Scheduling and Delivering Highly Formatted Reports Using Oracle Discoverer and Business Intelligence Publisher

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INTRODUCTION

Oracle Business Intelligence Publisher (BI Publisher, formerly XML Publisher) is an enterprise reporting solution to author, manage, and deliver all types of highly formatted documents eliminating the need for costly point solutions. Built on open standards, IT staff and developers can create data models against practically any data source and use BI Publisher APIs to build custom applications leveraging existing data sources and infrastructure. End users can easily design report layouts using familiar desktop tools, dramatically reducing the time and cost needed to develop and maintain reports. Extremely efficient and highly scalable, BI Publisher can generate tens of thousands of documents per hour with minimal impact to transactional systems. Reports can be viewed online or scheduled for delivery to a wide range of destinations.

Oracle Business Intelligence Discoverer is an intuitive ad-hoc query, reporting, analysis, and Web-publishing tool that empowers business users at all levels of the organization to gain immediate access to information from data marts, data warehouses, online transaction processing systems and Oracle E-Business Suite.

By taking advantage of the integration available with the latest versions of BI Publisher and Discoverer you will be able to create highly formatted reports that include multiple visualizations based on data from Discoverer worksheets. You will also be able to schedule those reports to be executed and delivered to printers, fax machines, email, WebDAV and ftp destinations.

Oracle Business Intelligence Publisher (BI Publisher, formerly XML Publisher) is an enterprise reporting solution to author, manage, and deliver all types of highly formatted documents

With the latest versions of BI Publisher and Discoverer you can create highly formatted reports and take advantage of what BI Publisher can offer Oracle BI Publisher integration offers easy and flexible reports development for highly formatted reports, scheduling and delivery, generating report outputs in a wide range of formats

BENEFITS OF INTEGRATION

Oracle BI Publisher 10.1.3.3 includes the ability to use Oracle BI Discoverer worksheets as the data set for a report. This provides three key benefits to Discoverer users, who will now be able to:

- Create highly formatted reports:
 - Rich formatting capabilities: Use Oracle BI Publisher template builder for Microsoft® Word to use the formatting features of Microsoft Word to format content.
 - Rich layout capabilities: Use the Oracle BI Publisher Template Builder for Microsoft Word to use the document layout and formatting features of Microsoft Word.
- Schedule execution and Delivery of reports to wide range of destinations: Schedule frequency (Once, daily, weekly, immediately) and delivery destinations (Email, FTP, WebDAV, FAX, Printer) can be configured in Oracle BI Publisher, allowing Discoverer content to be generated and distributed on a scheduled basis.
- Generate reports in a greater range of formats: Create multiple templates
 per Discoverer worksheet : Layout templates in BI Publisher can be built
 using familiar desktop applications such as Microsoft Word and Adobe
 Acrobat[®]. Oracle BI Publisher plug-ins are provided to help the report
 designer to build the layout they want in their favored application.

This document describes how to:

- Configure BI Discoverer and Oracle BI Publisher to work with each other
- Create, Schedule, and Deliver BI Publisher reports based on Discoverer Worksheets

CONFIGURE ORACLE DISCOVERER AND BI PUBLISHER

Depending on your Application Server version you will have to apply some patches to obtain Discoverer Web Services enabled, so please consult Oracle Support to obtain the corresponding patches that apply to your case.

The following configuration is based on BI Publisher version 10.1.3.3 (inluding BI Publisher's template builder for MSFT Word) and Application Server Update 10.1.2.3 (which includes Discoverer Plus 10g (10.1.2.55.26)).

Once you have installed the software you will have to perform the following steps to integrate Oracle BI Publisher and Oracle Discoverer :

1. **Configure Discoverer with Application Server in SSO mode**: BI Publisher integration requires an integrated SSO-enabled Discoverer instance. When Discoverer is SSO-enabled then every Application Server user can create their own Discoverer **private connections** and use them in BI Publisher when creating BI Publisher's report.

- 2. **Configure Discoverer Web Services:** This step sets up the trusted users in BI Discoverer to be used within BI Publisher.
- 3. **Configure BI Publisher with Discoverer Web Services:** This step sets up the parameter values and proxy user for BI Publisher to make use of Discoverer Web Services.

1. Configure Discoverer with Application Server in SSO mode

Discoverer Web Services operates only in a SSO environment¹. Only the SSO user is authenticated and Discoverer Private and Public connections for that user can be retrieved².

To enable Single Sign-On for Discoverer, open the file

<ORACLE HOME>\apache\apache\conf\mod osso.conf

in a text editor and add the following text to the end of the file:

```
<Location /discoverer/plus*>
require valid-user
AuthType Basic
</Location>
<Location /discoverer/viewer>
require valid-user
AuthType Basic
</Location /discoverer/app>
require valid-user
AuthType Basic
</Location>
```

Re-start the Application Server Middle Tier.

2. Configure Discoverer Web Services

Discoverer Web Services in release 10.1.2.3 requires four additional manual steps described below³

a) Create an OID Container for Discoverer Webservices:

To create the Oracle Internet Directory container (A new entry in OID) for the Discoverer Web Services perform the following steps. Confirm that the Application Server Infrastructure Tier is up and running (infra DB and

¹ This will change for Discoverer 11g.

² For specifics see: "How to enable and disable Single Sign-On for Discoverer" in the **Oracle® Business Intelligence Discoverer Configuration Guide** or follow the Metalink's **Note 300229.1**

³See Readme for patch 5983622 (upgrade to Application Server 10.1.2.3)

Application Server Infra), set Middle Tier ORACLE_HOME, and create the Oracle Internet Directory Container:

DOS> opmnctl status DOS>set ORACLE_HOME=c:\OracleASBI ORACLE_HOME\discoverer\util > createoidcontainer orcladmin ias_admin1

Note: **ias_admin1** is the password we used when we installed the Infrastructure and the middle tier.

ias-component	process-type	p1 d	status	
LogLoaden dom-daamon D043 D043 D043 D043 WebCache WebCache MTP_Server D1 Scovener D1 Scovener D1 Scovener D1 Scovener D1 Scovener	1 og loadend dat-daman hore daman 0C41_PORtol NebCache NebCache NebCache Metro Servi CessCatus PreferenceServer OSA	N/A 2560 5088 3620 2556 3148 4088 2384 1394 N/A	Down Down Allive Allive Allive Allive Allive Allive Allive Allive Allive Down	
C:\OracleASBI\die	coverer\util>set ORACLE_	HOME=c:\or	nac1eASBI	

b) Update the Java Policy

Update Java policy file by adding the following permission in the

ORACLE_HOME/j2ee/OC4J_BI_Forms/config/java2.policy file:

grant codebase

"file:\${oracle.home}/j2ee/OC4J_BI_Forms/application-deployments/discoverer/-" {permission java.lang.RuntimePermission "oracle.discoverer.connections"; }

c) Define a trusted user to access the Discoverer web services

Define a <u>trusted user</u> in **AS Middle Tier** which BI Publisher will use in the web services call to Discoverer. Here we define two trusted users: **bipuser** and **video5**.

These users and group are created using Oracle Application Server Enterprise Manager for your BI & Forms installation. After logging into Application Server Control, please navigate to the following location:

OC4J_BI_FORMS \rightarrow Applications \rightarrow Discoverer

Select the 'Security' link and you should see the following page:

ORACLE Enterprise Manager 18g	Loos Topology Preterences Help
arm > Application Server, ASBI chaps up brack com > OCAL O	24.) BI Forms > Application: discoverer. >
iecurity	
	Page Retrested Mar 28, 2008 9;11:51 PM
Principals	
User Manager Name JAZNUserManager User Manager Class oracle.security.jazn.oc4j.JAZNUs	erManager
Grange	
	(Auld Group)
Safect Maine	
No groups found using the specified User Manager	
Users	
	Add User
Select Name	Grasp Memberships
No users found using the specified User Manager	
Security Roles	
Select Name Autigner No security roles found in this application	Overs Antigned Groups

Select the 'Add Group' button to add a group called 'sr_users' – make sure to check both boxes for the group as below:

Sem > Applicatio	n Server: ASEI chaos us oracle.com > 0042-0041 El Forms > Application: discoverer > Security >
Security: Add	Group
Name	sr_users
Description	sr_users
g TIP Remote E	JB clients require the RM login permission in order to be able to access objects on the OC4J serve

You should now see the following:

CRACLE Interprise Baston By Replication Server Control	
Teen * Associate bever soll check as medicate * DOM CON III Perior * Associate decovers *	
Security	
	Page Networks
Principals	
Uner Manager Kanne - JE200 New Blanager Uner Hinnager Christinaster - analise sexually gradies of g. JE200 New Blanager	
(trupp)	
	And Dearth
(Bennese)	
Select Name	
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Select the 'Add User' button to add a single user, in this example we are adding users called '**bipuser**' and '**video5**'. Any of these users can be used as proxy for BI Publisher when configured later to access the Discoverer Web Services. Add these users to the group 'sr_users' created earlier:

Application Server Centrol	Loss Santas Websition Mile
THEN > Application Theory Attraction and including > DEAL OCAL IN	Form > Restation statement > Dearly >
Security: Add Uper	
General	
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Group Memberships	
Solest All Selectifices	
Select Group Name	
🖂 jez reniv ven	
	Sanati (Sr

Do the same for user video5/video5 and you should now see the following:

ecurity			
			Page Refreshed Mar
Principals			
User Manager Name JAZNUserManager User Manager Class oracle.security.jazm.or	4j.JAZNU	serManager	
Groups			(htt hours)
(Remove)			And group
Select Name			
iazn.com/sr.users			
Users			Add User
(Bernove)			
Select Name	Group	Memberships	
jazn.com/bipuser	jazn.c	om/sr_users	
jazn.com/video5	jazn.c	am/sr_users	
Security Roles			
Select Name		Assigned Users	Assigned Groups
No security roles found in this application			

d) Map group and users to an application specific role

The next step requires an edit of a file to map the users and role you just created to a pre-existing Discoverer specific role called 'sr_users'.

Open the file

ORACLE_HOME\j2ee\OC4J_BI_Forms\application-deployments\discoverer\orion-application.xml

In a text editor and add the following:

As shown in this screenshot.

[C:\OracleASBI\j2ee\OC4J_BI_Forms\application-deployme	ents\discoverer\orion-application.xml*]
Ble Edit Search Broject View Pornae, Column Mecro Advan	nced Window Belp
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orion-application.vor/*	
79 <group jazn.com="" name="jazn.com/administra</td><td>itors*/></td></tr><tr><td><pre>sp </security-role-mapping></pre></td><td></td></tr><tr><td>91 </namespace-resource></td><td></td></tr><tr><td><pre>92 </Write-access></pre></td><td></td></tr><tr><td>92 </ namespace-access></td><td></td></tr><tr><td>94 «security-role-mapping name**sr_users*></td><td></td></tr><tr><td><pre>95 <group name=" sr_users"=""></group>	
<pre>%% <user name="jazn.com/pipuser"></user></pre>	
<pre>97 <user name="jazn.com/video5"></user></pre>	
<pre>98 </pre>	
99 «/orion-application»	
<pre>95 <group name="jarn.com/sr_users"></group> 96 <user_name="jarn.com sr_users"=""></user_name="jarn.com> 97 <user_name="jarn.com srdeo5"=""></user_name="jarn.com> 98 94 </pre>	

Note: The pre-existing role "sr_users" is defined in the file:

<ORACLE_HOME>/j2ee/OC4J_BI_Forms/applications/discoverer
/ discoverer/WEB-INF/web.xml

After this you restart the OC4J_BI_Forms process and navigate to OC4J_BI_FORMS > Applications > Discoverer > Security and you should see the following:

ORACLE Enterprise Manager 10g Application Server Control		Long Tor
Farm > Application Server, ASSI chaos, us oracle o	com > DC4J OCAJ	B. Forms > Application discovered
Security		
		Page Refreshed Mar 2
Principals		
User Manager Name JAZNUserManage User Manager Class eracle.security.ja:	r zm.octj.JAZNUserf	lanager
Groups		
(Territor)		Add group
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D jazn.com/st_usets		
Usors		
10100		(Add User)
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jazn, combipusar	jazn.com/sr_	users
🔘 jazn. com/rideo5	jazn.com/sr_	usats
Security Roles		
Map Role To Principals		
Select Hame Assigned Users		Assigned Groups
🛞 sz_users [jazn.com/bipuser]azn.c	com/video5	jazn.com sr_users

e) Add the following entry to the **configuration.xml** file to control the configuration parameters:

```
<ws logLevel="debug" maxSessions="20">
<enableWS status="true"/>
</ws>
```

In the preceding entry, logLevel specifies the logging level, maxSessions specifies the maximum number of Oracle Discoverer sessions that can be active at the same time (the recommended value is 20), and enableWS specifies whether the Oracle Discoverer Web Services is enabled.

f) Verify access to the Discoverer web services

To test the definition of the trusted users and verify they access Discoverer Web Services go to

http://<discoverer machine name>:7778/discoverer/wsi

Enter user created / pwd (e.g. bipuser / bipuser1 and video5/video5 should work). If you successfully login then you will see a webpage like this:



3. Configure BI Publisher with Discoverer Web Service

Login to BI Publisher as a user with Administrator privileges and navigate to the Admin tab. In the lower right, under Integration, click on "Oracle BI Discoverer"

Enter the details of the Discoverer installation. Any of the dedicated users defined previously (either bipuser/bipuser1 or video5/video5) has to be defined in BI publisher. BI Publisher must be restarted as well as Application Server so that changes take effect.

ORACLE'	Publisher Enterprise Welcome, bij	padmin Preferences Sign Out Help
Reports Schedules Admin		
Admin # Oracle Bi Discoveren	70	
Integration		
Oracle BL Presentation Service	s Oracle BEDiscoverar	
HTTP Any changes will only take of Server Protocol	fact after the application is restarted.	Cancel Apply
* Server	chaos us oracle.com	
* Part	2776	
* Administrator Username	bipuser	
* Administrator Password		
URL Suffix	discoverse/wsi	
	(Dafad Moal docorroy/wit)	
Fetch Size	(250 IDebuilt Wee (20)	

CREATE AND DELIVER A BI PUBLISHER REPORT BASED ON A DISCOVERER WORKSHEET

So far, we have configured Discoverer to work integrated as new data source for BI Publisher. Before we can proceed we need to define a SSO user under Oracle Application Server so that it can access Discoverer reports.

We can either use Oracle Directory Manager or the Oracle Identity Management Self-Service Console web interface for OID Delegated Administrative Services (oiddas). The easiest and quickest method is to your OIDDAS. For example: http://chaos.us.oracle.com:7777/oiddas/



Login as administrator (normally orcladmin/ias_admin1, the password depends on the value you used during the Application Server installation) and click on **Directory** tab. Click on "**create**" and create the **'biptest/biptest1'** SSO user:

ORACLE' Identity Provisioning Console	Manageme	nt				Degast Banks Mar	agament Hala
				Hor	ne My Profik	Directory 👔	Configuration
Users Groups S	šenices Ap	plications					
						Logged i	n as orcladmin
 Additional S Or Personal Da Details 	panizational <u>tails</u>	photograph	Telephone Numbers	Office Address	Hame Address	Reles Assignment	Resource Access Information
Create User						Can	rel (Submit)
Basic Information							
First Name	biptest						
Middle Name							
Last Name	biptest						
 User ID 	biptest						
 Password 	bipteet1						
 Confirm Password 	biptezt1						
Email Address	biptest@ore	cie.com					
Time Zone	(UTC-05:00)	US Eastern Time	,	~			
User default group			🖌 📋				

At this point we have to make a decision of BI Publisher's users management. We need to decide what kind of Security model for BI Publisher's we will use:

a) If we use LDAP security Model then we can leverage the Oracle Internet Directory (OID) and associate the user (just created) to one of the XMLP predefined groups ⁴ then your default group would look like for example:



 b) or If we use BI Publisher's security mode (XDO) then SSO users need also to be defined in BI Publisher, so that they can create, schedule, view BI Publisher's reports based on Discoverer Data.

⁴ For more details on this configuration see: **<u>BI Publisher integration with LDAP</u>**

For simplicity, we will use the latter and therefore we need to define the user "**biptest** / **oracle**" in BI Publisher⁵.

Note: When creating the user in BI Publisher, consider if the user will create reports, execute or schedule them. It is always advisable to define new Roles and associate roles to users in this manner we can also share Folders and data sources.

We have also defined three new roles: **Developer** (who can develop new reports), **Scheduler** (who can only schedule reports) and **User** (who can only view reports)

ORAC	CLE' Bi Publisher Enterprise	welcome, administr	vatur DaaMooan	is Preferences Si	gn Out Help
Reports School	des Admin				
Admin > Rolan an	d Permieatone				
Security Center					
Security Configu	ration Users Roles And Permissions (Jigital Signature			
Create Role,	Description	Add Folders	Add Data Sources	Add Roles	Defete
Developer	Develops El Publisher's reports			14	1
scheduler.	Schedule 82 Publisher's reports	1	1		1
USSE.	Executes/View BI Publisher's reports	1	1	112	8

We have the following users: Administrator (BI Publisher's administrator), biptest (user to create new reports), janicama (user who can only view reports).

CRACLE' BI Publisher Enter	prise Wolcomo, -	administrator Dacht	oards Preferences Sign Out Help
Reports Schedules Admin			
Adoun > Daars			
Security Center			
Security Configuration Users Roles And Perm	issions Digital Signat	ane .	
Create User			
Usemane	Assign Roles	Delete	
administrator	¥11	1	
biotest	\$12	10	
JACAGADA .	¥12	3	

We have the following user and role assignments:

BI Publisher's	Role Names	BI Publisher's Role	Actual role
User Name / Password			
Administrator/Administrator		BI Publisher	BI Publisher
		Administrator	Administrator
biptest / oracle	Developer,	BI Publisher	Creates BIP
	scheduler	Developer,	reports, Schedule
		BI Publisher	reports
		Scheduler	
janicama / janicama	User	BI Publisher Excel	View BIP reports
		Analyzer, BI	
		Publisher Online	
		Analyzer	

The BI Publisher's users "biptest" and "janicama" need also to be SSO users in Oracle Application Server so their corresponding private connections and public

⁵ Notice the password is different as the user's name "biptest" must only be common.

connections will be available when they create BI Publisher reports from Discoverer data.

1. Creating a report in BI Publisher Web Interface

We will start showing the Discoverer reports created by the SSO user **biptest/biptest1**.

Standardsford (C. 1998) Reveal Month Second Control 10	3 Cara Rollow freeDenders			1
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	- Connel	10000	Child Stat, 2001 Is via Peri	
	Core Report to Deep, JHP		Caller Services	
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	(Speed	react	CH11,200C1/00199	
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Contract Constitution of the Lines in succession	R - Hann Taland Voltageal	VARCE	Sep 0. 2027 & 11/16	
	18 🙀 Harry Takang Marikasali	84	Col 10, 2281 U 10 14	

We also show here a screenshot of the user **biptest/biptest1** after creating a <u>Private connection</u> in Discoverer, this connection will be carried to BI Publisher when user **biptest** logins to BI Publisher and creates reports based on Discoverer Worksheets as data source.

Ghoose Connection		- Create Connection
Details Convection	Description	Update Delete
Show BI Public		/ 8
Show video5 Private Connection	wdeo5 Private Connection	1 3

Now, to create our BI Publisher report based on this Discoverer Worksheet, connect to Oracle BI Publisher through your browser. It should look like this <u>http://myserver.company.com:7779/xmlpserver</u> and login as **biptest** / **oracle** (BI Publisher user as defined above with roles for scheduling and developing reports).



Navigate to or make a directory to hold the report you want to create.

ORACLE BIPatister Enterstor	
Narth Schutter Advan	
inere - Aufdanis - Casaran Break Bayess	Folder and Report Tasks
	Create a new folder
Adde and Report Lode	Enter Report Name
d lateriament	Video Stores
Re .	Create
To come, address constraint follow co- opport, calesion statil an falant score co resport score.	ource ource
Duvidopier, Tools	Upload a report
A Design Adde	

Click Create a new report in the Folder and Report Tasks frame on the left side of your browser page. Give it a name "**Video Stores**" and click Create. The report will appear on the right hand side of the screen.

Click the **Edit** link the under the report name.

Video Stores
Date Modified 4/4/08 11:46 PM Eastern Time
<u>View Schedule History Edit Configure</u>

Select Data Model from the Report tree and click the New button at the top of the tree to create a new Data Set.

Report		
New	🗱 Delete 🔕 🛞	
📓 Rep	ort	
	Data Model	
8	List of Values	
	ት_ Parameters	
	🛃 Layouts	
	Bursting	

Under the **General Settings** section of the **Data Set**, optionally name the data set and select **Oracle BI Discoverer** in the Type field.

Data Set			
General Settings			
	Name	Disco Data	
	Туре	Oracle BI Di	scoverer 💌

Under the **Details section** of the **Data Set**, click on the **flashlight** *S*. Navigate to and select the Discoverer connection that owns the worksheet you want to use in your report.

Note: At this point the list of **discoverer connections** (see more about this here) shown will be associated to the SSO user that is creating this report.

ORACLE B	Publisher Enterprise	Welcome blotest Dashbands Preferences Sign Out Help
Reports Schedules		
Home > Shared Folders > Disco	erer > Video Stores	View Schedule History Edit Configure
🛃 Save 🛜 Generate XLFF		
Report	-	
🟫 🙀 🗶 Delata 🙆 🎯	Data Set	
Report B Diata Model Disco Dura	General Settings	Dero Data
B 🗑 Listo/values	Type	Oracle Br Discoverer 👻
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E M Lavoula	Setals	A second s
Dracle Bl Discoverer - M	Connection	
Oracle BI Discoverer	Worksheet	1
Concel		Coche Result

Once you have selected a connection, click on the flashlight to the right of the Worksheet field. Navigate to and select the workbook and then the worksheet you want to base your report on.

Home > Shared Folders > Disc	ower > Video Blanes <u>View</u> B	hedule History Edit Carrigues
Report		
🧐 liuw 🗶 Delete 🛞 🎯	Data Set	
Report	General Settlings Name Disco Data	
G G Oracle Bi Discove Hume	r Hanne Type Oracle Bi Discoverer M er er Vachan Lessach Private Connection	
Charleton Function New Features Exa Original - Video Tu Salass Report for D	Enangles angles tonial Workback Robert - Microsoft Inter	¥
antesti ent2 Cancel	Hanng > Sales Report for Demo - JAF Category Time Analysis by Quarter Consoliab Layout Product Category Analysis by Yest, Region	Localitioner

Note that the fully qualified path to the worksheet is entered in the Worksheet field.

Note that regardless of whether the Discoverer worksheet is a tabular or crosstab layout, the Discoverer Web Service will return the data to Oracle BI Publisher as flat tabular data. This is by design so that you can take full advantage of the layout capabilities in BI Publisher. You can layout this data as a crosstab in BI Publisher.

Save your report by clicking the Save icon on the upper left side of the page, below the navigation links to the report.

ORACLE B	l Publisher Enterprise	Wolcome Lightest Dashtoards Perforences Sign Dir. Help
Reports Schedules		
Home > Shared Foldors > Disc	overer » Mideo Stores	Vew Schedule History Bolt Configure
Save Orenerate XUFF		
Report		
Selete 🕢 😟	Data Set	
Beport	General Settings	
Disce Data	Nana	Disca Data
E P Deterviouer	Type	Grazie Bi Diszoveren 🔜
E By Parabone		
🖂 🖏 Layouts	Details	
a Bursting	Connection	witeo5 Private Connection
	Worksheet	Sales Report for Demo - JAFICrosstab Layout 🖉
		Cache Result

Once the report is **saved**, click the **View** link (upper right corner) to see that the Discoverer Worksheet you selected returns data to the report. If your worksheet contains parameters, you may need to select values other than the default and click View to get the worksheet to return data.



You have successfully created a report with a data model based on a Discoverer Worksheet.

Notice that because of the roles granted to "biptest" user (Scheduler, Developer) you do not see the other buttons "Analyzer" or "Analyzer for Excel" which are associated to roles such as Online Analyzer, Excel Analyzer respectively.

Analyzer Analyzer for Excel

2. Creating Layout Templates

Oracle BI Publisher provides several types of layout templates. The most common are RTF layout templates created using the Template Builder. You can also create PDF templates in Adobe Acrobat, eText templates, and Adobe Flex templates. This document will briefly describe only the process of creating an RTF layout template. See the <u>Oracle Business Intelligence Publisher Report Designer's Guide</u> for more details on creating other types of templates and for more details on RTF templates.

Note that even though a layout template created with the Template Builder is in RTF format, at runtime the layout template is converted to Extensible Stylesheet Language Formatting Objects (XSL-FO) and the report output format can be PDF, HTML, Excel, PowerPoint, as well as RTF.

There are two methods you can use to create an RTF layout template for a report:

- **The Online method** meaning connected to the Oracle BI Publisher report server. This method allows you to connect directly to the report server to donwload report data. It is suitable if your report has been set up to provide a reasonable amount of data.
- **The Offline method** meaning not connected to the Oracle BI Publisher report server. Using the offline method, you will generate sample XML data for your report. This method has the advantage that you will be placing no load on the report server or underlying data source while creating your layout. It is also the preferred method if your report returns a large amount of data or has parameters that need to be set to limit the amount of data returned or to ensure that some data is returned.

Creating a Layout Template using the Offline Method

a) Generate sample XML data.

From the Oracle BI Publisher web interface navigate to the report you want to create a layout against and select View to see the report output.

If there are parameters that can be set to either reduce the amount of data or to ensure that some data is returned, set the parameter values and click the **View** button. Then select Data from the pull down menu to the left of the View button and click the **Export** button.

Reports Schedules Admin	wokcome Lightest Preferences Sign Out Help
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Template Data 🕊 Mow Export Sond Schodule	Analyzer Analyzer for Excel Link to this second -

A new browser or tab will open containing the exported XML data.

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Using the web browser File menu, save the file with an XML extension.

If the size of the XML file is still excessive, you will want open it in a text editor and remove data from the file to get it to a smaller size. Be sure to preserve the tag structure in the file. You will also want to make sure you have enough data so that previewing your report will show how the actual report will be generated. For example, if you plan to group data by Year, be sure to include some data from at least 2 years so that you can confirm that the grouping displays as you want.

b) Upload the sample XML data file to the Template Builder

After you generate the sample XML data file move it to the machine where you are running the Template Builder. From the Oracle BI Publisher menu or the Template Builder toolbar, load the sample XML data.

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2	Help About		

c) Create a layout template

Now that you have uploaded the sample XML data to the Template Builder, you can use the Template Builder Insert menu and toolbar to launch wizards and dialogs that help you create your layout template. You can also insert whatever boilerplate text you want as well as format fields and tables using standard Microsoft Office Word layout and formatting functionality.

The following figure shows the Template Builder Insert Toolbar:



You can also manually include data field tags and other markup to your template using BI Publisher's simplified tags for XSL expressions. These tags associate the XML report data to your report layout. If you are familiar with XSL and prefer not to use the simplified tags, Oracle BI Publisher also supports the use of pure XSL elements in the template.

Inserting a graph:

Place the cursor at the beginning of the page and go to BI Publisher's Menu: Insert \rightarrow Chart



and you will get a dialog window similar to this

New York	Land			
I de Konst I de Pos I Grand I Frage I Frage I Frage I Frage	Super-	T	ran. Tran. Sran Lagend	Relative Second S S S S S S S S S S S S S S S S S S S
		- 37 h -	114	

Now, drag & drop the values from the Data group: *Profit Sum*, *Region*, *Year*, *Department* to the right hand side into *Values*, *Labels*, *Series* respectively. Also select *Aggregation as SUM* and Check the boxes for "3D" and "Gradient" and click **OK**.

Gar		8
ndia → De Nord → De Separatement → De Pagaton → De Pagaton → De Pagaton	Lendi Aggregation (m m)	TRACK
	Interest Provide Provi	
		or cavoi

Similarly insert another chart next to the one above with the following settings and click OK.

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Printing Rows of data:

To print rows of data we will make use of the Wizard. Go to BI Publisher's Menu and select **Insert** \rightarrow **Table Wizard** and you will get a wizard. Successively select the values as shown in the pictures:





After finishing the Table Wizard your document will look like the following:

: ₩ ₩		EL.
provide New York		
Year		
Region	Profit Sum Profit Street	

Save the layout template as an RTF file:

Finally, from the File menu, select Save As "**VideoStores.RTF**". Be sure to set the type to **Rich Text Format (*.rtf)**.

Save As													2 🛛
Save jn	Co EP_Exam	uples -	-	÷		Q	\times	ĊŸ		* Tr	- elex		
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Places	Save as type:	Rich Text Parmat (*.rt	f)	-	-	-	-	-		•		0	encel
F Region	Region F Region		c) tni() Labt)						1	E	_		
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d) Preview the report output

After you have created and formatted your layout, you can preview it in the desired output format from the Template Builder to confirm that you have created the layout exactly as you want. Previewing will generate the output document, merging the layout template you just created with the data that is loaded in the Template Builder.

Select the desired output format from the Preview menu item on the Template Builder toolbar or from the Oracle BI Publisher menu.

	Preview - Tools -
i	PDF
	🙆 HTML 🍈
	🔀 EXCEL
	EXCEL2000
	W RTF
	C PowerPoint

You will see the generated document in the application suitable for displaying the requested output format. Here is an example previewing PDF output in Adobe Reader:



e) Upload the RTF template to the report.

Once you have made the changes you want to your RTF template, save it to the file system. Return to the Oracle BI Publisher web interface and navigate to the report associated with this layout template.

From within the report edit page of the Oracle BI Publisher web interface, select Layouts from the Report tree. In the Manage Template Files section of the Create Layouts frame, click the Browse button to select the RTF template. Once the RTF template is selected and the Upload Template field is populated with the full path to the RTF template, click the Upload button.

Home > Shared Folders > Disc	Downer > Video Blonse Vews Schweizle Hetury Beit Configure
Home > Shared Folders > Dec Save @ Generate XUFF Report Report Report B Dots Notel B Dots Notel B Disco Data B Disco Data	Devel > Vide Eline
	Sample XML data is required for mapping POP template form fields Upload Semple Data

You will then see the uploaded template in the Manage Template Files section of the page.

Manage Template Files	
Template (Click link to download	t)
<u>VideoStores.rtf</u>	🗊 Delete
Upload Template:	amples\VideoStores.rtf Browse Upload
1 Duplicate filenames will be ov	erwritten.

Create a named layout and associate it with the template file.

From the report tree, with Layouts still selected, click the **New button** at the top of the report tree. This will create a new layout.

Report
New Storm A V
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🗄 🗐 Data Wodel
Disco Data
E D Laternaues
B GL Frommer
E 🖳 Laynots
a Bursting

Provide a name for the layout and associate it with the template file you uploaded. You can also optionally determine what output formats are available for this layout.

Harrie > Shared Folders > Disco	www.iv. Video Stores	Vew Schedule History Edit Configure
Save Generale XUFF		
Report		
Report Braport Data Model Data Model Desco Data Bill Labert Values Bill Labert Values Bill Labert Values Bill Labert Starts Bill Starts	Layout General Settings Narros Terrolite Terrolite Dutput Format	Two Charte VidooStoves II' M Belledo Coverboy RTF Template
		C Lanit Output Format to

f) Save the report.

Be sure to save the changes you have made to the report by clicking the Save button below the path to the report

g) Test the template with the data

Once you have uploaded the template into the report VideoStores, click on the View button and Select HTML as output and click on View again. The result

should be similar as the one you had when prepared with Template Builder for Windows.



3. Schedule and Deliver Discoverer Reports using BI Publisher

Reports based on Discoverer data can also be scheduled by using the BI Publisher Enterprise Schedule feature. The Schedule feature enables specification of the following information:

- Report parameters, such as template name and output format.
- Job properties, such as job name, report locale, and report time
- Notification parameters, if the email delivery option is enabled.
- Run-time options.
- Destination delivery options.

Follow these steps to schedule the report of Discoverer data:

1. With the report open in BI Publisher Enterprise, click the Schedule button.

Reports	Schedules						1
Home > Shared Folders > Discoverer > Video Stores							
Template	Two Charts	✓ HTML	*	View	Export	Send	Schedule

2. In the Schedule Report window, specify or select the following:

A. In the Report Parameters section, select the desired Template and Format for the report.

Report Parameters		
Template Two Charts 💌	Format HTM	L 👻
Job Properties	RTE	à;
	Excel	
* Job Name	Video Store Excel	2000 vrBoint
Report Formatting Locale	English (Un MHT	ML .
Report Formatting Time	CSV [GMT-05:0(Data	

B. In the Job Properties section, specify an appropriate job name for the scheduling job, and select the other options that meet your specifications.

Job Properties			
* Job Name	Video Stares		Public
Report Formatting Locale	English (United States)	2	Save Data for Republish
Report For matting Time Zone	(GMT-05:00) Eastern Standard Time	2	Save Output
Report Formatting Calendar	Gregorian 💌	2	Use Unicode (UTF8)

C. In the Notification section, enter one or more email addresses and specify when you want a notification to be sent. Note: This section is optional.

Notification			
Email Addresses		Notify When	Report completed
	Separate multiple email addresses with commas.		Report completed with warnings
			Report failed

D. In the Time section, select the appropriate run time. In the example, **Run Monthly** is selected. Then, specify the secondary options for the selected run time.

Time					
Set the detaylitine based on the server's 1 This page was rendered at 12/0/85 5:30	Inecore. PM Extern Time				
ORun Immediately ORun Once ORun Daity/Weekhy ⊛Run Monthly	*Month 🗹 VF VF V	an ⊠May Keb ⊠Jun Mar ⊠Jul Apr ⊠Aug	id Sep Id Oct Id Nov Id Dec	* Select Day of Month * Run Time * Active Start Date * Active End Date	3 17 ¥: 20 ¥ 12/3/08

E. In the Destination section, select the desired option. If you have more than one choice configured for a destination type, then you may select from among those choices.

Dolivery		
Destination	Remove	
OBrial		
O Printar O Fas		
OFTP		
O Web Fold	la company	
Add Destin	ation	

The next example assumes the Email delivery option has been selected and previously configured. Please use the appropriate values that correspond to your environment:

Reports Schedules Admin		
Admin > Email > Add Server		
Add Server		
		Cancel Apply
General		
* Server Name MyNalServe Port 25	* Host mail.mycompany.com	

Destination Rem	owe				
Email	* To	john.cloe@yahoo.com	Body	This is a test from chaos	~
OFTP	oc	john.cloe@gmail.com			
O Web Folder	BOC				
	Reph/-To				~
	Subject	BIP : Delivery			
		Separate multiple enail addresses with commas.			

F. Click Submit.

3. Once your report job has been scheduled, you can choose to suspend, resume, or delete the job at any time.

Confirmation						
The jub has been scheduled solutionality.						
Report Schedules						
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Page Refreshed Wednesday, December 3, 2008 5:18 PM Eastern Time						
Viaw By My Schedule 👻 Go						
Select Jobs: Suspend Resume Delete						
Select All Select None						
Belect Name Status Username Time	Recurring Scope					
Addes Scheduladbiptest Run at 17:20 on 3rd day of January February March April May June July August September October November December	 Private 					
Schedule a New Job						

When your scheduled job runs you will see the following status in the Schedules \rightarrow History jobs:

Repor	ts Schedu	les							
Histor	y Sched	1950							
Histor	y of Schedul	ed Reports							
Page R	effeshed We	dnesday, De	cember 3,	2006 5:20	PM Easter	n Time 👔	5		
View B	My History	9 Gg				1015 (D. 17			
Select	Histories:	Delete							
Select	Al Select N	me							
Select	Jole Name	Status	Gocunient	Republish	Data XME	Username	SLODE	Start Processing Time	End Processing Title
	Video Stares	@ Running	e.	2	6	biptest	Private	12/3/08 5:20 PM	
10	Western .	1 Seran	i ei	CV	121	hardward	Desired	1000010000	100000000000000000000000000000000000000

And when it finishes successfully you will see the following status:

Select	Select Histories: Delete								
Select	Select AU Select None								
Select	Job Name	Status	Document	Republish	Data XML	Username	Scope	Start Processing Time	End Processing Time
	Video Stores	 Success 	6 ¹	р.	4	biptest	Private	12/3/08 5:20 PM	12/3/08 5:20 PM

If the report is delivered successfully by Email then you should receive it like this:

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2	Delet	e Spann Hark + Hove			
r	-	From	@ Subject	Date	SIZ SIZE
E	+	bipublisher-notification@eracle.com	P Oracle BI Publisher Notification: Job was successfully processed.	5:21 PM	3KB
Г		bipublisher-report@oracle.com	// B8P : Delivery	5:20 PM	23KB

CONCLUSION

With the integration with BI Publisher now Discoverer users can take advantage of what BI Publisher offers. It allows the Discoverer users to develop highly formatted report layout easily and flexibly for the existing Discoverer worksheets. The users can also use BI Publisher's scheduling and delivery functionalities to schedule the reports generation and distribute the reports to various type of delivery audience.

The integration enhances your existing reporting system with Discoverer to meet today's complex reporting requirements with a complete reporting solution.



Scheduling and Delivering Highly Formatted Reports using Oracle Discoverer and Business Intelligence Publisher December 2008 Author: Jorge Anicama Contributing Authors: Mike Donohue

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