PROCESS DIRECTOR 7.3

Configuring PROCESS DIRECTOR for use with Accounts Payable

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Questions or comments about this document may be emailed to **documentation@readsoft.com**.

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Introduction

Overview

PROCESS DIRECTOR is a control center for handling different processes inside your SAP system. One of these is Accounts Payable, and the processing of documents such as invoices and credit notes. These documents are handled by PROCESS DIRECTOR Accounts Payable, previously known as INVOICE COCKPIT Suite.

PROCESS DIRECTOR and PROCESS DIRECTOR Accounts Payable are two separate applications, delivered as separate transports. This guide explains how to integrate PROCESS DIRECTOR Accounts Payable (and INVOICE COCKPIT) into PROCESS DIRECTOR, so that you may display invoice documents in the PROCESS DIRECTOR worklist in:

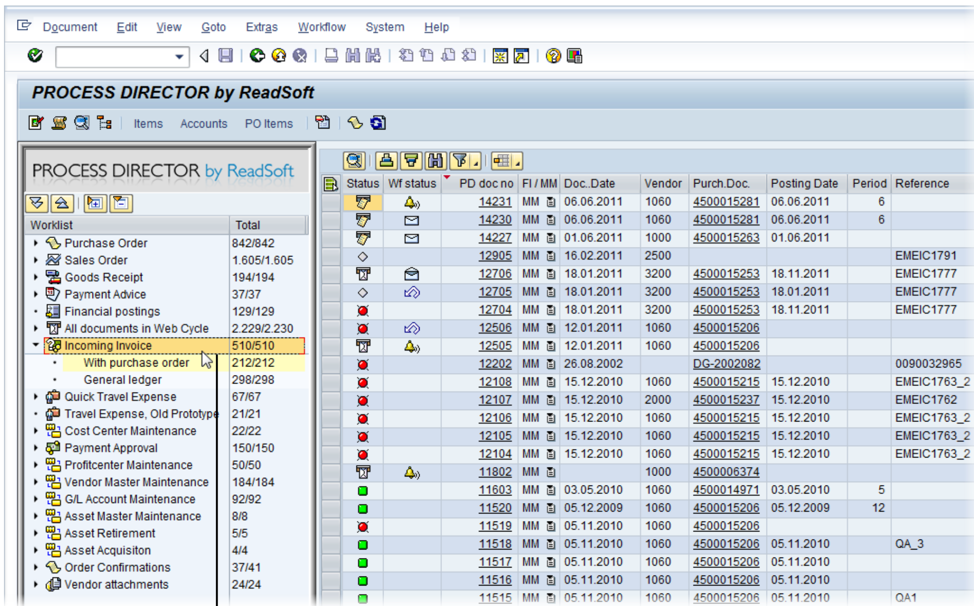
- the SAP GUI (that is, `/EBY/PD`, not `/COCKPIT/1`)
- the PROCESS DIRECTOR Web Application

Note: This document does not describe how to upgrade from INVOICE COCKPIT to PROCESS DIRECTOR Accounts Payable! It only explains how to integrate PROCESS DIRECTOR Accounts Payable/INVOICE COCKPIT with PROCESS DIRECTOR.

Glossary

Component	Description
PROCESS DIRECTOR Accounts Payable (PD AP)	The new version of INVOICE COCKPIT Suite.
WORK CYCLE Web Application	The new version of the WEB CYCLE Web Application. ▪ Only supports invoices. ▪ Uses the green layout.
PROCESS DIRECTOR Web Application	The new PROCESS DIRECTOR Web Application. ▪ Supports all PROCESS DIRECTOR process types. ▪ Uses the blue, black and gray layout.

PROCESS DIRECTOR in the SAP GUI



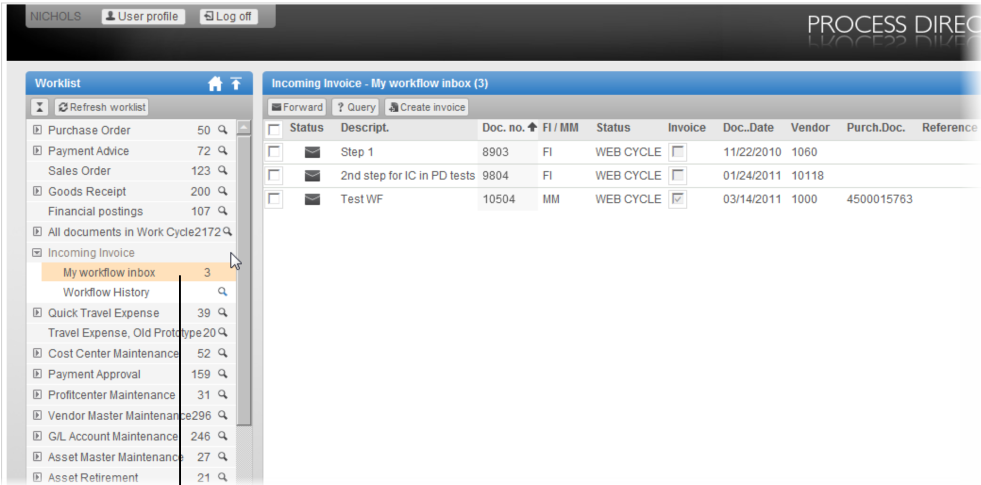
The Incoming Invoice node enabled in PROCESS DIRECTOR in the SAP GUI. The worklist displays the same documents as /COCKPIT/1.

PROCESS DIRECTOR Web Application

Documents in a *workflow* can be processed in the PROCESS DIRECTOR Web Application, which supersedes the WORK CYCLE Web Application. It is not possible to post documents in the PROCESS DIRECTOR Web Application—only the standard workflow functionality is available.

The PROCESS DIRECTOR 7.3 Web Application:

- Supports all PROCESS DIRECTOR process types
- Has a modern look and feel
- Is easy to use



The Incoming Invoice node enabled in the PROCESS DIRECTOR Web Application, for approving documents in workflows.

Feature comparison

There are some minor settings and features in the WEB/WORK CYCLE Web Application that are not yet supported by the PROCESS DIRECTOR Web Application. Some are not applicable to the new Web Application. Others will be added in future releases.

The table below compares the availability of some features between the two Web Applications. For a complete list, see Supported Features in the PD Web App. This document is available to ReadSoft staff only and is updated as support for new features is added.

Before you upgrade your Web Application, ensure that the settings you currently use are supported in PROCESS DIRECTOR, and if not, that you are aware of the limitation(s).

Feature	WC Web App*	PD 7.3 Web App
Process all PROCESS DIRECTOR process types	No	Yes
Display images in TIF or PDF format	Yes	Yes
Display images in JPG format	Yes	Yes
Display images in PNG format	Yes	No
Creating own buttons	Yes	No
Changing GUI texts	Yes	No
Display approved documents	Yes	Yes
User search via email address	Yes	No

Feature	WC Web App*	PD 7.3 Web App
Change default theme	Yes	Yes
Copy and resuse theme from 3.x	Yes	No

* Version 3.2.05. Note that this is the latest version number of the WORK CYCLE *Web Application*, despite the offical version of WORK CYCLE being 7.3.

Other products

MOBILE APPROVAL, WEB BOARD, and INFO MAIL are all still available as separate applications. The PROCESS DIRECTOR Web Application does not contain the features of these products. Therefore, you must install them in addition to the PROCESS DIRECTOR Web Application.

End-Of-Life (EOL) schedule

In considering whether to upgrade to the PROCESS DIRECTOR Web Application or not, the following EOL schedule should be considered:

Web Application version	EOL
WEB CYCLE Web App 3.01.xx (1)	Support ended Q3/2011 – enhanced support until December 31st 2012 (=EOL)
WEB CYCLE Web App 3.02.xx (2) **WEB BOARD Web App 3.02.xx**	EOL March 1st 2014 EOL March 1st 2014(3)
PD Web App 7.01.xx	EOL not yet announced

(1) The last available version for JRE 1.4.2 and SAP NetWeaver 7.0.

(2) The last available version for JRE 5 and SAP NetWeaver 7.1.

(3) To be reviewed after general availability of the new WEB BOARD.

Implementation options

Overview

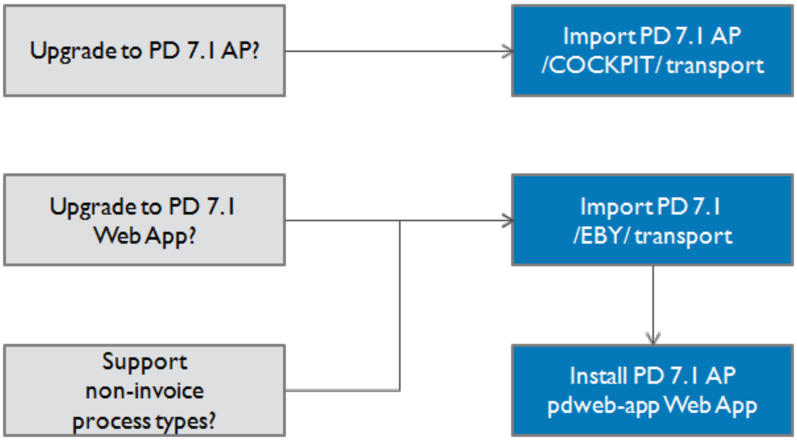
There are different options to integrate Accounts Payable with PROCESS DIRECTOR. The table below shows what software components are required for each option. The table is split into:

- New installations
- Upgrades from INVOICE COCKPIT Suite

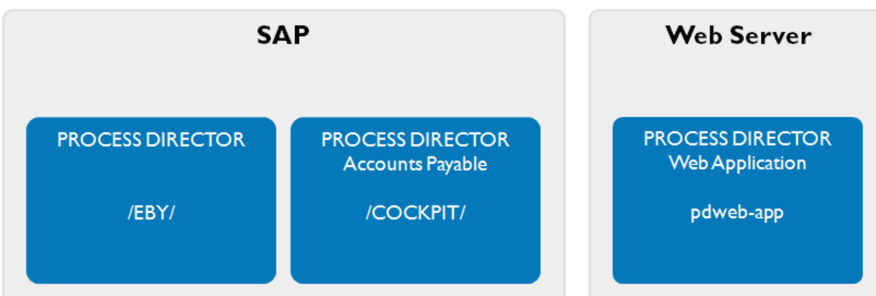
I want to...		You need...			
		SAP		Web Application	
		7.3 /EBY/ transport[1]	7.3 /COCKPIT/ transport	PD Web App[1]	WC Web App[2]
New install	Process invoices [1]	x	x	x	
New install	Support other, non-invoice, processes	x		x	
Upgrade from ICS	Support other, non-invoice, processes	x		x	
Upgrade from ICS	Upgrade to PD 7.3 Accounts Payable (SAP and Web App)	x	x	x	
Upgrade from ICS	Upgrade to PD 7.3 Accounts Payable (SAP only. Retain existing WEB CYCLE Web App.)		x		x [2]
Upgrade from ICS	Upgrade to PD 7.3 Accounts Payable (Web App only. Retain existing ICS in SAP. [3])	x		x	

[1] The PROCESS DIRECTOR Web Application requires the /EBY/ transport, irrespective of whether non-invoice processes are supported or not.
[2] Upgrading to the new WORK CYCLE Web Application is not mandatory. Customers can use their existing WEB CYCLE Web Application with PROCESS DIRECTOR 7.3 Accounts Payable.
[3] You must have ICS 3.2 SP2.

The upgrade options can also be expressed using the following diagram:



New installations

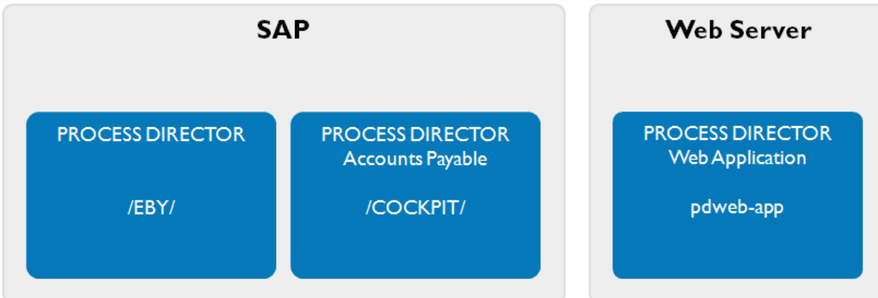


Required components

SAP		Web Application	
7.3 /EBY/ transport	7.3 /COCKPIT/ transport	PD Web App	WC Web App
x	x	x	

The PROCESS DIRECTOR Web Application requires the /EBY/ transport, irrespective of whether non-invoice processes are supported or only invoices are processed.

Upgrade option 1



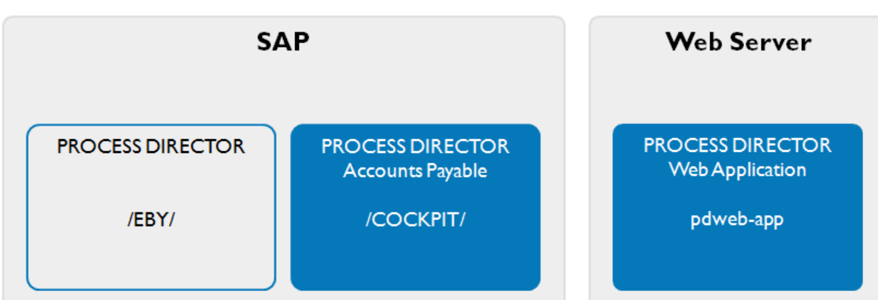
The first upgrade option is for customers who want to:

- Upgrade ICS to PROCESS DIRECTOR Accounts Payable
- Upgrade to the PROCESS DIRECTOR Web Application
- Process another document/process type.

Required components

SAP		Web Application	
7.3 /EBY/ transport	7.3 /COCKPIT/ transport	PD Web App	WC Web App
x	x	x	

Upgrade option 2



The first upgrade option is for customers who want to:

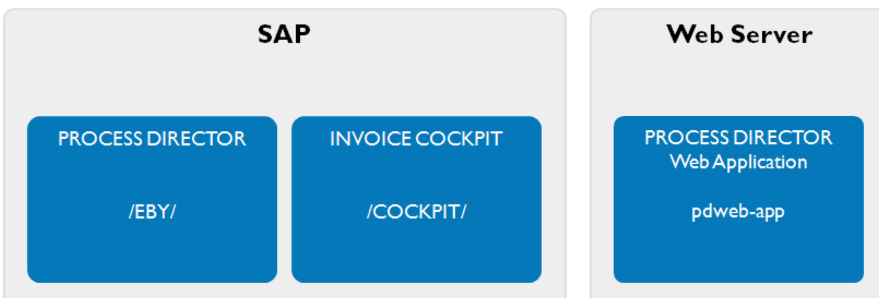
- Upgrade ICS to PROCESS DIRECTOR Accounts Payable
- Upgrade to the PROCESS DIRECTOR Web Application
- Only process invoices (no other document/process type).

Required components

SAP		Web Application	
7.3 /EBY/ transport	7.3 /COCKPIT/ transport	PD Web App	WC Web App
x	x	x	

The PROCESS DIRECTOR Web Application requires the /EBY/ transport to create the Worklist.

Upgrade option 3



The third upgrade option is for customers who want to:

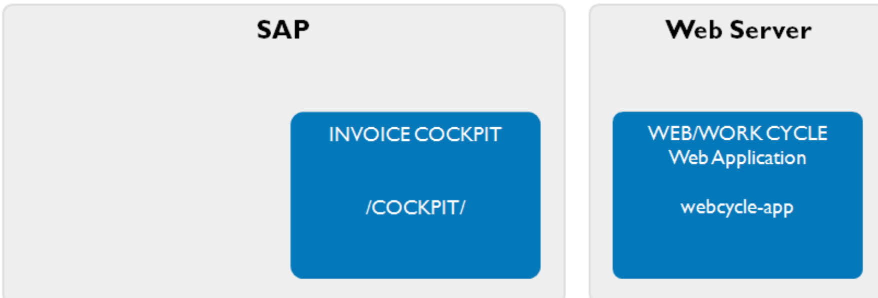
- Retain their existing INVOICE COCKPIT installation
- Process another document/process type*

* By default, this requires use of the PROCESS DIRECTOR Web Application. Although it is possible to maintain an existing WEB CYCLE Web Application and run it in parallel to the PROCESS DIRECTOR Web Application, we recommend using only the latter.

Required components

SAP		Web Application	
7.3 /EBY/ transport	7.3 /COCKPIT/ transport	PD Web App	WC Web App
x		x	

Upgrade option 4



The fourth upgrade option is for customers who want to:

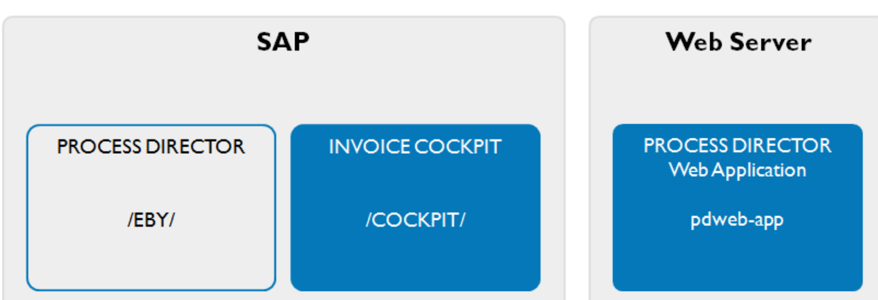
- Upgrade ICS to PROCESS DIRECTOR Accounts Payable
- Retain their existing WEB CYCLE Web Application
- Only process invoices (no other document/process type).

Required components

SAP		Web Application	
7.3 /EBY/ transport	7.3 /COCKPIT/ transport	PD Web App	WC Web App
	x		x [1]

[1] Upgrading to the new WORK CYCLE Web Application is not mandatory. Customers can use their existing WEB CYCLE Web Application with PROCESS DIRECTOR 7.3 Accounts Payable.

Upgrade option 5



The last upgrade option is for customers who want to:

- Retain their existing INVOICE COCKPIT installation
- Upgrade to the PROCESS DIRECTOR Web Application

- Only process invoices (no other document/process type).

Required components

SAP		Web Application	
7.3 /EBY/ transport	7.3 /COCKPIT/ transport	PD Web App	WC Web App
x		x	

The PROCESS DIRECTOR Web Application requires the /EBY/ transport to create the Worklist.

Migrating settings

The existing configuration in INVOICE COCKPIT is retained when upgrading to PROCESS DIRECTOR Accounts Payable. See the Release Notes for obsolete configuration tables that you may have to migrate manually.

Existing configuration in the WEB CYCLE Web Application can be easily migrated to the PROCESS DIRECTOR Web Application. See Upgrading to PROCESS DIRECTOR 7.3 Web Application, on p.29.

Creating a Worklist

Overview

This chapter explains how to create a Worklist for incoming invoices in PROCESS DIRECTOR, in the SAP GUI and the Web Application. You only need to create one Worklist, which is active for both the SAP GUI and the Web Application.

Procedure

1. Read the prerequisites and ensure you meet them.
2. Create a Worklist in PROCESS DIRECTOR for incoming invoices.
3. Register old and new invoice documents so that they appear in the Worklist.
4. Check the workflow configuration settings.
5. Test the Worklist.

Prerequisites

Before you create the Worklist, PROCESS DIRECTOR Accounts Payable/INVOICE COCKPIT, PROCESS DIRECTOR, and the PROCESS DIRECTOR Web Application must already be installed. Use the following checklist:

Install and configure PROCESS DIRECTOR Accounts Payable/INVOICE COCKPIT first, then install and configure PROCESS DIRECTOR. Otherwise, you may encounter problems.

No.	Prerequisite	Documents for more information	Completed
1	All prerequisite SAP notes implemented.	PROCESS DIRECTOR 7.3 SAP Configuration Guide	☐
2	PROCESS DIRECTOR Accounts Payable or INVOICE COCKPIT installed and the license activated.	Importing PROCESS DIRECTOR into SAP ICS Import into SAP	☐
3	The appropriate version of EMEIC1758 implemented (if required).	See EMEIC1758, on p.15.	☐

No.	Prerequisite	Documents for more information	Completed
4	PROCESS DIRECTOR installed and the license activated.	Importing PROCESS DIRECTOR into SAP	☐
5	An RFC user for the Web Application created with the appropriate authorizations.	PROCESS DIRECTOR 7.3 SAP Configuration Guide	☐
6	PROCESS DIRECTOR Web Application deployed.	PROCESS DIRECTOR 7.3 Web Application Configuration Guide	☐
7	REPORTER 5-4 or later. (Only if you use ReadSoft REPORTER.)	-	☐

EMEIC1758

If you have INVOICE COCKPIT 3.2 Service Pack 1 or earlier, you must import the EMEIC transport listed below.

INVOICE COCKPIT version	Required EMEIC
3.1 or 3.1 SP1	EMEIC1758_31
3.1 SP2, SP3 or SP4	EMEIC1758_31SP5
3.2 or 3.2 SP1	EMEIC1758_32SP2

Creating a Worklist

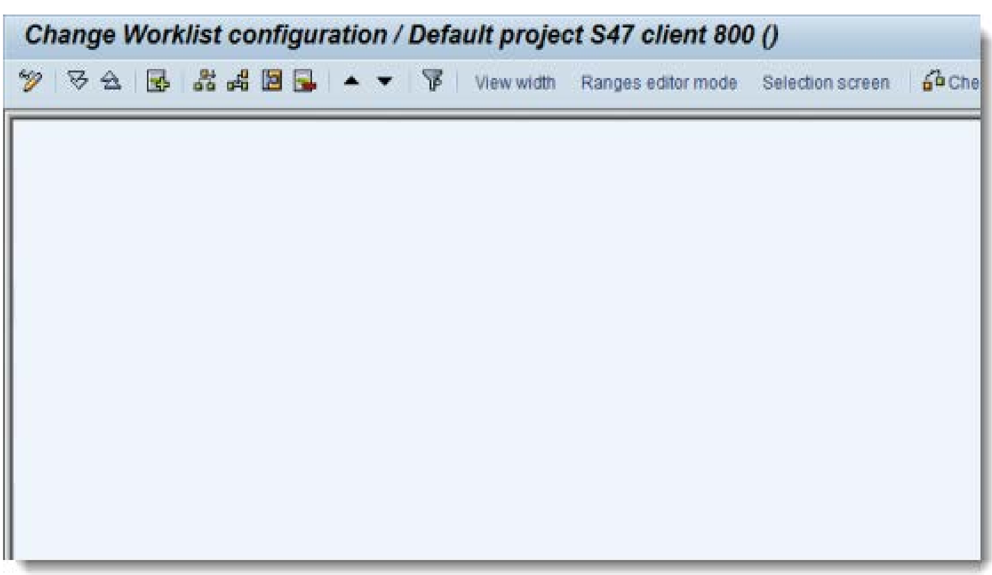
You must create a Worklist for invoices containing the following nodes:

Name	Type	Visible in	Documents displayed
Incoming invoices	Top	SAP GUI Web Application	The parent node that contains the following sub nodes.
Workflow Inbox	Sub node	Web Application	Invoices sent to the current user in a workflow and not yet processed.
Workflow History	Sub node	Web Application	Invoices sent to the current user in a workflow and already processed.
Recall (optional)	Sub node	Web Application	Invoices that can be recalled from workflow.
MM invoices	Sub node	SAP GUI	All MM invoices.
FI invoices	Sub node	SAP GUI	All FI invoices.

You can create other nodes as needed in the SAP GUI, but the Web Application supports only the **Incoming Invoices**, **Workflow Inbox**, **Workflow History** and **Recall** nodes.

Opening the Worklist configuration

To open the Worklist configuration, enter SAP transaction `/N/EBY/PDBO_WLC`.



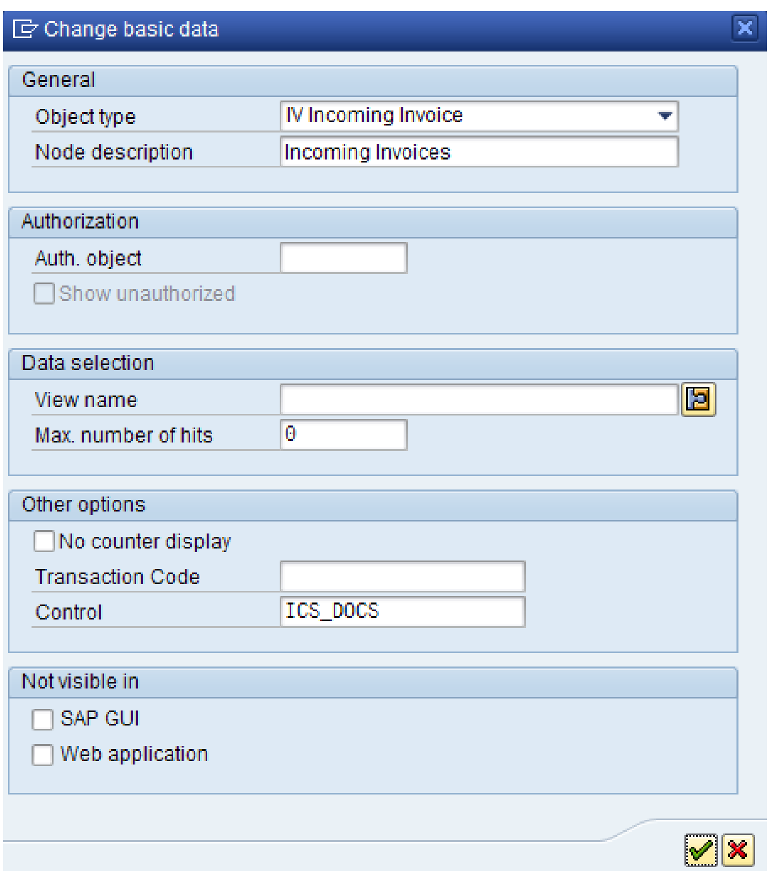
Creating the Incoming invoices node

1. In change mode, click the **Add Business Object node** toolbar button.

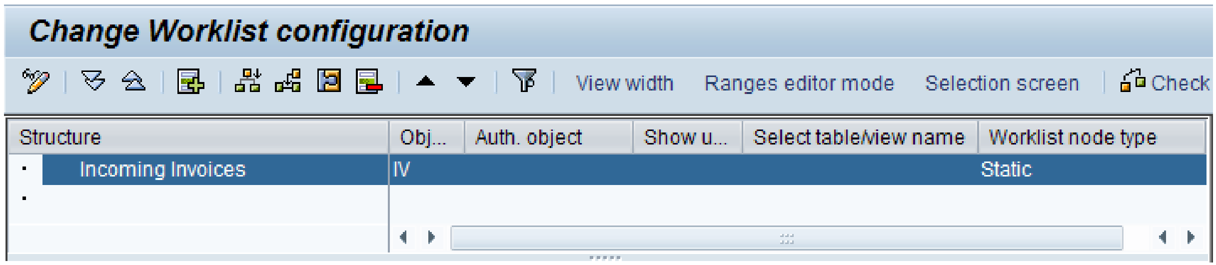
2. In the **Change basic data** popup, enter the following settings and click **Continue** to save.

Setting	Entry
Object type	IV Incoming Invoice
Node description	Incoming Invoices (This is the display name for the node. You can use another name.)
Control	ICS_DOCS

Retain the default values for all other settings.



A new Worklist node is inserted. This node will be visible in the SAP GUI and Web Application (but not yet active).



Creating the subnodes

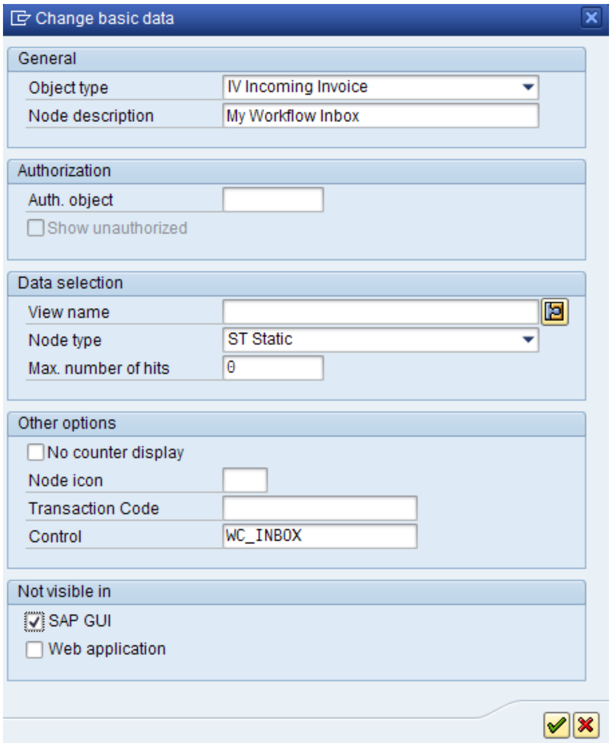
Each subnode under **Incoming Invoices** is created using the following procedure:

1. Right-click on the new **Incoming Invoices** node and select **Insert node as a subnode** (alternatively, click the toolbar button).
2. In the **Change basic data** popup, enter the settings for the subnode.
3. Click **Continue** to save.

Workflow Inbox

Setting	Entry
Object type	IV Incoming Invoice
Node description	Workflow Inbox (This is the display name for the node. You can use another name.)
Control	WC_INBOX
Not visible in	☑ SAP GUI

Retain the default values for all other settings.



Workflow History

Setting	Entry
Object type	IV Incoming Invoice
Node description	Workflow History (This is the display name for the node. You can use another name.)
No counter display	☑
Control	WC_HISTORY
Not visible in	☑ SAP GUI

Retain the default values for all other settings.

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Recall (optional)

Setting	Entry
Object type	IV Incoming Invoice
Node description	Recall (This is the display name for the node. You can use another name.)
No counter display	☑
Control	WC_RECALL
Not visible in	☑ SAP GUI

Retain the default values for all other settings.

In order that recall is possible for a workflow step, in addition to configuring this node, you must set the `undo` parameter to 1 or 2 in the Web Application `pdweb-app.properties` file and check the **Recall documents** option in `/COCKPIT/WI3A`.

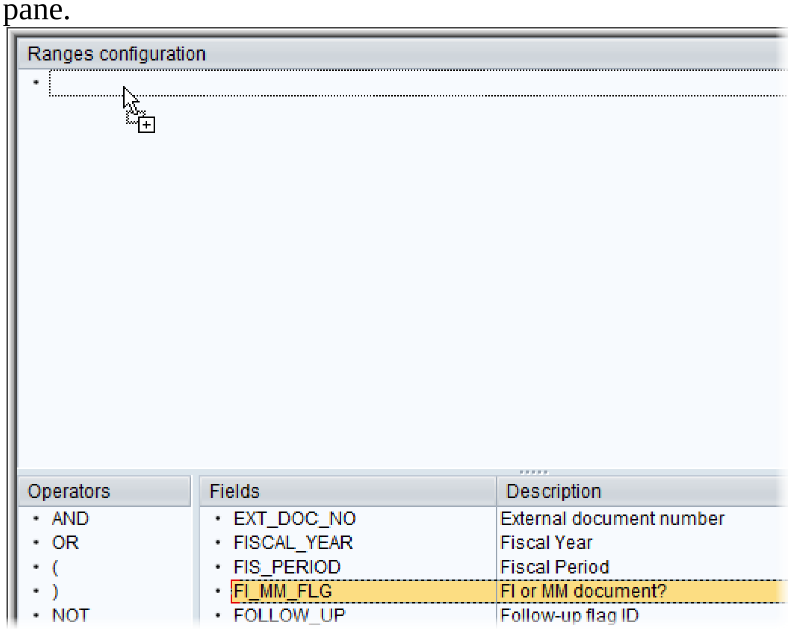
MM Invoices

Setting	Entry
Object type	IV Incoming Invoice
Node description	MM Invoices (This is the display name for the node. You can use another name.)
Not visible in	☑ Web Application

After you have created the node, you must create a *range* for it, so that only MM invoices are displayed when clicking on it.

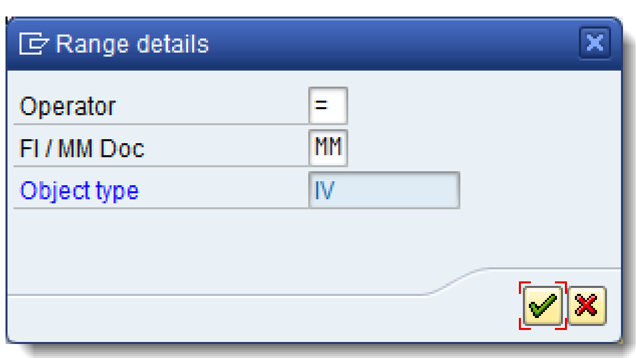
1. Select the **MM Invoices** node, then click the **Range editor** toolbar button.

2. In the **Fields** pane, select the **FI_MM_FLG** field and drag it to the **Ranges configuration** pane.



3. In the **Range details** window (pops up automatically), enter:

Setting	Entry
Operator	=
FI/MM Doc	MM



4. Save the node.

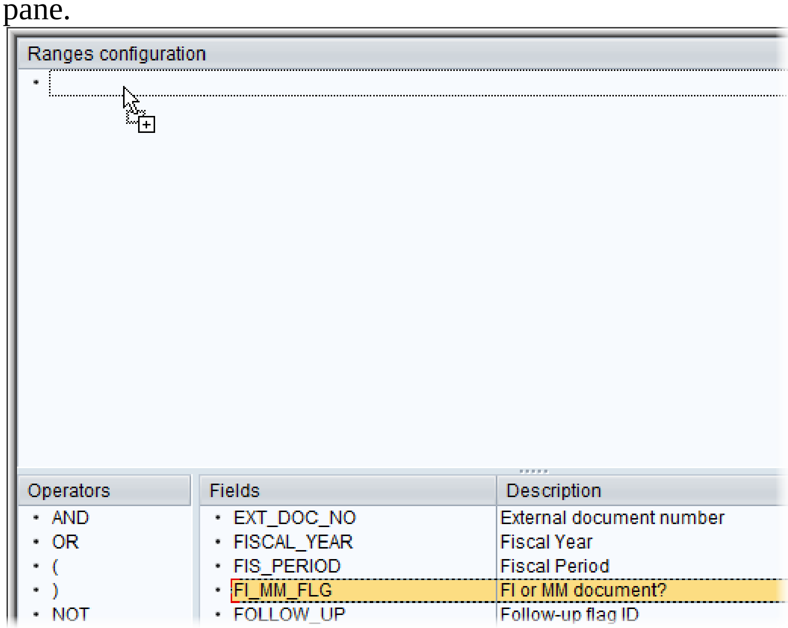
FI Invoices

Setting	Entry
Object type	IV Incoming Invoice

Node description	FI Invoices (This is the display name for the node. You can use another name.)
Not visible in	☑ Web Application

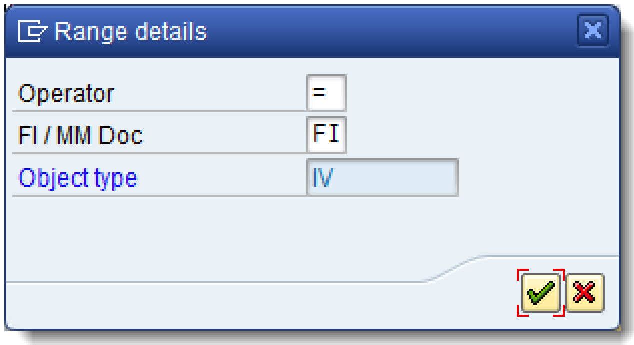
After you have created the node, you must create a *range* for it, so that only FI invoices are displayed when clicking on it.

1. Select the **FI Invoices** node, then click the **Range editor** toolbar button.
2. In the **Fields** pane, select the **FI_MM_FLG** field and drag it to the **Ranges configuration** pane.



3. In the **Range details** window, enter:

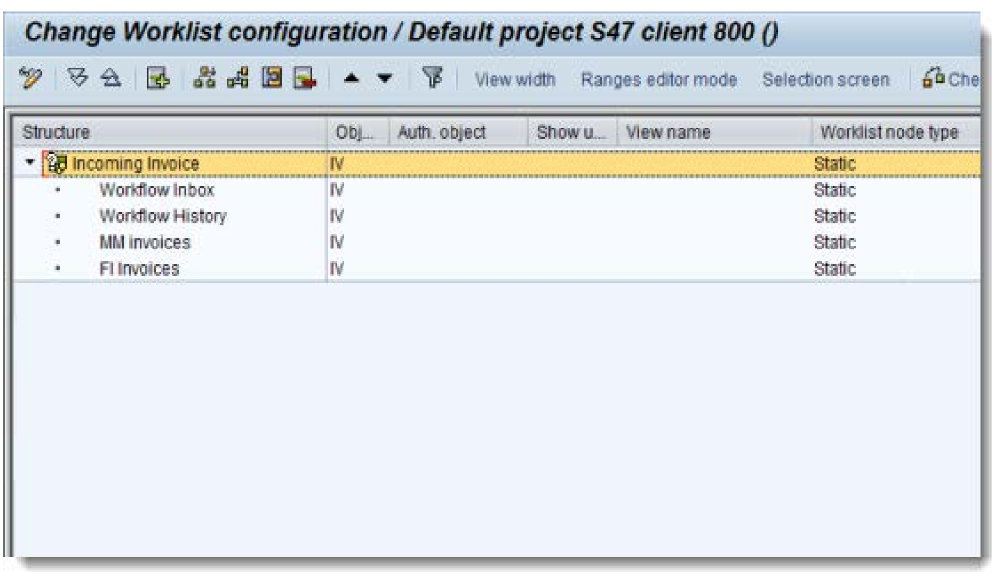
Setting	Entry
Operator	=
FI/MM Doc	FI



4. Save the node.

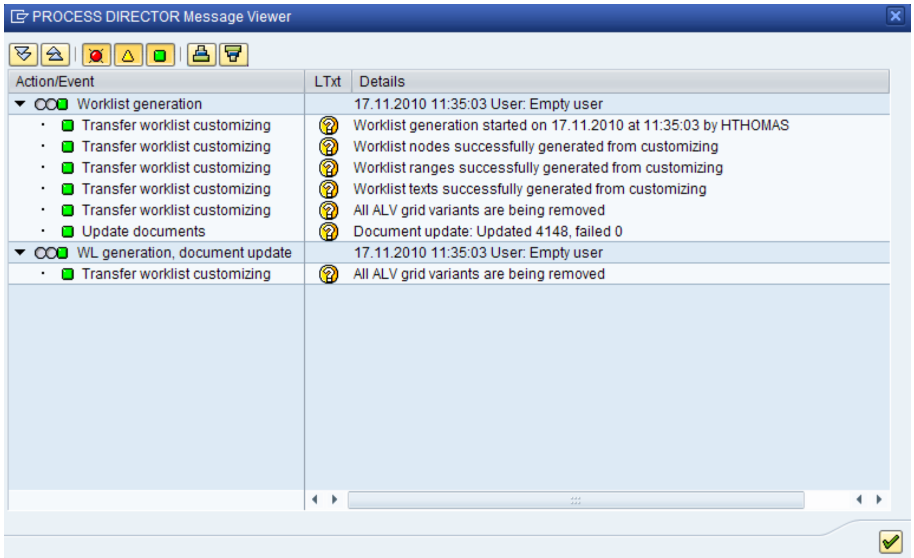
Generating the Worklist

Your Worklist configuration screen should now look like this:



The order of the nodes does not affect their function.

Click the Generate button to generate the Worklist.



Messages confirming that the Worklist was successfully generated.

Registering invoice documents

Now that you have created the worklist, you must register existing and new documents to populate it.

Existing documents

To view and access documents that already exist in the `/COCKPIT/1` document list in PROCESS DIRECTOR:

1. Go to `SE38`.
2. Execute the `/EBY/ICIV_DOC_SYNCHRONIZE` program with the appropriate settings.

Setting	Description
Identification	Unique document identifier (GUID)
Document number	PROCESS DIRECTOR document number
PROCESS DIRECTOR doc. type	PROCESS DIRECTOR document type (defined in `/COCKPIT/C11`)
Document date	Date on which the document was created
FI / MM doc	Whether the document is an FI document or an MM document
Include finished documents	Check to include documents that have already been processed and completed in PROCESS DIRECTOR (posted, parked or rejected documents and completed collective invoices).

New documents

Note: As of PROCESS DIRECTOR 7.2 Service Pack 1 and INVOICE COCKPIT Suite 3.2 Service Pack 3, this User Exit is no longer required. For earlier versions, it is not required if EMEIC1889 is implemented.

To view and access new documents entering PROCESS DIRECTOR Accounts Payable/INVOICE COCKPIT:

1. Create a new User Exit using the `/EBY/ICIV_USEX_FINAL_TRANSFER` User Exit template.
2. Activate the User Exit in `/COCKPIT/C13`.

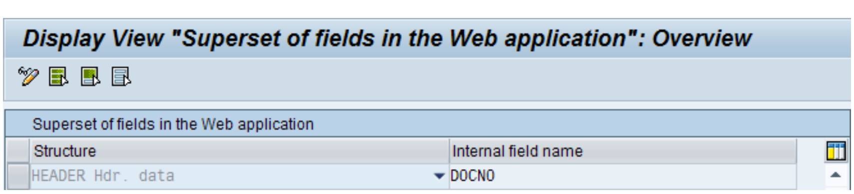
User exit /EBY/ICIV_USEX_FINAL_TRANSFER

```
FUNCTION /eby/iciv_usex_final_transfer.
*"----------------------------------------------------------------------
*"*"Local interface:
*"  IMPORTING
*"     REFERENCE(I_STR_CHECK) LIKE  /COCKPIT/SCHECKDATA STRUCTURE
*"        /COCKPIT/SCHECKDATA
*"     REFERENCE(I_STR_HEADER) LIKE  /COCKPIT/THDR STRUCTURE
*"        /COCKPIT/THDR
*"     REFERENCE(I_FLG_ERROR) LIKE  BOOLE-BOOLE
*"  TABLES
*"      I_TAB_ITEM STRUCTURE  /COCKPIT/TITEM
*"      I_TAB_ACCOUNT STRUCTURE  /COCKPIT/TACCT
*"      I_TAB_TAX STRUCTURE  /COCKPIT/TTAX
*"      E_TAB_MESSAGES STRUCTURE  BAPIRET2
*"  EXCEPTIONS
*"      ERROR_OCCURED
*"----------------------------------------------------------------------

  DATA:
    lt_selopt TYPE RANGE OF /cockpit/thdr-invoice_guid,
    ls_selopt LIKE LINE OF lt_selopt.

*>>> START OF IMPLEMENTATION >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>*

  CALL METHOD /eby/cl_tools=>get_selopt
    EXPORTING
      i_data     = i_str_header-invoice_guid
    CHANGING
      ct_selopt = lt_selopt.


  SUBMIT /eby/iciv_doc_synchronize
    WITH s_guid IN lt_selopt.

*<<< END OF IMPLEMENTATION <<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<*

ENDFUNCTION.
```

Workflow configuration

1. Go to transaction /COCKPIT/WI11.

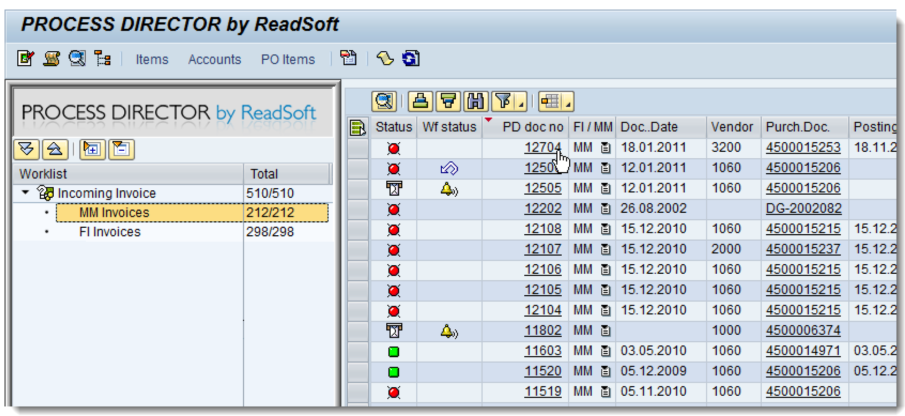
2. The **HEADER** / **DOCNO** field must appear in the table.



Testing the configuration

SAP GUI

1. Go to SE37.
2. Run `/COCKPIT/RFC_DATA_SUBMIT`.
3. Create two test documents: One MM and one FI (using any data).
4. Go to `/EBY/PD`.
   Your documents should now appear in the PROCESS DIRECTOR Worklist under **Incoming Invoices**.

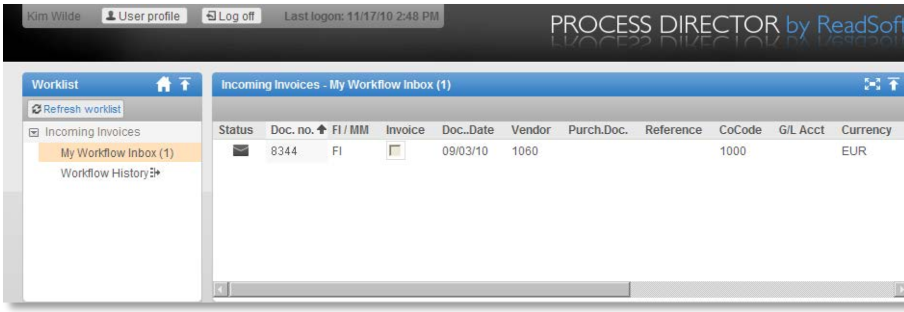


5. Click the document number to open it.
   It should open in `/COCKPIT/1`.

Web Application

1. In PROCESS DIRECTOR Accounts Payable/INVOICE COCKPIT, start a workflow on a document, entering your own user name as the recipient.
2. Open your web browser and log on to the PROCESS DIRECTOR Web Application.
   (You can find the address of the Web Application in transaction `/N/EBY/PDWC_VGENC`.)

   You should see the document in the **Incoming Invoices** > **Workflow Inbox** node:



3. Click the document to open it, then click the **Approve** button.

   The document should now appear in the **Workflow History** node.

Customizing Web Application fields

Customer implementations often require changes to the PROCESS DIRECTOR user interface, such as the addition or removal of fields, or changes to the layout of grids and tab pages.

In previous versions of PROCESS DIRECTOR Accounts Payable 7.3 (INVOICE COCKPIT Suite), these changes were achieved using various methods, such as the Display Configuration Editor for the Web Application, field statuses, User Exits, etc.

In PROCESS DIRECTOR Accounts Payable 7.3, a new mechanism for customizing the user interface – the *view model* - has been introduced which offers considerably more functionality and flexibility than was available in INVOICE COCKPIT Suite.

This chapter uses examples to explain how to customize Accounts Payable fields in the PROCESS DIRECTOR 7.3 Web Application.

In the first example, we will customize fields in the Web Application document overview list.

In the second example, we will customize fields in the Web Application document detail view.

Some important points to remember when customizing fields are:

- PROCESS DIRECTOR ships with a number of predefined fields that are displayed in the Web Application. These are defined in the standard system view model. Only fields that are defined in the view model are available to the user in the user interface.
- To make further fields available (either standard PROCESS DIRECTOR fields not defined in the system view model, or customer-specific fields), you need to create a customer view model and add the fields to the customer view model.
- When creating your customer view model, you do not need to copy all settings from the system view model into your customer view model. You only need to specify the settings that should be different from the standard. PROCESS DIRECTOR uses customized settings where available, and the standard settings where no customized settings are available.
- Fields must be added both to the customer view model *and* to `/COCKPIT/WI11`, otherwise they will not be displayed in the Web Application.

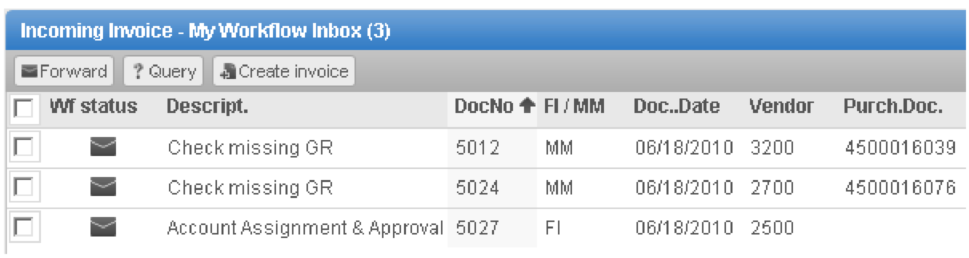
- Changes to the view model are only reflected in the Web Application after you restart the application server or refresh the context. To refresh the context, add `?refreshctx` to the end of the PROCESS DIRECTOR Web Application URL, for example: `http://localhost:8080/pdweb-app/init.do?refreshctx`.

Web Application document overview list

In this example, we will add a standard PROCESS DIRECTOR Accounts Payable field and a customer-specific field to the Web Application document overview list.

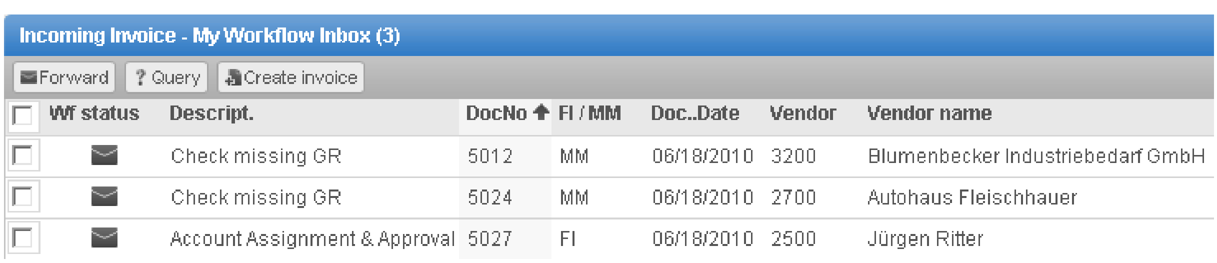
Adding a standard PROCESS DIRECTOR Accounts Payable field

By default, only the vendor number is displayed in the Web Application document overview list.



Web Application document overview list with vendor number only

In this example, we will add the field **Vendor name** to the Web Application document overview list and place it directly after the **Vendor** number field.



Web Application document overview list with vendor number and vendor name

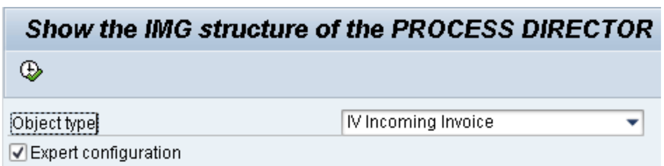
To add and position the field, we need to:

1. Create a customer view model for the Web Application document overview list.
2. Add the field **Vendor name** to the customer view model and to `/COCKPIT/WI11`.
3. Change the **Vendor name** field label in the customer view model.
4. Change the position of the **Vendor name** field label in the customer view model.

Create a customer view model

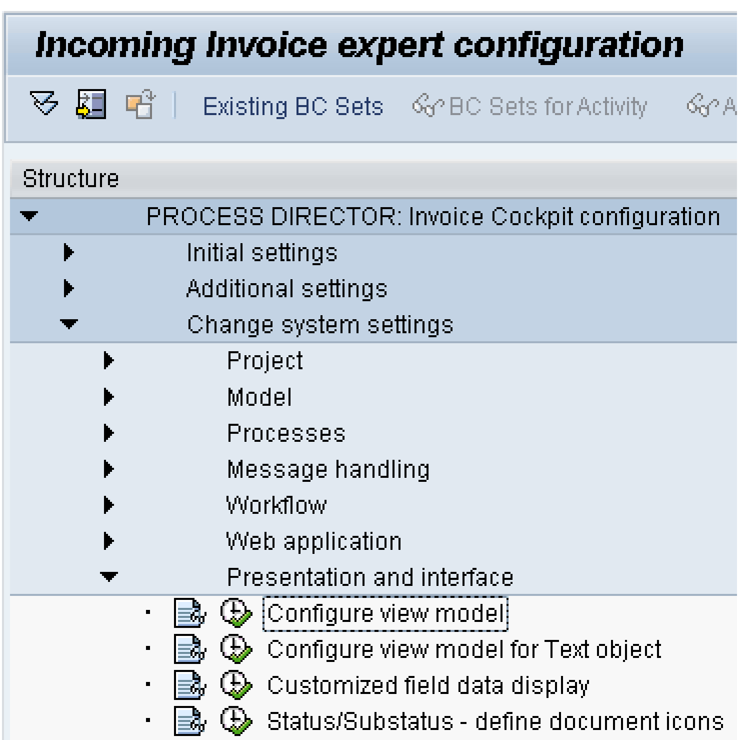
The customer view model serves as a container for all the changes you make to a specific part of the user interface, in this example, the Web Application document overview list. You must create a customer view model first in order to customize fields.

1. Go to `/N/EBY/PDBOC` , select the `IV Incoming Invoice` object type and click the **Execute** button to open the Accounts Payable IMG.



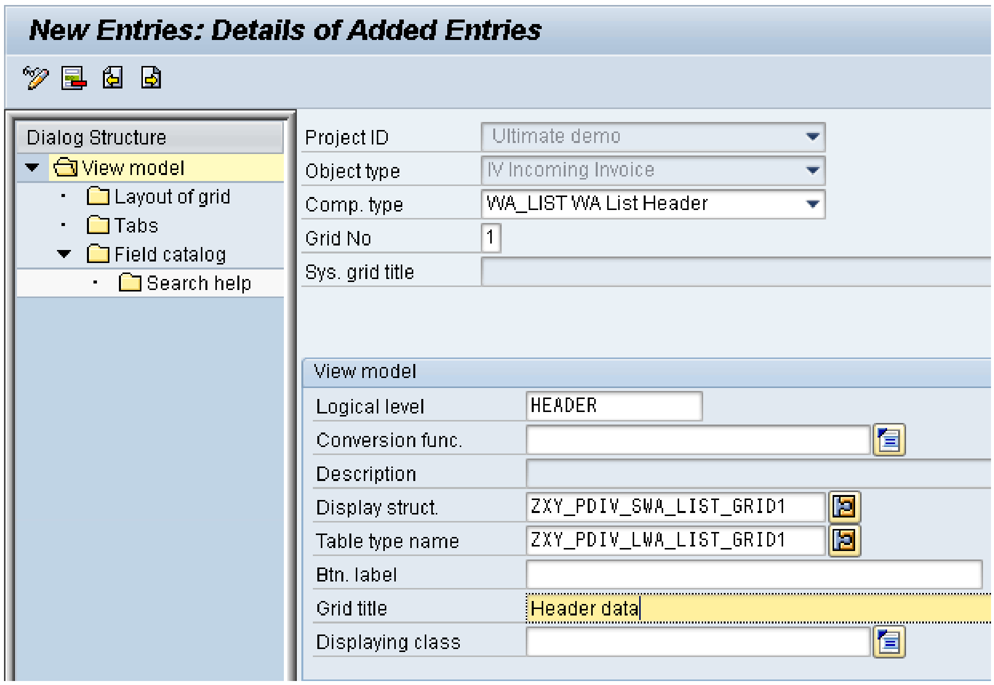
Note: When entering PROCESS DIRECTOR transactions, you must add `/N` as a prefix to the transaction, even from the SAP Easy Access menu. For example, enter `/N/EBY/PDBOC`.

2. Go to **Change system settings** > **Presentation and interface** > **Configure view model** (`/N/EBY/PDVI_VVMOC`).



3. In change mode , click the toolbar button New Entries.

4. Enter the component type `WA List Header`, grid number `1` and logical level `HEADER`.

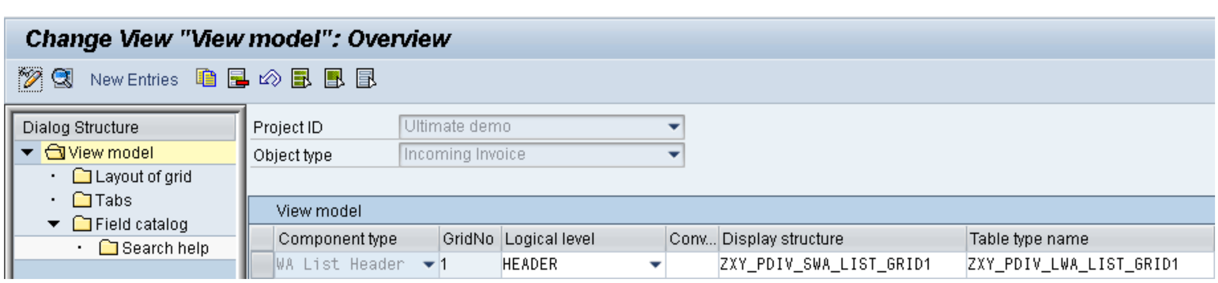


5. Enter a display structure, a table type name and a grid title. You do not have to create the display structure and table type beforehand; PROCESS DIRECTOR will automatically generate them when you save your changes.

   Important: You can use your own structure and table type names, but make sure that each customer view model entry has a unique display structure name and table type name. In some SAP systems, underscores at the second and third position of the structure name can cause problems, so it is advisable to avoid this.

6. Save your changes and go back.

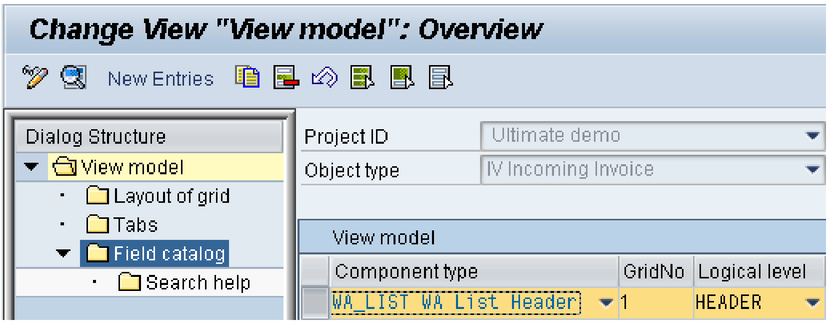
   The view model is displayed in the overview.



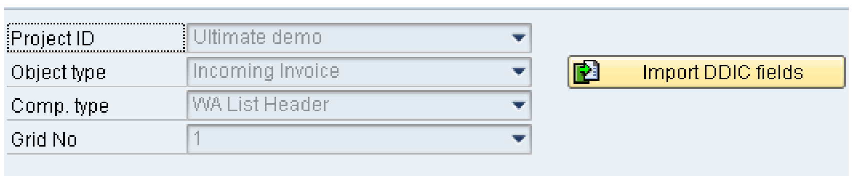
Customer view model entry for the Web Application document overview list

Add the field

1. Select the view model component `WA List Header` and double-click the dialog structure menu **Field catalog**.



2. Click the button **Import DDIC fields**.

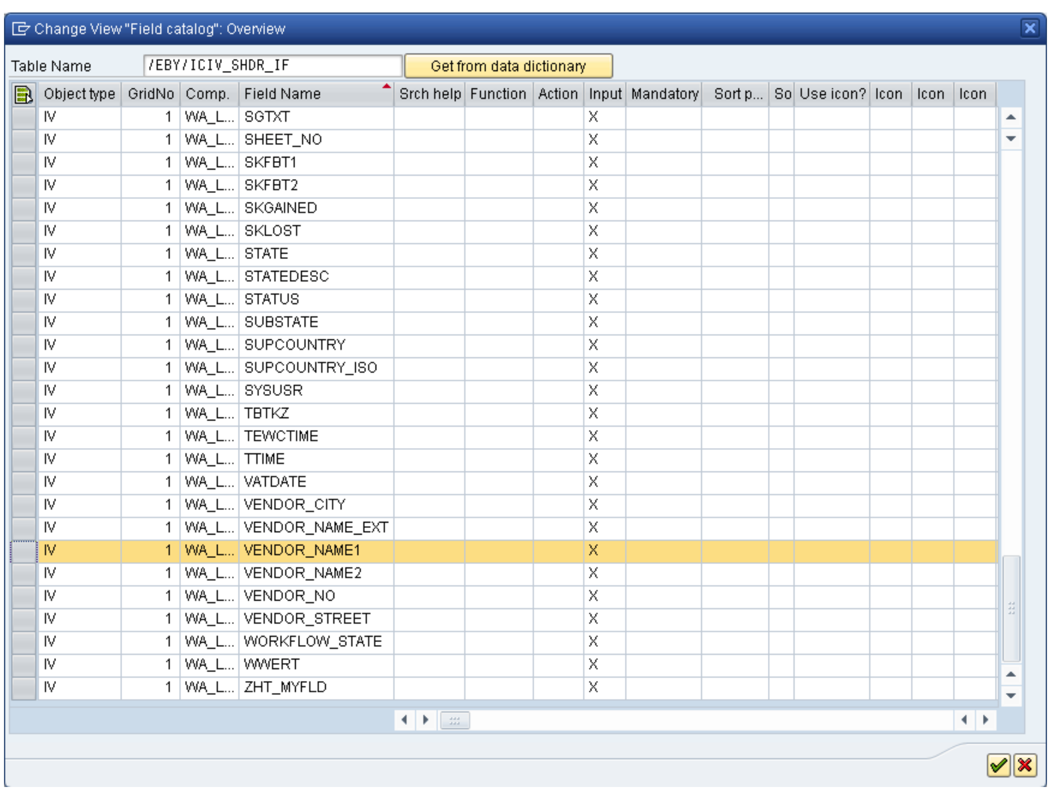


.

A popup appears.

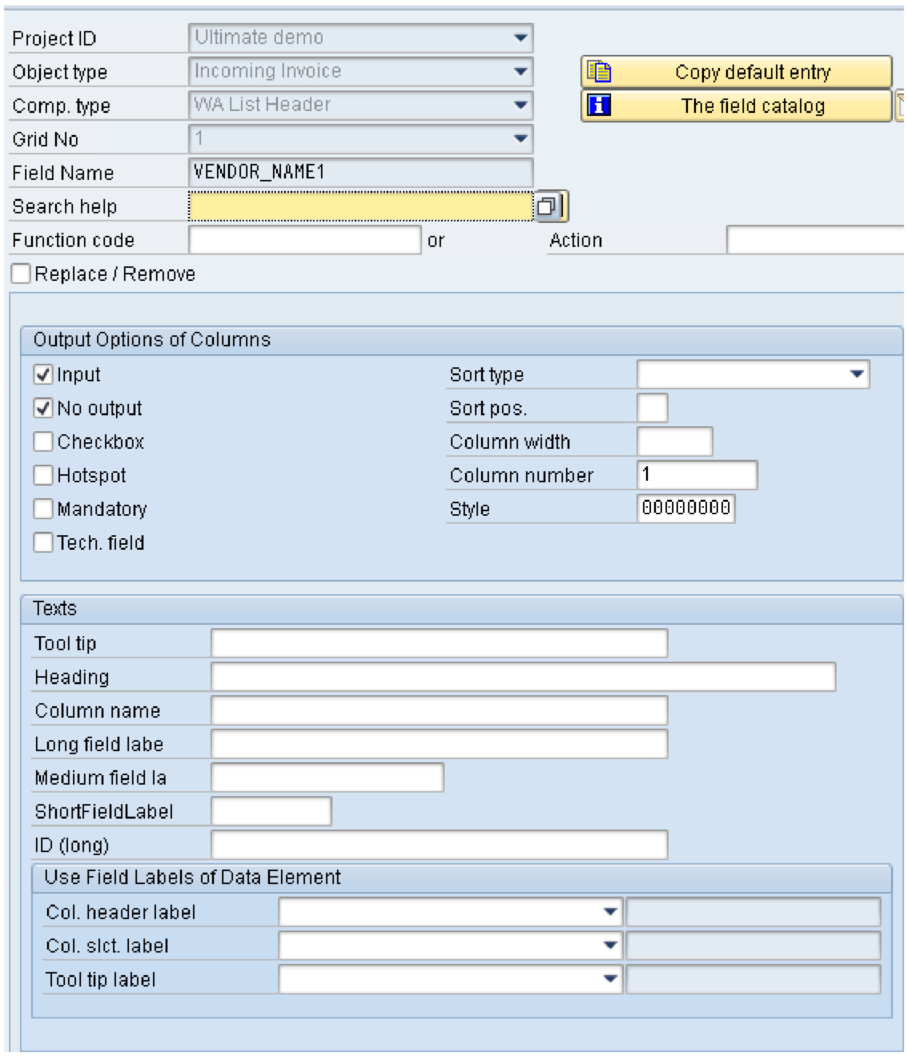
3. In the **Table Name** field, enter `/EBY/ICIV_SHDR_IF`. This structure contains all fields available in PROCESS DIRECTOR for Accounts Payable documents.

4. Click the button **Get from data dictionary**, then select the `VENDOR_NAME1` field and click ✅ to confirm.



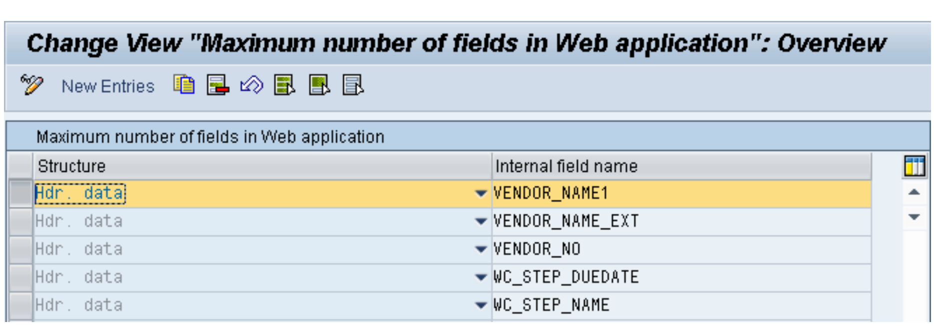
The field is added to the customer view model with the standard field settings.

5. Uncheck the **No output** option to display the field in the customer system.



6. Save your changes.

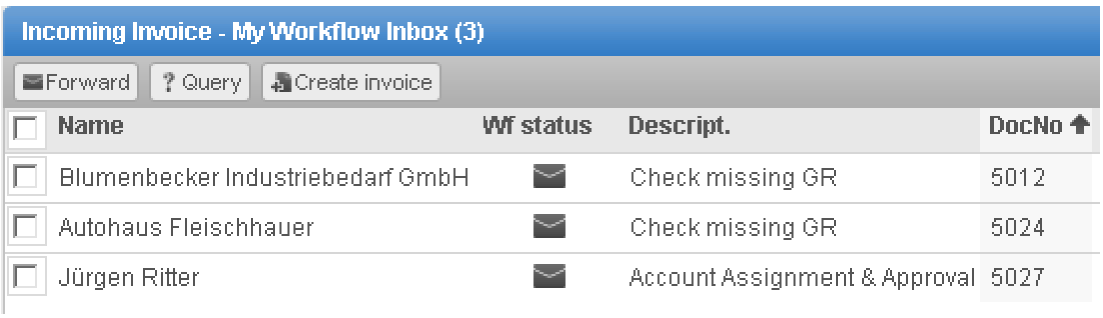
7. Go to `/COCKPIT/WI11` and make sure that `VENDOR_NAME1` field is entered there. If it is not, in change mode, click the toolbar button **New Entries** and add it.



Important: Fields must be added both to the view model *and* `/COCKIT/WI11` (**Maximum number of fields in Web Application**), otherwise they will not be displayed.

8. Refresh the Web Application context, then log on to the Web Application.

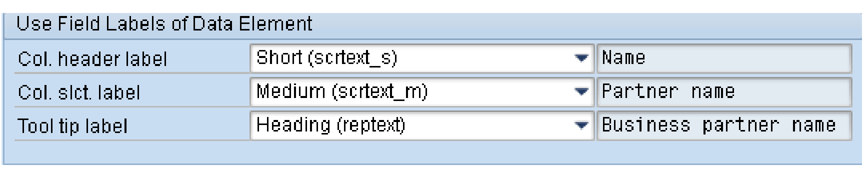
The field is now available in the Web Application document overview list.



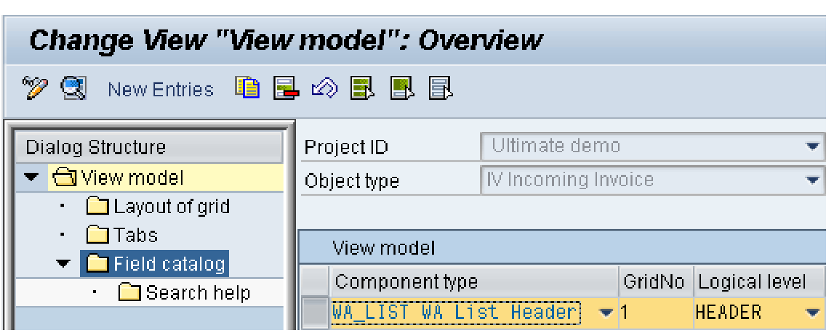
Change the field label

We will now change the field label from **Name** to **Vendor name**.

We could use the default field labels of the data element (shown below), however, we want **Vendor name** and not **Partner name**, so we will add our own field labels.



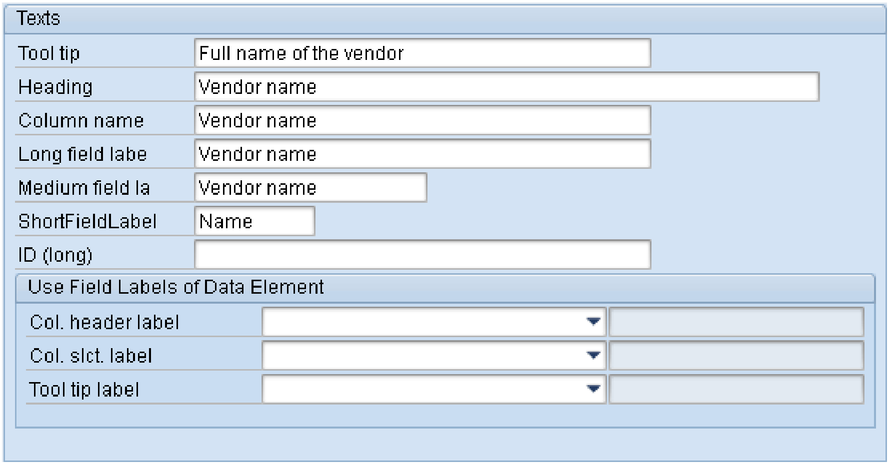
1. Select the view model component `WA List Header` and double-click the dialog structure menu **Field catalog**.



2. The `VENDOR_NAME1` field details are displayed (because this is currently the only field in the customer view model).

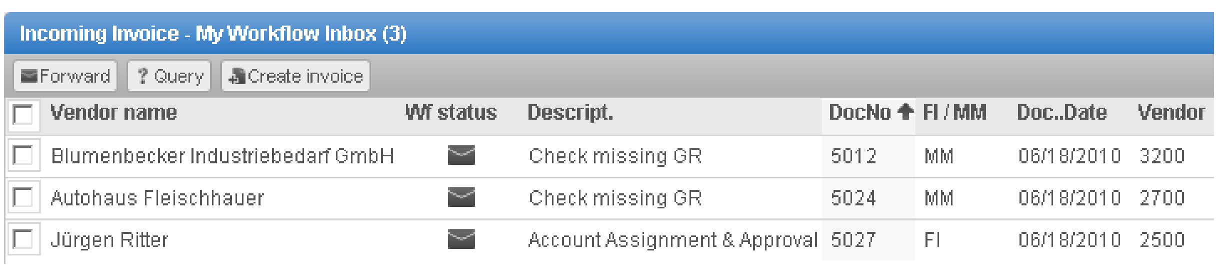
3. Go to change mode.

4. In the **Texts** area, add the labels:



5. Save your changes.
6. [Refresh the Web Application context](), then log on to the Web Application.

The field label is now **Vendor name**:



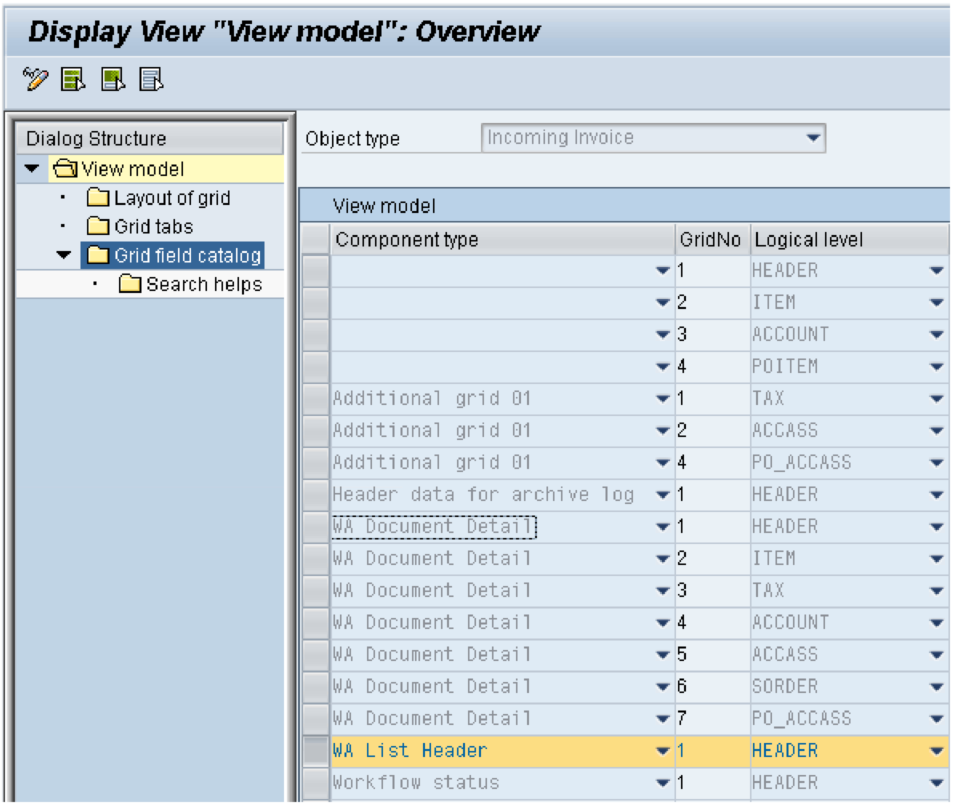
Change the field position

We will now position the **Vendor name** field directly to the right of the **Vendor** field.

First, we need to check the standard system view model settings to find the exact position of the **Vendor** field.

1. Go to **Default system settings** > **Presentation and interface** > **View model** (`/N/EBY/PDVI_VVMO`).

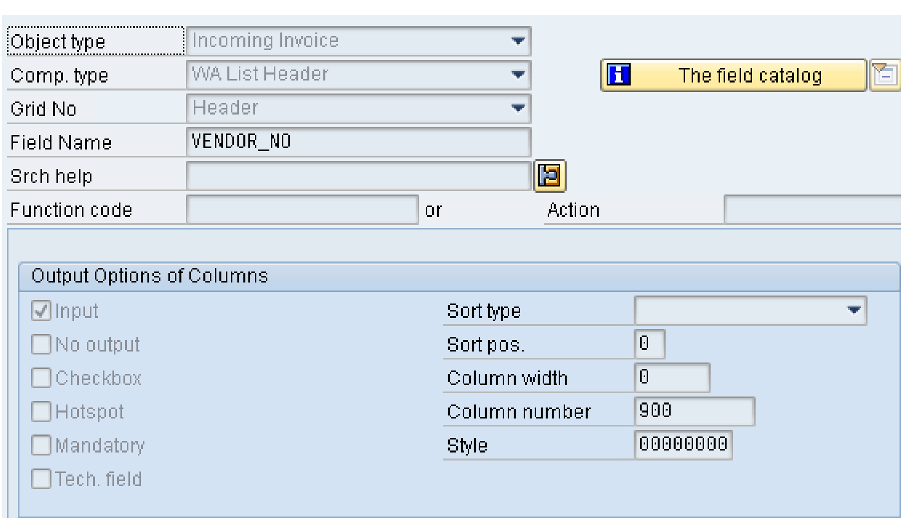
2. Select `WA List Header` and double-click the dialog structure menu **Grid field catalog**.



3. Select the `VENDOR_NO` field and click the **Details** button.

Note: Do not make any changes here.

4. Note the number in the **Column number** field. To place the **Vendor name** field to the right of the **Vendor** field, we must choose a column number greater than 900.



5. Go to **Change system settings** > **Presentation and interface** > **Configure view model** (`/N/EBY/PDVI_VVMOC`).

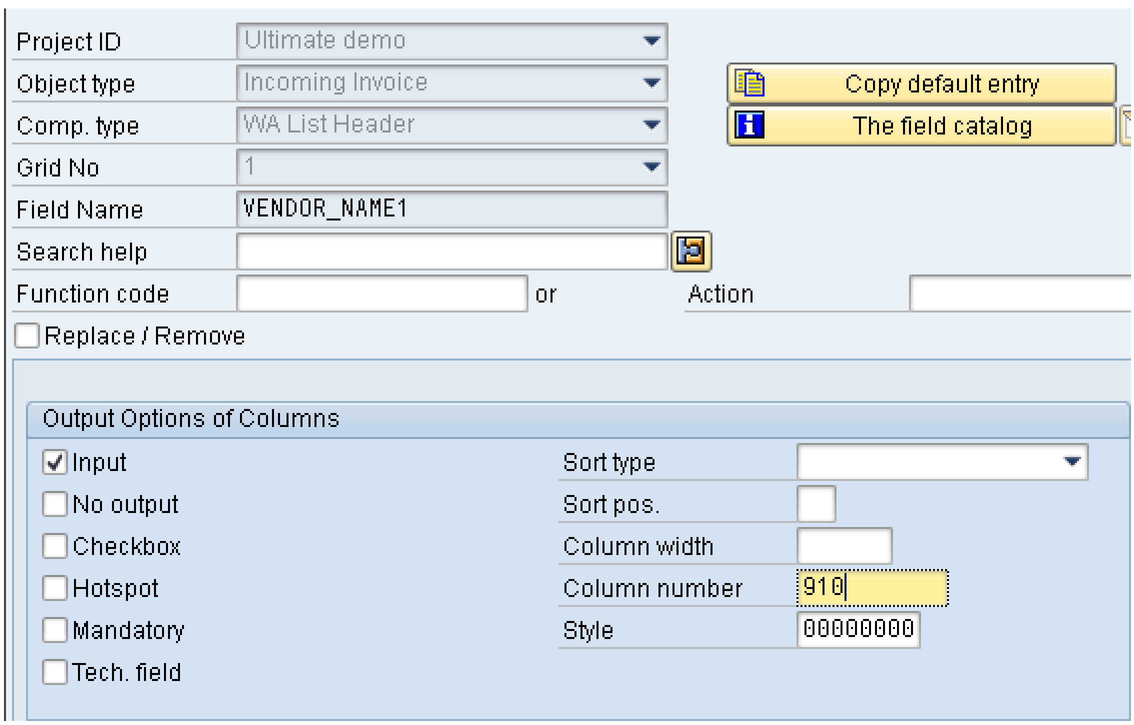
   The `WA List Header` view model details are displayed.

6. Double-click the dialog structure menu **Field catalog**.

   The `VENDOR_NAME1` field details are displayed.

7. Go to change mode .

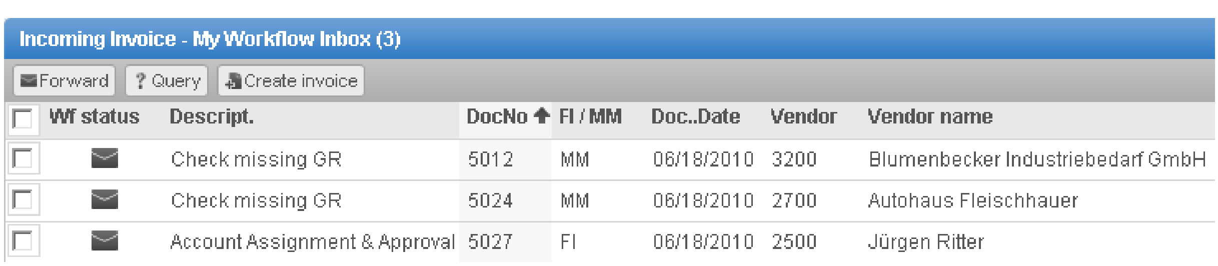
8. In the **Column number** field, enter 910.



9. Save your changes.

10. [Refresh the Web Application context](), then log on to the Web Application.

    The **Vendor name** field is now positioned to the right of the **Vendor** field.



Adding a customer-specific field

For each grid in the user interface, PROCESS DIRECTOR provides a customer include (CI) that you can use to add customer fields to PROCESS DIRECTOR Accounts Payable.

For example, you can add fields to the header data of an invoice using the customer include `CI_COCKPIT_HDR`.

Important: You should never add customer-specific fields directly to the customer include, but use your own customer-specific structure instead. For example, first create a customer-specific structure corresponding to the CI, include that structure in the CI and put all customer-specific fields in the customer-specific structure. Please do *not* use an append structure.

In this example, we will add a custom field, `ZZ_CUSTOM`, to the Web Application document overview list.

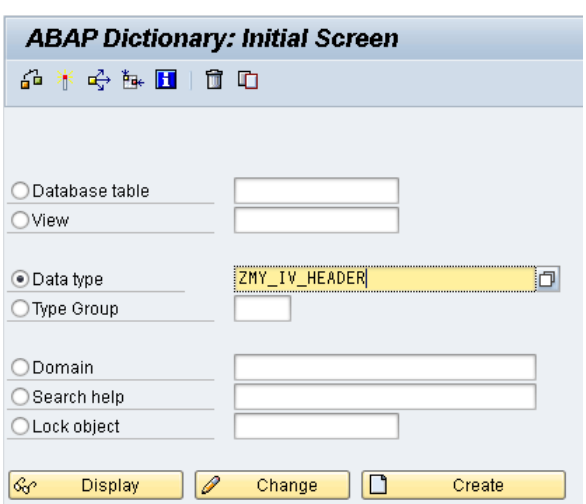
To add the field, we need to:

1. Create a customer-specific structure and add the custom field to this structure.
2. Add the customer-specific structure to the customer include `CI_COCKPIT_HDR`.
3. Add the custom field to the `WA Header List` customer view model and to `/COCKPIT/WI11`.

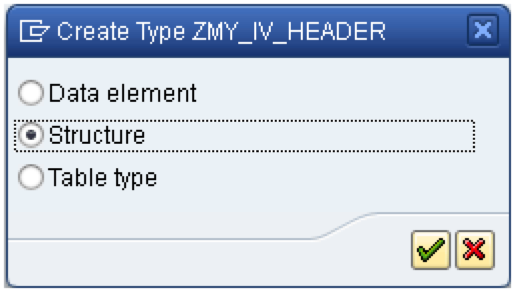
Create a customer-specific structure

Note: A developer key may be required to create a new structure.

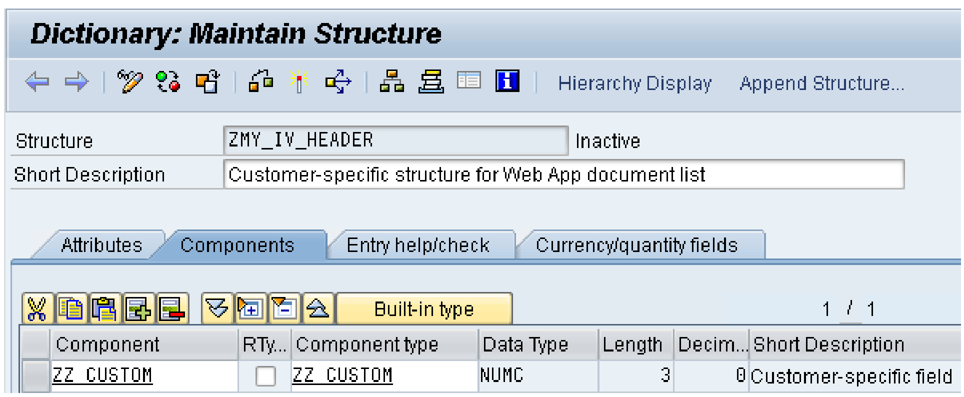
1. Go to `SE11`.
2. Select **Data type**, enter a structure name and click the **Create** button.



3. In the popup, select **Structure** and click to confirm.



4. Enter a short description, then in the **Components** tab, add the custom field.



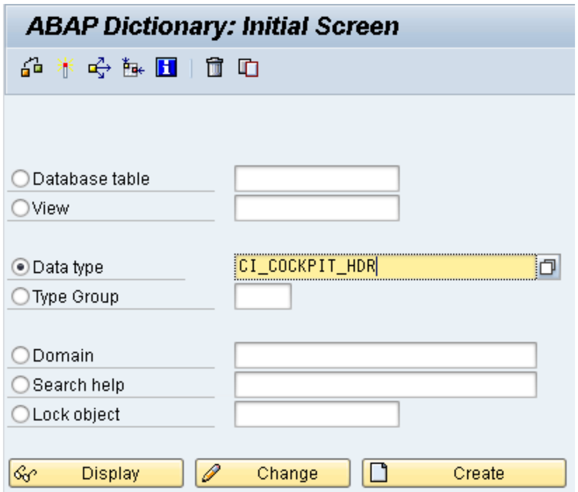
5. Save your changes. In the **Create Object Directory Entry** dialog, enter a customer package name, or click the **Local Object** button if you do not want to save to a package.

6. Click the **Activate** button .

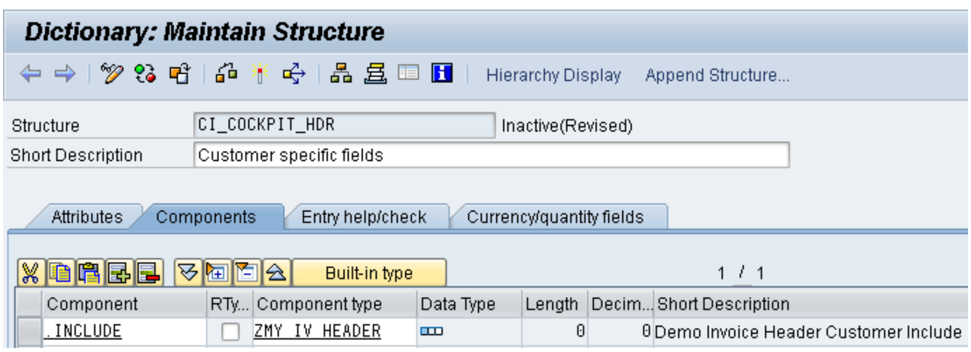
Add the customer-specific structure to the customer include

1. Go to `SE11`.

2. Select **Data type**, enter `CI_COCKPIT_HDR` and click the **Change** button.



3. In the **Components** tab, enter `.INCLUDE` in the **Component** field and the name of your new customer-specific structure in the **Component type** field.



4. Save your changes.

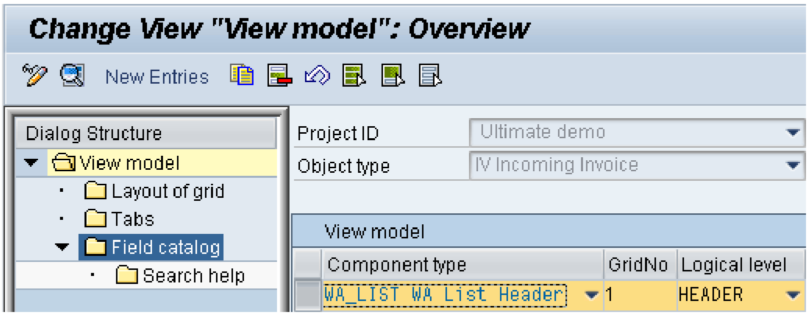
5. Click the **Activate** button .

Add the field to the customer view model

1. Go to **Change system settings > Presentation and interface > Configure view model** (`/N/EBY/PDVI_VVMOC`).

   The view model entry `WA List Header` is displayed.

2. Double-click the dialog structure menu entry **Field catalog**.

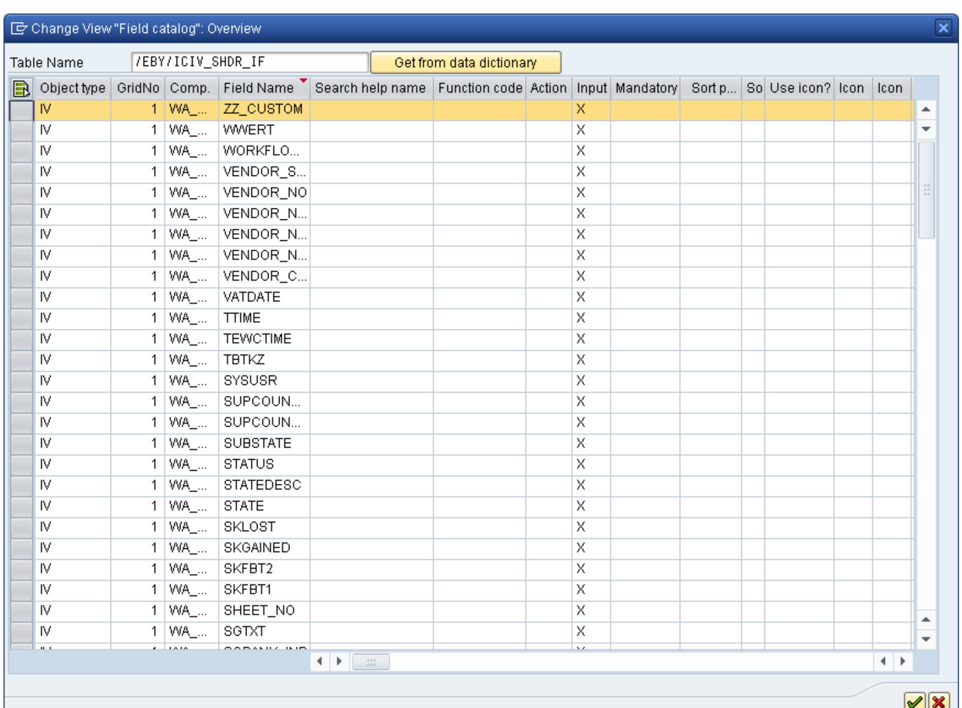


The VENDOR_NAME1 field details are displayed.

3. Go to change mode, then go back.
4. Click the **Import DDIC fields** button.

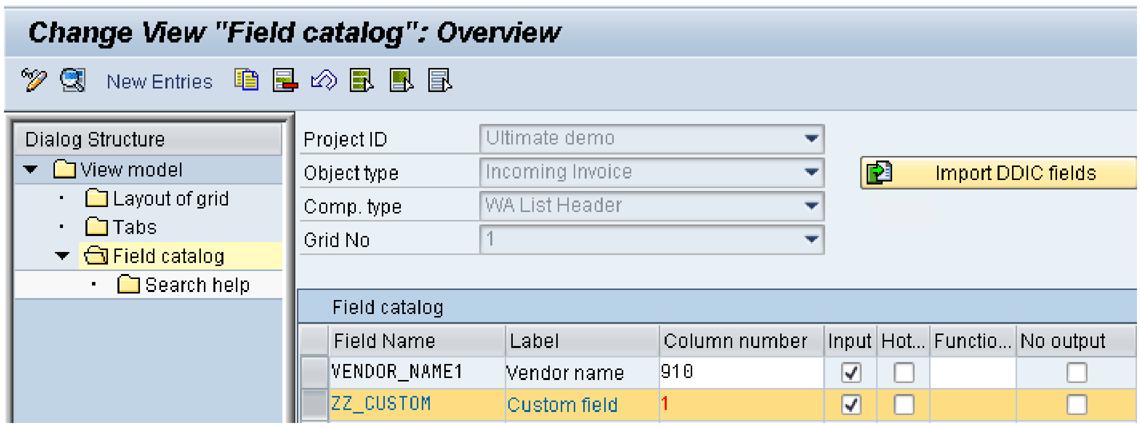
A popup appears.

5. In the **Table Name** field, enter /EBY/ICIV_SHDR_IF.
6. Click the button **Get from data dictionary**, then select the custom field ZZ_CUSTOM and click to confirm.



The custom field is added to the customer view model field catalog.

7. Make sure the **No output** option is not checked and set the column number to 1 so that it appears as the first field.

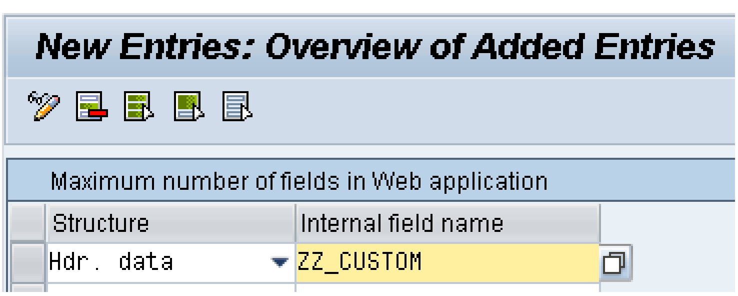


8. Save your changes.

9. Go to `/COCKPIT/WI11` (**Maximum number of fields in the Web Application**).

10. In change mode, click the toolbar button New Entries.

11. Add the custom field.

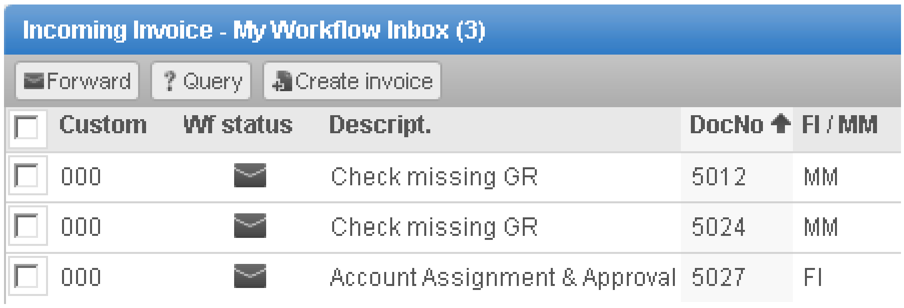


12. Save your changes.

Important: Fields must be added both to the view model *and* `/COCKIT/WI11` (**Maximum number of fields in Web Application**), otherwise they will not be displayed.

13. Refresh the Web Application context, then log on to the Web Application.

The custom field is now available in the Web Application document overview list.



Web Application document detail view

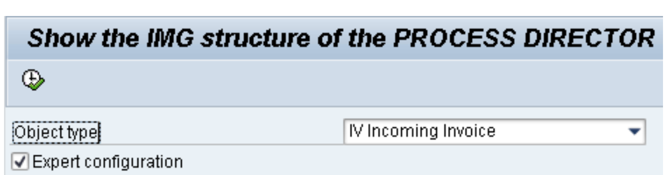
In this example, we will remove a standard PROCESS DIRECTOR field from the Web Application document detail view, and move a field from one tab to another. We will also create our own custom tab, add our custom field to the tab and make it a mandatory field.

To perform these tasks we need to:

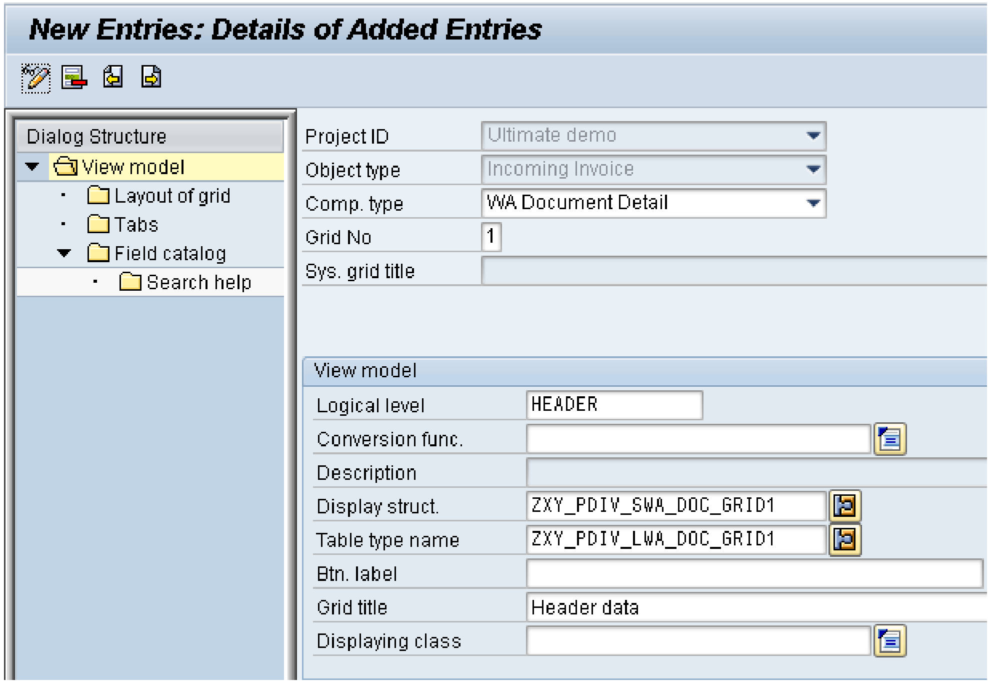
- Create a customer view model for the Web Application document detail view.
- Change the properties of the standard fields that we want to remove and move.
- Create a new tab.
- Add the custom field to the custom tab and make it a mandatory field.

Create a customer view model

1. Go to `/N/EBY/PDBOC` , select the `IV Incoming Invoice` object type and click the **Execute** button to open the Accounts Payable IMG.



2. Go to **Change system settings** > **Presentation and interface** > **Configure view model** (`/EBY/PDVI_VVMOC`).
3. In change mode, click the toolbar button New Entries.
4. Enter the component type `WA Document Detail`, grid number `1` and logical level `HEADER`.

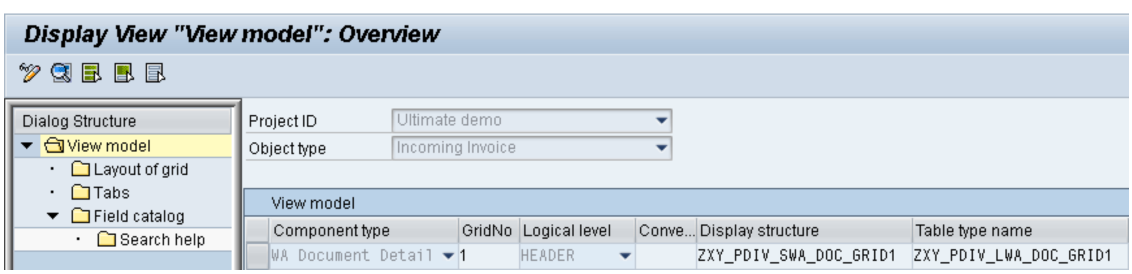


5. Enter a display structure, a table type name and a grid title.

Important: Remember to use unique display structure names and table type names.

6. Save your changes and go back.

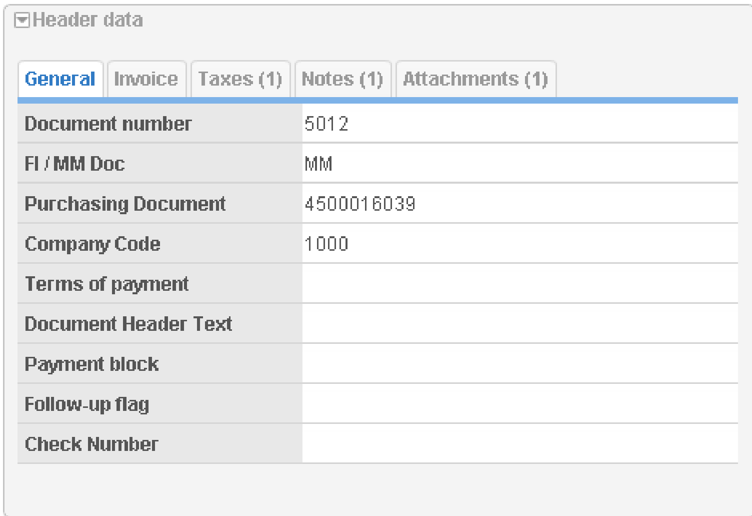
The view model is displayed in the overview.



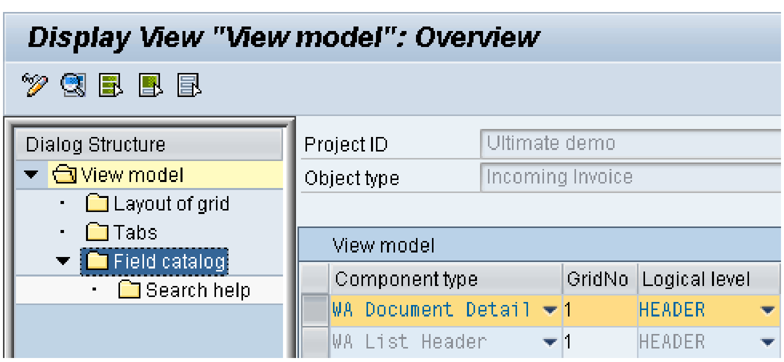
Customer view model entry for the Web Application document detail view

Remove a standard field

We will remove the standard field **Check Number** from the **General** tab.

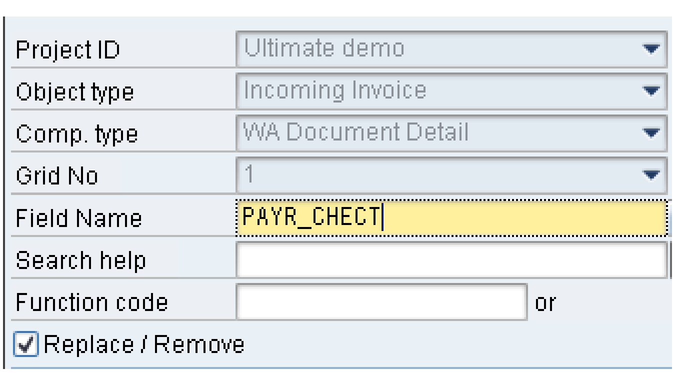


1. Select the view model component `WA Document Detail` and double-click the dialog structure menu **Field catalog**.



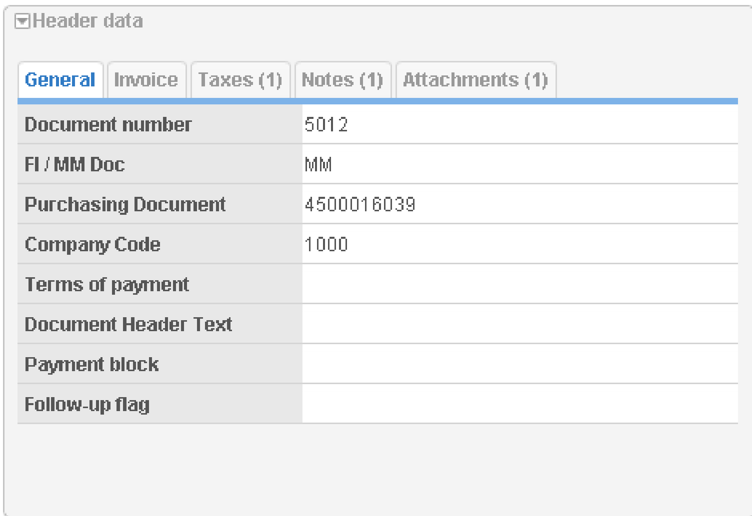
2. In change mode , click the toolbar button New Entries.

3. Select the field `PAYR_CHECT` and check the **Replace/Remove** box.



4. Save your changes.
5. Refresh the Web Application context, then log on to the Web Application.

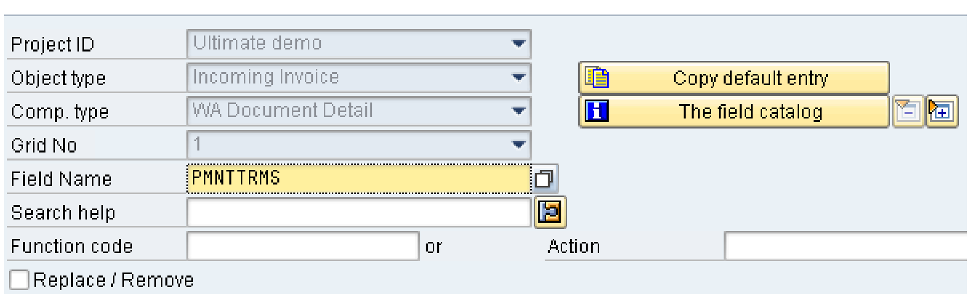
The **Check Number** field is no longer displayed.



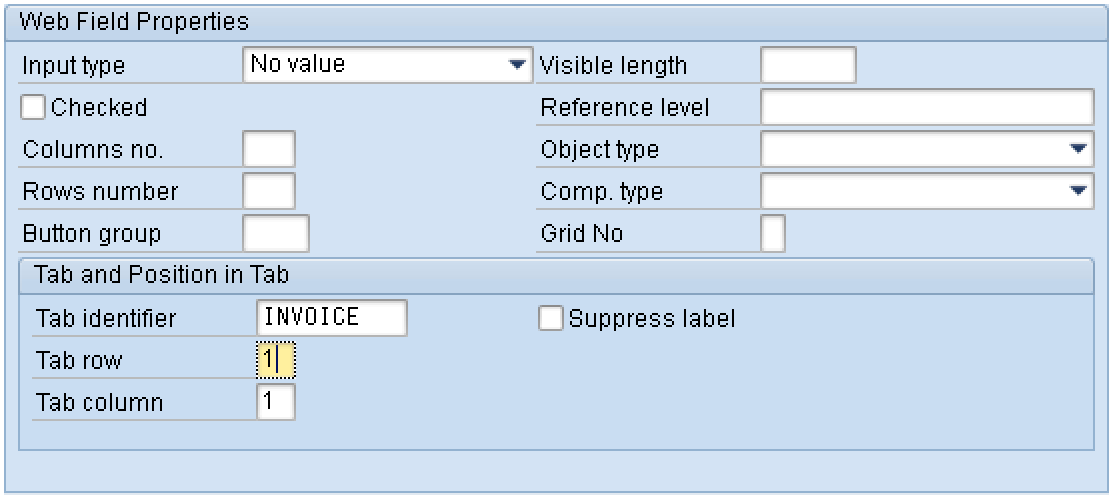
Move a field to another tab

We will move the **Terms of payment** field from the **General** tab to the **Invoice** tab.

1. In change mode, click the toolbar button New Entries.
2. Select the `PMNTTRMS` field and click the **Copy default entry** button. This copies the default settings to the customer view model.

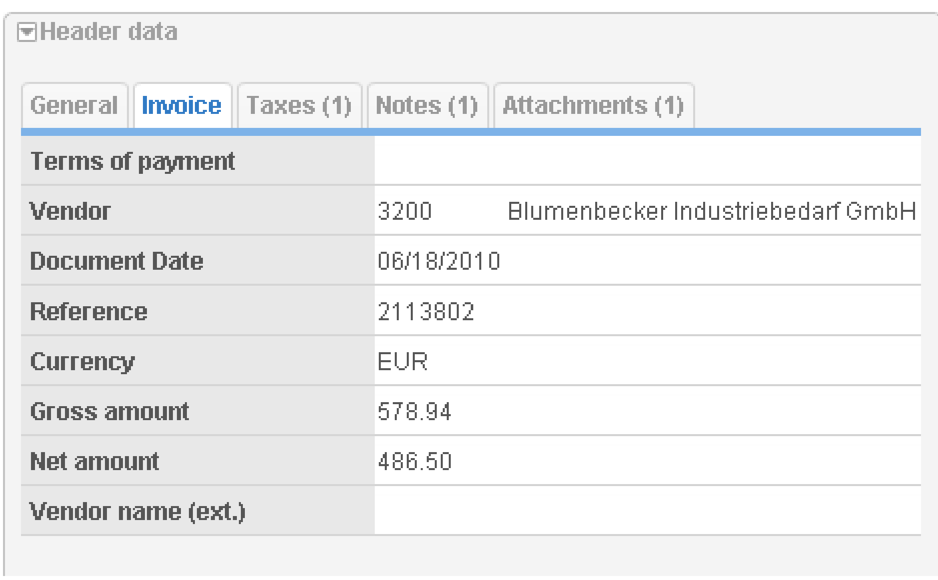


3. In the **Tab and Position in Tab** area, change the **Tab identifier** from `HEADER` to `INVOICE`. Change the **Tab row** from 26 to 1 to position the field at the top of the tab.



4. Save your changes.
5. Refresh the Web Application context, then log on to the Web Application.

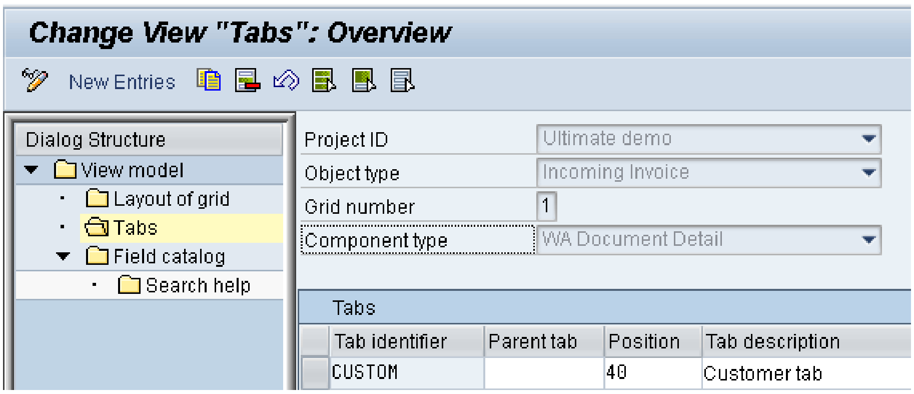
The **Terms of payment** field now appears as the first field in the **Invoice** tab.



Create your own tab

1. Select the view model component `WA Document Detail` and double-click the dialog structure menu **Tabs**.
2. In change mode, click the toolbar button New Entries.

3. Enter a tab identifier, position and description for the tab. The position number determines in which position the tab will appear – the higher the number, the further to the right the tab appears.



4. Save your changes and go back.

Note: The tab is only displayed when you have added fields to it.

Add a field to the custom tab

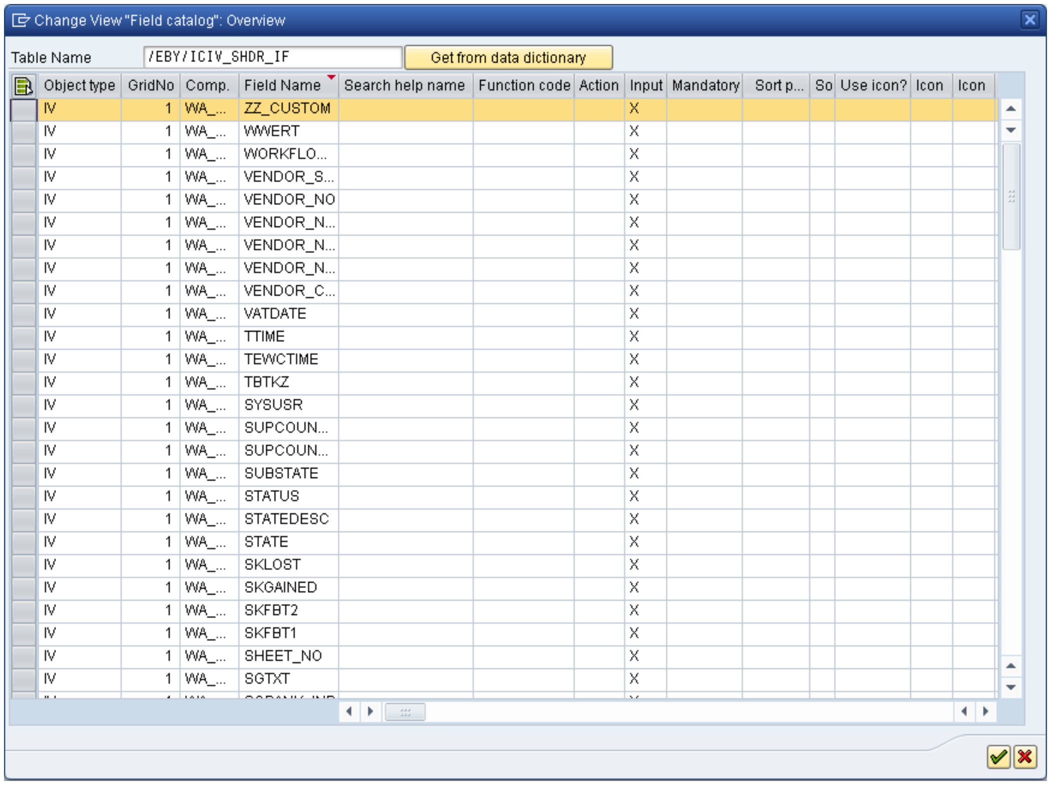
1. Select the view model component `WA Document Detail` and double-click the dialog structure menu **Field catalog**.

2. Go back, then click the **Import DDIC fields** button.

A popup appears.

3. In the **Table Name** field, enter `/EBY/ICIV_SHDR_IF`.

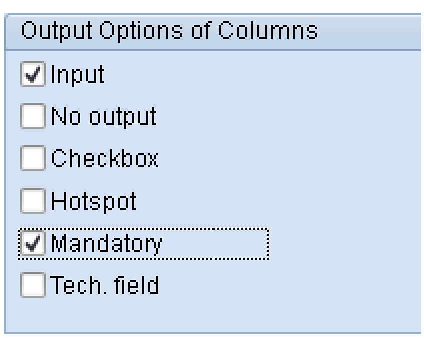
4. Click the **Get from data dictionary** button, then select the custom field `ZZ_CUSTOM` and click to confirm.



The custom field is added to the view model.

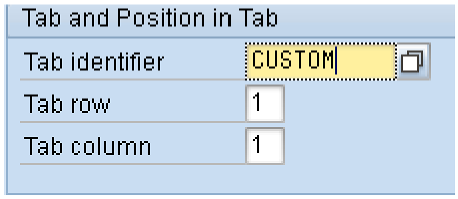
5. Select the `ZZ_CUSTOM` field and click the **Details** button.

6. Uncheck the **No output** option and check the **Mandatory** option.



Note: This specifies the default setting for the field. You can override this setting using field statuses. See the *PROCESS DIRECTOR Accounts Payable Configuration Guide* for more information on field statuses.

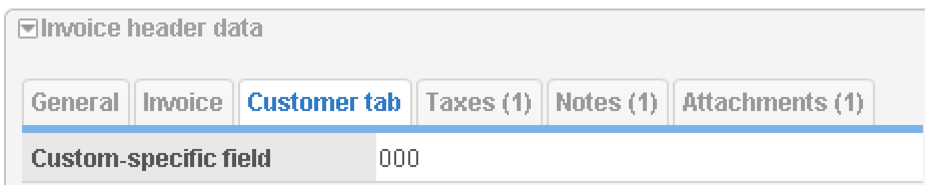
7. In the **Tab identifier** field, enter your custom tab.



8. Save your changes.

9. Refresh the Web Application context, then log on to the Web Application.

The custom tab and the custom field are displayed in the Web Application.



Customizing other grids

This tutorial only demonstrates how to customize the Web Application document overview list and the document detail header data. You can customize other grids, such as the Line items, PO items, Accounts grids, etc., in exactly the same way.

View model settings

When creating a customer view model for the grid, use these settings:

Grid	Comp. type	Grid No.	Logical level	Suggested names for the display structure and table type
Document overview	WA List Header	1	HEADER	ZXY_PDIV_SWA_LIST_GRID1 ZXY_PDIV_LWA_LIST_GRID1
Document detail header data	WA Document Detail	1	HEADER	ZXY_PDIV_SWA_DOC_GRID1 ZXY_PDIV_LWA_DOC_GRID1
Invoice line items	WA Document Detail	2	ITEM	ZXY_PDIV_SWA_DOC_GRID2 ZXY_PDIV_LWA_DOC_GRID2
Taxes	WA Document Detail	3	TAX	ZXY_PDIV_SWA_DOC_GRID3 ZXY_PDIV_LWA_DOC_GRID3
Account assignments	WA Document Detail	4	ACCOUNT	ZXY_PDIV_SWA_DOC_GRID4 ZXY_PDIV_LWA_DOC_GRID4

Multi-account assignments	WA Document Detail	5	ACCASS	ZXY_PDIV_SWA_DOC_GRID5 ZXY_PDIV_LWA_DOC_GRID5
Purchase order line items	WA Document Detail	6	SORDER	ZXY_PDIV_SWA_DOC_GRID6 ZXY_PDIV_LWA_DOC_GRID6
Planned account assignments	WA Document Detail	7	PO_ACCASS	ZXY_PDIV_SWA_DOC_GRID7 ZXY_PDIV_LWA_DOC_GRID7

Interface structures and customer includes

Use the following interface structures and customer includes when adding fields to the view model:

Logical level	Interface structure	Customer includes
Header data	/EBY/ICIV_SHDR_IF	CI_COCKPIT_HDR
Item data	/EBY/ICIV_SITM_IF	CI_COCKPIT_ITEM
Account assignment data	/EBY/ICIV_SPOACCASS_IF	-
Tax data	/EBY/ICIV_STAX_IF	CI_COCKPIT_TAX

Other user interface customizations

You can also customize fields and grid layout in SAP grids, the workflow status window and the document archive log. See the *PROCESS DIRECTOR SAP Configuration Guide* for detailed information on customizing the user interface.

Upgrading to PROCESS DIRECTOR 7.3 Web Application

This is an overview of upgrading from the WEB CYCLE Web Application to the PROCESS DIRECTOR 7.3 Web Application. Please refer to the *PROCESS DIRECTOR 7.3 Web Application Configuration Guide* for complete instructions.

Before upgrading, please read the Feature comparison, on p.6. There may be some settings in your current Web Application that are not supported in the PROCESS DIRECTOR Web Application.

About

The PROCESS DIRECTOR Web Application, like the WEB CYCLE Web Application, is based on Java and deployed to a web application server. Although the appearance is a major improvement and very different to WEB CYCLE, the system requirements, deployment and configuration of the PROCESS DIRECTOR Web Application is mostly the same. Therefore, upgrading from WEB CYCLE is a relatively simple process.

Configuration differences

The configuration of the following features is different:

Feature	WC Web App	PD Web App
Location of fields	display_configuration.xml	PROCESS DIRECTOR field catalog. Exception: Fields set to HIDDEN in display_configuration.xml are not visible in the document worklist.
Recalling documents	▪ undo parameter ▪ **Recall in Web App** setting in `/COCKPIT/WI3A`	▪ undo parameter ▪ **Recall** worklist node must contain the WC_RECALL Control.
Themes	The layout, CSS, and some images are different between the two applications. Therefore, copying your WEB CYCLE them for use in the PROCESS DIRECTOR Web Application is not possible.	

Upgrading

The procedure below is only a summary for informational purposes. For full instructions, refer to the *PROCESS DIRECTOR 7.3 Web Application Configuration Guide*.

1. Back up the following files:

File	Description
saplogon.properties	Contains the connection settings to your SAP system.
webcycle-app.properties	The main configuration file.
Messages_*xx*.properties	(Only if modified.) Contains changed GUI strings.

   All of these files can be reused.

2. If you have modified your theme, you cannot move the `themes` folder to the new application and reuse it, as you could with upgrades within WEB CYCLE releases. You must start from the beginning and determine what changes you need to make to the look and feel of the Web Application.
3. Deploy the `pdweb-app.war` and `wcconfig.war` files (`pdweb-app.ear` and `wcconfig.ear` for SAP NetWeaver).
4. Copy the files you backed up in Step 1 to the same paths in the `/webapps/wcconfig/...` folder.
5. Rename `webcycle-app.properties` to `pdweb-app.properties`.
6. Enable the PROCESS DIRECTOR Web Application in `pdweb-app.properties`:
   a. Set `appmode` to **16**.
   b. Set `processdirector` to **yes**.

Customizing buttons

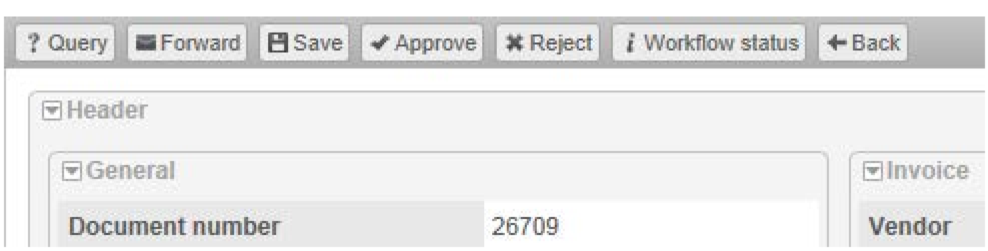
Changing the order of buttons

You can change the order of the buttons on the Actions bar in the Web Application.

When configuring the order of buttons, you need to know which actions are associated with the button. The position of each button on the Actions bar is determined by its Order value.

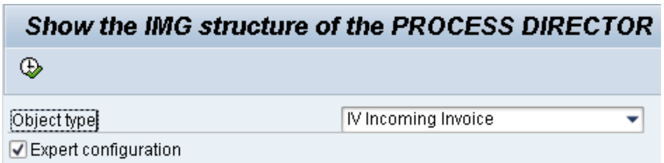
Button	Action	Default order value
Query	WCQUERY4CHKRECEIVR	0
Forward	WCFORWARD2CHKRECEIVR	0
Save	UPDATE	30
Approve	WCAPPROVE0DOC_CHECK	110
Reject	WCREJECT0CHECK_DOC	140
Workflow status	WCSTATUSSHOW	180
Back	BACK1	210

This results in the following default order of the buttons in the document detail view:



In this example, we will move the **Approve** and **Reject** buttons to appear as the first and second buttons. This means that we must assign a new order value for the **Approve** and **Reject** actions that is lower than the order value for the **Save** action. We must also assign new order values for the **Query** and **Forward** buttons, because if their values remain at zero, they will still appear as the first and second buttons.

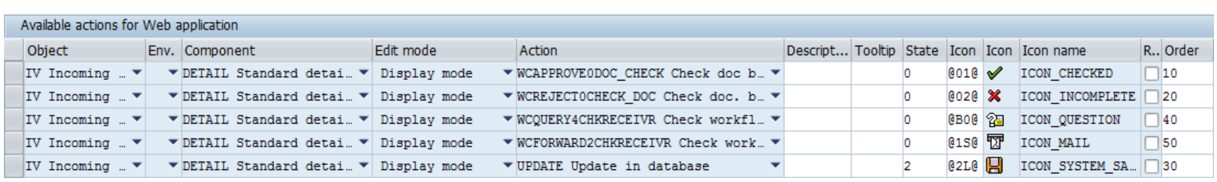
1. Go to `/N/EBY/PDBOC` , select the `IV Incoming Invoice` object type and click the **Execute** button  to open the Accounts Payable IMG.



2. Go to **Change system settings** > **Web application** > **Available actions** (`/EBY/PDWA_CACTC`).

3. Add these entries:

Object	Component	Edit mode	Action	Icon	Order
IV Incoming Invoices	DETAIL Standard detail screen	Display mode	WCAPPROVE0DOC_CHECK Check doc before approve (read)	@01@	10
IV Incoming Invoices	DETAIL Standard detail screen	Display mode	WCREJECT0CHECK_DOC Check doc before reject (read)	@02@	20
IV Incoming Invoices	DETAIL Standard detail screen	Display mode	WCQUERY4CHKRECEIVR Check workflow query recipient	@B0@	40
IV Incoming Invoices	DETAIL Standard detail screen	Display mode	WCFORWARD2CHKRECEIVR Check workflow recipients	@1S@	50
IV Incoming Invoices	DETAIL Standard detail screen	Display mode	UPDATE Update in database	@2L@	30


Available actions for Web application

Object	Env.	Component	Edit mode	Action	Descript...	Tooltip	State	Icon	Icon	Icon name	R..	Order
IV Incoming ...		DETAIL Standard detai...	Display mode	WCAPPROVE0DOC_CHECK Check doc b...			0	@01@		ICON_CHECKED		10
IV Incoming ...		DETAIL Standard detai...	Display mode	WCREJECT0CHECK_DOC Check doc. b...			0	@02@		ICON_INCOMPLETE		20
IV Incoming ...		DETAIL Standard detai...	Display mode	WCQUERY4CHKRECEIVR Check workfl...			0	@B0@		ICON_QUESTION		40
IV Incoming ...		DETAIL Standard detai...	Display mode	WCFORWARD2CHKRECEIVR Check work...			0	@1S@		ICON_MAIL		50
IV Incoming ...		DETAIL Standard detai...	Display mode	UPDATE Update in database			2	@2L@		ICON_SYSTEM_SA...		30

4. Save your changes.