

# More Advanced Reporting Techniques for PeopleSoft Enterprise

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# What you will get out of this session

**NEWS**

Got a story? **63000**

## Hero awarded free beer for life

By VINCE SOODIN

Published: 03 Dec 2007

**ADD YOUR COMMENTS**

**BRITAIN'S last surviving First World War veteran has been recognised for his bravery - with free beer for the rest of his life.**

Harry Patch, 109, won five medals for his service during the war but now his local boozier has honoured





# Topics

- Who is Grey Sparling Solutions
- Report Notification with Instant Messaging
- Deep Drilling Into your Application
  - GL Example
  - HCM Example
- Report Retention
- SQR Editing Techniques
- Questions



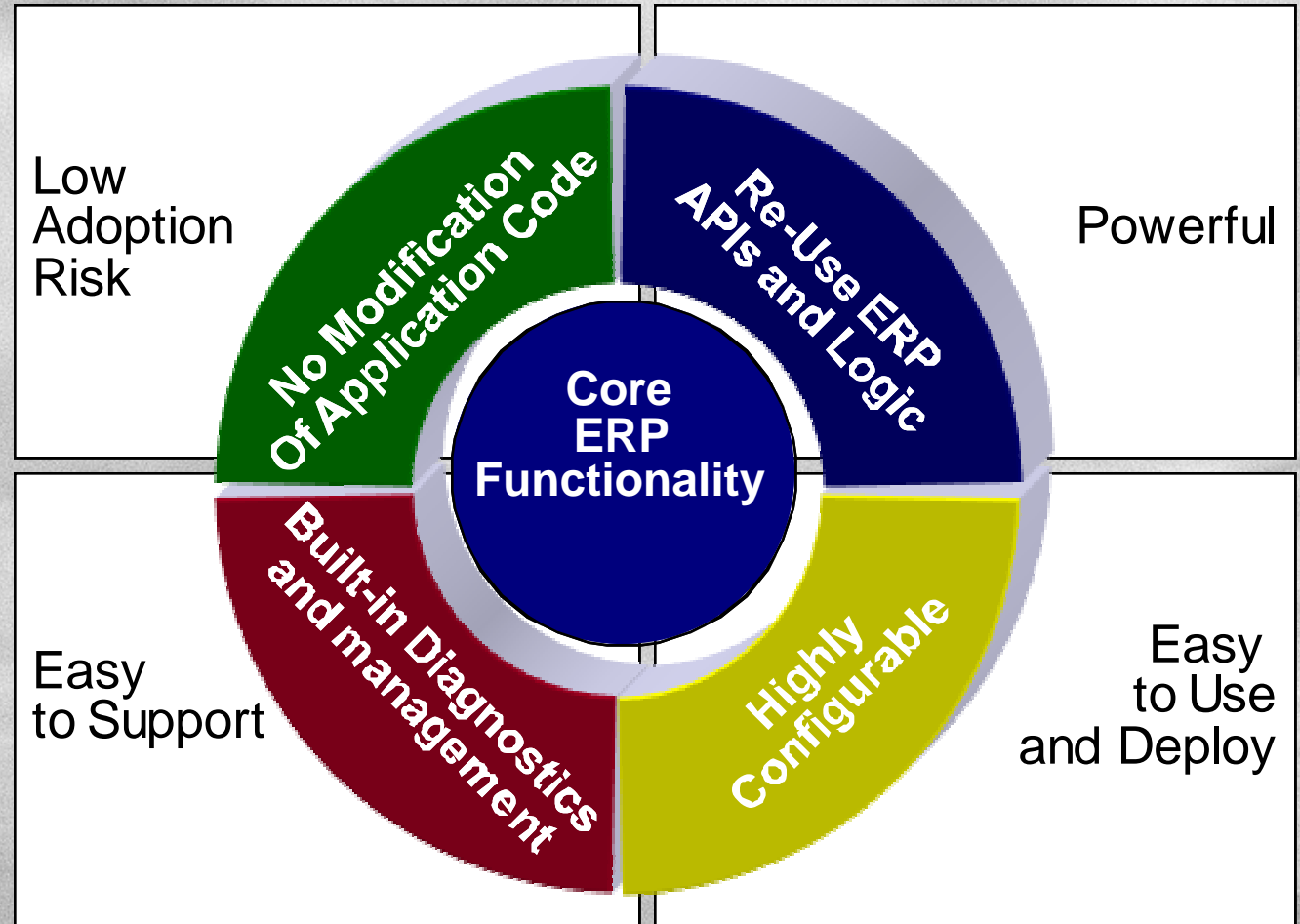
# Company Highlights

- Founded in April 2005
- Founded by the people who ran PeopleTools
- 25 Customers on 2 continents
- 11 Products
- The PeopleSoft Experts
  - Top ranked PeopleSoft weblog on the internet
  - Asked by Oracle to present at major conferences and user groups





# Product Approach







# We Enhance ERP Applications



## Reporting and Business Intelligence

- [HoverBoards](#)
- [Report Explorer](#)
- [Excel Add-in](#)
- [ERP Report Security and Distribution](#)
- [Report Retention Manager](#)
- [Tree Alignment Assistant](#)
- [Report Context Manager](#)



## Security

- [Desktop Single Signon](#)
- [ERP Firewall](#)
- [ERP Security Workbench](#)






## Developer Productivity

- [PeopleSoft IDE Helper](#)
- [PeopleSoft Version Control](#)



# Architecture

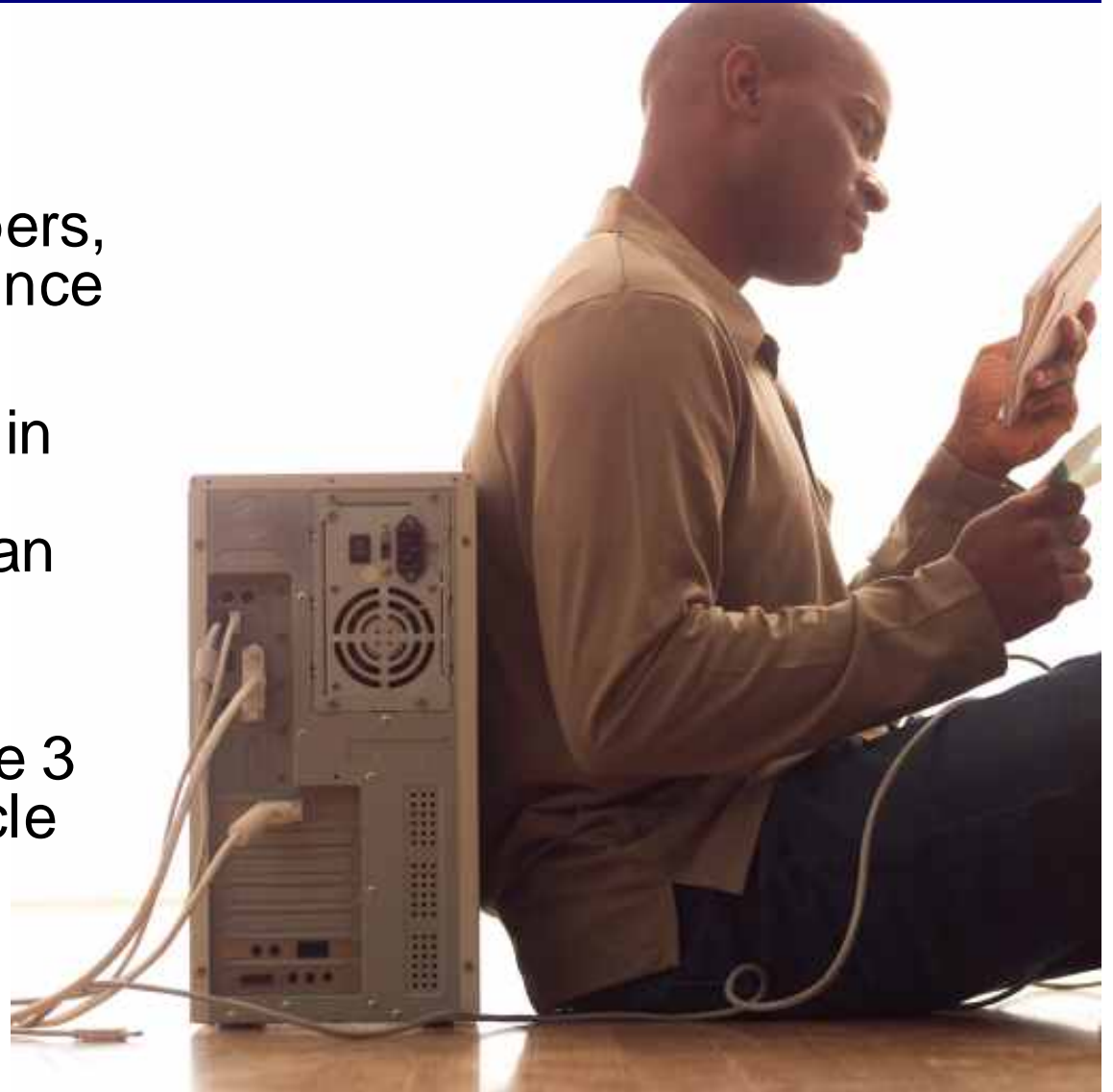
## We Plug into your ERP or BI Infrastructure

<b>ERP / BI Infrastructure</b>	 <b>Client Tier</b>	Client Plug-in Framework	Excel Add-in Context Helper Version Control PSIDE Helper
	 <b>Web Server Tier</b>	Web Server Plug-in Framework	Hover Boards ERP Firewall Single Signon
	 <b>Application Tier</b>	Business Logic Plug-in Framework	Report Explorer Report Security and Dist Security Workbench Tree Alignment Assistant



# More about the Founders

- ERP Technology Experts
  - PeopleTools Developers, Product Strategists since 1994
  - Recognized Leaders in Reporting tools and technology - More than 200 conference presentations
  - Initial Architects of the 3 top Features for Oracle Fusion

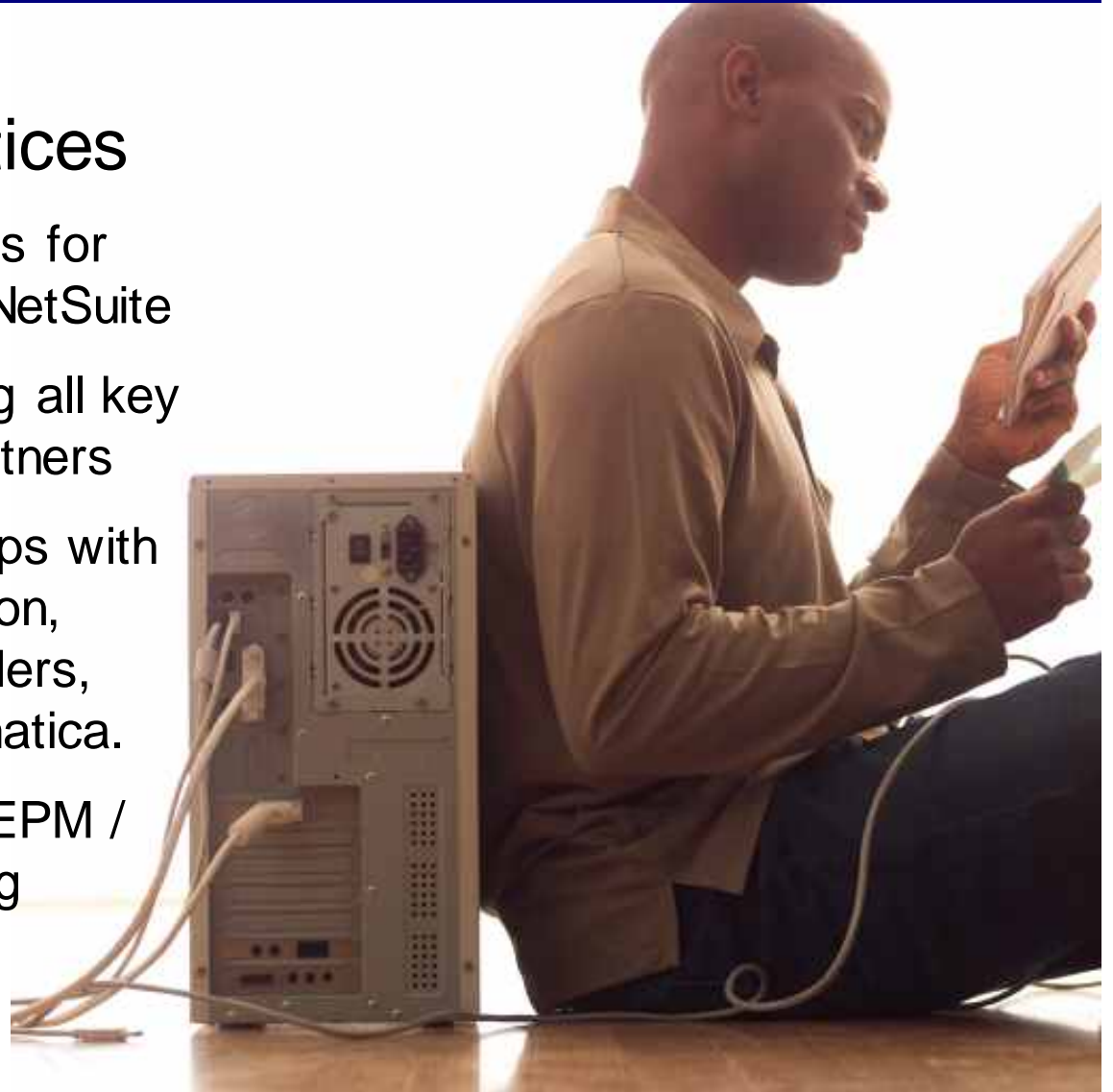






# More about the Founders

- Industry Leaders in Reporting Best Practices
  - Defined reporting solutions for Oracle, PeopleSoft, and NetSuite
  - Extensive contacts among all key Business Intelligence Partners
  - Managed ERP partnerships with Business Objects, Hyperion, Cognos, Information Builders, Microstrategy, and Informatica.
  - Architects of PeopleSoft EPM / Data Warehousing leading practices





# Your PeopleSoft Control Surfaces



Client JavaScript

- Bookmarklets
- Browser Plug-ins (GreaseMonkey)
- VBA and Excel Add-ins



Web Server Plug-ins (*See Oracle App Labs*)

- MonkeyGrease
- Custom Web Server Plug-ins (with Java)



Application Embedded JavaScript  
IScripts

PeopleCode (batch and Online)

- Java Bindings
- Object Classes

Custom Process Types

VBA and Excel Add-ins



# Report Notification with Instant Messaging





# Instant Messaging and ERP

- Uses Instant Messaging to notify users when a report is ready for them
- Benefits
  - Works when the REN server isn't available
  - You don't have to run the report to be notified
  - Techniques can be expanded to other use cases (Worklists, for example)



# User Experience

PeopleSoft.

Home | Worklist | Add to Favorites | Sign out

Process Scheduler R

User ID: PS

Server Name:

Recurrence:

Time Zone:

Process List

Select Description

Scheduled Quer

OK

Cancel

Microsoft Excel - demo.greysparling.com [Read-Only]

File Edit View Insert Format Tools Data Window Help

SnagIt Window

A3 KOANNUAL

	A	B	C	D	E	F	G
1	Performance Documents	27					
2	Doc Type	ID	Per Beg Dt	Per End Dt	Doc ID		
3	K0ANNUAL	KU0020	1/1/2002	12/31/2002	263		
4	K0ANNUAL	KU0065	1/1/2002	12/31/2002	264		
5	K0ANNUAL	KU0069	1/1/2002	12/31/2002	265		
6	K0ANNUAL	KU0076	1/1/2002	12/31/2002	275		
7	K0ANNUAL	KU0093	1/1/2002	12/31/2002	267		
8	K0ANNUAL	KU0096	1/1/2002	12/31/2002	309		
9	K0ANNUAL	KUL402	1/1/2002	12/31/2002	310		
10	K0ANNUAL	KUL451	1/1/2002	12/31/2002	268		
11	K0ANNUAL	KUZ112	1/1/2002	12/31/2002	266		
12	K0DEVELP	KU0119	10/1/2004	12/31/2004	355		
13	K0DEVELP	KU0065	10/1/2004	12/31/2004	354		
14	K0DEVELP	KU0011	10/1/2004	12/31/2004	353		
15	K0DEVELP	KU0020	10/1/2004	12/31/2004	352		

sheet1

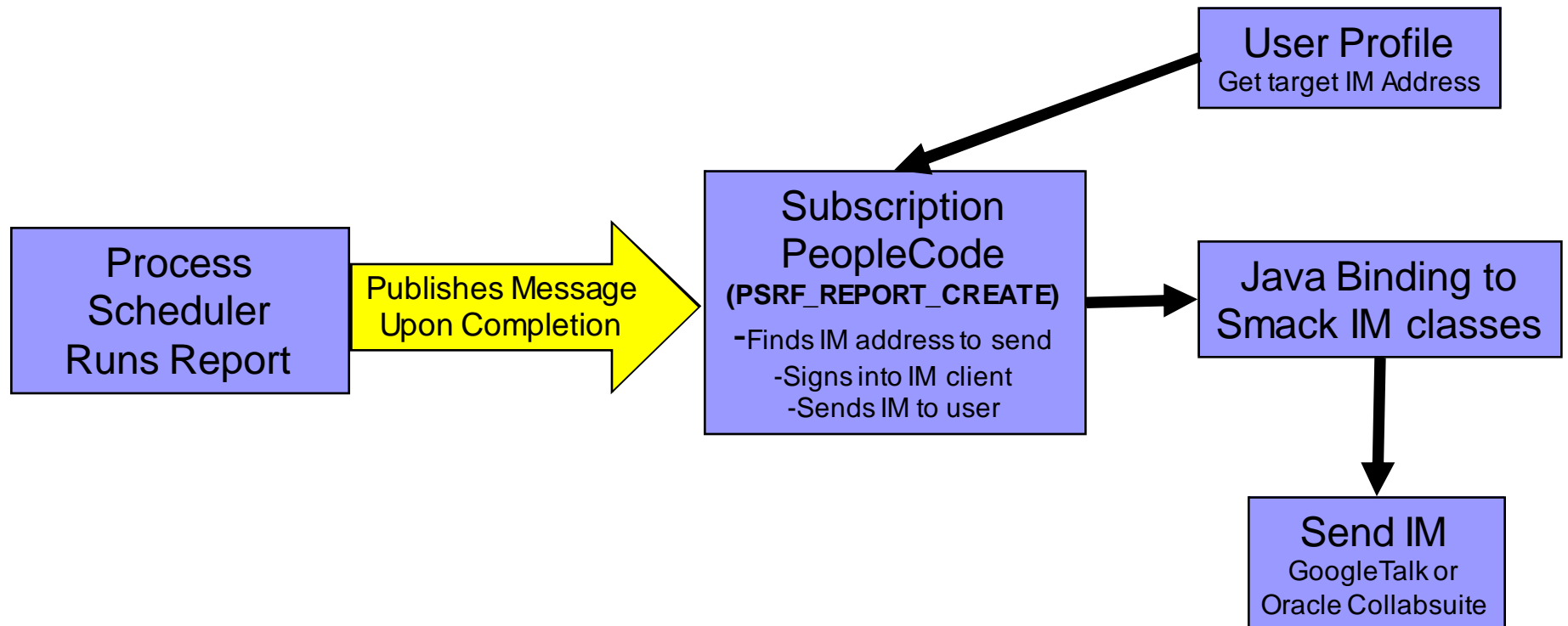
Customize Page | http

Report is  
[P/c/CDM\\_RPT.](#)  
[CDM\\_ID=7442](#)  
green dot). Try  
press the





# How it Works





# Where to Get More Info

## ■ Blog Posting

- <http://blog.greysparling.com/2006/01/integrating-googletalk-with-peoplesoft.html>
- Includes code snippets and links to supporting software and documentation

## ■ Smack Libraries

- Make sure that you get the version that matches the version of Java supported by your PeopleTools version.

# Deep Drilling into your Application





# What if you needed to?

- Drill to fields that are not the keys to a page?
  - Chartfield combinations in journal
  - Employee ID in Performance or Development document
  - Search fields in Inquiry pages



# How would you do it?

- Add optional parameters to your PeopleSoft page
- Evaluate the parameters and perform the navigation
- Embed the URL into report, email, or even bookmark (*see BookMarklets as well*)





# Adding Optional Parameters to pages

## ■ The magical Request Object

```
/* Code to do something with account number passed in as a  
parameter */
```

```
Local string &sAcctNum = %Request.GetParameter("ACCOUNT");  
If All(&sAcctNum) Then  
    Rem Do something with &sAcctNum;  
End-if;
```



# More Complex version

*/\* Grey Sparling - Code to drill to row with chartfield values passed in as a parameter \*/*

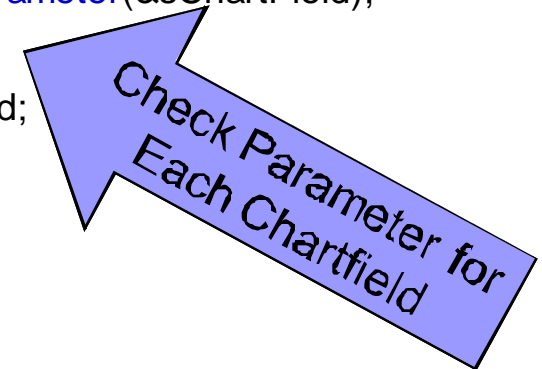
```
Local Rowset &RS_CFS = GetRowset(Scroll.BU_LED_CF_VW);  
Local string &sChartField;  
Local number &sNumParameters = 0;  
Local boolean &PassedParameters = False;  
Local array of string &CF_Params;  
Local array of string &CF_ParamValues;  
Local number &m;
```



```
&CF_Params = CreateArray(&sChartField);  
&CF_ParamValues = CreateArray(&sChartField);
```

*/\* Grey Sparling - Build Array with all the parameters passed in the Request Object \*/*

```
For &l = 1 To &RS_CFS.ActiveRowCount;  
    &sChartField = &RS_CFS(&l).BU_LED_CF_VW.CHARTFIELD.Value;  
    &CF_ParamValues [&sNumParameters + 1] = %Request.GetParameter(&sChartField);  
  
    If All(&CF_ParamValues [&sNumParameters + 1]) Then  
        &CF_Params [&sNumParameters + 1] = &sChartField;  
        &PassedParameters = True;  
        &sNumParameters = &sNumParameters + 1;  
    End-If;  
End-For;
```





# Utilizing the Parameter

- Navigate within the page
- Filter the data in the page
- Bypass application-coded search page



# Navigating within Page

## ■ SetCursorPos PeopleCode function

```
Local Rowset &rsJrnlLines = GetLevel0().GetRow(1).GetRowset(Scroll.JRNL_LN);
```

```
Local number &j;
```

```
For &j = 1 To &rsJrnlLines.ActiveRowCount
```

```
    Local Row &rowTest = &rsJrnlLines.GetRow(&j);
```

```
    If &rowTest.GetRecord(Record.JRNL_LN).GetField(Field.ACCOUNT).Value = &sAcctNum Then
```

```
        &rowTest.GetRecord(Record.JRNL_LN).GetField(Field.ACCOUNT).SetCursorPos(%Page);  
        Break;
```

```
    End-If;
```

```
End-For;
```

Rowset representing  
Grid on Page

Set Cursor when  
Value matches



# Issues with SetCursorPos

- Cannot set cursor position for read only fields
- Solutions:
  - Add an editable field, such as a push button to navigate to.
  - Filter the data in the page





# Filtering Data in Page

- Root through code to see best manner of doing this
  - Journal Entry page contains functions to search within the journal
  - Inquiry pages contain functions to search



# Simple Journal Entry Example

```
Declare Function adjust_line_scroll PeopleCode FUNCLIB_GL.JOURNAL_LINE  
FieldFormula;
```

```
/* Code to drill to row with account number passed in as a parameter */
```

```
Local string &sAcctNum = %Request.GetParameter("ACCOUNT");
```

```
  If All(&sAcctNum) Then
```

```
    If JRNL_HEADER.JRNL_HDR_STATUS = "D" Or
```

```
       JRNL_HEADER.JRNL_HDR_STATUS = "P" Or
```

```
       JRNL_HEADER.JRNL_HDR_STATUS = "U" Then
```

```
      /* Journal is read only */
```

```
      JRNL_PANELS_WRK.ACCOUNT = &sAcctNum;
```

```
      adjust_line_scroll();
```

```
    End-if;
```

```
  End-if;
```



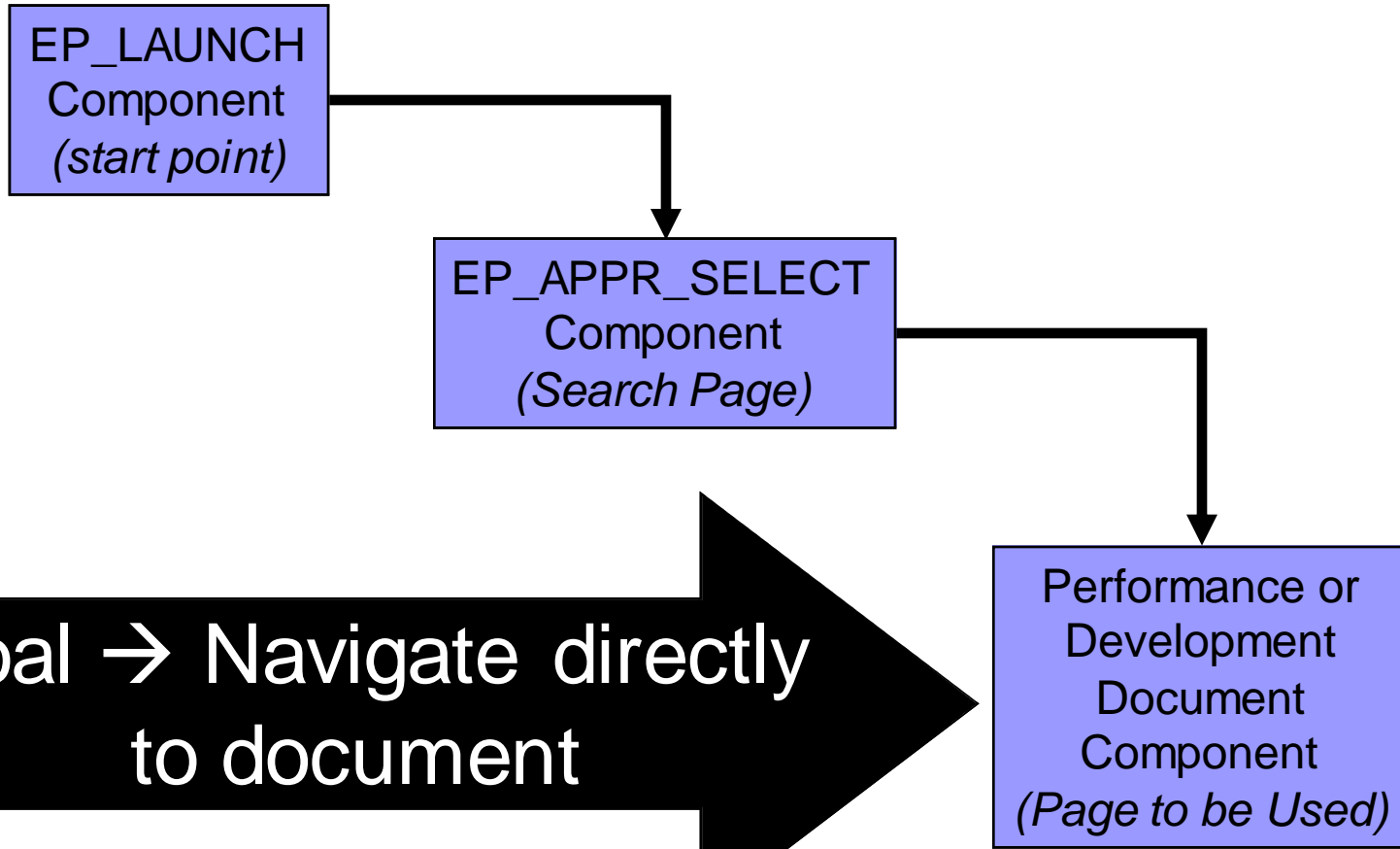
## Bypassing application-developed search page

- Look at how application does navigation into page
  - Where do they start?
  - How do they get into the page?
    - URL
    - Transfer
  - How do parameters get passed
    - Common fields/records?
    - URL parameters?
    - Global Variables ← **Watch out for this one!**



# Delivered Navigation Flow

## Current Navigation





# Performance Document Example

**Step 1:** Add parameter to page that user navigates to → Page.Activate on EP\_LAUNCH page

rem Grey Sparling - Retrieve Parameters to open up employee;

Global string &gsEmplID;

Global string &gsRevType;



Request Parameters are not passed  
As part of page transfer (must use global)

&gsEmplID = RTrim(%Request.GetParameter("EMPLID"));

&gsRevType = RTrim(%Request.GetParameter("EP\_REVIEW\_TYPE"));



# Performance Document Example

**Step 2:** Use Parameter and perform navigation →  
Page.Activate on EP\_APPR\_SELECT page

Declare Global variables at top of program

```
/* Grey Sparling - Declare Globals */  
Global string &gsEmpIID;  
Global string &gsRevType;
```



# Use Parameter and Navigate

Append to end of program

```
/* ***** */  
/* Grey Sparling - Add Code to Open up an item passed on URL */  
/* ***** */
```

```
If None(&gsEmplID) Then  
  &gsEmplID = RTrim(%Request.GetParameter("EMPLID"));  
End-If;
```

```
If None(&gsRevType) Then  
  &gsRevType = RTrim(%Request.GetParameter("EP_REVIEW_TYPE"));  
End-If;
```

```
rem Grey Sparling - If EMPLID is passed, walk through the rowset to find it;  
If All(&gsEmplID) Then
```

```
  Local Rowset &rsEPAprSelect = GetLevel0().GetRow(1).GetRowset(Scroll.EP_APPR_SEL_VW);
```

```
  Local number &j;
```

```
  For &j = 1 To &rsEPAprSelect.ActiveRowCount
```

```
    Local Row &rowTest = &rsEPAprSelect.GetRow(&j);
```

```
    rem Grey Sparling - Test passed in parameter against current row's emplid;
```

```
    If &rowTest.GetRecord(Record.EP_APPR_SEL_VW).GetField(Field.EMPLID).Value = &gsEmplID Then
```

```
      Local string &rsRevType = RTrim(&rowTest.GetRecord(Record.EP_APPR_SEL_VW).GetField(Field.EP_REVIEW_TYPE).Value);
```

```
      rem Grey Sparling - If there's no review type parameter or if there is and parameter matches for current row, open up document;
```

```
      If None(&gsRevType) Or &rsRevType = &gsRevType Then
```

```
        /* Transfer the user to the selected review sub-document */
```

```
        &EP_GBLKEYS_WRK.EMPLID.Value = &rowTest.GetRecord(Record.EP_APPR_SEL_VW).GetField(Field.EMPLID).Value;
```

```
        &EP_GBLKEYS_WRK.EP_APPRAISAL_ID.Value = &rowTest.GetRecord(Record.EP_APPR_SEL_VW).GetField(Field.EP_APPRAISAL_ID).Value;
```

```
        TransferPage(Page.EP_APPR_DETAIL);
```

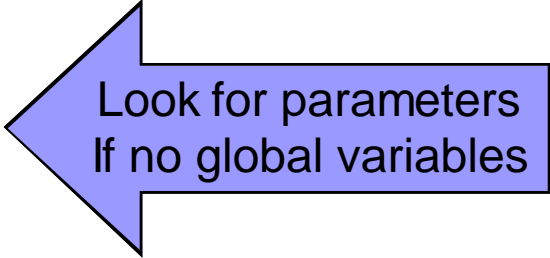
```
        Break;
```

```
      End-If;
```

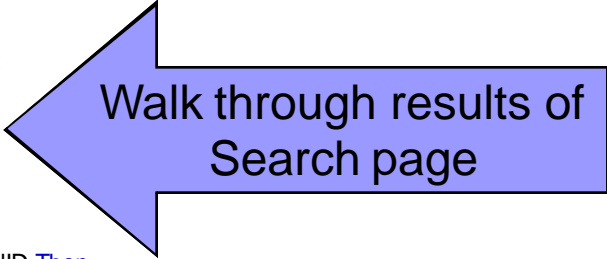
```
    End-If;
```

```
  End-For;
```

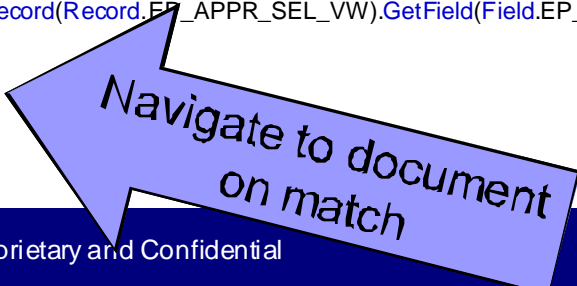
```
End-If;
```



Look for parameters  
If no global variables



Walk through results of  
Search page



Navigate to document  
on match





# Report Retention



Worth 1000.com



# Setting Report Retention

```
/* *****/
/* Grey Sparling Solutions - Reset Report Expiration code */
/* This code was developed and is owned by Grey Sparling */
/* Solutions */
/* *****/
/* This PeopleCode shows several examples of changing report */
/* expiration dates */
/* */
/* This code is attached to the PSRF_REPORT_CREATE message */
/* which is published by the process scheduler. */
/* *****/

REM ***** End of constants for processing *****;
Local string &sParmList1;
Local string &sParmList2;

REM Get the data from the message published by the Process Scheduler;
Local Rowset &rsReportMessage = GetMessage().GetRowset();

REM Dig out the Expiration Date and other attributes to be used;
Local Row &rowReport = &rsReportMessage.GetRow(1);
Local Record &recReport = &rowReport.GetRecord(Record.PSRF_RCREAT_WRK);
Local string &sReportURL = &recReport.GetField(Field.PSRF_REPORT_URL).Value;
```



# Setting Report Retention

- PS\_CDM\_LIST → contains expiration date
- PSPRCSRQST → contains other info
  - Run Control ID
  - Process Instance
  - Job
- PSPRCSPARMS → Contains parameters used to run process



# Setting Report Retention

```
Local date &dReportExpireDate = &recReport.GetField(Field.EXPIRATION_DATE).Value;  
Local date &dReportCreationDateTime = &recReport.GetField(Field.PSRF_CREATION_DTTM).Value;  
Local integer &nPrCsInstance = &recReport.GetField(Field.PRC SINSTANCE).Value;  
Local string &sPrCsInstance = String(&nPrCsInstance);  
Local integer &nContentID = &recReport.GetField(Field.CONTENTID).Value;  
  
Local string &sPrCsType = &recReport.GetField(Field.PRCSTYPE).Value;  
Local string &sPrCsName = &recReport.GetField(Field.PRC SNAME).Value;  
Local string &sReportName = &recReport.GetField(Field.PSRF_REPORT_NAME).Value;  
Local string &sFolderName = &recReport.GetField(Field.PSRF_FOLDER_NAME).Value;  
Local string &sFolderPath = &recReport.GetField(Field.PSRF_FOLDER_PATH).Value;  
  
Local date &dNewExpDate;  
Local string &sPrCsInstanceParm = "-I" | String(&nPrCsInstance);
```



# Setting Report Retention

```
If &sPrCsName = "DRILLDWN" Then
```

```
REM ***** Example 1 - Set Expiration of nVision Drills to be 1 day from creation date;
```

```
rem warning ("Running Drilldown Rule");
```

```
&dNewExpDate = AddToDate(&dReportCreationDateTime, 0, 0, 1);
```

```
SQLExec("UPDATE % TABLE(:1) SET EXPIRATION_DATE = % DATEIN(:2) WHERE PRCSINSTANCE = :3 AND CONTENTID = :4",  
Record.CDM_LIST, &dNewExpDate, &nPrCsInstance, &nContentID);
```

```
Else
```

```
If &sPrCsName = "NVSRUN" Then
```

```
REM ***** Example 2 - Set Expiration of current nVision report to 1 year, but expiring historical ones with same parameters *****;
```

```
rem warning ("Running nVision Rule");
```

```
rem set expiration date of current item (1 year);
```

```
&dNewExpDate = AddToDate(&dReportCreationDateTime, 1, 0, 0);
```

```
SQLExec("UPDATE % TABLE(:1) SET EXPIRATION_DATE = % DATEIN(:2) WHERE PRCSINSTANCE = :3 AND CONTENTID = :4",  
Record.CDM_LIST, &dNewExpDate, &nPrCsInstance, &nContentID);
```

```
REM Get Paramter list for current report;
```

```
SQLExec("SELECT PARMLIST FROM % TABLE(:1) WHERE PRCSINSTANCE = :2", Record.PSPRCSPARMS, &nPrCsInstance,  
&NvsParmList);
```

```
&nParmLen = Len(&NvsParmList);
```

```
rem replace the process instance with a %;
```

```
&sParmList1 = Substitute(&NvsParmList, &sPrCsInstance, "% ");
```



# Setting Report Retention

```
rem warning ("New Parm list = " | &sParmList1);
```

```
rem set expiration date of all nVision reports with same parameters to be yesterday;  
&dNewExpDate = AddToDate(&dReportCreationDateTime, 0, 0, - 1);
```

```
SQLExec("UPDATE %TABLE(:1) SET EXPIRATION_DATE = %DATEIN(:2) WHERE PRCSINSTANCE  
IN (SELECT PRCSINSTANCE FROM PSPRCSPARMS WHERE PARMLIST LIKE :3 AND  
PRCSINSTANCE < :4)", Record.CDM_LIST, &dNewExpDate, &sParmList1, &nPrCsInstance);
```

Else

```
REM ***** Example 3 - Set Expiration of Historical nVision Reports and Queries (keeping current  
one) *****;
```

```
rem warning ("Running All Others Rule");
```

```
rem leave expiration date of current item alone;
```

```
REM Get Paramter list for current report;
```

```
SQLExec("SELECT PARMLIST FROM %TABLE(:1) WHERE PRCSINSTANCE = :2",  
Record.PSPRCSPARMS, &nPrCsInstance, &NvsParmList);
```

```
&nParmLen = Len(&NvsParmList);
```



# Setting Report Retention

```
rem replace the process instance with a %;
```

```
&sParmList1 = Substitute(&NvsParmList, &sprcsinstance, "%");
```

```
rem warning ("Old parm list = " | &NvsParmList);
```

```
rem warning ("New Parm list = " | &sParmList1);
```

```
rem set expiration date of all reports with same parameters to be -1 day;
```

```
&dNewExpDate = AddToDate(&dReportCreationDateTime, 0, 0, - 1);
```

```
SQLExec("UPDATE %TABLE(:1) SET EXPIRATION_DATE = %DATEIN(:2) WHERE  
PRCSINSTANCE IN (SELECT PRCSINSTANCE FROM PSPRCSPARMS WHERE  
PARMLIST LIKE :3 AND PRCSINSTANCE < :4)", Record.CDM_LIST, &dNewExpDate,  
&sParmList1, &nPrcsInstance);
```

```
End-If;
```

```
End-If;
```







# Teaching your Editor about SQR

```
26 |-----|
27 | Prompts:      Setid, Category
28 | Sort Selection: Setid, Category
29 |-----|
30 | Tables Referenced:  PS_DIST_TMPLLN_TBL
31 |-----|
32 | this is a test comment
33
34 | #include 'setenv.sqc'      | Set Environment Procedure
35 | #include 'ambegin.sqc'    | Begin Report Procedure
36 | begin-setup
37 |   #include 'setup02e.sqc'
38 | end-setup
39 | #include 'sqrtrans.sqc'   | Set Translation
40
41 | begin-HEADING 6
42 |   #include 'amhdg01.sqc'  | Common AM 1st 3 Heading lines
43
44 |   print $xv_setid          (-1,1,#xfw_setid)
45 |   print $New_Setid         (0,16,10)
46 |   print '---'              (0,27,2)
47 |   print $setid_descr       (0,30)
48
49 |   print $xv_category       (+1,1,#xfw_category)
50 |   print $category          (0,16,10)
```



## ■ Blog Posting

■ <http://blog.greysparling.com/2007/11/editing.html>

■ Includes links to supporting software and documentation

## ■ Notepad++

## ■ Syntax Rules for SQR and PeopleCode

Extending PeopleSoft Applications - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

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Previous Posts

DAY 3 2007 OOW - THE BUSINESS VALUE OF

Internet

Friday, November 16, 2007

Editing Enhancements for SQR and PeopleCode

One of the things that we showed during the version control presentation at OPENWORLD was editing some files was using the open source NOTEPAD++ TEXT EDITOR.

Notepad++ is a great programmer's editor with a whole bunch of cool features that will contribute to your productivity. They go into great detail on their website about them, but I wanted to show a couple here that we can apply a PeopleSoft slant to.

One is the ability to define color-coding rules for your own programming languages. Notepad++ understands numerous programming languages right out of the box; SQL, HTML, Java, .ini files, etc. It doesn't understand things like SQR and PeopleCode though, so we can define our own. Here's what SQR looks like.

```
10 ***** SQR *****
11 *****
12 *****
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88 *****
89 *****
90 *****
91 *****
92 *****
93 *****
94 *****
95 *****
96 *****
97 *****
98 *****
99 *****
100 *****
```

# Questions?



<http://blog.greysparling.com> → Read our Blog for code of reports shown and other tips and techniques