

Creating Attachments to Work Items or to User Decisions in Workflows



Applies to:

Product release ECC 6.0. For more information, visit the [Business Process Modeling homepage](#).

Summary

This document gives a brief idea about attaching a document to the work item or to the user decision step.

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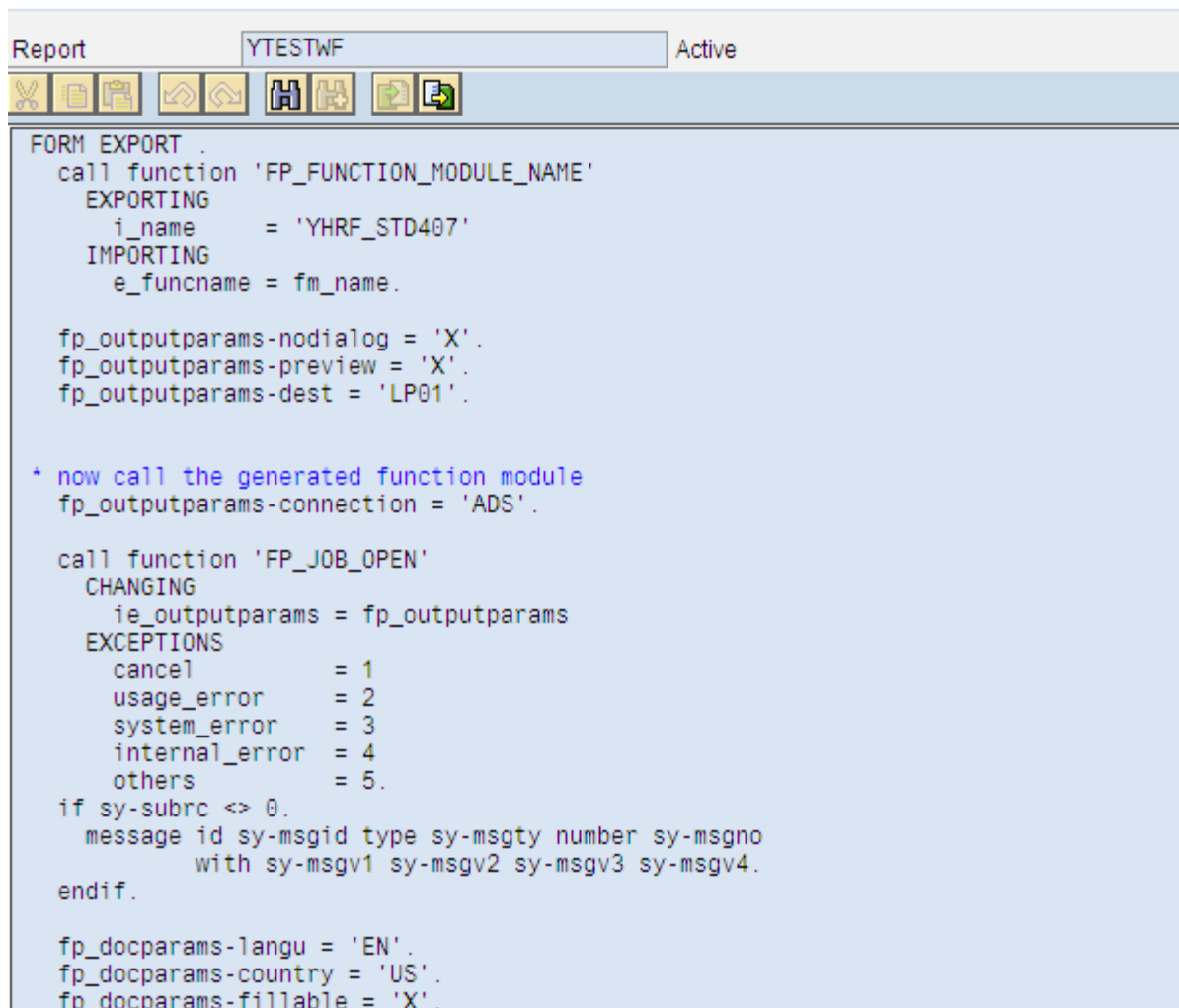
Business Requirement

Now a days, sending documents like WORD, PDF or any document from the system as an attachment has become a typical requirement in workflow, technically speaking sending an attachment to work item or to User decision. This document explains how to create documents like WORD, PDF as an attachment to the workitem or to user decision step.

- Creating an attachment of online documents like output of the adobe forms or sap scripts or smart forms.
- Creating an attachment of offline documents like PC files.

Creating Adobe Form Output as an Attachment to Work Item

In this Example, a program 'YTESTWF' has been developed, which calls Adobe form function module to display the output of the form. The below screen shot shows the source code of the program 'YTESTWF'.



```

FORM EXPORT .
  call function 'FP_FUNCTION_MODULE_NAME'
    EXPORTING
      i_name      = 'YHRF_STD407'
    IMPORTING
      e_funname   = fm_name.

  fp_outputparams-nodialog = 'X'.
  fp_outputparams-preview = 'X'.
  fp_outputparams-dest = 'LP01'.

* now call the generated function module
  fp_outputparams-connection = 'ADS'.

  call function 'FP_JOB_OPEN'
    CHANGING
      ie_outputparams = fp_outputparams
    EXCEPTIONS
      cancel           = 1
      usage_error      = 2
      system_error     = 3
      internal_error   = 4
      others           = 5.
  if sy-subrc <> 0.
    message id sy-msgid type sy-msgty number sy-msgno
      with sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
  endif.

  fp_docparams-langu = 'EN'.
  fp_docparams-country = 'US'.
  fp_docparams-fillable = 'X'.

```

Selection Screen for the above program 'YTESTWF':-

Execute (F8)	
Fiscal Year	2008
Payroll Agency Code	421
Report Unit Code	424
Effective Date	09/03/2008
Type Change Description	12
Payroll Header Description	This is to test Ramakanth

When the program 'YTESTWF' is executed we would be able to view the Adobe form output, for reference find the below screen.

Please fill out the following form. You can save data typed into this form.

IDENTIFICATION		TYPE CHANGE DESCRIPTION		PAYROLL HEADER DESCRIPTION (LIMIT 30 CHARACTERS—LINES 1 THROUGH 7)
1. Fiscal Year (Ending Fiscal Year - CCYY)	2008	12	1	THIS IS TO TEST RAMAKANTH
2. Payroll Agency Code	421		2	
3. Reporting Unit Code	424		3	
4. Budget Function Code (if applicable)			4	
5. Effective/Abolishment Date (CCYYMM)	Sep 3, 2008		5	
6. Transaction Type:	Abolish	A	<input type="radio"/>	
	Change	C	<input type="radio"/>	
	Establish	E	<input type="radio"/>	
	Reestablish Abolished Header	R	<input type="radio"/>	
	Delete	D	<input type="radio"/>	
				REMARKS Cost Center: 1xxxxxxxxx

Now, based on the requirement this adobe form needs to be sent as an attachment to workitem or to user decision step in workflow.

Go through the below steps to achieve the attachment to the workitem: -

- 1) The output content of the Adobe forms is of the type FP_FORMOUTPUT. This type has many options associated to the structure 'FPFORMOUTPUT' which is defined in the program, in our case we are using PDF format as our content, Please find the below screen shots for your reference : -

```

Report      YTESTWF      Active
-----
message id sy-msgid type sy-msgty number sy-msgno
         with sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
endif.

fp_docparams-langu = 'EN'.
fp_docparams-country = 'US'.
fp_docparams-fillable = 'X'.

call function fm_name
EXPORTING
  /1bcdwb/docparams = fp_docparams
  ZHR_F_std407_T    = it_ZHR_F_std407
IMPORTING
  /1bcdwb/formoutput = fp_formoutput.
    
```

Structure	FPFORMOUTPUT	Active				
Short Description	Form Output (PDF, PDL)					
<p>Attributes Components Entry help/check Currency/quantity fields</p>						
<p>Predefined Type 1 / 5</p>						
Component	RTy	Component type	Data Type	Length	Decim	Short Description
PDF	<input type="checkbox"/>	FPCONTENT	RAWSTRING	0	0	Form Processing: Content from XFT, XFD, PDF, and so on
PDL	<input type="checkbox"/>	FPCONTENT	RAWSTRING	0	0	Form Processing: Content from XFT, XFD, PDF, and so on
XML	<input type="checkbox"/>	FPCONTENT	RAWSTRING	0	0	Form Processing: Content from XFT, XFD, PDF, and so on
PAGES	<input type="checkbox"/>	FPPAGECOUNT	INT4	10	0	Form Processing: Number of Pages Created
LANGU	<input type="checkbox"/>	LANGU	LANG	1	0	Language Key

- 2) The above all options are in XSTRING format, Now take the option FPFORMOUTPUT-PDF and convert the XSTRING to BINARY format and find the size the document by using the below Function Module, please find the below screen shot-

```

CALL FUNCTION 'SCMS_XSTRING_TO_BINARY'
EXPORTING
  BUFFER      = fp_formoutput-PDF
IMPORTING
  OUTPUT_LENGTH = ZVAR1
TABLES
  * BINARY_TAB = lt_att_content_hex.
  BINARY_TAB   = IT_SOLIX_TAB.
    
```

- 3) To create an attachment we need two inputs from program

- 1) Size of the document (ZVAR1)
- 2) Content, this should be in the Binary format. Now we have both the required data (IT_SOLIX_TAB).

- 4) Source code of Program YTESTWF which will pass the required information to workflow, Please find the below screen shot-

```

DATA:
  ZVAR1 TYPE WSRM_ERROR-WSRM_DIRECTION,
  IT_SOLIX_TAB TYPE SOLIX-LINE OCCURS 0,
  obj type swc_object,
  objkey type SWR_STRUCT-OBJECT_KEY,
  IT_agents type swhactor occurs 0,
  GV_INITIATOR LIKE SWWIHEAD-WI_CREATOR.
  swc_create_object obj 'ZHOMORG' SY-UNAME.
  SWC_CONTAINER CONTAINER.
  SWC_CREATE_CONTAINER CONTAINER.

CALL FUNCTION 'SCMS_XSTRING_TO_BINARY'
  EXPORTING
    BUFFER = fp_formoutput-PDF
  IMPORTING
    OUTPUT_LENGTH = ZVAR1
  TABLES
    BINARY_TAB = IT_SOLIX_TAB.

IF SY-SUBRC = 0 AND NOT IT_SOLIX_TAB[] IS INITIAL.

  SWC_SET_TABLE CONTAINER 'IT_SOLIX_TAB' IT_SOLIX_TAB.
  SWC_SET_ELEMENT CONTAINER 'ZVAR1' ZVAR1.
  SWC_SET_ELEMENT CONTAINER 'ZHOMORG' OBJ.

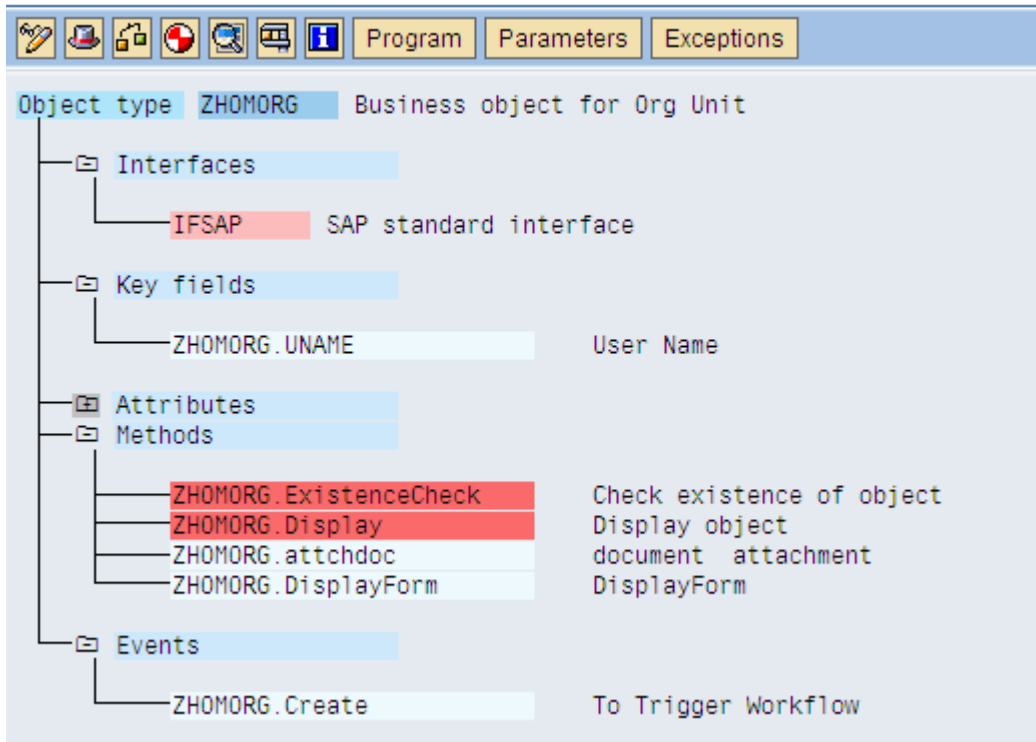
  GV_INITIATOR = SY-UNAME.
  CALL FUNCTION 'SWW_WI_START_SIMPLE'
    EXPORTING
      creator = GV_INITIATOR
      task = 'WS900000019'
      called_in_background = 'X'

  -----
  TABLES
    agents = IT_agents
    wi_container = container.
  commit work.
ENDIF.

```

- 5) Create a Business object 'ZHOMORG' with method 'ATTCHDOC' and it should be in background mode, Please check the below screen shots it will help you to create the business object

Display Object Type ZHOMORG



Key Field used here is Username.

Method ATTCHDOC is used to create an attachment to the workitem.

The Import / export Parameters of the ATTCHDOC is as shown below.

Object Type ZHOMORG: Display Parameters for Method ATTCHDOC

Overview					
Parameter	Obj. Type	First Release	Imp.	Man.	Exp.
SOFM	ZHOMORG	700	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IT_SOLIX_TAB	ZHOMORG	700	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ZSWR_ATT_ID	ZHOMORG	700	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ZVAR1	ZHOMORG	700	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WorkItemID	ZHOMORG	700	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source code for Method ATTCHDOC: -

```

BEGIN_METHOD ATTCHDOC CHANGING CONTAINER.
DATA:
  IT_SOLIX_TAB TYPE SOLIX-LINE OCCURS 0,
  ZSWR_ATT_ID LIKE SWR_ATT_ID,
  ZSWR_ATT_HEADER TYPE SWR_ATT_HEADER,
  ZXSTRING TYPE XSTRING,
  WORKITEMID LIKE SWR_STRUCT-WORKITEMID,
  ZVAR1 TYPE WSRM_ERROR-WSRM_DIRECTION,
  ** ZSOFM TYPE SWC_OBJECT,
  SOFM TYPE SWC_OBJECT.
SWC_GET_TABLE CONTAINER 'IT_SOLIX_TAB' IT_SOLIX_TAB.
SWC_GET_ELEMENT CONTAINER 'WorkItemID' WORKITEMID .
SWC_GET_ELEMENT CONTAINER 'ZVAR1' ZVAR1.
CALL FUNCTION 'SCMS_BINARY_TO_XSTRING'
  EXPORTING
    INPUT_LENGTH      = ZVAR1
  IMPORTING
    BUFFER            = ZXSTRING
  TABLES
    BINARY_TAB        = IT_SOLIX_TAB
  .
IF SY-SUBRC <> 0.
* MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO

```



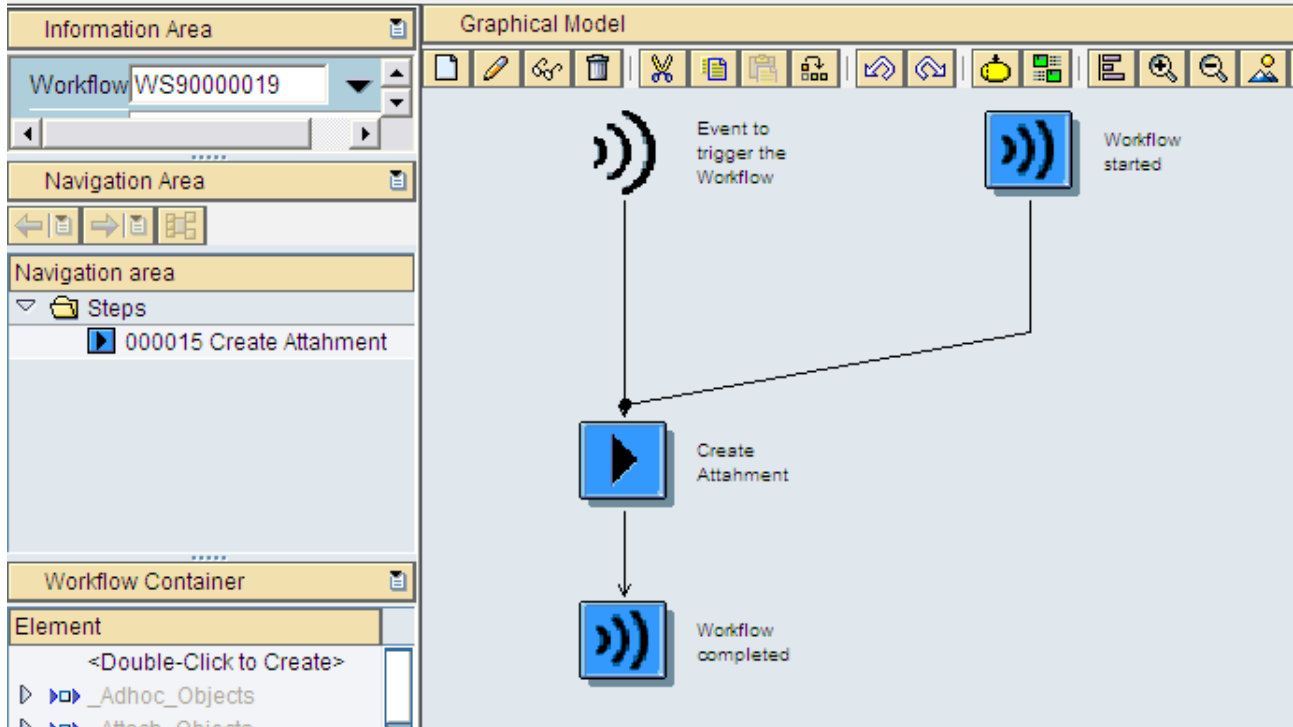
```

*       WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.
** TO FILL THE HEADER CONTENTS
ZSWR_ATT_HEADER-FILE_TYPE = 'B'.
ZSWR_ATT_HEADER-FILE_NAME = 'FORM-407'.
ZSWR_ATT_HEADER-FILE_EXTENSION = 'PDF'.
ZSWR_ATT_HEADER-LANGUAGE = 'EN'.
CALL FUNCTION 'SAP_WAPI_ATTACHMENT_ADD'
EXPORTING
  WORKITEM_ID      = WORKITEMID
  ATT_HEADER       = ZSWR_ATT_HEADER
*  ATT_TXT          =
  ATT_BIN          = ZXSTRING
*  DOCUMENT_OWNER  = SY-UNAME
*  LANGUAGE        = SY-LANGU
*  DO_COMMIT       = 'X'
IMPORTING
*  RETURN_CODE     =
  ATT_ID           = ZSWR_ATT_ID
* TABLES
*  MESSAGE_LINES   =
*  MESSAGE_STRUCT  =
.
SWC_SET_ELEMENT CONTAINER 'ZSWR_ATT_ID' ZSWR_ATT_ID.
SWC_SET_ELEMENT CONTAINER 'SOFM' ZSWR_ATT_ID-doc_id.
END_METHOD.

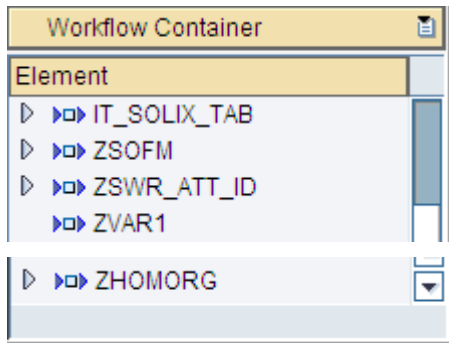
```

In the above method, we have called the Function Module 'SAP_WAPI_ATTACHMENT_ADD' to create an attachment to workitem. We need to pass the XSTRING data to the above function module. Before doing this use the function module SCMS_BINARY_TO_XSTRING to convert from BINARY format to XSTRING format. Now pass the WORKITEM ID, Header and XSTRING variables to the Function Module it will give the Attachment ID as an output. Now create an instance to SOFM.

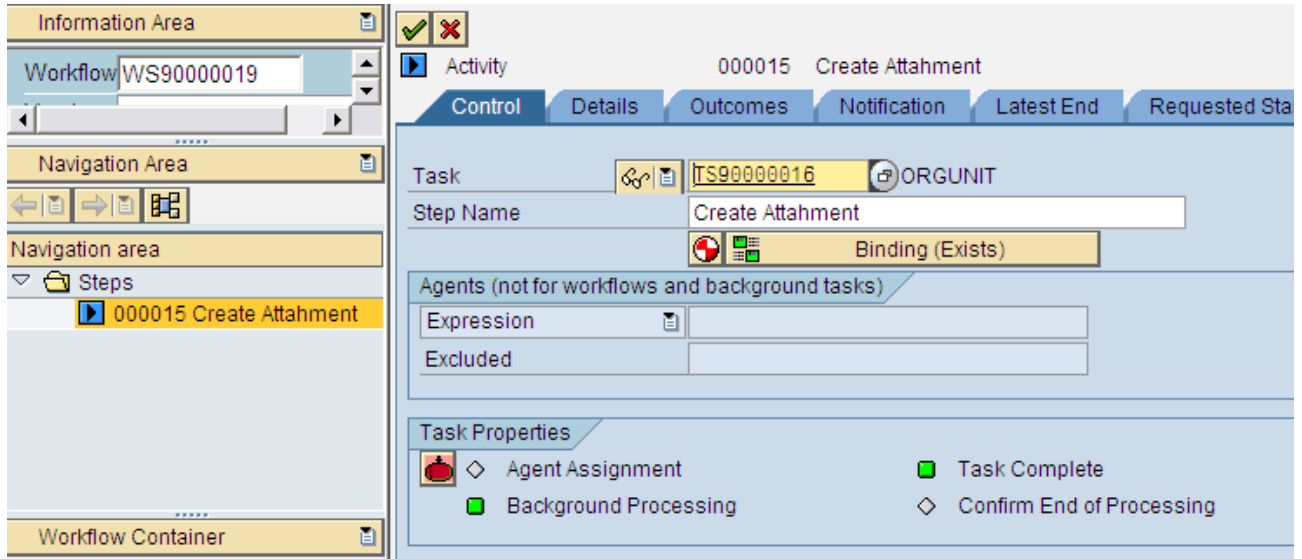
Design workflow: --



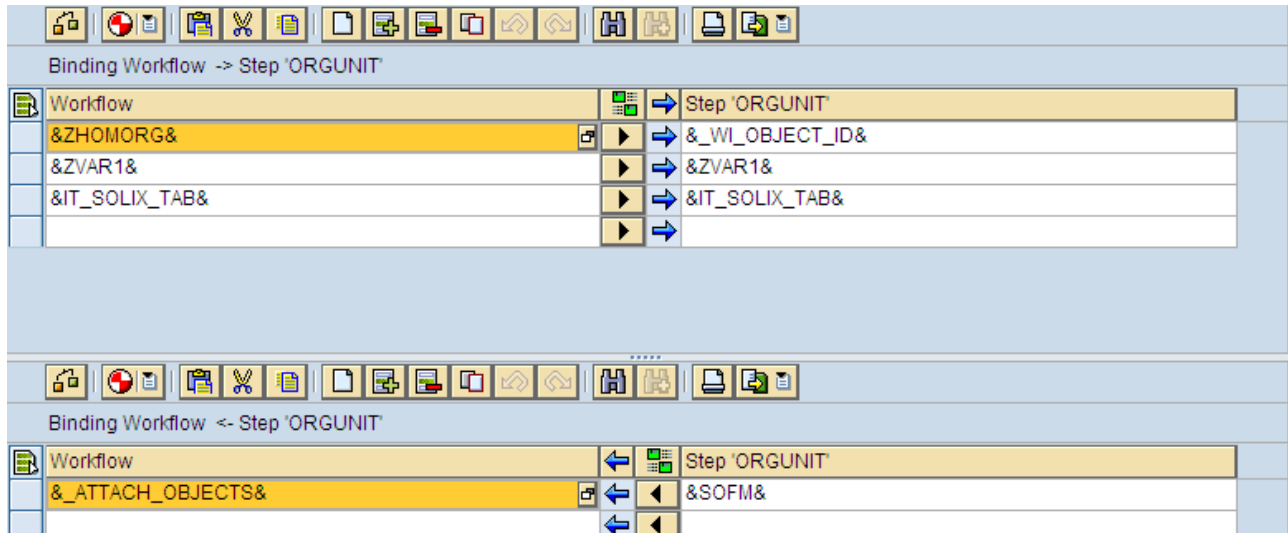
Container Elements – Need to create container elements which we are getting from program YTESTWF.



Task Create Attachment, please go through the below screenshots –



Binding from workflow to task



Standard Task: Display

Standard task	90000016	ORGUNIT
Name	ORGUNIT	
Package	ZHR	Applicatn Component

Basic data
 Description
 Container
 Triggering events
 Termination

Name

Abbr.	<input type="text" value="ORGUNIT"/>
Name	<input type="text" value="ORGUNIT"/>
Release status	<input type="text" value="Not defined"/>

Work Item Text

Work item text	<input type="text" value="This workitem is create the attachment"/>
----------------	---------------------------------------------------------------------

Object method

Object Category	<input type="text" value="BOR Object Type"/>
Object Type	<input type="text" value="ZHOMORG"/> ZHOM_ORG
Method	<input type="text" value="ATTCHDOC"/> attchdoc
	<input checked="" type="checkbox"/> Synchronous object method
	<input type="checkbox"/> Object method with dialog

Execution

<input checked="" type="checkbox"/> Background processing	<input type="checkbox"/> Executable with SAPforms
-----------------------------------------------------------	---------------------------------------------------

Binding from task to method: -

Binding Task 'ORGUNIT' -> Method

Task 'ORGUNIT'		Method
&_WORKITEM.WORKITEMID&	▶	&WORKITEMID&
&ZVAR1&	▶	&ZVAR1&
&IT_SOLIX_TAB&	▶	&IT_SOLIX_TAB&
	▶	

.....

Task 'ORGUNIT'		Method
&ZSOFM&	◀	&SOFM&
&ZSWR_ATT_ID&	◀	&ZSWR_ATT_ID&
&SOFM&	◀	&SOFM&
	◀	

Now activate the program, workflow & Business Object and execute the Program YTESTWF.

Go to Transaction SWI1 - > execute, Please find the below screen shot -

Selection Report for Work Items

Selection Using Work Item ID

Identification to

Selection Using Work Item Properties

Type	<input type="text"/>	to	<input type="text"/>	
Status	<input type="text"/>	to	<input type="text"/>	
Priority	<input type="text"/>	to	<input type="text"/>	
Deadline Status	<input type="text"/>	to	<input type="text"/>	
Task	<input type="text"/>	to	<input type="text"/>	
Task Group	<input type="text"/>			

Selection Using Time Period

Creation Date to

Creation Time to

Output Options (+Version, +Administrator)

Switch On




Once you execute, you will find the below screen shot –

Work Item Selection (6 Entries)



ID	Work Item Type	Language	Work item text
425127	Background Step	English	This workitem is create the attachment
425126	(Sub)workflow	English	Organisation unit create/change Workflow


Double click on the workitem 425127, you will get the below screen: -

Display work item


 Log
  Graphic

Work item information

ID	000000425127	
Type	Background Step	
Title	This workitem is create the attachment	
Status	Completed	 Message
Priority	5 Medium	
Agent	Ramakanth Vennapusa	


 Attach.

Deadline Data


	Creation	Start	End Date
Current	11/13/2008 03:24:09	11/13/2008 03:24:09	11/13/2008 03:24:11
Requested			
Latest			

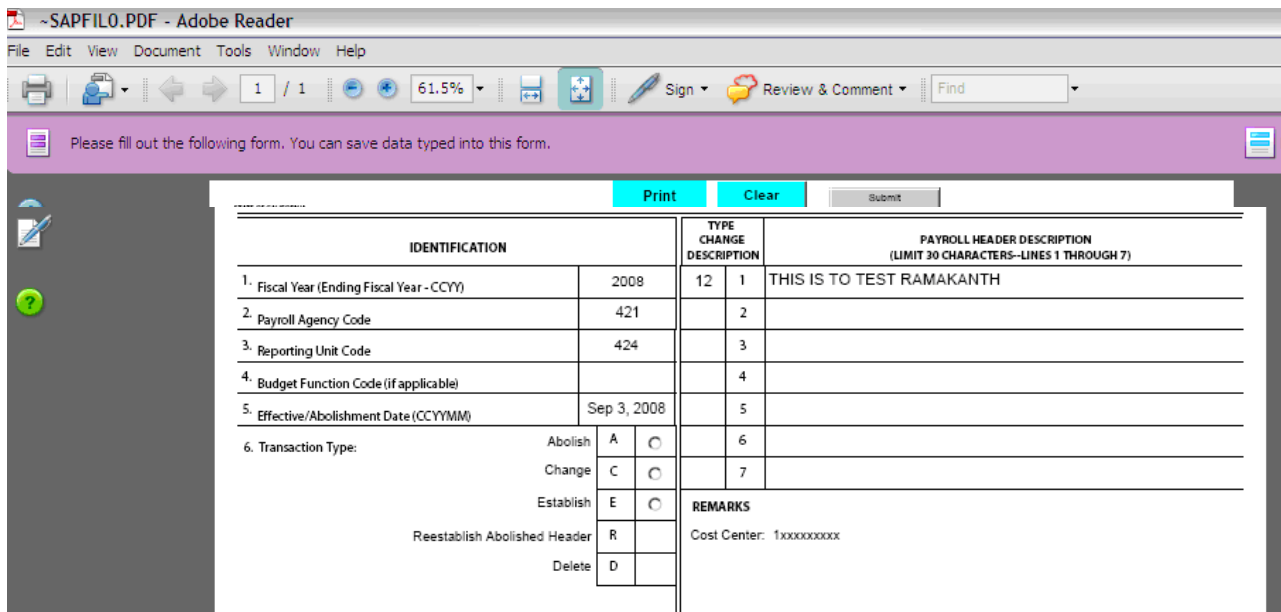
Description

No description

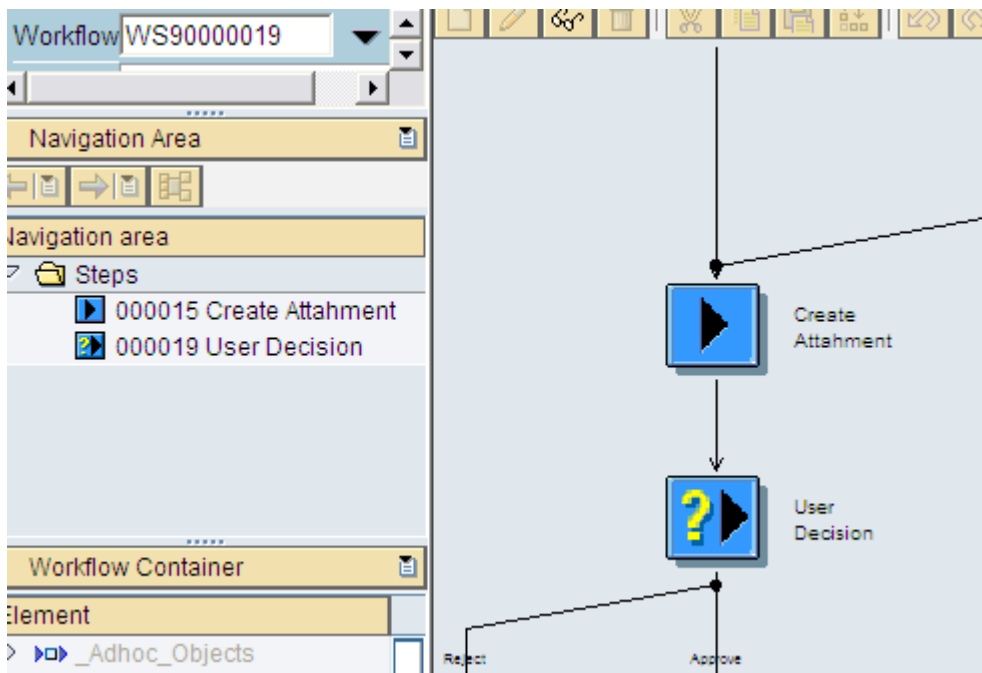
In the above Screen shot, you will find the Button Attach  Attach. with document icon. Please observe it. If you click on that button, you will get the popup screen and form document as shown below.

1. Switch to the window of your PC application to display the document
2. Close your document.
3. Press "Continue" in the R/3 window.





If you want to send this to user decision, please add user decision step after the create attachment task, please find the screen shot-



Binding from workflow container to user decision is –

Binding Workflow -> Step 'Generic decision task'

Workflow			Step 'Generic decision task'
X			&EXTENDED&
&_ATTACH_OBJECTS&			&_ATTACH_OBJECTS&

.....

Binding Workflow <- Step 'Generic decision task'

Workflow			Step 'Generic decision task'

After adding the user decision to the workflow, activate and execute the program YTESTWF. You will find the user decision step at in your box as shown below.

Workflow 1,056

Ex...	Title	Status	Creation Da...	Creation ...	P	Att...	C
	User Decision		11/13/2008	05:53:33	5		

<p>Description</p> <p>Choose one of the decision options given. This completes the processing of this step.</p>	<p>Objects and attachments</p> <ul style="list-style-type: none"> • 0000004EXT: 33000000001204 • Office Document: FORM
------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Click on the office Document: Form, you will get the document as shown below.

-SAPFILO.PDF - Adobe Reader

File Edit View Document Tools Window Help

1 / 1 61.5% Sign Review & Comment Find

Please fill out the following form. You can save data typed into this form.

Print Clear Submit

IDENTIFICATION		TYPE CHANGE DESCRIPTION		PAYROLL HEADER DESCRIPTION (LIMIT 30 CHARACTERS--LINES 1 THROUGH 7)
1. Fiscal Year (Ending Fiscal Year - CCYY)	2008	12	1	THIS IS TO TEST RAMAKANTH
2. Payroll Agency Code	421		2	
3. Reporting Unit Code	424		3	
4. Budget Function Code (if applicable)			4	
5. Effective/Abolishment Date (CCYYMM)	Sep 3, 2008		5	
6. Transaction Type:	Abolish	A	<input type="radio"/>	
	Change	C	<input type="radio"/>	
	Establish	E	<input type="radio"/>	
	Reestablish Abolished Header	R	<input type="radio"/>	
	Delete	D	<input type="radio"/>	
REMARKS				Cost Center: 1xxxxxxxxx

Related Content

Forums

Workflow <http://www.sap-img.com/workflow/sap-workflow.htm>

Download

Business Workflow

<http://help.sap.com/printdocu/core/Print46c/en/data/pdf/BCBMTWFMSTART/BCBMTWFMSTART.pdf>

For more information, visit the [Business Process Modeling homepage](#).

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