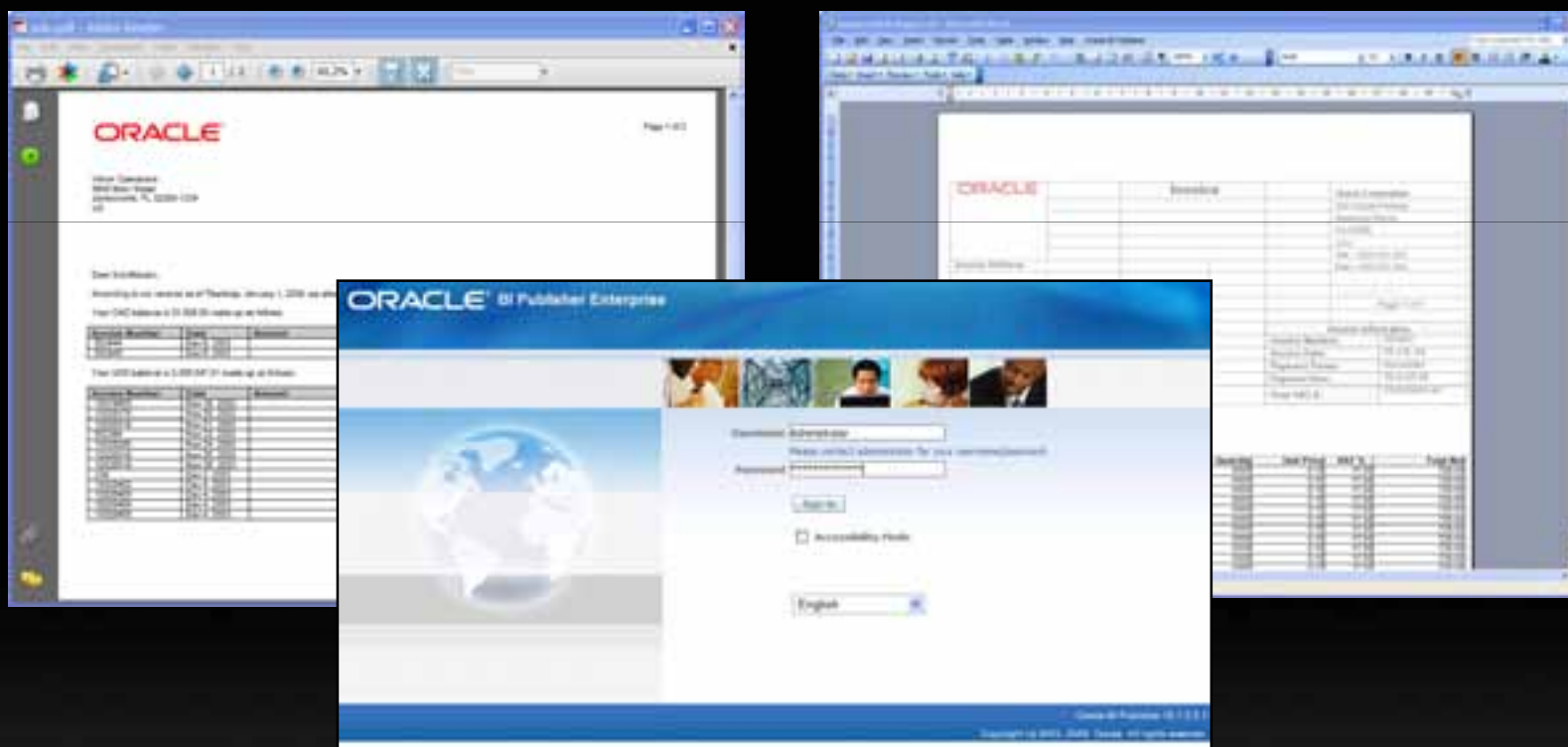


Oracle Open World 2007

APEX & BI Publisher



- Co-founder of Apex Evangelists
- Used Oracle since version 7
- Oracle Consultant for over 4 years
- Vice President of the IOUG APEX SIG
- Creator of the 'famous' World Cup 2006 Application
- 'Dimitri.Gielis@AE' in the Application Express forums
- Presenter at IOUG, ODTUG, OOW, UKOUG, ...
- OCP 8i/9i/10g



- How using the latest features in APEX 3.0 in combination with BI Publisher to Print your reports in a variety of formats

Advanced reporting tool (replacement of Oracle Reports?)

- **Choose Your Design Tool**
 - Use desktop tools like Microsoft Word or Adobe Acrobat
- **Data from Anywhere**
 - Accept any well-formed XML data
 - Even from multiple data sources into a single output document
- **Deliver to Anywhere**
 - Deliver your content via printer, e-mail, fax, WebDav, Ftp, IPP or custom delivery channel
- **Communicate with the World**
 - Report layouts can be created for any combination of 185 languages and 244 territories
- **Unsurpassed Performance**
 - Based on the W3C XSL-FO (W3C) standard
- **Open Standards. Easy Integration**
 - J2EE application that can be deployed to any J2EE container
 - Data handled as XML
 - Layout templates created in the desktop applications are internally converted to XSL-FO
 - Outputs generated by the application are also industry standards such as PDF, RTF, and HTML.

About BI Publisher (2)

(Business Req.)

- Rich Formatted Reports
- Partner Reports
- Financial Statements
- Government forms
- Marketing materials
- Contracts
- Checks
- Labels
- XML / EFT / EDI
- Multiple destinations



About BI Publisher (3)

Data Source

Oracle,
SQL Server

PeopleSoft,
SAP, Siebel

Java, C++,
Perl, etc

Web Services



Layout Tools

ORACLE
BI Publisher



Templates

- Word
- Excel
- Acrobat
- XML Spy
- JDeveloper
- Scriptura

Output

PDF

RTF

HTML

Excel

XML

EDI

EFT

Destinations



Email



Printer



Fax

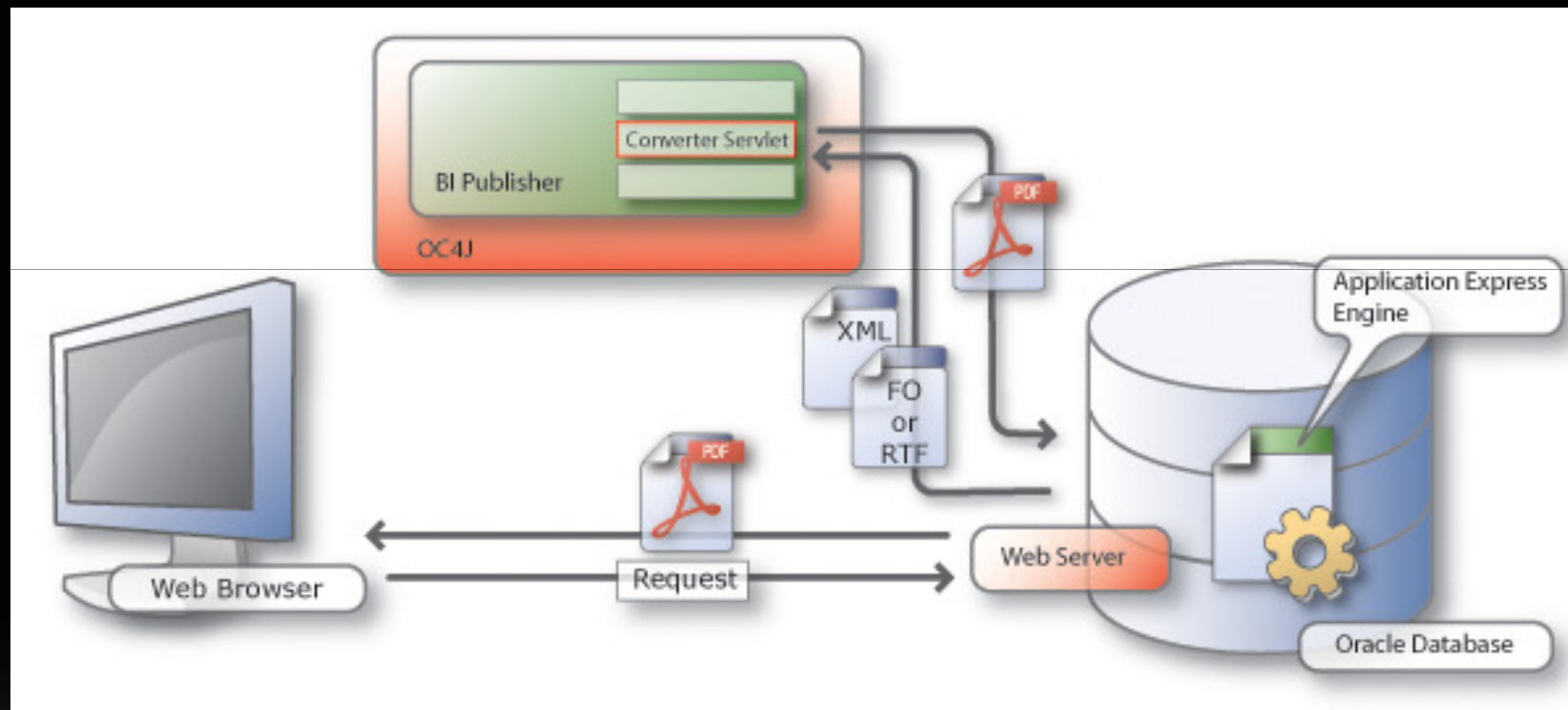


WebDAV



e-Commerce

The flow how APEX and BIP work together



BI Publisher part

- [Download](#) and install BI Publisher 10.1.3.2.1
- The “Basic Installation” of BI Publisher takes about 6 minutes
- Test the installation by going to the url OUI specified at the end of the installation.
For ex: <http://digixp:9704/xmlpserver/>
- Login into BIP for the first time (see picture)
[Administrator/Administrator](#)

BI Publisher part

- Go to the Admin link - JDBC connection - to add your database

ORACLE® BI Publisher Enterprise

Welcome, administrator

Reports Schedules Admin

Admin > JDBC

Data Sources

JDBC JNDI File

Add Data Source

Data Source Name	Connection String	Delete
Oracle BI EE	jdbc:oracle:thin:@digixp:1521:ORCL10DGI	
demo	jdbc:oracle:thin:@digixp:1521:ORCL10DGI	
orcl10dgi	jdbc:oracle:thin:@DIGIXP:1521:orcl10dgi	
sh	jdbc:oracle:thin:@digixp:1521:ORCL10DGI	

APEX part: Configuration

- Login into the INTERNAL workspace
- Click on Manage Service > Instance Settings > Report Printing
- Put the details of the BI Publisher reporting server

APEX part: Configuration

Home > Manage Service > Instance Settings

Cancel Apply Changes

Show All Self Service Email Wallet Report Printing New Workspace Request Size Workspace Change Request Size

Self Service

Provisioning Status: ☒ Manual - An administrator manually creates each workspace
☐ Request - Link displayed on login page enabling users to request workspaces
☐ Email Verification - Workspace created after email address is verified by the user

Development Service URL:

Email

SMTP Host Address:
SMTP Host Port:
Administration Email Address:

Wallet

Wallet Path:
Wallet Password: ☐ Check to confirm that you wish to change the wallet password

Report Printing

Oracle BI Publisher: ☐ Standard Support
☒ Advanced Support (Requires Oracle BI Publisher license)

Print Server Protocol: ☒ HTTP ☐ HTTPS

Print Server Host Address:
Print Server Port:
Print Server Script:

APEX part: Report

- Login into your development workspace
- Go to Print Attributes of the Report Page you want to print
- Set Enable Report Printing to Yes and give it a Link name

APEX part: Report

Home > Application Builder > Application 100 > Page 3 > **Print Attributes**

Region Definition Report Attributes **Print Attributes**

Cancel Apply Changes

Show All Printing Page Attributes Page Header Report Column Headings Report Columns Page Footer

Printing

Enable Report Printing Yes

Link Label Print

File Name test

Output Format PDF Item

Report Layout Default Report Layout

Page Attributes

Paper Size A4 Orientation Landscape

Units Millimeters Width 297 Height 210

Border Width .5 Border Color

Page Header

Font Helvetica Font Weight Normal Font Size 12

Font Color #000000 Alignment left

Page Header

APEX part: Report

- Run the page - see the Print link near the report
- That link will give you a PDF that looks like your report

APEX part: Report

Item	Description	Category	Available	Price	Image
☒ 32 GHz Desktop PC	All the options, this machine is loaded!	Computer	Y	\$1,200.00	
☒ MP3 Player	Store up to 1000 songs and take them with you	Audio	Y	\$100.00	
☒ Bluetooth Headset	Hands-Free without the wires!	Phones	Y	\$40.00	
☒ PDA Cell Phone	Combine your cell phone and PDA into one device	Phones	Y	\$200.00	
☒ Portable DVD Player	Small enough to take anywhere!	Video	Y	\$500.00	
☒ 112 MB RAM	Expand your PC's memory and gain more performance	Computer	Y	\$200.00	
☒ 54" Plasma Flat Screen	Mount on the wall or ceiling, the picture is crystal clear!	Video	Y	\$2,000.00	
☒ Classic Projector	Does not include transparencies or grease pencil	Video	Y	\$50.00	
☒ Ultra Slim Laptop	The power of a desktop in a portable design	Computer	Y	\$1,399.00	
☒ Stereo Headphones	Noise-canceling headphones perfect for the traveler	Audio	Y	\$150.00	

Scan to Accessible ☒ Print  Create 

test-1.pdf - Adobe Reader

File Edit View Document Tools Windows Help

50.8%

Item	Description	Category	Available	Price	Image
☒ 32 GHz Desktop PC	All the options, this machine is loaded!	Computer	Y	\$1,200.00	
☒ MP3 Player	Store up to 1000 songs and take them with you	Audio	Y	\$100.00	
☒ Bluetooth Headset	Hands-Free without the wires!	Phones	Y	\$40.00	
☒ PDA Cell Phone	Combine your cell phone and PDA into one device	Phones	Y	\$200.00	
☒ Portable DVD Player	Small enough to take anywhere!	Video	Y	\$500.00	
☒ 112 MB RAM	Expand your PC's memory and gain more performance	Computer	Y	\$200.00	
☒ 54" Plasma Flat Screen	Mount on the wall or ceiling, the picture is crystal clear!	Video	Y	\$2,000.00	
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☒ Ultra Slim Laptop	The power of a desktop in a portable design	Computer	Y	\$1,399.00	
☒ Stereo Headphones	Noise-canceling headphones perfect for the traveler	Audio	Y	\$150.00	

To improve the standard reporting

- Change page settings
- Add a header and footer
- Change fonts and colors
- Try different output models
- Add your logo (change in report layout!)

Improve a Standard Report (2)

Home > Application Builder > Application 380 > Page 18 > **Print Attributes**

Region Definition Report Attributes **Print Attributes**

Set: none

Show All Printing Page Attributes Page Header Report Column Headings Report Columns Page Footer

Printing

Enable Report Printing Yes

Link Label Print

File Name customers

Output Format Derive from Page Item Item P18_PRINT

Report Layout Default Report Layout

Page Attributes

Paper Size A4 Orientation Landscape

Units Millimeters Width 297 Height 210

Border Width .5 Border Color #339933

Page Header

Font Helvetica Font Weight Bold Font Size 16

Font Color #3300CC Alignment center

Page Header

This is the Page Header... written by some cool guys.

Improve a Standard Report (3)

Report Column Headings

Font Helvetica Font Weight Normal Font Size 10
Font Color #ffffff Background #99CC99

Report Columns

Font Helvetica Font Weight Normal Font Size 10
Font Color #000000 Background #CCFFCC

Alias	Heading	Show in Report	Include in Export	Column Width (%)
CUSTOMER_ID		Yes	☐	1
CUSTOMER_NAME	Customer Name	Yes	☒	20
CUSTOMER_ADDRESS	Address	Yes	☒	25
CUST_CITY	City	Yes	☒	16
CUST_STATE	State	Yes	☒	16
CUST_POSTAL_CODE	ZIP Code	Yes	☒	16

Reset Column Width

Page Footer

Font Helvetica Font Weight Normal Font Size 10
Font Color #FF0000 Alignment center

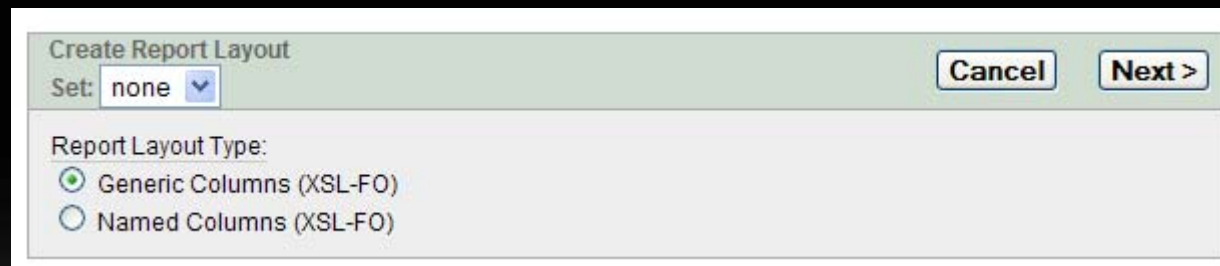
Page Footer
Copyright Apex Evangelists

Change the Report Layout

– Shared Components



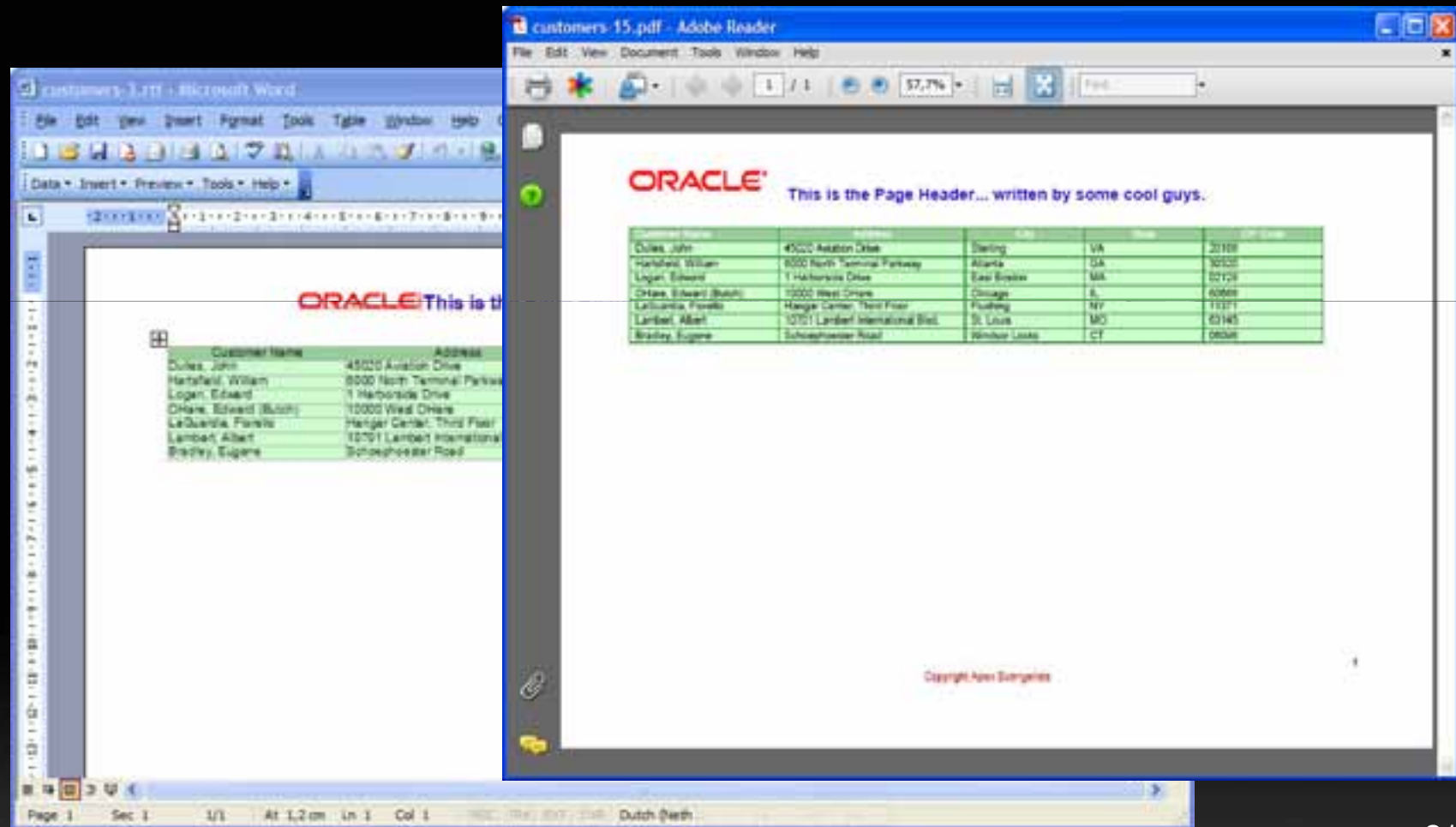
– In Report Layouts, create a new one



Change the Page Template (XSL-FO)

```
<fo:static-content flow-name="region-header">
  <fo:external-graphic
    src="http://apex.shellprompt.net/~aeinfo/trainings/Germany/Printing_Exporting/oralogo_small.gif" />
  <fo:block xsl:use-attribute-sets="text text_2 text_0
    #PAGE_HEADER_ALIGNMENT#">
    <fo:inline xsl:use-attribute-sets="page-
      header">#PAGE_HEADER#</fo:inline>
    </fo:block>
  </fo:static-content>
```

The Result (in Word and PDF)



LIVE DEMO

(Print and improve a standard report using BIP)

Use of BI Publisher Desktop

- Create a Report in APEX
- Export as an XML file
- Use MS Word to design your template with the built-in BIP bar
- Save as RTF
- Upload to APEX
- Run your report

Tip

Try the demo PDF application on OTN

Create a Report Query – Shared Components



Create Report Query (and test)

Home > Application Builder > Application 113 > Shared Components > Report Queries > **Create Report Query**

Query

▼

Test Query

▼

Include Session State

▼

Download XML

▼

Confirm

Create Report Query

Set: none ▼

Cancel

Next >

Name CustomersReport

SQL Query

SELECT customer_id, cust_last_name || ', ' || cust_first_name customer_name,
CUST_STREET_ADDRESS1 || decode(CUST_STREET_ADDRESS2, null, null, ', ' ||
CUST_STREET_ADDRESS2) customer_address, cust_city, cust_state, cust_postal_code
FROM demo_customers

Query Builder

Include Page Items (if necessary)

The screenshot shows the 'Include Session State' dialog box within the Oracle APEX 'Create Report Query' wizard. The breadcrumb trail at the top reads: Home > Application Builder > Application 113 > Shared Components > Report Queries > Create Report Query. On the left, a vertical stack of buttons includes 'Query', 'Test Query', 'Include Session State' (which is highlighted), 'Download XML', and 'Confirm'. The main area of the dialog is titled 'Include Session State' and contains a 'Set:' dropdown menu currently set to 'none'. To the right of this are 'Cancel', '< Previous', and 'Next >' buttons. Below the 'Set:' dropdown is a 'Select Items:' section with a list box containing 'P3_SEARCH'. To the right of the list box are 'Add' and 'Remove' buttons.

Generate XML file and Save to disk

Home > Application Builder > Application 113 > Shared Components > Report Queries > Create Report Query

Query

▼

Test Query

▼

Include Session State

▼

Download XML

▼

Confirm

Create Report Query Layout

Set: none

Cancel

< Previous

Next >

Step 1 - Download XML file



XML Structure:
Advanced (include session information)

Download XML

Step 2 - Design report layout and save as RTF file



BI Publisher Desktop

Step 3 - Upload RTF file

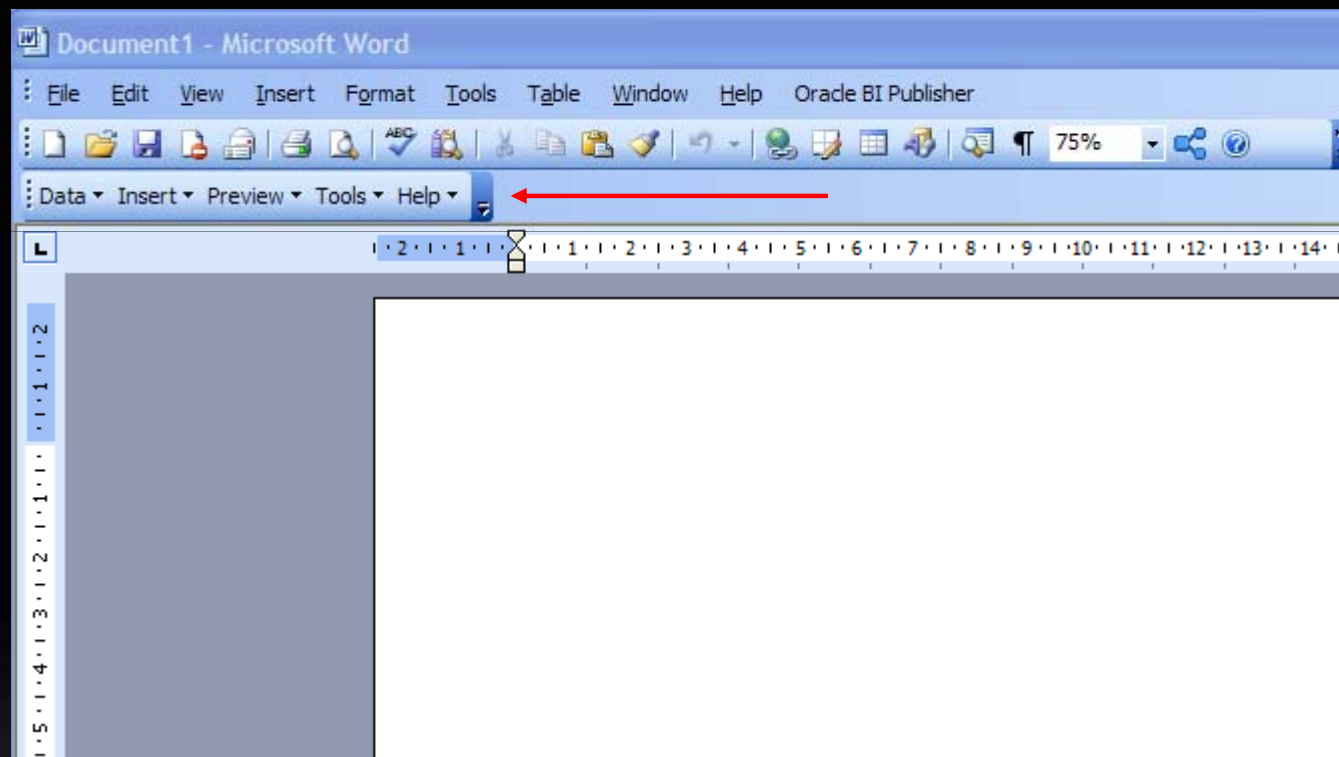


Layout Name:
CustomersReport

RTF File:

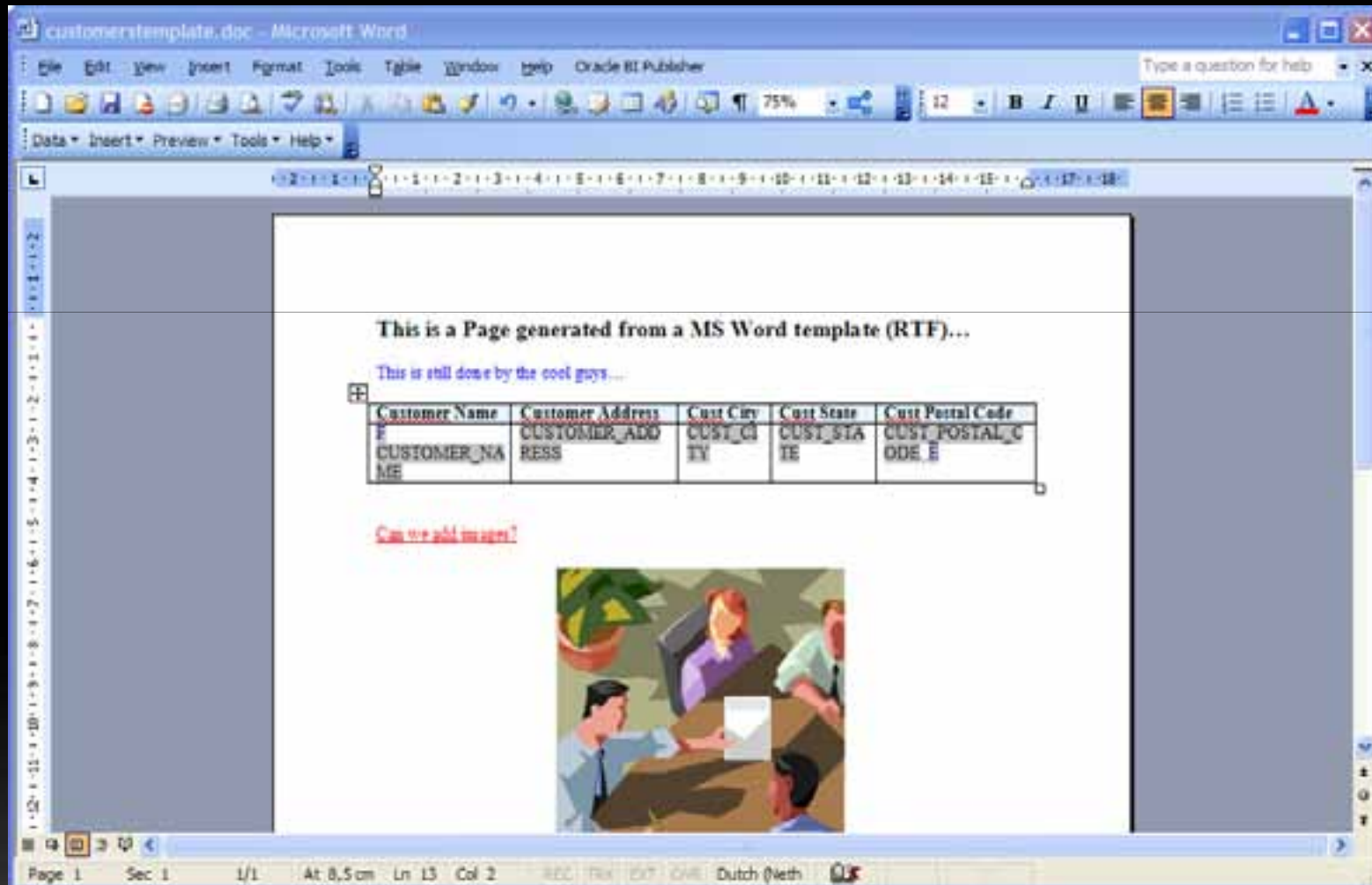
Browse...

Open MS Word and load the XML file from the BIP menu



Create an Advanced Report (7)

Make your template directly in MS Word



Load your saved RTF document in APEX and test the report

Home > Application Builder > Application 113 > Shared Components > Report Queries > Create Report Query

Query
▼
Test Query
▼
Include Session State
▼
Download XML
▼
Confirm

Create Shared Query

Set: none ▼

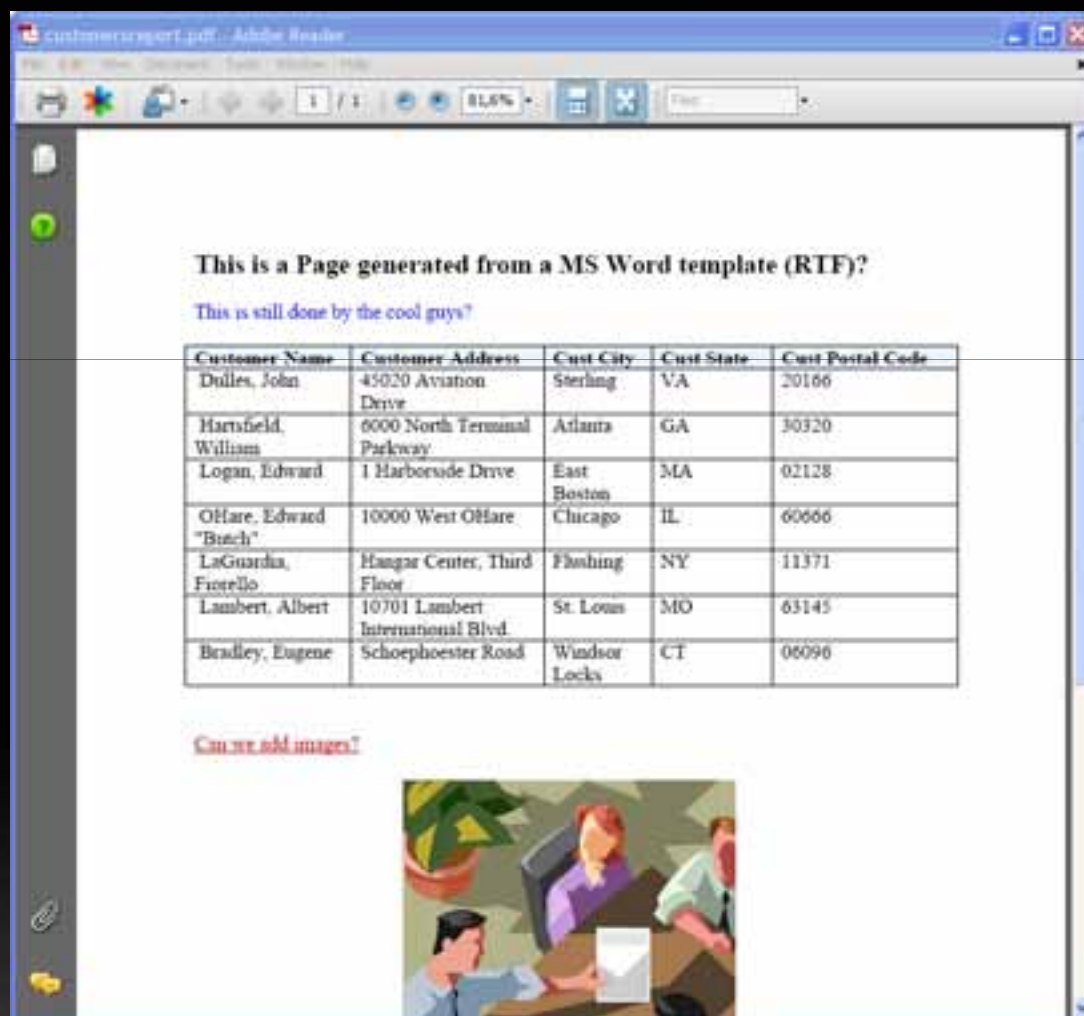
Cancel < Previous Finish

Query Name: CustomersReport
Report Layout: CustomersReport
Output Format PDF ▼ Item ▲

URL (To integrate this report, use the URL below as target for buttons, list items, etc):
f?p=&APP_ID.:0:&SESSION_ID.:PRINT_REPORT=CustomersReport

Test Report

The Result (as a PDF)



Create an Advanced Report (10)

Add a link on your page to the report

Customers

Search **Go** **New Customer** **Run Report** ←

	<u>Customer Name</u>	<u>Address</u>	<u>City</u>	<u>State</u>	<u>ZIP Code</u>
	Dulles, John	45020 Aviation Drive	Sterling	VA	20166
	Hartsfield, William	6000 North Terminal Parkway	Atlanta	GA	30320
	Logan, Edward	1 Harborside Drive	East Boston	MA	02128
	OHare, Edward "Butch"	10000 West OHare	Chicago	IL	60666
	LaGuardia, Fiorello	Hangar Center, Third Floor	Flushing	NY	11371
	Lambert, Albert	10701 Lambert International Blvd.	St. Louis	MO	63145
	Bradley, Eugene	Schoephoester Road	Windsor Locks	CT	06096

Print

URL: f?p=&APP_ID.:0:&SESSION.:PRINT_REPORT=CustomersReport

LIVE DEMO

(Create an Advanced Report)

Printing and Exporting reports

- Know the difference between Standard and Advanced printing
- BI Publisher is “the next” reporting tool
- Setup BI Publisher and configure APEX
- Create and adapt a Standard Report
- Make Advanced Reports through BI Publisher Desktop and RTF (MS Word) templates



- More information:
 - Websites:
 - <http://blogs.oracle.com/xmlpublisher/>
 - <http://marcsewtz.blogspot.com/>
 - <http://www.oracle.com/technology/products/xml-publisher/xmlpclient.html>
 - <http://forums.oracle.com/forums/forum.jspa?forumID=245>
 - Whitepaper:
http://download.oracle.com/docs/cd/B32472_01/doc/appdev.300/b32469/pdf_report.htm
 - Email: dimitri.gielis@apex-evangelists.com
 - Blog: <http://dgielis.blogspot.com>
 - AE: <http://apex-evangelists.com>