WOW Reports

WOW Reporting Options

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Introduction:

WOW reports is an add-on feature of WOW that allows report development with Microsoft WORD and PDF programs. Users can easily create forms using these programs and WOW will merge and populate these documents at runtime. Some examples include: an invoice form, statements, bill of materials, etc.

There are 4 main approaches to using WOW Reports.

- 1. FDF PDF generation
- 2. MS WORD XML reports
- 3. MS WORD HTML reports
- 4. MS WORD MERGE using template files (.DOT)

Installation Instructions:

Download the WOWReports .zip file provided by PlanetJ and follow the steps below. Installation should only take a few minutes if WOW is already installed on the machine. It is highly recommended that you are using WOW 6.5.02 or higher.

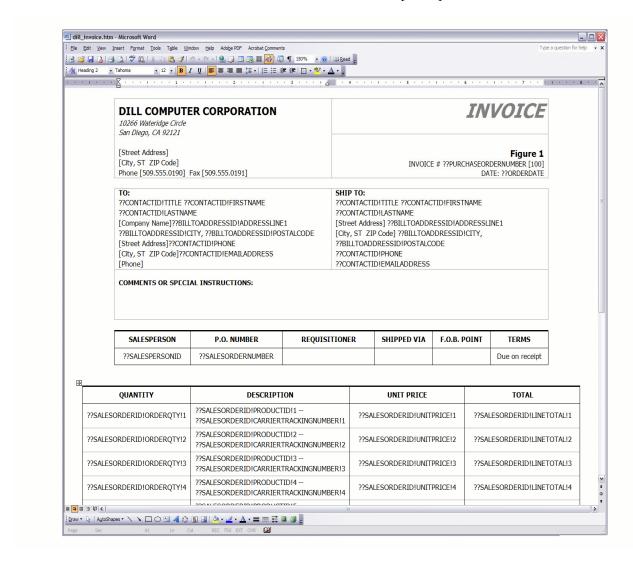
Steps:

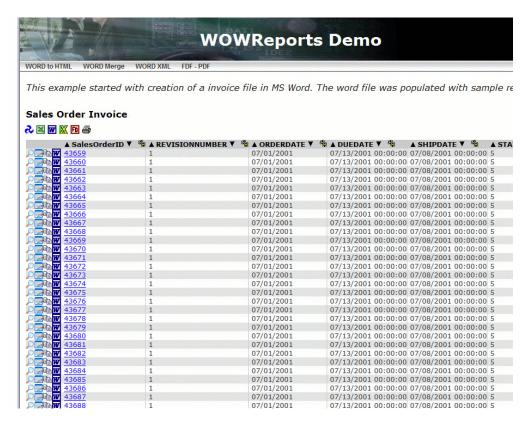
- 1. Unzip the WOWReports .zip folder and put it in a location that is accessible from your current WOW server or local machine that is running WOW.
- 2. Copy the wow-reports-X.X.XX.jar onto Tomcat in your current WOW context. (Ex. C:/Program Files/Apache Software Foundation/Tomcat 5.5/wow65/WEB-INF/lib folder) NOTE: Paths may be different depending on where Apache Tomcat is installed on the machine.
- 3. Restart Tomcat and run WOW. Read the following sections below on how to use WOWReports.

Microsoft Word for Reports Samples:

Please click here to see examples.

Below is an example of a Word to HTML document conversion. It is a document template made in Word (or an existing template) saved as an HTML file. Note how the fields are labeled so that WOW can populate these fields with data from the database. Directions on how to set this up is explained in the instructions section later.





On the left column of the table, there is a small Microsoft Word icon. Click on this icon, and an HTML page appears like the one below:

DILL COMPUTER CORPORATION

10266 Wateridge Circle San Diego, CA 92121

Phone Fax

INVOICE

Figure 1 INVOICE # PO522 145787 DATE: 07/0 1/2001

TO: James Hendergart 42525 Austell Road Austell, 30 106 967-555-0129 james9@dill.com SHIP TO: James Hendergart 42525 Austell Road Austell, 30 106 967-555-0129 james9@dill.com

COMMENTS OR SPECIAL INSTRUCTIONS:

SALESPERSON	P.O. NUMBER	REQUISITIONER	SHIPPED VIA	F.O.B. POINT	TERMS
279	SO43659				Due on receipt

QUANTITY	DESCRIPTION		UNIT PRICE	TOTAL	
1	776 4911-403C-98		20 24. 99	20 24. 99	
3	777 49 11-403C-98		20 24. 99	6074.98	
1	778 49 11-403C-98		20 24. 99	2024.99	
1	771 49 11-403C-98		2039.99	2039.99	
1	772 4911-403C-98		2039.99	2039.99	
2	773 4911-403C-98		2039.99	4079.99	
		SUBTOTAL		24643.94	
			SALES TAX	1971.51	
		SHIPPING & HANDLING		6 16. 1	
ī			TOTAL DUE	27231.55	

Make all checks payable Nikki. If you have any questions concerning this invoice, contact

Thank you for your business!

Important Microsoft Word Issue

In order for your dynamic variables to work correctly and be noticed by WOW, you must either shut off automatic checking of spelling or grammar, or remove the red/green lines that Word inserts on words/phrases it thinks are incorrect. These red/green lines append special tags to the words/phrases and as such, WOW cannot understand the variables.

Using FDF – PDF

Use this option when a PDF report is desired. Currently this only supports a single data row (not header detail type scenarios).

- 1. Create a PDF with variable "form fields" which can be replaced by a FDF at runtime. Where variable data is desired, enter in the text "#variables.field_name#" (w/o the quotes) and where field_name represents the name of the field where the data will come from the database. Use the same name as the field name.
- 2. Place the PDF in your WOW server, by creating a "wowpdf" folder inside your wow64x\wow\ folder. An example would be something like this:
 - a. C:\Program Files\Apache Software Foundation\Tomcat5.5\webapps\wow64x\wow\wompdf
- 3. In the SQL operation you created for this feature, navigate to the "Advanced" settings section, and enter "planetj.output.PDFRow" in the "Row Class" entry field (w/o the quotes).
- 4. You must also tell the operation which PDF to merge data with. This can be done in the following ways:
 - a. *Property Group:* Add the following to the operation "Properties" section:
 - i. PDFRow{ file:myForm.pdf; }
 - b. In the SQL code, include a field named "PDF_FILE" which names the PDF to use. This option allows for situations where different rows may have different PDFs to print; for example savings versus checking account records.

```
SELECT user, lastname, firstname, "myForm.pdf" as PDF_FILE FROM dill_sample.employee
```

5. Run the operation and click on the PDF icon on the left side of a row to invoke the merge.

NOTE: Certain browsers such as Microsoft Internet Explorer may incorrectly open an "extra" window when a PDF is downloaded. At the time of this writing, this is an issue with browsers and outside the scope and control of WOW.

Using WORD XML or WORDML

Use this option when a report is wanted in XML format. A benefit is that a WORDML document can be directly opened and used inside Microsoft Word. For this feature to work correctly, it is strongly recommended that you are using Microsoft Word 2003 or later.

- Using MS WORD, create or use an existing template document and create the form as desired. Users
 can benefit from the large inventory of available free templates especially at Microsoft's Office Online
 website.
- 2. Where variable data is desired, place ??FIELD_NAME and WOW will replace it with database data. For more complex reports, associated data can be retrieved using WOW scripting. The field name must match the fields that are being selected in your SQL statement, or be one of the fields being selected if using SELECT *.
- 3. Nomenclature for more advanced field names inside your WORD XML document (when using associated data) is supported in two ways:
 - a. Using parameters like ??WORKDEPT!LASTNAME!1, the report can be displayed with only fields from a predefined row number. For more details, see the <u>parameters with predefined</u> row number chapter.
 - b. Using html/xml comments block, information from all associated rows can be displayed, not dependent on their count. For more details see <u>parameters in xml comment blocks</u> chapter.
- 4. Save the Word document as "XML" file.
- 5. Place the XML file in your WOW server, by creating/using a "wowword" folder inside your wow64x\ folder. An example would be something like this:
 - a. C:\Program Files\Apache Software Foundation\Tomcat5.5\webapps\wow64x\wowword
- 6. In the SQL operation you created for this feature, navigate to the "Advanced" settings section, and enter "planetj.wow.reports.MSWordRow" in the "Row Class" entry field (w/o the quotes).



- 7. You must also tell the operation which XML to merge data with. This can be done in the following ways:
 - a. Property Group: Add the following operation "Properties" section:
 - i. WORD{ file:invoice.xml; }
 - b. In the SQL code, include a field named "WORD_DOT" in the select statement that names the XML file to use. This option allows for situations where different rows may have different XML to print; for example savings versus checking account records. Example below:

```
SELECT user, lastname, firstname, "invoice.xml" as WORD_DOT FROM dill_sample.employee
```

8. Run the operation and click on the MS WORD icon on the left side of a row to invoke XML document.

Using WORD HTML

Use this option when a report is wanted in an HTML format. A benefit is that HTML will be the most compatible with browsers.

- 1. Using MS WORD (or any HTML/WSYISYG editor), create or use an existing template document and create the form as desired. Users can benefit from the large inventory of available free templates especially at Microsoft's Office Online website.
- 2. Where variable data is desired, place ??FIELD_NAME and WOW will replace with database data. For more complex reports, associated data can be retrieved using WOW scripting. The field name must match the fields that are being selected in your SQL statement, or be one of the fields being selected if using SELECT*.

- 3. Nomenclature for more advanced field names inside your WORD XML document (when using associated data) is supported in two ways:
 - a. Using parameters like ??WORKDEPT!LASTNAME!1, the report can be displayed with only fields from predefined row number. For more details see <u>parameters with predefined row number</u> chapter.
 - b. Using html/xml comments block, information from all associated rows can be displayed, not dependent on their count. For more details see <u>parameters in xml comment blocks</u> chapter.
- 4. If you used MS WORD or another text-editing application, save your file as an HTML document.
- 5. Place the HTML file in your WOW server, by creating/using a "wowword" folder inside your wow64x\ folder. An example would be something like this:
 - a. C:\Program Files\Apache Software Foundation\Tomcat5.5\webapps\wow64x\wonword
- 6. In the SQL operation you created for this feature, navigate to the "Advanced" settings section, and enter "planetj.wow.reports.MSWordRow" in the "Row Class" entry field (w/o the quotes).

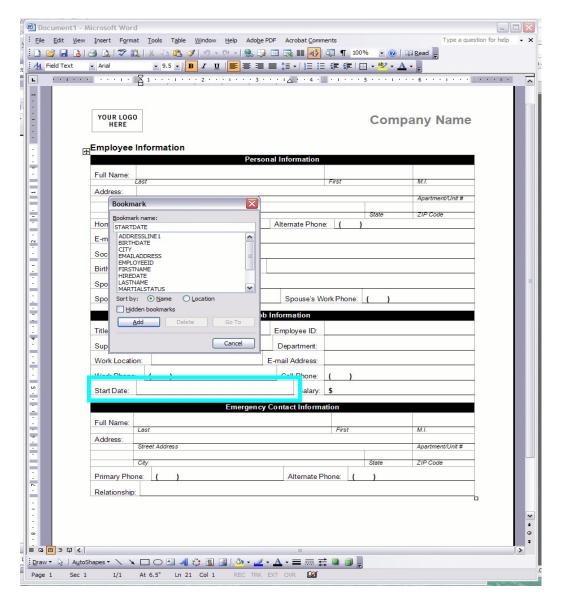


- 7. You must also tell the operation which HTML to merge data with. This can be done in the following ways:
 - a. *Property Group:* Add the following to the operation "Properties" section:
 - i. WORD{ file:invoice.htm; }
 - b. In the SQL code, include a field named "WORD_DOT" in the select statement that names the HTML file to use. This option allows for situations where different rows may have different HTML to print; for example savings versus checking account records. Example below:

Using WORD Merge:

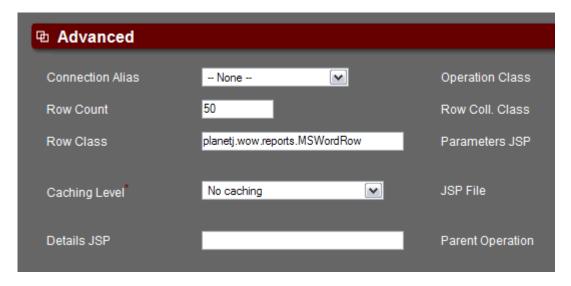
Use this option when a report is wanted using a new or an existing MS WORD document (.dot) template. By using "bookmarks" to denote where data is to be placed on the document, WOW dynamically populates these bookmarks with data from your database. Then, an actual document is sent to the browser in (.doc) format.

- 1. Using MS WORD, create or use an existing template document and create the form as desired. Users can benefit from the large inventory of available free templates especially at Microsoft's Office Online website. Where database text is desired, add a bookmark.
- 2. Where variable data is desired, you will need to create a bookmark in your WORD document. Place the cursor onto the field where you want to place data from the database and click on it. Then:
 - a. Inside MS WORD, select Insert → Bookmark.



- b. Name the bookmark the same name of the field name in the database for the data you want to be placed where your cursor is located. (Do not use ?? like in previous examples, use only text.) Note: when using fields that are in association, you also use just that field's name. There is no need to add the name of the associated field like in the other examples.
- c. Click on "Add." When your operation is run with this feature set, the bookmarks will be filled in with the corresponding data from the database.
- 3. Save the Word document as template (.dot) file.
- 4. Place the template in your WOW server, by creating/using a "wowword" folder inside your wow64x\ folder. An example would be something like this:

- a. C:\Program Files\Apache Software Foundation\Tomcat5.5\webapps\wow64x\wowword
- 5. In the SQL operation you created for this feature, navigate to the "Advanced" settings section, and enter "planetj.wow.reports.MSWordRow" in the "Row Class" entry field (w/o the quotes).



- 6. You must also tell the operation which template file to merge data with. This can be done in the following ways:
 - a. Property Group: Add the following to the operation "Properties" section:
 - i. WORD{ file:invoice.dot; }
 - b. In the SQL code, include a field named "WORD_DOT" in the select statement that names the .dot template file to use. This option allows for situations where different rows may have different .dot to print; for example savings versus checking account records. Example below:

```
SELECT user, lastname, firstname, "invoice.dot" as WORD_DOT FROM dill_sample.employee
```

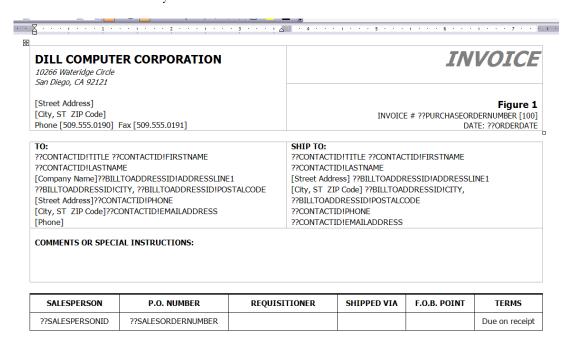
Parameters with predefined row number

In <u>Word XML</u> (WORDML), <u>Word Html</u> reports any field value from a predefined row. This can be displayed using following nomenclature:

??WORKDEPT!LASTNAME!1

This script says "Find the field WORKDEPT" and then within its associated data, get the associated field 'LASTNAME' from row #1 (if using a 1-many association)." No number is needed if using a 1-1 association. The association must be set on the 'WORKDEPT' field.

Thus, "??PRODUCTID!PRODUCTNAME!4" will get the associated field 'PRODUCTNAME' field from row #4 on a 1-many association. This must be set on a field called 'PRODUCTID'



This means that reports will display only numbers that are hardcoded in xml/html template not depending on associated row count. To display any field form associated rows go to next chapter.

Parameters in xml comment blocks

This allows you to display any data from associated rows (not depending on count) in <u>Word XML</u> (WORDML), <u>Word Html</u> reports. To implement, open your xml/html template in any text editor (for instance notepad, EditPad...). You will not see the formatted template, just text with markup tags. Use the following comment block to display associated data:

```
<!--Begin[FieldName] -->
.......
??Field1 <!--Field from associated row-->
......
??Field2 <!--Field from associated row-->
......
<!--End[FieldName] -->
```

In html, the field name should be replaced with the associated field name to display the data. Inside of the html, put metadata tags repeating for each of the associated rows; example: parameters like??FieldName to retrieve data from desired field.

WOW generating these reports will repeat this block for each row from the associated field and replace parameters in each. This will repeat with data from appropriate associated row field.

For instance template can look like:

```
<html>
<body lang=RU style='tab-interval:35.4pt'>
<div class=Section1>
<span lang=EN-US style='mso-ansi-language:EN-</pre>
US'>Id<span
class=GramE>: </span>??EMPNO<!-Field from selected row--</pre>
><o:p></o:p></span>
<span lang=EN-US style='mso-ansi-language:EN-</pre>
US'>Name<span
class=GramE>: </span></span><span lang=EN-GB style='mso-ansi-language:EN-</pre>
GB'>??FIRSTNME ??LASTNAME <!-Field from selected row--></span><span
lang=EN-US style='mso-ansi-language:EN-US'><o:p></o:p></span>
.....
</div>
<div class=Section2>
< 1 ---
Following block will be repeated for each record associated to WORKDEPT
field, each block will be populated with information from appropriate row
<!--Begin[WORKDEPT]-->
 ??EMPNO <!-Field from associated row-->
     ??FIRSTNME ??LASTNAME <!-Field from associated row-->
     ??EMAIL <!-Field from associated row-->
 <!--End[WORKDEPT]-->
</div>
</body>
```

In markup tags generated report will look like:

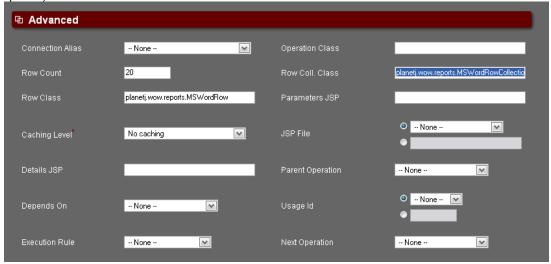
```
=GramE>: </span>000003<!-Field from selected row-->
   <o:p></o:p>
   </span>
  <span lang=EN-US style='mso-ansi-language: EN-US'>Name<spanclass</pre>
     =GramE>: </span></span><span lang=EN-GB
    style='mso-ansi-language: EN-GB'>Joe Klocke<!-Field from selected row--
></span>
 </div>
 <div class=Section2>
  Following block will be repeated for each record associated to WORKDEPT
field, each block will be populated with information from appropriate row
-->
   000003<!--Field from associated row-->
    Joe Klocke<!--Field from associated row-->
    joeklocke@pj.com<!--Field from associated row-->
   65343<!--Field from associated row-->
    Jorge Penguin<!--Field from associated row-->
    <!--Field from associated row-->
   8887<!--Field from associated row-->
    Joe Public<!--Field from associated row-->
    <!--Field from associated row-->
   . . . . . .
  </div>
</body>
</html>
```

Generating reports for multiple rows

<u>Word XML</u> (WORDML), <u>Word Html</u> reports support report generation for more than one row in the same result document. To enable this and default reports configuration do the following:

1. In the SQL operation you created for this feature, navigate to the "Advanced" settings section, and enter "planetj.wow.reports.MSWordRowCollection" in the "Row Coll. Class" entry field (w/o the

quotes).



2. Go to "Display" setting section, update field "Properties", set TableDisplay selectionType value to multiple.

```
tableWidth:; updateAndNextPrevious:; updateText:; viewButtonsURI:; viewURI:; }

TableDisplay{

selectionType:multiple; refresh:true; chart:true; excel:true; msWord:true; xml:true; editFD:true; print:true; sorting:true; drawGrid:true; rowCopy:false; updateable:false; deleteAll:false; nextPrevious:true;
}
```

3. Now your operation should look like:





Selecting one or more rows and clicking on "Report" button will open report for selected rows.

Images in WOW Reports

Word Html reports

<u>Word Html</u> reports – These are a simple file with markup tags. It can not contain image content but it can contain references on external images somewhere on web, like your instance of WOW. To insert a reference, follow these steps:

- 1. Copy the image you want to be displayed on your report in your wow web root folder: or some subfolder, as example:
 - a. C:\Program Files\Apache Software Foundation\Tomcat5.5\webapps\wow64x\images
- 2. Open your template file with some text editor to see markup tags. Insert with img tag to reference your image in the place you want it displayed (as src can be used relevant or full image path. This tag can look like:
 - a.

- b.
- 3. Your image will be displayed in the report

Word XML (WORDML) reports

Word XML (WORDML) report – is an xml file that can contain image contentment.

- 1. Follow same steps for WOW to insert reference on external image. However, in this case:
 - a. Used imagedata tag instead of img
 - b. Image path can be only external
- 2. Insert image with word template file