to download Content Designer:

1. Log on to the following location using your HPE Passport credentials:

ITOM Marketplace

To register for an new ID, click Sign up.

2. Scroll down the **OBR Content Development Environment** page. Under **Releases**, click the latest version to expand.

Note: Content packs created using the CDE Version 10.20.004 can be deployed on OBR 10.20 or later versions only.

- 3. Click and download the following .zip file for Windows or the .tar for Linux:
 - OBRCDE-10.20.004-Win5.2_64.zip
 - OBRCDE-10.20.004-Linux2.6_64.tar

Installing and Deploying Content Designer on OBR System

This section provides information about deploying the downloaded OBR Content Development Environment files on a Windows or Linux system as per your requirement.

Installation Prerequisites

Perform the following before you start installing and deploying OBR Content Designer on a Windows system:

• Ensure that SAP BusinessObjects 4.x or SAP BusinessObjects ClientTools (BusinessObjectsXI-4.1-Clienttools.zip) is installed on a Windows system where you want to deploy OBR Content Designer.

You can download BusinessObjectsXI-4.1-Clienttools.zip from OBR media (OBR bits) folder.

- Set the BusinessObjects environment variable (BO_HOME):
 - a. On your Windows system, go to Control Panel> System and Security > System.
 - b. Click Advanced system settings.
 - c. Click Advanced tab, and then click Environment Variables.

OBR Content Designer Guide Installing and Deploying the Content Designer

System Properties
Computer Name Hardware Advanced System Protection Remote
You must be logged on as an Administrator to make most of these changes.
Performance Visual effects, processor scheduling, memory usage, and virtual memory
<u>S</u> ettings
User Profiles
Desktop settings related to your logon
Settings
Startup and Recovery
System startup, system failure, and debugging information
Settings
Environment Variables
OK Cancel Apply

d. Click New in System Variables.

The New System Variable dialog box is displayed.

onment Variable	s E
New System Varia	able
Variable name:	BO_HOME
Variable value:	"C: \Program Files (x86) \SAP BusinessObject
ystem variables	OK Cancel
ystem variables Variable	OK Cancel
ystem variables Variable ComSpec	OK Cancel
ystem variables Variable ComSpec DEFLOGDIR FP_NO_HOST_C	OK Cancel Value C: \windows\system32\cmd.exe C: \ProgramData\McAfee\DesktopProtec NO
ystem variables Variable ComSpec DEFLOGDIR FP_NO_HOST_C JAVA_HOME	OK Cancel Value C: \windows\system32\cmd.exe C: \ProgramData \McAfee\DesktopProtec NO C: \ProgramData \Adobe \CS5\jre
ystem variables Variable ComSpec DEFLOGDIR FP_NO_HOST_C JAVA_HOME	OK Cancel Value ^ C: \windows\system32\cmd.exe ^ C: \ProgramData \McAfee \DesktopProtec ^ NO C: \ProgramData \Adobe \CS5 \jre New Edit Delete

- e. In the Variable Name box, type BO_HOME.
- f. Specify the BO ClientTools path in the Variable value in double quotes (" ").

```
"<BO install drive>:\Program Files (x86)\SAP BusinessObjects\SAP
BusinessObjects Enterprise XI 4.0"
```

g. Click OK.

Installing on Windows

To instal the Content Designer on your system, follow these steps:

- 1. Copy the downloaded OBRCDE-10.20.004-Win5.2_64.zip file to the system where you want to deploy OBR Content Designer.
- 2. Extract the contents of the .zip file to view the HPSHRCDE-10.20.004-Win5.2_64.msi file.
- 3. Double-click the HPSHRCDE-10.20.004-Win5.2_64.msi file and follow the instructions on the installation wizard.
- 4. Select < OBR_Installation_Folder > to place the CDE.exe.

5. From OBR installation directory, double-click the CDE.exe file.

The contents of the CDE.exe file are extracted to the CDE folder.

閿	HP SHR Content Development Environme	nt 🗙
Destinatio Click Next to	on Folder install to these folders	Hewlett Packard Enterprise
	Install HP SHR Content Development Environment product files C:\HPE-OBR\	to: Change
<u></u>	Install HP SHR Content Development Environment data files to: C:\ProgramData\HP\BSM\	Change
	< Back Next >	Cancel

Caution: Ensure that the selected path does not contain spaces.

6. Open the command prompt, go to <*CDE_Folder*>\bin folder,

where <*CDE_Folder*> is the path where you have extracted CDE.exe.

- 7. Go to %CDE_HOME%\cdeConsole folder.
- 8. Run the deploy.bat command.

The following message appears on successful deployment:

HPE Operations Bridge Reporter Content Designer Deployment complete

9. Run the start.bat command.

The following message appears if the server starts successfully:

Content Designer has been started successfully.

If the message exits and the command prompt appears, go to %CDE_HOME%\cdeConsole\logs and check the server.log and server_err.log files for any errors.

Note: Do not close the CDE console after running the start.bat command; this will shut down the Content Designer. Close the console only after completing your content

development process using the Content Designer.

OBR Content Designer is now deployed successfully. Go to "Getting Started" on page 19 for creating content.

Installing on Linux

To install and deploy the Content Designer on a Linux system, follow these steps:

- 1. Copy the downloaded OBRCDE-10.20.004-Linux2.6_64.tar file to the system where you want to deploy OBR Content Designer.
- 2. Run the following command to extract the contents of the .tar file.

untar OBRCDE-10.20.004-Linux2.6_64.tar

The HPSHRCDE-10.20.004-Linux2.6_64.rpm file is extracted.

- 3. Copy the HPSHRCDE-10.20.004-Linux2.6_64.rpm file to the \$PMDB_HOME/.. directory.
- 4. Run the rpm -Uvh HPSHRCDE-10.20.004-Linux2.6_64.rpm command to extract the contents of the .rpm file.

The CDE.zip file is copied to the \$PMDB_HOME/.. directory.

Note:

If you already have CDE previous versions on your system, perform the following:

a. Run the following command to check if CDE is installed on your system:

rpm -qa | grep HPSHRCDE

The existing CDE file name will be displayed. Example: HPSHRCDE-10.01.000-1.x86_64

b. Uninstall CDE using the following command:

```
rpm -ev <existing_rpm_name>
```

Example rpm -ev HPSHRCDE-10.01.000-1.x86_64

c. Run the following command to install the latest CDE:

rpm -Uvh HPSHRCDE-10.20.004-Linux2.6_64.rpm

- 5. Go to OBR installation directory: **\$PMDB_HOME/..** directory.
- 6. Unzip the CDE.zip file.

The contents of the CDE.zip file are extracted to the CDE directory.

7. Go to <*CDE_Directory*>/bin directory,

where <*CDE_Directory*> is the path where you have extracted CDE.zip.

- 8. Change the permission of the .sh files using the chmod a+x *.sh command.
- 9. Run the source ./setenv.sh command.
- 10. Go to *\$CDE_HOME*/cdeConsole directory and change the permission of the .sh files using the chmod a+x *.sh command.
- 11. Run the ./deploy.sh command.

The following message appears on successful deployment:

HPE Operations Bridge Reporter Content Designer Deployment complete

12. Run the ./start.sh command.

Note: Do not close the CDE console after running the start.bat command; this will shut down the Content Designer. Close the console only after completing your content development process using the Content Designer.

If the command line exits and the command prompt appears, go to \$CDE_ HOME/cdeConsole/logs and check the server.log and server_err.log files for any errors.

OBR Content Designer is now deployed successfully. Go to "Getting Started" on page 19 for creating content.

Tip: You can view the Content Designer logs in the {CDE_HOME}\cdeConsole\logs folder. Other content development logs are available in the {CDE_HOME}\cde.log folder.

Installing and Deploying Content Designer on a Non-OBR System

This section provides information about deploying the downloaded OBR Content Development Environment files on a Windows or Linux system as per your requirement.

Installation Prerequisites

Perform the following before you start installing and deploying OBR Content Designer on a non-OBR system:

• Ensure that SAP BusinessObjects 4.x or SAP BusinessObjects ClientTools (BusinessObjectsXI-4.1-Clienttools.zip) is installed on a Windows system where you want to deploy OBR Content Designer.

You can download BusinessObjectsXI-4.1-Clienttools.zip from OBR media (OBR bits) folder.

- Set the BusinessObjects environment variable (BO_HOME):
 - a. On your Windows system, go to Control Panel> System and Security > System.
 - b. Click Advanced system settings.
 - c. Click Advanced tab, and then click Environment Variables.

System Properties		-	-	X		
Computer Name	Hardware	Advanced	System Protection	Remote		
You must be lo	gged on as a	an Administrat	tor to make most of th	hese changes.		
Performance						
Visual effects	, processor s	cheduling, m	emory usage, and vir	tual memory		
				<u>S</u> ettings		
- User Profiles -						
Desktop setti	ngs related to	o your logon				
				S <u>e</u> ttings		
Startup and R	ecovery					
System startu	p, system fai	lure, and deb	ugging information			
				Settings		
			Environme	ent Variables		
	OK Cancel Apply					

d. Click New.

The New User Variable dialog box is displayed.

onment Variable	s
New System Varia	able
Variable name:	BO_HOME
Variable value:	"C:\Program Files (x86)\SAP BusinessObject
vstem variables	OK Cancel
ystem variables Variable	Value
ystem variables Variable ComSpec	Value C:\windows\system32\cmd.exe C.\Windows\system32\cmd.exe
ystem variables Variable ComSpec DEFLOGDIR FP_NO_HOST_C	Value C:\windows\system32\cmd.exe C:\ProgramData\McAfee\DesktopProtec NO
ystem variables Variable ComSpec DEFLOGDIR FP_NO_HOST_C JAVA_HOME	Value C:\windows\system32\cmd.exe C:\ProgramData\McAfee\DesktopProtec NO C:\ProgramData\Adobe\CS5\jre
ystem variables Variable ComSpec DEFLOGDIR FP_NO_HOST_C JAVA_HOME	OK Cancel Value A C:\windows\system32\cmd.exe C:\ProgramData\McAfee\DesktopProtec NO C:\ProgramData\Adobe\CS5\jre New Edit

- e. In the Variable Name box, type BO_HOME.
- f. Specify the BO ClientTools path in the Variable value in double quotes (" ").

```
"<BO install drive>:\Program Files (x86)\SAP BusinessObjects\SAP
BusinessObjects Enterprise XI 4.0"
```

g. Click OK.

Installing On Windows

To install and deploy the Content Designer on your Windows system, follow these steps:

- 1. Copy the downloaded OBRCDE-10.20.004-Win5.2_64.zip file to the system where you want to deploy OBR Content Designer.
- 2. Extract the contents of the .zip file to view the HPSHRCDE-10.20.004-Win5.2_64.msi file.
- 3. Double-click the HPSHRCDE-10.20.004-Win5.2_64.msi file and follow the instructions on the installation wizard.

The CDE.exe file is placed in the folder you select.

Caution: Ensure that the installation path you select does not contain any spaces.

4. Double-click the CDE.exe file and select the path to extract contents of theCDE.exe file.

The content of the CDE.exe file are extracted to the folder you have selected.

5. Open the command prompt, go to <*CDE_Folder*>\bin folder,

where <*CDE_Folder*> is the path where you have extracted CDE.exe.

- 6. Set BusinessObjects environment variable:
 - a. Go to Control Panel > System and Security > System.
 - b. Click Advanced system settings.

The System Properties dialog box appears.

- c. Click Advanced tab > Environment Variables.
- d. Click New and specify the Variable name as BO_HOME.
- e. Specify the **Variable value** as the path where BusinessObjects ClientTools is installed on your system.
- f. Click OK.
- 7. Run the setenv.bat command and specify the following while prompted:
 - CDE_HOME the path where you have extracted CDE.exe
 - JRE_HOME the path where JAVA is installed on your system

Caution: Ensure that your JRE_HOME path does not contain spaces.

- 8. Go to %CDE_HOME%\cdeConsole folder.
- 9. Run the deploy.bat command.

The following message appears on successful deployment:

HPE Operations Bridge Reporter Content Designer Deployment complete

10. Run the start.bat command.

The following message appears if the server starts successfully:

Content Designer has been started successfully.

Note: Do not close the CDE console after running the start.bat command; this will shut down the Content Designer. Close the console only after completing your content development process using the Content Designer.

OBR Content Designer is now deployed successfully. Go to "Getting Started" on the next page for creating content.

Tip: You can view the Content Designer logs in the {CDE_HOME}\cdeConsole\logs folder.

Getting Started

The OBR Content Designer consists of the following:

- "Content Designer Home Page" on the next page
- "Creating Content Pack Using Content Workspace" on page 22
- "Settings" on the next page

Log on to Content Designer

- 1. Open Google Chrome or Mozilla Firefox browser.
- 2. Launch the OBR Content Designer using the following URL:

http://<FQDN>:3000/

where <FQDN> is the hostname of the system where OBR Content Designer is deployed.

The OBR Content Designer log in screen appears.

Hewlett Packard Enterprise					
OPER/	ATIONS BRIDGE REPORTER				
	CONTENT DESIGNER				
	admin				
-					
٩	•••••				
0.0015.000	LOGIN				
© 2015-201	6 Hewlett Packard Enterprise Company, L.P.				

3. Type **admin** as username and **admin** as password.

OBR Content Designer Guide Getting Started

4. Click LOGIN.

The Content Designer Home Page appears.

Content Designer Home Page

The Home page provides navigation to the features of OBR Content Designer. The Home page contains links to create new content and to access CDE help and to download report templates for easy content development.

Home Page Options

The following table lists the home page options:

Option/Link	Description
Content Workspace	The Content Workspace link takes you to the workspace to create your content from the various data sources.
Settings	This link directs you the Settings page to specify your preferences for OBR server, Vertica database, and SAP Business Objects server.
പ്പ	User -Displays the details of the user logged on to Content Designer at present.
?	Help- Displays the OBR Content Designer online help.

Settings

Note: You must configure settings before you start creating content on the Content Workspace.

To configure the settings, follow these steps:

1. On the Content Designer home page, click Settings.

The Settings page is displayed.

Set	tings	
W	orkspace Settings	
	OBR Server Details	
	hostname Test OBR Server	
	J Vertica Database Server Details	
	hostname username password Database Name Database Schema Name Test DB Connection	
	SAP Business Objects Details	
	hostname username password CONNECTION	

- 2. Under **OBR Server Details**, perform the following:
 - a. Type the OBR server host name.
 - b. Click Test OBR Server to check if OBR system is running.

The OBR Server is running. message is displayed.

If the OBR server is down. message is displayed, check the OBR server details you have entered and try again.

- 3. Under Vertica Database Server Details, perform the following:
 - a. Type the OBR database host name.

Note: On your Windows system, go to C:\...drivers\etc folder (Example: C:\Windows\System32\drivers\etc), open the hosts file and type your database host name.

- b. Type the database username and password.
- c. Type OBR Vertica Database Name and Database Schema Name.

Save Settings

Note: If OBR 10.22 Patch is not installed and OBR Content Designer 10.01 is deployed on your system, ensure that the Database Schema Name specified is Public. If OBR 10.22 Patch is deployed, you must specify database schema name as obr.

d. Click Test DB Connection to check if OBR database is available.

The Connection Successful. message is displayed.

If the Connection Failed message is displayed, check the OBR database details you have entered and try again.

If the connection fails, view the log file at {CDE_HOME}\cdeConsole\logs\server_err.log.

- 4. Under SAP Business Objects Details, type the following SAP BusinessObjects information:
 - a. Type the SAP BusinessObjects host name.
 - b. Type the SAP BusinessObjects username and password.
 - c. Type the Connection name.

Note: Ensure that the Connection name is OBR_CONNECTION.

5. Click Save Settings.

Wait till the following message is displayed:

) Saving. Please wait..!!

The Save Successful message is displayed. You can now start creating content packs.

If the Save Unsuccessful message is displayed, check the settings and try again.

Creating Content Pack Using Content Workspace

Note: Before creating content, you must configure settings on the "Settings" on page 20.

The Content Workspace provides options to create content from the following datasources:

OBR Content Designer Guide Creating Content Pack Using Content Workspace

- Operations Agent as a Datasource
- CSV File as Datasource
- Database as a Datasource

Content Workspace consists of the following features:

lcon	Name	Description
*	Create New Content	Start creating a content pack by selecting the datasource and specifying content attributes.
۶	Edit Content	Modify a content pack created by the Content Designer using an XML editor.
Q	Build Content	Re-build one or more modified content packs.

Before You Begin

Note:

- Identify the data source containing metrics that are suitable to be fed into the domain data model. For more information on designing the data model, see *Operations Bridge Reporter Content Development Guide*.
- Ensure table names are unique across your content development in OBR.

Before you launch the Content Designer, ensure you perform the following:

1. Using command prompt, log on to the location where you have deployed OBR Content Designer.

On Windows

a. Open the command prompt and go to <*CDE_Folder*>\bin folder,

where <*CDE_FoLder*> is the path where you have extracted CDE.exe.

- b. Run the setenv.bat command.
- c. Go to %CDE_HOME%\cdeConsole folder.
- d. Run the start.bat command.

The following message appears if Content Designer starts:

Content Designer has been started successfully

On Linux

a. Open command prompt and go to <*CDE_Folder*>/bin directory,

where <CDE_Folder> is the path where you have extracted CDE.zip.

- b. Run the source ./setenv.sh command.
- c. Go to <CDE_Folder>/cdeConsole directory.
- d. Run the ./start.sh command.

The following message appears if Content Designer starts:

Content Designer has been started successfully

Generating Content on an OBR System

This section guides you with the steps for creation of Content on a OBR installed system.

Operations Agent as a Datasource

Before you begin

Consider the following for creating content pack using Operations Agent as a datasource:

• You must have RTSM and Operations Agent datasource for building content.

RTSM is a source of the topology information for OBR. The topology information includes all Configuration Items (CIs) as modeled and discovered in RTSM. Node resource information is directly obtained from Operations Agent.

- Ensure that the topology source is RTSM when Operations Agent is the datasource for creating content.
- For each of the unique datasource and class combinations, one fact and one dimension must be selected.

Example:

In Pick Dimension in the content Designer, if you select Scope/CPU, Scope/Global combination,

Pick Dimensions:	Datasource:		Class	: •	+ Add Dimension
Dimension D	Datasource : SCOPE	Class: GLOBAL			ü — 🕨

in Pick Fact, select Scope/CPU, Scope/Global for fact.

Pick Facts:	Datasource:	•	Class:	•	+ Add Fact	
☐ Fact Datasource: SCOPE C	Class : GLOBAL				ü –	- >

This creates one fact table of Rate_Global/Rate_CPU and one local dimension table of K_Global/K_CPU in model xml.

- For Operations Agent as the datasource, the fact data is reconciled to host by default. Hence, it is mandatory to select a view and map nt/unix as citype in **Pick the RTSM Views for collection**.
- The fact table of datasource/class combination you select, is linked to K_CI_system automatically. You will not find any local dimension table for this particular fact selection. Select this (Datasource/class) as associated dimension class for every fact, so that every fact gets reconciled against hostname.

Follow these steps to generate the Domain, ETL, and Application components of the content pack:

Task 1: Select the Datasource

Hewlett Packard OPERATIO Enterprise	NS BRIDGE REPORTER	Home	Content Workspace	Settings
* P 🗘 Select your datasou	rce to develop the content pack. R	eview selection	and build.	
Choose the datasource for your content: 2015-2016 Hewlett Packard Enterprise Company, L	- Select - - Select - Operations Agent CSV Database			کړ

1. On the Content Workspace page, from the **Choose the datasource for your content:** list, select **Operations Agent**.

The Select the datasource tab is displayed.

Choose the datasource for your conte	ent: Operations Agent 🔻	⊘	:::: Resume PA Saved Session
Select the datasource > Review t	he selection > Validate and b	uild	
Fill in source details:			
😰 Operations Agent:	Hostname		
🖉 Use HP OM as topology s	ource 🛛 🖉 Use RTSM for	topology source	
🖶 RTSM :	Hostname	Port Userna	Password
Use SSL :	⊖Yes ● No		
Use Previous Details		五 Test Connection	Process Source

2. Type the **Operations Agent** host name to specify your datasource details.

Note: Once you create content, the following options are displayed on this page during your subsequent sessions if you have saved your sessions:

- Use Previous Details: If you have entered datasource details in OBR Content Designer earlier, click Use Previous Details to load Operations Agent details from an earlier session. Enter the Password and then click Process Source.
- Resume PA Saved Session: Click this option if you have already saved content pack artifact details in your previous session and want to continue creating content using the same details. Each time you use this option, make sure you click Use Previous Details to re-enter the password as OBR Content Designer does not save password.
- 3. Type the following **RTSM** details:
 - Hostname: RTSM host name or IP address
 - Port: RTSM port number
 - **Username**: RTSM username
 - **Password**: RTSM password
- 4. In **Use SSL**, click **Yes** if you want to establish secure connection with Operations Agent, else click **No**.
- 5. Click **Test Connection** to check if the Operations Agent and RTSM sources are connecting.

The following messages are displayed on successful validation:



Validating connection to RTSM source - Status

Validating connection to Agent source - Status

Sindicates the validation failed.

Click to check the logs or view the log file at {CDE_HOME}\cdeConsole\logs\server_

err.log.

6. Click **Process Source**.

The **Review the selection** page appears.

Task 2: Specify Content Attributes

Content Attributes:					
Content Pack Name:	Content Name	Content Publisher:	Content Publisher	Datasource:	Datasource
Version:	Version	Topology Source:	🖉 RTSM 🖉 HP OM		

1. Type you Content Pack Name.

Enter a string value as your content pack name, which you will be used for content creation.

- 2. In **Content Publisher** name, type the content developer/company details.
- 3. Type your datasource application in the **Datasource** box.
- 4. In the **Version** box, type the version of OBR against which you develop content. *Example*: 10.01.000.

Task 3: Add Dimensions

Best practices for Operations Agent as source while selecting dimensions and facts:

• For each of the unique datasource and class combination, one fact and one dimension must be selected.

• This dimension must be selected in associated dimension attribute to ensure that one fact table and one dimension table are created for each datasource and class combination.

P	ick Dimensions: Datasourc	e: 🔻	Class:		Y	+ Add Dimension	
۵	Dimension Datasource :	SCOPE Class: GLOBAL				(C	1 — 🌶
	OBR Table/Caption Name: Business Key Columns:	GLOBAL	+Add columr	n			
	Select Required Attributes :	DATE_SECONDS GBL_PROC_SAMPLE GBL_SYSCALL_RATE GBL_SYSTEM_UPTIME_HOUF GBL_SYSTEM_UPTIME_SECO GBL_STATTIME GBL_INTERVAL GBL_CSWITCH_RATE GBL_INTERRUPT_RATE	RS INDS	>> < <	YEAR DAY INTERVAL GBL_MEM GBL_INTEI GBL_SYSC STATDATE STATTIME GBL_ACTI' GBL_CPU_	_CACHE_HIT_PCT RRUPT ALL 	×

- 1. In **Pick Dimensions**, select the **Datasource** and **Class** from the lists.
- 2. Click Add Dimension.
- 3. Type **OBR Table/Caption Name**. Table name created in the model would be of this name.
- 4. Click in the **Business Key Columns** box to select the column name and click **Add column**.

The selected column names are listed.

- a. Repeat step 4 to add more Business Key Columns.
- b. Click ____ next to the column name to delete the column.
- 5. Click Add column.

You can select multiple business key columns from the list.

- 6. Repeat steps 1 to 5 to add more dimension tables.
- 7. Select Required Attributes from the list.
 - Click > to move selected column names or >> to move all the column names.

Tip: Click to duplicate the current dimension source and — to delete the current datasource and class selection.

Task 4: Adding Facts

Pie	sk Facts:	Datasource:	Class	۲	+ Add Fact
C	Fact Datasource: SCOPE Cla	iss: GLOBAL			ii — 🖌
	Time column:	AGENTTIMESTAMP			
	Select Required Metrics :	 Except for business key, other string YEAR DAY DATE_SECONDS INTERVAL GBL_SYSTEM_UPTIME_HOURS GBL_SYSTEM_UPTIME_SECONDS GBL_STATTIME GBL_INTERVAL GBL_CSWITCH_RATE GBL_INTERRUPT_RATE CDL_INTERDUPT 	columns are not a	llowed for fact selection. HOSTNAME GBL_PROC_SAMPLE GBL_MEM_CACHE_HIT_PCT GBL_SYSCALL_RATE	
	Associated Dimensions:	GLOBAL			

- 1. In Pick Facts, select the Datasource and Class from the lists.
- 2. Click Add Fact.
- 3. Select Time Column.

The **Time Column** displays the default value.

4. Select Required Metrics from the list.

Note: Do not include the default Time Column value to the selected required metrics list.

5. Select the check box if you want to choose **Associate Dimensions**.

Select the dimension class matching the datasouce/class combination of corresponding fact selection as one associated class. And the dimension class of datasource/class combination which you map to NT/Unix.

6. The **Business key to Fact column association** displays the selected dimensions. Business key column selected here should be of same name as selected in the above dimension selection. for same combination of datasource/class name.

OBR Content Designer Guide Creating Content Pack Using Content Workspace

Associate DataType to the selected Metrics:

HOSTNAME	String 🔻
GBL_PROC_SAMPLE	Integer 🔻
GBL_MEM_CACHE_HIT_PCT	Integer 🔻
GBL_SYSCALL_RATE	Integer 🔻

Business key to Fact column association:

GLOBAL	HOSTNAME :	HOSTNAME •	
			· .

Aggregate Functions: 🖉 avg 🖉 min 🖉 max 🗌 cnt 📃 tot 🔲 med 🔲 std

Column/Aggregate	avg All/None	min All/None	max All/None
HOSTNAME			
GBL_PROC_SAMPLE	•		
GBL_MEM_CACHE_HIT_PCT		•	•

7. Select the **Aggregate Functions** by clicking the check boxes. Select aggregate columns for the selected metrics as per "Select Required Metrics from the list." on the previous page.

Tip: Click C to view Sample Data, to duplicate the current fact source and — to delete the current datasource and class selection.

Task 5: Select Views

Note:

- For Operations Agent as the datasource, the fact data is reconciled to host by default. Hence, it is mandatory to select a view and map nt/unix as citype.
- The fact table of datasource/class combination you select here, is linked to K_CI_system automatically. You will not find any local dimension table for this particular fact selection.

The view you select must be available in the RTSM datasource for successful deployment of content pack.

1. In the **Pick the RTSM Views for collection:** box, type or select the required RTSM, and then click **Add**.

Pick the RTSM Views for collection:	view name + Add	
View Name: SM_PA NT —	CI Type: NT +Add ci-type	ί <u>μ</u> —
HP OM Topology scenario - Link the data	source and class dimension combination to CI Types:	
View Name: SM_PA C CI Type: NT , Datasource/Class: S	Type: NT Datasource/Class: SCOPE/GLOBAL COPE/GLOBAL —	Add link

A message View added successfully is displayed.

2. Select the CI Type and click Add ci-type.

Tip: Click **C** to view sample data from the dimension table, **t** to duplicate the current dimension source, and **t** to delete the current file selection.

- 3. Under the OM Topology scenario Link the datasource and class dimension combination to CI Types: section,
 - a. Select the **CI Type**, and then select the **Datasource/Class** combination.
 - b. Click Add link. Repeat these steps to add more CI Type and Datasource/Class.
- 4. Repeat steps 1 to 3 to add more RTSM views.
- 5. Click Confirm Selection.

Click **Modify Selection** to reset the content workspace.

Task 6: Build and Deploy Content

The Validate and build page displays the details of the dimension and fact table collected.

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Console > Deployment Manager at the same time. Content pack deployment will fail.

2. Select Create Universe to Local Folder or Publish Universe to CMC Repository:

Tip: If you are developing content in Windows, the best practice is to select **Publish** Universe to CMC Repository.

you can put this in NOTE

• Create Universe to Local Folder

SAP BusinessObjects universe is created in your local file system at {CDE_ HOME}\workspace\<*ContentPack_Name*>\<*ContentPack_Name*>.ap\UnxFolder\UnxLayers with the following extensions:

- .blx
- .cnx

- .dfx
- .unx

To export universe to CMC repository, see "Exporting the Universe to CMC Repository" on page 82

• Publish Universe to CMC Repository

On selecting this option , Universe gets deployed directly to CMC repository.

To generate Reports from BI Launch Pad, see "Generating Reports from BI Launch Pad" on page 93

If you are creating content on a Linux system, see "Creating Application Content Pack for a Linux System" on page 81 to create application content pack.

- 3. Click **Save** to save your current content pack selection for future use.
- 4. Click **Modify selection** to reset the content workspace.
- 5. Click **Run Build** to generate your content packs.

Content build status is displayed and content pack creation is triggered.

Note: If you have selected **Auto deploy Domain and ETL content pack**, you will see the Installing the Generated content is shown in green.



If this step fails, go to {PMDB_HOME}\log\packagemanager.log file and check the errors.

If you have **not selected** Auto deploy Domain and ETL content packs on OBR after successful build in the previous step, installation is skipped and you will see a hyphen (-) against Installing the Generated content.



You have to log on to OBR Administration Console and deploy the content pack. For information about deploying and installing content packs, see "Deploying Content Packs" on page 79.

Domain, ETL, and Application component packs are created at {CDE_HOME}\workspace folder with the *<content pack name>* you have specified.

Note:

- Click Create New Content to create a new content pack or View CDE Log File to see the CDE logs.
- \circ You can also see the status on your system in the log file at {CDE_HOME}\log\cde.log.
- On successful build "Content Build Successful" is displayed in the log file.

CSV File as Datasource

You can create content using a set of CSV files as the datasource using OBR Content Designer. Perform the following steps to generate the Domain, ETL, and Application components of the content pack:

Note: Ensure the following before selecting the .CSV files:

• Names of the CSV files you select are in the format: <DomainName>_0_<TableName>_0_ <UniqueIdentifier/TimeStamp>.csv

Example: RetailPOS_0_Store_0_567.csv

• If you are selecting CSV files that are converted from dos2Unix, the new line character or the record delimiter (terminator) in the .CSV files must be \n\r.

Task 1: Select the Source File

- 1. Open the **Content Workspace** page.
- 2. From the Choose the datasource for your content: list, select CSV.

Hewlett Packard OPERATIONS Enterprise	BRIDGE REPORTER	Home	Content Workspace	Settings
* 🖌 🗘				
Select your datasource to develop the	content pack. Review selection and	l build.		
Choose the datasource for your content:	- Select - 🔹			
	- Select - Operations Agent			
	CSV			\sim
© 2015-2016 Hewlett Packard Enterprise Company, L	Database			S su

3. Click Select source file and add the source .CSV file.
OBR Content Designer Guide

Creating Content Pack Using Content Workspace

Choose the	he datasource for your content the datasource > Review the	: CSV selection > Validate a	nd build	III Resume CSV Saved Selection
Fill in so	ource details:			
0 0 0	NOTE: Due to security reas NOTE: If you are using the NOTE: The pattern of csv f	ons, the path for the same CSV for both Fa le name should be: «	csv file is either not disp act and Dimension, uplo Content Pack Name>_0_	olayed or masked. ad it only once. . <table name="">_0_<unique identifier="" timestamp="">.cs</unique></table>
ţ	Choose File		Select source file	_
			Process Source	

Note:

Click **Resume CSV Saved Selection** if you have saved dimension and fact selections on content workspace.

Click --next to Select source file to remove the selected CSV file.

- 4. Click Add new source file, and then click Select source file to add more .CSV files.
- 5. Click **Process Source** after you have added the CSV files.

The Review the Selection page appears.

Note: If you want to create fact and dimension from fields in same .csv file, make copies of the .csv and use them separately. Both the .csv files should have appropriate names.

Task 2: Specify Content Attributes

Content Attributes:					
Content Pack Name:	Content Name	Content Publisher:	Content Publisher	Datasource:	CSV
Version:	10.00.000				

- 1. Type Content Pack Name and Content Publisher name.
- 2. Type your datasource application in the **Datasource** box and content pack **Version**.

Task 3: Add Dimensions

Selec	t files for dimension:			۲	+ Add Dimension	
۵	Dimension Source File : RetailPOS	5_0_Product_0_1234.csv				ii — 🗲
	File Identifier:	Product				
	File Pattern:	*Product*				
	OBR Table/Caption Name:	Product				
	Select Required Attributes :	×	> >> <	sku_id product_name brand_name category subcategory price		
	Business Key Columns:	column name	+Add co	lumn		
	product name —					

- 1. From the Select files for dimension: list, select the dimension file and click Add Dimension.
- 2. Type the File Identifier, File Pattern, and OBR Table/Caption Name.
- 3. From the Select Required Attributes list choose the metrics required.
- 4. Click in the **Business Key Columns** box to select the column name and click **Add column**.

The selected column names are listed.

- Repeat step 4 to add more Business Key Columns.
- Click ____ next to the column name to delete the column.

Tip: Click to duplicate the current dimension source and — to delete the current datasource and class selection.

5. Repeat steps 1 to 4 to add more dimensions.

Task 4: Add Facts

Select files for fact:			• + Add Fac	:t
Fact Source File : RetailPOS_0_S	ales_0_789.csv			ü — 🗲
File Identifier:	Sales			
File Pattern:	*Sales*			
OBR Table/Caption Name:	Sales			
Time column:	AGENTTIMESTAMP	Ø		
Primary Dimension:	Product			
Linked Dimensions:	Product			
	Except for business key, ot	her string columns are not a	llowed for fact selection.	
Select Required Metrics :	promotion_name	> >> <	AGENTTIMESTAMP product_name sale_qty sale_amnt	0
Business key to Fact column associatio	n: product_name			8

- 1. From the Select files for fact list, select the fact file, and then click Add Fact.
- 2. Type the File Identifier, File Pattern, and OBR Table/Caption Name.
- 3. Click \checkmark to add **Time Column** and select the column name.

Caution: This step is mandatory.

- 4. Select the Primary Dimension. The Linked Dimension is selected automatically.
- 5. From the Select Required Metrics list choose the metrics required.
- 6. From **Business key to Fact column association** list, select the business key column name and associated fact column name.

Note: Ensure that **Time column** and **Business key to Fact column association** are selected as part of required metrics.

7. Click the check boxes to select **Aggregate Functions**.

A	ggregate Functions:	🗹 avg	g 🗹 min	🖌 max 🗌	cnt 🔲 tot	med	🔲 std	slope	🔲 wav
	AGENTTIMESTAMP								
	product_name								
	sale_qty	8							
	sale_amnt		•	•					

8. Repeat steps 1 to 7 to add more facts.

Click to duplicate the current fact source and — to delete the current selection.

9. Click **Confirm Selection** to proceed to build content.

The Validate and build page appears.

Click **Modify Source** to reset the workspace and select different CSV files.

Note: When you click **Modify Source** and change CSV files, if you retain one or more previously selected CSV files for content creation, Content Designer retains all the details of the unchanged CSV files.

Task 5: Build and Deploy Content

The Validate and build page displays the details of the dimension and fact table you have collected.

OBR Content Designer Guide

Creating Content Pack Using Content Workspace



 Select Auto deploy Domain and ETL content pack if you want to deploy the content on OBR after successful build.

Caution: If you have selected Auto deploy Domain and ETL content pack in OBR Content Designer, do no try to deploy content in your OBR system Administration Console > Deployment Manager. Content pack deployment will fail.

2. Select Create Universe to Local Folder or Publish Universe to CMC Repository:

Tip: If you are developing content in Windows, the best practice is to select **Publish Universe to CMC Repository**.

• Create Universe to Local Folder

SAP BusinessObjects universe is created in your local file system at {CDE_ HOME}\workspace\<*ContentPack_Name*>\<*ContentPack_Name*>.ap\UnxFolder\UnxLayers with the following extensions:

- .blx
- .cnx
- .dfx
- .unx

To export universe to CMC repository, see "Exporting the Universe to CMC Repository" on page 82

• Publish Universe to CMC Repository

On selecting this option, Universe gets deployed directly to CMC repository.

To generate Reports from BI Launch Pad, see "Generating Reports from BI Launch Pad" on page 93

If you are creating content on a Linux system, see "Creating Application Content Pack for a Linux System" on page 81 to create application content pack.

- 3. Click Save to save your current content pack selection for future use.
- 4. Click Modify selection to reset the content workspace.
- 5. Click **Run Build** to create your content packs.

Content build status is displayed and content pack creation is triggered.

Domain, ETL, and Application component packs are created at {CDE_HOME}\workspace folder with the *<content pack name>* you have specified.

Note: If you have selected **Auto deploy Domain and ETL content pack** in step 1, you will see the Installing the Generated content is shown in green.



If this step fails, go to {PMDB_HOME}\log\packagemanager.log file and check the errors.

If you have **not selected** Auto deploy Domain and ETL content packs on OBR after successful build in the previous step, installation is skipped and you will see a hyphen (-) against Installing the Generated content.

	Final validation of the content structure before the bu	liu -
ontent	build status	
0	Processing the content structure to create OBR metadata	0
0	Preparing CDE environment	0
•	Creating content folder structure	0
•	Generating the Mapping file for CDE	0
•	Generating content	0
0	nstalling the generated content	

You have to log on to OBR Administration Console and deploy the content pack. For information about deploying and installing content packs, see "Deploying Content Packs" on page 79.

Note:

After you deploy the content pack, ensure that the input CSV files are available in the $\{PMDB_HOME\}$ tollect folder.

The record terminator in the CSV files must be according to the platform on which OBR is installed:

- **OBR on Windows**: Record terminator of the input CSV must be \n\r.
- OBR on Linux: Record terminator of the input CSV must be \n
- Click Create New Content to create a new content pack or View CDE Log File to see the CDE logs.
- You can also see the status on your system in the log file at {CDE_HOME}\log\cde.log.
- On successful build Content Build Successful is displayed in the log file.

Database as a Datasource

OBR collects data from databases that support Java Database Connectivity (JDBC): Microsoft SQL, Oracle, Sybase IQ, PostgreSQL, and so on).

Perform the following steps to generate the Domain, ETL, and Application components of the content pack:

Note: If you select ORACLE as the database type, do not select Auto deploy Domain and ETL content pack. Your ETL content pack collection policy has to be edited and recreated using the command-based CDE. Edit the following:

From your collection policy, find the following DBDATE:

<statement>select "DBDATE" as DBDATE,"CUSTOMER_ID" as CUSTOMER_ID,"SESSION_ COMP_SEC" as SESSION_COMP_SEC from RUM_EVENTS_90000 where **DBDATE > \$FETCH_START_TIME**</statement>

Replace with the following:

<statement>select "DBDATE" as DBDATE,"CUSTOMER_ID" as CUSTOMER_ID,"SESSION_ COMP_SEC" as SESSION_COMP_SEC from RUM_EVENTS_90000 where **DBDATE > TO_ TIMESTAMP(\$FETCH_START_TIME, 'YYYY-MM-DD HH24:MI:SS.FF')**</statement>

For instructions to recreate ETL content pack, see *Operations Bridge Reporter Content Development Guide*.

Task 1: Select the Datasource

- 1. Open the **Content Workspace** page.
- 2. From the Choose the datasource for your content: list, select Database.

The Select the datasource tab is displayed.

	Hewlett Packard Enterprise	OPERATIONS BRIDGE REPORTER
* 🕨 🗘		
Select your datasource to deve	elop the content pack. Review	selection and build. Content Pack is generated to be de
Choose the datasource for your o	content: - Select - - Select - Operations Agent	•
© 2015-2016 Hewlett Packard Enterprise C	CSV Company, L <mark>Database</mark>	3

3. Specify the **Database** host name.

OBR Content Designer Guide Creating Content Pack Using Content Workspace

Select the datasource > Review the selection >	Validate and build
Fill in source details:	
🙍 Database Host Name:	Hostname
Database Type:	-Select-
🗇 Connection details:	Port Username Password
Database Name:	
Database Instance Name/Server Name:	

Note:

- If you have entered database details in OBR Content Designer earlier, click Use Previous
 Details to display database details from an earlier session.
- Click Resume DB Saved Selection to view the dimension and fact selections from your previous session on OBR Content Designer.

4. Select the **Database Type** from the list.

Note: For the database type, copy the following .jar files as applicable from the available location to the %CDE_HOME%\lib directory:

Database Type	.jar file	Available Location
MSSQL	jtds.jar	{PMDB_HOME}\lib
ORACLE	OVoracle.jar	{PMDB_HOME}\lib
SYBASEIQ/SYBASEASE	jconn4.jar	You can copy the jconn4.jar file from your jConnect install location or download the file from the Internet.
POSTGRESQL	postgresql.jar	{PMDB_HOME}\lib
VERTICA	vertica-jdbc.jar	{PMDB_HOME}\lib

- 5. Type the **Connection details**: Port number, username, and password.
- 6. Specify the Database Name and Database Instance Name/Server Name.

Note:

• For MSSQL database:

The **Database Name** is the name of your database on the MSSQL server and **Server Name** is the name of the SQL server where the database is created.

Example:

Mic	rosoft	t SQL Se	erver Ma	nagen	ent St	udio		
File	Edit	View	Project	Debu	а Тос	ols N	Window	Comm
12 N	ew Qu	ery 🗋) 🔁 🖸	6 5		2		-
見 うちょう うちょう うちょう うちょう しょう しょう しょう しょう しょう しょう しょう しょう しょう し	ぬ泉 [-	? E:	xecute	▶ ■
bject	Explor	er						- 4 ×
Conne	ct - q			* ×				
		atabase	s		Server N	ame		
	• E	Syste	m Databa	ses				
	• (j bpi	ase snap:	shots				
	• [Event						
	(+) (+)]		Database	Name		
	•	Repor	tServer	D.P.				
	E	RTSM	cserverie	тров				
-	_ 🕀 📒		HISTORY					
œ.	s 🔁	erver Ot	ojects					
Choose the	datasource fo	or your content:	Database	•				
Select th	e datasource	> Review the se	election > Validate	and build				
Fill in sour	ce details:							
	Database Us	oct Name:		m0160 cwlab po	•			
<u>س</u>	Dalabase no	osi indine:		no loo.swiab.ne				
	Database Ty	/pe:	MS	SQL 🔻				
đ	Connection (details:	14	33	admin		•••••	
l r				<i>c</i>				
	Database Na	ime:	рі	fdb				
	Database Ins	stance Name/Ser	ver Name: vr	n0160				

• For Oracle database:

The Database Name and the Database Instance Name are the same. Type the same name in both the boxes.

Example:

Change Alias: B	SM926_ProfileDB			
Name:	ProfileDB			
Driver:	✓ Oracle Thin Driver		•	New
URL:	jdbc:oracle:thin:@vm07	90. swlab.ne	et:1521 orcl	
User Name:	prof01			
Password:	••••			
Auto logon	Connect at Startup			
	Properties			
Warning - Pass	words are saved in clear t	text		
	OK Close	Test	:	
	OK Close	Test	1	
ionse the datasource	OK Close	Test	:	
oose the datasource t	OK Close	Test	2	
oose the datasource t	OK Close for your content: Database > Review the selection > Valid	Test		
oose the datasource for Select the datasource	OK Close for your content: Database > Review the selection > Valid	Test		
oose the datasource to Select the datasource	OK Close for your content: Database > Review the selection > Valid	Test		
oose the datasource to Select the datasource ill in source details:	OK Close for your content: Database > Review the selection > Valid ost Name:		2.net	
Select the datasource for Select the datasource for Select the datasource for Select the datasource for Select the datasource details:	OK Close for your content: Database > Review the selection > Valid ost Name: ype:		D.net	
Select the datasource for Select the datasource fill in source details: Database H Database Th Connection	OK Close for your content: Database > Review the selection > Valid ost Name:	Test Test Test	2.net	
Select the datasource for Select the datasource fill in source details:	OK Close for your content: Database > Review the selection > Valid ost Name:	Test Test Test	o.net prof01	•••••

- 7. Click **Test Connection** to check the database connectivity.
- 8. Click **Process Source** to proceed with content development.

The **Review the selection** page appears.

Task 2: Specify Content Pack Attributes

Content Attributes:					
Content Pack Name:	Example_Content	ETL Content Pack Name:	Example_ETL	Content Publisher:	MyCompany
Datasource:	CSV	Version:	10.00.000		

- 1. Specify Content Pack Name and Content Publisher name.
- 2. Specify your datasource application in the **Datasource** box and content pack **Version**.

Task 3: Add Dimensions

Select table for dimens	ion:	Table name	+ Add Dimension	
Dimension	Source Table : TRANSACTIONS_DIM Da	atabase Type : MSSQL		
File Identifier: OBR Table/Caption Select Required	TRANSACTIONS_DIM_dim IN Name: TRANSACTIONS_DIM Attributes : INTERN Attributes : INTERN IN	IAL_TRANSACTION_ID ATTONIO ACTIONID MER_ID ACTION_NAME ACTION_DESCRIPTION ATION_ID ATION_NAME IME IAL_APPLICATION_ID		
Business Key Colu CUSTOMER_ID	mns: CUSTOMER_ID	▼ +Add column		
SQL statement:	select 'INTERNAL_TRANSACT CUSTOMER_ID.'TRANSACTIO TRANSACTION_DESCRIPTION BTF_ID,'BTF_NAME' as BTF_N/	ION_ID' as INTERNAL_TRANSACTION_I I_NAME' as TRANSACTION_NAME.TRA ,'APPLICATION_ID' as APPLICATION_ID ME,'INTERNAL_APPLICATION_ID' as IN	D, TRANSACTION_ID' as TRANSACTION_ID, CUSTOME INSACTION_DESCRIPTION as VAPPLICATION_NAME' as APPLICATION_NAME/BTF_ ITERNAL_APPLICATION_ID from TRANSACTIONS_DII	ER_ID' as Save and Validate ID' as status : 🕑

- 1. From the **Select tables that serve as dimension for the content:** list, select the dimension table.
- 2. Click Add Dimension.
- 3. Specify the File Identifier, and OBR Table/Caption Name.
- 4. From the Select Required Attributes list choose the metrics required.
- 5. Click in the **Business Key Columns** box to select the column name and click **Add column**.
- 6. Write or modify the SQL Statement, and click Save and Validate.

The SQL statement validation status is displayed.

7. Repeat steps 1 to 6 to add more dimensions.

Tip: Click ⊂ to view sample data from the dimension table, ^I to duplicate the current dimension source, and ■ to delete the current file selection.

Task 4: Add Facts

Select table for fact:		Table name		+ Add Fact
🗅 Fact I Source Table :	BPM_TRANS_2DAY_10000	Database Type : MSSQL		ü — 🕨
File Identifier:	BPM_TRANS_2DAY_1000	0_fact		
OBR Table/Caption Name:	Select 'DBDATE' as DBDA 'EM_RESULT_VALUE_MA' BPM_TRANS_2DAY_1000	10 TE,'CUSTOMER_ID' as CUST X' as EM_RESULT_VALUE_M 10	TOMER_ID, IAX from	Save and Validate
Time column: Primary Dimension: Linked Dimensions:	DBDATE TRANSACTIONS_DIM TRANSACTIONS_DIM	ð		
SAMPLETIME SAMPLETIME TUID INTERNAL_APPLICATION INTERNAL_LOCATION_ STATUS_ID TIME_STAMP_COUNT EM_RESULT_VALUE_SU EM_RESULT_VALUE_MI EM_PAGE_CBD_COUNT	y, other string columns are no DN_ID ID IM IMSQR N _SUM	at allowed for fact selection. BDATE JSTOMER_ID 4_RESULT_VALUE_MAX		

- 1. From the Select tables that serve as Fact for the content list, select the fact table.
- 2. Click Add Fact.
- 3. Specify the File Identifier and OBR Table/Caption Name.
- 4. Write or modify the SQL Statement, and click Save and Validate.
- 5. Click \checkmark to add **Time Column** and select the column name.
- 6. Select the **Primary Dimension** and **Linked Dimensions**.
- 7. From the Select Required Metrics list choose the metrics required.
- 8. From Business key to Fact column association list, select the business key column names

and the associated fact column names.

В	usiness key to Fact colun	nn association:							
	TRANSACTIONS_DIM	CUSTOMER_ID							
A	ggregate Functions:	🕑 avg	min	🔲 max	🗌 cnt	🗆 tot	🗌 med	🔲 std	🗆 slc
	Column/Aggregate	avg All/None							
	DBDATE								
	CUSTOMER_ID								
	EM_RESULT_VALUE_MAX								

9. Click the check-boxes to select **Aggregate Functions**.

Tip: Click **C** to view sample data from the dimension table, ^{ID} to duplicate the current dimension source, and I to delete the current file selection.

- 10. Repeat steps 1 to 8 to add more dimensions.
- 11. Click **Modify Source** to go back and select a different source.
- 12. Click **Confirm Selection** to proceed to build content.

The Validate and build page appears.

Task 5: Build and Deploy Content

The Validate and build page displays the details of the dimension and fact table you have collected.

OBR Content Designer Guide

Creating Content Pack Using Content Workspace



 Select Auto deploy Domain and ETL content pack if you want to deploy the content on OBR after successful build.

Caution: If you have selected Auto deploy Domain and ETL content pack in OBR Content Designer, do no try to deploy content in your OBR system Administration Console > Deployment Manager at the same time. Content pack deployment will fail.

2. Select Create Universe to Local Folder or Publish Universe to CMC Repository:

Tip: If you are developing content in Windows, the best practice is to select **Publish** Universe to CMC Repository.

• Create Universe to Local Folder

SAP BusinessObjects universe is created in your local file system at {CDE_ HOME}\workspace\<*ContentPack_Name*>\<*ContentPack_Name*>.ap\UnxFolder\UnxLayers with the following extensions:

- .blx
- .cnx
- .dfx
- .unx

To export universe to CMC repository, see "Exporting the Universe to CMC Repository" on page 82

• Publish Universe to CMC Repository

On selecting this option, Universe gets deployed directly to CMC repository.

To generate Reports from BI Launch Pad, see "Generating Reports from BI Launch Pad" on page 93

If you are creating content on a Linux system, see "Creating Application Content Pack for a Linux System" on page 81 to create application content pack.

- 3. Click Save to save your current content pack selection for future use.
- 4. Click **Modify selection** to reset the content workspace.
- 5. Click **Run Build** to create your content packs.

Content build status is displayed and content pack creation is triggered.

Note: If you have selected **Auto deploy Domain and ETL content pack** in step 1, you will see the Installing the Generated content is shown in green



If this step fails, go to {PMDB_HOME}\log\packagemanager.log file and check the errors.

If you have **not selected** Auto deploy Domain and ETL content packs on OBR after successful build in the previous step, installation is skipped and you will see a hyphen (-) against Installing the Generated content.



You have to log on to OBR Administration Console and deploy the content pack. For information about deploying and installing content packs, see "Deploying Content Packs" on page 79.

Domain, ETL, and Application component packs are created at {CDE_HOME}\workspace folder with the *<content pack name>* you have specified.

Note:

- Click Create New Content to create a new content pack or View CDE Log File to see the CDE logs.
- You can also see the status on your system in the log file at {CDE_HOME}\log\cde.log.
- On successful build "Content Build Successful" is displayed in the log file.

Generating Content on a Non-OBR System

This section guides you with the steps for creation of Content on a system that does not have OBR installed.

Operations Agent as a Datasource

This section guides you to create content for Operations Agent as datasource.

Note:

Before you configure Operations Agent as a datasource, ensure the following:

- You must have RTSM and Operations Agent datasource for building content.
- Ensure that the topology source is RTSM when Operations Agent is the datasource for creating content.

RTSM is a source of the topology information for OBR. The topology information includes all Configuration Items (CIs) as modeled and discovered in RTSM. Node resource information is directly obtained from Operations Agent.

Follow these steps to generate the Domain, ETL, and Application components of the content pack:

Task 1: Select the Datasource

Hewle Enterp	tt Packa rise	rd	OPERATIC)NS BRIDGE	REF	PORTER	Home	Content Workspace	Settings
*	۶	Q							
		Sel	ect your datasou	urce to develop th	ne cont	ent pack. Reviev	v selection	and build.	
Choos	e the dataso	urce fo	or your content:	- Select - Select -	•				
2015-2016 F	Hewlett Packa	ard Ente	erprise Company,	Operations Age CSV Database	ent				ß

1. On the Content Workspace page, from the **Choose the datasource for your content:** list, select **Operations Agent**.

The Select the datasource tab is displayed.

Choose the datasource for your content	: Operations Agent 🔻 💙	III Resume PA Saved Session
Select the datasource > Review the second	selection > Validate and build	
Fill in source details:		
호 Operations Agent:	Hostname	
Use HP OM as topology source	rce 🛛 Use RTSM for topology source	
🖨 RTSM:	Hostname	Username Password
Use SSL :		
JUse Previous Details	<u> </u> Test Conne	Process Source

2. Type the **Operations Agent** host name to specify your datasource details.

Note: Once you create content, the following options are displayed on this page during your subsequent sessions if you have saved your sessions:

- Resume PA Saved Session: Click this option if you have already saved content pack artifact details in your previous session and want to continue creating content using the same details.
- Use Previous Details: If you have entered datasource details in OBR Content Designer earlier, click Use Previous Details to load Operations Agent details from an earlier session. Enter the Password and then click Process Source.
- 3. Type the following **RTSM** details:
 - Hostname: RTSM host name or IP address
 - Port: RTSM port number
 - Username: RTSM username
 - Password: RTSM password
- 4. In **Use SSL**, click **Yes** if you want to establish secure connection with Operations Agent, else click **No**.
- 5. Click **Test Connection** to check if the Operations Agent and RTSM sources are connecting.

The following messages are displayed on successful validation:



Validating connection to Agent source - Status



Validating connection to RTSM source - Status



Click to check the logs.

6. Click **Process Source**.

The **Review the selection** page appears.

Task 2: Specify Content Attributes

Content Attributes:					
Content Pack Name:	Content Name	Content Publisher:	Content Publisher	Datasource:	Datasource
Version:	Version	Topology Source:	🖉 RTSM 🕑 HP OM		

- 1. Type the **Content Pack Name** and **Content Publisher** name.
- 2. Type your datasource application in the **Datasource** box and content pack **Version**.

Task 3: Add Dimensions

Best practices for Operations Agent as source while selecting dimensions and facts:

- For each of the unique datasource and class combination, one fact and one dimension must be selected.
- This dimension must be selected in associated dimension attribute to ensure that one fact table and one dimension table are created for each datasource and class combination.

Pick Dim	ensions: Datasource	*	Class:		Add Dimens	sion
🗋 Dim	ension Datasource : S	SCOPE Class: GLOBAL				ii — 🗲
OBR Busi	Table/Caption Name:	GLOBAL metric name	+Add colum	n		
Sele	ct Required Attributes :	DATE_SECONDS GBL_PROC_SAMPLE GBL_SYSCALL_RATE GBL_SYSTEM_UPTIME_HOU GBL_SYSTEM_UPTIME_SECO GBL_STATTIME GBL_INTERVAL GBL_CSWITCH_RATE GBL_INTERRUPT_RATE	JRS ONDS	> >> <	YEAR DAY INTERVAL GBL_MEM_CACHE_HIT_PCT GBL_INTERRUPT GBL_SYSCALL STATDATE STATTIME GBL_ACTIVE_CPU GBL_CPU_TOTAL_UTIL	-

- 1. In **Pick Dimensions**, select the **Datasource** and **Class** from the lists.
- 2. Click Add Dimension.

3. Type OBR Table/Caption Name.

4. Click in the **Business Key Columns** box to select the column name and click **Add column**.

The selected column names are listed.

- a. Repeat step 4 to add more Business Key Columns.
- b. Click ____ next to the column name to delete the column.
- 5. Click Add column.

You can select multiple business key columns from the list.

- 6. Repeat steps 1 to 5 to add more dimension tables.
- 7. Select Required Attributes from the list.
 - Click > to move selected column names or >> to move all the column names.

Click to duplicate the current dimension source and — to delete the current datasource and class selection.

Task 4: Adding Facts

Pick Facts:	Datasource:	▼ Class:	Add Fact
🗅 Fact Datasource: SCOP	E Class : GLOBAL		ii — 🖌
Time column:	AGENTTIMESTAMP Except for business key, other str	ring columns are not allowed for fact selection.	
Select Required Metrics :	DAY DATE_SECONDS INTERVAL GBL_SYSTEM_UPTIME_HOURS GBL_SYSTEM_UPTIME_SECONDS GBL_STATTIME GBL_INTERVAL GBL_CSWITCH_RATE GBL_INTERRUPT_RATE GBL_INTERRUPT_RATE	<pre>>> GBL_PROC_SAMPLE GBL_MEM_CACHE_HIT_F GBL_SYSCALL_RATE </pre>	РСТ
Associated Dimensions:	SLOBAL		

- 1. In Pick Facts, select the Datasource and Class from the lists.
- 2. Click Add Fact.

3. Select **Time Column**.

The Time Column displays the default value.

4. Select Required Metrics from the list.

Note: Do not include the default Time Column value to the selected required metrics list.

- 5. Select the check box if you want to choose Associate Dimensions.
- 6. The **Business key to Fact column association** displays the selected dimensions.

Associate DataType to the selected Metrics:

HOSTNAME	String 🔻
GBL_PROC_SAMPLE	Integer 🔻
GBL_MEM_CACHE_HIT_PCT	Integer 🔻
GBL_SYSCALL_RATE	Integer 🔻

Business key to Fact column association:

GLOBAL	HOSTNAME :	HOSTNAME	*	
				L

Aggregate Functions: 🖉 avg 🖉 min 🖉 max 🗌 cnt 📃 tot 🔲 med 🔲 std

Column/Aggregate	avg All/None	min All/None	max All/None
HOSTNAME			
GBL_PROC_SAMPLE			
GBL_MEM_CACHE_HIT_PCT		•	*

7. Select the **Aggregate Functions** by clicking the check boxes. Select aggregate columns for the selected metrics as per "Select Required Metrics from the list." above.

Click C to view **Sample Data**, \Box to duplicate the current fact source and — to delete the current datasource and class selection.

Task 5: Select Views

Note:

- For Operations Agent as the datasource, the fact data is reconciled to host by default. Hence, it is mandatory to select a view and map nt/unix as citype.
- The fact table of datasource/class combination you select here, is linked to K_CI_system automatically. You will not find any local dimension table for this particular fact selection.

Pick the RTSM Views for collection:	view name + Add					
View Name: SM_PA	CI Type: NT +Add ci-type	í ð —				
HP OM Topology scenario - Link the data	HP OM Topology scenario - Link the datasource and class dimension combination to CI Types:					
View Name: SM_PA C CI Type: NT , Datasource/Class: S	Type: NT Datasource/Class: SCOPE/GLOBAL COPE/GLOBAL —	• +Add link				

1. In the **Pick the RTSM Views for collection:** box, type or select the required RTSM, and then click **Add**.

A message View added successfully is displayed.

2. Select the CI Type and click Add ci-type.

Click to duplicate the current view selection and — to delete the current view selection.

- 3. Under the OM Topology scenario Link the datasource and class dimension combination to CI Types: section,
 - a. Select the **CI Type**, and then select the **Datasource/Class** combination.
 - b. Click Add link. Repeat these steps to add more CI Type and Datasource/Class.
- 4. Repeat steps 1 to 5 to add more RTSM views.
- 5. Click Confirm Selection.

Click **Modify Selection** to reset your content workspace.

Task 6: Build and Deploy Content

The Validate and build page displays the details of the dimension and fact table you have collected.

OBR Content Designer Guide

Creating Content Pack Using Content Workspace



1. Select Create Universe to Local Folder or Publish Universe to CMC Repository:

Tip: If you are developing content in Windows, the best practice is to select **Publish Universe to CMC Repository**.

• Create Universe to Local Folder

SAP BusinessObjects universe is created in your local file system at {CDE_ HOME}\workspace\<*ContentPack_Name*>\<*ContentPack_Name*>.ap\UnxFolder\UnxLayers with the following extensions:

- .blx
- .cnx
- .dfx
- .unx

To export universe to CMC repository, see "Exporting the Universe to CMC Repository" on page 82

• Publish Universe to CMC Repository

On selecting this option, Universe gets deployed directly to CMC repository.

To generate Reports from BI Launch Pad, see "Generating Reports from BI Launch Pad" on page 93

If you are creating content on a Linux system, see "Creating Application Content Pack for a Linux System" on page 81 to create application content pack.

2. Click Save to save your current content pack selection for future use.

- 3. Click **Modify selection** to reset the content workspace.
- 4. Click **Run Build** to create your content packs.

Content build status is displayed and content pack creation is triggered.

Domain, ETL, and Application component packs are created at {CDE_HOME}\workspace folder with the *<content pack name>* you have specified. For information about deploying content pack on OBR, see "Deploying Content Packs" on page 79.

Note:

- Click Create New Content to create a new content pack or View CDE Log File to see the CDE logs.
- You can also see the status on your system in the log file at {CDE_HOME}\log\cde.log.

CSV File as Datasource

You can create content using a set of CSV files as the datasource using OBR Content Designer. Perform the following steps to generate the Domain, ETL, and Application components of the content pack:

Note: Ensure the following before selecting the .CSV files:

• Names of the CSV files you select are in the format: <DomainName>_0_<TableName>_0_ <UniqueIdentifier/TimeStamp>.csv

Example: RetailPOS_0_Store_0_567.csv

• If you are selecting CSV files that are converted from dos2Unix, the new line character or the record delimiter (terminator) in the .CSV files must be \n\r.

Task 1: Select the Source File

- 1. Open the **Content Workspace** page.
- 2. From the Choose the datasource for your content: list, select CSV.

Hewlett Packard Enterprise	OPERATIONS	S BRIDGE REPO	RTER Ho	me Content Wor	kspace Settings
* 🖌	Ç				
Select your data	asource to develop the	content pack. Review	selection and build.		
Choose the datasour	ce for your content:	- Select - Operations Agent			
© 2015-2016 Hewlett Packard	Enterprise Company, L	CSV Database			ST 2

3. Click Select source file and add the source .CSV file.

Choose the datasource for your content:	CSV 🔹 🗸	III Resume CSV Saved Selection
Select the datasource > Review the sel	ection > Validate and build	
Fill in source details:		
 NOTE: Due to security reason NOTE: If you are using the sa NOTE: The pattern of csv file 	s, the path for the csv file is either me CSV for both Fact and Dimension name should be: <content b="" na<="" pack=""></content>	not displayed or masked. on, upload it only once. ume>_0_ <table name="">_0_<unique identifier="" timestamp="">.csv</unique></table>
Choose File	Select source	e file —

Note:

Click **Resume CSV Saved Selection** if you have saved dimension and fact selections on content workspace.

Click --next to Select source file to remove the selected CSV file.

- 4. Click Add new source file, and then click Select source file to add more .CSV files.
- 5. Click **Process Source** after you have added the CSV files.

The Review the Selection page appears.

Note: If you want to create fact and dimension from fields in same .csv file, make copies of the .csv and use them separately. Both the .csv files should have appropriate names.

Task 2: Specify Content Attributes

Content Attributes:					
Content Pack Name:	Content Name	Content Publisher:	Content Publisher	Datasource:	CSV
Version:	10.00.000				

- 1. Type Content Pack Name. Example, RetailPOS.
- 2. Content Publisher name. Example, ABC Retail.
- 3. Type your datasource application in the **Datasource** box and content pack **Version**.

Task 3: Add Dimensions

Select files for dimension:			۲	+ Add Dimension	
Dimension Source File : RetailPO	S_0_Product_0_1234.csv				ii — 🕨
File Identifier:	Product				
File Pattern:	*Product*				
OBR Table/Caption Name:	Product				
Select Required Attributes :		> >> <	sku_id product_name brand_name category subcategory price		
Business Key Columns:	column name	+Add colu	ımn		
product name —					

- 1. From the Select files for dimension: list, select the dimension file and click Add Dimension.
- 2. Specify the File Identifier, File Pattern, and OBR Table/Caption Name.

Note: Table names must be unique across your content creation in OBR.

- 3. From the Select Required Attributes list choose the metrics required.
- 4. Click in the **Business Key Columns** box to select the column name and click **Add column**.

The selected column names are listed.

- Repeat step 4 to add more Business Key Columns.
- Click ____ next to the column name to delete the column.

Note: Click to duplicate the current dimension source and — to delete the current datasource and class selection.

5. Repeat steps 1 to 4 to add more dimensions.

Task 4: Add Facts

Select f	files for fact:			• + Add Fa	act
D F	act Source File : RetailPOS_0_Sa	iles_0_789.csv			10 — F
F	ile Identifier:	Sales			
Fi	ile Pattern:	*Sales*			
0	OBR Table/Caption Name:	Sales			
т	ime column:	AGENTTIMESTAMP	Ø		
Р	rimary Dimension:	Product			
Li	inked Dimensions:	Product			
Si	elect Required Metrics :	Except for business key, of store_name promotion_name	her string columns are not a	allowed for fact selection. AGENTTIMESTAMP product_name sale_qty sale_amnt	
B	Product product_name : p	roduct_name *			

- 1. From the Select files for fact list, select the fact file, and then click Add Fact.
- 2. Specify the File Identifier, File Pattern, and OBR Table/Caption Name.
- 3. Click \checkmark to add **Time Column** and select the column name.

Caution: This step is mandatory.

- 4. Select the Primary Dimension. The Linked Dimension is selected automatically.
- 5. From the Select Required Metrics list choose the metrics required.
- 6. From **Business key to Fact column association** list, select the business key column name and associated fact column name.

Note: Ensure that **Time column** and **Business key to Fact column association** are selected as part of required metrics.

7. Click the check boxes to select Aggregate Functions.

A	gregate Functions:	🗹 avg	g 🗹 min	🕑 max 📃	cnt 🔲 tot	med	🔲 std	slope	🔲 wav
	AGENTTIMESTAMP								
	product_name								
	sale_qty	•							
	sale_amnt		•						

8. Repeat steps 1 to 7 to add more facts.

Click to duplicate the current fact source and — to delete the current selection.

9. Click **Confirm Selection** to proceed to build content.

The Validate and build page appears.

Click **Modify Source** to reset the workspace and select different CSV files.

Note: When you click **Modify Source** and change CSV files, if you retain one or more previously selected CSV files for content creation, Content Designer retains all the details of the unchanged CSV files.

Task 5: Build and Deploy Content

The Validate and build page displays the details of the dimension and fact table you have collected.

OBR Content Designer Guide

Creating Content Pack Using Content Workspace



1. Select Create Universe to Local Folder or Publish Universe to CMC Repository:

Tip: If you are developing content in Windows, the best practice is to select **Publish** Universe to CMC Repository.

• Create Universe to Local Folder

SAP BusinessObjects universe is created in your local file system at {CDE_ HOME}\workspace\<*ContentPack_Name*>\<*ContentPack_Name*>.ap\UnxFolder\UnxLayers with the following extensions:

- .blx
- .cnx
- .dfx
- .unx

To export universe to CMC repository, see "Exporting the Universe to CMC Repository" on page 82

Publish Universe to CMC Repository

On selecting this option, Universe gets deployed directly to CMC repository.

To generate Reports from BI Launch Pad, see "Generating Reports from BI Launch Pad" on page 93

If you are creating content on a Linux system, see "Creating Application Content Pack for a Linux System" on page 81 to create application content pack.

2. Click Save Selection to save your current content pack selection for future use.

- 3. Click **Modify selection** to reset the content workspace.
- 4. Click **Run Build** to create your content packs.

Content build status is displayed and content pack creation is triggered and the following status is displayed:



Domain, ETL, and Application component packs are created at {CDE_HOME}\workspace folder with the *<content pack name>* you have specified.

Log on to OBR Administration Console and deploy the content pack. For information about deploying and installing content packs, see "Deploying Content Packs" on page 79.

Note:

After you deploy the content pack, ensure that the input CSV files are available in the $\{PMDB_HOME\}$ tollect folder.

The record terminator in the CSV files must be according to the platform on which OBR is installed:

- **OBR on Windows**: Record terminator of the input CSV must be \n\r.
- **OBR on Linux**:Record terminator of the input CSV must be \n

Click Create New Content to create a new content pack or View CDE Log File to see the CDE logs.

You can also see the status on your system in the log file at {CDE_HOME}\log\cde.log.

Database as a Datasource

OBR collects data from databases that support Java Database Connectivity (JDBC): Microsoft SQL, Oracle, Sybase IQ, PostgreSQL, and so on).

Note: If you select ORACLE as the database type, do not select Auto deploy Domain and ETL content pack. Your ETL content pack collection policy has to be edited and recreated using the command-based CDE.

From your collection policy, find the following DBDATE:

<statement>select "DBDATE" as DBDATE,"CUSTOMER_ID" as CUSTOMER_ID,"SESSION_ COMP_SEC" as SESSION_COMP_SEC from RUM_EVENTS_90000 where **DBDATE > \$FETCH_START_TIME**</statement>

Replace with the following:

<statement>select "DBDATE" as DBDATE,"CUSTOMER_ID" as CUSTOMER_ID,"SESSION_ COMP_SEC" as SESSION_COMP_SEC from RUM_EVENTS_90000 where **DBDATE > TO_ TIMESTAMP(\$FETCH_START_TIME, 'YYYY-MM-DD HH24:MI:SS.FF')**</statement>

For instructions to recreate ETL content pack, see *Operations Bridge Reporter Content Development Guide*.

Perform the following steps to generate the Domain, ETL, and Application components of the content pack:

Task 1: Select the Datasource

- 1. Open the **Content Workspace** page.
- 2. From the Choose the datasource for your content: list, select Database.

The Select the datasource tab is displayed.

	Hewlett Packard Enterprise	OPERATIONS BRIDGE REPORTER
* 🖌 🗘		
Select your datasource to dev	elop the content pack. Review	selection and build. Content Pack is generated to be de
Choose the datasource for your	content: - Select - - Select - Operations Agent	▼
© 2015-2016 Hewlett Packard Enterprise	CSV Company, L <mark>Database</mark>	3

3. Specify the **Database Host Name**.

Choose the datasource for your content: Databas	e 🔹 🗸	::: Resume DB Saved Selection
Select the datasource > Review the selection >	Validate and build	
Fill in source details:		
Database Host Name:	Hostname	
📘 Database Type:	-Select-	
Connection details:	Port Username	Password
Database Name:		
Database Instance Name/Server Name:		
JUse Previous Details	J	Test Connection

Note:

- If you have entered database details in OBR Content Designer earlier, click Use Previous
 Session Details to load database details saved earlier.
- Click **Resume DB Saved Selection** to load your content pack attributes selection from an earlier session in content workspace.
- 4. Select the **Database Type** from the list.

Note: For the database type, copy the following .jar files as applicable from the available location to the {CDE_HOME}\lib directory:

Database Type	.jar file	Available Location
MSSQL	jtds.jar	{PMDB_HOME}\lib
ORACLE	OVoracle.jar	{PMDB_HOME}\lib
SYBASEIQ/SYBASEASE	jconn4.jar	You can copy the jconn4.jar file from your jConnect install location or download the file from the Internet.
POSTGRESQL	postgresql.jar	{PMDB_HOME}\lib
VERTICA	vertica-jdbc.jar	{PMDB_HOME}\lib

- 5. Specify the Connection details: Port number, username, and password.
- 6. Specify the Database Name and Database Instance Name/Server Name.

Note:

• For MSSQL database:

The **Database Name** is the name of your database on the MSSQL server and **Server Name** is the name of the SQL server where the database is created.

Example:



Choose the datasource for your content: Database	• 🕑	
Select the datasource > Review the selection > Va	lidate and build	
Fill in source details:		
Database Host Name:	vm0160.swlab.net	
E Database Type:	MSSQL V	
🗇 Connection details:	1433 admin	•••••
Database Name:	prfdb	
Database Instance Name/Server Name:	vm0160	

• For Oracle database:

The Database Name and the Database Instance Name are the same. Type the same name in both the boxes.

Example:

Change Alias: ProfileDB						
Change Alias: BS	M926_ProfileDB					
Name:	ProfileDB					
Driver:	✓ Oracle Thin Driver ▼ New					
URL:	jdbc:oracle:thin:@vm0790.swlab.net:1521orcl					
User Name:	prof01					
Password:	•••••					
🗌 Auto logon	Connect at Startup					
	Properties					
Warning - Passy	Warning - Passwords are saved in clear text					
	OK Close Test					
Choose th	ne datasource for your content: Database	v 📀				
------------	--	-------------------				
👭 Select	the datasource > Review the selection > V.	alidate and build				
Fill in so	urce details:					
ę	Database Host Name:	vm0790,swlab.net				
E	Database Type:	ORACLE V				
đ	Connection details:	1521 prof01 •••••				
	Database Name:	orcl				
	Database Instance Name/Server Name:	orcl				

- 7. Click **Test Connection** to check the database connectivity.
- 8. Click **Process Source** to proceed with content development.

The **Review the selection** page appears.

Task 2: Specify Artifact Attributes

Content Attributes:					
Content Pack Name:	Example_Content	ETL Content Pack Name:	Example_ETL	Content Publisher:	MyCompany
Datasource:	CSV	Version:	10.00.000		

- 1. Specify Content Pack Name and Content Publisher name.
- 2. Specify your datasource application in the **Datasource** box and content pack **Version**.

Task 3: Add Dimensions

Select	table for dimension:	Table name + Add Dimension	
	Dimension Source Tab	ble : TRANSACTIONS_DIM Database Type : MSSQL	
F	ile Identifier:	TRANSACTIONS_DIM_dim	
C	BR Table/Caption Name:	TRANSACTIONS_DIM	
	Select Required Attributes :	:	
		INTERNAL_TRANSACTION_ID TRANSACTION_ID UUSTOMER_ID TRANSACTION_NAME TRANSACTION_NAME TRANSACTION_NAME BTF_IO C BTF_INAME BTF_INAME INTERNAL_APPLICATION_ID	
ľ	lusiness Key Columns:	CUSTOMER_ID Add column	
	CUSTOMER_ID -		
S	QL statement:	Select INLERVAL, IRANSAL IUN, UI SI INLERVAL, IRANSAL IUN, UI NANSAL IUN, UI SI IRANSAL IUN, IAME SI IRANSAL INN, IAME SI IRANSAL INN, IAME SI IRANSAL IUN, IAME SI IRANSAL IUN, IAME SI IRANSAL IUN, IAME SI IRANSAL IUN, IAME SI IRANSAL INN, IAME SI IRANSAL INN, IAME SI IRANSAL IUN, IAME SI IRANSAL INN, IAME SI IRANSAL INN, IAME SI IRANSAL IUN, IAME SI IRANSAL INN, IAME SI IRAN	Save and Validate

- 1. From the **Select tables that serve as dimension for the content:** list, select the dimension table.
- 2. Click Add Dimension.
- 3. Specify the File Identifier, and OBR Table/Caption Name.
- 4. From the Select Required Attributes list choose the metrics required.
- 5. Click in the **Business Key Columns** box to select the column name and click **Add column**.
- 6. Write or modify the SQL Statement, and click Save and Validate.

The SQL statement validation status is displayed.

Tip: Click **C** to view sample data from the dimension table, ¹ to duplicate the current dimension source, and ¹ to delete the current file selection.

7. Repeat steps 1 to 6 to add more dimensions.

Task 4: Add Facts

Sele	ect table for fact:		Table name		+ Add Fact
C	Fact Source Table : E	3PM_TRANS_2DAY_1000	0 Database Type : MSSQL		ü — 🗲
	File Identifier:	BPM_TRANS_2DAY_10	0000_fact		
	OBR Table/Caption Name:	BPM_TRANS_2DAY_10	0000		
	SQL statement:	select 'DBDATE' as DB 'EM_RESULT_VALUE_N BPM_TRANS_2DAY_10	DATE,'CUSTOMER_ID' as CUS' MAX' as EM_RESULT_VALUE_N 2000	TOMER_ID, MAX from	Save and Validate status : 📀
	Time column:	DBDATE	Ø		
	Primary Dimension:	TRANSACTIONS_DII	М		
	Linked Dimensions: Select Required Metrics :	TRANSACTIONS_D	IM		
	Except for business key,	other string columns are	not allowed for fact selection.		
	SAMPLETIME TUID INTERNAL_APPLICATION INTERNAL_LOCATION_IC STATUS_ID TIME_STAMP_COUNT EM_RESULT_VALUE_SUN EM_RESULT_VALUE_SUN EM_RESULT_VALUE_MIN EM_PAGE_CBD_COUNT_I	N_ID D M MSQR I SUM CITE CIT	DBDATE CUSTOMER_ID EM_RESULT_VALUE_MAX		

- 1. From the Select tables that serve as Fact for the content list, select the fact table.
- 2. Click Add Fact.
- 3. Specify the File Identifier and OBR Table/Caption Name.
- 4. Write or modify the SQL Statement, and click Save and Validate.
- 5. Click *to* add **Time Column** and select the column name.
- 6. Select the **Primary Dimension** and **Linked Dimensions**.
- 7. From the Select Required Metrics list choose the metrics required.
- 8. From **Business key to Fact column association** list, select the business key column names and the associated fact column names.

B	usiness key to Fact colun	nn association:							
	TRANSACTIONS_DIM	CUSTOME	R_ID : C	USTOMER_	ID		Ţ		
A	ggregate Functions:	🕑 avg	min	🔲 max	🗌 cnt	🗆 tot	🔲 med	🔲 std	🗌 slc
	Column/Aggregate	avg All/None							
	DBDATE								
	CUSTOMER_ID								
	EM_RESULT_VALUE_MAX								

9. Click the check boxes to select **Aggregate Functions**.

Tip: Click C to view sample data from the fact table, D to duplicate the current fact source and — to delete the current file selection.

- 10. Repeat steps 1 to 8 to add more dimensions.
- 11. Click **Modify Source** to go back and select a different source.
- 12. Click **Confirm Selection** to proceed to build content.

The Validate and build page appears.

Task 5: Build and Deploy Content

The Validate and build page displays the details of the dimension and fact table you have collected.

OBR Content Designer Guide

Creating Content Pack Using Content Workspace



1. Select Create Universe to Local Folder or Publish Universe to CMC Repository:

Tip: If you are developing content in Windows, the best practice is to select **Publish Universe to CMC Repository**.

• Create Universe to Local Folder

SAP BusinessObjects universe is created in your local file system at {CDE_ HOME}\workspace\<*ContentPack_Name*>\<*ContentPack_Name*>.ap\UnxFolder\UnxLayers with the following extensions:

- .blx
- .cnx
- .dfx
- .unx

To export universe to CMC repository, see "Exporting the Universe to CMC Repository" on page 82

• Publish Universe to CMC Repository

On selecting this option, Universe gets deployed directly to CMC repository.

To generate Reports from BI Launch Pad, see "Generating Reports from BI Launch Pad" on page 93

If you are creating content on a Linux system, see "Creating Application Content Pack for a Linux System" on page 81 to create application content pack.

- 2. Click Save to save your current content pack selection for future use.
- 3. Click **Modify selection** to reset the content workspace.
- 4. Click **Run Build** to create your content packs.

Content build status is displayed and content pack creation is triggered.



Domain, ETL, and Application component packs are created at {CDE_HOME}\workspace folder with the *<content pack name>* you have specified.

Note:

- Click Create New Content to create a new content pack or View CDE Log File to see the CDE logs.
- You can also see the status on your system in the log file at {CDE_HOME}\log\cde.log.
- On successful build "Content Build Successful" is displayed in the log file.

Deploying Content Packs

Deploying Domain and ETL Content Packs

After you build content using OBR Content Designer, domain, ETL, and Application component packs are created at {CDE_HOME}\workspace folder with the *<ContentPack>* name you have specified. If you have selected **Auto deploy Domain and ETL content pack** while creating content on OBR system, the domain and ETL content pack components are available on **OBR Administration Console > Content Packs Deployment** for installation.



To deploy the generated content pack manually on OBR system, follow these steps:

- 1. On your OBR system, go to {PMDB_HOME}\packages\ directory.
- 2. Create a folder with the <*ContentPack* > name your have specified.
- 3. Copy the contents of the following folders to {PMDB_HOME}\packages\<ContentPack> folder:

Domain: {CDE_

HOME}\workspace\<ContentPack>\Core<ContentPack>.ap\dist\ContentPack>

ETL: {CDE_HOME}\workspace\<ContentPack>\ETL_<ContentPack>.ap\dist\ContentPack>

Copying a generated components to the packages folder makes the components available in the **OBR Administration Console > Content Packs Deployment** page for installation.

Note: Make sure that you install the same versions of the content pack and their dependent content pack.

Generating and Exporting Application Content Pack

1. Select **Auto deploy Domain and ETL content pack** if you want to deploy the content on OBR server after successful build.

Caution: If you have selected Auto deploy Domain and ETL content pack in OBR Content Designer, do no try to deploy content in your OBR system Administration Console > Content Packs Deployment at the same time. Content pack deployment will fail.

2. Select **Create Universe to Local Folder** to create SAP BusinessObjects universe in your local file system and publish it later on OBR CMC repository.

Tip: If you are developing content in Windows, the best practice is to select **Publish** Universe to CMC Repository.

Files are created with the following extensions at {CDE_HOME}\workspace\<*ContentPack_Name*>.ap\UnxFolder\UnxLayers:

- .blx
- .cnx
- \circ .dfx
- .unx

Or select **Publish Universe to CMC Repository** On selecting this option, Universe gets deployed directly to CMC. To view the published universe and create reports after publishing the universe, perform the following:

- Export universe to CMC repository see "Exporting the Universe to CMC Repository" on page 82.
- Generate Reports from BI Launch Pad see "Generating Reports from BI Launch Pad" on page 93.

If you are creating content on a Linux system, see "Creating Application Content Pack for a Linux System" on the next page to create application content pack.

For information about installing and configuring content packs, see *Operations Bridge Reporter Configuration Guide*.

For information about exporting SAP BusinessObjects universe to repository, see "Exporting the Universe to CMC Repository" on the next page.

Next Steps

This section guides you with the next steps post creation of Content packs.

Creating Application Content Pack for a Linux System

When you create content using a Linux system, you need to create the application content pack using a Windows system where BusinessObjects Client Tools is installed. Copying the files from Linux to Windows does not work.

Follow these steps to create Application content pack in windows:

- 1. Extract the CDE.zip file.
- 2. Run setenv.bat command with appropriate parameter values.
- 3. Copy the ETL, Domain and Application components generated under \$CDE_HOME/workspace directory of the Linux system to Windows %CDE_HOME%\workspace folder.
- 4. On your command prompt, go to %CDE_HOME%\workspace\RetailPOS\RetailPOSDomain.ap.
- 5. Run the following command to compile domain content pack:

ant

- 6. Go to %CDE_HOME%\workspace\RetailPOS\RetailPOSETL.ap.
- 7. Run the following command to compile ETL content pack:

ant

- 8. Go to %CDE_HOME%\workspace\RetailPOS\RetailPOSReporting.ap.
- 9. Run the following command to compile application content pack:

ant

Files are created with the following extensions at {CDE_HOME}\workspace\<ContentPack_ Name>\<ContentPack_Name>.ap\UnxFolder\UnxLayers: OBR Content Designer Guide Next Steps

- .blx
- .cnx
- \circ .dfx
- .unx

To view the published universe and create reports refer After publishing the universe, perform the following:

- Export universe to CMC repository see "Exporting the Universe to CMC Repository" below.
- Generate Reports from BI Launch Pad see "Generating Reports from BI Launch Pad" on page 93.

Exporting the Universe to CMC Repository

After the application content pack is generated using the OBR Content Development Environment (CDE) or OBR Content Designer, perform the following steps:

Prerequisites:

• SAP BusinessObjects Client Tools has to be installed on any windows systems. Extract and install the client tools that is available in the following location:

<OBR .tar Extracted Location>/packages/BusinessObjects_Client_tools.ZIP

Note: If you are installing the Client Tools on the same OBR or SAP BusinessObjects installed system, follow these steps:

- a. Go to the location <BO install drive>:\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\jdbc
- b. Copy the vertica.sbo file to some other location.
- c. Install the SAP BusinessObjects Client Tools
- d. Replace the vertica.sbo file to the same location.
- On the system where the SAP BusinessObjects Client Tools is installed, go to the <drive>:\Windows\System32\drivers\etc\hosts file and type the hostname and IP address entries of the OBR and BO systems.
- Vertica JDBC driver

 Ensure that all the SAP BusinessObjects services are running in system where SAP BusinessObjects is installed.

After successful installation of SAP BusinessObjects Client Tools perform the following steps:

Important: If you have installed client tools on the same OBR or BO installed system, do not perform step 1 and 2.

1. In SAP BusinessObjects server, copy Vertica.sbo and Vertica-jdbc.jar from the following location:

On Linux:

- Vertica.sbo /opt/HP/BSM/BOE4/sap_bobj/enterprise_ xi40/dataAccess/connectionServer/jdbc
- Vertica-jdbc.jar /opt/HP/BSM/BOE4/sap_bobj/enterprise_ xi40/dataAccess/connectionServer/drivers/java

On Windows:

- Vertica.sbo-<BO install drive>:\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\jdbc
- Vertica-jdbc.jar-<B0 Install drive>:\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\drivers\java
- 2. On the Windows system where SAP BusinessObjects Client Tools is installed, paste the copied Vertica.sbo and Vertica-jdbc.jar to the following location:
 - Vertica.sbo-<BO install drive>:\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\jdbc
 - Vertica-jdbc.jar-<B0 Install drive>:\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\drivers\java
- On the system where SAP BusinessObjects Client tools is installed, select SAP Business Intelligence> SAP BO BI platform 4 Client Tools > Information Design Tool.
- 4. Log on to Information Design Tool (IDT).
- 5. Right-click in the Local Projects area, and select New > Project.

3.					
File Edit Windov	v Help				
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*	🔎 🕀 🖯				
	New	Þ	٥	Project	
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Ê	Paste	Ctrl+V			
2	Refresh	F5			

6. Specify the **Project Name** and **Project Location**. The project location is the path of unx folder (UnxFolder) generated by OBR Content Designer.

🚽 New Project		
New Project Enter the name of	the project.	
Project Name	Myrepository	
Project Location	C:\UnxLayers	
0	Finish	Cancel

UnxLayer contains files with the following extensions:

- .blx
- .cnx
- \circ .dfx
- .unx
- 7. Click OK.
- 8. Double-click the **Application**<**ContentPack**>.cnx and modify the **Array Size** to 5.

J Edit Relational Connection		
Edit HP Vertica 6.1 connection (2/2)		
Connection Pool Mode	Keep the	e connection active for 🔹
Pool Timeout	10	Minutes
Array Fetch Size	5	
Array Bind Size	5	
Login Timeout	600	Seconds
JDBC Driver Properties (key=value,key=value)		
Kext >		Finish Cancel

- 9. Right-click the **Application**<*ContentPack*>.cnx file and select **Publish Connection to a Repository**.
- 10. On the Publish Connection window, perform the following:

Publish Connectio	on 📃 🖳	x
Publish Connect Open a session on t	tion to a Repository the repository where you want to publish the connection.	
Sessions 🗐 Ne	ew Session	-
System User Name Password Authentication	Enterprise	•
e	< Back Next > Finish Cance	ct

- a. From the Session drop-down list, select New Session.
- b. In the **System** box, type your OBR BusinessObjects system details.

- c. Type OBR BusinessObjects server Administrator User Name and Password.
- d. From the Authentication list, select Enterprise.
- e. Click **Connect** to verify connection to OBR BusinessObjects system.
- f. Click Finish.

 Publish Connection Publish Connecti Define the repository 	on to a Repository rfolder where you want to pub	olish the connection.	
Connection	t s it /Connections/C	CommonConnections	
	Name	Description	Ve
		N	
	< <u>B</u> ack <u>N</u> ext >	<u> </u>	Cancel

11. Save the connection under the **CommonConnections** folder and click **Finish**.

Info	
1	The connection was published successfully.
	The connection was published successfully. Do you want to create a connection shortcut in the same local folder to reference this new secured connection?
	Yes No

Click **Yes** if you want to create a shortcut to the connection file, or else click **No**.

The OBR_CONNECTION. cns is added to the new project.

12. If prompted for secure connection, click Yes.

13. In the **Connection** area click the **Change Connection** icon and select the new **OBR_ CONNECTION.cns**.

引 Connection	🚯 Master
📴 🔂 🖄 🖂 🛪 🕅 🥏 🕞	💠 Insert 🔻 😵 Detect 👻 📑 Families
👂 👑 OBR_CONNECTION [@iwfvm0	
	IME THE TRANSPORT
	K 🕼 creation_date
	ኛ 🜃 modified_date
	12 delta_time
	12 ta_samples
	12 total_samples
	AB source
	RB sourceld
	RB checksum
	extraction_time
	s 12 dsi_key_id_
	K 🕼 ta_period
	12 avgsale_amnt
	K 12 main calle amont

- 14. Select the connection name and click **Finish**.
- 15. In Local Projects, right-click the .blx file and select Change Data Foundation.



16. Select the .dfx file (data foundation) and click Finish.

J ^I Select a Data Foundation	
Select a Data Foundation	
Select a new data foundation for the business layer.	
Search pattern	⊕∔ ⊝†
Applicationsecondcp.dfx	
Finish	Cancel

- 17. Right-click the .blx file and select **Publish > To Repository**.
- 18. Create a folder with your content pack name and click **Finish**.

Note: Ensure that your folder is selected before you click Finish.

19. Change the **Qualifier** and **Owner** as per your configuration during the on post-install configuration.

By default, the Owner is Public and Qualifier is pmdb.

3 .			Informat	ion De	sign Tool	
File Edit Actions Window Help						
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y Local Projects 🛛 📄 🔄 🔽 🗖	🛃 *ApplicationReta	IPOS.	.dfx 🛛			
°γ	🔒 Data Foundati	on	Master			
[U] mycontentpack 22 ApplicationRetailPOS.blx	Filter pattern	1	🖽 🖃 🍦 Insert 💌 😲 Detect	▼ ■	Families	
🖳 ApplicationRetailPOS.cnx	A Pplication	Retail	POS			
ApplicationRetailPOS.dfx	▷ m ^{all} Joins (b) ⊿ ### Tables (!)	5)	12 avgsale_qty 12 minsale_gty	MBER		
	DAT	ETIME	12 maxsale_qty	MBER		
	▷ III Prod ▷ III Sales	uct	12 TIME_DAY_NUMBER	OVERAL	L	
	⊳ <u></u> SD_S	붃	Insert Calculated Column			
	⊳ <u></u> SH_S		Edit	RIPTION		
			Change Qualifier/Owner	RIPTIO	N	
			Merge	ION		
			Delimit +	OVERA	LL	
			Set Case To			
			Detect	ER OVE	RALL	
			Check Integrity	-		
		d.	Count Rows	OVERA	LL	
		ġ.	Show Table Values		1	
🛃 Repository Resources 🖾 📃 🗖			Highlight Aliases	-		
			Display +	,	0.115	
S* Change Qualif	ier /Owner		¥	Select	Qualifier	
Change Table Qualifier/Owner			Select a table qualifier.			
Enter or select a new owner and qualifier for the	table.					
Ouslifier Multiple qualifiers			Delimit ⁴ 0 pmdb			
🛎 Owner public						
3 S	elect Owner	Ŀ				
Select a table owner						
A Txtindex						
M & v_catalog						
N Summer N						
			Θ		OK	Cancel

Note: If you are not able to change Qualifier and Owner successfully:

- a. Go to <BO installation Drive>:\Program Files (x86)\SAP
 BusinessObjects\SAP BusinessObjects Enterprise XI
 4.0\dataAccess\connectionServer\jdbc\extensions\qt directory.
- b. Open the vertica.prm file.
- c. Change the following parameters to Y instead of N:

```
<Parameter Name="OWNER">Y</Parameter>
<Parameter Name="QUALIFIER">Y</Parameter>
```

Points to remember

- 1. The connection name must be OBR_CONNECTION and the connection must be saved under the CommonConnections folder.
- 2. Qualifier and Owner must be appropriate as per your the custom change.
- 3. Please note that .dfx and .cns are connected with .blx layer. Export only the .blx layer to repository.
- 4. To import the universe from repository and make changes, right-click and retrieve the universe as shown below in Information Design Tool, so that you can view the .dfx and .blx. The .cns layer will be extracted in a folder named with the date of retrial.



Creating Web Intelligence Reports

You can create Web Intelligence reports by selecting the universe in SAP BusinessObjects BI Launch Pad and building one or more queries to define the data content of the reports. To create a simple sales report containing a table of sales quantity and sales amount per product category, follow these steps:

- 1. Logon to SAP BusinessObjects BI Launch Pad by using one of the following ways:
 - In the address bar of your web browser, type the URL of the SAP BusinessObjects system. The URL of the machine will be in the format: https://<HostName>:8443/BI
 - In the Administration Console, click Additional Configurations > Reporting Platform and then click Launch Bl Launch Pad. The Bl Launch Pad login page appears.
- 2. Log on to the SAP BusinessObjects BI Launch Pad with your System details, User Name and Password.
- 3. Under My Applications, click Web Intelligence icon.



4. Click the **New** icon.



5. From the Create a Document page, click Universe.

The Query Panel window opens. The **Universe Outline** tab displays the objects – dimensions and measures – available in the universe as shown in the following figure:

📁 Query Panel		3 ≿
💕 Add Query 🕶 🖬 🖬 🗐	🤣 😁 🗅	Run Query 📩 Close 🕶
🔆 Universe outline	C Result Objects	▼×¾
📄 DatabaseMSSQL Universe 👻	To include data in the report, select objects in the Data tab and drag them here. Click Run Query to return the data to the report.	
w - Type here to filt ⊕+ ⊖↑		
🖃 🧩 DatabaseMSSQL Universe - Mode		
DatabaseMSSQL_Core Supplemental		
	Y Query Filters	🐙 🏲 🗮
	To filter the query, drag predefined filters here or drag objects here then use the Filter Editor to define custom filters.	
	III Data Preview	🖓 Refresh
📴 Query 1		4 ▷ 🗉

6. Select RetailPOSReporting Universe - Model Generator.

- To include data in the report, select the following in the data tab and drag them into the Result Objects window. Alternatively, you can double-click the objects to place them in the Result Objects window.
 - Dimension: Category (under Product(Retail Sales))
 - Measures:
 - Sale Quantity (under Sales Measures)
 - Sale Amount (under Sales Measures)
- 8. Click **Run Query** to return the data to the report.

A table of Sale Quantity and Sale Amount by Product Category is created. You can rename the table to an appropriate title.

Viewing Reports on SAP BusinessObjects BI Launch Pad

Now that you installed the Domain and Reports component packages and the data is loaded into the data warehouse, you can view the reports on the SAP BusinessObjects BI Launch Pad interface.

If you installed the recently created content pack, you will see the report in the Document List in BI Launch Pad.

For instructions on how to log on to the BI Launch Pad and view reports, see *Operations Bridge Reporter Online Help for Users.*

Generating Reports from BI Launch Pad

Perform the following steps to create reports:

- 1. Type https://<HostName>:8080/BI on the web browser and log on to the BI launch pad of HPE OBR.
- 2. Click on Web Intelligence icon.

▼ 0 unread messages in My Inbox	 My Applications
No unread messages	>
	>
See more	
▼ 10 or more Unread Alerts	
OBR.WebApplicationContainerServer Watch Caution	
OBR.WebApplicationContainerServer Watch Caution	
OBR.AdaptiveProcessingServer Watch Caution Even	
👷 Consolidated Health Watch Caution Event	
Service Categories Watch Caution Event	
👷 Enterprise Nodes Watch Caution Event	
Repromotion Management Services Watch Caution Even	
👷 Analysis Services Watch Caution Event	
•	

3. Click on create a new Web intelligence icon.



- 4. In the Create a Document page, celect **Universe** as adatasource.
- 5. Click Refresh Universe list if the created Universe is not available in Available Universe List.

elect a	inclusion of the minery			
elect a	unhungen of the super-			
	universe for the query.			
Type h	ere to filter table			
<u>A</u> vailabk	Universes:		🔁 Refresh universe	e li
State	Name	Revision	Folder	
0	Applicationdb2d1f.unx	1	@iwfvm08392.hpeswlab.net_6400/	
õ	Applicationdbb1d2f unx	1	@iwfvm08392 hpeswlab net_6400/	
0	Applicationdbt1d2f unx	1	@iwfvm08392.hpeswlab.net 6400/	
O	Applicationdbyarbin.unx	1	@iwfvm08392.hpeswlab.net 6400/	
	Applicationpc1d1f.unx	1	@iwfvm08392.hpeswlab.net 6400/	
	Applicationpcsv2d1f.unx	1	@iwfvm08392.hpeswlab.net 6400/	
	Applicationgbt2d2f.unx	1	@iwfvm08392.hpeswlab.net_6400/	
	Applicationgcsv1d1f.unx	1	@iwfvm08392.hpeswlab.net_6400/	
	Applicationgmmc1d2f.unx	1	@iwfvm08392.hpeswlab.net_6400/	
	Applicationgmtestc1d1f.unx	1	@iwfvm08392.hpeswlab.net_6400/	
	Applicationqqtcsv2d2f.unx	1	@iwfvm08392.hpeswlab.net_6400/	
	Applicationqtcsv2d1f.unx	1	@iwfvm08392.hpeswlab.net_6400/	
	DatabaseOracle Universe - Model Generator	21	@iwfvm08392.hpeswlab.net_6400/DatabaseOra	
	eFashion	127	@iwfvm08392.hpeswlab.net_6400/	
	eFashion	127	@iwfvm08392.hpeswlab.net_6400/webi universe	
	HPOM Universe - Model Generator	20	@iwfvm08392.hpeswlab.net_6400/OM	
	Monitoring TrendData Universe	7	@iwfvm08392.hpeswlab.net_6400/Monitoring Tre	
S	Report Conversion Tool Audit Universe	12	@iwfvm08392.hpeswlab.net_6400/Report Conve	•

- 6. Double-click on the Universe to generate reports.
- 7. Click and expand the content under Universe outline to view the metrics.

Uuery Panel	
📫 Add Query 🔹 📑 🖬 🔚	89 🖅 🗅
Universe outline Applicationqbt2d2f Type here to file P Applicationqbt2d2f (unv) P Applicationqbt2d2f (unv)	Result Objects A category * price * product_name * sku_id * subcategory * n Cuery Filters To filter the query, drag predefined filters here or drag objects here then use the Filter Editor to define custom filters. Data Preview
	Q• Type a text to filter the values

- 8. Drag and drop the required metrics from *Dimension* and *Fact* tables to **Result objects**.
- 9. Click on **Run Query**. You can see the report generated.

Hon	ne Documents New Document	t "⊡ +¤ 8	3							
	File Properties	R	eport Element	Format	Data Access	Analysis	Page Setup			
D	🔎 🖫 • 🚑 🗛 🌮 🛋 • 🖂	та	ble Cell	Section	Chart Ot	hers	Tools Posi	tion Linking		
×	🗈 🛅 - 🔊 @ X 🗗 🥸		• 🗉 • 🗊	• 🗄 •	ш • 🖄 •	4	Turn Into 👻	📔 🔛 Set as Se	ction	
	Available Objects - 🛛 « 🖆	🚅 × 🖌 🔤								
P	Type here to filter tree									
	🖃 🚽 New Document									
- 2	···· 🐅 brand_name									
0	category			Pop	set 1					
5 7	w product_name			Kept						
602	w subcategory	rand name	category	price	product nam	sku id	subcategory	min sales ar	max sales a	ava sales au
	avg sales_quantity	rana_name	outogory	price	product_nan	onu_iu	suscuregory	min balob_a	max sales_a	uvg sales_qe
	min sales_amount	łΡ	Laptop	2	HP ProBook !		1 Business	6	16	6.17
	Variables	IP	Laptop	3	HP EliteBook		2 Personal	3	27	4

10. You can generate column charts, pie charts and so on as per your requirement.



Edit Content

OBR Content Designer allows you to make changes in your content pack artifacts using an built-in, easy-to-use XML editor and regenerate the content pack. You can also make changes in several content packs and re-build the content packs all at once.

Modifying Existing Content Packs

Note: You can modify only the .xml files using the XML editor. You cannot modify build.xml file under any content pack.

Edit content

Follow these steps to edit your content:

1. On your Content Workspace, click Edit Content

ntent 🗡

All the content packs you have previously created are listed.

Le Content Structure			
C [+ Expand All] [- Collapse All]			
RetailPOS	Build Content		[View Build Log 🔗]
 CoreRetailPOS.ap ETL_RetailPOS.ap RetailPOS.ap 	Content Name :	RetailPOS	
RetailPOS_MappingFile_696149867859322.csv	Content Type :		
	Core Content :	CoreRetailPOS.ap	
	ETL Content :	ETL_RetailPOS.ap	
	Application Content :	RetailPOS.ap	
	Build Content		

2. Click a content pack name and then the plus sign 🛨 to views the artifacts.

Click **Expand All** to expand and view the content artifacts for all the content packs.

Click **Collapse All** to collapse the artifacts.

Click 🦳

to hide the list of content packs; click the same button to view the content packs.

3. Click the .xml file you want to modify.

The .xml file opens in the XML Editor on the left.

4. Make the changes required and click **Save**.

When you click **Save**, the .xml file is saved but the content pack is not updated with the changes. Ensure that you rebuild the content.

Re-build content pack

1. After you modify and save the .xml files for a content pack, click a content pack name.

The Build Content page appears on the right.

Content Structure			
C [+ Expand All] [- Collapse All]			
RetailPOS	Build Content		[View Build Log 🕜]
 CoreRetailPOS.ap ETL_RetailPOS.ap RetailPOS.ap RetailPOS_MappingFile_696149867859322.csv 	Content Name :	RetailPOS	
	Content Type :		
1	Core Content :	CoreRetailPOS.ap	
	ETL Content :	ETL_RetailPOS.ap	
	Application Content :	RetailPOS.ap	
	Build Content		

- 2. Select the Content Type: Core, ETL, and Application.
- 3. Click **Build Content**.

The content pack is re-generated. Click View Build Log to see the logs.

Re-build Multiple Content Packs

OBR Content Designer provides the option to modify content packs and re-build multiple content packs at once.

Follow these steps to re-build the multiple modified content packs together:

1. On your Content Workspace, click Build Content.

The Build Content page displayed with all the content packs.

Retail	POS2 :
	CoreRetailPOS2.ap
	ETL_RetailPOS2.ap
	RetailPOS2.ap .
Retail	POS3 :
	CoreRetailPOS3.ap
	ETL_RetailPOS3.ap
	RetailPOS3.ap
Retail	POS4 :
	CoreRetailPOS4.ap
	ETL_RetailPOS4.ap
	RetailPOS4.ap
🔒 Do r	not refresh this page when you click Build Content Button.

Build Content

2. Click the type of content you want to re-generate for each content pack.

Click Select All to select all the content packs and Deselect All to clear your selection.

3. Click **Build Content** to rebuild all the selected content packs.

The Build Successful or Build Failed message is displayed for each content pack based on the content pack status.

Caution: Do not refresh the page after you click Build Content. Wait until the content packs are regenerated.

4. Click **View Build Log** to see the logs.

Frequently Asked Questions (FAQs)

1. I want to register a new User. How can I do that?

At present, **admin** is the only username supported on OBR Content Designer.

2. What do I do when my Content Workspace hangs?

If the Content Workspace hangs as shown in the figure below, from the {CDE_HOME} folder, delete the files that are not related to content development.

Hewlett Packard C Enterprise	DPERATIONS BRIDGE REPORTER Home Content Workspace Settings	ይ	-
* * 0			
Choose the datasource for your content: - Select - *			
	subscribe now for more updates 🗹 Please feel free to contact us 🕈	9	þ
	Loading content workspace_		

3. What can I do to avoid "Error: Could not find or load main class org.apache.tools.ant.launch.Launcher" even when ANT_HOME is set correct?

If you get the error *Error:* Could not find or load main class org.apache.tools.ant.launch.Launcher, even when ANT_HOME is set correct,

Create the */usr/share/java-1.8.0* and */usr/lib/java-1.8.0* folders manually by running the below commands:

• For /usr/share/java-1.8.0:

mkdir /usr/lib/java-1.8.0

• For /usr/lib/java-1.8.0:

mkdir /usr/share/java-1.8.0

4. While creating universe, the error *java.lang.UnsupportedOperationException: csEX* appears. Why?

Follow these steps for a successful universe creation:

- On your Windows system, go to Control Panel > System and Security > System.
- Click Advanced system settings.
- Click Advanced tab, and then click Environment Variables.
- In System Variables, locate BO_HOME.
- Specify the BO ClientTools path in the Variable value in double quotes (" ").

For Example, "C:\Program Files"

5. Can multiple users build content at a time using the Content Designer?

No. At preset, only one user can build content at a time.

6. While running the content build using Content Designer, can I update ModelMapper.csv?

No, you cannot update the file after triggering the build. You need to do it outside the content designer at %CDE_HOME%\workspace\<contentpack> folder manually using the command prompt. For more information, see *Operations Bridge Reporter Content Development Guide*.

7. What do I do if BusinessObjects ClientTools is installed on the path that contains spaces?

For regenerating content on your Windows system:

If BusinessObjects ClientTools is installed on the path that contains spaces,

- a. Exit the command prompt.
- b. Specify the BO_HOME environment variable path in double quotes ("").

For example, if BusinessObjects ClientTools is installed on C:\Program Files, specify the BO_HOME Variable value in double quotes as "C:\Program Files".

- c. Open a new command prompt.
- d. Go to %CDE_HOME%\workspace\<content_pack_name>\<content_pack_name>.ap directory.
- e. Run the antcommand.
- 8. What do I do when I come across a Table Not Found Error? .

Install domain content pack on OBR system, and perform the following steps:

On Windows

- a. Right-click your Computer icon and select Properties.
- b. Click Advanced System Settings, Advanced tab, and then click Environment Variables.

- c. Select **BO_HOME** from the list of enthronement variables and click **Edit**.
- d. Specify the Variable value in double quotes (" ").
- e. Click OK.

On Windows and Linux

- a. Open the command prompt.
- b. Go to {CDE_HOME}\bin directory.
- c. Run setenv.bat/ setenv.sh.
- d. Go to {CDE_HOME}\workspace\<content_pack_name>\content_pack_name.ap directory.
- e. Run the ant command.
- f. When you get a Build Successful message, follow the steps in "Exporting the Universe to CMC Repository" on page 82.
- 9. Installing the generating content pack goes to an indefinite loop. What can I do to resolve this?

Check and ensure that your BusinessObjects services are up and running.

References

For documents on SAP BusinessObjects Business Intelligence Platform, see SAP BusinessObjects Business Intelligence platform 4.1.

For information on the following SAP BusinessObjects Official Product Tutorials, see:

- SAP BusinessObjects Dashboards 4.x
- SAP BusinessObjects BI Launch Pad 4.x
- SAP BusinessObjects Information Design Tool
- Securing Business Objects Content Folder Level, Top Level and Application Security

You can also refer to SAP BusinessObjects documents available at physical location on OBR server:

• For information on Central Configuration Manager help, go to:

<Install_Drive>\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\Help\en\Central Configuration Manager Help.chm(**On Windows**) • For information on Designer tool, go to:

<Install_Drive>\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\Web Content\enterprise_Xi40\help\en\designer_en.chm (**On Windows**)

- For information on SDK samples and documents, go to:
 - o <Install_Drive>\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects
 Enterprise XI 4.0\SL SDK (**On Windows**)
 - /opt/HP/BSM/BOE4/sap_bobj/enterprise_xi40/SL_SDK (On Linux)
- For information on Central management console (Administration of Business objects), go to:

/opt/HP/BSM/PMDB/BOWebServer/webapps/BOE/WEB-INF/eclipse/plugins/webpath.CmcAppBranding_lang.en/web/help/en (On Linux)

 For information on BI Launchpad (creation of reports, report functions and other admin tasks like scheduling), go to:

/opt/HP/BSM/PMDB/BOWebServer/webapps/BOE/WEB-INF/eclipse/plugins/webpath.InfoView_lang.en/web/help/en (On Linux) OBR Content Designer Guide Frequently Asked Questions (FAQs)

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Feedback on OBR Content Designer Guide (Operations Bridge Reporter 10.22)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to docfeedback@hpe.com.

We appreciate your feedback!