PeopleSoft Meta-Data & Oracle Data Dictionary

A PeopleSoft Database

Application Data

PeopleTools Tables
(Meta-Data)

Oracle System Catalog
(Data Dictionary)

PS_PERSONAL_DATA
PS_JOB
PS_GBFS_ECIMAGE_VN

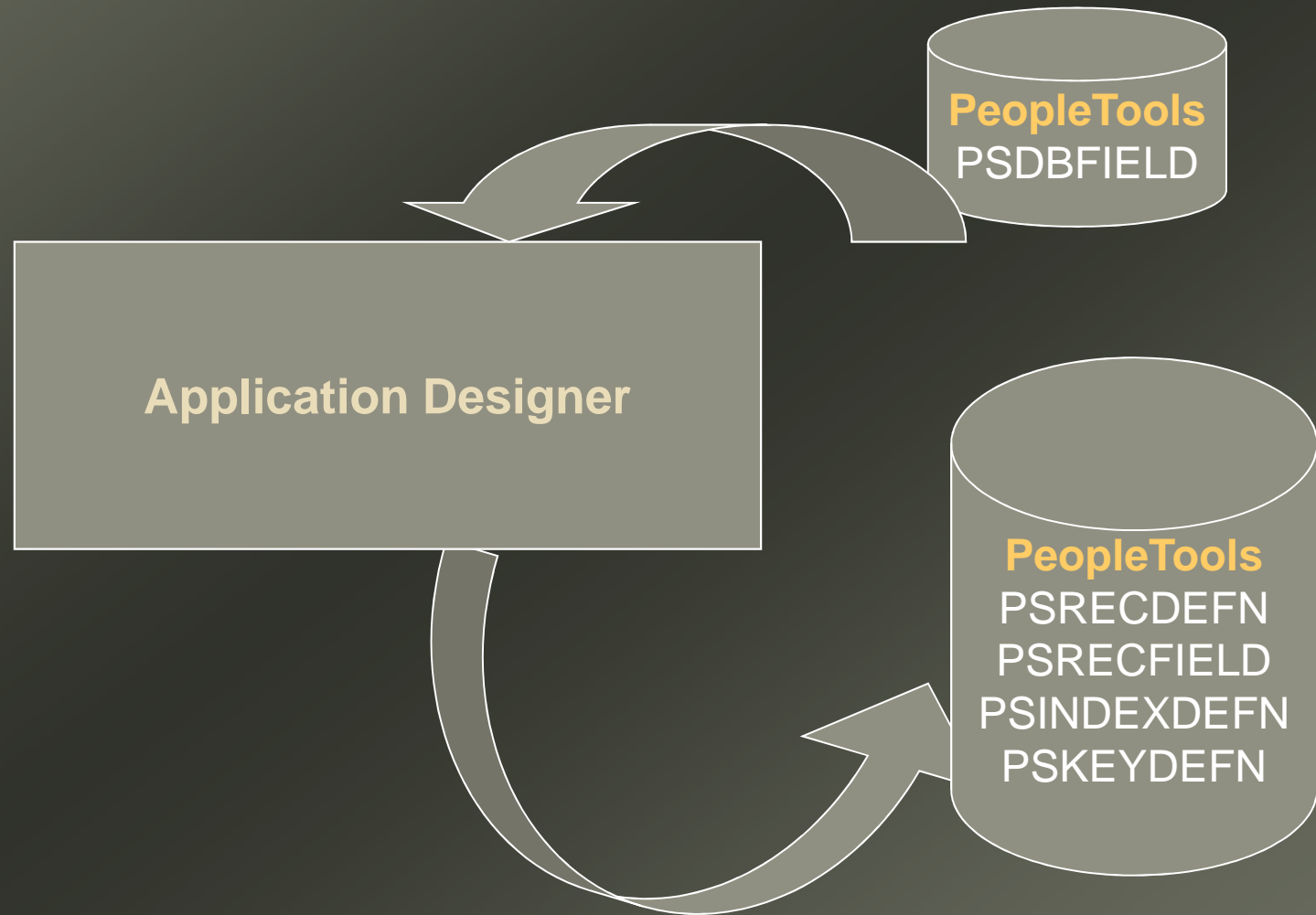PSRECDEFN
PSPNLDEFN
PSPRCSRQST

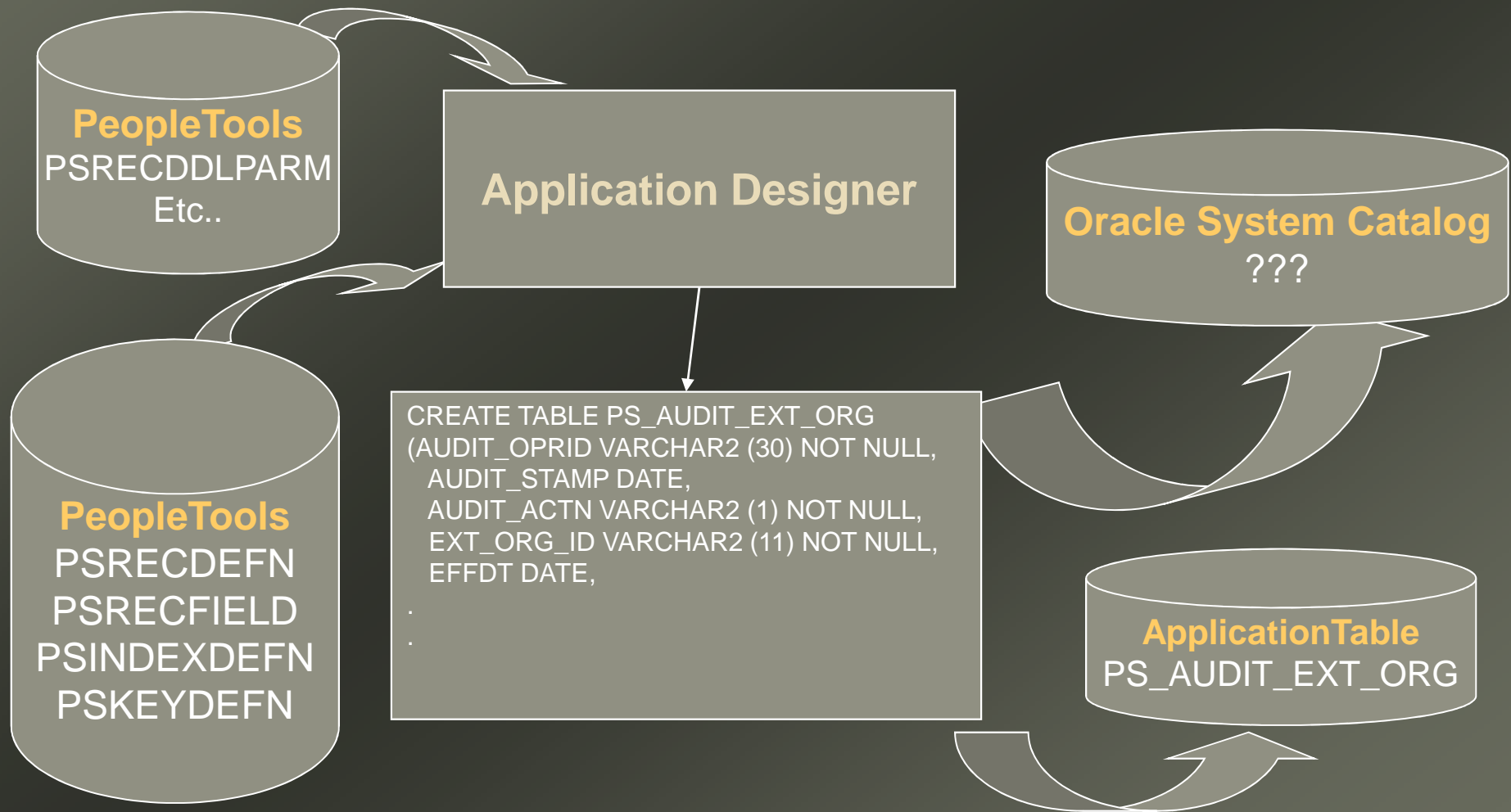SYSOBJECTS
ALL_TABLES
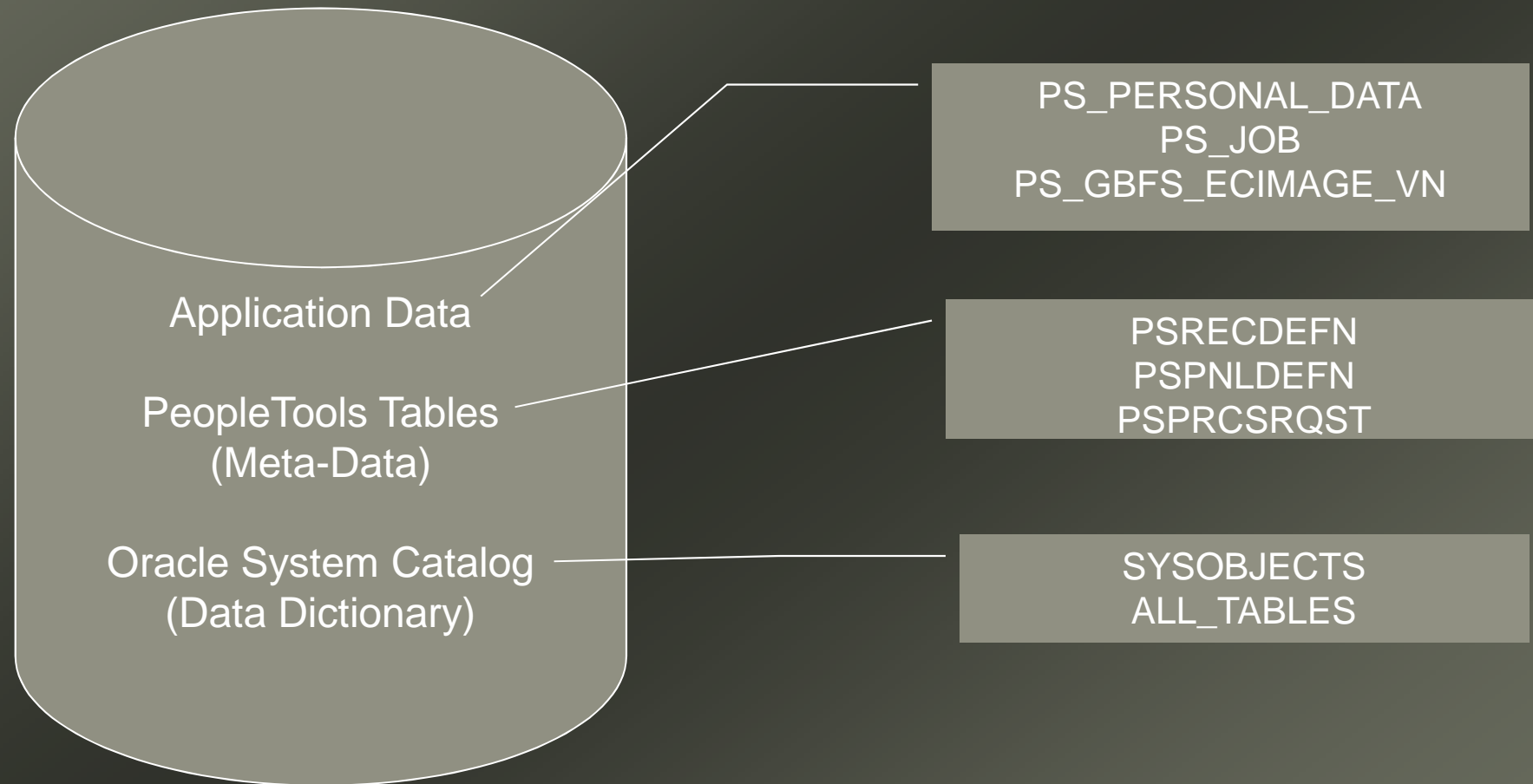
Meta-data Use – A Familiar Example

The process of

1. Creating records and
2. Building tables

Is a familiar one that can show how meta-data is used

Building Tables

What Meta-Data Describes

- Fields
- Records
  - View
  - Tables
- Pages
- Components
- Menus
- Portal Registry*
- App Engines, PeopleCode, App Messaging, Queries, Trees, Workflow, and many, many other things!

*8.4x Only

Fields

PSDBFIELD

I1	**FIELDNAME**
	VERSION
I1	**FIELDTYPE**
I1	**LENGTH**
	DECIMALPOS
	FORMAT
	FORMATLENGTH
	IMAGE_FMT
	FORMATFAMILY
	DISPFMTNAME
	DEFCNTRYYR
	IMEMODE
	KBLAYOUT
	OBJECTOWNERID
	LASTUPDDTTM
	LASTUPDOPRID
	DESCRLONG

Stores all fields in a PeopleSoft Database

```
CASE FIELDTYPE
        WHEN 0 THEN 'Character'
        WHEN 1 THEN 'Long Character'
        WHEN 2 THEN 'Number'
        WHEN 3 THEN 'Signed Number'
        WHEN 4 THEN 'Date'
        WHEN 5 THEN 'Time'
        WHEN 6 THEN 'DateTime'
        WHEN 8 THEN 'Image'
        WHEN 9 THEN 'Image Reference'
        ELSE TO_CHAR(FIELDTYPE)
END CASE
```

PSDBFLDLABL

FIELDNAME
LABEL_ID
LONGNAME
SHORTNAME
DEFAULT_LABEL

Field Labels

Records – Episode I

PSRECDEFN	
I5,I3,I2,I1	**RECNAME**
	FIELDCOUNT
	INDEXCOUNT
	DDLCOUNT
I4,I3	**VERSION**
	AUDITRECNAME
	RECUSE
I5	**RECTYPE**
	SETCNTRLFLD
	RELLANGRECNAME
I1	**RECDESCR**
I1	**PARENTRECNAME**
	QRYSECRECNAME
I2	**DDLSPACENAME**
	SQLTABLENAME
	BUILDSEQNO
	OBJECTOWNERID
	LASTUPDDTTM
	LASTUPDOPRID
	DESCRLONG

Stores Record Definitions

PSRECFIELD	
I1,I6	**RECNAME**
I1,I6	**FIELDNAME**
	FIELDNUM
I3,I2	**DEFRECNAME**
I3	**DEFFIELDNAME**
I5	**CURCTLFIELDNAME**
I4	**EDITTABLE**
	USEEDIT
I6	**SUBRECORD**
	SUBRECVER
	SETCNTRLFLD
	DEFGUICONTROL
	LABEL_ID
	LASTUPDDTTM
	LASTUPDOPRID
	TIMEZONEUSE
	TIMEZONEFIELDNAME
	RELTMDTFIELDNAME
	CURRCTLUSE

Defines all of the fields stored for each record

Records – Episode II

PSRECDEFN	
I5,I3,I2,I1	**RECNAME**
	FIELDCOUNT
	INDEXCOUNT
	DDLCOUNT
I4,I3	**VERSION**
	AUDITRECNAME
	RECUSE
I5	**RECTYPE**
	SETCNTRLFLD
	RELLANGRECNAME
I1	**RECDESCR**
I1	**PARENTRECNAME**
	QRYSECRECNAME
I2	**DDLSPACENAME**
	SQLTABLENAME
	BUILDSEQNO
	OBJECTOWNERID
	LASTUPDDTTM
	LASTUPDOPRID
	DESCRLONG

```
CASE RECTYPE
        WHEN 0 THEN 'Table'
        WHEN 1 THEN 'View'
        WHEN 2 THEN 'Derived'
        WHEN 3 THEN 'Sub Record'
        WHEN 5 THEN 'Dynamic View'
        WHEN 6 THEN 'Query View'
        WHEN 7 THEN 'Temporary Table'
        ELSE TO_CHAR(RECTYPE)
END CASE
```
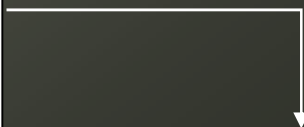
Records – Episode III

PSINDEXDEFN
RECNAME **INDEXID**
INDEXTYPE **UNIQUEFLAG** **CLUSTERFLAG** **ACTIVEFLAG** **CUSTKEYORDER** **KEYCOUNT** **DDLCOUNT** **PLATFORM_SBS** **PLATFORM_DB2** **PLATFORM_ORA** **PLATFORM_INF** **PLATFORM_DBX** **PLATFORM_ALB** **PLATFORM_SYB** **PLATFORM_MSS** **PLATFORM_DB4**

Contains 1 row per index defined for a table

PSKEYDEFN	
I1 I1	**RECNAME** **INDEXID** **FIELDNAME**
I1	**KEYPOSN** **ASCDESC**

Contains 1 row per key field defined for a index

Records – Episode IV
The Dark Side

Records have sub records and that's a problem when you are trying to see what fields are defined for a record. Application Designer is difficult trying to drill down and see al the fields at once and standard SQL isn't any better

Records – Episode V
Oracle SQL Extensions Strike Back

You can use an Oracle extension to the SELECT statement that deals with hierarchical data the SELECT…START WITH…CONNECT BY

```
SELECT  * FROM PSRECFIELD
  WHERE SUBRECORD <> 'Y'
        START WITH RECNAME = 'PERSONAL_DATA'
            CONNECT BY PRIOR FIELDNAME = RECNAME
            AND PRIOR SUBRECORD = 'Y'
```

Records – Episode VI
Return of the Empty Slide

Pages

PSPNLDEFN

I2	PNLNAME
I2	LANGUAGE_CD
I3,I2	VERSION
	PNLTYPE
	FIELDCOUNT
	GRIDHORZ
	GRIDVERT
	HELPCONTEXTNUM
	PANELTOP
	PANELLEFT
	PANELRIGHT
	PANELBOTTOM
I1	PNLSTYLE
	STYLESHEETNAME
	PNLUSE
	DEFERPROC
	DESCR
	POPUPMENU
	LICENSE_CODE
	LASTUPDDTTM
	LASTUPDOPRID
	OBJECTOWNERID
	DESCRLONG

Stores page Definitions used in on-line system

PSPNLFIELD – List all of the items used by each page definition

PSPNLFIELD

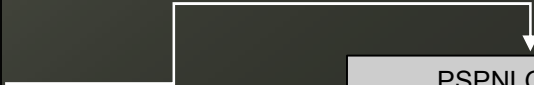|	
I1,I6,I5,I7	PNLNAME
I1,I6,I5,I7	LANGUAGE_CD
	FIELDNUM
I6,I5,I7	PNLFIELDNAME
	FIELDTYPE
	EDITSIZE
	DSPLFORMAT
	FIELDLEFT
	FIELDTOP
	FIELDRIGHT
	FIELDBOTTOM
	EDITLBLLEFT
	EDITLBLTOP
	EDITLBLRIGHT
	EDITLBLBOTTOM
	DSPLFILL
	LBLTYPE
	LBLLOC
	LBLPADSIZE
	LABEL_ID
	LBLTEXT
	FIELDUSE
	DEFERPROC
I1,I2	OCCURSLEVEL
I1	RECNAME
	FIELDNAME
	ONVALUE
	OFFVALUE
	ASSOCFIELDNUM
	OCCURSCOUNT1
	OCCURSOFFSET1
	OCCURSCOUNT2
	OCCURSOFFSET2
	OCCURSCOUNT3
	OCCURSOFFSET3
I5,I7	SUBPNLNAME
	SUBPNLVER
I3	FIELDSTYLE
I4	LABELSTYLE
	FIELDSIZETYPE
	LABELSIZETYPE
	PRCSTYPE
	PRCSNAME
	PROMPTFIELD
	FORMATFAMILY
	DISPFMTNAME
	POPUPMENU
	TREECTRLID
	TREECTRLTYPE
	MULTIRECTREE
	NODECOUNT
	GRDCOLUMNCOUNT
	GRDSHOWCOLHDG
	GRDSHOWROWHDG
	GRDODDROWSTYLE
	GRDEVENROWSTYLE
	GRDACTIVETABSTYLE
	GRDINACTIVETABSTYL
	GRDNAVBARSTYLE
	GRDLABELSTYLE
	GRDLBLMSGSET
	GRDLBLMSGNUM
	GRDLBLALIGN
	GRDACTTYPE
	TABENABLE
	PBDISPLAYTYPE
	OPENNEWWINDOW
	URLDYNAMIC
	URL_ID
	GOTOMENUNAME
	GOTOPNLGRPNAME
	GOTOPNLNAME
	GOTOPNLACTION
	SRCHBYPNLDATA
	SCROLLACTION
	TOOLACTION
	CONTNAME
	CONTNAMEOVER
	CONTNAMEDISABLE
	PTLBLIMGCOLLAPSE
	PTLBLIMGEXPAND
	PTADJHIDDENFIELDS
	PTCOLLAPSEDATAAREA
	PTDFLTVIEWEXPANDED
	PTHIDEFIELDS
	SHOWCOLHIDEROWS
	PTLBEXPANDFIELD
	SHOWTABCNTLBTN

Pages

Just like records have sub records, pages have sub pages, so you can use the same START WITH…CONNECT BY here too. (Note FieldType of 11 is a subpage)

SELECT * FROM PSPNLDEFN

WHERE PNLNAME IN (SELECT PNLNAME from PSPNLGROUP where PNLGRPNAME = 'AV_ASGN_GROUP')

OR   PNLNAME in (SELECT SUBPNLNAME from PSPNLFIELD

        START WITH PNLNAME IN (SELECT PNLNAME FROM PSPNLGROUP WHERE PNLGRPNAME = 'AV_ASGN_GROUP')

                AND FIELDTYPE = 11

        CONNECT BY PRIOR SUBPNLNAME = PNLNAME

        AND FIELDTYPE = 11)

Components

PSPNLGRPDEFN

I1	PNLGRPNAME
I1	MARKET
I2,I1	VERSION
	ACTIONS
	DESCR
	ADDSRCHRECNAME
	SEARCHRECNAME
	SEARCHPNLNAME
	LOADLOC
	SAVELOC
	DISABLESAVE
	LASTUPDDTTM
	LASTUPDOPRID
	PRIMARYACTION
	DFLTACTION
	DFLTSRCHTYPE
	DEFERPROC
	EXPENTRYPROC
	REQSECURESSL
	INCLNAVIGATION
	ALLOWACTMODESEL
	PNLNAVFLAGS
	TBARBTNS
	SHOWTBAR
	ADDLINKMSGSET
	ADDLINKMSGNUM
	SRCHLINKMSGSET
	SRCHLINKMSGNUM
	SRCHTEXTMSGSET
	SRCHTEXTMSGNUM
	DESCRLONG

Stores information about components, their
search records & actions

PSPNLGROUP

I2	PNLGRPNAME
	MARKET
I2,I1	PNLNAME
	SUBITEMNUM
	ITEMNAME
	ITEMLABEL
	FOLDERTABLABEL
	HIDDEN

Stores information about
each page in a
component

Menus

PSMENUDEFN	
I2,I1	**MENUNAME**
I3,I2 I4 I1	**VERSION** **MENUGROUP** **INSTALLED** **GROUPORDER** **MENUORDER** **GROUPSEP** **MENUSEP** **MENULABEL** **MENUTYPE** **DESCR** LASTUPDDTTM **LASTUPDOPRID** DESCRLONG

Stores menu Definitions

PSMENUITEM	
I5,I2,I1 I5,I4,I2,I1	**MENUNAME** **BARNAME** **ITEMNAME**
I4,I3,I2 I5,I3,I6 I3,I1 I4,I2,I1 I3	**ITEMNUM** **ITEMTYPE** **PNLGRPNAME** **MARKET** **BARLABEL** **ITEMLABEL** **XFERCOUNT** **SEARCHRECNAME**

Stores information on each item of a menu

Portal Registry 8.4x Tools Only

Portal Registry Structure Definition table
(i.e. Folders and Content References)

PSPRSMDEFN	
I2,I1	PORTAL_NAME
I2,I1	PORTAL_REFTYPE
	PORTAL_OBJNAME
I3	VERSION
I1	PORTAL_URL_CHKSUM
I2	PORTAL_PRNTOBJNAME
I2	PORTAL_SEQ_NUM
I2	PORTAL_LABEL
	PORTAL_CNTPRV_NAM
	PORTAL_CREF_USGT
	PORTAL_CREF_TMPT
	PORTAL_CREF_STGT
	PORTAL_CREF_URLT
	DESCR254
	PORTAL_PRODUCT
	OPRID
	PORTAL_EFFDT
	PORTAL_CREATION_DT
	PORTAL_EXPIRE_DT
	PORTAL_TEMPL_NAME
	PORTAL_STG_NAME
	PORTAL_ISPUBLIC
I4	PORTAL_LINKOBJNAME
I4	PORTAL_LINK_PORTAL
	LASTUPDOPRID
	LASTUPDDTTM
	OBJECTOWNERID
I5	PORTAL_URI_SEG1
I5	PORTAL_URI_SEG2
I5	PORTAL_URI_SEG3
I5	PORTAL_URI_SEG4
	PORTAL_URLTEXT

PSPRSMPERM
PORTAL_NAME
PORTAL_REFTYPE
PORTAL_OBJNAME
PORTAL_PERMNAME
PORTAL_PERMTYPE
PORTAL_ISCASCADE

Portal Registry Structure Permission Table

The Others

There are several hundred other tables that PeopleSoft uses to manage its applications. If you have other specific questions let me know.

Two other custom tables can be used as reference PS_GBSC_NOMEN_BU and PS_GBSC_NOMEN_MOD contain the abbreviation standards we use in our prefixing.

Meta-data SQL Collection

If you create SQL that uses meta-data or the oracle data dictionary and you find it to be useful send it to Robert Jones or Ginny Richards and we'll add it to a collection of SQL that anyone can download (from the developers web site) and use

Suggested format:

```
-- Author:  rfj0001 Robert Jones 11/15/2004
-- Desc: this SQL will return all fields for a given record definition including fields subrecords
-- Usage notes:  change record name in the START WITH clause to the desired name
Select * from  PSRECFIELD
   Where SUBRECORD <> 'Y'
     Start with RECNAME = 'PERSONAL_DATA'
          Connect by prior fieldname = RECNAME
              And PRIOR SUBRECORD = 'Y'
```