



Tips & Tricks for my SAP BI Web Applications

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THE BEST-RUN BUSINESSES RUN SAP

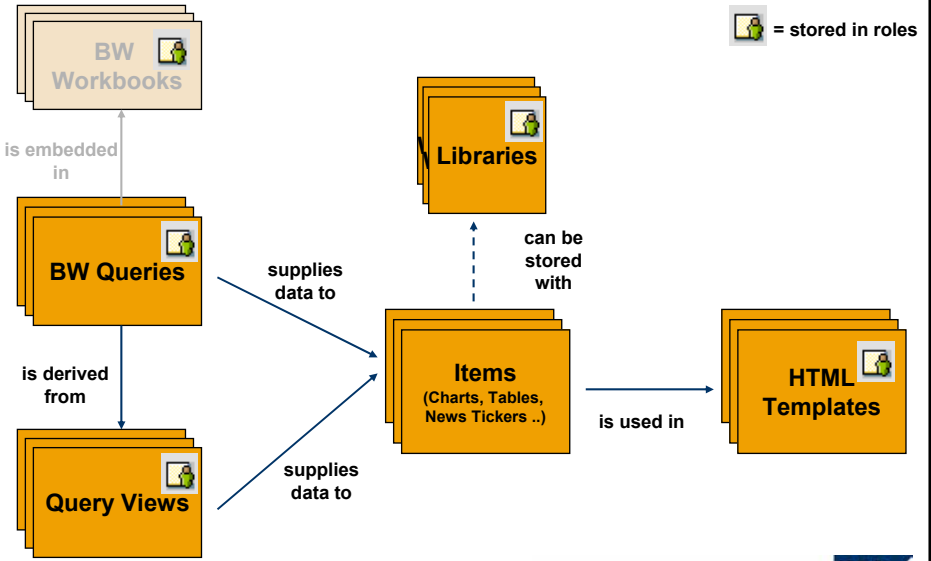


Agenda

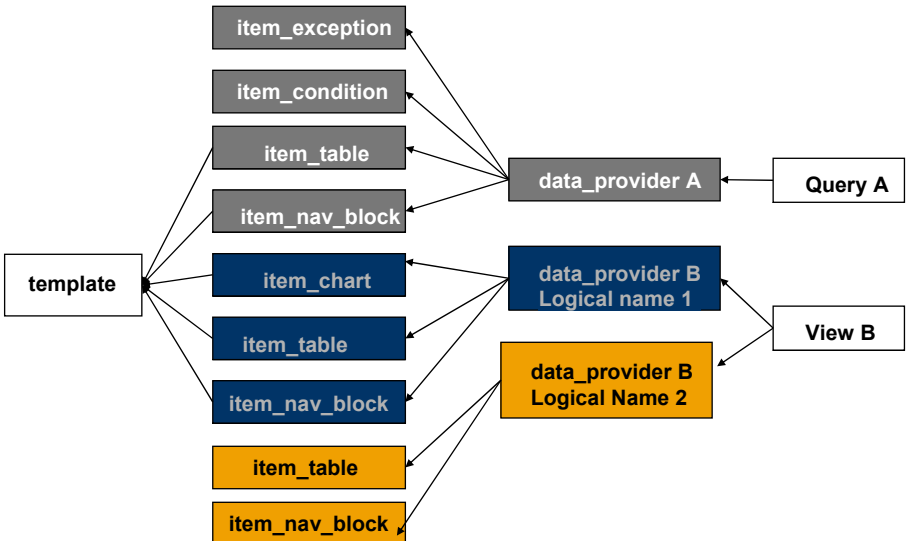
- Web Framework
- Menu Item, Framesets
- Command Sequences
- Structure Member IDs
- How to create buttons
- How to use `0QUERY_TEMPLATE`
- Usage of JavaScript functions
- Document Links for Meta-Data



Web Elements in BW 3.x



Combinations of Components



- **Have a visualization**
 - ◆ data (Chart, Table, Map, ...)
 - ◆ additional information (Textelements, Filter, Conditions, Exceptions, ...)
 - ◆ Tools (Role Menu, Ad Hoc Query Designer, ...)
- **Have attributes to customize visualization and behaviour**
 - ◆ General attributes (Caption, Width, ...)
 - ◆ Specific attributes
- **Typically have a DataProvider assignment**
- **Can affect other DataProviders**
 - ◆ Example: Drop-Down-Box can filter other DataProviders
- **Attribute values of Web Items**
 - ◆ Default value of Web Item Attribute
 - ◆ Attribute value of the library item
 - ◆ Attribute of the item in the Web Template
 - ◆ Changed attribute value by URL parametrization

SAP BW Command URLs (1)

- **Possible Actions**
 - **Change Attributes of Web Items**
(for example set a Web Item to hidden during runtime)
 - **Change state of DataProviders**
(for example setting filters, Drill Down, ...)
 - **Realize other navigation options**
(for example RRI, Export to Excel, Call up other Web Templates)
- **Are usually visualized via Context-Menu, Links or Buttons**

- `<SAP_BW_URL>` - Tag
 - ◆ `<SAP_BW_URL Parameter1='Value1' Parameter2='Value2' ...>`
This tag is replaced by the correct URL from the BW system
 - ◆ Usage: inside of `<a href>`-Tags, Frameset or IFrame Tags, JavaScript
 - ◆ Can not be used in a included JavaScriptLibrary!!!
- JavaScript-Function `SAP_BW_URL_Get()`
 - ◆ The JavaScript Function will return the correct URL as string
 - ◆ Usage: inside of JavaScript functions

Example

- `<a href="<SAP_BW_URL DATA_PROVIDER='View 1'
FILTER_IJOBNM='0CALMONTH'
FILTER_VALUE_EXT='12.1999'>">Filter View 1 `

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Address http://iwdfim02.wdf.sap.corp:1080/sap/bw/BEx?sap-language=EN&bsplanguage=EN&cmd=Idoc&TEMPLATE_ID=PM_INDEX

Links [Customize Links](#)

- ▼ Favorites
 - dropdowns
 - caziptest
 - caregiontest
 - Top Customers (\$US)
 - text
 - Account Hierarchy
 - alert incoming
 - pm dok
 - Customer Analysis
 - Customers Regions US
 - Marketpotential US
 - Customers US
 - Market Share with Cons
 - tabs
 - buttons
 - Sales Alert Monitor
 - Incoming orders (Offline)
 - Top customers
- ▶ ABC Classification
- ▶ Analysis (Retail)
- ▶ BI Analyst
- ▶ BI Mobile Analyst

Sales Order Monitor: Canada and England

Business Info		Technical Info	
Country	Region	Incoming orders	quantity
England	England		38.683 PC
	Scotland		36.668 PC
	Result		75.351 PC

Column 1 / 4

Status England: Orders as expected
 Status Scotland: Orders slightly down due to IT Budget
 Cuts at Scotland Power Ltd

Country	Region	Incoming orders	quantity
Canada	British Columbia		22.540 PC
	Ontario		60.451 PC
	Result		82.991 PC

Column 1 / 4

Status British Columbia: Unexpected slump,
 emergency meeting Monday 8AM, John's office
 Status Ontario: Great Job guys!



Framesets

Initial Page → Frameset Page

URL-Example:

http://iwdfim02.wdf.sap.corp:1080/sap/bw/BEx?sap-language=EN&bsplanguage=EN&cmd=Idoc&TEMPLATE_ID=PM_INDEX

Frame Name: CONTENTS

Frame Name: RIGHT

Address http://iwdfim02.wdf.sap.corp:1080/sap/bw/BEx?sap-language=EN&bsplanguage=EN&cmd=Idoc&TEMPLATE_ID=PM_INDEX

- ▼ Favorites
 - dropdowns
 - caziptest
 - caregiontest
 - Top Customers (\$US)
 - text
 - Account Hierarchy
 - alert incoming
 - pm dok
 - Customer Analysis
 - Customers Regions US
 - Marketpotential US
 - Customers US
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Column 1 / 4

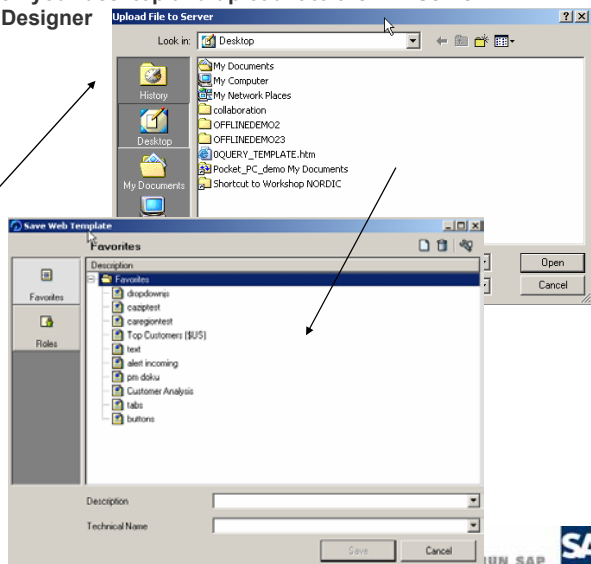
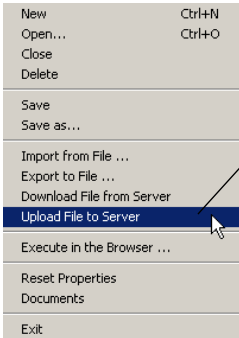
Status British Columbia: Unexpected slump,
 emergency meeting Monday 8AM, John's office
 Status Ontario: Great Job guys!



```
<html>
<head>
<title>index</title>
</head>
<frameset cols="192,*">
  <frame name="contents" target="main" src="<SAP_BW_URL cmd='ldoc'
  template_id='LEFT'>">
  <frame name="right" scrolling="auto" src="<SAP_BW_URL cmd='ldoc'
  template_id='RIGHT'>">
</noframes>
<body>
<p>This page uses frames, but your browser doesn't support them.</p>
</body>
</noframes>
</frameset>
</html>
```

Frameset Page Upload

Create the Frameset Page with an external HTML Editor or Notepad, save it on your desktop and upload it to the BW Server via the Web App Designer



Create the navigation frame

Create a web template in the WAD with a menu item and assign a role (e.g. user favorites). Do not forget to specify the target frame (e.g. right)

The screenshot shows the SAP WAD interface. On the left, a tree view shows 'Standard Items' including Table, Chart, Dropdown Box, Radio Button Group, Checkboxes, Generic Navigation Block, Hierarchical Context Menu, and Filter. Below this is the 'Properties: left' pane for 'ROLEMENU_1'. The 'Web Item' tab is active, showing properties like 'Objects with Navigation ...' (checked), 'List of Roles' (set to '(List)'), 'Number of Levels' (3), 'Filter' (All Entries), and 'Name of Target Frame' (right, circled in red). Other properties include 'Scroll Bar Display' (When Needed), 'Display with IFRAME' (unchecked), and 'Display with Frame aroun...' (unchecked). A 'List of Roles' dialog is open, showing a table with columns 'Role Name' and 'List of Roles'. The table contains 11 rows, with 'User Favorites' in row 1. The 'Layout' pane shows a visual representation of the navigation frame with a menu icon.

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Coding of the Navigation template

```
left
<!-- BW data source object tags -->
<object>
  <param name="OWNER" value="SAP_BW">
  <param name="CMD" value="SET_PROPERTIES">
  <param name="TEMPLATE_ID" value="LEFT">
  TEMPLATE PROPERTIES
</object>
<HTML>
<HEAD>
<META NAME="GENERATOR" Content="Microsoft DHTML Editing Control">
<TITLE>BW Web Application</TITLE>
  <link href="/sap/bw/mime/BEX/StyleSheets/BWReports.css" type="text/css" rel="stylesheet">
</HEAD>
<BODY>
<P><object>
  <param name="OWNER" value="SAP_BW">
  <param name="CMD" value="GET_ITEM">
  <param name="NAME" value="ROLEMENU_1">
  <param name="ITEM_CLASS" value="CL_RSR_WWWW_ITEM_MENU">
  <param name="WIDTH" value="172">
  <param name="ROLE_1" value="SAP_BW__FAVORITES_">
  <param name="LEVEL" value="3">
  <param name="TARGET" value="right">
  <param name="HIERARCHY_COLOR" value="">
  ITEM: ROLEMENU_1
</object></P>
</BODY>
</HTML>
```

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Create the Contents Frame

right

Simply create a new web template in the WAD, do not add any items & just save it e.g. under the name ,right'

right

```
<!-- B/W data source object tags -->
<object>
  <param name="OWNER" value="SAP_BW">
  <param name="CMD" value="SET_PROPERTIES">
  <param name="TEMPLATE_ID" value="RIGHT">
  TEMPLATE PROPERTIES
</object>

<HTML>
<HEAD>
<META NAME="GENERATOR" Content="Microsoft DHTML Editing Control">
<TITLE>Bw Web Application</TITLE>
  <link href="/sap/bw/mime/BEx/StyleSheets/BWReports.css" type="text/css" rel="stylesheet">
</HEAD>
<BODY>
<P>&nbsp;</P>
</BODY>
</HTML>
```



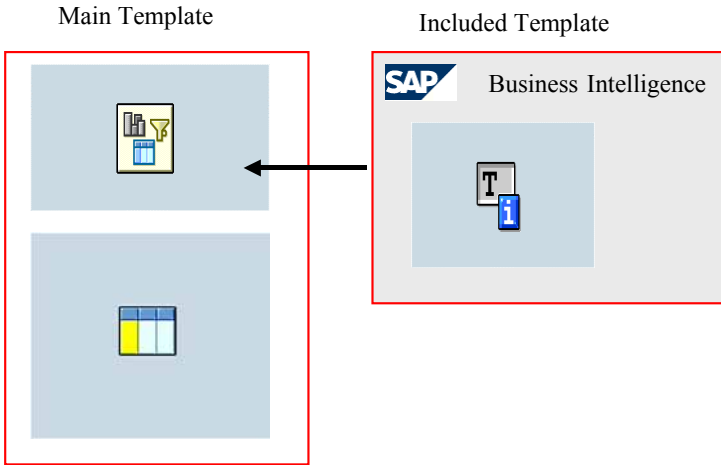
Inline Frames (IFrames)

The **IFRAME** element allows authors to insert a frame within a block of text. The information to be inserted inline is designated by the **src** attribute of this element. The *contents* of the **IFRAME** element, on the other hand, should only be displayed by Browsers that do not support frames or are configured not to display frames.

```
<IFRAME src="DOC/META/FLDMETA/docu?WRAP=X "
width="400" height="500" scrolling="auto" frameborder="1">
IFrame will not be displayed here, please visit <A
href="DOC/META/FLDMETA/docu?WRAP=X ">the related
document.</A> </IFRAME>
```



Outlook BW 3.5 Template in Template (1)



Outlook BW 3.5 Template in Template (2)

Template in Template

- Only one Page context
 - ◆ DataProvider, Items are merged / shared between the different Templates
- Use WAD to design Main Template and Included Templates

- Web Framework
- Menu Item, Framesets
- **Command Sequences**
- Structure Member IDs
- How to create buttons
- How to use OQUERY_TEMPLATE
- Usage of JavaScript functions
- Document Links for Meta-Data

Command Sequences

There are some problems that require you to be able to change several objects differently with one [command](#). For example, with previous methods, you could not filter one [data provider](#) for the fiscal year 1999 and another data provider for 2000 with the same request (command).

A command sequence allows you to add new commands to an original command. Data is requested from the OLAP processor and the HTML page is sent back to the Web Browser only after all of the commands have been processed.

- The subsequent commands are added to the original command as parameter CMD_N. If the subsequent command is within a <SAP_BW_URL>-Tag, the entire command has to be put in quotation marks.
- Note that you have to replace the characters '=' and '&' with their hexadecimal display in the command sequence for commands that are transported using a URL:

- Replace '=' with '%3D'
- Replace '&' with '%26'

Command Sequences

•The parameter `APPLY_CMD_ON_TARGET` and its values "X" and " " allow you to choose whether the subsequent commands are used in a new page created by the main command or whether they are used in the same page as the main command.

Examples

- Start a Web application and filter data provider 1 according to DE filters and data provider 2 according to US filters
`http://myAppServer:myPort/SAP/BW/BEx?CMD=LDOC&template_id=yourTemplate&CMD_1=DATA_PROVIDER%3DDP1%26FILTER_IJOBJNM%3D0COUNTRY%26FILTER_VALUE%3DDE&CMD_2=DATA_PROVIDER%3DDP2%26FILTER_IJOBJNM%3D0COUNTRY%26FILTER_VALUE%3DUS`
- Filter command URL to data provider 1 according to calendar year 2000, change the title of the graphic (chart) GRAPHIC to '2000', and change the title of the table TABLE to 'Details2000'
- `<SAP_BW_URL DATA_PROVIDER='DP1' FILTER_IJOBJNM='0CALYEAR' FILTER_VALUE='2000' CMD_1='ITEM=GRAPHIC&CAPTION=2000' CMD_2='ITEM=TABLE&CAPTION=Details2000'>`



Command Sequences

- Page 1 contains a link to the details. This link starts page 2. Transfer the navigational state of page 1 print parameters and at the same time, parameterize the target page, for example, navigation is switched off
- `<SAP_BW_URL cmd="release_data_provider" data_provider="dp" template_id="template_2" apply_cmd_on_target="X" cmd_1="item=*&multi=X&generate_links=">`
- Swap the axes of data provider 1 and place the characteristic 0Country in the rows
- `<SAP_BW_URL cmd="SWITCH_AXES" data_provider="dp" cmd_1="data_provider=dp&cmd=expand&iobjnm=0Country&axis=y">`



Scenario: Create a command sequence to influence structure members

Highlight Incoming orders quantity

Change scaling factor for Delivery quantity and highlight Returns quantity

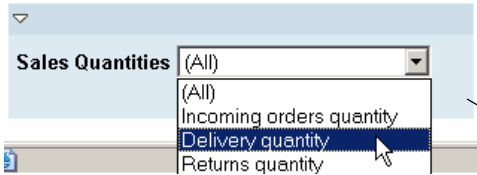
Sales By Country					
Country	Region	Incoming orders quantity	Delivery quantity	Returns quantity	Open orders qty
Australia	New South Wales	4.211 PC	4 PC	210 PC	1.092 PC
	Queensland	328 PC	1 PC	4 PC	35 PC
	Western Australia	2.590 PC	2 PC	140 PC	672 PC
	South Australia	144 PC	0 PC	6 PC	27 PC
	Northern Territory	406 PC	0 PC	142 PC	47 PC
	Victoria	851 PC	1 PC	28 PC	135 PC
	Tasmania	772 PC	1 PC	24 PC	117 PC
	Result		9.302 PC	8 PC	554 PC
Canada	British Columbia	22.540 PC	22 PC	852 PC	1.158 PC
	Ontario	60.451 PC	59 PC	2.520 PC	3.153 PC
	Result	82.991 PC	82 PC	3.372 PC	4.311 PC

Step 1: we need to get the structure member IDs

We have to create a web template with a drop down box that shows the structure members

Save & execute the template

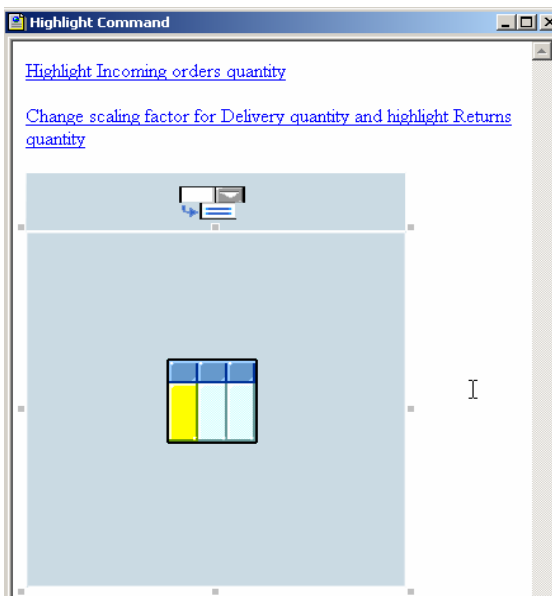
... we need to get the structure member IDs



After executing the template, we go into the HTML coding and copy the structure member IDs into notepad

```
<select name="FILTER_VALUE_1" class="SAPBexDdl"
onChange="document.DDOWNBOX_1.submit()" size="1" >
  <option value="!ALL" selected > (All) </option>
  <option value="33L2S0QRHTBOKSWAQZAENHX2Z" > Incoming orders quantity
  </option>
  <option value="61119XAXBTDLOBL4LOX731ET1" > Delivery quantity </option>
  <option value="B4QGAYJB4JE5W51DNQ8W9HT3P" > Returns quantity </option>
  <option value="0HPW6SU8X9M7WBGRC1PW1471" > Open orders qty </option>
</select>
```

Step 2: Create the command sequences in the WAD



Step 2: Create the command sequences in the WAD

Create the following hyperlinks, insert the structure member ids from your scenario

```
<A class=SAPBEXLnk href="<SAP_BW_URL  
CMD='SET_VALUE_PROPERTIES'  
DATA_PROVIDER='DATAPROVIDER_1'  
STRUCTURE_MEMBER_1='33L2S0QRHTBOKSWAQZAENHX2Z'  
EMPHASIS='X'>">Highlight Incoming orders quantity</A>
```

```
<P></P>
```

```
<p>
```

```
<A class=SAPBEXLnk href="<SAP_BW_URL  
CMD='SET_VALUE_PROPERTIES'  
DATA_PROVIDER='DATAPROVIDER_1'  
STRUCTURE_MEMBER_1='61119XAXBTDLOBL4LOX731ET1'  
SCALING_FACTOR='3'  
CMD_1='cmd=SET_VALUE_PROPERTIES&DATA_PROVIDER=DATAPR  
OVIDER_1&STRUCTURE_MEMBER_1=B4QGAYJB4JE5W51DNQ8W9HT  
3P&EMPHASIS='X'>">Change scaling factor for Delivery quantity and  
highlight Returns quantity</A>
```



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Layout Enhancements via CSS (buttons)

Germany Remove Filter

Sales By Country

Country	Region	Incoming orders quantity	Delivery quantity	Returns quantity	Open orders qty
Canada	British Columbia	10.769 PC	10.584 PC	426 PC	555 PC
	Ontario	29.187 PC	28.680 PC	1.260 PC	1.521 PC
	Result	39.956 PC	39.264 PC	1.686 PC	2.076 PC
Germany	Baden-Württemberg	7.003 PC	6.829 PC	678 PC	522 PC
	Bavaria	MIX	MIX	1.202 PC	MIX
	Berlin	17.096 PC	16.760 PC	452 PC	1.048 PC
	Brandenburg	4.275 PC	4.190 PC	114 PC	265 PC
	Bremen	6.408 PC	6.265 PC	174 PC	401 PC
	Hamburg	10.322 PC	10.013 PC	701 PC	996 PC
	Hesse	MIX	MIX	667 PC	MIX
	Lower Saxony	3.502 PC	3.415 PC	340 PC	261 PC
	Mecklenburg-Western	3.775 PC	3.642 PC	165 PC	405 PC
	North Rhine-Westphal	19.783 PC	18.787 PC	1.064 PC	3.126 PC
	Rhineland-Palatinate	13.191 PC	12.523 PC	709 PC	2.084 PC
	Saarland	7.541 PC	7.284 PC	329 PC	831 PC
	Saxony	4.669 PC	4.552 PC	452 PC	351 PC
	Saxony-Anhalt	2.335 PC	2.275 PC	226 PC	180 PC
	Schleswig-Holstein	9.892 PC	9.390 PC	532 PC	1.556 PC
Thuringia	6.599 PC	6.259 PC	354 PC	1.042 PC	
Result	MIX	MIX	8.159 PC	MIX	



Layout Enhancements via CSS (buttons)

Germany



<body>

<table>

<tr>

```
<td class="SAPBEXBtnStd"><A href="<SAP_BW_URL
FILTER_JOBJNM='0D_COUNTRY' FILTER_VALUE='DE' DATA_PROVIDER=""
MULTI='X' CMD='REMOVE_FILTER' IOBJNM='0D_SALE_ORG'">Germany</A></td>
```

</tr>

</table>

</body>



Layout Enhancements via CSS (buttons)

Germany Remove Filter

```
<body>
```

```
<table>
```

```
<tr><td class="SAPBEXBtnStd" ><A href="<SAP_BW_URL
FILTER_JOBJNM='0D_COUNTRY' FILTER_VALUE='DE' DATA_PROVIDER='*
MULTI='X' CMD='REMOVE_FILTER' IOBJNM='0D_SALE_ORG'>">Germany</A></td>
```

```
<td class="SAPBEXBtnStd"><A href="<SAP_BW_URL
DATA_PROVIDER='DataProvider(1)' CMD='REMOVE_FILTER'
IOBJNM='0D_COUNTRY'>">France</A></td>
```

```
</tr>
```

```
</table>
```

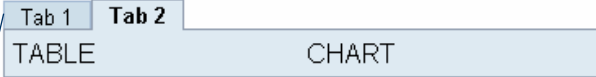
```
</body>
```

CSS Classes Examples

Germany

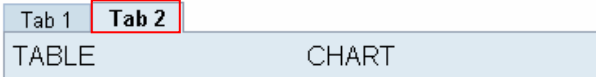
```
.SAPBEXBtnStd {
    text-align: center;
    padding: 0 2px 0 2px;
    height: 18px;
    font-weight: normal;
    font-style:normal;
    white-space: nowrap;
    font-family: arial, sans-serif;
    font-size: x-small;
    background-color: #C1D3E0;
    text-decoration: none;
    cursor: hand;
    color: #021C3B;
    border: 1px solid;
    border-color: #BAE3FE #3474B5
    #3474B5 #BAE3FE;
}
```


Layout Enhancements via CSS (tab strips)



```
<table cellspacing="0" cellpadding="5" border="0">
  <tr>
    <td class="SAPBEXTbsTab" ><A href="<SAP_BW_URL
      FILTER_JOBJNM='0D_COUNTRY' FILTER_VALUE='DE'
      DATA_PROVIDER='DataProvider(1)' >">Tab 1</A>
    </td>
    <td class="SAPBEXTbsTabSel"><A href="<SAP_BW_URL
      CMD='LDOC' TEMPLATE_ID='PM_TAB_TABLE_2'>">Tab 2</A>
    </td>
  </tr>
</table>
```

CSS Classes Examples



```
.SAPBEXTbsTab {
  position: relative;
  height: 19px;
  font-family: arial, sans-serif;
  font-size: x-small;
  font-style:normal;
  padding: 1px 10px 1px 10px;
  border: 1px solid #A4B9D3;
  border-bottom: 0px solid
#909CAE;
  color: #004A95;
  cursor: hand;
  font-weight: normal;
  top: +2;
  z-index: 0;
  background-color: #CDDEE9;
}

.SAPBEXTbsTabSel {
  position: relative;
  height: 19px;
  font-family: arial, sans-serif;
  font-size: x-small;
  font-style:normal;
  padding: 1px 10px 1px 10px;
  background-color: #DEEAF2;
  border-top: 1px solid #909CAE;
  border-right: 1px solid
#909CAE;
  border-left: 1px solid #909CAE;
  font-weight: bold;
  cursor: default;
  top: +1;
  z-index: 51;
}
```

Tab 1	Tab 2
TABLE	CHART

```
.SAPBEXTbsBdyEdg {  
    background: #DEEAF2;  
    border:1px solid #909CAE;  
    position:relative;  
    z-index:50;  
}
```

Layout Enhancements via CSS (tab strips)

Tab 1	Tab 2
TABLE	CHART

```
<table width="100%" class="SAPBEXTbsBdyEdg" cellspacing="0"  
    cellpadding="5" border="0">  
    <tr>  
        <td valign="top" >  
        <!-- ***** insert TABLE ITEM ***** -->  
        TABLE  
        </td>  
        <td valign="top" >  
        <!-- ***** insert CHART ITEM ***** -->  
        CHART  
        </td>  
    </tr>  
</table>
```

Standard Web Template is used by:

- Query Designer and Bex Analyzer → Execute Query in Web
- Ad hoc Query Designer → default target

The Standard Web Template does not contain a Dataprovider. The Dataprovider is filled via URL:
(http://...&cmd=Idoc&TEMPLATE_ID=0QUERY_TEMPLATE&INFOCUBE=xxx&QUERY=yyy)

The Standard Web template is set up in the SAP Reference IMG:
Business Information Warehouse → Reporting-relevant Settings → Web-based Settings → Determine Standard Web Template.

The *0Query_Template* is the default standard Web template.

0QUERY_TEMPLATE can not be edited in the WAD (because of technical reasons)

→ Edit in HTML Editor or Notepad.

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Structure of Standard Default Template

Standard Web Template consists of Headline section, a Toolbar and a set of Web Items

- Web Items are initially hidden. They are displayed (Hidden=` `) via the Toolbar.
- You can extend the Web Template, e.g. add company logo.
Use 0Query_Template as starting point

Toolbar:

- Button style elements: Image / gif
Images reside in SE80-Mime Repository: SE80-Mime: SAP-Public-BW-BEx-Icons

- SAP BW URL:

```
<!-- Display Bar Chart-->
<td class="SAPBEXNavLine"><a href="<SAP_BW_URL_ITEM='*GR*' MULTI='X'
HIDDEN='X' CMD_1='ITEM=GR1GR2NavBlock&HIDDEN='
CMD_2='CMD=RESET_ITEM&ITEM=GR2Chart&WIDTH=600&HEIGHT=400&HIDDEN=
&ITEM_ID=0QUERY_TEMPLATE_COLUMNSTACKED&GENERATE_CAPTION='>">
"></a></td>
```

*Hide all Items (Multi =X), unhide Nav Block and Bar Chart
Item:ITEM_ID=0QUERY_TEMPLATE_COLUMNSTACKED, icon and Tooltip*

- Tooltip
depending on language



Structure of Standard Default Template

Web Items:

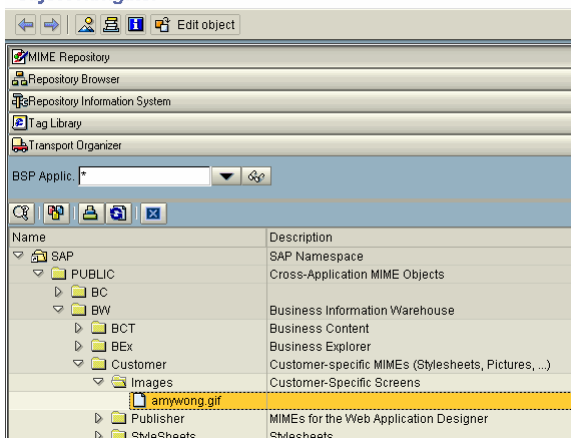
```
<!-- Items: 5 different Item Groups
Group 1: Table: GR1GR2NavBlock + GR1Table
Group 2: Chart: GR1GR2NavBlock + GR2Chart
Group 3: Infos: GR3TECommon + GR3TEFilter + GR3DFilter + GR3TEVarialbes
Group 4: Exceptions: GR4Exceptions
Group 5: Conditions: GR5Conditions
NoGroup: Query Designer
-->
```

- Standard Web Items: Table, Text, Filter, etc...
- Exception: Chart Items need to be saved as Lib items (because of Chart Blob)
Library: 0QUERY_TEMPLATE_LIB



Inserting Graphics

Object Navigator



■ You can insert graphics that are stored in the MIME Repository into a Web template using a selection dialog box.

■ The formats GIF, JPG, and BMP are supported.



Outlook SAP BW 3.5 New Default Template

Query for the New 0Query_Template

These data are from 08/08/2003 14:14

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Distribution Channel	Returns	Returns qty
Direct Sales	356.107,15 DM	3.686 PC
Sales trgh salesrep	56.231,37 DM	1.781 PC
Mail Order (ALE+Alt)	15.757,16 DM	356 PC
Supermarket	10.367,08 DM	356 PC
Online store	19.917,49 DM	619 PC
Wholesale	96.296,62 DM	2.868 PC
Overall Result	554.676,87 DM	9.686 PC

Rows: Distribution Channel

Columns: Key Figures

Free Characteristics: Region, Country, Germany, Italy



- Web Framework
- Menu Item, Framesets
- Command Sequences
- Structure Member IDs
- How to create buttons
- How to use `0QUERY_TEMPLATE`
- Usage of JavaScript functions
- Document Links for Meta-Data



JavaScript – Send Commands

Functions for command processing:

- `SAP_BW_URL_Get()` returns a URL for processing.
- `SAPBWOpeURL(URL)` executes the URL in the current window.
- `SAPBWOpenWindow(URL, windowName, width, height)` opens a new window (if supported by the web browser) and executes the URL.
- `SAPBWSetOpenerUrl(URL, close)` executes the URL in the window from which it was opened and closes itself if specified.



SAPBWGetItemProp(itemName) returns an array of the item attributes as an array of name value pairs:

- new array(itemName, new Array(name1,value1), new Array(name2, value2), ...)

SAPBWGetDataProviderDimensions(dataProviderName) returns an array of the characteristics and structures with properties:

- Row structure: New Array(iobjnm,is_structure,hierarchyAssigned, activeHierarchy, axis,filtered,caption,unsupportedAttributes)

SAPBWGetProperty(propertyName) returns the value of the Template property

- For example TEMPLATE_ID, RUN_AS_IVIEW, DATE_FORMAT

Other Java-Script functions

SAP_BW_Get_Language() returns the logon language

SAPBWSetFilterByCalendar(dataProvider,dataProviderArray,iobjnm,displayDate) filters data using a calendar

Context Menu Manipulation via JavaScript (I)

The context menu can be customized by:

Setting the visibility of the entries using template properties.

Adding new entries using JavaScript or template properties.

- Add JavaScript function to menu:

SAPBWAddToMenu(label, handlerFunction, ...)

- ◆ label: Text to be displayed in the context menu
- ◆ handlerFunction: JavaScript handler function for execution of the command
- ◆ handlerFunctionParameter: Parameter for the handler function (if required)
- ◆ cell_type: Context of the cells where the entry should be displayed, e. g., ' '=all contexts, 'CHARACTERISTIC', 'CHARACTERISTIC_VALUE', 'STRUCTURE', 'STRUCTURE_VALUE', 'DATA', etc.
- ◆ filter: Filter on the cell type, e. g., filter only on characteristic 0CUSTOMER
- ◆ visibility: 'X' for simple menu, 'E' for enhanced menu, or ' ' for no display at all
- ◆ position: At the 'BOTTOM' or 'TOP' of the menu
- ◆ data_provider: Only on cells filled by Data_provider
- ◆ item: Only on the specified item

- Example: Call the company help desk web page

SAPBWAddToMenu("Help Desk", "MyJSHandler", "", "", "", "X", "BOTTOM", "", "");



Context Menu Manipulation via JavaScript (II)

Define JavaScript handler function for the new menu entries:

- MyHandlerFunction(handlerFunctionParameter, cell_type, filter, ..., x, y)
 - ◆ handlerFunctionParameter: Value set in SAPBWAddToMenu for the handler
 - ◆ cell_type: Cell type of the current context
 - ◆ filter: Context of the cell, e. g., 'CHARACTERISTIC'
 - ◆ parameter1: Context of the cell, e. g., '0COUNTRY',
 - ◆ ...
 - ◆ X: Data column coordinate (needed for RRI – Report-To-Report Interface)
 - ◆ Y: Data row coordinate (needed for RRI)
- Example: Handler function for the Help Desk menu entry

`<SCRIPT language="Javascript">`

```
function myJSHandler(p,cell_type,filter,p1,p2,item,data_provider,x,y){
```

```
// Call the help page
```

```
    SAPBWOpenWindow("http://.../it/help.htm", "Help", 600, 400);
```

```
}
```

```
</SCRIPT>
```



Scenario: Suppress Repeated Texts in Context-Menu

Sales By Country

Country	Region	Incoming orders quantity	Delivery quantity	Returns quantity	Open orders qty
Austria		4,211 PC	3,847 PC	210 PC	1,092 PC
	Show Repeated Texts	328 PC	542 PC	4 PC	36 PC
	Keep Filter Value	2,590 PC	2,366 PC	140 PC	672 PC
	Select Filter Value	144 PC	134 PC	6 PC	27 PC
	Filter and drilldown according to	406 PC	60 PC	142 PC	47 PC
	Expand	851 PC	804 PC	28 PC	136 PC
	Remove Drilldown	772 PC	732 PC	24 PC	117 PC
	Sort Country	9,302 PC	8,475 PC	554 PC	2,125 PC
	Goto	22,540 PC	22,156 PC	852 PC	1,158 PC
	Bookmark	82,991 PC	81,557 PC		
Canada					
Germany					

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	Sort Country	9,302 PC	8,475 PC	554 PC	2,125 PC
	Goto	22,540 PC	22,156 PC	852 PC	1,158 PC
	Bookmark	82,991 PC	81,557 PC		
Canada					
Germany					
	Enhanced Menu	19,965 PC	18,962 PC	1,064 PC	3,862 PC
	Saarland	17,131 PC	16,442 PC	658 PC	2,036 PC
	Berlin	36,382 PC	34,664 PC	904 PC	2,171 PC
	Brandenburg	8,906 PC	8,735 PC	220 PC	554 PC
	Mecklenburg-Western Pomerania	7,796 PC	7,561 PC	330 PC	841 PC
	Saxony	9,548 PC	9,308 PC	904 PC	720 PC
	Saxony-Anhalt	4,842 PC	4,717 PC	452 PC	377 PC
	Thuringia	13,664 PC	13,006 PC	708 PC	2,171 PC
	Hamburg	21,094 PC	20,466 PC	1,402 PC	2,089 PC
	Lower Saxony	7,119 PC	6,943 PC	600 PC	533 PC
	Bremen	13,049 PC	12,798 PC	348 PC	819 PC
	North Rhine-Westphalia	41,120 PC	39,123 PC	2,128 PC	6,632 PC
	Hesse	43,488,000 MX	42,296,000 MX	1,334 PC	3,645,000 MX
	Rhineland-Palatinate	27,759 PC	26,246 PC	1,418 PC	4,416 PC
	Baden-Wuerttemberg	51,538,000 MX	49,275,000 MX	1,356 PC	1,063 PC



Outlook SAP BW 3.5 New Items

- XML Catalog (CL_RSR_WWW_ITEM_XML_CATALOG)
 - Returns a XML presentation of the Catalog
 - ◆ Template Properties
 - ◆ DataProviders
 - ◆ Items with their attribute settings
- XML Query View (CL_RSR_WWW_ITEM_XML_QUERYVIEW)
 - Returns a XML presentation of a specific DataProvider
 - ◆ Navigational State
 - ◆ Result Set



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Document links for Meta-Data in Templates

- ` Meta Data Documentation `
- ` Document Browser `
- `Access Meta-Data-Document Docu`
- Document links are automatically created in the Web Item Text Elements, when Display Document links for the corresponding query is switched on



Scenario: Include Meta-Data-Document in IFrame

Country	Sold to party	Sales Volume
Germany	Becker AG	426,000
	Carbor GmbH	720,000
	Lampen-Markt GmbH	1,014,000
	Result	2,160,000
France	DelBont Industries	2,352,000
	Minerva Industries	1,766,000
	Result	4,118,000
England	Aderom SA	1,222,000
	COMPU Tech. AG	1,336,000
	Computer 3000	900,000
Result	3,458,000	
USA	Booktree Inc.	1,268,000
	Result	1,268,000
Overall Result		11,084,000

Query Description: Sales Volume Analysis (RRR Training)

**Dear Colleagues,
This Query is used for Demo purposes! Please do not change!**

Democd Features

- RRR-Target
- Document links



Scenario: Include Meta-Data-Document in IFrame

<object>

<param name="OWNER" value="SAP_BW"/>

<param name="CMD" value="GET_ITEM"/>

<param name="NAME" value="TEXTELEMENTS_1"/>

<param name="ITEM_CLASS" value="CL_RSR_WWW_ITEM_TEXT_ELEMENTS"/>

<param name="DATA_PROVIDER" value="DATAPROVIDER_1"/>

<param name="GENERATE_CAPTION" value=""/>

<param name="WIDTH" value="482"/>

<param name="SHOW_FILTERS" value=""/>

<param name="SHOW_VARIABLES" value=""/>

<param name="ELEMENT_TYPE_1" value="COMMON"/>

<param name="ELEMENT_NAME_1" value="REPTXTLG"/>

ITEM: TEXTELEMENTS_1

</object></P>

<iframe src="DOC/META/FLDMETA/Document_for_query_PM_RR_TRAINING.html?WRAP=X" width="100%" height="200">

Link to Documentation </iframe>



Useful URL parameters

- **debug=X**
 - ◆ Includes all JavaScript files directly in HTML result
 - ◆ Displays additional information
- **trace=X**
 - ◆ Records an OLAP trace
- **snippet_operations=**
 - ◆ Disables snippet operations
- **javascript=**
 - ◆ Disables usage of JavaScript
- **no_session_cookie=X**
 - ◆ Forces session encoding with URL rewriting



Demo

Demo 



Further Information

→ Public Web:

www.sap.com → bi

SAP Customer Services Network: www.sap.com/services/

→ Consulting Contact

Roy Wood, VP SAP Consulting (r.wood@sap.com)



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→ Related SAP Education Training Opportunities

<http://www.sap.com/education/>

BW305, Reporting and Analysis, BW 315 Reporting Management



Q&A



Please complete your session evaluation and drop it in the box on your way out.

Thank You !

The SAP TechEd '03 Basel Team

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