



**2016 Earned Value Management Practitioners (EVMP) Training
and Symposium in Partnership with FPS**

Authoring Custom Reports for wInsight

27 July 2016

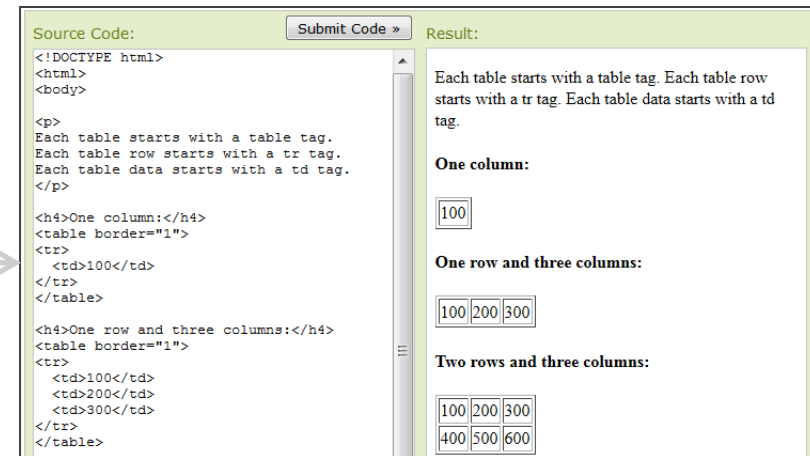
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Instructor Background

- Taught myself HTML
- I understand some JavaScript
- I learned how to write custom reports the hard way
- Resources:
 - www.earnedvalue.biz
 - Author's custom reports
 - <http://www.w3schools.com/default.asp>
 - Tutorial site for HTML and JavaScript
 - Try It Yourself editor
 - Reference section in training manual



The screenshot shows the W3Schools 'Try It Yourself' editor. On the left, the 'Source Code' area contains HTML code for three tables. On the right, the 'Result' area shows the rendered output of the code. A grey arrow points from the 'Try It Yourself editor' resource in the list to the 'Source Code' area.

```
Source Code:
<!DOCTYPE html>
<html>
<body>

<p>
Each table starts with a table tag.
Each table row starts with a tr tag.
Each table data starts with a td tag.
</p>

<h4>One column:</h4>
<table border="1">
<tr>
<td>100</td>
</tr>
</table>

<h4>One row and three columns:</h4>
<table border="1">
<tr>
<td>100</td>
<td>200</td>
<td>300</td>
</tr>
</table>

<h4>Two rows and three columns:</h4>
<table border="1">
<tr>
<td>100</td>
<td>200</td>
<td>300</td>
</tr>
<tr>
<td>400</td>
<td>500</td>
<td>600</td>
</tr>
</table>
```

Result:

Each table starts with a table tag. Each table row starts with a tr tag. Each table data starts with a td tag.

One column:

| |
|-----|
| 100 |
|-----|

One row and three columns:

| | | |
|-----|-----|-----|
| 100 | 200 | 300 |
|-----|-----|-----|

Two rows and three columns:

| | | |
|-----|-----|-----|
| 100 | 200 | 300 |
| 400 | 500 | 600 |


Learning Objectives

- Learn how to create links to new custom reports
- Learn the basics of HTM language and how to edit existing reports
- Create your own custom reports using Eleanor's templates

Course Overview

- **Module One**
 - Benefits Of Custom Reports
 - General Hints
 - Custom Report Contents
 - wInsight Report Writer - Case
 - Dynamic Data vs. Static Text
- **Module Two**
 - Introduction to Tables
 - Formatting
 - Modifying an existing report (EAC Realism) - Case
- **Module Three**
 - Banded reports
 - Creating a banded report – Case
 - Queries
- **Module Four**
 - JavaScript
 - Adding JavaScript to a report – Case
 - JavaScript hints
- **Module Five**
 - Modifying Input Templates
 - Copying Reports to Other Applications
 - Alphabetizing the Reports List
 - Adding a Field Directly to the Database
- **Module Six**
 - Final Case

MODULE ONE

- 
- Benefits Of Custom Reports
 - General Hints
 - Custom Report Contents
 - wInsight Report Writer - Case
 - Dynamic Data vs. Static Text

Why Bother with Custom Reports?

- Answer:

- You get the data you want
 - Arranged the way you want to see it
 - Arranged the way that CAMs want to see it
- You can perform calculations on the data
- You can see banded data (all elements)
- You can run queries on the data
 - Filters
 - Data over time
- Timesaving
 - Don't have to do anything in Excel!!
 - You can design and use input templates



What is a Custom Report?

- wInsight comes pre-loaded with standard reports
 - Available on Reports menu
- May edit existing reports or create new reports
 - Can be added to Reports menu
- Reports are created from:
 - Hyper text markup language (HTML)
 - JavaScript (optional)
 - Functions and calculations
 - Artificial intelligence statements (e.g., Validity Report)
- Visit www.earnedvalue.biz/index.php?page=winsightcustomreports
 - Download EVA's custom reports

As of: JAN 08

| CAN Jones | WBS Number: 1000 | WBS Name: SCH-2 | | | | | | | | | | | |
|-------------------------------|------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Current Period Data | | Cumulative Data | | | | | | | | | | | |
| SCH VAR | -130.2 | -477.8 | | | | | | | | | | | |
| SCH VAR % | -8.3% | -2.9% | | | | | | | | | | | |
| COST VAR | -187.8 | -488.0 | | | | | | | | | | | |
| COST VAR % | -13.1% | -7.3% | | | | | | | | | | | |
| VAC | | 39.2 | | | | | | | | | | | |
| VARIANCE EXPLANATION REQUIRED | | | | | | | | | | | | | |
| PERIOD | SEP 07 | OCT 07 | NOV 07 | DEC 07 | JAN 08 | FEB 08 | MAR 08 | APR 08 | MAY 08 | JUN 08 | JUL 08 | AUG 08 | SEP 08 |
| Current Period Data | | | | | | | | | | | | | |
| BCWS | 816 | 286 | 1,877 | 1,439 | 1,645 | 1,261 | 1,388 | 1,388 | 1,335 | 1,116 | 1,116 | 1,227 | |
| BCWP | 840 | 528 | 1,042 | 1,558 | 1,509 | | | | | | | | |
| BV | 24 | 240 | -435 | -118 | -156 | | | | | | | | |
| Curr SPI | 1.023 | 1.839 | 0.553 | 1.082 | 0.917 | | | | | | | | |
| ACWP/ETC | 706 | 886 | 1,038 | 1,596 | 1,707 | 1,509 | 1,440 | 1,440 | 1,244 | 1,178 | 1,159 | 1,275 | |
| CV | 134 | -358 | -778 | -162 | -102 | | | | | | | | |
| Curr CPI | 1.140 | 0.579 | 0.844 | 1.110 | 0.844 | | | | | | | | |
| Cumulative Data | | | | | | | | | | | | | |
| BCWS | 2,231 | 2,517 | 4,194 | 5,633 | 7,279 | | | | | | | | |
| BCWP | 2,216 | 2,742 | 3,784 | 5,342 | 6,851 | | | | | | | | |
| BV | -15 | -225 | -1410 | -290 | -428 | | | | | | | | |
| Cum SPI | 0.993 | 1.092 | 0.902 | 0.948 | 0.941 | | | | | | | | |
| ACWP | 2,191 | 3,027 | 4,247 | 5,843 | 7,360 | | | | | | | | |
| CV | 25 | -286 | -463 | -301 | -459 | | | | | | | | |
| Cum CPI | 1.013 | 0.966 | 0.927 | 0.947 | 0.932 | | | | | | | | |
| Cum SPI | 0.993 | 1.092 | 0.902 | 0.948 | 0.941 | | | | | | | | |
| Cum CPI | 1.013 | 0.966 | 0.927 | 0.947 | 0.932 | | | | | | | | |
| TCPI-EAC | 1.008 | 1.004 | 0.978 | 1.012 | 1.040 | | | | | | | | |
| Delta (CPI to TCPI-EAC) | 0.004 | -0.124 | -0.187 | -0.125 | -0.108 | | | | | | | | |
| Completion Data | | | | | | | | | | | | | |
| BAC | 17,205 | 17,205 | 17,802 | 20,078 | 20,796 | | | | | | | | |

Types of Custom Reports


- Single element (active element)
- Banded
 - Report generated for all elements shown in Sort Window
 - Can apply filter in Sort Window
 - Only filtered elements will appear in banded report
- Query
 - Elements
 - Periods
 - Units

Case

- Open the following reports in wInsight to see the various report types

| Report | Example of |
|------------------------|--|
| Six Period Summary | Tabular data for single element |
| Future Period Summary | Tabular data for past, present, and future |
| Validity Report | Artificial intelligence (written comments based on data comparisons) |
| AI Narrative | Written narrative with embedded AI |
| PM Summary Report | Banded report for all elements in Sort window |
| MR Status Report | Query report for periods (data over time) |
| Element of Cost Report | Query report for units |

MODULE ONE

- 
- Benefits Of Custom Reports
 - General Hints
 - Custom Report Contents
 - wInsight Report Writer - Case
 - Dynamic Data vs. Static Text

Custom Reports

- Keep all custom reports in same folder
 - wInsight: **winst** folder
 - wInsight 6.4 and earlier: C:\CSSI6\winst
 - wInsight 6.5: C:\Program Files\Deltek\winsight 6.5\winst
 - wInsight web, Dashboard: **Bin** folder
- If not in same folder, wInsight will automatically look for a report in last location that was mapped for any report
 - Will get error message
 - Have to continually re-map

What's in a Name?

- Name of custom report file cannot contain spaces
- Use underscores to separate words
- Be descriptive
- Examples:
 - Eac_realism.htm
 - Catch_planning_packages.htm

Custom Reports in 3 Steps

1.(File Explorer)

- Copy an existing report template
- Or use report templates found at www.earnedvalue.biz

2.(HTML Editor) Edit the copy or create the new report

- Use software such as Dreamweaver, Coffee Cup, etc.
 - Recommend: WYSIWYG editor (what you see is what you get)
 - See example on next chart
- Use Notepad for simple reports or edits
 - Must save as .htm file, not default (.txt)
- Can only view in Internet Explorer

3.(wInsight) Create a link to custom report and display

WYSIWYG Editors

Example in Dreamweaver

- Make changes in code in top window
- See changes and format in bottom window
 - Can also edit code here (recommended for minor edits only)

The screenshot shows the Adobe Dreamweaver interface with the following content:

Code View (Top Window):

```

120 Element Name: ((Element|ElemDesc|))<BR></TD>
121 <TD CLASS=WRTD COLSPAN=4>
122 <BR><BR>
123 Financial Analyst: ((Contract|Analyst|))<BR>
124 Contract Manager: ((Contract|Manager|))<BR>
125 <BR>
126 <BR>Project Officer: ((Element|ProjOff|))<BR>
127 Office Symbol: ((Element|OffSym|))<BR>
128 </TD></TR>
129 <TR>
130 <TD CLASS=WRTD2 WIDTH=22%>PERIOD</TD>
131 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDa
132 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDa
133 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDa
134 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDa
135 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDa
136 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDa
137 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDa
138 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDate|(-4|))</TD>
139 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDate|(-3|))</TD>
140 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDate|(-2|))</TD>
141 <TD CLASS=WRTD2 WIDTH=13% ALIGN=right>((Period|EndDate|(-1|))</TD>

```

Design View (Bottom Window):

Twelve Period Summary - ((Structure|StruDesc|)) ((Unit|UnitName|))

| | | | | | | | | | | | |
|---|--------------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| As of: ((Period EndDate)) | | Financial Analyst: ((Contract Analyst)) | | | | | | | | | |
| Contract Name: ((Contract ContrName)) | | Contract Manager: ((Contract Manager)) | | | | | | | | | |
| Contract Number: ((Contract ContrNum)) | | | | | | | | | | | |
| Contractor: ((Contractor CtrName)) | | Project Officer: ((Element ProjOff)) | | | | | | | | | |
| Element Code: ((Element WbsNum)) | | Office Symbol: ((Element OffSym)) | | | | | | | | | |
| Element Name: ((Element ElemDesc)) | | | | | | | | | | | |
| PERIOD | ((Period EndDate (-11)) | ((Period EndDate (-10)) | ((Period EndDate (-9)) | ((Period EndDate (-8)) | ((Period EndDate (-7)) | ((Period EndDate (-6)) | ((Period EndDate (-5)) | ((Period EndDate (-4)) | ((Period EndDate (-3)) | ((Period EndDate (-2)) | ((Period EndDate (-1)) |
| Current Period Data | | | | | | | | | | | |
| BCWS | ((BcwsCur (-11)) | ((BcwsCur (-10)) | ((BcwsCur (-9)) | ((BcwsCur (-8)) | ((BcwsCur (-7)) | ((BcwsCur (-6)) | ((BcwsCur (-5)) | ((BcwsCur (-4)) | ((BcwsCur (-3)) | ((BcwsCur (-2)) | ((BcwsCur (-1)) |
| BCWP | ((BcwpCur (-11)) | ((BcwpCur (-10)) | ((BcwpCur (-9)) | ((BcwpCur (-8)) | ((BcwpCur (-7)) | ((BcwpCur (-6)) | ((BcwpCur (-5)) | ((BcwpCur (-4)) | ((BcwpCur (-3)) | ((BcwpCur (-2)) | ((BcwpCur (-1)) |
| ACWP | ((AcwpCur (-11)) | ((AcwpCur (-10)) | ((AcwpCur (-9)) | ((AcwpCur (-8)) | ((AcwpCur (-7)) | ((AcwpCur (-6)) | ((AcwpCur (-5)) | ((AcwpCur (-4)) | ((AcwpCur (-3)) | ((AcwpCur (-2)) | ((AcwpCur (-1)) |

Hints for Custom Reports

- Begin by studying existing reports
- Define your requirements on template (see next chart)
- Copy and edit existing report
 - Copy scripts, formats, etc.
 - Start with an easy report – HTML only
- Arrange HTML editor window and wlnsight sort window together on screen
 - Make changes to report and save
 - Make incremental changes **ONE AT A TIME**
 - Verify each step
 - Switch to wlnsight, apply report
 - Verify change in new report
 - Make remaining changes **ONE AT A TIME**

Custom Report Definition Template

| <h2 style="margin: 0;">Winsight Custom Report Definition Document</h2> | |
|---|---|
| Proposed Name _____ | |
| <input type="checkbox"/> New Report <input type="checkbox"/> Modify Existing Report Specify Existing Report to Modify _____ <input type="checkbox"/> Replicate Existing Template (non winsight) (attach sample) | |
| Overview and Purpose of Report <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div> | |
| Elements (pick one) <input type="checkbox"/> Active Element only <input type="checkbox"/> All Elements <input type="checkbox"/> Level 1 only | Number Formatting <input type="checkbox"/> Enter number of decimals <input type="checkbox"/> Commas? |
| Reporting Periods (pick one) <input type="checkbox"/> Current reporting period only <input type="checkbox"/> Current period plus selected periods Number of prior periods (enter number) _____ Number of future periods (enter number) _____ <input type="checkbox"/> All periods | Units (\$, Hour, EQP) (pick one) <input type="checkbox"/> Allow units to be toggled <input type="checkbox"/> Fix the unit (specify) _____ <input type="checkbox"/> Show all units (e.g., \$, hour, EQP) |
| Special Requests <input type="checkbox"/> Filters (specify) <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div> | |
| <input type="checkbox"/> Color conditions (i.e., color code table cells based on conditions) (specify) <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div> | |
| <input type="checkbox"/> AI Narrative (specify logic on report layout tab) | |
| <input type="checkbox"/> Perform mathematical operations on fields (specify) <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div> | |
| <input type="checkbox"/> Other Requests <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div> | |


[illegible]

Templates

- Start with one of my templates
 - Custom_report_template.htm
 - Custom_over_time_template.htm
 - Custom_banded_report_template.htm
 - Placeholders for column headers, field names
- All_javascript_functions.htm
 - Library of all JavaScript functions

```
</tr>
<tr>
<tr>
<td class=wrtcd5>column heading 1</td>
<td class=wrtcd5>column heading 2</td>
<td class=wrtcd5>column heading 3</td>
<td class=wrtcd5>column heading 4</td>
<td class=wrtcd5>column heading 5</td>
<td class=wrtcd5>column heading 6</td>
<td class=wrtcd5>column heading 7</td>
</tr>
<tr>
<td class=wrtcd>{ElemLevel}</td>
<td class=wrtcd1 nowrap>{tblsNum}<br>{ElemDesc}</td>
<td class=wrtcdr nowrap>{FIELD NAME}</td>
<td class=wrtcdr nowrap>{FIELD NAME}</td>
<td class=wrtcdr nowrap>{FIELD NAME}</td>
<td class=wrtcdr nowrap>{FIELD NAME}</td>
<td class=wrtcdr nowrap>{FIELD NAME}</td>
</tr>
</table>
</body>
</html>
```

MODULE ONE

- Benefits Of Custom Reports
- General Hints
-  • Custom Report Contents
- wInsight Report Writer - Case
- Dynamic Data vs. Static Text

HTML Tags

- Tags describe document content
- Keywords surrounded by **angle brackets**
 - **Example:** `<html>`
- Normally come in pairs like `` and ``
 - The first tag in a pair is the **start tag**
 - The second tag is the **end tag**
 - Contains a **forward slash** before the tag name
- HTML is a combination of tags and content
 - `<html>`content`</html>` web page definition
 - `<body>`content`</body>` visible page content

What's in a Custom Report?

```
<!--  
-->
```

Documented comments (not included in report)

```
<html>
```

Defines document as HTML

```
<head>
```

```
<style>
```

Defines styles

```
<script>
```

Defines JavaScript functions

```
<body>
```

Describes visible page content

```
<table>
```

Defines table

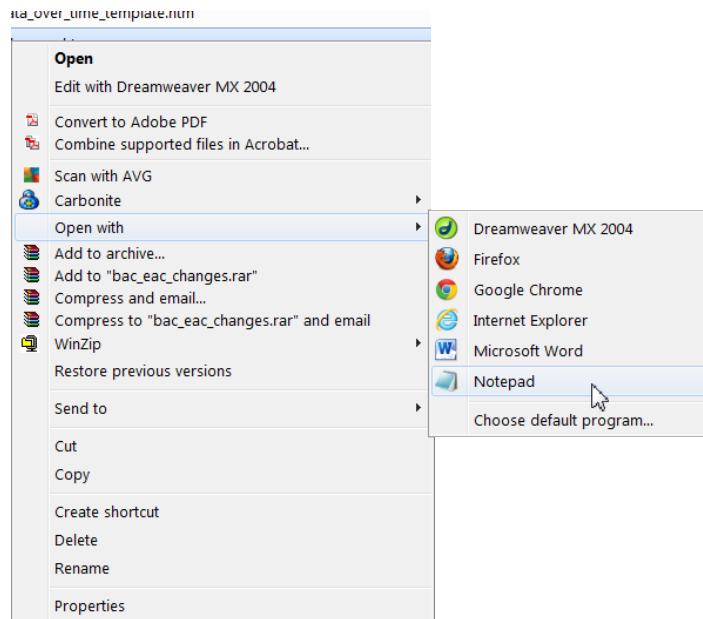
```
</html>
```

Each section starts and ends with tags

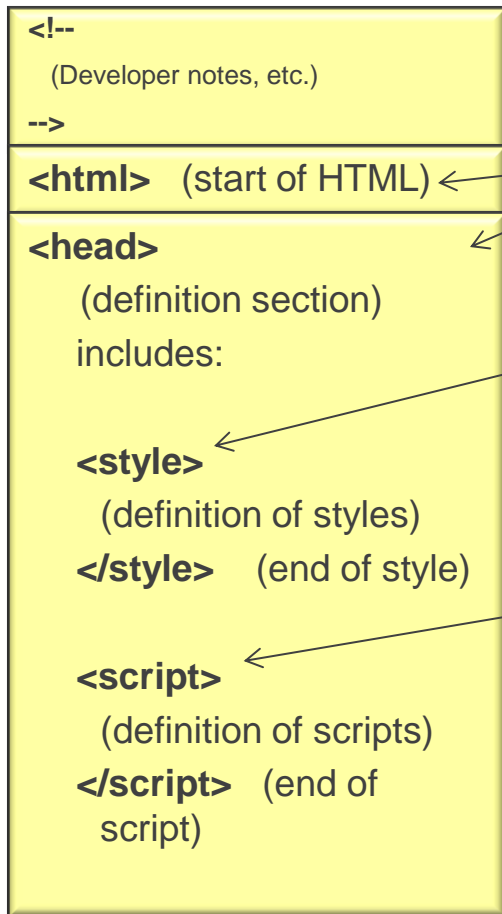
What's in a Custom Report?

[illegible]

- Click on My Computer
- Navigate to C:\Program Files\Deltek\wInsight 6.5\winst
- Right mouse click on bac_eac_changes.htm
- Open with Notepad



Anatomy of a Custom Report – Part 1



```
bac_eac_changes.htm - Notepad
File Edit Format View Help

<!--
Created by Eleanor Haupt
Copyright January 2009, Earned Value Associates LLC
-->
<html>
<head>
<link rel="stylesheet" href="(|Meta|TemplateDir|)wsrept.css" t
<style>
TD.wrttd { background-color: #f0f0f0; font-size: 10pt; font-fa
TD.wrttd0 { background-color: #c0c0c0; font-size: 16pt; font-fa
TD.wrttd5 { background-color: white; font-size: 10pt; font-fami
TD.wrttd1 { background-color: #f0f0f0; font-size: 10pt; font-fa
TD.wrttdc { background-color: #f0f0f0; font-size: 10pt; font-fa
TD.wrttdr { background-color: #f0f0f0; font-size: 10pt; font-fa
</style>
<script>

function roundn(val, ndec)
{
    var p = Math.pow(10, ndec);
    var s = Math.round(val*p) / p;
    s = s.toString();
    var p = s.indexOf(".");
    var l = (p < 0) ? 0 : s.length - (1 + p);
    if( ndec > 0 && l < ndec )
    {
        if( p == -1 )
        {
            s += ".";
        }
        for( i = 1; i < ndec; i++ )
            s += "0";
    }
    return s;
}
```

Anatomy of a Custom Report – Part 2

</script> (end of script)

</head> (end of head)

<body> (start of report definition)

<table> (table definition)

</table> (end of table)

</body> (end of body)

</html> (end of HTML)

```

bac_eac_changes.htm - Notepad
File Edit Format View Help

if( fmt.charAt(0) != 'n' )
    s = addcomma(s);
return s;
}

function subtract(x, y)
{
    return x - y;
}

</script>
</head>
<body>
    <TABLE BORDER=0 CELSPACING=1 CELLPADDING=4 width=674>
    <TR>
    <TD CLASS=WRTD0 ALIGN=center COLSPAN=6>BAC and EAC changes Report - (|structure|s
    </TR>
    <TR>
    <TD CLASS=WRTD COLSPAN=3>
    <BR>Report Date: (|Period|EndDate|)<BR>
    Contract Name: (|Contract|ContrName|)<BR>
    Contract Number: (|Contract|ContrNum|)<BR>
    Contractor: (|Contractor|CtrName|)<BR><BR></TD>
    <td class="WRTD" colspan=5>
    <BR>
    Financial Analyst: (|Contract|Analyst|)<BR>
    Contract Manager: (|Contract|Manager|)<BR>
    <BR>
    </td>
    </tr>
    <tr>
    <tr>
    <TD width="102" class=wrt5><BR>LVL</TD>
    <TD width="100" class=wrt5>ID NUMBER<BR>DESCRIPTION</TD>
    <TD width="101" class=wrt5><p><BR>
    BAC<BR>(Last Period) (Current Period)</td>
    <TD width="102" class=wrt5><BR>
    BAC Change </TD>
    <TD width="112" class=wrt5><BR>
    EAC<BR>(Last Period) (Current Period)</td>
    <TD width="102" class=wrt5><BR>
    EAC Change </TD>
    </TR>
    (|Meta|BeginLoop|ce|SyncSortwnd|)
    <TR>
    <TD class=wrt5>(|ElemLevel|<ce$|)</TD>
    <TD class=wrt5 nowrap>(|wbsNum|<ce$|)<BR>(|ElemDesc|<ce$|)</TD>
    <TD class=wrt5 nowrap><p>(|BAC|<ce$|(-1)|)<BR>
    (|BAC|<ce$|)<BR>
    </p> </TD>
    <TD class=wrt5 nowrap><BR><script>document.write(eval("addcomma(roundn(subtrac
    <TD class=wrt5 nowrap><p>(|Lrel|<ce$|(-1)|)<BR>
    (|Lrel|<ce$|)<BR>
    </p> </TD>
    <TD class=wrt5 nowrap><BR><script>document.write(eval("addcomma(roundn(subtrac
    </TR>
    (|Meta|EndLoop|ce|)
    </TABLE>
    </body>
    </html>
    
```

What's in a Custom Report?


```
<body>
<TABLE BORDER=0 CELLSPACING=1 CELLPADDING=4 width=674>
<TR>
<TD CLASS=WRD0 ALIGN=center COLSPAN=6>BAC and EAC Changes Report - (|Structure|StruDesc|) (|Unit|UnitName|) <BR></TD>
</TR>
<TR>
<TD CLASS=WRD0 COLSPAN=3>
<BR>Report Date: (|Period|EndDate|)<BR>
Contract Name: (|Contract|ContrName|)<BR>
Contract Number: (|Contract|ContrNum|)<BR>
Contractor: (|Contractor|CtrName|)<BR><BR></TD>
<td class="WRD0" colspan=5>
<BR>
Financial Analyst: (|Contract|Analyst|)<BR>
Contract Manager: (|Contract|Manager|)<BR>
<BR>
</td>
</tr>
<tr>
<tr>
<TR>
<TD width="102" class=wrtd5><BR>LVL</TD>
<TD width="100" class=wrtd5>ID NUMBER<BR>DESCRIPTION</TD>
<TD width="101" class=wrtd5><p><BR>
BAC<BR>(Last Period) (Current Period)</td>
<TD width="102" class=wrtd5><BR>
BAC Change </TD>
<TD width="112" class=wrtd5><BR>
EAC<BR>(Last Period) (Current Period)</td>
<TD width="102" class=wrtd5><BR>
EAC change </TD>
</TR>
(|Meta|BeginLoop|ce|SyncSortwnd|)
<TR>
<TD class=wrtdc>(|ElemLevel|Sce$|)</TD>
<TD class=wrtd1 nowrap>(|wbsNum|Sce$|)<BR>(|ElemDesc|Sce$|)</TD>
<TD class=wrtdr nowrap><p>(|BAC|Sce$|(-1|))<BR>
(|BAC|Sce$|)<BR>
</p>
</TD>
<TD class=wrtdr nowrap><BR><script>document.write(eval("add
<TD class=wrtdr nowrap><p>(|Lre|Sce$|(-1|))<BR>
(|Lre|Sce$|)<BR>
</p>
</TD>
<TD class=wrtdr nowrap><BR><script>document.write(eval("add
</TD>
</TR>
(|Meta|EndLoop|ce|)
</TABLE>
</body>
</html>
```

- Body of report
 - Defines table size and format
 - Pulls in data (dynamic)
 - (|table name|field name|)
 - Example: (|Contract|ContrNum|)
 - References style codes
 - Example: class = wrtd
 - References JavaScript
 - Example: addcomma
 - Narratives
 - Static (no tags)
 - Example: Title of report
 - Use “emitif” statements to produce a statement based on underlying data (example: AI Narrative report)

Close file.

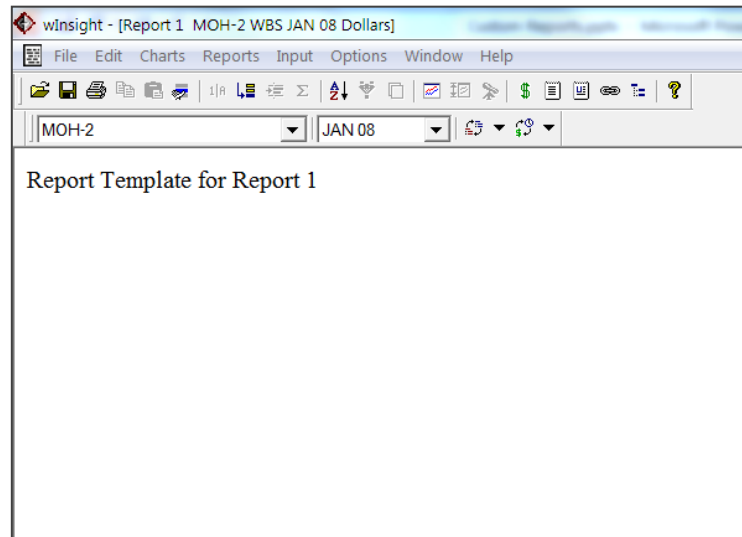
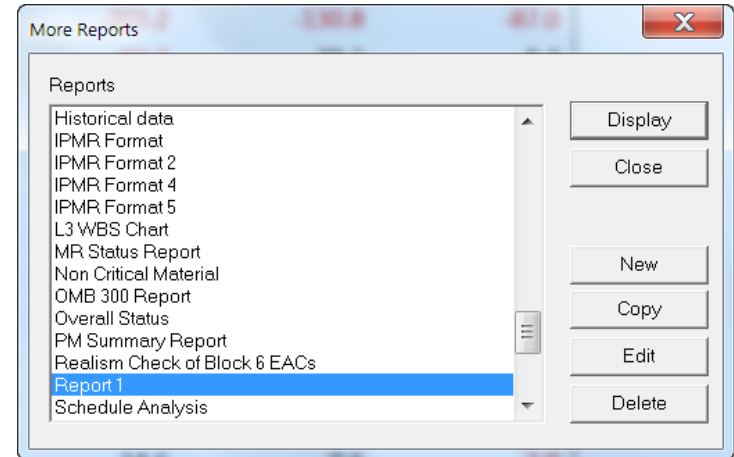
Do not save any changes
you may have made.

MODULE ONE

- Benefits Of Custom Reports
- General Hints
- Custom Report Contents
-  • wInsight Report Writer - Case
- Dynamic Data vs. Static Text

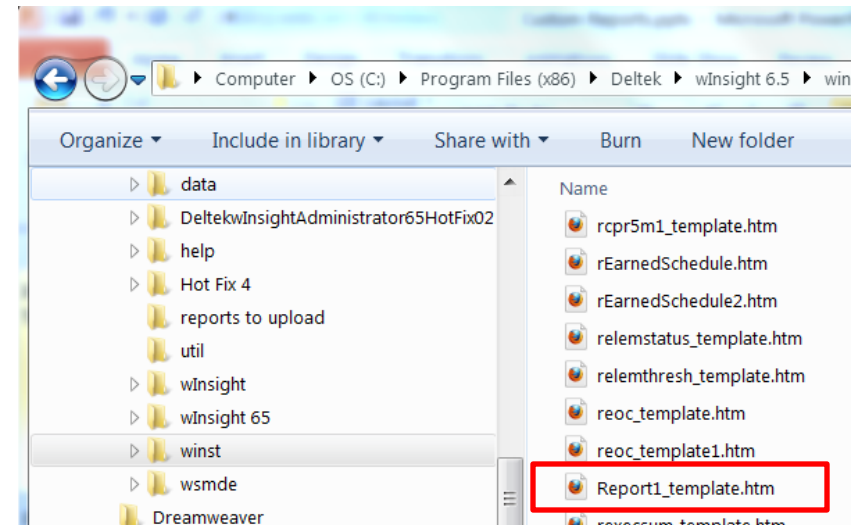
wInsight Report Writer - Case

- Open wInsight
- Click **Reports, Custom Reports, More Reports, and New**
 - wInsight creates a blank report, Report 1
- Click **Display**
- Close the report



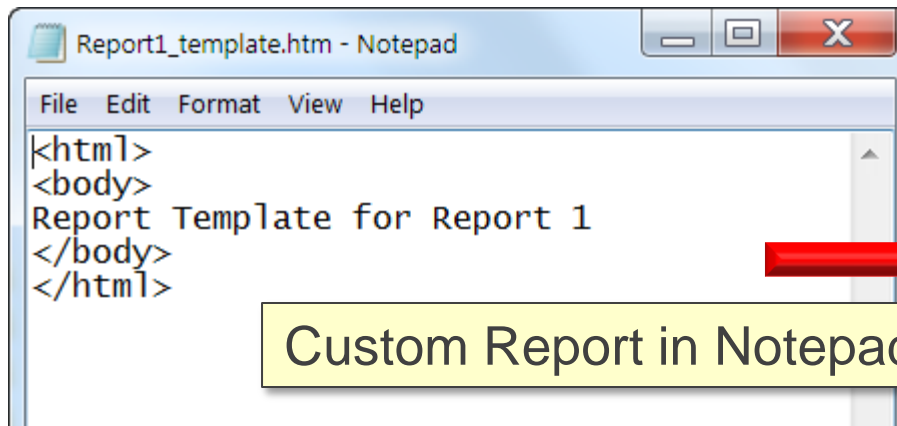
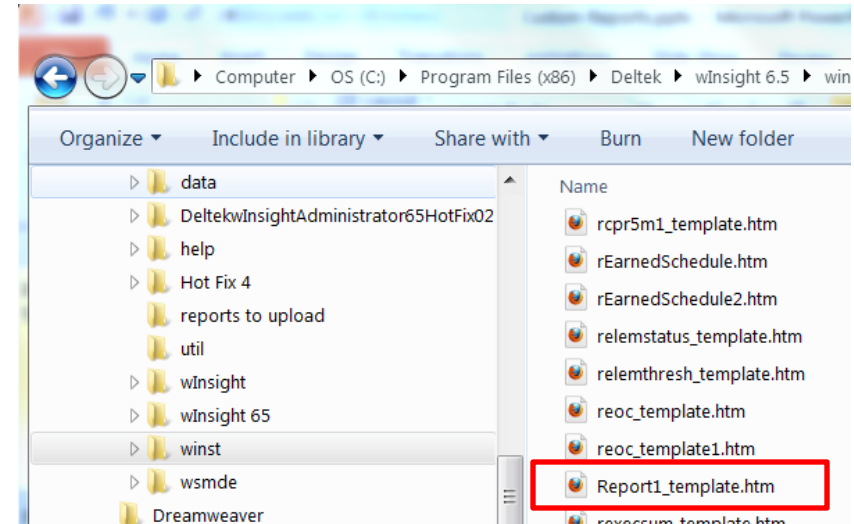
wlInsight Report Writer - Case

- Navigate to My Computer
 - C:\Program Files\Deltek\wlInsight 6.5\winst
 - Right mouse click on Report1_template.htm
 - Open with Notepad

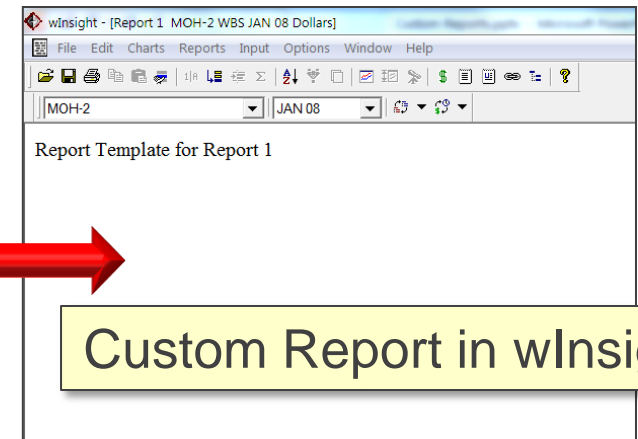


wInsight Report Writer - Case

- Navigate to My Computer
 - C:\Program Files\Deltek\wInsight 6.5\winst
 - Right mouse click on Report1_template.htm
 - Open with Notepad



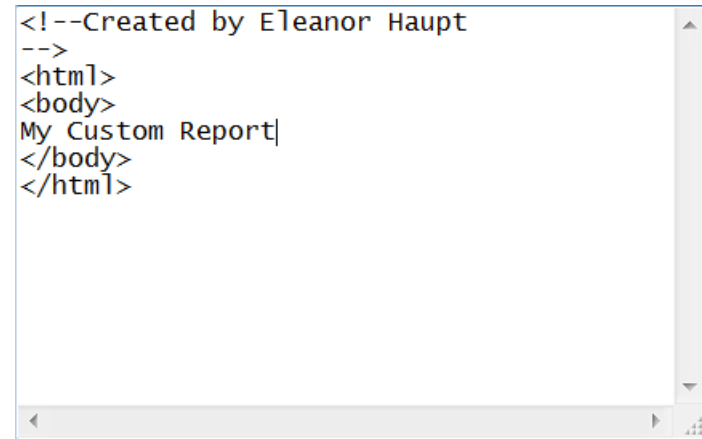
Custom Report in Notepad



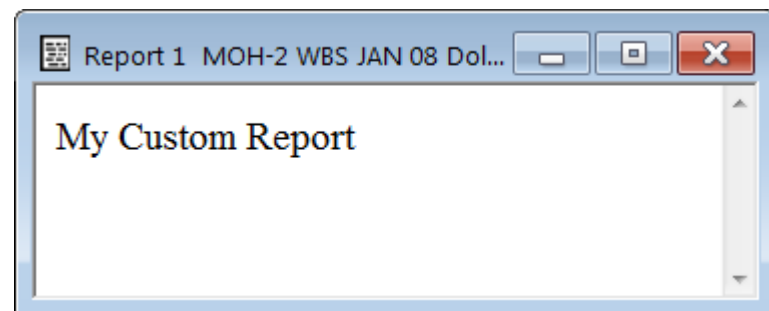
Custom Report in wInsight

wInsight Report Writer - Case

- Insert as first line:
 <!--Created by NAME
- Insert as second line
 -->
- Replace text with
 My Custom Report
- Click ***File, Save As...***
 - Save as type: All Files
 - Should ask you to replace
- Go back to wInsight
 - Display the report
 - Close the report

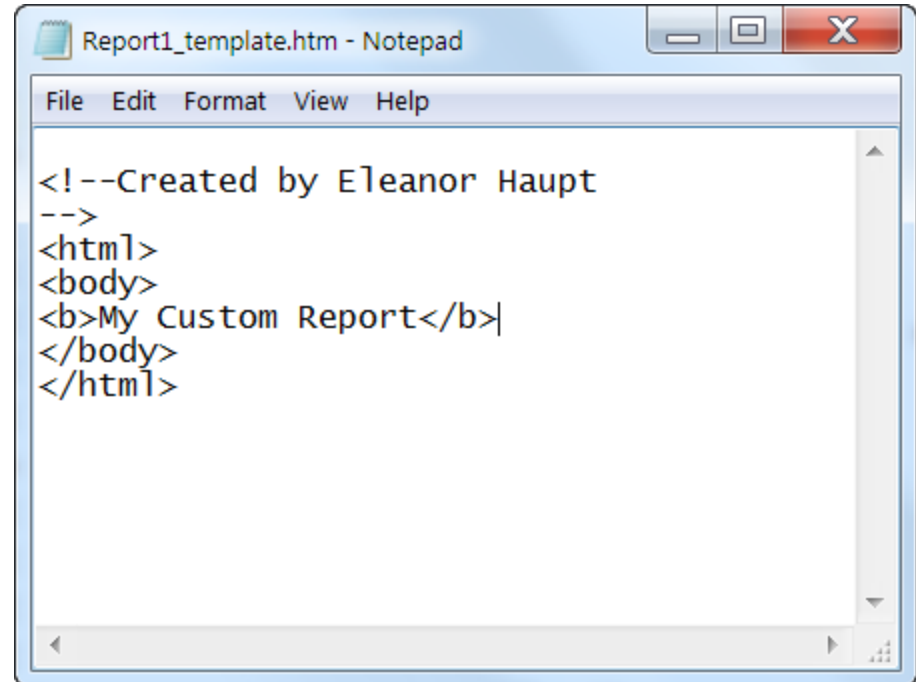


```
<!--Created by Eleanor Haupt
-->
<html>
<body>
My Custom Report|
</body>
</html>
```



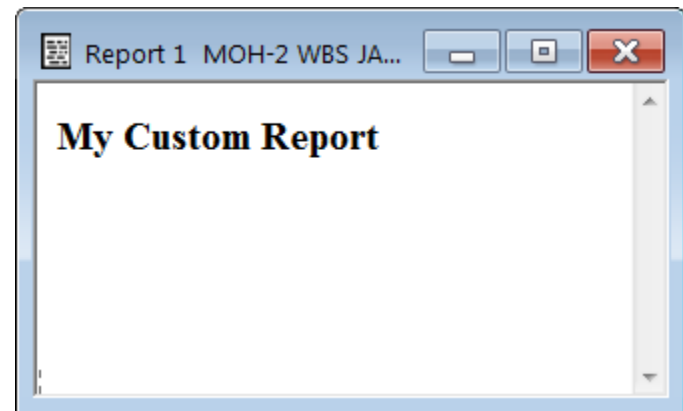
Adding your First Tag

- Notepad
 - Add the bold tag to the text line
 - Start tag: ``
 - End tag: ``
- ***File, Save***
- Open report in wlnsight




A screenshot of a Notepad window titled "Report1_template.htm - Notepad". The window has a menu bar with "File", "Edit", "Format", "View", and "Help". The text area contains the following HTML code:

```
<!--Created by Eleanor Haupt  
-->  
<html>  
<body>  
<b>My Custom Report</b>|  
</body>  
</html>
```



MODULE ONE

- Benefits Of Custom Reports
- General Hints
- Custom Report Contents
- wInsight Report Writer - Case
-  • Dynamic Data vs. Static Text

Dynamic Data

- Dynamic data pulls data from database
 - General format: (|Table Name|Field Name|)
 - Parentheses enclose dynamic data
 - Vertical bars at beginning and end, and for separation of table name from field name
 - Example: (|Cpr|EndDate|)
 - Table names are not exactly the same as portrayed in wlnsight Administrator
 - See tables on charts 34-35
 - Can leave Table Name off for data in Earned Value table
 - Example: (|BcwsCum|), (|SpiCum|), etc.
 - Must use Lre instead of Eac for all field references
 - Examples:
 - wlnsight field is EAC, but must use (|Lre|)
 - wlnsight field is CpiToEac, but must use (|CpiToLre|)

Static Text

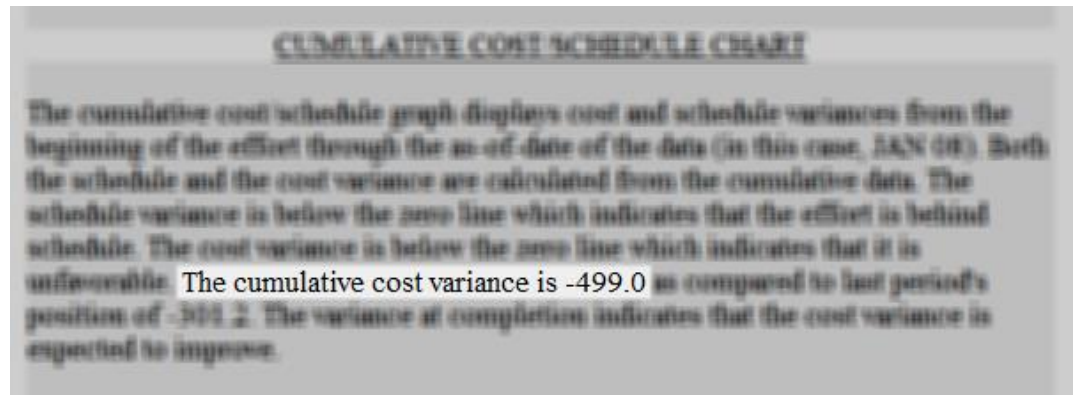
- Enter static text as text without vertical bars
 - Example from AI Narrative report code:

The cumulative cost variance is (|CvCum|)

Static

Dynamic

Result:



- Can enter symbol as text after dynamic data
 - Example: The percent complete is (|PctCmpl|)%



Table References for Custom Reports

| Administrator | | |
|-----------------|--------------------|------------------------------|
| Table Name | Sub Table Name | Name to use in Custom Report |
| Shared Set-Up | Calendars | Calendar CalendarDet |
| | Contractors | Contractor |
| | Structures | Structure |
| | Thresholds | Threshold |
| | Units | Unit |
| | Weights | Weight |
| | CFSR Thresholds | CfsrThreshold |
| | | |
| Contract Set-Up | Contracts | Contract |
| | CPR Elements | Element |
| | Periods | Period |
| | Thresholds/Weights | EuwtLink |
| | CLINs | ClinType |
| | CFSR Elements | FundType |

Table References for Custom Reports

| Administrator | | |
|---------------|------------------------|-------------------------------|
| Table Name | Sub Table Name | Name to use in Custom Report |
| Report Set-Up | CPR Header | Cpr |
| | Baseline Periods | Cpr |
| | Manpower Periods | Cpr |
| | Sch Reprog Adj | EacMr |
| | CFSR Header | Cfsr |
| | OMB Milestones | OmbMilestone |
| | OMB BY09 Milestones | OmbMilestoneBY09 |
| Element Data | Earned Value | assumed - do not need |
| | Future Period | FutureEtc |
| | CFSR Remarks | CfsrNarr |
| | CFSR Block 11 | Block11 |
| | CFSR Blocks 12, 13, 14 | Block12 |
| | Scorecard | EarnedValue - can leave blank |
| Baseline | BOP | Cpr |
| | EOP | Cpr |
| | Changes | BaselineChg |
| Manpower | EAC | Manpower |
| | BAC | Manpower |

Field Names

- Case:
 - Open **wlInsight Fields.xlsx**
 - Categorized list of fields available in wlInsight
 - Makes it easy to find by category
 - Open **All wlInsight Fields.xlsx**
 - Alphabetized list of all field available in both wlInsight and Administrator
 - Shows if it is a calculated field
 - Shows table names where applicable
 - Open **CPR Forms.xlsx**
 - Two tabs per CPR format
 - Tables show field and table names for custom reports
- How would you enter the dynamic data for the Block 6 most likely EAC (Format 1)?

Adding Dynamic Data - Case

■ Notepad

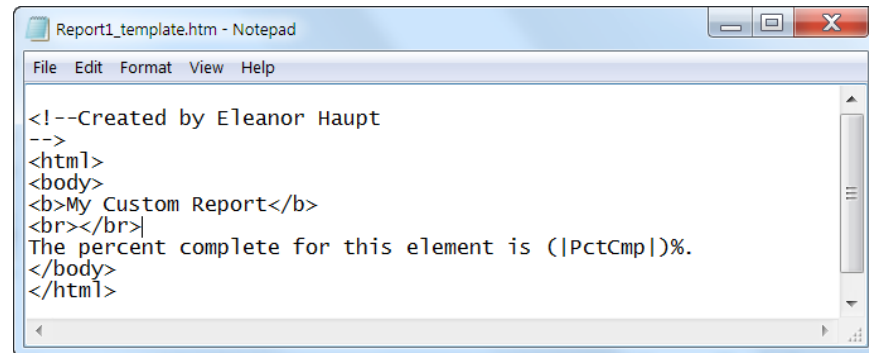
- After “My Custom Report”

- Enter the tags for line break: **
, **</br>

- Enter a new line

The percent complete for this element is (|PctCmp|)%.

- **File, Save**



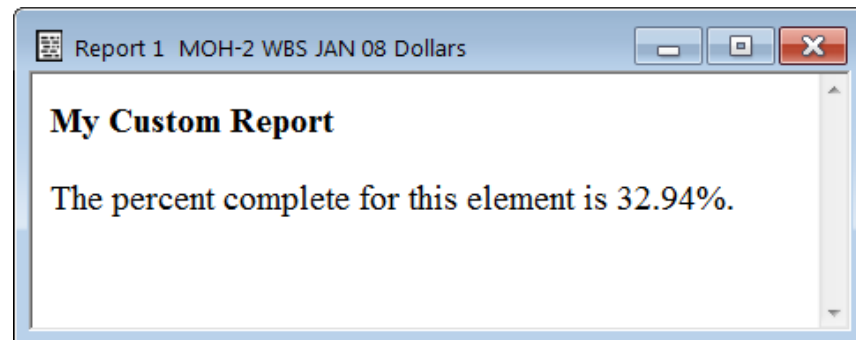
A screenshot of a Notepad window titled "Report1_template.htm - Notepad". The menu bar includes File, Edit, Format, View, and Help. The text content is as follows:

```
<!--Created by Eleanor Haupt
-->
<html>
<body>
<b>My Custom Report</b>
<br></br>|
The percent complete for this element is (|PctCmp|)%.
</body>
</html>
```

■ wlnsight

- Display your report

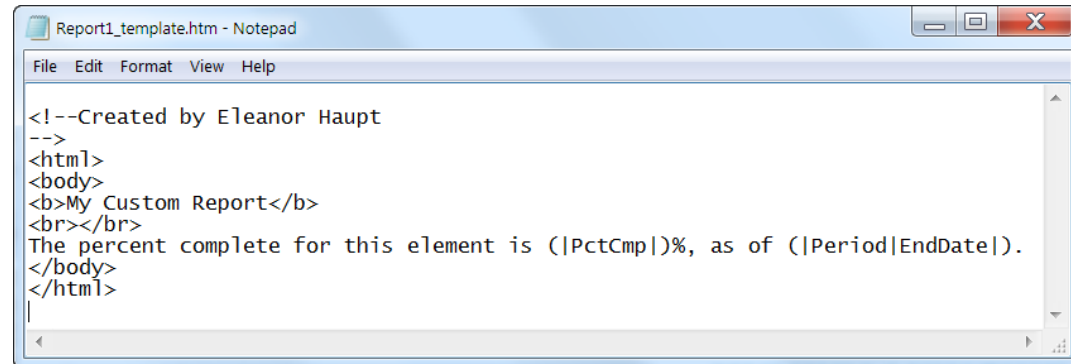
- Close the report



Adding Dynamic Data - Case

■ Notepad

- Edit the text line
- Add the “as of date” to the end. Field name: EndDate.
- (|Period|EndDate|)
- ***File, Save***

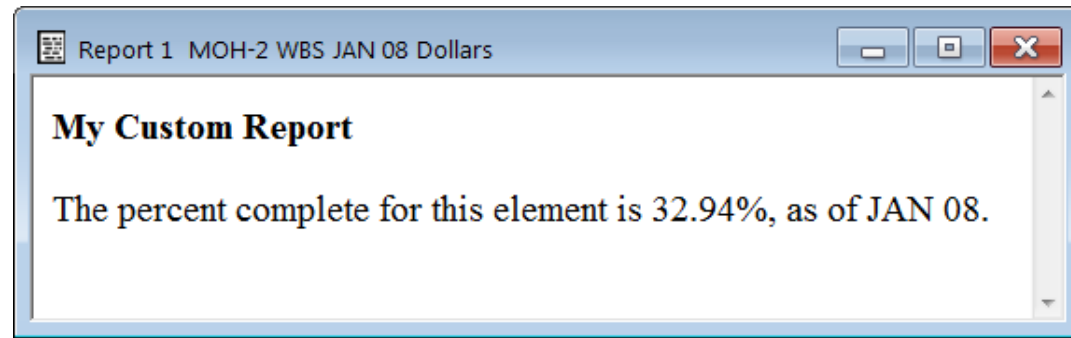


A screenshot of a Notepad window titled "Report1_template.htm - Notepad". The window contains the following HTML code:

```
<!--Created by Eleanor Haupt
-->
<html>
<body>
<b>My Custom Report</b>
<br></br>
The percent complete for this element is (|PctCmp|)%, as of (|Period|EndDate|).
</body>
</html>
```

■ wInsight

- Display your report
- Close the report



MODULE TWO

- ➔ • Introduction to Tables
- Formatting
- Modifying an existing report (EAC Realism) - Case

Defining the Table

- Can have multiple tables
- Table definition sample, from Six Period Summary Report

<body>

 <TABLE BORDER=0 CELLSPACING=1 CELLPADDING=2 WIDTH=580>

<TR>

- Case
 - Open the Six Period Summary Report in Notepad
 - Rsixper_template.htm
 - Locate the <table> tags at the start and end of table definition

Defining the Table

- Table definition sample, from Six Period Summary Report

<body>

 <TABLE BORDER=0 CELLSPACING=1 CELLPADDING=2 WIDTH=580>

<TR>

- Table tags

<tr> </tr>

Table Row - defines new row in table

<td> </td>

Table Data - defines table cell

<th> </th>

Table Header – bolds and centers header text
(Note: not typically used in Deltek provided reports)

- Attributes

Border

0 = no border, 1...n adds border

Number > 1 increase size of outer border only

Cellspacing

0 = no distance between cells, 1...n adds space

Cellpadding

0 = no space around data in cells, 1...n adds space

Width


Width of table in pixels

Other Attributes

- Sample from Six Period Summary Report

```
<TABLE BORDER=0 CELLSPACING=1 CELLPADDING=2 WIDTH=580>
```

```
<TR>
```



```
<TD CLASS=WRTD0 ALIGN=center COLSPAN=7>Six Period Summary -  
(|Structure|StruDesc|) ((|Unit|UnitName|))</TD></TR>
```

```
<TR>
```

- Result

Six Period Summary - Work Breakdown Structure
(Dollars)

- Attributes

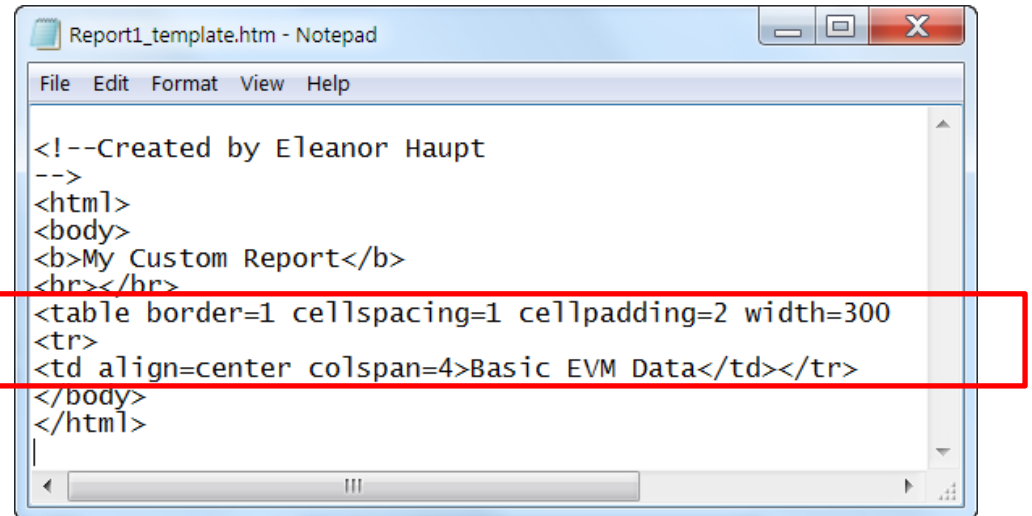
- class Refers to defined style in Style section
- align Horizontal alignment (left, center, right)
- colspan Defines number of columns for cell to span, e.g., 7
- rowspan Defines number of rows for cell to span
- Nowrap Prohibits text-wrapping within cell

- Cell definition order: **<td** list of attributes **>** text or data **</td>**

Case

- Delete the line with the percent complete text
- Insert a table within your custom report

- Border=1
- Cellspacing=1
- Cellpadding=2
- Width=300
- Title: Basic EVM Data
- Number of columns: 4

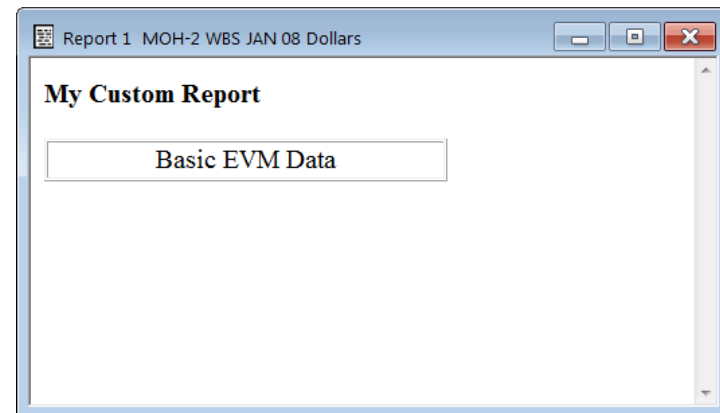


```
Report1_template.htm - Notepad
File Edit Format View Help

<!--Created by Eleanor Haupt
-->
<html>
<body>
<b>My Custom Report</b>
<br></br>
<table border=1 cellspacing=1 cellpadding=2 width=300
<tr>
<td align=center colspan=4>Basic EVM Data</td></tr>
</body>
</html>
```

- **File, Save**

- Open report in wlnsight
- Close report



Case: Adding Static Text for Column Headers

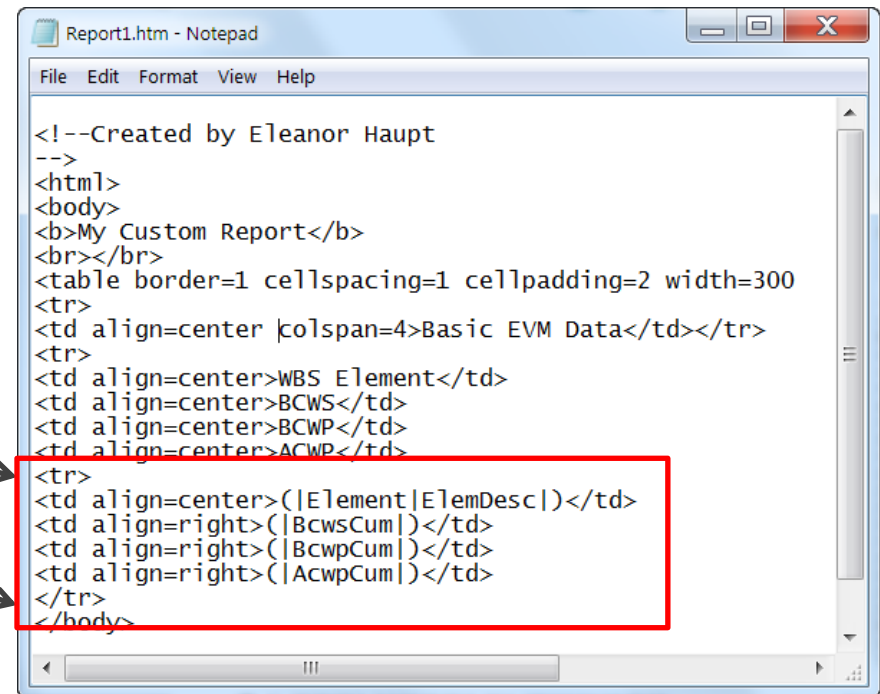
- Insert `<tr>` below row for “Basic EVM Data”
- Use `<td>` `</td>` tags at start and end for each table cell
- **align=center**
- Insert 4 lines as table cells
 - Cell 1: WBS Element
 - Cell 2: BCWS
 - Cell 3: BCWP
 - Cell 4: ACWP
- Insert `</tr>` after
- **File, Save**
- Open report in wlnsight
- Close report

```
Report1_template.htm - Notepad
File Edit Format View Help
<!--Created by Eleanor Haupt
-->
<html>
<body>
<b>My Custom Report</b>
<br></br>
<table border=1 cellspacing=1 cellpadding=2 width=300
<tr>
<td align=center colspan=4>Basic EVM Data</td></tr>
<tr>
<td align=center>WBS Element</td>
<td align=center>BCWS</td>
<td align=center>BCWP</td>
<td align=center>ACWP</td>
</tr>
</body>
```

| Basic EVM Data | | | |
|----------------|------|------|------|
| WBS Element | BCWS | BCWP | ACWP |

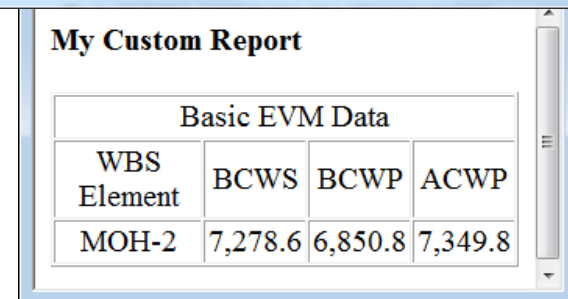
Case: Adding Dynamic Data

- Insert 4 lines as table cells. Use `<td>` `</td>` tags at start and end.
- Table row 2: dynamic data (**align=center**, OR **align=right**)
 - Cell 1: (|Element|ElemDesc|)
 - Cell 2: (|BcwsCum|)
 - Cell 3: (|BcwpCum|)
 - Cell 4: (|AcwpCum|)
- Insert `<tr>` before
- Insert `</tr>` after
- **File, Save**
- Open report in wInsight
- Close report



```
Report1.htm - Notepad
File Edit Format View Help

<!--Created by Eleanor Haupt
-->
<html>
<body>
<b>My Custom Report</b>
<br></br>
<table border=1 cellspacing=1 cellpadding=2 width=300
<tr>
<td align=center colspan=4>Basic EVM Data</td></tr>
<tr>
<td align=center>WBS Element</td>
<td align=center>BCWS</td>
<td align=center>BCWP</td>
<td align=center>ACWP</td>
<tr>
<td align=center>(|Element|ElemDesc|)</td>
<td align=right>(|BcwsCum|)</td>
<td align=right>(|BcwpCum|)</td>
<td align=right>(|AcwpCum|)</td>
</tr>
</body>
```



| Basic EVM Data | | | |
|----------------|---------|---------|---------|
| WBS Element | BCWS | BCWP | ACWP |
| MOH-2 | 7,278.6 | 6,850.8 | 7,349.8 |

Knowledge Check!



1. What is dynamic data?
2. How do you designate a winsight field as dynamic field?
3. How do you insert a new table row?
4. How do you enter the description for a new table cell?
5. What attribute do you use to merge a cell with text or data across several columns?

Other Tags and Entities

■ Tags

`<p>` `</p>`

Defines new paragraph

`
` `</br>`

Defines a single line break

■ Entities

` `

Non-breaking space. Use it when you want to leave a cell blank.

`>`

Greater than

`<`

Less than

Note: do not use `>` or `<` as math operators in normal HTML, as they define tags.

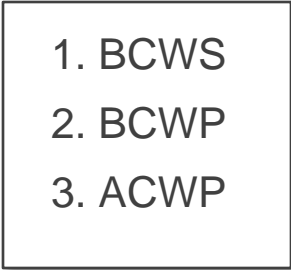
Exception: can use within emitif statements.

Lists

**** Ordered list, adds numbers. Use **** for items in list.

Result

```
<ol>  
<li>BCWS</li>  
<li>BCWP</li>  
<li>ACWP</li>  
</ol>
```




```
1. BCWS  
2. BCWP  
3. ACWP
```

**** Unordered list, adds bullets. Use **** for items in list.


Result

```
<ul>  
<li>BCWS</li>  
<li>BCWP</li>  
<li>ACWP</li>  
</ul>
```



```
• BCWS  
• BCWP  
• ACWP
```


MODULE TWO

- Introduction to Tables
-  • Formatting
- Modifying an existing report (EAC Realism) - Case

Formatting Numbers in Custom Reports

(|Lre|(-0)|[c0]|)

**Current
period**

**Comma,
Specify number of
decimals**

(|Lre|(-1)|[n3]|)

**Prior period
(relative to
current period)**

**No comma
Specify number of
decimals**

(|Lre|{+1}|[z1]|Dollars|)

**Future period
(relative to current
period)**

**Use z code if
using
JavaScript**

**Optional: specify units
If left off, can toggle units**

Commas and Decimals

[c...] adds comma

[n...] no comma

[z...] use with JavaScript, no comma

If left off, default is comma, 1 decimal

Periods

(-0) current period

(-1) prior period

{+1} future period

If left off, default is current period

Must use **Lre** in any field
name instead of **Eac**

Order of Dynamic Field Descriptors

1 2 3 4 5 6

(|FutureEtc|Lre|(-0)|{+1}|[z1]|Dollars|)

1. Table name. Mandatory, except if referring to data contained in Earned Value table.
2. Field name. Mandatory. Note: use Lre in place of Eac.
3. Optional. Marker for current period. Note: this is optional when including the marker for future period as shown. Certain standard wlnsight reports contain both, but this is optional.
4. Optional. Marker for reporting period. Use parentheses for prior periods and braces for future periods. If excluded, current period will be reported.
5. Optional. Number formatting code.
6. Optional. Marker for specifying units. If excluded, data may be toggled for units when the report is displayed in wlnsight.

Note: Use parentheses to enclose all descriptors. Use vertical bars to separate all descriptors, including a bar at the beginning and end of all descriptors.

Knowledge Check

- You want to add dynamic data for future period BCWS, for 3 months from now.
 - Data should be right aligned
 - Show 3 decimals places, with commas
 - Specify the units as dollars
- What would the code look like?

Click to reveal answer

Formatting Dates

| Formatting Dates | |
|---|------------------|
| Code | Result |
| not specified | JAN 09 |
| [%Y%m%d] | 20090131 |
| [%B %d, %Y] | January 31, 2009 |
| [%b %Y] | Jan 2009 |
| [!%b %y] | JAN 09 |
| [!%m/%d/%y] | 01/31/09 |
| [!%d %b %y] | 31 Jan 09 |
| [P%p FY %f] | P1 FY09 |
| [%pQ FY %F] | 1Q FY 2009 |
| [!%P %y] | JAN 09 |
| [%P %Y] | Jan 2009 |
| Note: if using date format with P, period numbers must be shown in Calendar table and in Periods table. | |
| Note: insert this at the end of the text string | |

Defining Styles

- Define styles in **Style** section, within Header section

- Example from BAC and EAC Changes report:

```
<style>
TD.wrtd { background-color: #f0f0f0; font-size: 10pt; font-family: times, serif; }
TD.wrtd0 { background-color: #c0c0c0; font-size: 16pt; font-family: times, serif; }
TD.wrtd5 { background-color: white; font-size: 10pt; font-family: times, serif; text-align: center; }
TD.wrtdl { background-color: #f0f0f0; font-size: 10pt; font-family: times, serif; text-align: left; }
TD.wrtdc { background-color: #f0f0f0; font-size: 10pt; font-family: times, serif; text-align: center; }
TD.wrtdr { background-color: #f0f0f0; font-size: 10pt; font-family: times, serif; text-align: right; }
</style>
```

- Refer to defined style in report body

- Example of use:

```
<TD class=wrtdc>(|ElemLevel|$ce$|)</TD>
```

- Recommend consistency between reports

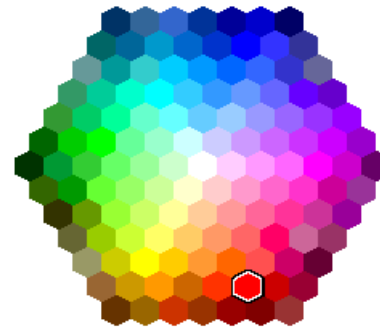
- Copy and paste

Defining Styles

| Attribute | What it changes | Options |
|-------------------|-------------------------------|---------------------------------------|
| Background-color: | Fill color | Use standard name or hexadecimal name |
| Color: | Text color | Use standard name or hexadecimal name |
| Border: | Adds border | Size and color: 1px solid black |
| Font-size: | Size of font | Enter font size |
| Font-family: | Font | Times-serif, Arial, etc. |
| Text-align: | Alignment of text within cell | Left, center, right |

Colors

- Color names specified in HTML/CSS specification
 - 17 standard
 - Names: aqua, black, blue, fuchsia, gray, grey, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow
 - 130 other colors
 - Example: LightGrey, MediumBlue, Ivory
- Can also be referenced by hexadecimal code, e.g., #FFFFFF
 - Many different colors and shades are available
- Refer to www.w3schools.com
 - Color names
 - Color picker
 - Color mixer
- Used for text and background



| | |
|---------|---------|
| #00FFFF | aqua |
| #000000 | black |
| #0000FF | blue |
| #FF00FF | fuchsia |
| #808080 | gray |
| #808080 | grey |
| #008000 | green |
| #00FF00 | lime |
| #800000 | maroon |
| #000080 | navy |
| #808000 | olive |
| #800080 | purple |
| #FF0000 | red |
| #C0C0C0 | silver |
| #008080 | teal |
| #FFFFFF | white |
| #FFFF00 | yellow |

Case – Adding Style

- Insert **<head>** and **<style>** to add style section
- Add a style definition
TD.wrtd0 { background-color: #c0c0c0; font-size: 16pt; font-family: times, serif; }
- Close with **</style>**, then **</head>**
- Refer to this in your header row (Basic EVM Data)
 - Add attribute (after <td align=center>): **class=wrtd0**
- **File, Save**
- Open report in wlnsight
- Close report
- Change the color to **lightblue**

See report on
next page

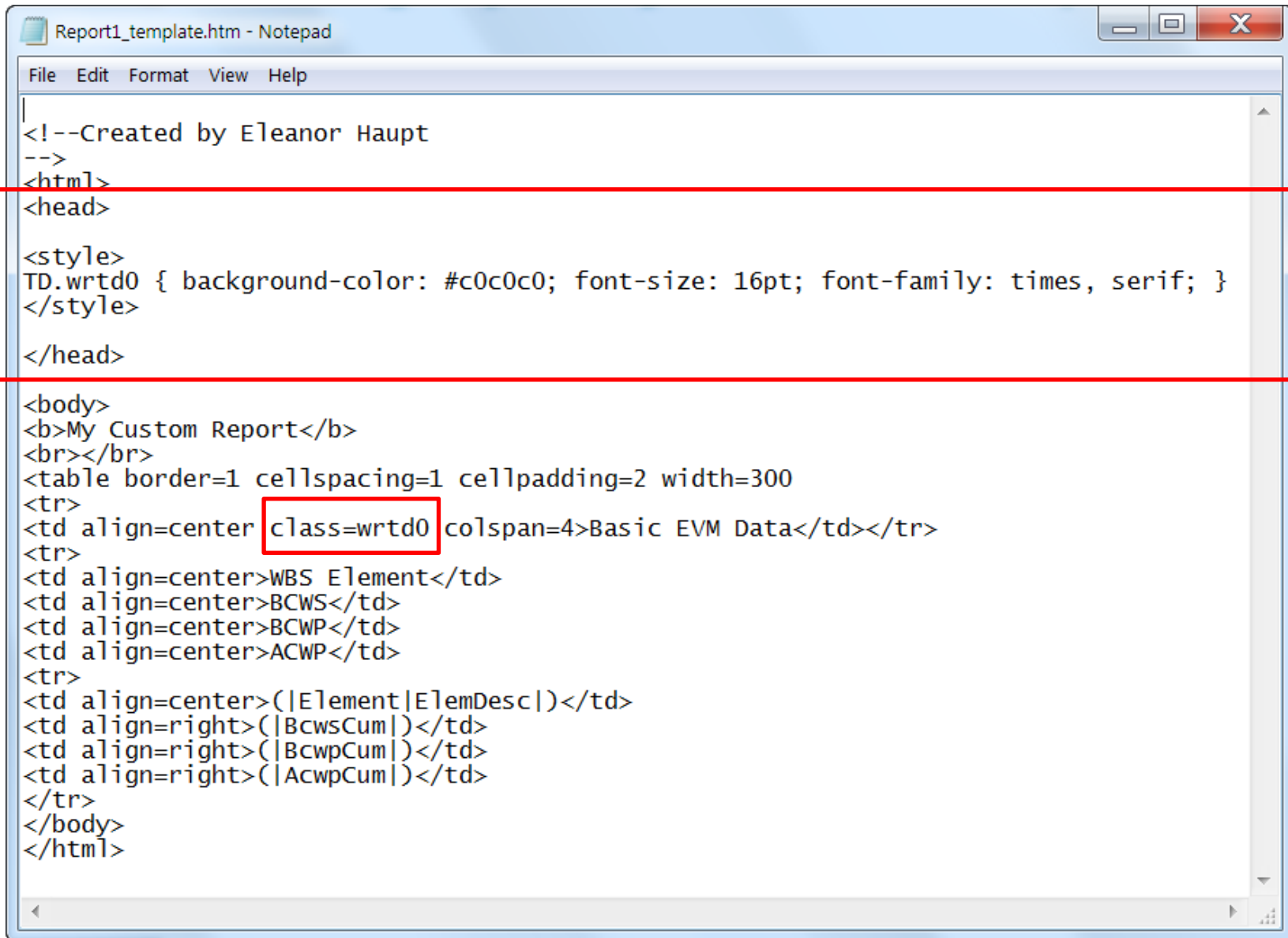
My Custom Report

| Basic EVM Data | | | |
|----------------|---------|---------|---------|
| WBS Element | BCWS | BCWP | ACWP |
| PCC | 1,692.8 | 1,681.4 | 1,977.6 |

My Custom Report

| Basic EVM Data | | | |
|----------------|---------|---------|---------|
| WBS Element | BCWS | BCWP | ACWP |
| PCC | 1,692.8 | 1,681.4 | 1,977.6 |

Adding Style to your Custom Report



```
Report1_template.htm - Notepad
File Edit Format View Help

<!--Created by Eleanor Haupt
-->
<html>
<head>

<style>
TD.wrttd0 { background-color: #c0c0c0; font-size: 16pt; font-family: times, serif; }
</style>
</head>

<body>
<b>My Custom Report</b>
<br></br>
<table border=1 cellspacing=1 cellpadding=2 width=300
<tr>
<td align=center class=wrttd0 colspan=4>Basic EVM Data</td></tr>
<tr>
<td align=center>WBS Element</td>
<td align=center>BCWS</td>
<td align=center>BCWP</td>
<td align=center>ACWP</td>
<tr>
<td align=center>(|Element|ElemDesc|)</td>
<td align=right>(|BcwsCum|)</td>
<td align=right>(|BcwpCum|)</td>
<td align=right>(|AcwpCum|)</td>
</tr>
</body>
</html>
```

Case Update

- Change the font family in wrtd0 to Arial
- Add a new style to change the table data to Arial, font size 11
 - TD.wrtd { font-size: 11pt; font-family: arial; }
 - Add this class to both table headers and table data

```
<td class=wrtd align=center>WBS Element</td>  
<td class=wrtd align=center>BCWS</td>  
<td class=wrtd align=center>BCWP</td>  
<td class=wrtd align=center>ACWP</td>  
<tr>  
<td class=wrtd align=center>(|Element|ElemDesc|)</td>  
<td class=wrtd align=right>(|BCWSCum|)</td>  
<td class=wrtd align=right>(|BCWPCum|)</td>  
<td class=wrtd align=right>(|ACWPCum|)</td>
```


- ***File, Save***
- Open report in wlnsight
- Close report

| My Custom Report | | | |
|------------------|---------|---------|---------|
| Basic EVM Data | | | |
| WBS Element | BCWS | BCWP | ACWP |
| PCC | 1,692.8 | 1,681.4 | 1,977.6 |


Where to Place Attributes

- Could define attributes in either the Style section, or in each TD cell definition
 - Place as many common attributes in the Style section
 - Easier – can copy and paste from other reports, then refer to style
- When placed in Style section:

```
TD.wrtd { font-size: 11pt; font-weight: bold; text-align: right; font-family: arial; }  
<td class=wrtd>(|BcwsCum|[c0])</td>
```


- When placed in table definition row, need to nest tags:

```
<td align=right><strong><font face="Arial, Helvetica, sans-serif">(|BcwsCum|[c0])</font></strong></td>
```



Which is easier?

See Reference chart 135 for differences

Case Update


- Notice that the text outside of the table (My Custom Report) did not change
 - Style definitions that begin with TD modify table data only
- Add new style definition to Style section
 - a.wrtdb { font-size: 11pt; font-weight: bold; color: red; font-family: arial; }
- Add this class to the line with “My Custom Report”
 - Replace **** tags with **<a>** tags

```
<body>  
<a class=wrtdb>My Custom Report</a>
```

- ***File, Save***
- Open report in wInsight
- Close report

| | | | |
|------------------|---------|---------|---------|
| My Custom Report | | | |
| Basic EVM Data | | | |
| WBS Element | BCWS | BCWP | ACWP |
| PCC | 1,692.8 | 1,681.4 | 1,977.6 |

MODULE TWO

- Introduction to Tables
- Formatting
-  • Modifying an existing report (EAC Realism) - Case

Case

- Goal: edit the **EAC Realism** report
 - Add CV% and VAC% as dynamic data in Method 1 section
- First Steps:
 - Open the EAC Realism report in wlnsight and review
 - Close report
 - File Explorer: right mouse click on EAC_Realism.htm
 - Copy
 - Paste
 - Rename new file as EAC_Realism2.htm
 - Right mouse click on new file and open with Notepad

- Custom report names may not contain spaces
- Use underscore instead

Editing the EAC Realism Report

EAC_Realism.htm - Notepad

File Edit Format View Help

```
<TD CLASS=WRTD0 ALIGN=center COLSPAN=2>EAC Realism - (|Structure|StruDesc|) ((|Unit|Unit|
</TR>
<TR>
<TD width="64%" CLASS=WRTD>
  <p><BR>
  As of: (|Period|EndDate|)<BR>
  Contract Name: (|Contract|ContrName|)<BR>
  Contract Number: (|Contract|ContrNum|)<BR>
  Contractor: (|Contractor|CtrName|)<BR>
  </p>
  <p>Project Officer: (|Element|ProjOff|)<BR>
  Office Symbol: (|Element|OffSym|)<BR>
  <BR>
  </p></TD>
<TD CLASS=WRTD><p>Element Code: (|Element|wbsNum|)<BR>
  Element Name: (|Element|ElemDesc|)<BR>
  <BR>
  <BR>
  Percent Complete: (|PctCmp|)%<BR>
  </p>
</TD>
</TR><TR valign="bottom">
<TD height="44" COLSPAN=2 ALIGN=center CLASS=W
</TR>
<TR>
<TD CLASS=WRTD>Cum Cost Variance </TD>
<TD width="36%" ALIGN=right CLASS=WRTD style1>
</TR><TR>
<TD CLASS=WRTD>VAC</TD>
<TD CLASS=WRTD ALIGN=right>(|vac|(|0|)|(|z1|)|)
</TR><TR>
<TD CLASS=WRTD COLSPAN=2><BR>
<script>document.write(eval("emitif('(|PctCmp| [z2] |) < 100.0 && (|vac| [z1] |) <= 0.0 && (
<script>document.write(eval("emitif('(|PctCmp| [z2] |) < 100.0 && (|vac| [z1] |) < 0.0 && (
<script>document.write(eval("emitif('(|PctCmp| [z2] |) < 100.0 && (|vac| [z1] |) <= 0.0 && (
<script>document.write(eval("emitif('(|PctCmp| [z2] |) < 100.0 && (|vac| [z1] |) < 0.0 && (
<script>document.write(eval("emitif('(|PctCmp| [z2] |) < 100.0 && (|vac| [z1] |) < 0.0 && (
<script>document.write(eval("emitif('(|PctCmp| [z2] |) < 100.0 && (|cvCum| [z1] |) < 0.0 &&
<script>document.write(eval("emitif('(|PctCmp| [z2] |) < 100.0 && (|Bac| [z3] |) - (|Lre| [z
<script>document.write(eval("emitif('(|PctCmp| [z2] |) < 100.0 && (|cvCum| [z1] |) > 0.0 &&
```

- Scroll down to this location (about halfway through file)
- Insert cursor after <TR>
- Hit **Enter** key to enter blank row

Editing the EAC Realism Report

- Copy and paste these 6 lines (shown right above your insert) into blank row

| | |
|--------|---|
| Line 1 | <TD CLASS=WRTD>Cum Cost Variance </TD> |
| Line 2 | <TD width="36%" ALIGN=right CLASS=WRTD style1>(CvCum (-0) ([z1]))</TD> |
| Line 3 | </TR><TR> |
| Line 4 | <TD CLASS=WRTD>VAC</TD> |
| Line 5 | <TD CLASS=WRTD ALIGN=right>(Vac (-0) ([z1]))</TD> |
| Line 6 | </TR><TR> |

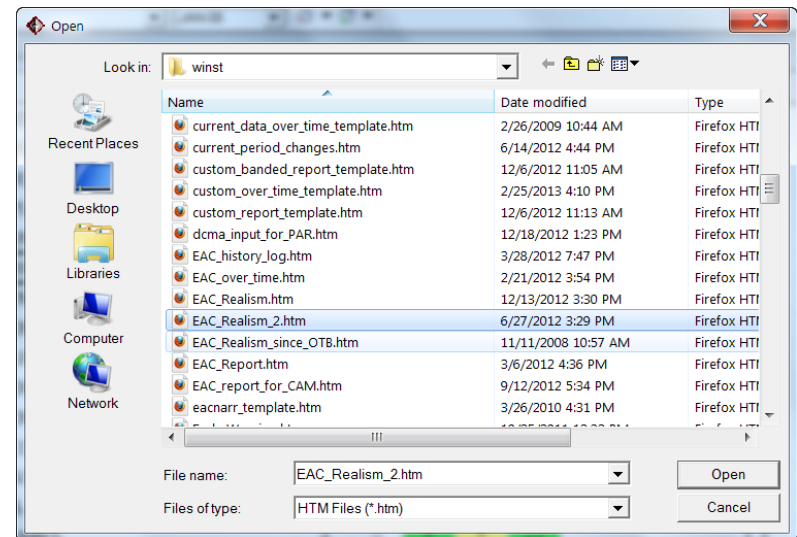
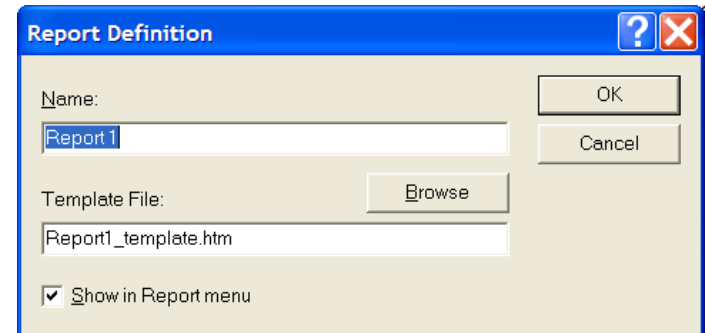
- Now edit the pasted lines
 - Lines 1, 4: type % after Cum Cost Variance and VAC
 - Line 2:
 - Change |CvCum| to |CvpCum|
 - Enter % before </td>
 - Line 5:
 - Change |Vac| to |Vacp|
 - Enter % before </td>
- Click ***File, Save***
 - ***Be sure to save as .htm***

Resulting File

```
Line 1 </TR><TR>
Line 2 <TD CLASS=WRTD>Cum Cost Variance %</TD>
Line 3 <TD width="36%" ALIGN=right CLASS=WRTD style1>(|CvpCum|(-0)|([z1]))|)%</TD>
Line 4 </TR><TR>
Line 5 <TD CLASS=WRTD>VAC %</TD>
Line 6 <TD CLASS=WRTD ALIGN=right>(|Vacp|(-0)|([z1]))|)%</TD>
</TR><TR>
<TD CLASS=WRTD COLSPAN=2><BR>
<script>document.write(eval("emitif('(|PctCmp|[z2])|) < 100.0 && (|Vac|[z1])|)
<script>document.write(eval("emitif('(|PctCmp|[z2])|) < 100.0 && (|Vac|[z1])|)
<script>document.write(eval("emitif('(|PctCmp|[z2])|) < 100.0 && (|Vac|[z1])|)
```

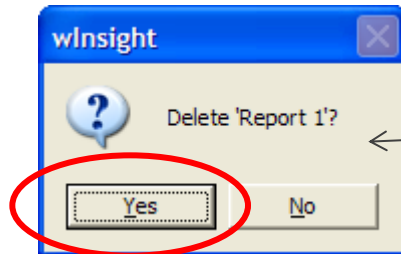
Creating a Link to a New Custom Report

- Click **Reports, Custom Reports, More Reports, and New**
- Click **Edit**
- Add name and browse to link to modified report
- Click **Open**.
- Caution! Keep all custom reports in the winst folder.
 - Web, Dashboard: keep custom reports in Bin folder



Case

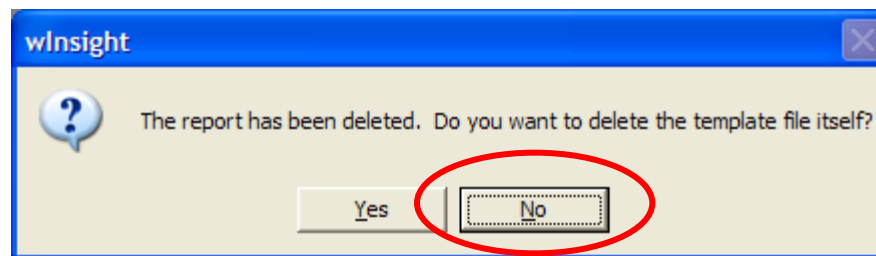
- Open the custom report
 - Review your changes
- Delete the link you just created



Caution!!

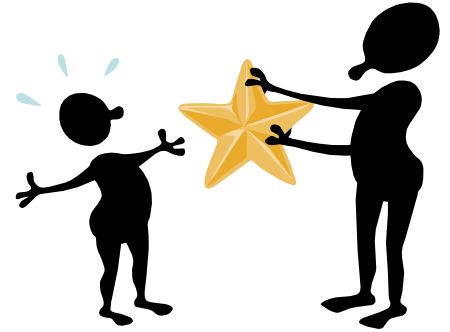
**Can delete both the custom report link
and the custom report template.**

Be careful – only delete the link!!



Knowledge Check!

1. True or False: You should make a copy of an existing report prior to editing it.
2. Where can style attributes be included?
 - a. Only in the Style section
 - b. In the row that defines the table data
 - c. Both A and B, but the Style section is easier.
3. How would this data be formatted? What data will be shown?



```
<td align=right><strong><font face="Arial, Helvetica, sans-serif">(|FutureEtc|Bcws|(-0)|{+3}|[c0]|)</font></strong></td>
```

MODULE THREE

- ➔ • Banded reports
- Creating a banded report – Case
- Queries

What is a Banded Report?

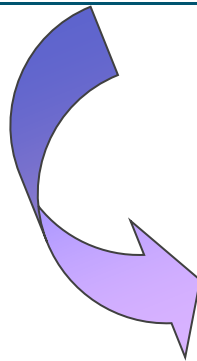
- Banded report returns data for all elements shown in **Sort** window
 - Could be a filtered list of elements
- Example: **PM Summary Report**
- Case:
 - In wlnsight, open the **PM Summary Report**
 - Review the number of elements
 - Apply the **CAM/IPT** filter for Troop in the **Sort** window
 - How many elements are now shown in the report?
 - Take filter off
- Hint: when building a banded report, included “Banded” in report title to help distinguish it

| PM Summary Report - Work Breakdown Structure (Dollars) | | | | | | | | | | | | | |
|--|--------------------------|-------------|---------|---------|---------|--------|--|-------|-------|------------|------------------------------|--------------|--|
| Report Date: JAN 08 Contract Name: MOH-2 Contract Number: F04695-86-C-0050 Contractor: MEGA HERZ ELEC & VEN | | | | | | | Financial Analyst: MR E. MONEY Contract Manager: MR B. TECH | | | | | | |
| LVL | ID NUMBER DESCRIPTION | VAR FLAG | BCWS | BCWP | ACWP | SV | CV | CPI | SPI | BAC LRE | TCPI- BAC TCPI- LRE | COMPL VAR | |
| 1 | 1000 MOH-2 | CUM: | 7,278.6 | 6,850.8 | 7,349.8 | -427.8 | -499.0 | 0.932 | 0.941 | 20,796.2 | 1.037 | | |
| | | CUR: | 1,645.4 | 1,509.2 | 1,707.0 | -136.2 | -197.8 | 0.884 | 0.917 | 20,761.0 | 1.040 | 35.2 | |
| 2 | 2000 PROJ MANAGEMENT | CUM: | 882.6 | 869.4 | 930.6 | -13.2 | -61.2 | 0.934 | 0.985 | 1,384.6 | 1.135 | | |
| | | CUR: | 50.2 | 48.4 | 62.2 | -1.8 | -13.8 | 0.778 | 0.964 | 1,418.6 | 1.056 | -34.0 | |
| 3 | 2100 PROJ MANAGEMENT | CUM: | 294.6 | 282.6 | 300.0 | -12.0 | -17.4 | 0.942 | 0.959 | 618.4 | 1.055 | | |
| | | CUR: | 35.8 | 35.8 | 37.8 | 0.0 | -2.0 | 0.947 | 1.000 | 621.6 | 1.044 | -3.2 | |
| 3 | 2200 SYS ENGINEERING | CUM: | 234.6 | 241.0 | 267.4 | 6.4 | -26.4 | 0.901 | 1.027 | 283.4 | 2.650 | | |
| | | CUR: | 5.6 | 5.6 | 16.0 | 0.0 | -10.4 | 0.350 | 1.000 | 283.4 | 2.650 | 0.0 | |

Banded Reports

– Example: PM Summary Report

| PM Summary Report - (Structure StruDesc) (Unit UnitName) | | | | | | | | | | | | |
|--|----------------|------------------|-----------------|-----------------|-----------------|--------------------------------------|---------------|----------------|----------------|-------------|-----------------|------------------|
| Report Date: (PeriodEndDate) | | | | | | Financial Analyst: (ContractAnalyst) | | | | | | |
| Contract Name: (ContractContrName) | | | | | | Contract Manager: (ContractManager) | | | | | | |
| Contract Number: (ContractContrNum) | | | | | | | | | | | | |
| Contractor: (ContractorCtrName) | | | | | | | | | | | | |
| LVL | ID NUMBER | VAR | BCWS | BCWP | ACWP | SV | CV | CPI | SPI | BAC | TCPI-BAC | COMPL |
| (ElemLevel\$ce\$) | (WbsNum\$ce\$) | (ElemDesc\$ce\$) | (BcwsCum\$ce\$) | (BcwpCum\$ce\$) | (AcwpCum\$ce\$) | (SvCum\$ce\$) | (CvCum\$ce\$) | (CpiCum\$ce\$) | (SpiCum\$ce\$) | (Bac\$ce\$) | (TcpiBac\$ce\$) | (ComplVar\$ce\$) |
| | | | (BcwsCur\$ce\$) | (BcwpCur\$ce\$) | (AcwpCur\$ce\$) | (SvCur\$ce\$) | (CvCur\$ce\$) | (CpiCur\$ce\$) | (SpiCur\$ce\$) | (Lre\$ce\$) | (TcpiLre\$ce\$) | (Vac\$ce\$) |



| PM Summary Report - Work Breakdown Structure (Dollars) | | | | | | | | | | | | |
|--|----------------------|-----------------|----------------|----------------|----------------|-------------------------------|-----------------|----------------|----------------|--------------------|----------------|-------|
| Report Date: JAN 04 | | | | | | Financial Analyst: MRE. MONEY | | | | | | |
| Contract Name: MOH-2 | | | | | | Contract Manager: MR B. TECH | | | | | | |
| Contract Number: F04695-86-C-0050 | | | | | | | | | | | | |
| Contractor: MEGA HERZ ELEC & VEN | | | | | | | | | | | | |
| LVL | ID NUMBER | VAR | BCWS | BCWP | ACWP | SV | CV | CPI | SPI | BAC | TCPI-BAC | COMPL |
| | DESCRIPTION | FLAG | | | | | | | | EAC | TCPI-EAC | VAR |
| 3 | 2100 PROJ MANAGEMENT | CUM: CUR: | 294.6 35.8 | 282.6 35.8 | 300.0 37.8 | -12.0 0.0 | -17.4 -2.0 | 0.942 0.947 | 0.959 1.000 | 618.4 621.6 | 1.055 1.044 | -3.2 |
| 3 | 2200 SYS ENGINEERING | CUM: C CUR: c | 234.6 5.6 | 241.0 5.6 | 267.4 16.0 | 6.4 0.0 | -26.4 -10.4 | 0.901 0.350 | 1.027 1.000 | 283.4 283.4 | 2.650 2.650 | 0.0 |
| 3 | 2300 FUNC INTEGRA | CUM: SC CUR: sc | 353.4 8.8 | 345.8 7.0 | 363.2 8.4 | -7.6 -1.8 | -17.4 -1.4 | 0.952 0.833 | 0.978 0.795 | 482.8 513.6 | 1.145 0.911 | -30.8 |
| 3 | 3100 SENSORS | CUM: CUR: | 397.4 153.0 | 360.8 140.2 | 371.4 152.4 | -36.6 -12.8 | -10.6 -12.2 | 0.971 0.920 | 0.908 0.916 | 1,728.4 1,750.0 | 1.008 0.992 | -21.6 |
| 3 | 3200 COMMUNICATIONS | CUM: SC CUR: sc | 910.6 199.4 | 707.4 168.4 | 838.2 211.8 | -203.2 -31.0 | -130.8 -43.4 | 0.844 0.795 | 0.777 0.845 | 2,043.0 2,130.0 | 1.109 1.034 | -87.0 |
| 3 | 3300 AUX EQUIP | CUM: SC CUR: sc | 759.8 159.4 | 666.6 129.4 | 588.4 171.2 | -93.2 -30.0 | 78.2 -41.8 | 1.133 0.756 | 0.877 0.812 | 2,418.2 2,409.8 | 0.957 0.962 | 8.4 |
| 3 | 3400 | CUM: | 261.2 | 251.0 | 238.4 | -10.2 | 12.6 | 1.053 | 0.961 | 599.2 | 0.965 | |

Creating a Banded Report

■ Creating a banded report

■ (|Meta|BeginLoop|ce|SyncSortWnd|)

Begins “loop”



Designates marker

■ (|field name|\$ce\$|)

Include marker as required, surrounded by \$

■ (|Meta|EndLoop|ce|)

Ends “loop” through all elements

– Hint: use “qq” for marker instead of “ce”

■ “qq” does not appear in any English word unlike “ce”

MODULE THREE

- Banded reports
- ➔ • Creating a banded report – Case
- Queries

Case Update

- Open **Report1_template.htm** in NotePad
 - “My Custom Report”
- Insert after column headings, but before `<tr>` and dynamic data:
(|Meta|BeginLoop|qq|SyncSortWnd|)
- Insert before `</table>`
(|Meta|EndLoop|qq|)
- **File, Save**
- Open report in wlnsight
 - Did you see banded data?
 - What else do we need to do?
- Close report

```
<body>
<a class=wrtdb>My Custom Report</a>
<br></br>
<table border=1 cellspacing=1 cellpadding=2 width=300>
<tr>
<td align=center class=wrt0 colspan=4>Basic EVM Data</td>
<tr>
<td class=wrt0 align=center>WBS Element</td>
<td class=wrt0 align=center>BCWS</td>
<td class=wrt0 align=center>BCWP</td>
<td class=wrt0 align=center>ACWP</td>
(|Meta|BeginLoop|qq|SyncSortWnd|)
<tr>
<td class=wrt0 align=center>(|Element|ElemDesc|)</td>
<td class=wrt0 align=right>(|BcwsCum|)</td>
<td class=wrt0 align=right>(|BcwpCum|)</td>
<td class=wrt0 align=right>(|AcwpCum|)</td>
</tr>
(|Meta|EndLoop|qq|)
</table>
</body>
</html>
```

Adding the Marker to Data Elements

- Add the marker \$qq\$ to the data you wish to be looped
 - Example: (|BcwsCum|\$qq\$|)
 - Be sure to enclose with vertical bars
 - Hint: type once, copy and paste 3 times

```
(|Meta|BeginLoop|qq|SyncSortWnd|)  
<tr>  
<td class=wrttd align=center>(|Element|ElemDesc|$qq$|)</td>  
<td class=wrttd align=right>(|BcwsCum|$qq$|)</td>  
<td class=wrttd align=right>(|BcwpCum|$qq$|)</td>  
<td class=wrttd align=right>(|AcwpCum|$qq$|)</td>  
</tr>  
(|Meta|EndLoop|qq|)  
</table>
```

- **File, Save**
- Open report in wInsight
 - Did you see banded data?

My Custom Report

| Basic EVM Data | | | |
|--------------------|---------|---------|---------|
| WBS Element | BCWS | BCWP | ACWP |
| MOH-2 | 7,278.6 | 6,850.8 | 7,349.8 |
| PROJ MANAGEMENT | 882.6 | 869.4 | 930.6 |
| PROJ MANAGEMENT | 294.6 | 282.6 | 300.0 |
| SYS ENGINEERING | 234.6 | 241.0 | 267.4 |
| FUNC INTEGRA | 353.4 | 345.8 | 363.2 |
| PRIME EQUIP | 4,809.2 | 4,424.4 | 4,792.0 |
| SENSORS | 397.4 | 360.8 | 371.4 |

Case Update

- Look at your report
- Would you like to change the following?
 - Change alignment of WBS Element column to left
 - Hint: change both column label and data
 - Columns look crowded.
 - Change width of table to 400
 - Change wrtd font size to 10
 - Replace “My Custom Report” with Report as of: (|Period|EndDate[|!%d %b %y|])
 - Any other format changes?
- ***File, Save***
- Open report in wlnsight
- Close report

| | | | |
|-------------------------|---------|---------|---------|
| Report as of: 31 JAN 08 | | | |
| Basic EVM Data | | | |
| WBS Element | BCWS | BCWP | ACWP |
| MOH-2 | 7,278.6 | 6,850.8 | 7,349.8 |
| PROJ MANAGEMENT | 882.6 | 869.4 | 930.6 |
| PROJ MANAGEMENT | 294.6 | 282.6 | 300.0 |
| SYS ENGINEERING | 234.6 | 241.0 | 267.4 |
| FUNC INTEGRA | 353.4 | 345.8 | 363.2 |
| PRIME EQUIP | 4,809.2 | 4,424.4 | 4,792.0 |
| SENSORS | 397.4 | 360.8 | 371.4 |

Updated Report

```
<!--Created by Eleanor Haupt
-->
<html>
<head>

<style>
TD.wrtd0 { background-color: lightblue; font-size: 16pt; font-family: arial; }
TD.wrtd { font-size: 10pt; font-family: arial; }
a.wrtdb { font-size: 11pt; font-weight: bold; color: red; font-family: arial; }

</style>

</head>

<body>
<a class=wrtdb>Report as of: (|Period|EndDate|(!%d %b %y)|)|</a>
<br></br>
<table border=1 cellspacing=1 cellpadding=2 width=400>
<tr>
<td align=center class=wrtd0 colspan=4>Basic EVM Data</td></tr>
<tr>
<td class=wrtd align=left>WBS Element</td>
<td class=wrtd align=center>BCWS</td>
<td class=wrtd align=center>BCWP</td>
<td class=wrtd align=center>ACWP</td>
(|Meta|BeginLoop|qq|SyncSortWnd|)
<tr>
<td class=wrtd align=left>(|Element|ElemDesc|$qq$|)|</td>
<td class=wrtd align=right>(|BcwsCum|$qq$|)|</td>
<td class=wrtd align=right>(|BcwpCum|$qq$|)|</td>
<td class=wrtd align=right>(|AcwpCum|$qq$|)|</td>
</tr>
(|Meta|EndLoop|qq|)
</table>
</body>
</html>
```

Column Widths

■ Option One


- Leave unspecified. Set table width, and columns will be spaced for data.

■ Option Two

- Specify column widths as desired:
 - Example in percentages:
`<TD width="36%" align=right class=wrtd>(|CvCum|)</TD>`
 - Example in pixels:
`<TD width="102" align=right class=wrtd>(|CvCum|)</TD>`
- All specified widths should add to either 100% or table width
 - If not, difference will be taken from last column....table width takes precedence

| | | | | | | | | |
|--------------------|--|-----|--------------------------|---|------------|--|------------|--|
| Do not add to 100% | | LVL | ID NUMBER DESCRIPTION | BAC (Last Period) (Current Period) | BAC Change | EAC (Last Period) (Current Period) | EAC Change | Warnings |
| | | 1 | 1000 MOH-2 | 20,076.4 20,796.2 | 719.8 | 19,393.8 20,761.0 | 1,367.2 | The budget, work scope, and EAC all increased. Are the increases relatively consistent in size? |
| Do add to 100% | | LVL | ID NUMBER DESCRIPTION | (Last Period) (Current Period) | BAC Change | (Last Period) (Current Period) | EAC Change | Warnings |
| | | 1 | 1000 MOH-2 | 20,076.4 20,796.2 | 719.8 | 19,393.8 20,761.0 | 1,367.2 | The budget, work scope, and EAC all increased. Are the increases relatively consistent in size? |

MODULE THREE

- Banded reports
- Creating a banded report – Case
-  • Queries

Using a Query

■ Types of queries

– Filter (include within banded loop definition)

- Can filter by any field, WBS level, etc.
- Counter: \$qq\$

– Time

- Will show data over all reporting periods
- Counter: #cd#
 - Mandatory

– Units

- Will show data by units (e.g., \$, hours, EQP)
- Counter: %un%
 - Mandatory

Banded Reports and Queries

| Desired Result | Counter | Query Example | Sample Usage |
|----------------|---------|---|------------------------|
| Filter* | \$qq\$ | (Meta BeginLoop qq IDSelect SELECT ElemID FROM Element WHERE StruID = st_id AND ContrID=CC_id AND ElemLevel <=3) (WbsNum \$qq\$) add additional dynamic data as desired (Meta EndLoop qq) Example returns only elements at Level 3 or higher | CPR Format 1 |
| Periodic Data | #cd# | (Meta BeginLoop cd IDSelect SELECT PeriodID FROM Period WHERE ContrID = cc_id ORDER BY OrdVal) (EndDate #cd#) add additional dynamic data as desired (Meta EndLoop cd) Loops through all periods, returning data for all periods in the contract | MR Status report |
| Units | %un% | (Meta BeginLoop un IDSelect SELECT UnitID FROM Unit WHERE RptSeq <> 0 ORDER BY RptSeq) (Unit UnitName %un%) add additional dynamic data as desired (Meta EndLoop un) Example loops through all units, returning list of all units in selected data base. Must have RptSeq field populated in Units table in Administrator. | Element of Cost report |

*Note:

Some existing wlnsight reports use \$ce\$. You can use any two letter combo, but if the combo (i.e., ce) is within a field you are searching, it will not work. Suggest always using \$qq\$, as no word in English contains qq.

Case – Filter Query

■ File Explorer

– Right mouse click on the CPR Format 1 report

■ Rcpr1m1_template.htm

– Locate the query (about 2/3s down)

(|Meta|BeginLoop|ce|IDSelect|SELECT ElemID FROM Element WHERE Element.ContrID = cc_id AND StruID = st_id AND ElemLevel > 1 AND ElemLevel <= 3 AND ElemSeq <> 9998 ORDER BY ElemHier|)

■ What element levels does this query filter for? What else?

Unclassified
CLASSIFICATION (When filled in)

| CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE | | | | | | | | | | | | | | DOLLARS IN: Thousands | | | | | |
|---|---|---------------------------------|---------------------------|--|-----------------------------------|---|-------------|----------------------------------|---------------------------|-------------------------------------|-----------------------------------|--------------------------------------|-------------|--|-----------------------------|---------------------------------|-----------------|------------------|-----------------|
| 1. CONTRACTOR | | | | 2. CONTRACT | | | | 3. PROGRAM | | | | 4. REPORT PERIOD | | | | | | | |
| a. NAME MEGA HERZ ELEC & VEN | | | | a. NAME MCH-2 | | | | a. NAME Mohawk Vehicle | | | | a. FROM (CCYYMMDD) 20080101 | | | | | | | |
| b. LOCATION (Address and ZIP code) 1234 Main Street Baraboo, WI 53404 | | | | b. NUMBER F04695-86-C-0050 | | | | b. PHASE RD&E / PRODUCTION | | | | b. TO (CCYYMMDD) 20080131 | | | | | | | |
| | | | | c. TYPE FTI | | | | c. EVMS ACCEPTANCE (CCYYMMDD) | | | | | | | | | | | |
| | | | | d. SHARE RATIO 80/20 80/20 | | | | d. IND YES (CCYYMMDD) | | | | | | | | | | | |
| 5. CONTRACT DATA | | | | | | | | | | | | | | | | | | | |
| a. QUANTITY PRCD: 1 | | b. NEGOTIATED COST R&D: 2 | | c. EST COST AUTH UNPRICED WORK \$0.0 | | d. TARGET PROFIT/FEE \$0.0 / 8.0% | | e. TARGET PRICE \$22,459.9 | | f. ESTIMATED PRICE \$22,459.2 | | g. CONTRACT CEILING \$25,000.0 | | h. EST CONTRACT CEILING \$35,000.0 | | i. DATE OF OYBOTS (CCYYMMDD) | | | |
| 6. ESTIMATED COST AT COMPLETION | | | | | | | | | | | | | | | | | | | |
| | | AT COMPLETION (T) | | CONTRACT BUDGET BASE (C) | | VARIANCE (V) | | | | | | | | | | | | | |
| a. BEST CASE | | \$20,000.0 | | | | | | | | | | | | | | | | | |
| b. WORST CASE | | \$25,000.0 | | | | | | | | | | | | | | | | | |
| c. MOST LIKELY | | \$23,000.0 | | \$20,795.2 | | \$-2,203.8 | | | | | | | | | | | | | |
| 7. AUTHORIZED CONTRACTOR REPRESENTATIVE | | | | | | | | | | | | | | | | | | | |
| a. NAME (Last, First, Middle initial) A. Hatchett | | | | | | | | | | | | b. TITLE | | | | | | | |
| c. SIGNATURE | | | | | | | | | | | | d. DATE (CCYYMMDD) 20080215 | | | | | | | |
| 8. PERFORMANCE DATA | | | | | | | | | | | | | | | | | | | |
| ITEM (I) | | CURRENT PERIOD | | | | | | CUMULATIVE TO DATE | | | | | | REPROGRAMMING ADJUSTMENTS | | | | AT COMPLETION | |
| | | BUDGETED COST | | ACTUAL | | VARIANCE | | BUDGETED COST | | ACTUAL | | VARIANCE | | BUDGET | | VARIANCE | | | |
| | | SCHEDULED (S) | WORKS PERFORMED (P) | COST SCHEDULED (S) | COST WORKS PERFORMED (P) | SCHEDULE (S) | COST (P) | SCHEDULED (S) | WORKS PERFORMED (P) | COST SCHEDULED (S) | COST WORKS PERFORMED (P) | SCHEDULE (S) | COST (P) | COST VARIANCE (V) | SCHEDULE VARIANCE (V) | BUDGET (B) | BUDGETED (B) | ESTIMATED (E) | VARIANCE (V) |
| a. WBS ELEMENT | | | | | | | | | | | | | | | | | | | |
| 2000 - PROJ MANAGEMENT | 2 | 50.2 | 48.4 | 62.2 | -1.8 | -13.8 | 882.6 | 869.4 | 930.0 | -13.2 | -41.2 | | | | | 1,384.0 | 1,418.6 | -34.0 | |
| 2100 - PROJ MANAGEMENT | 3 | 35.8 | 35.8 | 37.8 | 0.0 | -2.0 | 294.6 | 282.6 | 300.0 | -12.0 | -17.4 | | | | | 618.4 | 621.6 | -3.2 | |
| 2200 - SYS ENGINEERING | 3 | 5.6 | 5.6 | 10.0 | 0.0 | -10.4 | 234.6 | 241.0 | 267.4 | 6.4 | -26.4 | | | | | 283.4 | 283.4 | 0.0 | |
| 2300 - FUNC INTEGRA | 3 | 8.8 | 7.0 | 8.4 | -1.8 | -1.4 | 353.4 | 345.0 | 363.2 | -7.6 | -17.4 | | | | | 482.8 | 513.6 | -30.8 | |
| 3000 - PRIME EQUIP | 2 | 1,272.4 | 1,148.0 | 1,289.4 | -124.4 | -111.4 | 4,809.2 | 4,424.4 | 4,792.0 | -384.8 | -387.6 | | | | | 14,008.4 | 14,916.4 | -908.0 | |
| 3100 - SENSORS | 3 | 153.0 | 140.2 | 152.4 | -12.8 | -12.2 | 397.4 | 360.8 | 371.4 | -36.6 | -10.6 | | | | | 1,728.4 | 1,750.0 | -21.6 | |
| 3200 - COMMUNICATIONS | 3 | 199.4 | 168.4 | 211.8 | -31.0 | -43.4 | 910.6 | 797.4 | 838.2 | -203.2 | -130.8 | | | | | 2,043.0 | 2,130.0 | -87.0 | |
| 3300 - AUX EQUIP | 3 | 159.4 | 129.4 | 171.2 | -30.0 | -41.8 | 759.8 | 666.0 | 588.4 | -93.2 | -78.2 | | | | | 2,418.2 | 2,499.8 | -81.6 | |
| 3400 - ADPE | 3 | 52.0 | 38.0 | 60.4 | -14.0 | -22.4 | 261.2 | 251.0 | 238.4 | -10.2 | -12.6 | | | | | 599.2 | 594.6 | 4.6 | |
| 3500 - COMP PROGRAMS | 3 | 17.4 | 17.2 | 17.4 | -0.2 | -0.2 | 88.0 | 87.8 | 84.4 | -0.2 | 3.4 | | | | | 189.0 | 190.4 | -1.4 | |
| 3600 - SVCS | 3 | 445.0 | 450.0 | 446.0 | -5.0 | 1.0 | 4,695.0 | 4,604.4 | 4,777.0 | -88.6 | -182.0 | | | | | 8,000.0 | 8,007.0 | -7.0 | |

Case – Filter Query

- Change the filter query to filter for Level 2 and higher
- **File, Save**
- Open report in wlnsight. Did it change?
- Close report
- Re-open the report template and change it back to Level 3 and higher
- **File, Save**

Unclassified
CLASSIFICATION (When filled in)

| CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE | | | | | | | | | | | | DOLLARS IN: Thousands | | | | | | | | | | | | |
|---|-----------------------|----------------------------------|----------------------------|---|-----------------|--------------------------------------|-----------------------|---------------------------------|-----------------------------|----------------------------------|------------------|-----------------------------------|---------------------------|---------------------------------------|------------------|--------------------------------|------------------|-------------------|------------------|--------|-----------|--|----------|--|
| 1. CONTRACTOR | | | | 2. CONTRACT | | | | 3. PROGRAM | | | | 4. REPORT PERIOD | | | | | | | | | | | | |
| a. NAME MEGA HERZ ELEC & VEN | | | | a. NAME MOH-2 | | | | a. NAME Mohawk Vehicle | | | | a. FROM (CCYYMMDD) 20080101 | | | | | | | | | | | | |
| b. LOCATION (Address and ZIP code) 1234 Main Street Baraboo, WI 53404 | | | | b. NUMBER F04695-96-C-0050 | | | | b. PHASE RD&T&E / PRODUCTION | | | | b. TO (CCYYMMDD) 20080131 | | | | | | | | | | | | |
| | | | | c. TYPE FPI | | d. SHARE RATIO 80/20 80/20 | | e. X NO YES (YYYYMMDD) | | c. EVMS ACCEPTANCE (CCYYMMDD) | | | | | | | | | | | | | | |
| 5. CONTRACT DATA | | | | | | | | | | | | | | | | | | | | | | | | |
| a. QUANTITY PROD: 1 R&D: 2 | | b. NEGOTIATED COST \$20,796.2 | | c. EST COST AUTH UNPRICED WORK \$0.0 | | d. TARGET PROFIT/FEE \$0.0 / 8.0% | | e. TARGET PRICE \$22,459.9 | | f. ESTIMATED PRICE \$22,459.2 | | g. CONTRACT CEILING \$26,200.0 | | h. EST CONTRACT CEILING \$36,000.0 | | i. DATE OF OT/BO/TS (CCYYMMDD) | | | | | | | | |
| 6. ESTIMATED COST AT COMPLETION | | | | | | | | | | | | | | | | | | | | | | | | |
| MANAGEMENT ESTIMATE AT COMPLETION (1) | | | | CONTRACT BUDGET BASE (2) | | | | VARIANCE (3) | | | | | | | | | | | | | | | | |
| a. BEST CASE \$20,000.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| b. WORST CASE \$25,000.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| c. MOST LIKELY \$23,000.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. AUTHORIZED CONTRACTOR REPRESENTATIVE | | | | | | | | | | | | | | | | | | | | | | | | |
| a. NAME (Last, First, Middle Initial) A. Hatchett | | | | | | | | b. TITLE | | | | | | | | | | | | | | | | |
| c. SIGNATURE | | | | | | | | d. DATE (CCYYMMDD) 20080215 | | | | | | | | | | | | | | | | |
| 8. PERFORMANCE DATA | | | | | | | | | | | | | | | | | | | | | | | | |
| ITEM (1) | CURRENT PERIOD | | | | | | CUMULATIVE TO DATE | | | | | | REPROGRAMMING ADJUSTMENTS | | | AT COMPLETION | | | | | | | | |
| | BUDGETED COST | | ACTUAL | | VARIANCE | | BUDGETED COST | | ACTUAL | | VARIANCE | | COST | | SCHEDULE | | BUDGET | | BUDGETED | | ESTIMATED | | VARIANCE | |
| | WORK SCHEDULED (2) | WORK PERFORMED (3) | COST WORK SCHEDULED (4) | COST WORK PERFORMED (5) | SCHEDULE (6) | COST (7) | WORK SCHEDULED (8) | WORK PERFORMED (9) | COST WORK SCHEDULED (10) | COST WORK PERFORMED (11) | SCHEDULE (12) | COST (13) | VARIANCE (14a) | VARIANCE (14b) | VARIANCE (15) | BUDGET (16) | BUDGETED (17) | ESTIMATED (18) | VARIANCE (19) | | | | | |
| a. WBS ELEMENT | | | | | | | | | | | | | | | | | | | | | | | | |
| 2000 - PROJ MANAGEMENT | 2 | 50.2 | 48.4 | 62.2 | -1.8 | -13.8 | 882.6 | 869.4 | 930.6 | -13.2 | -61.2 | | | | | | 1,384.6 | 1,418.6 | | -34.0 | | | | |
| 3000 - PRIME EQUIP | 2 | 1,272.4 | 1,148.0 | 1,299.4 | -124.4 | -151.4 | 4,809.2 | 4,424.4 | 4,782.0 | -384.8 | -387.6 | | | | | | 14,806.4 | 14,915.4 | | -309.0 | | | | |
| 4000 - SPARES | 2 | 68.0 | 59.4 | 61.8 | 1.4 | -2.4 | 133.8 | 135.0 | 142.0 | 1.2 | -7.8 | | | | | | 755.6 | 761.8 | | -6.2 | | | | |
| 5000 - DATA | 2 | 12.6 | 11.8 | 27.4 | -0.8 | -15.6 | 98.8 | 92.2 | 110.0 | -6.6 | -17.8 | | | | | | 127.0 | 143.0 | | -16.0 | | | | |
| 6000 - TEST & EVAL | 2 | 102.6 | 104.4 | 101.0 | 1.8 | 3.4 | 692.2 | 706.8 | 706.2 | 14.6 | 0.6 | | | | | | 1,633.0 | 1,635.0 | | -2.0 | | | | |

- ElemSeq is a reserved field
 - 9994 Overhead (OH)
 - 9995 Cost of Money (COM)
 - 9996 General and Administrative (G&A)
 - 9997 Undistributed Budget (UB)
 - 9998 Performance Measurement Baseline (PMB)
 - 9999 Management Reserve (MR)
- Why is 9998 filtered out in the CPR Format 1?

Query - Filters

■ Case:

- (|Meta|BeginLoop|ce|IDSelect|SELECT ElemID FROM Element WHERE Element.ContrID = cc_id AND StruID = st_id AND ElemLevel > 1 AND ElemLevel <= 3 AND ElemSeq <> 9998 ORDER BY ElemHier|)
- How would you change the CPR Format 1 template to show data at Levels 1 – 5 in the report?
- What would happen when you change the filter to:
 - (|Meta|BeginLoop|ce|IDSelect|SELECT ElemID FROM Element WHERE Element.ContrID = cc_id AND StruID = st_id **AND ProjOff = 'Troop'** AND ElemSeq <> 9998 ORDER BY ElemHier|)

■ Note:

- Can edit CPR report templates in winst folder. Changes the resulting report shown in wlnsight.
- **Cannot** edit CPR report templates in wsmde folder to modify reports shown in Administrator.

Query Codes

■ Can include

- Cc_id ID Of Active Contract
- St_id ID Of Active Structure
- Cd_id ID Of Active Period
- Un_id ID Of Active Unit

Use in beginning
loop statement

■ Other codes

- \$OH\$ Overhead
- \$COM\$ Cost of Money
- \$GA\$ G&A
- \$UB\$ Undistributed Budget
- \$MR\$ Management Reserve
- \$L1\$ Level 1 for active structure
- \$PM\$ PMB for active structure
- \$W1\$ Level 1 for WBS, regardless of active structure
- \$WP\$ PMB for WBS, regardless of active structure

Use in TD
lines

Query - Periods

- Goal: write a report that shows data over all periods
- How to:
 - Use query statement with **|cd|**
 - Use **#cd#** in all dynamic fields to show data for all periods
- Case:
 - wlnsight: Open the **MR Status report** and review
 - File Explorer: Open the report template with Notepad
 - rmrstatus_template.htm
 - Locate the beginning loop statement
 - (|Meta|BeginLoop|cd|IDSelect|SELECT PeriodID FROM Period WHERE ContrID = cc_id ORDER BY OrdVal|)
 - Locate **#cd#** in rows that call out dynamic data
 - Example: <td class=wrtdl>(|EndDate|#cd#|[%b %y])|</td>

As of JAN 08
Contract Name: MOH-2
Contract Number: F04895-86-C-0050
Contractor: MEGA HERZ ELEC & VEN
Financial Analyst: MR E. MONEY
Contract Manager: MR B. TECH

| DATE | MGT RESERVE | CUM CV + MR | PMB | EAC | % COMP PMB | % SPENT PMB | % SPENT EAC | MR AS % BCWR |
|--------|-------------|-------------|--------|--------|------------|-------------|-------------|--------------|
| JAN 08 | 439 | -60 | 20,357 | 20,761 | 33.653 | 36.105 | 35.402 | 3.252 |
| DEC 07 | 1,084 | 783 | 18,992 | 19,394 | 28.126 | 29.711 | 29.096 | 7.944 |
| NOV 07 | 930 | 467 | 16,872 | 17,252 | 22.428 | 25.172 | 24.617 | 7.106 |
| OCT 07 | 630 | 345 | 16,575 | 17,067 | 16.543 | 18.262 | 17.736 | 4.554 |
| SEP 07 | 630 | 655 | 16,575 | 17,067 | 13.370 | 13.219 | 12.838 | 4.387 |
| AUG 07 | 630 | 521 | 16,575 | 17,067 | 8.302 | 8.959 | 8.701 | 4.145 |
| JUL 07 | 630 | 618 | 16,575 | 16,954 | 5.629 | 5.701 | 5.574 | 4.028 |
| JUN 07 | 630 | 628 | 16,575 | 16,954 | 3.198 | 3.210 | 3.138 | 3.926 |
| MAY 07 | 630 | 642 | 16,575 | 16,954 | 1.490 | 1.418 | 1.386 | 3.858 |
| APR 07 | 630 | 646 | 16,575 | 16,954 | 0.742 | 0.646 | 0.631 | 3.829 |

Use of Special Codes in MR Status Report

```
<td class=wrtdr>(|Bac|#cd#|$MR$|[c0]|)</td>  
<td class=wrtdr><script>document.write(eval("add_ab((|CvCum|#cd#|$W1$|[z0]|),(|Bac|#cd#|$MR$|[z0]|)))")</script></td>  
<td class=wrtdr>(|Bac|#cd#|$PM$|[c0]|)</td>  
<td class=wrtdr>(|Lre|#cd#|$W1$|[c0]|)</td>  
<td class=wrtdr>(|PctCmp|#cd#|$PM$|[n3]|)</td>  
<td class=wrtdr>(|PctSpent|#cd#|$PM$|[n3]|)</td>
```

- What will the first line return?

<td class=wrtdr>(|Bac|#cd#|\$MR\$|[c0]|)</td>

- At what level is the BAC in the third line?

<td class=wrtdr>(|Bac|#cd#|\$PM\$|[c0]|)</td>

Click

Click

Query - Units

- Goal: write a report that shows data for all units
- How to:
 - Use query statement with **|un|**
 - Use **%un%** in all dynamic fields
- Case:
 - wlnsight: Open the ***Element of Cost report***
 - File Explorer: Open the report template with Notepad
 - reoc_template.htm
 - Locate the beginning loop statement
 - (|Meta|BeginLoop|un|IDSelect|SELECT UnitID FROM Unit WHERE RptSeq <> 0
ORDER BY RptSeq|)
 - Locate **%un%** in rows that call out dynamic data
 - Example: <TD CLASS=WRTD ALIGN=RIGHT>(|SvCur|%un%|)</TD>

MODULE FOUR

- ➔ • JavaScript
- Adding JavaScript to a report – Case
- JavaScript hints

JavaScript

- Scripting language for web pages and wInsight reports
- Adds functionality
- wInsight report uses:
 - Mathematical calculations
 - Emitif statements
 - If (this condition is true), then write (this statement)
- Cannot add JavaScript to input templates (e.g., fmt5_template.htm)
- Easy to add by copying and pasting from existing reports
 - Provided template: all_javascript_functions.htm
- Option: find an eager young IT engineer who knows JavaScript



Adding JavaScript

```
20 TD.blue      {background-color: blue; color: #ffffff; font-weight: bold;}
21 </style>
22 <script>
23
24 function roundn(val, ndec)
25 {
26     var p = Math.pow(10, ndec);
27     var s = Math.round(val*p) / p;
28     s = s.toString();
29     var p = s.indexOf(".");
30     var l = (p < 0) ? 0 : p;
31     if( ndec > 0 && l < ndec )
32     {
33         if( p == -1 )
34         {
35             s += ".";
36         }
37         for( i = l; i < ndec; i++)
38             s += "0";
39     }
40     return s;
41 }
42
```

- Add <script> section to header
 - Start and end tags: <script> </script>
- Copy and paste JavaScript functions within section
 - Defines the function and names it
- Reference the named function in the table section
 - Begin each line with <script>, end with </script>
 - Be careful with nesting braces, quotes (single or double)
 - WYSIWYG editor is helpful in matching braces
- Use the “z” code when formatting numbers
<script>document.write(eval("emitif('(subtract((|Lre|Sce\$|(-0)|[z1]|),(|Lre|Sce\$|(-1)|[z1]|))) > 0.0', 'EAC Growth')"))</script>

JavaScript Examples

| JavaScript | Sample Report | Description |
|-------------------------|--|--|
| add_ab(a, b) | rmrstatus_template | Adds a + b |
| addcomma(val) | rainarr_template rexecsum_template | Adds a comma |
| emitif(testval, strval) | rainarr_template rvalidity_template rsixper_template | If the conditions contained in testval are true (e.g., if BCWS > BAC), then write the information contained in strval |
| fmtsum(a, b, fmt) | rcpr3m1_template | Nested functions (sums a+b, formats) |
| fmtval(val, fmt) | rainarr_template rexecsum_template | Nested function. Combines roundn and addcomma functions. (Note: need to include roundn and addcomma in <script> section if using fmtval function.) |
| roundn(val, ndec) | rainarr_template rexecsum_template | Round the value to the number of specified decimal points |
| subtract(x, y) | bac_eac_changes | Subtracts x - y |
| Trend(value,trendtag) | CAM_Report color_trend | Returns data, colors cell background by threshold, adds trend arrow |


See reference table for all JavaScript examples

Subtract Function

- Subtracts one variable from another
- Defined in <script> section as:

```
function subtract(x, y)
{
    return x - y;
}
```

First line:
name of function
(variables in parentheses)



Braces define the function



Syntax for Custom Reports

| | |
|-----|------------------------------------|
| == | Equal (value) |
| === | Strict equal (value and same type) |
| != | Not equal |
| && | And |
| | Or |
| > | Greater than |
| >= | Greater than or equal to |
| < | Less than |
| <= | Less than or equal to |

Emitif Function

- If (this condition is true), then write (this statement)

- Defined in <script> section as:

```
function emitif(testval, strval)
{
    return eval(testval) ? strval : "";
}
```

First line:
name of function
(variables in parentheses)

Braces define the function

- Variables

- testval: test conditions, e.g., comparison of two values
- strval: string value, e.g., text or another function

Emitif Function

- From *AI Narrative* report:

```
<script>document.write(eval("emitif('(|Bac|[z1]) < (|BcwsCum|[z1])', 'There is  
a problem with the data. Budget is less than cumulative work  
scheduled.<BR>'))"))</script>
```

testval: '(|Bac|[z1]) < (|BcwsCum|[z1])'

strval: 'There is a problem with the data. Budget is less than cumulative work
scheduled.
'

- What separates the **testval** from the **strval**?
- Notice the number of braces (parentheses), single quotes, double quotes, commas, etc.
 - Much easier to copy and edit



Emitif Function

- From ***AI Narrative*** report:

```
<script>document.write(eval("emitif('(|Bac|[z1])) < (|BcwsCum|[z1]))', 'There is a problem with the data. Budget is less than cumulative work scheduled.<BR>'))</script>
```

- Case:

- What data is compared? What does it check for?
- What happens when the data comparison is true?
- What happens when the data comparison is false?

- Case:

- Open bac_eac_changes_with_logic.htm in Notepad
- Review the emitif statements
 - Note how && is used to add another data comparison
- Note: can have multiple statements to cover all comparison possibilities

Emitif Function – Covering all Conditions

- Write out all possible conditions

- In plain language, e.g.

| | CV | Statement |
|-------------|----------|-----------------|
| condition 1 | negative | Cost overrun |
| condition 2 | 0 | Costs on target |
| condition 3 | positive | Cost underrun |

- Then convert and enter in report

| | Test | Statement |
|-------------|------------------|-----------------|
| condition 1 | (CvCum) < 0.0 | Cost overrun |
| condition 2 | (CvCum) == 0.0 | Costs on target |
| condition 3 | (CvCum) > 0.0 | Cost underrun |

- Notice that all conditions are listed in example

- Do not add <td> tags to beginning or end of each line

- Add <td> to start of first condition

- Add </td> to end of last condition

```
<td class=wrtcd><script>document.write(eval("emitif('(|CvCum|[z1]) < 0.0', 'Cost overrun')"))</script>  
<script>document.write(eval("emitif('(|CvCum|[z1]) == 0.0', 'Costs on target')"))</script>  
<script>document.write(eval("emitif('(|CvCum|[z1]) > 0.0', 'Cost underrun')"))</script></td>
```

Applying Formatting to Separate Conditions


- Do not add <td> to start of first condition
- Add style definition to the strval
 - Add separate styles after the single quote
 - Be sure to add both <td> and </td>
- Do not add </td> to the end of the last condition

```
<script>document.write(eval("emitif('(|CvCum|#cd#|$PM$|[z1])|) < 0.0', '<td CLASS=WRTDcr>Cost overrun</td>')"))</script>
<script>document.write(eval("emitif('(|CvCum|#cd#|$PM$|[z1])|) == 0.0', '<td CLASS=WRTDc>Costs on target</td>')"))</script>
<script>document.write(eval("emitif('(|CvCum|#cd#|$PM$|[z1])|) > 0.0', '<td CLASS=WRTDc>Cost underrun</td>')"))</script>
```

| Basic EVM Data for PMB | | | | | |
|------------------------|---------|---------|---------|--------|---------------|
| Period | BCWS | BCWP | ACWP | CV | Warning |
| JAN 08 | 7,278.6 | 6,850.8 | 7,349.8 | -499.0 | Cost overrun |
| DEC 07 | 5,633.2 | 5,341.6 | 5,642.8 | -301.2 | Cost overrun |
| NOV 07 | 4,194.0 | 3,784.0 | 4,247.0 | -463.0 | Cost overrun |
| OCT 07 | 2,517.0 | 2,742.0 | 3,027.0 | -285.0 | Cost overrun |
| SEP 07 | 2,231.0 | 2,216.0 | 2,191.0 | 25.0 | Cost underrun |
| AUG 07 | 1,415.0 | 1,376.0 | 1,485.0 | -109.0 | Cost overrun |
| JUL 07 | 986.0 | 933.0 | 945.0 | -12.0 | Cost overrun |
| JUN 07 | 581.0 | 530.0 | 532.0 | -2.0 | Cost overrun |
| MAY 07 | 345.0 | 247.0 | 235.0 | 12.0 | Cost underrun |
| APR 07 | 123.0 | 123.0 | 107.0 | 16.0 | Cost underrun |

wrt dcr = centered, red
wrt dc = centered, black

MODULE FOUR

- JavaScript
-  • Adding JavaScript to a report – Case
- JavaScript hints

Case Update

- Open **Report1_template.htm** in Notepad
- Add JavaScript functions in the Head section
 - Start and end tags: `<script> </script>`
 - Functions: `addcomma`, `roundn`, `subtract`
 - Copy and paste from ***all_javascript_functions.htm*** template
- Add a new column, CV, equal to BCWP - ACWP
 - Use JavaScript function for subtraction
 - Copy and paste sample TD line from ***banded_bac_changes_over_time.htm***
 - Modify appropriately
 - Adjust colspan, column label, and other table settings as appropriate
- ***File, Save***
- Open report in wInsight
- Close report

Make changes
one at a time
and verify

| Report as of: 31 JAN 08 | | | | |
|-------------------------|---------|---------|---------|--------|
| Basic EVM Data | | | | |
| WBS Element | BCWS | BCWP | ACWP | CV |
| MOH-2 | 7,278.6 | 6,850.8 | 7,349.8 | -499.0 |
| PROJ MANAGEMENT | 882.6 | 869.4 | 930.6 | -61.2 |
| PROJ MANAGEMENT | 294.6 | 282.6 | 300.0 | -17.4 |
| SYS ENGINEERING | 234.6 | 241.0 | 267.4 | -26.4 |
| FUNC INTEGRA | 353.4 | 345.8 | 363.2 | -17.4 |
| PRIME EQUIP | 1,890.2 | 1,424.4 | 1,702.0 | -267.6 |

Changing the Copied Script

- Copied from bac_changes_over_time.htm

```
<TD class=wrtdr  
nowrap><BR><script>document.write(eval("addcomma(roundn(subtract((|Bac|$ce$|(-  
11)|[z1]|),(|Bac|$ce$|(-12)|[z1]|)),1)))</script></TD>
```

- Change:

- Remove

- Change |BAC|\$ce\$|(-11)| to |BcwpCum|\$qq\$|(-0)|
- Change |BAC|\$ce\$|(-12)| to |AcwpCum|\$qq\$|(-0)|

- Result

```
<TD class=wrtd align=right  
nowrap><script>document.write(eval("addcomma(roundn(subtract((|BcwpCum|$qq$|(-  
0)|[z1]|),(|AcwpCum|$qq$|(-0)|[z1]|)),1)))</script></TD>
```


Updated Report

</style>

<script>

function roundn(val, ndec)

.....

function addcomma(val)

.....

function subtract(x, y)

.....

</script>

</head>

Copy and paste
functions after
</Style>, before
</head>

Updated Report

Report as of: (|Period|EndDate[|!%d %b %y|])

<table border=1 cellspacing=1 cellpadding=2 width=500>

Width changed

<tr>

<td align=center class=wrt0 colspan=5>Basic EVM Data</td></tr>

colspan changed

<tr>

<td class=wrt0 align=left>WBS Element</td>

<td class=wrt0 align=center>BCWS</td>

<td class=wrt0 align=center>BCWP</td>

<td class=wrt0 align=center>ACWP</td>

<td class=wrt0 align=center>CV</td>

New column label

(|Meta|BeginLoop|qq|SyncSortWnd|)

<tr>

<td class=wrt0 align=left>(|Element|ElemDesc|\$qq\$|)</td>

<td class=wrt0 align=right>(|BcwsCum|\$qq\$|)</td>

<td class=wrt0 align=right>(|BcwpCum|\$qq\$|)</td>

<td class=wrt0 align=right>(|AcwpCum|\$qq\$|)</td>

<TD class=wrt0 align=right><script>document.write(eval("addcomma(roundn(subtract
(|BcwpCum|\$qq\$|[z1]|),(|AcwpCum|\$qq\$|[z1]|),1)))")</script></TD>

New TD definition,
with JavaScript

</tr>


(|Meta|EndLoop|qq|)

</table>

</body>

</html>

MODULE FOUR

- JavaScript
- Adding JavaScript to a report – Case
-  • JavaScript hints

Nesting Functions

- Nesting functions can simplify the TD line
 - Too many parentheses can be hard to troubleshoot
 - Can nest within a nest, i.e., reference other nested scripts
- Example from **BAC and EAC Changes Report**:

Instead of: addcomma(roundn(subtract(...)))

Use: emitdiff(...)

- Nest functions within <script> section

```
function emitdiff(x, y)
{
    return fmtval(x-y, "c1");
}
```

- Note: must include all functions within <script> that are referenced in the nested function

Case

- Open the **BAC and EAC Changes** report in Notepad.
- How many functions does emitdiff reference?

Nested Function

emitdiff

references fmtval function

```
function emitdiff(x, y)
{
  return fmtval(x-y, "c1");
}
```

```
function fmtval(val, fmt)
{
  if( fmt.length != 2 )
    fmt = "c1";
  var s = roundn(val, fmt.charAt(1));
  if( fmt.charAt(0) != 'n' )
    s = addcomma(s);
  return s;
}
```

fmtval references
roundn and
addcomma functions

```
function roundn(val, ndec)
{
  var p = Math.pow(10, ndec);
  var s = Math.round(val*p) / p;
  s = s.toString();
  var p = s.indexOf(".");
  var l = (p < 0) ? 0 : s.length - (1 + p);
  if( ndec > 0 && l < ndec )
  {
    if( p == -1 )
    {
      s += ".";
    }
    for( i = l; i < ndec; i++ )
      s += "0";
  }
  return s;
}

function addcomma(val)
{
  var m = 0;
  if( val < 0 )
  {
    m = 1;
    val = val.substr(1);
  }

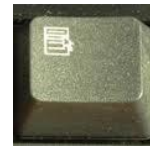
  var tail = "";
  var s = val.toString();
  var p = s.indexOf(".");
  if( p >= 0 )
  {
    tail = s.substr(p);
    s = s.substr(0,p);
  }
  p = s.length;
  while( p > 3 )
  {
    tail = "," + s.substr(p-3) + tail;
    s = s.substr(0,p-3);
    p = s.length;
  }
  if( m )
    s = "-" + s;
  return s + tail;
}
```

Using Z Codes

- Use z codes for formatting within a TD line with JavaScript
- If not used, and the result is 0, you'll get commas and/or " " codes
 - JavaScript does not interpret these correctly
- Use z code for formatting and the result will be:
 - [z0] 0
 - [z1] 0.0
 - etc.

Debugging Reports

- **Most Important Hint of All Time That Cannot Be Stressed Too Much:**
 - Make incremental changes in your report code, e.g., one line, one function
 - Verify in wInsight
 - Then make next change
 - You will be able to isolate what is causing problem
- With report open in wInsight, click the report, then the Windows Application key on your keyboard. Select **View Source** from the menu. The report will be populated with data.



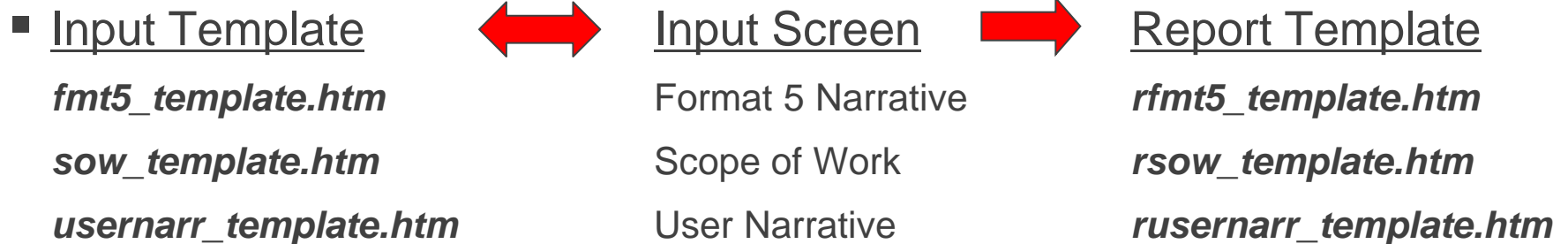
- Common error:
 - Braces not matching: **Expecting “)”** or **Expecting “(“**
 - Will normally give you a line number for error
 - Solutions:
 - Use “Balance Braces” tool in Dreamweaver
 - Dreamweaver also numbers all lines
 - Count left braces and right braces
 - Copy and paste a line that you know works properly above the bad line and compare

```
97 </tr>
98 <tr>
99 <TR>
100 <TD width="102" class=wrttd5><BR>LVL</TD>
101 <TD width="100" class=wrttd5>ID NUMBER<BR>DESCRIPTION</TD>
102 <TD width="101" class=wrttd5><p><BR>
103 BAC<BR>(Last Period) (Current Period)</td>
104 <TD width="102" class=wrttd5><BR>
105 BAC Change </TD>
106 <TD width="112" class=wrttd5><BR>
107 EAC<BR>(Last Period) (Current Period)</td>
108 <TD width="102" class=wrttd5><BR>
109 EAC Change </TD>
110 </TR>
111 (|Meta|BeginLoop|ce|SyncSortWnd|)
```

MODULE FIVE

- 
- Modifying Input Templates
 - Copying Reports to Other Applications
 - Alphabetizing the Reports List
 - Adding a Field Directly to the Database

Customizing Narrative Templates



- Can pre-define sections in input screens
- Change the template file, not the report file
 - Open template in HTM editor and edit
 - Save with exact same name, e.g., Fmt5_template
- **Do not** change certain report files (e.g., CPR files)
 - Example: do not change rfmt5_template
 - Report file always includes “r” in file name

Cannot add JavaScript to input templates (e.g., fmt5_template.htm)

- Ideas:
 - Use **Scope of Work** report for risks. Change title in rsow_template.htm from **Scope of Work** to **Risk Items**. Input description of risks (**Input, Scope of Work**).
 - Use **User Narrative** input for corrective action log. See corrective_action_log.htm. Input description of actions (**Input, User Narrative**).

Case

- Open corrective_action_log.htm in Notepad
- Is this a banded report?
- What are the four data fields that will be shown?

| Corrective Action Log | | |
|--|-------|--|
| Report Date: JAN 08 Contract Name: MOH-2 Contract Number: F04695-86-C-0050 Contractor: MEGA HERZ ELEC & VEN | | Financial Analyst: MR E. MONEY Contract Manager: MR B. TECH |
| WBS Number WBS Name | CAM | Description of Action Item Estimated Completion Date Actual Date |
| 2100 PROJ MANAGEMENT | Brown | No corrective action required. |
| 2200 SYS ENGINEERING | Price | Augment existing system engineering staff with junior engineers to help clear backlog of technical orders. ECD: 21 Feb 08. |

Customized Fmt 5 Narrative Input

| Element: 5100/ENG DATA Manager: Novak | | Current Period Data | Cumulative Data |
|--|--|---------------------|-----------------|
| SCH VAR | | -6.6 | -6.6 |
| SCH VAR % | | -52.4% | -34.7% |
| COST VAR | | -6.6 | -4.6 |
| COST VAR % | | -110.0% | -37.1% |
| VAC | | | 0.0 |
| VAC % | | | 0.0% |
| Variance Required | | | |
| scSC | | | |
| Current Period Schedule Variance | | | |
| Root Cause Analysis | | | |
| Effect on Immediate Task | | | |
| Effect on Other Tasks or Project | | | |
| Corrective Actions Taken or Planned | | | |
| To clear narrative | | | |
| Root Cause Analysis | | | |
| Effect on Immediate Task | | | |
| Effect on Other Tasks or Project | | | |
| Corrective Actions Taken or Planned | | | |
| Dynamic data does not update if a template has been applied during the period. | | | |
| Root Cause Analysis | | | |
| Effect on Immediate Task | | | |

Done

Dynamically generated data

CAMs input analysis directly in wInsight

- **File, Clear All**
- **Save, Close**
- **Input, Format 5 Narrative**

Dynamic data does not update if a template has been applied during the period.

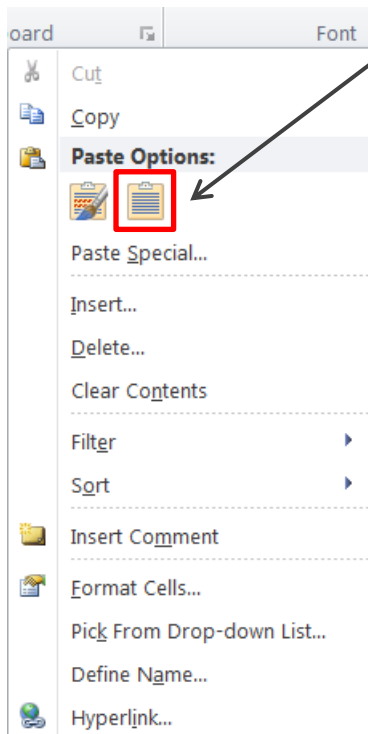
Case
Open fmt5_template.htm in Notepad.
Are there multiple tables?

MODULE FIVE

- Modifying Input Templates
-  • Copying Reports to Other Applications
- Alphabetizing the Reports List
- Adding a Field Directly to the Database

Copying Reports into Excel without the Script Tag

When pasting into Excel 2010, right mouse click.
Select **Match Destination Formatting**



NO

YES!

| Management Reserve Status | | | | | | | | | | | | |
|-----------------------------------|---------|--------|--------|--------|--|---------|---------|--------|--------|-------|-------|-------|
| | | | | | Financial Analyst: MR E. MONEY Contract Manager: MR B. TECH | | | | | | | |
| | | | | | | | | | | | | |
| | | | | EAC | % COMP | % SPENT | % SPENT | MR AS | | | | |
| RESERVE | | + MR | | | PMB | PMB | EAC | % BCWR | | | | |
| 8-Jan | 439 | | -60 | 20,357 | 20,761 | 33.653 | 36.105 | | 35.402 | | 3.252 | |
| 7-Dec | 1,084 | | 783 | 18,992 | 19,394 | 28.126 | 29.711 | | 29.096 | | 7.944 | |
| <div>IO</div> | 930 | | 467 | 16,872 | 17,252 | 22.428 | 25.172 | | 24.617 | | 7.106 | |
| | 630 | | 345 | 16,575 | 17,067 | 16.543 | 18.262 | | 17.736 | | 4.554 | |
| | 630 | | 655 | 16,575 | 17,067 | 13.37 | 13.219 | | 12.838 | | 4.387 | |
| | 7-Aug | 630 | | 521 | 16,575 | 17,067 | 8.302 | 8.959 | | 8.701 | | 4.145 |
| | 7-Jul | 630 | | 618 | 16,575 | 16,954 | 5.629 | 5.701 | | 5.574 | | 4.028 |
| 7-Jun | 630 | | 628 | 16,575 | 16,954 | 3.198 | 3.21 | | 3.138 | | 3.926 | |
| 7-May | 630 | | 642 | 16,575 | 16,954 | 1.49 | 1.418 | | 1.386 | | 3.858 | |
| 7-Apr | 630 | | 646 | 16,575 | 16,954 | 0.742 | 0.646 | | 0.631 | | 3.829 | |
| | | | | | | | | | | | | |
| Management Reserve Status | | | | | | | | | | | | |
| As of: JAN 08 | | | | | | | | | | | | |
| Contract Name: MOH-2 | | | | | Financial Analyst: MR E. MONEY | | | | | | | |
| Contract Number: F04695-86-C-0050 | | | | | Contract Manager: MR B. TECH | | | | | | | |
| Contractor: MEGA HERZ ELEC & VEN | | | | | | | | | | | | |
| DATE | MGT | CUM CV | PMB | EAC | % COMP | % SPENT | % SPENT | MR AS | | | | |
| | RESERVE | + MR | | | PMB | PMB | EAC | % BCWR | | | | |
| 8-Jan | 439 | -60 | 20,357 | 20,761 | 33.653 | 36.105 | 35.402 | 3.252 | | | | |
| <div>ES!</div> | 1,084 | 783 | 18,992 | 19,394 | 28.126 | 29.711 | 29.096 | 7.944 | | | | |
| | 930 | 467 | 16,872 | 17,252 | 22.428 | 25.172 | 24.617 | 7.106 | | | | |
| | 630 | 345 | 16,575 | 17,067 | 16.543 | 18.262 | 17.736 | 4.554 | | | | |
| | 630 | 655 | 16,575 | 17,067 | 13.37 | 13.219 | 12.838 | 4.387 | | | | |
| | 7-Aug | 630 | 521 | 16,575 | 17,067 | 8.302 | 8.959 | 8.701 | 4.145 | | | |
| 7-Jul | 630 | 618 | 16,575 | 16,954 | 5.629 | 5.701 | 5.574 | 4.028 | | | | |
| 7-Jun | 630 | 628 | 16,575 | 16,954 | 3.198 | 3.21 | 3.138 | 3.926 | | | | |
| 7-May | 630 | 642 | 16,575 | 16,954 | 1.49 | 1.418 | 1.386 | 3.858 | | | | |
| 7-Apr | 630 | 646 | 16,575 | 16,954 | 0.742 | 0.646 | 0.631 | 3.829 | | | | |

Copying Reports to PowerPoint

PowerPoint 2010:

Regular copy and paste USUALLY works properly

May need to use Snagit with a scrolling window capture

CAM Units in Dollars

CAM: Jones WBS Number: 1000

| Current Period Data | | Cumulative Data | |
|---------------------|--------|-----------------|--------|
| SCH VAR | -136.2 | SCH VAR | -427.8 |
| SCH VAR % | -8.3% | SCH VAR % | -5.9% |
| COST VAR | -197.8 | COST VAR | -499.0 |
| COST VAR % | -13.1% | COST VAR % | -7.3% |
| VAC | | VAC | 35.2 |

NO

Regular copy & paste

CAM Report - Units in Dollars
As of: JAN 04

CAM: Jones WBS Number: 1000 WBS Name: MCH-2

| Current Period Data | | Cumulative Data | |
|---------------------|--------|-----------------|--------|
| SCH VAR | -136.2 | SCH VAR | -427.8 |
| SCH VAR % | -8.3% | SCH VAR % | -5.9% |
| COST VAR | -197.8 | COST VAR | -499.0 |
| COST VAR % | -13.1% | COST VAR % | -7.3% |
| VAC | | VAC | 35.2 |

VARIANCE EXPLANATION REQUIRED
C

| PERIOD | SEP 03 | OCT 03 | NOV 03 | DEC 03 | JAN 04 | FEB 04 | MAR 04 | APR 04 | MAY 04 | JUN 04 | JUL 04 | AUG 04 | SEP 04 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Current Period Data | | | | | | | | | | | | | |
| BCWS | 810 | 280 | 1,677 | 1,439 | 1,645 | 1,261 | 1,388 | 1,388 | 1,135 | 1,110 | 1,116 | 1,227 | |
| BCWP | 840 | 520 | 1,042 | 1,558 | 1,509 | | | | | | | | |
| SV | 29 | -240 | -425 | 119 | -136 | | | | | | | | |
| Curr SPI | 1.029 | 1.839 | 0.621 | 1.062 | 0.917 | | | | | | | | |
| ACWP/ETC | 706 | 830 | 1,220 | 1,396 | 1,707 | 1,309 | 1,440 | 1,440 | 1,244 | 1,178 | 1,159 | 1,275 | |
| CV | 134 | -310 | -178 | 883 | -160 | | | | | | | | |
| Curr CPI | 1.197 | 0.629 | 0.824 | 0.743 | 0.544 | | | | | | | | |
| Cumulative Data | | | | | | | | | | | | | |
| BCWS | 2,231 | 2,517 | 4,194 | 5,633 | 7,279 | | | | | | | | |
| BCWP | 2,216 | 2,742 | 3,784 | 5,342 | 6,851 | | | | | | | | |
| SV | -15 | 225 | -410 | -292 | -428 | | | | | | | | |
| Cum SPI | 0.993 | 1.013 | 0.902 | 0.949 | 0.941 | | | | | | | | |
| ACWP | 2,194 | 3,027 | 4,247 | 5,643 | 7,260 | | | | | | | | |
| CV | 25 | -285 | -483 | -301 | -499 | | | | | | | | |
| Cum CPI | 1.011 | 0.906 | 0.891 | 0.947 | 0.932 | | | | | | | | |
| Completion Data | | | | | | | | | | | | | |
| Cum SPI | 0.993 | 1.013 | 0.902 | 0.949 | 0.941 | | | | | | | | |
| Cum CPI | 1.011 | 0.906 | 0.891 | 0.947 | 0.932 | | | | | | | | |
| TCPI-EAC | 1.008 | 1.030 | 1.078 | 1.072 | 1.040 | | | | | | | | |
| Delta (CPI to TCPI-EAC) | 0.004 | -0.124 | -0.187 | -0.125 | -0.108 | | | | | | | | |
| Completion Data | | | | | | | | | | | | | |
| BAC | 17,205 | 17,205 | 17,802 | 20,076 | 20,796 | | | | | | | | |
| EAC | 17,987 | 17,987 | 17,952 | 19,795 | 19,795 | | | | | | | | |
| VAC | 138.0 | -138.0 | -500.0 | -500.0 | -500.0 | | | | | | | | |
| Cum CPI Forecast | 17,011 | 18,993 | 19,980 | 21,212 | | | | | | | | | |

YES!

Snagit copy & paste

MODULE FIVE

- Modifying Input Templates
- Copying Reports to Other Applications
-  • Alphabetizing the Reports List
- Adding a Field Directly to the Database

Alphabetizing the Custom Reports Menu

■ Export wscustom.xml

- Close the data set in wlnsight
- Click File, Export Custom Items...
 - Save wscustom.xml

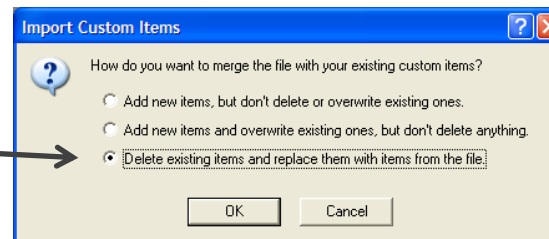
■ Edit wscustom.xml

- Right mouse click on wscustom.xml in File Explorer
- Open with Notepad
 - Leave Reports #1 – 25 in Existing Order
 - Cut and Paste Remaining Reports into Alphabetical Order
 - Renumber Reports in Order
 - Save

■ In wlnsight

- Re-import **Custom Items**
- Select Third Option

```
<Reports>
  <Report id="r1" name="AI Narrative" menu="1" flags="0" />
  <Report id="r2" name="Six Period Summary" menu="1" flags="0" />
  <Report id="r3" name="Validity" menu="1" flags="0" />
  <Report id="r4" name="Format 5 Narrative" menu="1" flags="0" />
  <Report id="r5" name="Scope of Work" menu="1" flags="0" />
  <Report id="r6" name="Executive Summary" menu="1" flags="0" />
  <Report id="r7" name="User Narrative" menu="1" flags="0" />
  <Report id="r8" name="Element of Cost" menu="1" flags="0" />
  <Report id="r9" name="CFSR Reconciliation" menu="1" flags="0" />
  <Report id="r10" name="CFSR Contractor Spr" menu="1" flags="0" />
  <Report id="r11" name="CFSR Automated Spre" menu="1" flags="0" />
  <Report id="r12" name="CFSR Custom Spread" menu="1" flags="0" />
  <Report id="r13" name="CFSR Summary" menu="1" flags="0" />
  <Report id="r14" name="OMB Table II A Repd" menu="1" flags="0" />
  <Report id="r15" name="OMB Change Report" menu="1" flags="0" />
  <Report id="r16" name="Program Tripwires S" menu="1" flags="0" />
  <Report id="r17" name="PMB Revisions" menu="1" flags="0" />
  <Report id="r18" name="CPLI Milestone" menu="1" flags="0" />
  <Report id="r19" name="PM Summary Report" menu="1" flags="0" />
  <Report id="r20" name="MR Status Report" menu="1" flags="0" />
  <Report id="r21" name="Future Period Summa" menu="1" flags="0" />
  <Report id="r22" name="CPR Format 1" menu="1" flags="0" />
  <Report id="r23" name="CPR Format 2" menu="1" flags="0" />
  <Report id="r24" name="OMB 300 Report" menu="1" flags="0" />
  <Report id="r25" name="OMB 300 BY09 Report" menu="1" flags="0" />
  <Report id="r26" name="BAC and EAC Changes" menu="1" flags="0" />
  <Report id="r27" name="BAC and EAC Changes" menu="1" flags="0" />
  <Report id="r28" name="Banded ACWP" menu="1" flags="0" />
  <Report id="r29" name="Banded BAC" menu="1" flags="0" />
  <Report id="r30" name="Banded Check of EAC" menu="1" flags="0" />
  <Report id="r31" name="Banded EAC and VAC" menu="1" flags="0" />
  <Report id="r32" name="Banded EAC over tin" menu="1" flags="0" />
  <Report id="r33" name="Banded ETC" menu="1" flags="0" />
  <Report id="r34" name="Banded Validity" me" menu="1" flags="0" />
  <Report id="r35" name="Baseline Analysis -" menu="1" flags="0" />
  <Report id="r36" name="BCWS current and cu" menu="1" flags="0" />
  <Report id="r37" name="BEI" menu="1" flags="0" />
  <Report id="r38" name="CAM Report" menu="1" flags="0" />
  <Report id="r39" name="CAM Review" menu="1" flags="0" />
  <Report id="r40" name="Catch Planning Pack" menu="1" flags="0" />
  <Report id="r41" name="Color Trend" menu="1" flags="0" />
  <Report id="r42" name="Contract Values Ove" menu="1" flags="0" />
  <Report id="r43" name="Corrective Action L" menu="1" flags="0" />
```

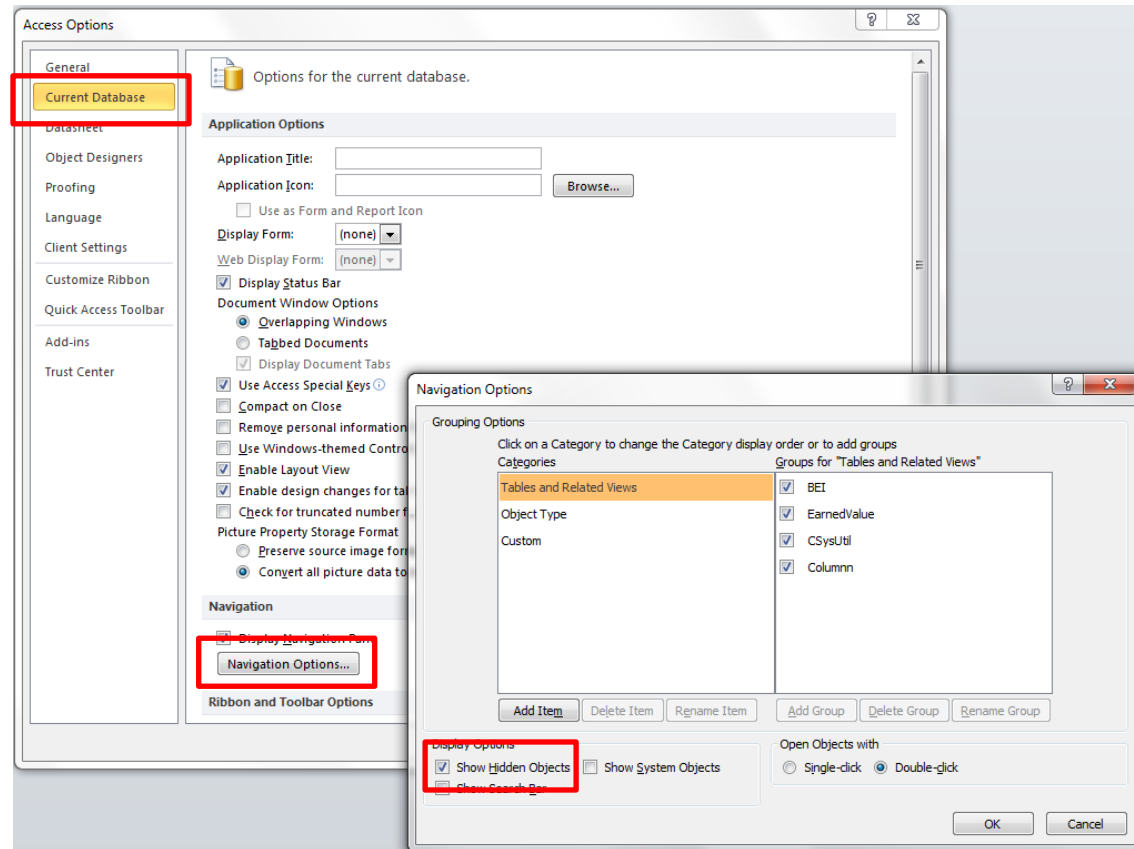


MODULE FIVE

- Modifying Input Templates
- Copying Reports to Other Applications
- Alphabetizing the Reports List
-  • Adding a Field Directly to the Database

Create Calculated Fields

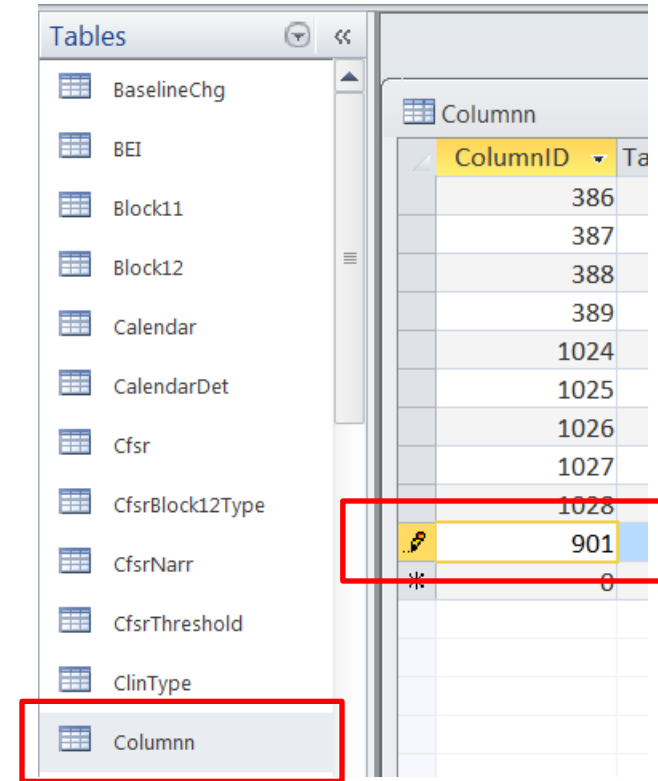
- Archive the wlnsight data base
 - Administrator: Click Utilities, Backup...
- Make sure that wlnsight and wlnsight Administrator are closed
- Open the database using Microsoft Access
- Click **Navigation Options...**
- Click **Show Hidden Objects**



Demo: add two fields for Cum CV (absolute) and VAC (absolute)
Purpose: be able to sort on top five (absolute variances)

Create Calculated Fields – Access Databases

- Open the **COLUMNN** table
- Scroll to the bottom and click in the empty row
 - You can also copy and paste an existing row and then modify
- Enter a number in the **ColumnID** column
 - Begin with 901
 - Note: numbers from 901 – 999 are open for entry of calculated fields
- Enter a name in the **ColName** field (enter a unique name, using A-Z, a-z ,0-9 only, no spaces or reserved words). You won't be able to save until these two fields are updated.
- Edit the **SQL** field and/or Alias fields as desired.
- The **SQL** field is where you enter the desired calculation
 - For Access databases: IIF statement can be used as if/then, e.g., to ensure that denominator is greater than 0



See next two charts for specific fields to be created

Create New Field – CvCumAbs – Access Databases

■ Create CvCumAbs in the Columnn Table

- Click in empty row at bottom and enter 901 for **ColumnID**
- Enter 5 for **TableID**
- Enter **CvCumAbs** for **ColName**
- Enter 3 for **DataType**
- Enter 8 for **Length**
- Enter 1 for **FmtFlag**
- Enter F for **UserDef**

| ColumnID ▾ | TableID ▾ | ColName ▾ | Dat ▾ | Length ▾ | FmtFlag ▾ | GrpFlag ▾ | GrpOrder ▾ | UserDef ▾ |
|------------|-----------|-----------|-------|----------|-----------|-----------|------------|-----------|
| 901 | 5 | CvCumAbs | 3 | 8 | 1 | 0 | 0 | F |

- In **SQL** field, enter
 - IIF(EarnedValue.BcwpCum>EarnedValue.AcwpCum,EarnedValue.BcwpCum-EarnedValue.AcwpCum,EarnedValue.AcwpCum-EarnedValue.BcwpCum)
- Leave all other fields the same
- Save

| SQL ▾ |
|--|
| IIF(EarnedValue.BcwpCum>EarnedValue.AcwpCum,EarnedValue.BcwpCum-EarnedValue.AcwpCum,EarnedValue.AcwpCum-EarnedValue.BcwpCum) |

Suggest copying and pasting for the SQL field

Create New Field – VacAbs – Access Databases

- Create VacAbs in the Columnn Table
 - Click in empty row at bottom and enter 902 for **ColumnID**
 - Enter 5 for **TableID**
 - Change **ColName** to **VacAbs**
 - Enter 3 for **DataType**
 - Enter 8 for **Length**
 - Enter 1 for **FmtFlag**
 - Enter F for **UserDef**

| ColumnID ▾ | TableID ▾ | ColName ▾ | Dat ▾ | Length ▾ | FmtFlag ▾ | GrpFlag ▾ | GrpOrder ▾ | UserDef ▾ |
|------------|-----------|-----------|-------|----------|-----------|-----------|------------|-----------|
| 902 | 5 | VacAbs | 3 | 8 | 1 | 0 | 0 | F |

- In **SQL** field, enter
 - IIF(EarnedValue.Bac>EarnedValue.Lre,EarnedValue.Bac-EarnedValue.Lre,EarnedValue.Lre-EarnedValue.Bac)
- Save

Suggest copying and pasting for the SQL field

Next Steps

- Close Access
- Recalculate the data base in either wInsight or wInsight Administrator

Showing the New Fields

1. Open wInsight
2. Select the data base and recalculate
3. Open the dataset
4. Create a view to show the new fields: **CvCumAbs** and **VacAbs**
 - Suggest naming: Top 5 Absolute Variances
5. Toggle to the lowest level
6. Sort Descending on **CvCumAbs**
7. Copy the view by selecting the row numbers (click and drag on row numbers)
 - Copy to PowerPoint as picture
8. Repeat Steps 6-7 with **VacAbs**

| | WBS | DESCRIPTION | LVL | LL | CAM | CvCum | CvCumAbs | Vac | VacAbs |
|---|-------------------|-----------------|-----|----|-----|----------|----------|----------|----------|
| 1 | 2.2.1.3.6.626 | Prelaunch On Bo | 6 | √ | JF | -4,182.5 | 4,182.5 | -4,186.0 | -4,186.0 |
| 2 | [OH] | OVERHEAD | 2 | √ | | -3,245.6 | 3,245.6 | -3,468.6 | -3,468.6 |
| 3 | 2.2.1.1.1.MAT.521 | Structural Mate | 6 | √ | BW | 1,806.0 | 1,806.0 | 1,814.5 | 1,814.5 |
| 4 | 2.2.1.3.8.626 | Complete Electr | 6 | √ | DR | -1,570.6 | 1,570.6 | -1,546.9 | -1,546.9 |
| 5 | 2.2.1.9 | CWBS Group 900 | 4 | √ | DR | 1,434.2 | 1,434.2 | 2,482.8 | 2,482.8 |

Create Calculated Fields –SQL Databases

Following two charts show where instructions differ for SQL databases

- Open the **COLUMNN** table
- Scroll to the bottom and click in the empty row
 - You can also copy and paste an existing row and then modify
- Enter a number in the **ColumnID** column
 - Begin with 901
 - Note: numbers from 901 – 999 are open for entry of calculated fields
- Enter a name in the **ColName** field (enter a unique name, using A-Z, a-z ,0-9 only, no spaces or reserved words). You won't be able to save until these two fields are updated.
- Edit the **SQLL** field and/or **Alias** fields as desired.
- The **SQLL** field is where you enter the desired calculation
 - For SQL databases: **CASEWHEN** statement can be used as if/then, e.g., to ensure that denominator is greater than 0

| Tables | Columnn |
|-----------------|-------------|
| BaselineChg | ColumnID Ta |
| BEI | 386 |
| Block11 | 387 |
| Block12 | 388 |
| Calendar | 389 |
| CalendarDet | 1024 |
| Cfsr | 1025 |
| CfsrBlock12Type | 1026 |
| CfsrNarr | 1027 |
| CfsrThreshold | 1028 |
| ClinType | 901 |
| Columnn | * |

Create New Field – CvCumAbs – SQL databases

■ Create **CvCumAbs** in the Columnn Table

- Click in empty row at bottom and enter 901 for **ColumnID**
- Enter 5 for **TableID**
- Change **ColName** to **CvCumAbs**
- Enter 3 for **DataType**
- Enter 8 for **Length**
- Enter 1 for **FmtFlag**
- Enter F for **UserDef**

| ColumnID ▾ | TableID ▾ | ColName ▾ | Dat ▾ | Length ▾ | FmtFlag ▾ | GrpFlag ▾ | GrpOrder ▾ | UserDef ▾ |
|------------|-----------|-----------|-------|----------|-----------|-----------|------------|-----------|
| 901 | 5 | CvCumAbs | 3 | 8 | 1 | 0 | 0 | F |

- In **SQL** field, enter

```
CASE WHEN EarnedValue.BcwpCum > EarnedValue.AcwpCum THEN EarnedValue.BcwpCum -  
EarnedValue.AcwpCum ELSE EarnedValue.AcwpCum - EarnedValue.BcwpCum END
```

- Leave all other fields the same
- Save

MODULE SIX

- Final Case

Final Case

■ Modify your report

- Start with template: `custom_over_time_template.htm`
 - For all periods, for a single element
- For PMB level only
 - Hint: `|PM|`
- Data in columns:
 - BCWScum
 - BCWPcum
 - ACWPcum
 - CvCum
 - Add emitif statements in last column:
 - If CV is negative, write Overrun
 - If CV is 0, write On Target
 - If CV is positive, write Underrun
- If you have time
 - Format as desired

See sample next chart

Sample emitif Script

```
<td class=wrtdc><script>document.write(eval("emitif('(|CvCum|#cd#|$PM$|[z1]|)  
< 0.0', 'Overrun')"))</script>
```

Final Case

Data Over Time - PMB

As of: JAN 08

Contract Name: MOH-2

Element: PERF MEASURE BL

| Period | BCWS | BCWP | ACWP | Cost Variance | |
|--------|---------|---------|---------|---------------|----------|
| Jan 08 | 7,278.6 | 6,850.8 | 7,349.8 | -499.0 | Overrun |
| Dec 07 | 5,633.2 | 5,341.6 | 5,642.8 | -301.2 | Overrun |
| Nov 07 | 4,194.0 | 3,784.0 | 4,247.0 | -463.0 | Overrun |
| Oct 07 | 2,517.0 | 2,742.0 | 3,027.0 | -285.0 | Overrun |
| Sep 07 | 2,231.0 | 2,216.0 | 2,191.0 | 25.0 | Underrun |
| Aug 07 | 1,415.0 | 1,376.0 | 1,485.0 | -109.0 | Overrun |
| Jul 07 | 986.0 | 933.0 | 945.0 | -12.0 | Overrun |
| Jun 07 | 581.0 | 530.0 | 532.0 | -2.0 | Overrun |
| May 07 | 345.0 | 247.0 | 235.0 | 12.0 | Underrun |
| Apr 07 | 123.0 | 123.0 | 107.0 | 16.0 | Underrun |

| Period | BCWS | BCWP | ACWP | Cost Variance | |
|--------|---------|---------|---------|---------------|----------|
| Oct 07 | 2,517.0 | 2,742.0 | 3,027.0 | -285.0 | Overrun |
| Sep 07 | 2,231.0 | 2,216.0 | 2,191.0 | 25.0 | Underrun |
| Aug 07 | 1,415.0 | 1,376.0 | 1,485.0 | -109.0 | Overrun |
| Jul 07 | 986.0 | 933.0 | 945.0 | -12.0 | Overrun |
| Jun 07 | 581.0 | 530.0 | 532.0 | -2.0 | Overrun |
| May 07 | 345.0 | 247.0 | 235.0 | 12.0 | Underrun |
| Apr 07 | 123.0 | 123.0 | 107.0 | 16.0 | Underrun |

REFERENCE

Table Tags

| Purpose | Table Tag |
|--|------------------------------------|
| New table row | <tr>...</tr> |
| New table cell | <td>...</td> |
| New paragraph | <p>...</p> |
| Break | ... |
| Border size | border=0 (no border) or 1 (border) |
| Border with color, dashes | style="border:3px dashed blue;" |
| Border color, top and left borders | bordercolorlight="lightgrey" |
| Border color, bottom and right borders | bordercolordark="darkgrey" |
| Spacing between cells | cellspacing=1 |
| White space within cell | cellpadding=2 |
| Width (in pixels) | width=500 |
| Table Header – bolds and centers header text | <th>...</th> |

Style Attributes

| Purpose | Style section example | Table cell example | <td> ... </td> |
|---------------------------|----------------------------------|--|------------------------|
| Defined style | TD.wrtd {.....} | class=wrtd | |
| Font | font-family: times, serif; | font-family: times, serif | |
| Font size | font-size: 11pt; | BCWS (default font size =3) | |
| Font color | color: #000000; color: black; | style=color:#000000 style=color:black | |
| Bold | font-weight: bold; | BCWS | |
| Italic | font-style:italic; | <i>italic</i> | |
| Underline | text-decoration:underline; | <u>underlined</u> | |
| Subscript | | BCWS_{cum} | BCWS _{cum} |
| Superscript | | wInsightTM | wInsight TM |
| Background color | background-color: #F0F0F0; | bgcolor=#F0F0F0 | |
| Column span | | colspan=3 | |
| Column size | | width="36%" width="102" | |
| Row span | | rowspan=3 | |
| Horizontal alignment | text-align: left; | align=left | |
| Vertical alignment | vertical-align: top; | valign=top | |
| Don't allow text wrapping | white-space: nowrap; | nowrap <nobr>blahblahblah</nobr> | |

| HTML Codes | | |
|-------------|-----------|--|
| | | |
| Element | | |
| Open | Close | Definition |
| <!-- | --> | Comment. Will only show within htm document. |
| <html> | </html> | Placed at very beginning and end of document to define it as HTML |
| <head> | </head> | Section for defining styles and JavaScript functions |
| <style> | </style> | Section for style definition |
| <script> | </script> | Section for script definition |
| <body> | </body> | Section that defines the report, including table data |
| <table> | </table> | Section that defines the table of data |
| | </br> | Inserts line break |
| | | Defines font style |
| | | Emphasizes text as bold |
| <center> | </center> | Centers content |
| <u> | </u> | Underlines content |
| Table Codes | | |
| <td> | </td> | Table data. Sets off each cell and marks data. |
| <tr> | </tr> | Table row. Sets off each row. |
| <th> | </th> | Table header. Sets off header as bold, centered. |
| <p> | </p> | New paragraph. Creates a line break and a space between lines. |
| | | Ordered list. Option: Specify each list item with to add sequential number. Option: Show list with letters <OL type="a">. Specify list item . |
| | | Unordered list. Option: Specify each list item with to add bullet. Option: Specify list items as main bullets <UL type="disc"> or as sub bullets <UL type="circle"> |
| <p> | </p> | Specify |

<!--
Developer notes, etc.
-->
<html>
 <head>
 <style>

 </style>
 <script>

 </script>
</head>
<body>
 <table>

 </table>
</html>

| Attributes | | |
|--|---|--------------------------------|
| Attributes follow an element and are included within the open and close brackets for the element. Example: | | |
| class | Refers to style specifically defined in style section, e.g., class=WRTD | Example class=WRTD1 |
| align | Horizontal alignment within cell (left, center, right) | align=center |
| valign | Vertical alignment within cell (top, middle, bottom) | valign=bottom |
| nowrap | Prevents text wrapping within cell | nowrap |
| height | Height of cell in pixels or % of document | height="44" |
| width | Width in pixels or % of document Note: specifies table width at beginning of table section, or can be specified within <td> for a cell | width="176" width="50" |
| colspan | Column span. Specifies number of columns to span | colspan=5 |
| rowspan | Row span. Specifies number of rows to span. | rowspan=3 |
| border | Specifies width of table border | border=0 |
| cellspacing | Amount of space between cells for table Note: if not specified, defaults to 2 | cellspacing=1 |
| cellpadding | Amount of space within cell border and data Note: if not specified, defaults to 2 | cellpadding=1 |
| table border | Specifies color of table border | table border=#F0F0F0 |
| The following are typically defined within the style section | | |
| background-color | Specifies background color | background-color: #FFFFFF |
| font-size | Specifies size of font | font-size: 12pt |
| font-family | Specifies font | font-family: arial, sans-serif |
| color | Specifies color of font (assumes black if not specified) | color: #FF3300 |
| font-weight | Specifies weight of font | font-weight: bold |
| text-align | Specifies alignment of text | text-align: right |
| Other | | |
| | Non breaking space | |
| | Adds space, e.g., to indent text or add a specified number of spaces | |

| Color Reference Numbers | |
|-------------------------|-----------|
| | HTML Code |
| White | #FFFFFF |
| Beige | #FFF5CC |
| Light Gray | #F0F0F0 |
| Medium Gray | #C0C0C0 |
| Dark Gray | #999999 |
| Black | #000000 |
| Red | #FF3300 |
| Light Orange | #FFCC99 |
| Orange | #FF9933 |
| Light Yellow | #FFFF99 |
| Bright Yellow | #FFFF00 |
| Light Green | #CCFFCC |
| Medium Green | #00FF00 |
| Dark Green | #00CC00 |
| Light Aqua | #99FFFF |
| Aqua | #66CCCC |
| Light Blue | #99CCFF |
| Medium Blue | #3366FF |
| Navy Blue | #000066 |
| Light Purple | #CCCCFF |
| Medium Purple | #CC99FF |
| Dark Purple | #660099 |

Formatting Numbers

| Code | Result |
|------|---|
| [c0] | Adds comma. No decimals. |
| [c1] | Adds comma, with one decimal. |
| [n0] | No comma. No decimals. |
| [n1] | No comma, with one decimal. |
| [z0] | Use z code when data is used in JavaScript function. No decimals. |
| [z1] | Use z code when data is used in JavaScript function. One decimal. |

Change number of decimals as desired

Formatting Dates

| Code | Result |
|---------------|------------------|
| not specified | JAN 09 |
| [%Y%m%d] | 20090131 |
| [%B %d, %Y] | January 31, 2009 |
| [%b %Y] | Jan 2009 |
| [!%b %Y] | JAN 09 |
| [!%m/%d/%y] | 01/31/09 |
| [!%d %b %y] | 31 Jan 09 |
| [P%p FY %f] | P1 FY09 |
| [%pQ FY %F] | 1Q FY 2009 |
| [!%P %Y] | JAN 09 |
| [%P %Y] | Jan 2009 |

Note: if using date format with P, period numbers must be shown in Calendar table and in Periods table.

Note: insert this at the end of the text string

Order of Dynamic Field Descriptors

1 2 3 4 5 6 7

(|FutureEtc|Lre|(-0)|{|+1}|[z1]|Dollars|\$ce\$|)

1. Table name. Mandatory, except if referring to data contained in Earned Value table.
2. Field name. Mandatory. Note: use Lre in place of Eac.
3. Optional. Marker for current period. Note: this is optional when including the marker for future period as shown. Certain standard wlnsight reports contain both, but this is optional. Use parentheses.
4. Optional. Marker for reporting period. Use parentheses for prior periods and braces for future periods. If excluded, current period will be reported.
5. Optional. Number formatting code. Use brackets.
6. Optional. Marker for specifying units. If excluded, data may be toggled for units when the report is displayed in wlnsight.
7. Optional. "Counter" used only in banded reports.

Note: Use indicated parentheses/braces/brackets to enclose descriptors. Use vertical bars to separate all descriptors, including a bar at the beginning and end of all descriptors.

Special WInsight Codes

| | |
|---------|---|
| \$OH\$ | Overhead |
| \$COM\$ | Cost of Money |
| \$GA\$ | G&A |
| \$UB\$ | Undistributed Budget |
| \$MR\$ | Management Reserve |
| \$L1\$ | Level 1 for active structure |
| \$PM\$ | PMB for active structure |
| \$W1\$ | Level 1 for WBS, regardless of active structure |
| \$WP\$ | PMB for WBS, regardless of active structure |

Table References for Custom Reports

| Administrator | | |
|-----------------|--------------------|------------------------------|
| Table Name | Sub Table Name | Name to use in Custom Report |
| Shared Set-Up | Calendars | Calendar CalendarDet |
| | Contractors | Contractor |
| | Structures | Structure |
| | Thresholds | Threshold |
| | Units | Unit |
| | Weights | Weight |
| | CFSR Thresholds | CfsrThreshold |
| | | |
| Contract Set-Up | Contracts | Contract |
| | CPR Elements | Element |
| | Periods | Period |
| | Thresholds/Weights | EuwtLink |
| | CLINs | ClinType |
| | CFSR Elements | FundType |

Table References for Custom Reports

| Administrator | | |
|---------------|------------------------|-------------------------------|
| Table Name | Sub Table Name | Name to use in Custom Report |
| Report Set-Up | CPR Header | Cpr |
| | Baseline Periods | Cpr |
| | Manpower Periods | Cpr |
| | Sch Reprog Adj | EacMr |
| | CFSR Header | Cfsr |
| | OMB Milestones | OmbMilestone |
| | OMB BY09 Milestones | OmbMilestoneBY09 |
| Element Data | Earned Value | assumed - do not need |
| | Future Period | FutureEtc |
| | CFSR Remarks | CfsrNarr |
| | CFSR Block 11 | Block11 |
| | CFSR Blocks 12, 13, 14 | Block12 |
| | Scorecard | EarnedValue - can leave blank |
| Baseline | BOP | Cpr |
| | EOP | Cpr |
| | Changes | BaselineChg |
| Manpower | EAC | Manpower |
| | BAC | Manpower |

Banded Reports and Queries

| Desired Result | Counter | Query Example | Sample Usage |
|--|---------|--|---|
| Banded Report (for all elements in sort window) | \$qq\$ | (Meta BeginLoop qq SyncSortWnd) (ElemLevel \$qq\$) add additional dynamic data as desired (Meta EndLoop qq) Loops through all elements in Sort window. Note: filter could be applied in Sort window, or add filter as shown below. Note: can use any 2 letter code. Recommend “qq”. | PM Status report (note: uses “ce” instead of “qq”) |
| Filter | \$ce\$ | (Meta BeginLoop ce IDSelect SELECT ElemID FROM Element WHERE StruID = st_id AND ContrID=CC_id AND ElemLevel <=3) (WbsNum \$ce\$) add additional dynamic data as desired (Meta EndLoop ce) Example returns only elements at Level 3 or higher | CPR Format 1 |
| Periodic Data | #cd# | (Meta BeginLoop cd IDSelect SELECT PeriodID FROM Period WHERE ContrID = cc_id ORDER BY OrdVal) (EndDate #cd#) add additional dynamic data as desired (Meta EndLoop cd) Loops through all periods, returning data for all periods in the contract | MR Status report |
| Units | %un% | (Meta BeginLoop un IDSelect SELECT UnitID FROM Unit WHERE RptSeq <> 0 ORDER BY RptSeq) (Unit UnitName %un%) add additional dynamic data as desired (Meta EndLoop un) Example loops through all units, returning list of all units in selected data base. Must have RptSeq field populated in Units table in Administrator. | Element of Cost report |

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JavaScript Functions

| Function | Existing Reports | Description |
|--|---|--|
| add_ab(a, b) | rmrstatus_template | Adds a + b |
| addcomma(val) | rainarr_template reexecsum_template | Adds a comma |
| addr_line(line, addr1, addr2, city, state, country, zip) | rcpr1m1_template rcpr2m1_template rcpr3m1_template rcpr4em1_template rcpr5m1_template | Concatenates address information for report header |
| ai1 | rainarr_template | Returns a statement based on comparison of certain data. Refer to AI Narrative for more information. |
| ai2 | rainarr_template | Returns a statement based on comparison of certain data. Refer to AI Narrative for more information. |
| ai3 | rainarr_template | Returns a statement based on comparison of certain data. Refer to AI Narrative for more information. |
| cell9b10 cell9b11 cell9b15 cell9b16 | rcpr1m1_template | Returns values in Block 9 (Reprogramming) if OTB date has been filled in |
| cmpdiff(val1, val2, sequal, sless, sgreater) | rainarr_template | Compares value 1 to value 2 and returns either sequal, sless, or sgreater |
| cmpzero(val, sequal, sless, sgreater) | rainarr_template rcpr1m1_template | Compares a value to zero and returns either sequal, sless, or sgreater |
| contains(val1, val2) | relemthresh_template | Returns "T" (for true) if val2 is in set of val1 data |
| cumflag(c) | rpmsummary_template | Returns cum variance flags (C, S, V) |
| curflag(c) | rpmsummary_template | Returns cur variance flags (c, s) |
| DaysDifference(FirstDate, SecondDate) | the_validator | Calculates delta in days between dates for different reporting periods |
| DaysDifferenceOTB(FirstDate, SecondDate) | the_validator | Calculates delta in days between OTB dates for different reporting periods |
| emitdiff(x, y) | bac_eac_changes | Nested function that subtracts the two variables and applies the fmtval function for formatting |
| emit_phase(val1, val2) | rcpr1m1_template rcpr2m1_template rcpr3m1_template rcpr4em1_template rcpr5m1_template | Returns name of phase (e.g., RDT&E) |
| emit_reprog(val, date, otb) | rcpr1m1_template rcpr2m1_template | Returns date of OTB if entered |

JavaScript Functions

| Function | Existing Reports | Description |
|---|---|--|
| emitif(testval, strval) | rainarr_template rvalidity_template rsixper_template | If the conditions contained in testval are true (e.g., if BCWS > BAC), then write the information contained in strval |
| emitif(testval, strval) Restricts to Level 1 only | rexecsum_template the_validator | Returns report only if active element is Level 1 |
| emitx(val) | rcpr5_template | Checks block for RDT&E or production |
| evms_accept(val) | rcpr1m1_template rcpr2m1_template rcpr3m1_template rcpr4em1_template rcpr5m1_template | Returns "no" or date of EVMS acceptance. Note: use author's version to also show "Yes" |
| fmtsum(a, b, fmt) | rcpr3m1_template | Nested functions (sums a+b, formats) |
| fmtval(val, fmt) | rainarr_template rexecsum_template | Nested function. Combines roundn and addcomma functions. (Note: need to include roundn and addcomma in <script> section if using fmtval function.) |
| na_lvl(st_id, lvl, naflag) | rcpr1m1_template rcpr2m1_template rcpr4em1_template | Marks certain elements (Overhead, COM, G&A, UB) as N/A if they are N/A elements |
| pctval(val1, val2, fmt) | rainarr_template rexecsum_template rmrstatus_template romb300_template | Returns a percent value (val1/val2), formatted as a %. Returns N/A if val2 is 0. |
| roundn(val, ndec) | rainarr_template rexecsum_template | Round the value to the number of specified decimal points |
| share_ratio(val) | rcpr1m1_template rcpr2m1_template rcpr3m1_template rcpr4em1_template rcpr5m1_template | Formats the share ratio data. |
| subtract(x, y) | bac_eac_changes | Subtracts x - y |
| toUpper(s) | rcpr1m1_template rcpr2m1_template rcpr3m1_template rcpr5m1_template | Changes text to upper case |
| Trend(value,trendtag) | CAM_Report color_trend | Returns data, colors cell background by threshold, adds trend arrow |
| unit_scale(n) | rcpr1m1_template romb300_template rcpr2m1_template rcpr3m1_template | Returns name of scale (e.g., millions) |
| vr1(ccfc, csfc, l) | rvalidity_template | EAC tolerance band check. |
| yes_no(s) | romb_template | Returns "Yes" if "F" has been entered; "No" if "F" has been entered. |
| Note: Every attempt has been made to list the reports that use the listed functions. Not all reports were listed for widely used functions such as emitif, roundn, etc. | | |

Custom Report Operators

| | |
|-----|--|
| == | Equal (value) Example: 2 == "2" |
| === | Strict equal (value and same type, e.g., value, text string) Example: 2 === 2 |
| != | Not equal |
| && | And |
| | Or |
| > | Greater than |
| >= | Greater than or equal to |
| < | Less than |
| <= | Less than or equal to |