How Oracle BI Publisher serves your PeopleSoft Reporting Needs

Session ID: 101150

Prepared by:
Randall Johnson
Managing Director
SpearMC Consulting
@SpearMC
Welcome and Please:

- Silence Audible Devices
- Note Fire Exits
- Partake of Refreshments
- Note Quest Staffers (green shirts)
- Complete Feedback Form
- Ask Questions
Agenda

• Introduction
• Reporting Tools Overview
• BI Publisher Overview
• Examples, Tips, and Tricks
• Report Designer
• Questions and Answers
About SpearMC
Your Presenter

Randall Johnson
Managing Director
randall.johnson@spearmc.com
866-SPEARMC x812
www.SpearMC.com

• Over 20 years consulting experience focused predominantly in PeopleSoft implementations and upgrades covering all stages of the Project Life Cycle.

About SpearMC

Founded in 2004, SpearMC is a technology and professional services firm specializing in

- PeopleSoft Financials and Supply Chain Management
- PeopleSoft Human Capital Management and Payroll
- ERP Architecture and Application Development
- Project and Program Management (PMO)
- Change Management
- ERP Training
- Mobile Technology
- Maximo Enterprise Asset
- Oracle Business Intelligence
About SpearMC

Regional offices in Chicago, Denver, Houston, Seattle and San Francisco

- We focus on local market delivery and capability development in line with industry focus areas unique to the regions we serve.
- Our local and well-connected network of top-tier business analysts, technical leads, developers and project managers keep travel cost to a minimum.
A decade of sustained and focused growth.

**SAN FRANCISCO**
Brick and mortar come together to build our very first office.

**CHICAGO**
Our windy city office opens its doors.

**SEATTLE**
The Emerald City opens its arms to SpearMC.

**OKLAHOMA CITY**
The great plains makes room for SpearMC.
- SpearMC is listed on Inc Magazine’s 500 | 5000 list.
- Oracle names us as one of its Silver Partners.
- Our PeopleSoft Specialization certification is completed.
- SF Business Times names us one of the Bay Area’s Fastest Growing Companies.

**DENVER**
The Rocky Mountains welcome our mile-high office.
- The SF Business Times again lists us as a Bay Area Fastest Growing Company.
- SF Business Times ranks SpearMC #9 on its Bay Area’s fastest growing companies list.
- Inc. Magazine recognizes us again by including SpearMC on its 500 | 5000 list.
- Consulting Magazine names us on their list of Fastest Growing Firms.

**PHOENIX**
Our newest office opens in the Valley of the Sun.
- Consulting Magazine names us on their list of Fastest Growing Firms.

Looking forward to a bright future.
About SpearMC

Each member of our Leadership Team leverages over 20 years of experience in Technology, Financial and Business Transformation.
About SpearMC

Industry focus areas include:

- Energy
- Transportation
- Healthcare/Biotech
- Government
- Media/Technology
- Consumer Products
- Financial Services
- Higher Education
About SpearMC

Oracle Gold Partner Since 2008

- PeopleSoft Specialization
  - Specialized PeopleSoft 8.53
  - PeopleTools
  - Specialized PeopleSoft 9.2
- Applications Reseller
- Hardware Reseller

IBM Advance Business Partner
Reporting Tools

Tools Bundled with PeopleSoft

- SQR
- Query
- nVision
- Crystal Reports
- BI Publisher
**SQR**

- Very powerful—full database access within a "report"
- Modular
  - re-use logic in building blocks
  - override delivered logic
- Part of the Oracle family
- Built-in support for debugging
- Programmer-centric
  - quick to build and run
  - requires a technical resource
- Lots of knowledge in the PeopleSoft community

---

```
#include 'setenv.sqc'
#include 'number.sqc'
#include 'tranctrl.sqc'
#include 'reset.sqc'
#include 'curdttim.sqc'
#include 'datetime.sqc'
#include 'timemath.sqc'
#include 'prcsapi.sqc'
#include 'prcsdef.sqc'
//Reset Printer Procedure
//Get Current Date Time
//Routines for date and time formatting
//SQR date arithmetic procedures
//SQR time arithmetic procedures
//Update Process Request API
//Update Process Request variable declare
```
<table>
<thead>
<tr>
<th>Key Factors</th>
<th>Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQR talent</td>
<td>Buried business logic</td>
</tr>
<tr>
<td>Data more important than presentation</td>
<td>External Migration</td>
</tr>
<tr>
<td>Build reporting tables; performance requirements</td>
<td></td>
</tr>
</tbody>
</table>
Query

• Empowers business users
  o Solve their own problems
  o Explore data

• Built-in features
  o Security (including new security optimization)
  o Query Access Server (instant web service)
  o Translate tables
  o Embedded URLs
  o Output to Excel

• Outsource processing criteria/logic to query and business users
<table>
<thead>
<tr>
<th>Key Factors</th>
<th>Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabular data</td>
<td>Shared (copied) private queries</td>
</tr>
<tr>
<td>Dynamic criteria</td>
<td>Poorly written queries</td>
</tr>
<tr>
<td>Users want spreadsheets</td>
<td></td>
</tr>
</tbody>
</table>
nVision

- Tightly connected to PeopleSoft data
  - Ledgers
  - Trees

- Matrix layout plus nPlosion provides quick access to details

- Drill-down into additional reports
<table>
<thead>
<tr>
<th>Key Factors</th>
<th>Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data requires interactive analysis</td>
<td>nVision talent</td>
</tr>
<tr>
<td>Financial, ledger data</td>
<td>Setup and maintenance</td>
</tr>
</tbody>
</table>
Crystal Reports

- GUI Report Designer
  - Drag-and-drop
  - Preview look and feel
- Query-driven data
- Many delivered reports are in based on Crystal
<table>
<thead>
<tr>
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<th>Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation matters</td>
<td>External migration</td>
</tr>
<tr>
<td></td>
<td>Non-Oracle solution</td>
</tr>
</tbody>
</table>
BI Publisher

- Report designer is Microsoft Word
- Query or Connected Query as data source
- Output to HTML, PDF, Rich Text, or Excel
- Split data into multiple reports (Bursting)
  - Post to report repository with security per report
  - Enable search by report data
- Templates enable one report with multiple formats
<table>
<thead>
<tr>
<th>Key Factors</th>
<th>Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation matters</td>
<td>Keep template simple</td>
</tr>
<tr>
<td>Business analysts involved</td>
<td>Performance for large volume</td>
</tr>
<tr>
<td>Multiple formats</td>
<td></td>
</tr>
<tr>
<td>Online: Print page</td>
<td></td>
</tr>
</tbody>
</table>
BI Publisher Setup
Data Sources

Query
- Users can build data source
- Delivered page runs query-based BIP reports
- End-to-end report development without a single line of code

XML File
- Good for external sources of data
- Recommended for large volumes

Rowset
- Deprecated (8.50)
- Provides developer with very dynamic data source
- Component buffer

XMLDoc
- Deprecated (8.50)
- Can be generated from a rowset
- Enables transformation with XSL
Creating a Report

- Choose where the data will come from (Query, PeopleCode, or file), then create Data Source Definition.

- Use the sample data form the Data Source with the Microsoft Word plug-in to create the report template.

- On the report definition, select the Data Source, then upload the template. Run a sample report from here.

- Run control, push button, or report manager. If query-based, use the delivered Query-BIP run control.
Connected Query provides the ability to create a single XML file based on a set of queries with parent-child relationships.

- A Connected Query is a hierarchical object built with existing PeopleSoft Queries.
- A parent query can nest “n” levels of child queries and any child query can have “m” sibling queries within a hierarchy.
- The output for connected query is always an XML file.
- Connected Query can be used as a data source for XML Publisher reports.
Descriptive Names

Issue: Every time you run a report it would output the exact same filename, thus overriding your existing file.

Solution:
The following variables are now supported:

- `%ASD%` will insert the As-Of Date
- `%RID%` will insert the Report ID
- `%BTV%` will insert the burst field value
- `%field%` where field is a the name of a field from the XML data that lies below the first repeating field

Example: If you have an `EMPLID` field, use `%EMPLID%`, at runtime the value of that field will be used. All burst key candidates on the on the bursting page are eligible.
Bursting

Let the report data do the work:

- Generate reports per customer, employee, department...
- Select template and language
- Post to report manager with data-specific security
- Report-specific search keys
Examples, Tips, and Tricks
Job Codes by Job Family

- Requirement: Show four jobs per page, tiled horizontally
- Job Family might have just 2 or 3, or might have 15 jobs
- Option 1: Group jobs in the RTF template
- Option 2: After generating XML, use XSLT in PeopleCode to create groups of four
- Chose Option 2 in order to keep the template simple. Many things are possible in templates, but focus on what it does well: Bullets and Bold.
  - use PeopleCode + pure XSLT to do the heavy lifting
  - store XSLT in html definitions
  - use built-in function TransformEx
  - don't try to do it all at once
Key Factors

• Presentation mattered: Result was a polished PDF served up from the company’s intranet

• Multiple layouts: Organization changes were in process, so not all Job Families used new format

• Push button: Added a push button to the Job Family page so report could be previewed before it was posted to intranet

Concerns

• Keep template simple
Invoicing in PS 9.1 Billing

• Delivered: Create an app engine for each different report (aka invoice)

• Client had six different invoices and the potential for adding more

• Business analyst turned down requests for changes to invoices

We decided on a convention: Invoice Layout Id would match Template Id. Created a single new app engine to generate any invoice.
Invoicing in PS 9.1 Billing

Key Factors

• Business analyst involvement: The analyst created all the report templates

• Multiple layouts: By business unit or by customer the invoice requirements changed

Concerns

• Need for technical resource
Report Designer
XSL Functions

• Field

<<?FIELD_NAME?>>

<xsl:value-of select="FIELD_NAME"/>

• If

<<?if:FIELD_VALUE='Y'??>include this<?end-if?>

<xsl:if test="FIELD_VALUE='Y'">include this</xsl:if>
XSL Functions

• Choose

```xml
<?choose>
    <?when: FIELD_VALUE='Y'>this<?end when?>
    ...
    <?otherwise?>that<?end otherwise?>
<?end choose?>
```

```xml
<xsl:choose>
    <xsl:when test="FIELD_VALUE='Y'">this</xsl:when>
    ...
    <xsl:otherwise>that</xsl:otherwise>
</xsl:choose>
```
XSL Functions

• For Each

```xml
<?for-each: group?> ... <?end for-each?>

<xsl:for-each select="report/summary/groups/group"> ... </xsl:for-each>
```
XSL Functions

- Amount Display

```xml
<?if:number(MONETARY_AMOUNT)!= 0?>
  <?if:number(MONETARY_AMOUNT)< 0 ?>
    <?attribute@incontext:color;'Red'?>
  <?end if?>
  <?format-number: MONETARY_AMOUNT;'PT999G999D99'?>
<?end if?>
```
XSL Functions

• Templates

```xml
<?apply: name?>...<?end apply?>
<xsl:apply-templates select="name">...</xsl:apply-templates>

<xsl:template match="related-document">

<?call: name?>...<?end call?>
<xsl:call-template name="name">...</xsl:call-template>
```
# Expressions: XPATH

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td>Root Node</td>
</tr>
<tr>
<td>//</td>
<td>Any Location</td>
</tr>
<tr>
<td>.</td>
<td>Self</td>
</tr>
<tr>
<td>..</td>
<td>Parent Node</td>
</tr>
<tr>
<td>@</td>
<td>Attribute</td>
</tr>
</tbody>
</table>

<xsl:if test="@type!='GOALRESP'">
  <xsl:apply-templates select="/report/sections/section"/>
  <xsl:apply-templates select="related-documents/related-document"/>
</xsl:if>
Wednesday, July 20 @ 9:15 – 10:15 am
- Powerful PeopleSoft 9.2 Composite & Connected Query
  - Session ID: 101230
  - Presented by Randy Johnson

Wednesday, July 20 @ 10:45 – 11:45 am
- How Oracle BI Publisher Serves your PeopleSoft Reporting Needs
  - Session ID: 101150
  - Presented by Randy Johnson

Wednesday, July 20 @ 1:00 – 2:30 pm
- Extending PeopleSoft WorkCenters to your Utility Supplier Partners
  - Session ID: 101240
  - Presented by Randy Johnson

Thursday, July 21 @ 9:15 – 10:15 am
- Reconciling Project Costing to the General Ledger and Functional Reconciliation/Analysis Tips & Tricks
  - Session ID: 101180
  - Presented by Millie Babicz

Thursday, July 21 @ 11:00 am – 12:30 pm
- Deep Dive into nVision and Query for PeopleSoft 9.2 (Tools 8.54)
  - Session ID: 101180
  - Presented by Millie Babicz
Questions?
randall.johnson@spearmc.com
Please complete the session evaluation

Session ID: 101150
Visit us at booth 302