Peoplesoft Workflow Technology

Highlights

❖ **Introduction**

❖ **Workflow**

➢ Understanding Workflow

➢ Components of Workflow

➢ Steps for Developing Workflow

➢ Workflow Map Hierarchies

❖ **Approval Process**

➢ Understanding Approval Processes

➢ Defining Approval Process

➢ Triggering Virtual Approver Routing

➢ Setting up the Rules Online

Workflow

❖ **Introduction:**

Workflow capabilities enable you to efficiently automate the flow of information throughout your enterprise, crossing both application and functional boundaries. PeopleSoft Workflow Technology consists of a powerful set of tools that enables you to automate time-consuming business processes and deliver the right information to the right people at the right time.

Workflow: Objective

❖ **Objective:**

  ➢ Explain Business Process Maps and Navigational Maps
  ➢ Create Workflow
  ➢ Execute Workflow
  ➢ Identify how to trigger a Workflow event
  ➢ Define Virtual Approver

Understanding Workflow

❖ **What is Workflow?**

Refers to larger process that involve several steps and several people working together efficiently.

❖ **Why Workflow?**

➢Monitors the work process of the organization

➢Provides effective approval process

➢Automates the tasks that involve several simultaneous users

Worklist overview:

Prioritized "To Do" list of work items awaiting users attention Worklist provides following functionality:

- ➢ Notification of pending work
- ➢ Pooled list or specific assignments
- ➢ Prioritization of work items
- ➢ Timeout exception processing

Triggering Workflow Events

❖ **Page-Based Triggers:**

The PeopleCode is assigned to pages, and when you save a page, it triggers a business event and its related routings.

❖ **Third-Party Triggers:**

Third-party applications sending information to a PeopleSoft component through a component interface.

❖ **Batch Workflow Triggers:**

Batch programs or queries sending information to a PeopleSoft component through a component interface.

Components of Workflow

❖ **Rules:**

Refers to activities required to process business data

❖ **Roles:**

Class of users who perform the same type of work

❖ **Routing:**

Specifies where the information goes what form it will take

Sample Workflow Maps
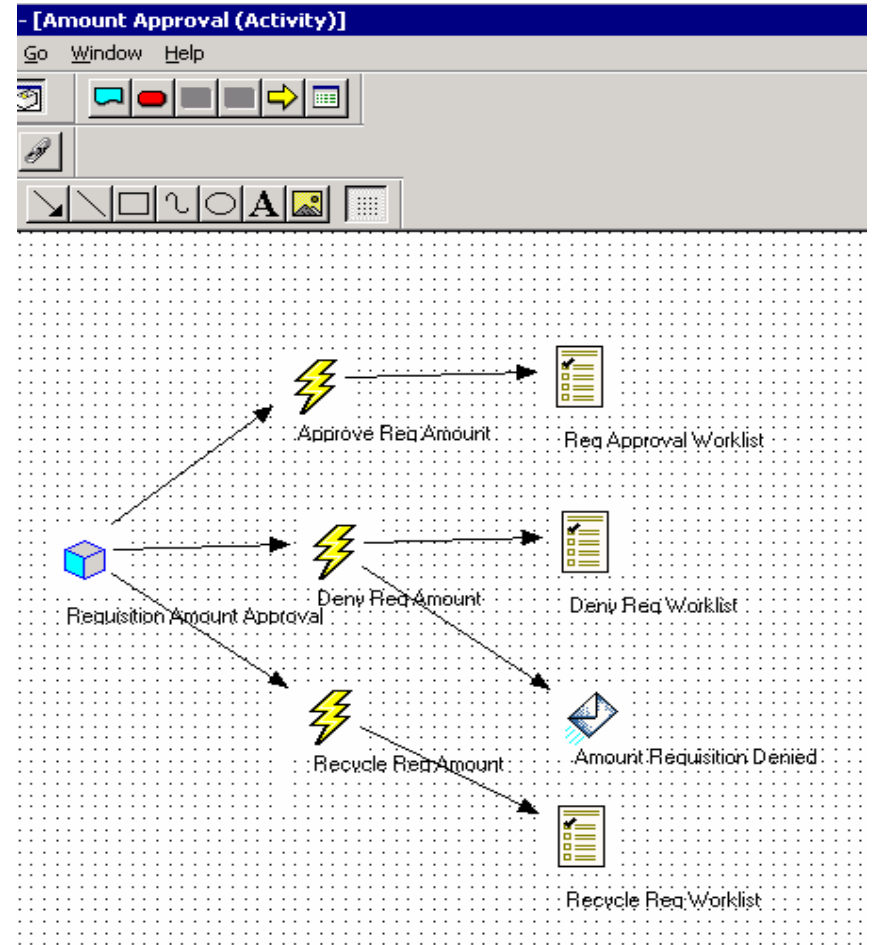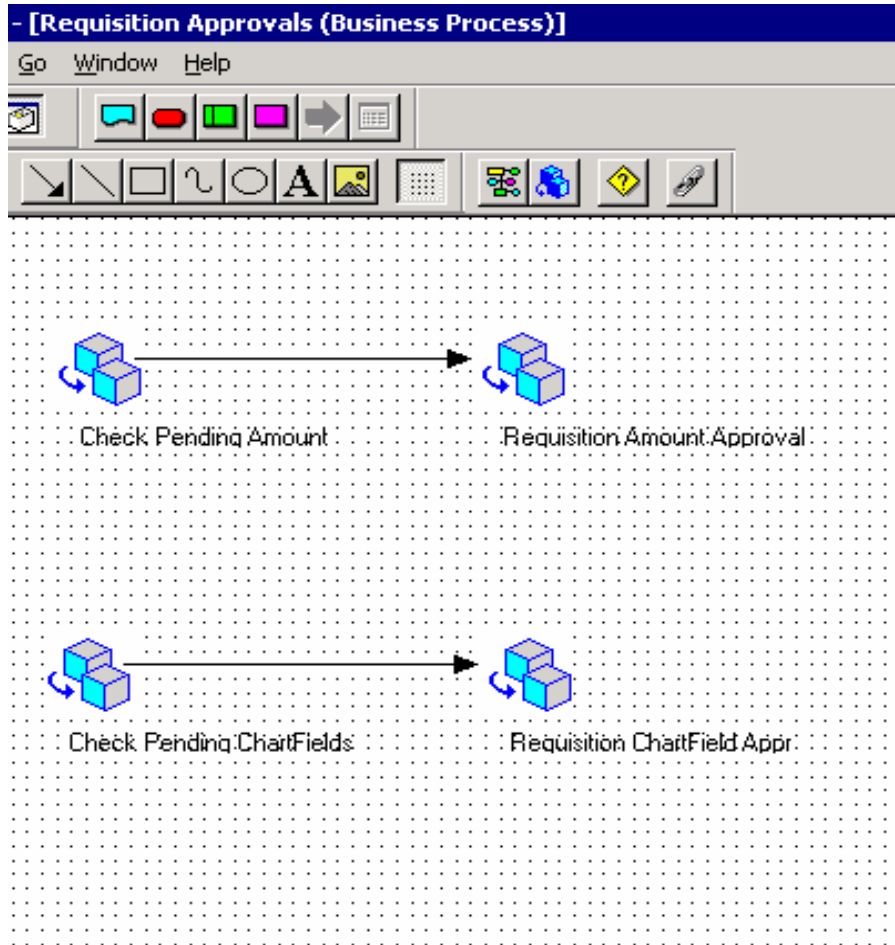
Sample Worklist

Worklist for K0G001: PS

Detail View

Work List Filters: [▼]

Worklist						Customize	Find	View All	📅 First ◀ 1-2 of 2 ▶
From	**Date From**	**Work Item**	**Worked By Activity**	**Priority**	**Link**	
[PS] Peoplesoft Superuser	02/26/2009	Rembursment Worklist	SOA_REIMB_ACTIVITY	[▼]	REIMB000066, K0G002	Mark Worked Reassig
[PS] Peoplesoft Superuser	03/02/2009	Rembursment Worklist	SOA_REIMB_ACTIVITY	[▼]	REIMB000002, K0G002	Mark Worked Reassig

Steps for Developing Workflow

The following are the 8 steps for developing a Workflow:

- ❖ Design Your Workflow Application
- ❖ Build the Underlying Application
- ❖ Create Workflow Maps
- ❖ Define Roles and Users
- ❖ Create Worklist Record
- ❖ Define Workflow Objects
- ❖ Define Event Triggers
- ❖ Testing

Roles

❖ **User List Role:**

Refers to a static list of Users

Navigation:

PeopleTools -> Permission & Roles -> Roles

Roles (Contd.)

❖ **Query roles:**

> You define a role as a query when you want to send work items to different people at different times.

Users

❖ Each user is attached to one or more roles.

Navigation:

PeopleTools -> Security ->User Profiles

Users (Contd.)

❖ Workflow Attributes for a User

Route Controls

❖ Route controls identify the criteria on which you want to make routing decisions and enable you to associate particular Application values with particular role users.

❖ Route controls simplify the creation of Role Queries.

❖ For example, you want to route purchase requisitions to different buyers depending on which Business Unit is requesting the Item.

❖ You define route control types, which identify the factors on which you want to base routings Business Unit, Department, Vendor ID, and so on. You can define route control types based on any prompt table.

Developing Route Controls

❖ You define route control profiles, which identify ranges of values for one or more route control types. For example, one route control profile might list the Vendor IDs for all software vendors, while another might list the IDs for all office supply vendors.

❖ You assign route control profiles to role users. You assign the Vendors (Software) profile to the clerks who handle software and the Vendors (Office Supplies) profile to the clerks who handle office supplies.

❖ When you define the routing in Application Designer, you assign one of the roles we've provided for use with route controls.

Developing Route Controls (Contd.)

❖ When a business event is triggered, the system follows these steps to decide to whom to route the work item:

➢ It binds the query's bind variables using data from the page that's triggering the event.

➢ It runs the query, checking each user's route control profile to determine whether the user meets the selection criteria.

➢ It routes the work item to the appropriate role users.

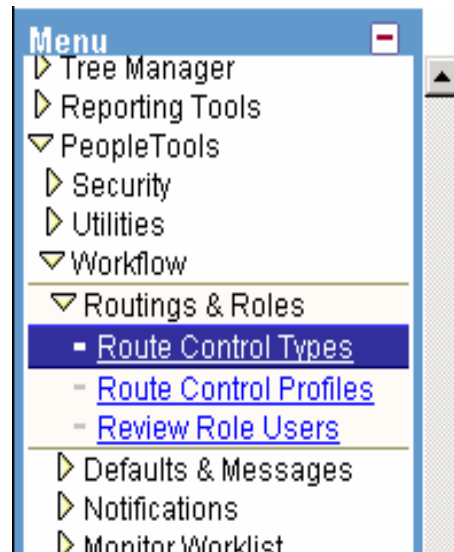❖ Defining route control types, which identify the situational factors on which you want to base routing decisions.

❖ Building route control profiles, which specify the range of values within a route control type.

Route Controls: Steps
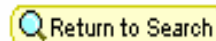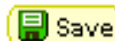
Step 1: Define a route Control Type.

Navigation:

PeopleTools -> Workflow -> Routings & Roles ->   Route Control Type

Route Controls: Steps (Contd..)

Step 2: Define a Route Control Profile.

❖ **Navigation:**

PeopleTools -> Workflow ->Routings & Roles -> Route Control Profiles

❖ The range of values from the Business Unit Table following which the Route Control Profile will be able to trigger the Workflow.

Route Controls: Steps (Contd..)

Route Control Profile:

Route Controls: Steps (Contd..)

Step 3: Associate Route Control Profile to Users.

Defining Worklist Record

The system uses the Worklist record definition to perform the following functions:

❖ Link each work item with the underlying workflow tracking information, which is stored in a Workflow system record (PSWORKLIST).

❖ Retrieve the record associated with the work item, so the user can work on it.

Defining Worklist Record (Contd.)

❖ **System fields:**

The first six fields in a Worklist record definition must always be the following system fields:

Num	Field Name	Type	Key	Ordr	Dir	CurC	Srch	List	Sys	Audt	Default
1	BUSPROCNAME	Char	Key	1	Asc		Yes	Yes	No		
2	ACTIVITYNAME	Char	Key	2	Asc		Yes	Yes	No		
3	EVENTNAME	Char	Key	3	Asc		Yes	Yes	No		
4	WORKLISTNAME	Char	Key	4	Asc		Yes	Yes	No		
5	INSTANCEID	Nbr	Key	5	Asc		Yes	Yes	No		'999999999'
6	TRANSACTIONID	Nbr	Key	6	Asc		No	Yes	No		
7	SOA_REIMB_ID	Char	Key	7	Asc		Yes	Yes	No		'NEW'
8	EMPLID	Char					No	No	No		

Record Fields | Record Type

Map Hierarchies

Business Process:

A complete business task, consisting of one or more activities.

Activity:

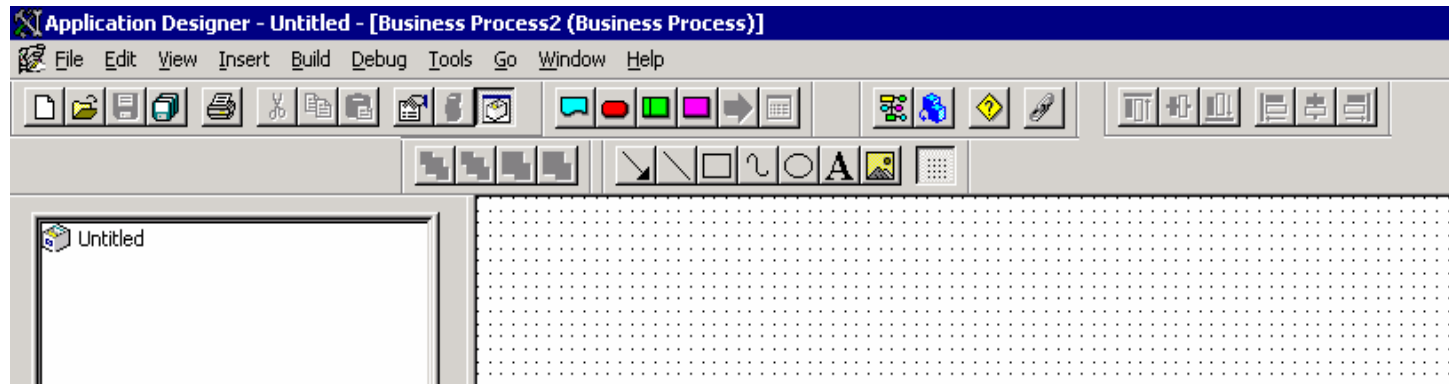A sub process of the business task, consisting of one or more steps.
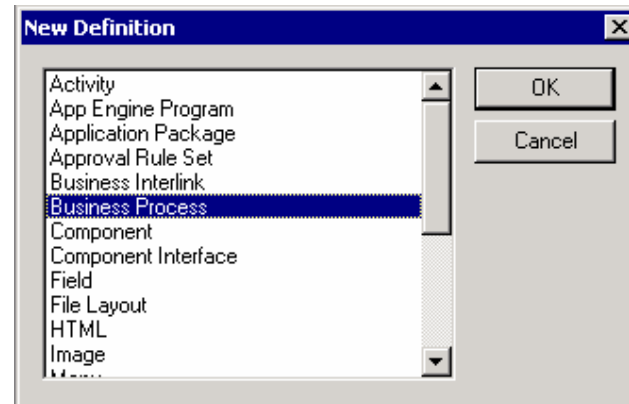
Step:

Corresponding to a single transaction executed on an application page or through an external program.

Creating a Business Process

❖ Create a Business Process

Creating a Business Process (Contd.)
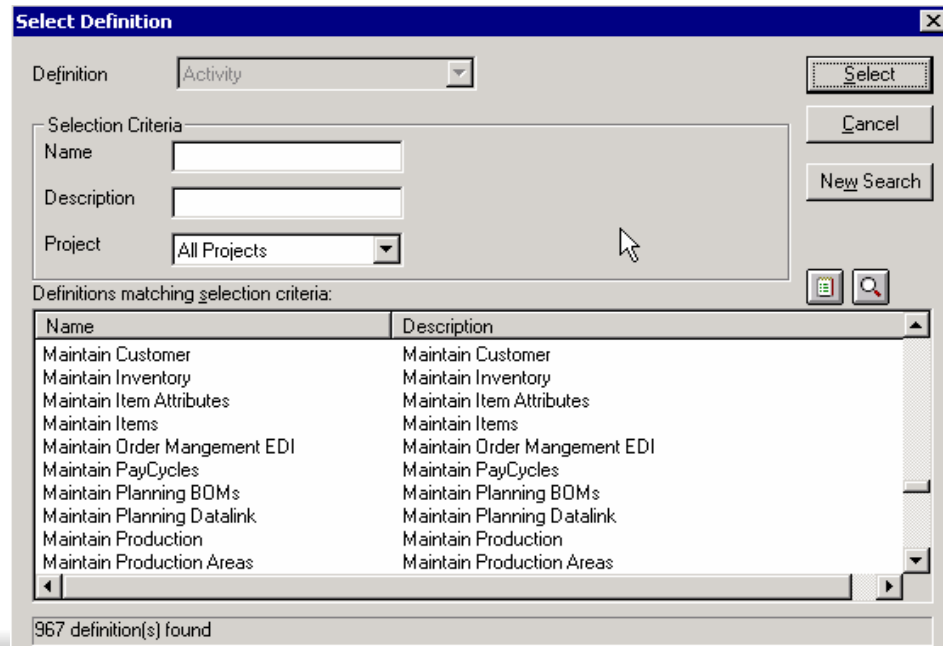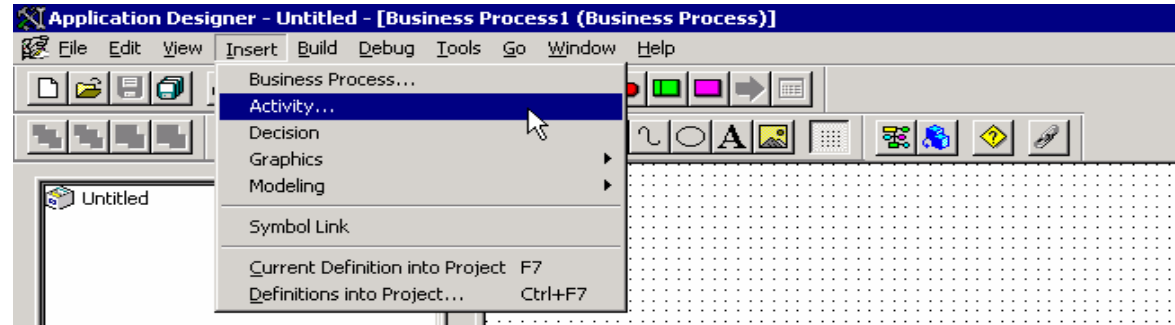
Creating an Activity

❖ Create an activity
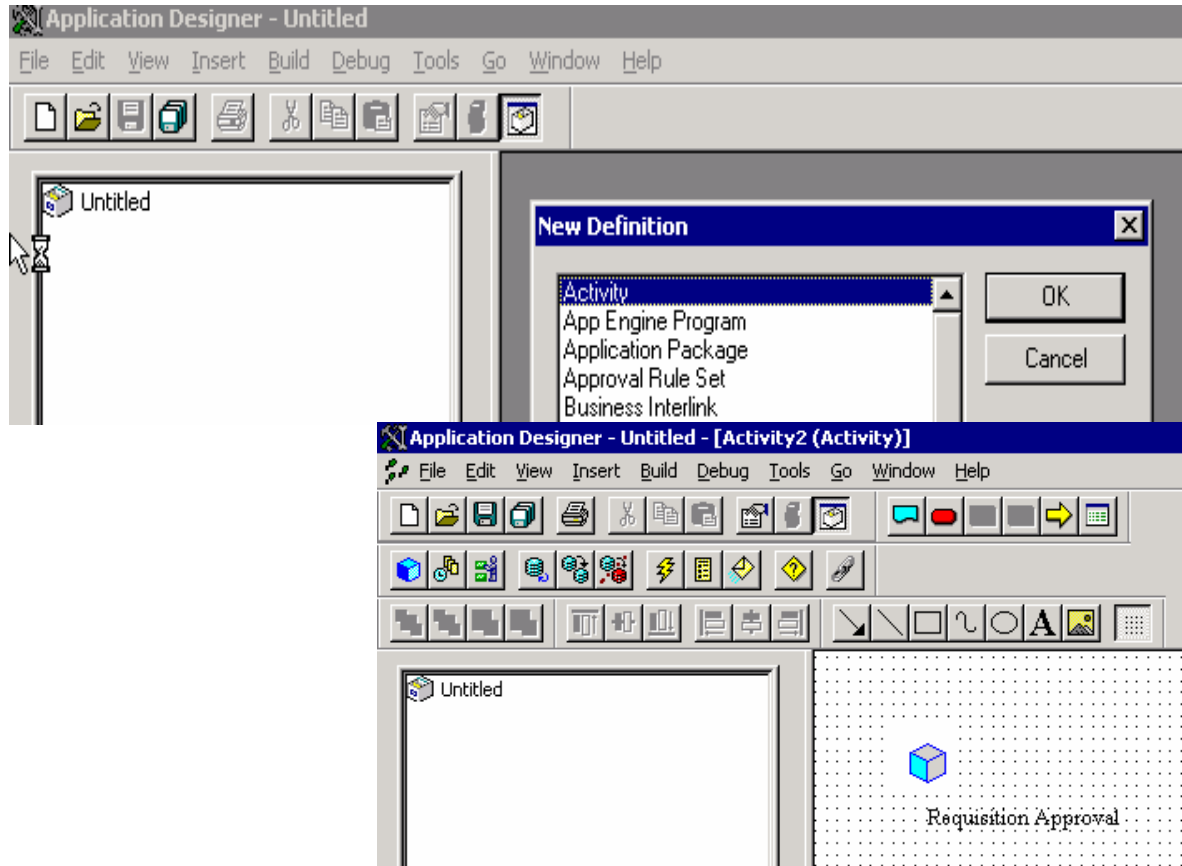
Defining a Step

❖ **Specify step attributes:**

Menu name, bar name, item name, page name, and action.

Defining an Event

❖ **Specify the event name:**

Description and record from where the event is to be triggered.
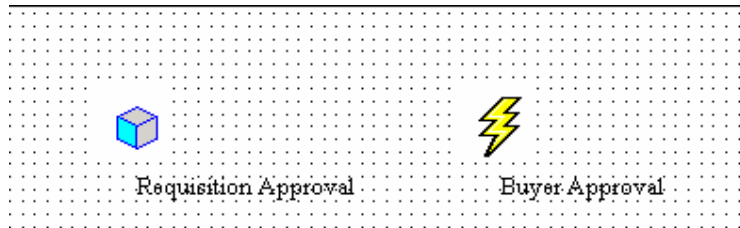
Adding Worklist

❖ Link both step and event.
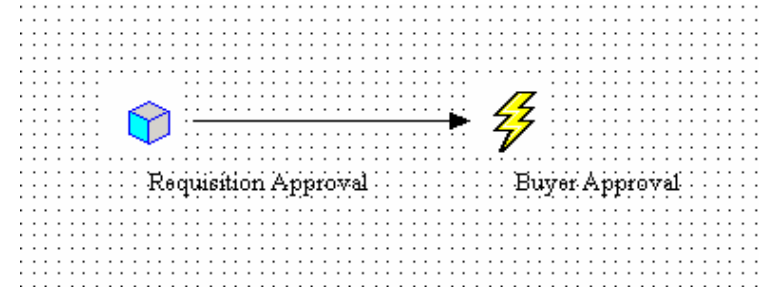
❖ Place the Worklist icon and specify the name and description.

Adding Worklist (Contd.)

SOAIS
Putting Customer First

❖ Establish link between event and Worklist.

Requisition Approval　Buyer Approval　Worklist Buyer
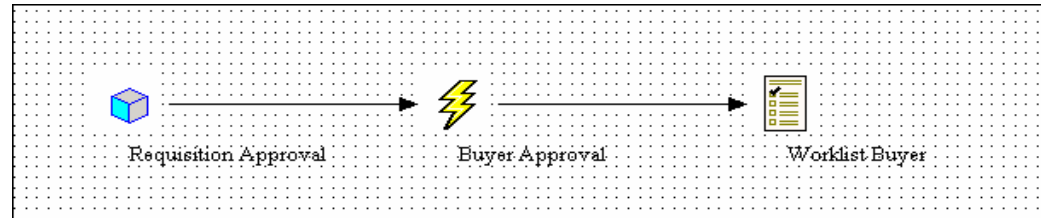
❖ Specify the Worklist field mapping.

Worklist Attributes (Contd.)

❖ Worklist Record: The record name has to be given in which the worklist data will be stored.

❖ In the Worked by group box, enter the Business Process and Activity that a user needs to complete in order to work the item.

Worklist Attributes

❖ The first three options—

Show Instances, Allow Multiple Unworked, and **Worklist Acts Like Prompt List**—have no effect in PeopleSoft 8. They are reserved for future use.

❖ **Pooled List:**

Specifies whether the system creates a single shared work item or one work item for each worklist user. With a pooled worklist, all worklist users get copies of shared work items; the first user who selects an item works it, and the item is dropped from everyone else's worklist. With a non-pooled worklist, each user gets a personal copy of each item.

Worklist Attributes (Contd.)

❖ **Timeout Processing Active:**

   Specifies whether the system checks this worklist for overdue items.

❖ **Reassignable:**

   Allows users to reassign worklist items to other users.

Adding Worklist (Contd.)

❖ The **OPRID, BUSINESS_UNIT** and **REQ_ID** values are mapped on to values from the page the workflow event is triggered
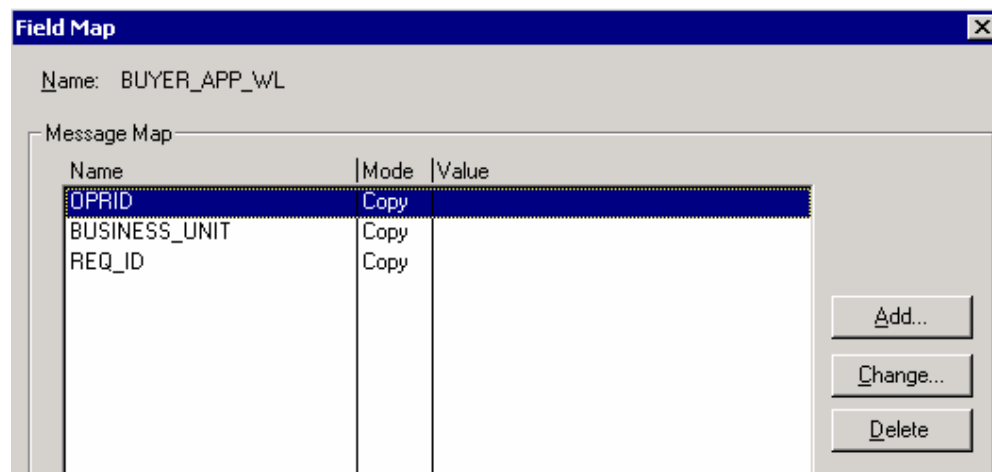
Adding Worklist (Contd.)

Map Field ✕

Field Name: OPRID ▼

Map Mode: Copy ▼

Value

○ RecField

○ Constant

● Role Name | One Route Control Qry ▼ | Specify Query Bind Variables

Specify Query Bind Variables ✕

Query Bind Variable

ROLENAME
RTE_CNTL_TYPE_1
RTE_FROM_VALUE_1
RTE_TO_VALUE_1

● Field
○ Constant

Value

Record:

REQ_HDR
REQ_PNLS_WRK
PO_OPRDEFN_VW
REQ_PNLS_PB
REQUESTOR_ITEMS
PURCH_ITEM_ATTR
EXCH_RT_WRK
REQ_ACTIVITY
CAT_LOOKUP_WRK
DERIVED
ITM_CAT_WRK
ITM_TREE_WRK
ITM_TREE_NAV
PO_SCR_NAV_WRK
COMM_WRK1

Field:

BUSINESS_UNIT
REQ_ID
REQ_STATUS
HOLD_STATUS
REQ_DT
ORIGIN
REQUESTOR_ID
OPRID_ENTERED_BY
OPRID_MODIFIED_BY
OPRID_APPROVED_BY
ENTERED_DT
APPROVAL_DT
PO_POST_STATUS
APPL_JRNL_ID_ENC
POST_DOC

Adding Worklist (Contd.)

❖ **Sample role query:**

```
SELECT A.ROLEUSER
      FROM PS_RTE_CNTL_LN_VW1 A
      WHERE A.ROLENAME = :1
      AND A.RTE_CNTL_TYPE_1 = :2
      AND A.RTE_FROM_VALUE_1 <= :3
      AND A.RTE_TO_VALUE_1 >= :4
```

Implementing Email

❖ Add email icon and specify the name. From the tool box displayed in the menu
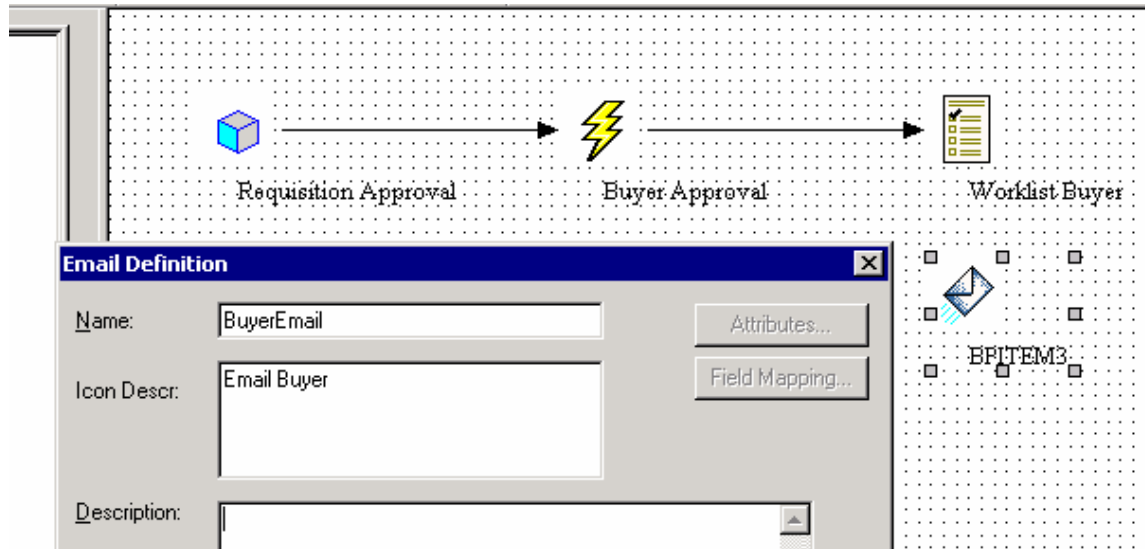
Implementing Email (Contd.)
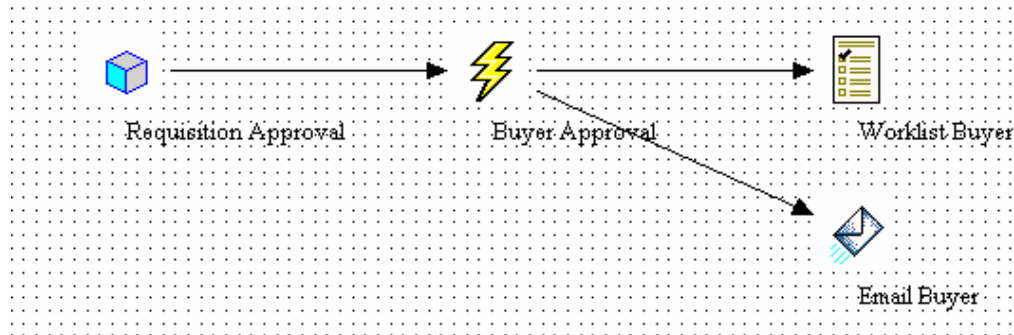
Trigger Event

❖ Add the following PeopleCode program to the workflow event on the record definition:

TriggerBusinessEvent(BUSPROCESS."SOA_TEST_BP,
    BUSACTIVITY."SOA_TEST_ACT",BUSEVENT."SOAIS Approval")

Approval Processes

Understanding Approval Processes

❖ A typical approval process incorporates many business rules. For Example:

➢ Employees can approve purchases up to a given amount, based on their level in the organization: Supervisors can approve up to 1K, managers up to 5K and Vice-President over 5K.

➢ All product improvement requests are approved by both a manufacturing representative and a safety inspector.

➢ People can only approve items for their own departments.

➢ If an item requires a vice president's approval, skip the usual step of manager approval.

➢ Business rules such as these are usually incorporated into Workflow PeopleCode programs.

Understanding Approval Processes (Contd.)

➢ Logical statements in the PeopleCode check the data on the page— such as the page where employees enter purchase requests—to see whether the conditions are right for entering a work item into the workflow.

➢ People can only approve items for their own departments.

➢ If an item requires a vice president's approval, skip the usual step of manager approval.

➢ Business rules such as these are usually incorporated into Workflow PeopleCode programs.

➢ Logical statements in the PeopleCode check the data on the page— such as the page where employees enter purchase requests—to see whether the conditions are right for entering a work item into the workflow.

Defining Approval Process

❖ Incorporating rules for Workflow routing based on transaction

❖ **Approval rules are implemented by:**

Virtual Approval determines the next Approver at each step
  ➢ Virtual Router sends Workflow notification to next Approver
  ➢ GetApprover retrieves entire chain of approvers up front
  ➢ Supervisor Up to 1k
  ➢ Manager Up to 5k
  ➢ Vice President Over 5K

Supervisor	Manager	Vice President
1A	2A	3A
Up to 1K	Up to 5K	Over 5k

Adding workflow Fields to the Record

❖ The header record should have the three additional fields marked below

Record Fields	Record Type					
Num	**Field Name**	**Type**	**Len**	**Format**	**Short Name**	**Long Name**
1	SOA_REIMB_ID	Char	11	Upper	Reimbursment ID	Reimbursment ID
2	DATE	Date	10		Date	Date
3	EMPLID	Char	11	Upper	ID	EmplID
4	SUPERVISOR_ID	Char	11	Upper	Supv ID	Supervisor ID
5	MANAGER_ID	Char	11	Upper	MgrID	Manager ID
6	BUSINESS_UNIT	Char	5	Upper	Unit	Business Unit
7	AMOUNT	Sign	15.3		Amount	Amount
8	SOA_SUPERVISOR	Char	1	Upper	Supervisor	Supervisor
9	SOA_MANAGER	Char	1	Upper	manager	manager
10	SOA_WF_MANAGER	Char	1	Upper	WFM Approval	WFM Approval
11	APPR_INSTANCE	Nbr	9		Appr Inst	Approval Instance
12	APPR_ACTION	Char	1	Upper	Appr Act	Approval Action
13	APPROVAL_STATUS	Char	1	Upper	Approval Status	Approval Status
14	SAVEBTN	Char	1	Upper	svaebtn	savebtn

Adding workflow Pages to the Components

❖ Every component that uses Virtual Approver PeopleCode must include the pages WF_FUNCTIONS_01 and APPR_WRK_01.

Definition	Structure					
	Page Name	Item Name	Hidden	Item Label	Folder Tab Label	Allow Deferred Processing
1	SOA_REIMB_MGR_PG	SOA_REIMB_MGR_PG	☐	Reimbursment Approval		☑
2	WF_FUNCTIONS_01	WF_FUNCTIONS_01	☑	Wf Functions 01		☑
3	APPR_WRK_01	APPR_WRK_01	☑	Appr Wrk 01		☑

Defining Approval Process (Contd.)
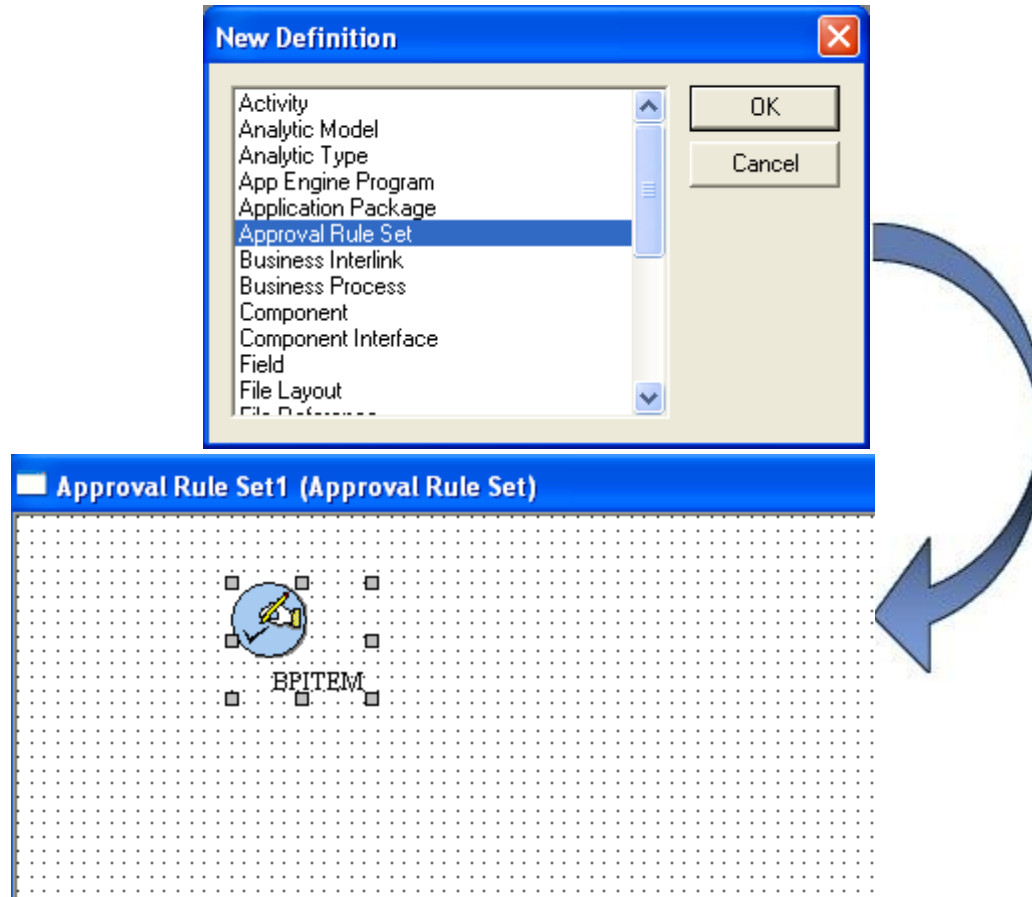
Properties 0f Approval Rule Set

Approval Rule Properties

General | Use

SOA_REIMB_SUPVR
1900-01-01

Icon Descr: SOA IT Solution Reimbursment

Comments: SOAIS Reimbursment

Owner Id:

☑ Approval Active   ☑ Allow Self Approval

Last Updated
Date/Time: 02/24/09 7:25:10PM
By User: PS
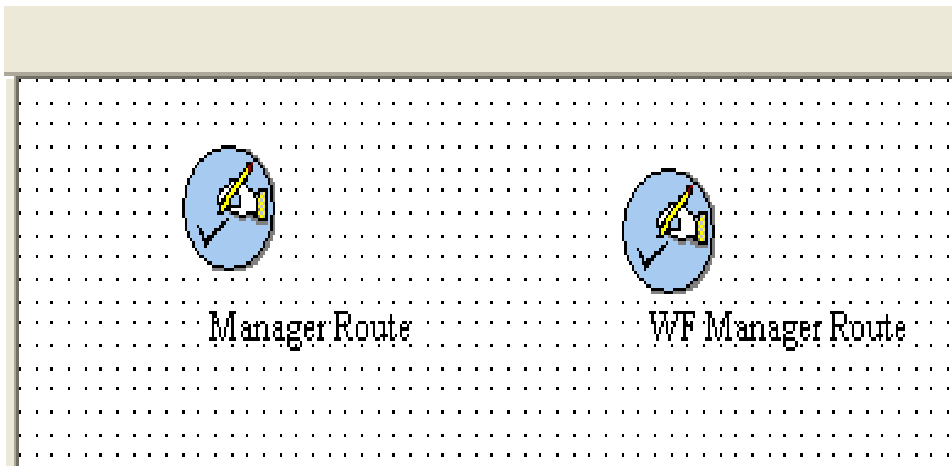
[OK] [Cancel]

Approval Rule Properties

General | Use

Business Process: SOA_REIMBURSMENT

On Authorized
Activity Name: SOA_REIMB_ACTIVITY
Event Name: Manager Route

On Currency
Currency Code: USD
Rate Type: OFFIC
Currency Record: SOA_REIMB_HDR
Currency Field: AMOUNT

[OK] [Cancel]

Defining Approval Process (Contd.)

Defining Approval Process (Contd.)

Triggering Virtual Approver Routing

❖ **SaveEdit PeopleCode:**

/ Declare the Virtual Approver workflow functions */*

Declare function Get_RoleUser PeopleCode
APPR_VA0_WRK.ROLEUSER.FieldChange;

Declare function Virtual_Approver PeopleCode
APPR_VA0_WRK.FUNCLIB_01.FieldFormula

/ Get the role user name for the current user */*

&USERID = %UserId

Get_RoleUser(&USERID, &EMAILID, &FORMID, &EMPLID, &ROLEUSER);

/ Set values in the work record for Virtual_Approver */*

APPR_FIELDS_WRK.ROLEUSER = &ROLEUSER;

APPR_FIELDS_WRK.BUSPROCNAME = <BusProcessName>;

APPR_FIELDS_WRK.APPR_RULE_SET = <approval_rule_set>;

APPR_FIELDS_WRK.APPR_ACTION =   <approval_action>;

Triggering Virtual Approver Routing (Contd.)

/* Set values in the work record for Virtual_Approver */

```
APPR_FIELDS_WRK.ROLEUSER = &ROLEUSER;
APPR_FIELDS_WRK.BUSPROCNAME   =   <BusProcessName>;
APPR_FIELDS_WRK.APPR_RULE_SET =  <approval_rule_set>;
APPR_FIELDS_WRK.APPR_ACTION      =  <approval_action>;
APPR_FIELDS_WRK.APP_ROW_NUMBER = <current_row_number>;
```

/* Call the Virtual Approver */
```
Virtual_Approver();
```

/*Set the application record's approval status field to the value
   Virtual_Approver() returns */

```
<status_record_field> = PPR_FIELDS_WRK.APPR_STATUS;
```

❖ **Workflow PeopleCode:**

```
declare function Virtual_Router PeopleCode
APPR_VA0_WRK.FUNCLIB_02 FieldFormula;

APPR_FIELDS_WRK.APPR_VR_ROW = <scroll_info>;

Virtual_Router();

If None(APPR_INSTANCE) then
    APPR_INSTANCE = APPR_FIELDS_WRK.APPR_INSTANCE;
End-if;
```

Setting up the Rules Online

About SOAIS

SOAIS is a provider of Enterprise IT and Process outsourcing solutions. Since its inception SOAIS has expanded at a tremendous pace and has garnered customers from both mid-market segment and Fortune 100 companies. We have experience in managing ERP applications as well as in providing high value services around packaged enterprise applications such as PeopleSoft and Oracle. Our experience in the business process outsourcing area fully extends our services footprint to provide end to end enterprise wide solutions.

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