

Kofax Process Director for use with SAP Fiori

Installation and Configuration Guide

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The logo for KOFAX, consisting of the word "KOFAX" in a bold, blue, sans-serif font.

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Overview

Kofax Process Director™ supports the process of document entry into SAP.

The aim is to facilitate automatic posting of error-free data records, as well as to support users in the process of identifying and amending documents that contain errors.

SAP Fiori® is a platform that provides the porting of applications on mobile devices. It is based on SAP's technology platform, NetWeaver. SAP Fiori enables applications to be used on desktop computers, tablets, and smartphones, and supports HTML5.

You can configure the Kofax Process Director for use with SAP Fiori add-ons to suit the requirements of your organization.

For more information on configuring Kofax Process Director and Kofax Process Director Accounts Payable™, see the following guides.

Kofax Process Director Import and Upgrade Guide

Kofax Process Director Accounts Payable Configuration Guide

Kofax Process Director Configuration Guide

Kofax Work Cycle Configuration Guide

Kofax Process Director Web Application Configuration Guide

Prerequisites

To import the Process Director for use with SAP Fiori add-ons into SAP, the following prerequisites must be met.

- Prerequisites for the frontend:

For information on the tested and supported SAP Fiori and Process Director releases, see the document *Kofax Process Director Suite Supported SAP Releases*.

- Prerequisites for the backend:

SAP software component SAP_GWFND 740, Support Package level 015 or higher.

Process Director for use with SAP Fiori transports

The Process Director for use with SAP Fiori add-ons have two transports.

- Front End (FE): Imported into the gateway
- Back End (BE): Imported into the ERP system

The transports are available on request. Partners and customers should contact their local Kofax representative to place an order.

For information on how to import a transport into SAP, see the *Process Director Import and Upgrade Guide*.

Check the namespaces

The Kofax_ReadSoft_Namespaces_FQAK901961.zip transport creates the /EBY/, /COCKPIT/, and /RSE/ namespaces.

It is recommended that you check the settings of the /EBY/ and /COCKPIT/ namespaces. To check their settings, complete the following steps.

1. Go to the SE03 transaction.
2. In the **Administration** folder, double-click **Display/Change Namespaces**.

The namespaces should be defined as follows.

Note The /COCKPIT/ namespace is required only for Accounts Payable.

Setting	Value
Namespace	/COCKPIT/
Namespace role	C - Recipient
Correction license	13375972671823267744
Short text	Process Director - ReadSoft AG - Germany, Frankfurt/M
Owner	ReadSoft AG

Setting	Value
Namespace	/EBY/
Namespace role	C - Recipient
Correction license	05790374410114137903
Short text	Process Director - ReadSoft AG - Germany, Frankfurt/M
Owner	ReadSoft AG

3. In the **Administration** folder, double-click **Set System Change Option**.

The namespaces should be defined as follows.

Setting	Value
Namespace/Name Range	Process Director - ReadSoft AG - Germany, Frankfurt/M
Prefix	/COCKPIT/

Setting	Value
Modifiable	X - Modifiable

Setting	Value
Namespace/Name Range	Process Director - ReadSoft AG - Germany, Frankfurt/ M
Prefix	/EBY/
Modifiable	X - Modifiable

Licensing

The Process Director for use with SAP Fiori add-ons are free of charge and no license is required. However, a license is required for the main products Process Director and Process Director Accounts Payable.

Supported user types

	SAP GUI	PD Web App	ReadSoft Mobile	PD Fiori Apps
SAP user	Yes	Yes	Yes	Yes
WC user	No	Yes	Yes	No

Configuration

This chapter explains how to configure the Process Director for use with SAP Fiori applications.

Note Always use the SAP Fiori Launchpad to configure and use the Process Director for use with SAP Fiori applications. Kofax tests and supports only the integration with the SAP Standard Fiori Launchpad. In the production environment, always use the Launchpad to open the applications; a direct URL application call is not recommended.

SAP Launchpad Designer

In the SAP Launchpad Designer, you create a catalog, group, and tiles for the Process Director for use with SAP Fiori applications.

Launchpad tiles are created in catalogs. Catalogs are collections of tiles that have similar technical or business functionality (similar to the development packages in ABAP).

You can add tiles to groups. Groups are collections of tiles for specific end users and can contain tiles from different catalogs.

You can grant independent access to catalogs and groups.

Start the Launchpad Designer


Start the launchpad designer using one of the following URLs:

```
https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrv_upb_admn/main.html
```

```
https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrv_upb_admn/main.html ?sap-client=<client>&scope = <CONF/CUST>
```

Create a catalog

To create a new catalog, complete the following steps.

1. In the footer of the **Catalogs** panel, click **Create Catalog** .
2. In the **Create Catalog** dialog box, type a title and ID for the catalog and click **Save**.

The new catalog appears.

Note The title and ID should follow the customer-specific naming convention, for example, zcustomer_cat1.

3. Click **Target Mapping** , then, in the footer, click **Create Target Mapping** to display a new form.



4. Type the required information. The following list provides some examples.
 - **Semantic Object:** Fiori Application
 - **Action:** eby_frap_wc
 - **Title:** Process Director AP
 - **URL:** /sap/bc/ui5_ui5/eby/frap_wc
 - **ID:** eby.frap_wc
5. Click **Save**.

Create a dynamic tile

Tiles can be static or dynamic. In dynamic tiles, the data is updated from the database in near real-time (in relatively small intervals).

Note It is recommended to use dynamic tiles so that even before entering the application, the user has an overview of the number of documents that need to be processed.

To create a dynamic tile, complete the following steps.

1. Click **Tiles** , then, in the footer, click **Create Tile** .
2. Click **App Launcher - Dynamic**.
3. In the **General** group, type the required information. The following list provides some examples.
 - **Title:** Process Director AP
 - **Subtitle:** Fiori App
 - **Keywords:** [Optional]
 - **Icon:** Select an icon, for example, sap-icon://Fiori2/F0102.
 - **Information:** [Optional]
 - **Number Unit:** Documents
4. In the **Dynamic Data** group, type the required information. The following list provides some examples.
 - **Service URL:** To procure the number of invoices, use the following service URL:
`/sap/opu/odata/EBY/FRAP_WC/HeaderSet/$count`
 - **Refresh Interval in Seconds:** 30

This is the number of seconds after which the dynamic content is read again from the data source, and the display is refreshed.

Too small an interval will result in the database being read too often, while a large interval will make the dynamic tile similar to a static one.

Note The launchpad uses a default of 10 seconds, unless you enter a higher value in this field. If the value entered is >0 and <10, it will fall back to 10 seconds. If the value entered is 0, the dynamic tile is updated only once (on loading). If the value is >= 10, this value is taken as the refresh interval.

- In the **Navigation** group, type the required information. The following list provides some examples.
 - Use semantic object navigation:** Select the check box to use this option.
 - Semantic object:** Fiori application
 - Action:** eby_frap_wc

Note This is a standard launchpad configuration option.


- Parameters:** [Optional]

The entries in the **Tile Actions** group are optional.

- Click **Save**.

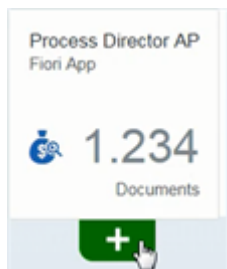
Create a group and add an existing tile to it


To create a new group and add a tile, complete the following steps.

- In the footer of the **Groups** panel, click **Create Group** .
- In the **Create Group** dialog box, type a title and ID for the group and click **Save**.
The new group appears.

Note The title and ID should follow the customer-specific naming convention, for example, `zcustomer_grp1`.

- In the **Show as Tiles** group, click the icon to select the catalog that you created.
The selected catalog displays the dynamic tile that you created.
- Click the plus icon below the title to add the tile to the group.



The plus icon changes into a tick  and the tile is successfully added to the group.





Authorizations and roles

For transactional applications, ABAP backend users with corresponding roles and authorizations are necessary. The roles provide authorizations for the OData service of the applications. The roles for the transactional applications do not comprise any authorization for the business data that needs to be displayed in the application. It is assumed that these authorizations will be provided by the customer.

For every role, you must grant authorizations according to the customer's roles and authorization concept.

Assign a Process Director for use with SAP Fiori application to users

To assign a Process Director for use with SAP Fiori application to users, complete the following steps.



1. Go to the `PFCG` transaction.
2. Create a new role or select an existing one.
3. Click the **Menu** tab.
4. In the **Hierarchy** section, click **Role Menu**.
5. On the **Transaction** button menu, click **SAP Fiori Tile Catalog**.
6. In the **Assign Tile Catalog** dialog box, select or type the catalog ID of the Process Director for use with SAP Fiori catalog that you created and click **Continue** .
7. In the **Hierarchy** section, click **Role Menu**.
8. On the **SAP Fiori Tile Catalog** button menu, click **SAP Fiori Tile Group**.
9. In the **Assign Group** dialog box, select or type the group ID of the Process Director for use with SAP Fiori group that you created and click **Continue** .
10. Click **Save** .
11. Click the **User** tab.
Type the required user IDs and click **Save** .

The assigned users can now access the application.

Assign the Web Service to user roles

Depending on the existing authorization concepts, you may need to add the Web Service to the user roles.

To assign the Web Service to a role, complete the following steps.

1. Go to the `PFCG` transaction.
2. Select the role.
3. Click the **Authorizations** tab.
4. Click **Change Authorization Data** .
5. In the **Object class AABB** list, select the **S_SERVICE** authorization object.
6. Click the edit icon next to the **SRV_NAME** node.
7. In the **Type** list, select **TADIR Service**.
8. In the **Object Type** list, select **IWSG**.
9. In the **Object Name** list, select **/EBY/FRAP_WC_0001**.
10. Click **Save** .

Worklist

To use the Process Director for use with SAP Fiori applications, you must create a basic Worklist in Process Director for Incoming Invoices (for the Process Director Accounts Payable for use with SAP Fiori app) and Requisitions (for the Process Director Purchase Orders for use with SAP Fiori app).

The Process Director for use with SAP Fiori applications display data in the following tabs.

- The Inbox tab displays all the documents that are currently in workflow.
- The History tab displays all the documents that have already been processed.

Each Process Director for use with SAP Fiori application requires a top level Worklist node and two subnodes - one for documents to display in the Inbox tab, and one for documents to display in the History tab. You can create other subnodes as needed for the SAP GUI, but the Process Director for use with SAP Fiori applications access only the Workflow Inbox and Workflow History nodes.

If you do not already have a Worklist, follow the procedures below to create one. For detailed information on creating a Worklist see the *Process Director Configuration Guide*.


Open the Worklist configuration

To open the Worklist configuration, complete the following step.

- Go to transaction `/N/EBY/PDBO_WLC`.

Create the top level node

To create the top level node, complete the following steps.

1. In change mode, click **Add Business Object node** .
2. In the **Change basic data** dialog box, enter the following settings.

Accounts Payable settings:

Setting	Entry
Object type	IV Incoming Invoice
Node description	Incoming Invoices (This is a suggestion; you can use another name.)
Control	ICS_DOCS

Purchase Orders settings:



Setting	Entry
Object type	PO Requisition
Node description	Requisitions (This is a suggestion; you can use another name.)
View name	/EBY/PDPO_VWRKL
Node type	ST Static
Ranges configuration	OBJ='PO'

3. Click **Continue** .

A new Worklist node appears.

Create the subnodes

To create each subnode under the top level node, complete the following steps.

1. Right-click the new **Incoming Invoices** or **Requisitions** node and click **Insert node as a subnode** .
2. In the **Change basic data** dialog box, enter the settings for the subnode.
3. Click **Continue** .

Workflow Inbox for Accounts Payable

Setting	Entry
Object type	IV Incoming Invoice
Node description	Workflow Inbox (This is a suggestion; you can use another name.)
Control	WC_INBOX
Not visible in	SAP GUI

Workflow Inbox for Purchase Orders

Setting	Entry
Object type	PO Requisition
Node description	Workflow Inbox (This is a suggestion; you can use another name.)
View name	/EBY/PDPO_VWCWKL
Node type	SD Semi-dynamic
Control	WC_INBOX
Ranges configuration	<pre>((WC_PROC_TYPE = "[/EBY/CL_PDBO_WL_QRY_PD_USER_TY] AND WC_PROCESSOR = "[/EBY/CL_PDBO_WL_QRY_PD_USER]) OR (ANY_FIELD = " [/EBY/CL_PDBO_WL_QRY_PD_SUBST])) AND WC_PROC_STATE='X' The /EBY/CL_PDBO_WL_QRY_PD_SUBST class includes documents sent to the user's substitutes in the Inbox.</pre>

Workflow History for Accounts Payable

Setting	Entry
Object type	IV Incoming Invoice
Node description	Workflow History (This is a suggestion; you can use another name.)
Control	WC_HISTORY
Not visible in	SAP GUI

Workflow History for Purchase Orders

Setting	Entry
Object type	PO Requisition
Node description	Workflow History (This is a suggestion; you can use another name.)
View name	/EBY/PDPO_VWCWKL
Node type	SD Semi-dynamic
Control	WC_HISTORY
Ranges configuration	WC_PROC_ACTIVITY = 'APR' OR WC_PROC_ACTIVITY='RJC'

Generate the Worklist

You must generate the Worklist to make your changes available to users in the Process Director for use with SAP Fiori applications.

To generate the Worklist, complete the following step.

- Click **Generate** .

Messages confirming that the Worklist was successfully generated appear.

View model

Customer implementations often require that you make changes to the user interface. You can implement most of these changes in the Process Directorview model.

The view model determines the data that is presented to the user and how it is presented. Only the data that is defined in the view model is available to the user in the user interface.

When any change is made in the standard view model configuration, the Fiori runtime configuration is updated once a day.

When any change is made in the customer view model configuration, the Fiori runtime configuration is updated instantly.

To force the Fiori runtime configuration update, you can run the `/EBY/FR_OMODEL_FORCE` transaction (`/EBY/FR_FORCE_OMODEL_UPDATE` program).

For more information on the view model, see to the *Process Director Configuration Guide*.

Enable image attachment upload

By default, the image upload functionality for the Accounts Payable for use with SAP Fiori application is deactivated, but you can activate it to allow users to add attachments to documents.

To activate the attachment upload functionality for Process Director Accounts Payable for use with SAP Fiori, complete the following steps.

1. Set up the archiving configuration for Process Director Accounts Payable documents.
See the *Process Director Accounts Payable Configuration Guide* for more information about archiving.
2. In the `/COCKPIT/WI15` transaction, maintain the archive document types for attachment upload.
3. In the workflow step configuration, select the **Doc. upload** check box.
See the *Kofax Work Cycle Configuration Guide* for more information.



Application service activation

Activating the application service is only necessary for a one system configuration, or for the frontend system in a two system configuration.

For a two system configuration, the OData service exists in both the backend and frontend systems. The application service only exists in the frontend system.

You must verify if the application service is active. If it is not, you must activate it.

To activate the service element tree node, complete the following steps.

1. Go to the `SICF` transaction.
2. In the **Service Name** field, type `frap_wc` and click **Execute** .
3. Right-click the `frap_wc` tree nodes and select **Activate Service**.
4. Go to the `SICF` transaction again.
5. In the **Service Name** field, type `fr_lib` and click **Execute** .
6. Right-click the `fr_lib` node and select **Activate Service**.

Note You must activate both `frap_wc` and `fr_lib`, regardless of the sequence you follow. I

f the customer's SAP runtime environment is set up correctly, you can now start the application.

7. Right-click any `fr_lib` entry and select **Test Service**.
8. Activate the service.

Troubleshooting

This chapter explains how to troubleshoot issues that may occur while configuring the Process Director Accounts Payable for use with SAP Fiori application, which uses the `/EBY/FRAP_WC` service. For other applications, modify the names accordingly.

Basic system settings

This section explains how to troubleshoot basic system settings.

Parameter: `login/create_sso2_ticket`

If you encounter an error message in the gateway client when trying to run the oData service, modify the `login/create_sso2_ticket` system parameter.

Selection of default profile for virus scan

If there are no other requirements for the default profile for the virus scan, complete the following steps.

1. Run the `SM30` transaction for the `/IWFND/C_CONFIG` table.
2. If the parameter `GATEWAY_VIRUSCAN_PROFILE` does not exist, add it to the `/IWFND/C_COF_PAR` table.
3. Change the value of the `GATEWAY_VIRUSCAN_PROFILE` parameter to `-`.

System alias

To define the system alias, complete the following steps.

1. In transaction `SPRO`, go to **SAP Netweaver > UI Technologies > SAP Fiori > Initial Setup > Connection Settings (Front-End Server to ABAP Back-End Server) > Define SAP System Alias**.
2. Complete one of the following procedures.

One system configuration (backend and frontend in one system)

If the backend and frontend are in the same system, complete the following step.

- Create the `LOCAL` system alias.

Two system configuration (backend and frontend in separate systems)

If the backend and frontend are in separate systems, complete the following steps. In this scenario, the alias works as a proxy to the remote system.

1. Make sure that the user has authorization for the `S_RFCACL` object in both the systems.
2. Create a trusted RFC connection.
In the **Logon and Security** tab, make sure to leave the **Language** field blank.
3. Create the alias.
In the **System ID** field, type the SAP system name for the backend system.

OData service configuration

To configure the OData service, complete the following steps.

1. In transaction `SPRO`, go to **SAP Netweaver > UI Technologies > SAP Fiori > Initial Setup > Initial Launchpad Configuration > Service Maintenance of SAP Gateway**.
2. Verify if the `/EBY/FRAP_WC` service has already been preset.
 - If it has a green status and in the **ICF Nodes** section, the **Session Time-out Soft State** value equals `00:05:00`, and also the system alias has been defined, the service is configured correctly.

Note This timeout defines the time for which a document remains locked in the application. For a longer session lock period, consider modifying this parameter.

- If the **ICF Nodes** status is yellow, you only need to activate it and proceed to the next step of creating the service.
- If the service does not exist, or exists, but the status in the **ICF Nodes** section is blank or the **Session Time-out Soft State** value equals `00:00:00`, remove the alias and **ICF Node** first to remove the service.

Create the service

To create the OData service, complete the following steps.

1. Click **Add Service**.
2. In the **Filter** section, type the values, with `/EBY/FRAP_WC` as the **Technical Service Name** and `FRAP_WC` as the **External Service Name**.
3. Press Enter. In the **Select Backend Services** section, select the line and click **Add Selected Services**.
4. Change the names suggested by the system (starting with Z*), to names starting with `/EBY/*`.
5. In the **Package Assignment** field, type `/EBY/FRAP`.
6. Go back to the service list.

Assign the alias

To assign the alias, complete the following steps.

1. Click **Add System Alias**.
2. Use the search help to select the `/EBY/FRAP_WC_0001` service.
3. Assign the `LOCAL` or remote system alias, depending on if you have a one system or a two system configuration.

Depending on the requirements of your system landscape, you can use any suitable name for the remote system alias.

4. Go back to the service list.

ICF node


The Process Director Accounts Payable for use with SAP Fiori application uses two ICF Nodes:

- Odata
- Application services

The OData service should either already exist and have been activated, or should be created (recreated) for the newly added `/EBY/FRAP_WC` service.

If this ICF Node has a blank status or the Session Time-out Soft State value is set to 00:00:00, you must create, or delete and recreate, the node.

To create the node, complete the following steps.

1. In the `SICF` transaction, click **Execute** .
2. Under **Virtual Hosts / Services**, go to `default_host > sap > opu > odata > eby` .
3. Click `eby`, then click **Create Host/Service**.
4. Confirm the popup and in the **Name of Service Element to Be Created** field, type `frap_wc`.
5. Click **OK**.
6. Type a description and in the **Session Timeout** field, type the required time interval (for example, 00:05:00).

This timeout defines the time for which a document remains locked in the application.

7. Click the **Handler List** tab.
8. Add `/IWFND/CL_SODATA_HTTP_HANDLER` to the **Handler** list.
9. Go back to the service list and activate the service.

Activate the soft state in the services list

Verify if the soft state of the `/EBY/FRAP_WC` service is active. If it is not, click Soft State to activate it.

SAP Internet Communication Framework

The SICF (SAP Internet Communication Framework) standard transaction code is used to maintain the services for HTTP communication in the SAP system, using the Internet Communication Manager (ICM) and the Internet Communication Framework (ICF).

Deactivate the parallelization of batch requests

If the parallelization of batch requests is active, soft state does not work. You can activate it globally, and deactivate it for each service.

To deactivate parallelization of batch requests for a service, complete the following steps.

1. In the `/IWFND/MAINT_SERVICE` transaction, click **Service Implementation**.
2. Click **Configuration**.
3. Clear the **Deactivate Parallelization of Batch Requests** check box.

SAP Gateway

You can use the `ST22` transaction to check for SAP Gateway errors. However, this does not cover web-specific errors. Web-specific errors are logged in the `/IWFND/ERROR_LOG` transaction.

View model

Although the first Environment field in the configuration of the view model settings is not mandatory and the system environment should be automatically used, if you encounter an error, make sure that this field is filled in.

View model					
	Component type	GridNo	Env.	Env.	Logical level
	WA_DOC WA Documen... ▼	21	FI Fiori ▼	FI Fiori ▼	HEADER ▼
	WA_DOC WA Documen... ▼	24	FI Fiori ▼	FI Fiori ▼	ACCOUNT ▼

If changes to the customer view model are not reflected in the Fiori Application, run the `/EBY/FR_FORCE_OMODEL_UPDATE` program.

For more information about view model configuration, see the *Process Director Configuration Guide*.