

# PUTTING VENDOR INTERFACE DATA CONTENT AT YOUR CUSTOMERS' FINGERTIPS

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# What we will cover

- Share the technology of how we created an on-line process that placed vendor interface data/details in the hands of the customer and out of the hands of IT
- Using this on-line process, customers can
  1. Control what employees are sent on interface files
  2. Control what employee details to include on those interfaces
  3. Manage future change without IT intervention
- As new plans and companies are added, the customers configure the requirements and IT intervention is no longer needed

# What we did

- We utilized PeopleTools to modify PeopleSoft and created a custom solution
- New tables and pages were created which allow the customer to make configuration changes
- Changes in business requirements are maintained by the customer using new custom functionality within PeopleSoft without requiring program logic changes
- Customization is self contained and therefore easily identified and carried forward during an upgrade

## Who we are

- Raytheon is an industry leader in defense and government, electronics, space, information technology, technical services, and special mission aircraft
- PeopleSoft
  - Application Version 8.80
  - PeopleTools 8.47.08
  - Oracle 10.2.0.3 (10g)
  - Unix Sun Solaris

# PS/HCM at Raytheon

- Centralized US Payroll that pays approximately:
  - 65,000 Employees Bi-Weekly
  - 2,200 Employees Weekly
- 15 Payroll Subsets (Groups) with largest subset paying 14,000 Employees
- International sites use PeopleSoft for HR
- 49 total company codes
  - 39 domestic companies
  - 10 international companies

# PS/HCM at Raytheon

- Raytheon uses PeopleSoft Base Benefits
- Benefit Administration is outsourced to a third party vendor
- Employee Self Service for:
  - On-Line Paycheck View
  - PTO
  - Direct Deposit
  - State and Federal W-4
  - Emergency Contacts
  - Education
  - Employee Fact Sheet

# Business Drivers/IT Goal

- We work in a dynamic environment where business drivers dictate frequent change with potential to impact IT and Payroll/HR
- The Payroll/HR customer would rather spend their money (budget) on enhancements rather than on multiple program modifications to support these frequent changes
- The IT goal was to build a flexible solution that allows the customer to configure processes to incorporate these changes without IT intervention, which reduces IT support cost

# What Raytheon IT Developed

- Using PeopleTools, we created the Manage Outsource Control tables to control interfaces with our third party administrators
- The Manage Outsource Control tables allow the payroll customer to control the employee population based on the PeopleSoft company code
- It also allows the payroll customer to control employee detail information based on
  - Deduction codes
  - Earnings codes
  - Tax information



# Created a Parent Record

- Process Group – defines the process or group this definition is related to, for example, “RAY” defines the process to create the outsourced Raytheon benefits interface
- Effective Date – effective date of this process
- Effective Status – effective status of this process
- Description/Short Description – description of this process
- Last Run Date – the last time this process was executed
- Process Mode – “Initial” or “On-going”, varying program logic is executed based on whether this is a first time run or an on-going run

# Parent Record Definition

Parent record Y\_CNTL\_TBL controls the process

Record Fields		Record Type										
Num	Field Name	Type	Key	Ordr	Dir	CurC	Srch	List	Sys	Audt	Default	
1	Y_GROUP_CD	Char	Key	1	Asc		Yes	Yes	No			
2	EFFDT	Date	Key	2	Desc		No	No	No		%DATE	
3	EFF_STATUS	Char					No	No	No		'A'	
4	DESCR	Char	Alt		Asc		No	Yes	No			
5	DESCRSHORT	Char					No	No	No			
6	Y_PROCESS_DT	Date					No	No	No			
7	Y_GROUP_MODE	Char					No	No	No		'0'	

# Parent Record Page Layout

[Process Control](#) | [Process Company](#) | [Process Deductions](#) | [Process Earnings](#) | [Process Special Accum](#) | [Process Tax](#)

Process Group: RAY

Process Group Details		Find   View All	First	1 of 1	Last
*Effective Date:	<input type="text" value="10/01/2007"/>	*Status as of Effective Date:	<input type="text" value="Active"/>		
*Description:	<input type="text" value="Raytheon Systems Company"/>				
Short Description:	<input type="text" value="Ray Sys Co"/>				
Last Process Date:	<input type="text" value="02/02/2008"/>				
*Process Mode:	<input type="text" value="On-going"/>				

[Save](#) | [Return to Search](#) | [Previous in List](#) | [Next in List](#) | [Notify](#) | [Previous tab](#) | [Next tab](#) | [Add](#) | [Update/Display](#)

[Process Control](#) | [Process Company](#) | [Process Deductions](#) | [Process Earnings](#) | [Process Special Accum](#) | [Process Tax](#)

## Created a Company Child Record

- Process Group – carried forward from parent record
- Effective Date – carried forward from parent record
- Company – company codes included in this process
  - Only employees in the listed companies are included on the interface
  - Not all companies use the benefits vendor, therefore we need a way to exclude them from the interface file
  - Invalid company codes are not allowed due to prompt edit against the company table

# Company Child Record Definition

Y\_CNTL\_CMPNY controls detail companies

Record Fields		Record Type										
Num	Field Name	Type	Key	Ordr	Dir	CurC	Srch	List	Sys	Audt	Defau	
1	Y_GROUP_CD	Char	Key	1	Asc		Yes	Yes	No			
2	EFFDT	Date	Key	2	Desc		No	No	No		%DATE	
3	COMPANY	Char	Key	3	Asc		No	No	No			

# Company Record Page Layout

[Process Control](#) | [Process Company](#) | [Process Deductions](#) | [Process Earnings](#) | [Process Special Accum](#) | [Process Tax](#)

Process Group: RAY Raytheon Systems Company

Process Group Data [Find](#) | [View All](#) First 1 of 30 Last

Effective Date: 10/01/2007

Company Details [Customize](#) | [Find](#) | [View All](#) | [Grid](#) First 1-8 of 91 Last

*Company	Description		
105	Raytheon Company	+ -	
110	Raytheon Sarcos Acq Subsid LLC	+ -	
300	Hawker Beechcraft Corporation	+ -	
305	Raytheon Aircraft Holdings, Inc	+ -	
310	Raytheon Aircraft Credit Corp	+ -	
315	Hawker Beechcraft Regional Off	+ -	
320	RAPID Aircraft Parts Inventory	+ -	
325	Travel Air Insurance Company	+ -	

[Save](#) | [Return to Search](#) | [Notify](#) | [Previous tab](#) | [Next tab](#) | [Add](#) | [Update/Display](#) | [Include History](#) | [Correct History](#)

## Created Deduction Child Record

- Process Group – carried forward from parent record
- Effective Date – carried forward from parent record
- Plan Type – deduction plan type associated with deduction code included in this process
- Deduction Code – deduction codes included in this process
  - Only deductions listed are included on the interface
  - Invalid deduction codes are not allowed due to prompt edit against the deduction table
- Deduction Group – optional field to group deductions into categories for certain vendors; for example, all pre-tax deductions could be summed into one category on the vendor interface

# Deduction Child Record Definition

Y\_DEDCD\_TBL controls detail deductions

Record Fields		Record Type										
	Num	Field Name	Type	Key	Ordr	Dir	Cur	Srch	List	Sys	Audt	Defau
	1	Y_GROUP_CD	Char	Key	1	Asc		Yes	Yes	No		
	2	EFFDT	Date	Key	2	Desc		No	No	No		%DATE
	3	PLAN_TYPE	Char	Key	3	Asc		No	No	No		
	4	DEDCD	Char	Key	4	Asc		No	No	No		
	5	Y_BENECALC_ERN_GRP	Char					No	No	No		



# Deduction Record Page Layout

[Process Control](#) | [Process Company](#) | [Process Deductions](#) | [Process Earnings](#) |

**Process Group:** RAY Raytheon Systems Company

**Process Group Data** Find | View All First 1 of 1 Last

**Effective Date:** 10/01/2007

**Deduction Code Details** Customize | Find | View All | First 1-8 of 9 Last

*Plan Type	*Deduction Code	Deduction Group	
00  General	089  Hourly Pension		<input type="text"/> + -
4X  Excess Ret	007  Excess Retirement		<input type="text"/> + -
4Y  Retirement	006  Retirement		<input type="text"/> + -
60  FSA Health	068  Health Care Reimbursement RAC		<input type="text"/> + -
60  FSA Health	071  Health Care Reimbursement		<input type="text"/> + -
61  FSA Depnd	069  Dependent Care Reimbursement		<input type="text"/> + -
61  FSA Depnd	070  Dependent Care Reimbursement		<input type="text"/> + -
6X  EE HSA	072  EE Health Savings Account		<input type="text"/> + -

Save | Return to Search | Notify | Previous tab | Next tab | Add | Update/Display | Include History | Correct History

[Process Control](#) | [Process Company](#) | [Process Deductions](#) | [Process Earnings](#) | [Process Special Accum](#) | [Process Tax](#)

# Created Earnings Child Record

- Process Group – carried forward from parent record
- Effective Date – carried forward from parent record
- Earnings Code – only earnings listed are included on the interface
  - We have approximately 600 earnings codes
  - Payroll customer requested option to enter “ALL” as valid earnings code to avoid excessive amount of data input
  - Invalid earnings codes are not allowed due to prompt edit against the earnings table
- Earnings Group – optional field to group earnings into categories for certain vendors; for example, all pension eligible earnings could be summed into one category on the vendor interface

# Earnings Child Record Definition

Y\_ERNCD\_TBL controls detail earnings

Record Fields		Record Type										
Num	Field Name	Type	Key	Ordr	Dir	CurC	Srch	List	Sys	Audt	Default	
1	Y_GROUP_CD	Char	Key	1	Asc		Yes	Yes	No			
2	EFFDT	Date	Key	2	Desc		No	No	No		%DATE	
3	ERNCD	Char	Key	3	Asc		No	No	No			
4	Y_BENECALC_ERN_GRP	Char					No	No	No			

# Earnings Record Page Layout

The screenshot displays the Oracle Earnings Record page layout. At the top, there are navigation tabs: [Process Control](#), [Process Company](#), [Process Deductions](#), and [Process Earnings](#) (which is the active tab). Below the tabs, the page shows the following information:

- Process Group:** RAY Raytheon Systems Company
- Process Group Data:** A section with a header bar containing "Find | View All" and "First 1 of 1 Last". Below this, it shows "Effective Date: 10/01/2007".
- Earnings Code Details:** A section with a header bar containing "Customize | Find | View All" and "First 1 of 1 Last". Below this, there is a table with two columns: **\*Earnings Code** and **Earnings Group**. The table contains one row with the value "ALL" in the **\*Earnings Code** column and an empty field in the **Earnings Group** column. There are plus and minus buttons next to the empty field.

At the bottom of the page, there is a toolbar with the following buttons: [Save](#), [Return to Search](#), [Notify](#), [Previous tab](#), [Next tab](#), [Add](#), [Update/Display](#), [Include History](#), and [Correct History](#). Below the toolbar, there are several navigation links: [Process Control](#), [Process Company](#), [Process Deductions](#), [Process Earnings](#), [Process Special Accum](#), and [Process Tax](#).

# Created Special Accumulator Earnings Child Record

- Process Group – carried forward from parent record
- Effective Date – carried forward from parent record
- Special Accumulator Code – special accumulator earnings code included in this process
  - Only special accumulators listed are included on the interface
  - Invalid special accumulator codes are not allowed due to prompt edit against the special earnings table

# Special Accumulator Child Record Definition

Y\_SPCLACC\_TBL controls detail special accumulators

Record Fields		Record Type										
Num	Field Name	Type	Key	Ordr	Dir	CurC	Srch	List	Sys	Audt	Default	
1	Y_GROUP_CD	Char	Key	1	Asc		Yes	Yes	No			
2	EFFDT	Date	Key	2	Desc		No	No	No		%DATE	
3	ERNCD_SPCL	Char	Key	3	Asc		No	No	No			

# Special Accumulator Record Page Layout

The screenshot shows the Oracle HR Special Accumulator Record page layout. At the top, there are four tabs: **Process Deductions**, **Process Earnings**, **Process Special Accum** (selected), and **Process Tax**. Below the tabs, the **Process Group** is set to **RAY Raytheon Systems Company**. The **Process Group Data** section shows **Effective Date: 10/01/2007**. The **Special Accumulator Details** section contains a table with one record:

*Special Accumulator Code	
FEN	Pension Earnings-Contributory

At the bottom of the page, there is a toolbar with the following buttons: **Save**, **Return to Search**, **Notify**, **Previous tab**, **Next tab**, **Add**, **Update/Display**, **Include History**, and **Correct History**. Below the toolbar, there are navigation links: [Process Control](#) | [Process Company](#) | [Process Deductions](#) | [Process Earnings](#) | [Process Special Accum](#) | [Process Tax](#).

# Created Tax Child Record

- Process Group – carried forward from parent record
- Effective Date – carried forward from parent record
- State – tax state included in this process
- Locality – tax locality included in this process
- Tax Class – tax class included in this process
  - Only valid state, locality and tax classes are allowed due to prompt edits to their respective tables



# Tax Child Record Definition

Y\_TAX\_TBL controls detail tax

Record Fields		Record Type										
	Num	Field Name	Type	Key	Ordr	Dir	CurC	Srch	List	Sys	Audt	Default
	1	Y_GROUP_CD	Char	Key	1	Asc		Yes	Yes	No		
	2	EFFDT	Date	Key	2	Desc		No	No	No		%DATE
	3	STATE	Char	Key	3	Asc		No	No	No		
	4	LOCALITY	Char	Key	4	Asc		No	No	No		
	5	TAX_CLASS	Char	Key	5	Asc		No	No	No		

# Tax Record Page Layout

[Process Deductions](#) | [Process Earnings](#) | [Process Special Accum](#) | **Process Tax**

Process Group: RAY Raytheon Systems Company

Process Group Data Find | View All First  1 of 1  Last

Effective Date: 10/01/2007

Tax Details Customize | Find | View All First  1-2 of 2  Last

*State	Locality	*Tax Balance Class		
<input type="text" value="\$U"/> <input type="button" value="🔍"/>	<input type="text"/> <input type="button" value="🔍"/>	<input type="text" value="D"/> <input type="button" value="🔍"/> OASDI/EE	<input type="button" value="+"/>	<input type="button" value="-"/>
<input type="text" value="\$U"/> <input type="button" value="🔍"/>	<input type="text"/> <input type="button" value="🔍"/>	<input type="text" value="H"/> <input type="button" value="🔍"/> Withholdng	<input type="button" value="+"/>	<input type="button" value="-"/>

|  |  |  |  |  |  |  |

[Process Control](#) | [Process Company](#) | [Process Deductions](#) | [Process Earnings](#) | [Process Special Accum](#) | [Process Tax](#)

# Batch Processes

- The parent record (process control) is the driver and defines the different interface files, for example, the “RAY” process group defines the benefits administrator interface
- The company, deduction, earnings and/or tax data entered in the child records identify employees with this criteria to be included in a particular interface
- This is a scalable solution that allows for any number of interfaces to use the same table structures to define the requirements of that interface

## Process Control

Enter any information you have and click Search. Leave fields blank for a list of all values.

[Find an Existing Value](#)

[Add a New Value](#)

Search by:  begins with

Include History  Correct History

[Search](#)

[Advanced Search](#)

## Search Results

View All First 1-18 of 18 Last

Process Group	Description
<a href="#">EDS</a>	EDS/RBC Approved Codes
<a href="#">FIN</a>	Treasury Report
<a href="#">GLE</a>	Earnings Codes Gen Ledger
<a href="#">HAC</a>	HAC Conversion
<a href="#">HEW</a>	Hewitt Total Rewards
<a href="#">INC</a>	Incentive Pay Earnings
<a href="#">NAS</a>	NAS
<a href="#">PDX</a>	Pay Deduction Extract
<a href="#">RAC</a>	RAC - Benecalc
<a href="#">RAY</a>	Raytheon Systems Company
<a href="#">RIS</a>	Raytheon ID Systems
<a href="#">SPC</a>	RAC to Towers
<a href="#">TAL</a>	Tax Advance Letters
<a href="#">TAS</a>	LOATASIN Edit
<a href="#">TEE</a>	TASIN Eligible Earning Codes

# Batch Processes - Employee Select

```

SELECT ...
FROM PS_Y_PERS_DATA_VW P
, PS_EMPLOYMENT B
, PS_JOB C
, PS_Y_CNTL_CMPNY E
WHERE E.Y_GROUP_CD = :1
AND E.EFFDT = :2
AND C.COMPANY = E.COMPANY
AND C.EMPL_RCD = 0
AND C.EFFDT =
(SELECT MAX(C1.EFFDT)
FROM PS_JOB C1
WHERE C1.EMPLID = C.EMPLID
AND C1.EMPL_RCD = C.EMPL_RCD
AND C1.EFFDT <= :3)
AND C.EFFSEQ =
(SELECT MAX(C2.EFFSEQ)
FROM PS_JOB C2
WHERE C2.EMPLID = C.EMPLID
AND C2.EMPL_RCD = C.EMPL_RCD
AND C2.EFFDT = C.EFFDT)
AND NOT C.UNION_CD = 'ERP'
AND P.EMPLID = C.EMPLID
AND B.EMPLID = C.EMPLID
AND B.EMPL_RCD = C.EMPL_RCD
    
```

Within the “WHERE” clause we specify the group code for the chosen interface

The custom company child table is joined to the Job Table by company code in order to only retrieve those designated employees

# Batch Processes – Earnings Select

```

SELECT A.COMPANY
      ,A.ERNCD
      ,A.HRS_YTD
      ,A.HRS_QTD
      ,A.HRS_MTD
      ,A.GRS_YTD
      ,A.GRS_QTD
      ,A.GRS_MTD
      ,A.BALANCE_PERIOD
FROM PS_Y_ERNCOD_TBL B
     ,PS_EARNINGS_BAL A
WHERE B.Y_GROUP_CD = :1
      AND B.EFFDT = :2
      AND A.EMPLID = :3
      AND A.BALANCE_ID = 'CY'
      AND A.BALANCE_YEAR = :4
      AND A.ERNCD = B.ERNCD
      AND A.BALANCE_PERIOD = (SELECT MAX(A1.BALANCE_PERIOD)
                              FROM PS_EARNINGS_BAL A1
                              WHERE A1.EMPLID = A.EMPLID
                                AND A1.COMPANY = A.COMPANY
                                AND A1.BALANCE_ID = A.BALANCE_ID
                                AND A1.BALANCE_YEAR = A.BALANCE_YEAR
                                AND A1.ERNCD = A.ERNCD
                                AND A1.EMPL_RCD = A.EMPL_RCD
                                AND A1.SPCL_BALANCE = A.SPCL_BALANCE)
      AND A.EMPL_RCD = 0
      AND A.SPCL_BALANCE = 'N'
;
    
```

Within the “WHERE” clause  
we specify the group code for  
the chosen interface

The custom earnings child table  
is joined to the Earnings Balance  
Table by earnings code in order  
to only retrieve those designated  
earnings

# Batch Processes – Deduction Select

```

SELECT DB.COMPANY
      ,DB.PLAN_TYPE
      ,DB.BENEFIT_PLAN
      ,DB.DEDCD
      ,DB.DED_YTD
      ,DB.DED_QTD
      ,DB.DED_MTD
      ,DB.BALANCE_PERIOD
FROM PS_Y_DEDCD_TBL EDT
     ,PS_DEDUCTION_BAL DB
WHERE
  EDT.Y_GROUP_CD = :1
  AND EDT.EFFDT = :2
  AND DB.EMPLID = :3
  AND DB.BALANCE_ID = 'CY'
  AND DB.BALANCE_YEAR = :4
  AND DB.DEDCD = EDT.DEDCD
  AND DB.BALANCE_PERIOD = (SELECT MAX(DB1.BALANCE_PERIOD)
                           FROM PS_DEDUCTION_BAL DB1
                           WHERE DB1.EMPLID = DB.EMPLID
                              AND DB1.COMPANY = DB.COMPANY
                              AND DB1.BALANCE_ID = DB.BALANCE_ID
                              AND DB1.BALANCE_YEAR = DB.BALANCE_YEAR
                              AND DB1.BENEFIT_RCD_NBR = DB.BENEFIT_RCD_NBR
                              AND DB1.PLAN_TYPE = DB.PLAN_TYPE
                              AND DB1.BENEFIT_PLAN = DB.BENEFIT_PLAN
                              AND DB1.DEDCD = DB.DEDCD
                              AND DB1.DED_CLASS = DB.DED_CLASS)
  AND DB.PLAN_TYPE = EDT.PLAN_TYPE
    
```

Within the “WHERE” clause we specify the group code for the chosen interface

The custom deduction child table is joined to the Deduction Balance Table by deduction code in order to only retrieve those designated deductions

# Batch Processes - Tax Select

```

SELECT
  A.EMPLID
,A.COMPANY
,A.STATE
,A.LOCALITY
,A.TAX_CLASS
,A.BALANCE_YEAR
,A.NLGRS_YTD
,A.TXGRS_YTD
,A.BALANCE_PERIOD
FROM PS_Y_TAX_TBL B
   PS_TAX_BALANCE A
WHERE B.Y_GROUP_CD = :1
   AND B.EFFDT = :2
   AND A.EMPLID = :3
   AND A.BALANCE_ID = 'CY'
   AND A.BALANCE_YEAR = :4
   AND A.BALANCE_PERIOD = (SELECT MAX(A1.BALANCE_PERIOD)
                            FROM PS_TAX_BALANCE A1
                            WHERE A1.EMPLID = A.EMPLID
                               AND A1.COMPANY = A.COMPANY
                               AND A1.BALANCE_ID = A.BALANCE_ID
                               AND A1.BALANCE_YEAR = A.BALANCE_YEAR
                               AND A1.STATE = A.STATE
                               AND A1.LOCALITY = A.LOCALITY
                               AND A1.TAX_CLASS = A.TAX_CLASS)
   AND A.STATE = B.STATE
   AND A.LOCALITY = B.LOCALITY
   AND A.TAX_CLASS = B.TAX_CLASS
;
    
```

Within the “WHERE” clause we specify the group code for the chosen interface

The custom tax child table is joined to the Tax Balance Table by state, locality and tax class in order to only retrieve those designated tax records



# Summary

- Using PeopleTools, we created a custom, self-contained, scalable solution that is used by the customer and easily carried forward during an upgrade
- Employee population, deductions, earnings, and tax information included in a particular interface is entered and controlled by the customer
- Future change is managed by the customer
- IT intervention is minimized or eliminated as business requirements for our interfaces change

# Questions?