

ReadSoft Mobile

Installation and Configuration Guide

Version: 2.4

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About Kofax ReadSoft Mobile™

Using their mobile device, the ReadSoft Mobile App (App) allows users of Kofax business applications for SAP to manage accounts payable and other financial processes, as well as approve and process financial documents. Users can use the App to manage their workload, review, approve or reject urgent workflows, view scanned image attachments, as well as add notes to documents.

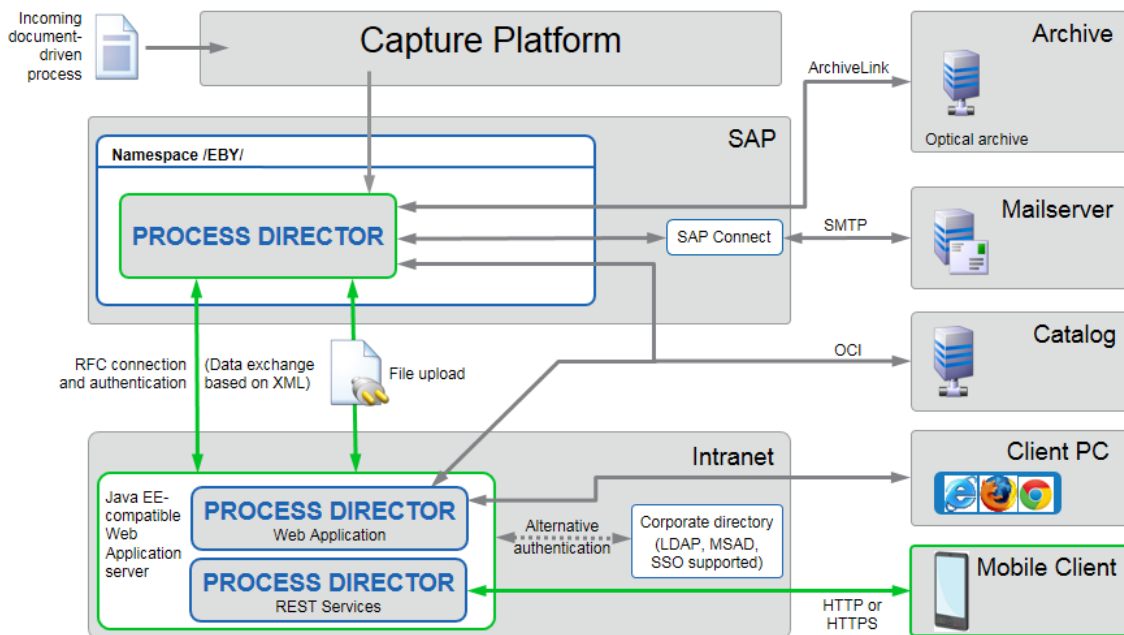
As the App is directly connected with the user's back-end system, the data is immediately available.

Architecture

The App interfaces with PROCESS DIRECTOR (PD) and PROCESS DIRECTOR Accounts Payable (PD AP). Currently it can be used primarily for WORK CYCLE workflow approvals and review of documents in the Worklist. In later versions, it is planned to extend its functionality and flexibility, similar to the desktop browser, Web Application.

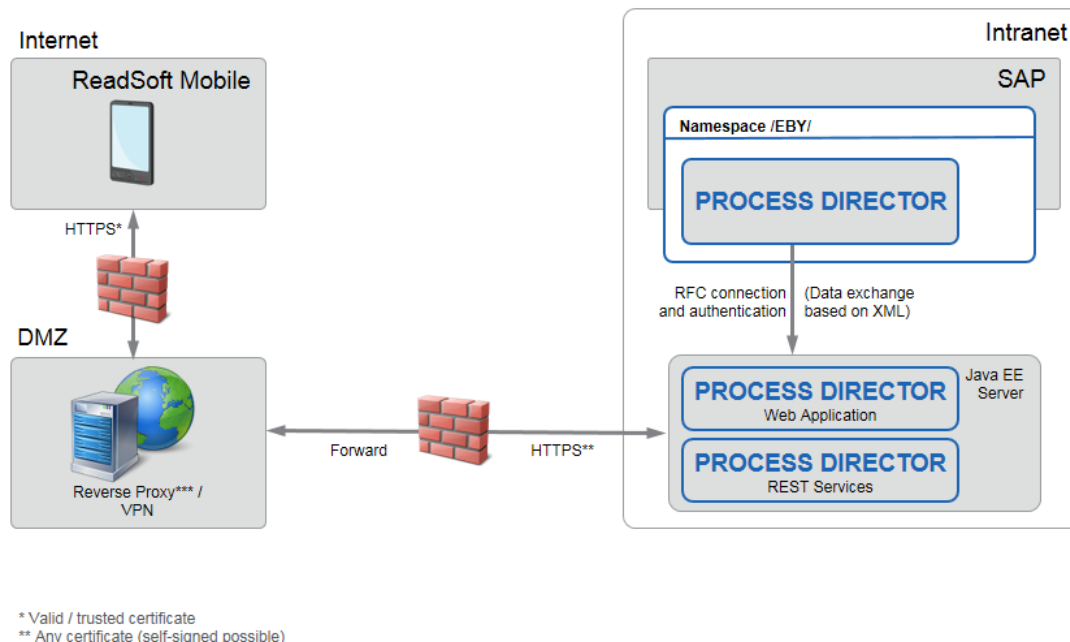
The App connects to a [REST](#) Service API, which is provided by the Java-based Web Application. This Web Application can reuse the existing Java EE-compatible Web Application server of the normal PD Web Application, or it can be deployed on a dedicated server.

Note: ReadSoft Mobile is different from Email-based Approval (formerly MOBILE APPROVAL), which allows users to approve, reject or add a note to a document via email. For more information, please see the *Email-based Approval Configuration Guide*.



Connection scenarios

The connection scenario depends on each customer's IT infrastructure. The [REST Service API](#) must be fully exposed to the mobile client. We do not recommend to expose the Tomcat server directly to the internet. Instead, a reverse proxy or similar server can be used to forward the client requests to the internal network, where the REST Service API is deployed on a Tomcat server. Using a virtual private network (VPN) is also a valid connection scenario, if the VPN extends the network segment to the [REST Service API](#).



* Not acceptable without encryption; a root certificate is needed.

** A self-signed certificate is acceptable.


*** The reverse proxy infrastructure needs to be configured by the customer; Kofax does not make any specific recommendations.

Note: Session persistence must be supported. It has to be possible to direct a client's requests to the same Tomcat server for the duration of the session, or for the time it takes to complete a task or transaction. The time-out value is fixed and set to 30 seconds.

The reverse proxy mapping must be configured to expose only the REST Service API.

External URL	Internal URL
https://approval.customer.com/	https://internal.tomcat:8443/pdweb-wsa/rest

The start page of the App displays the external URL only.

 <small>from your system administrator.</small> <small>from Perceptive Software</small>	
Tap here to connect to our demo system.	
approval.customer.com	?
Production	
Validate connection	

Requirements

SAP requirements

To use ReadSoft Mobile with PD AP or any PD business process type, it is required to have the PROCESS DIRECTOR platform transport installed. You can use ReadSoft Mobile for any PD business process type without having PD AP installed.

SAP System minimum configuration	
PROCESS DIRECTOR	7.4
PROCESS DIRECTOR AP	7.4

Note: It is recommended to always use the latest service pack.

Other requirements

The App connects to a web service version of the PD Web Application. This Web Application can be deployed on the same server as the normal PD Web Application. Currently, the web service version of the PD Web Application can be shipped for only Tomcat servers.

Web Server minimum configuration	
Apache Tomcat	9.0 (with JRE 8) 8.5 (with JRE 7 or 8)
Web Application	pdweb-wsa.war - 3.01 Note: Version 2.17 is no longer supported.
Official SSL certificate	For example, from RapidSSL

For Tomcat and Web Application deployment and configuration, see the [PROCESS DIRECTOR Web Application Configuration Guide](#).

Determine the PROCESS DIRECTOR Web Application web service version

To determine the web service version, one of the following resource identifiers can be used.

- /misc/buildinfo

The `APIVersion` parameter contains the web service version, the `Level` parameter contains the patch level.

```
<Version>
  <Version>7.5</Version>
  <APIVersion>3.00</APIVersion>
  <BuildNo>2016-11-08_11-59</BuildNo>
  <BuildDate>2016-11-08_10:58</BuildDate>
  <Level>2</Level>
</Version>
```

- /misc/version

The `Version` parameter contains the web service version.

```
<Version>
  <Version>3.00</Version>
</Version>
```

Note: The web service version is not the same as the ReadSoft Mobile release version.

Configure the connection parameters

The App utilizes the existing network infrastructure to establish a secure connection to the back-end system. The data is encrypted when it leaves the internal network and is decrypted on the mobile device; no data is stored on the mobile device itself.

To support you in the configuration and distribution of the back-end's connection parameters, the App provides a QR code generator for Android and Apple mobile devices. Users can scan the QR code you generate and import the connection parameters to the App.

To generate a QR code, complete the following steps.

1. To start the Generator for QR code generation, go to:
<https://mobile.readsoftdev.com/config/generator/qr/>
2. Enter the connection parameters.
 1. **Server URL (with HTTPS):** The URL of the server to which the App should connect.
Example: `https://invoice.customer.com/pdweb-wsa/rest`
 2. **Parameter (optional):** The SAP ERP system, as defined in the `saplogon.properties` file of the PROCESS DIRECTOR Web Application, that the server should connect to. This value is handed over to the PROCESS DIRECTOR web server as a part of the URL.
 3. **Description (optional):** The description of the connection settings, for example, Production.

3. If you have defined more than one system in the *saplogon.properties* file, you have to define one default system that the App should connect to. If this system should be the default system, select the **Use as default** check box.
4. Click **Generate Code**.
5. Copy the QR code, as instructed, and click **Send E-Mail** to send it to the user via an email.

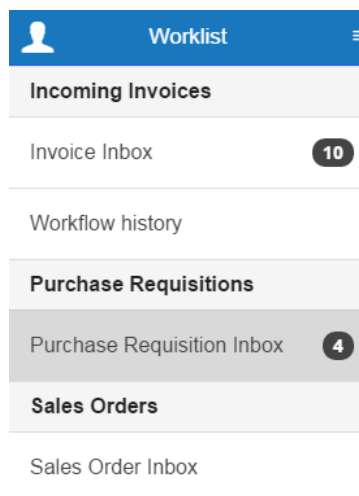
Users who have the App installed can then scan the QR code by using the App's QR code scanner. The scanner opens automatically when users tap the QR code symbol on the start page. After verifying the displayed data, they can start the import of the server connection parameters.

Configure PROCESS DIRECTOR

The following guideline assumes that you are already familiar with the [PROCESS DIRECTOR Configuration Guide](#) and the [PROCESS DIRECTOR Web Application Configuration Guide](#). It only covers App-specific settings and does not explain the customizing screens in detail.

Configure the Worklist

The following image shows the recommended minimum configuration for the Worklist. You can configure additional **History** sub-categories for the **Purchase Requisitions** and **Sales Orders** business process types.



To configure the Worklist, complete the following steps (the **Invoice Inbox** is used as an example).

1. Create the **Invoice Inbox** node or reuse an existing one.

Important: All sub-categories you create for the Mobile App have to be on the first sublevel below the main node of the corresponding business process type. Sub-categories on lower levels are not supported.

Structure	O...	View name	Worklist ...
▼ Incoming Invoices	IV	/EBY/PDBO_VWRKL	Static
• Invoice Inbox	IV	/EBY/PDBO_VWRKL	Static
• Invoice Cockpit	IV	/EBY/PDBO_VWRKL	Static
• Workflow history	IV	/EBY/PDBO_VWRKL	Static
▼ Purchase Requisitions	PO	/EBY/PDPO_VWRKL	Static
• Purchase Requisition Inbox	PO	/EBY/PDPO_VWCWKL	Semi-dyna...
• Requisition Cockpit	PO	/EBY/PDPO_VWRKL	Static
▼ Sales Orders	SO	/EBY/PDSO_VWRKL	Static
• Sales Order Inbox	SO	/EBY/PDSO_VWCWKL	Semi-dyna...
• Sales Order Cockpit	SO	/EBY/PDSO_VWRKL	Static

2. In the **Change basic data** popup, under **Not visible in**, clear the **Mobile Application** check box.
Complete this step for the main business process type and for the **Invoice Inbox** node.

Configure fields and layout

The App reuses the PROCESS DIRECTOR view model configuration to define available fields and the layout in which they are presented in the App. For general information on the PROCESS DIRECTOR view model, see the [PROCESS DIRECTOR Configuration Guide](#).

For the App, the view model configuration provides dedicated **Component type/GridNo** combinations, which let you define a layout. You can identify them by the **MB Environment**.

Object type

IV Incoming Invoice

View model

Component type	GridNo	Env.	Logical level
WA_DOC WA Document Detail	11	MB M...	HEADER
WA_DOC WA Document Detail	12	MB M...	ITEM
WA_DOC WA Document Detail	13	MB M...	TAX
WA_DOC WA Document Detail	14	MB M...	ACCOUNT
WA_DOC WA Document Detail	15	MB M...	ACCASS
WA_DOC WA Document Detail	16	MB M...	SORDER
WA_DOC WA Document Detail	17	MB M...	PO_ACCASS
WA_DOC WA Document Detail	19	MB M...	WHT
WA_LIST WA List Header	11	MB M...	HEADER
WC_STAT Workflow status	11	MB M...	HEADER

Configure the document overview list

Component type	WA_LIST
GridNo	11
Environment	MB
Logical level	HEADER

The document overview list is a flexible list that displays the configured overview fields in a two- or four-column layout, depending on the screen size of the user device.

Note: Before you can add the PROCESS DIRECTOR Accounts Payable fields to the view model, you need to configure them with the /COCKPIT/WI11 transaction. The number of fields is not limited, but it is recommended to configure an even number of fields (best 4, 6 or 8).

- The first field in the view model field configuration, based on the **Column number**, is displayed at the top-left section of the screen.
- The fields are processed and rendered in the UI in the order in which they arrive (**Column number** in the PROCESS DIRECTOR view model).
- The **Tab column** property allows you to display two fields side-by-side.
- It is possible to hide a field label with the **Suppress label** option.
- It is possible to display one icon in the document overview list (**WC_STATE_ICON** or **STATE_ICON**). The icon must be configured in the first **Column number**.

The screenshot illustrates the configuration of the document overview list. On the left, a mobile app interface shows a list of invoices with fields like 'Inv. 8074', 'Autohaus Fleischh...', '1st Approval', 'Due: 11/17/2014', and '271947'. On the right, the 'View model' table lists the configuration for each row, and the 'Field catalog' table lists the fields used in the view.




View model

Component type	G...	Env.	Logical level
WA_DOC WA Document De...	11	MB Mobile Application	HEADER
WA_DOC WA Document De...	12	MB Mobile Application	ITEM
WA_DOC WA Document De...	13	MB Mobile Application	TAX
WA_DOC WA Document De...	14	MB Mobile Application	ACCOUNT
WA_DOC WA Document De...	15	MB Mobile Application	ACCASS
WA_DOC WA Document De...	16	MB Mobile Application	SORDER
WA_DOC WA Document De...	17	MB Mobile Application	PO_ACCASS
WA_DOC WA Document De...	19	MB Mobile Application	WHT
WA_LIST WA List Header	11	MB Mobile Application	HEADER
WC_STAT Workflow stat...	11	MB Mobile Application	HEADER

Field catalog

Field Name	Label	Colu...	No output	Ta...
CURRENCY	Currency	50	<input type="checkbox"/>	2
DOC_DATE	Document Date	70	<input type="checkbox"/>	1
GROSS_AMOUNT	Gross amount	40	<input type="checkbox"/>	1
INVOICE_IND	Invoice indicator	20	<input type="checkbox"/>	1
NUMBR	PD document number	30	<input type="checkbox"/>	2
REF_DOC_NO	Reference	600	<input type="checkbox"/>	1
VENDOR_NAME1	Partner name	60	<input type="checkbox"/>	1
WC_DUEDATE	Due	100	<input type="checkbox"/>	1
WC_STATE_ICON	Workflow status	1	<input type="checkbox"/>	1
WC_STEP_NAME	Step description	90	<input type="checkbox"/>	1


Overview functions

-  Filter
-  Sort by field
-  Change sort order (ascending / descending)

Field labels and key/value pairs

To overwrite field labels and key/value pairs by using the view model, complete the following step.

- Enter the text for the field or enter a custom **Data element**.

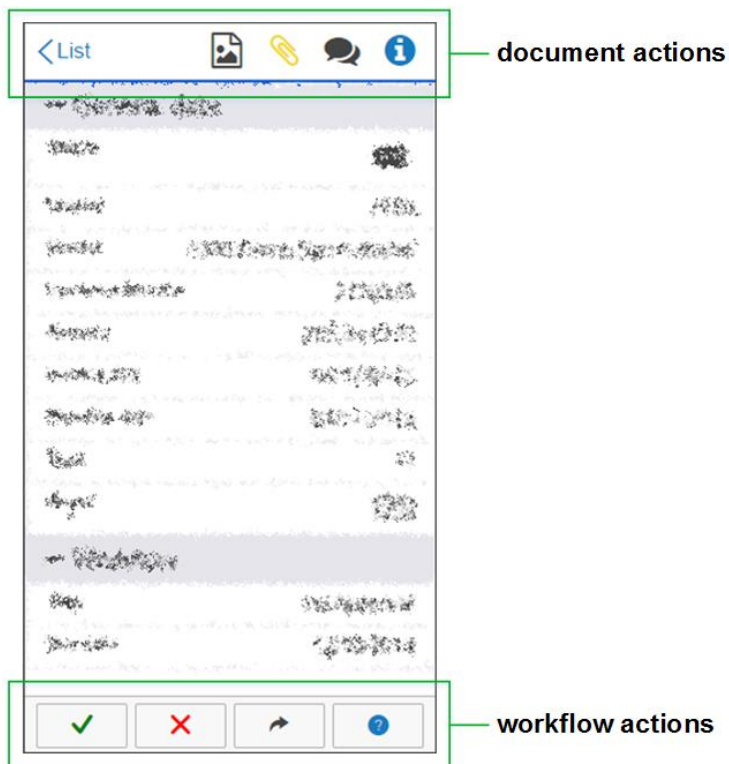
Parameters for Fields without DDIC Reference	
Data element F1	/EBY/ICIV_DINVOICE_IND_SHORT 

In the default settings, this is used to exchange the normal Invoice indicator value (which would be X or empty) with proper text. This can be achieved by using a custom domain in the customer data element, with a proper value range.





Fix.val.	Short text
X	Inv.
=	Cred.

Configure the document detail view

The configuration of the layout of the document detail view is also controlled by the PROCESS DIRECTOR view model customization and offers some additional settings like arranging fields in tabs that can be minimized by the user. For the best user experience, it is recommended that you keep the number of fields low, connect key value fields with their descriptions (for example, Vendor Number and Name) and not mix too many layout options in one section.



Document actions

< List	Unlock the document and go back to the overview
	Show invoice image. Only for PD AP documents and if the invoice image is available
	Show and add image attachments. Attachment list is filtered for file types, PNG and JPG; icon is yellow if attachments are available
	Show and add document notes. Chat bubbles are black if notes are available
	Show workflow status data

Workflow actions

✓	Approve/Send response
×	Reject
➡	Forward. Available only if it is enabled for the workflow step
?	Send query. Available only if it is enabled for the workflow step

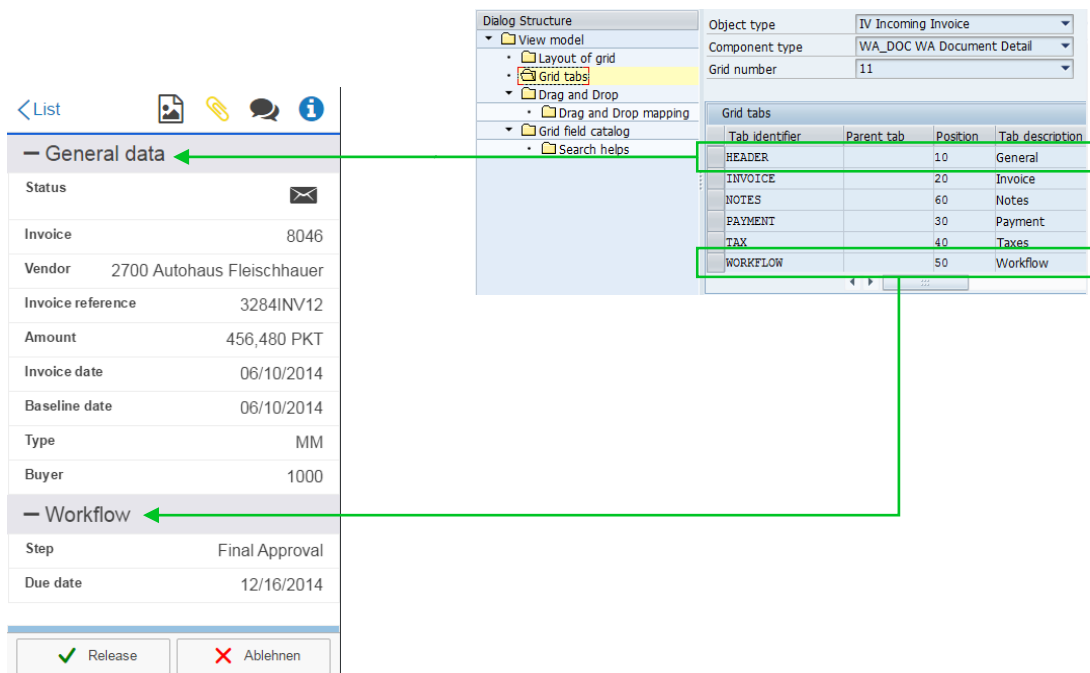
Header section

Component type	WA_DOC
GridNo	11
Environment	MB
Logical level	HEADER

The header section of a detail document can be arranged in tabs that can be minimized by the user. You can add your own tabs with descriptions in the view model settings, or use existing tabs from the default settings. When you add a field to the view model header section, you must assign it to a **Tab identifier** to make it visible in the App. A default tab can be removed only by hiding or reassigning all the fields in that tab.

The order of fields in a tab is controlled by the **Tab row** parameter in the PROCESS DIRECTOR view model. If suitable for the layout, you can display two fields in one row (for example, **Amount** and **Currency**). Therefore, you have to assign both the fields to the same **Tab row** and use the **Tab column** parameter to display both fields side-by-side.

As of now, the App is limited to displaying only two fields in one row. The **Suppress label** flag can be used to hide labels. The fields in the second **Tab column** will never show the field labels.



Configuration example (first four rows in the **General** tab):




Field Name	Tab ID	Tab row	Tab column	Suppress label
WC_STATE_ICON	HEADER	1	1	
INVOICE_IND	HEADER	10		X
DOCNO	HEADER	10	2	
VENDOR_NO	HEADER	20		
VENDOR_NAME1	HEADER	20	2	
REF_DOC_NO	HEADER	30		

Table section

Component type	WA_DOC
Environment	MB
Logical level	*

The table section configuration is similar to the header section configuration, but without the possibility to assign fields to tabs. Due to the screen size limitation on mobile phones, the tables do not show up as classical tables, but are displayed similar to the document overview list, with fields displayed one below the other.

The order in which the fields are displayed is controlled by the **Column number** field in the view model. It is possible to display two fields side-by-side by using the **Tab column** parameter, as in the header section. Sub-table buttons appear automatically when the sub-tables are configured. They use the same layout settings as the normal tables.

< List   





+ General

+ Organization data





+ Vendor

... PO items 1/1

Item	10 Dragon-123
Quantity	3.000 EA
Amount	359,97 EUR
Delivery	12/11/2014 Werk Hamburg
+ Accounts	
+ Texts	

Field name	Column number	Tab column	Suppress label
PO_ITEM	10		
SHORT_TEXT	20	2	
QUANTITY	30		
PO_UNIT	40	2	
NET_PRICE_SUM	50		
CURRENCY	60	2	
DELIVERY_DATE	70		
PLANT_NAME	80	2	





< List    

+ General data

+ Workflow

... Invoice items 1/1

Purch.Doc.	4500016051
Item	00010
Net amount	72,00
Quantity	3.000
Order Unit	PC
Text	-
+ Planned account assignments	

Field name	Column number	Tab column	Suppress label
PO_NUMBER	10	1	
PO_ITEM	20	1	
ITEM_AMOUNT	30	1	
QUANTITY	40	1	
PO_UNIT	50	1	
ITEM_TEXT	60	1	

Set up action restrictions

As the App supports only a limited number of PROCESS DIRECTOR actions, it is not required to reduce the number of available actions for the App.

However, to reduce the data sent between the server and the client, it is recommended to review the **Available actions for Web application** (/EBY/PDWA_VACT) section and remove all the unnecessary action configurations.

Use the **Environment** field to distinguish between the normal Web Application and the Mobile Application.

Remove unnecessary actions by adding them to the Change settings (/EBY/PDWA_VACTC):

Available actions for Web application						
	Object	Env.	Component	Edit mode	Action	Repl./Rem.
		▼ MB M...	▼ OVERVIE...	Display mode	▼ WCRECALLOINITCHECK ...	<input checked="" type="checkbox"/>
		▼ MB M...	▼ OVERVIE...	Display mode	▼ WCREJECTOINITCHECK ...	<input checked="" type="checkbox"/>
		▼ MB M...	▼ OVERVIE...	Display mode	▼ WCSTARTOINITCHECK B...	<input checked="" type="checkbox"/>
		▼ MB M...	▼ OVERVIE...	Display mode	▼ WCSTATUSSHOW_LIST S...	<input checked="" type="checkbox"/>
	IV Inco...	▼ MB M...	▼ DETAIL ...	Display mode	▼ CREATE_GM Create go...	<input checked="" type="checkbox"/>
	IV Inco...	▼ MB M...	▼ DETAIL ...	Display mode	▼ DELETE_10_CONFIRM C...	<input checked="" type="checkbox"/>
	IV Inco...	▼ MB M...	▼ DETAIL ...	X Change mode	▼ CREATE_GM Create go...	<input checked="" type="checkbox"/>
	IV Inco...	▼ MB M...	▼ DETAIL ...	X Change mode	▼ DELETE_10_CONFIRM C...	<input checked="" type="checkbox"/>

The App supports the following actions for all business process types:

Available actions for Web application					
Object	Env.	Component	Edit mode	Action	Description
	▼ MB M...	▼ DETAIL ...	Display mode	▼ BACK1 Go back	▼ Back
	▼ MB M...	▼ DETAIL ...	Display mode	▼ WCSTATUSSHOW Show w...	▼ Status
	▼ MB M...	▼ DETAIL ...	X Change mode	▼ ARC_ATTACHMENT Arch...	▼ Upload
	▼ MB M...	▼ DETAIL ...	X Change mode	▼ BACK1 Go back	▼ Back
	▼ MB M...	▼ DETAIL ...	X Change mode	▼ UPDATE Update in da...	▼ Save
	▼ MB M...	▼ DETAIL ...	X Change mode	▼ WCAPPROVE0DOC_CHECK...	▼ Approve
	▼ MB M...	▼ DETAIL ...	X Change mode	▼ WCFORWARD0CHECK_DOC...	▼ Forward
	▼ MB M...	▼ DETAIL ...	X Change mode	▼ WCQUERY0CHECK_DOC C...	▼ Query
	▼ MB M...	▼ DETAIL ...	X Change mode	▼ WCREJECT0CHECK_DOC ...	▼ Reject
	▼ MB M...	▼ DETAIL ...	X Change mode	▼ WCSTATUSSHOW Show w...	▼ Status

- Entries with an empty **Environment** are used for the Web Application and the Mobile App.
- **BACK1** and **WCSTATUSSHOW** are mandatory for the Display and Change modes.
- **ARC_ATTACHMENT** is optional and allows mobile users to upload picture data, either by using the camera or from the picture library. You need to assign an archive document type (PNG) in OAC3 to make it work.

Configure the process parameters

As of now, the App cannot handle PROCESS DIRECTOR Action chain forwards (popups). Due to this reason, you can use process configuration to activate an App-specific execution of PROCESS DIRECTOR actions.

The most common case is the **CHK_9EVALUATE Event** in the Approve process. This event is used to evaluate the check results, and by default, it uses a forward to display warning messages to the user.

For the App, you need to overwrite these events and change the process parameters to not use a forward.

Order of events						
Environment	Action	Event	Order	Event class		
MB Mobile Ap...	WCAPPROVE0DOC_CHECK	CHK_9EVALUATE Evaluate chec...	900	/EBY/CL_PDBO_EVT_CHK_FINISH		
MB Mobile Ap...	WCAPPROVE1CHECK	CHK_9EVALUATE Evaluate chec...	900	/EBY/CL_PDBO_EVT_CHK_FINISH		
MB Mobile Ap...	WCAPPROVE21CHKRECVR	CHK_9EVALUATE Evaluate chec...	500	/EBY/CL_PDBO_EVT_CHK_FINISH		
MB Mobile Ap...	WCAPPROVE71CHECK_DOC	CHK_9EVALUATE Evaluate chec...	900	/EBY/CL_PDBO_EVT_CHK_FINISH		

S47(1)/800 Parameters List

	Success forward	Warn. results forward	Failure forward
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Enable image attachment upload

It is optional to activate the image upload functionality for the App; and by default, it is deactivated. Only JPG and PNG image file types can be uploaded. Both image types are stored as PNG in the connected content repository.

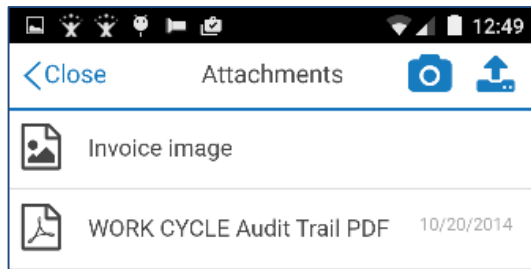
To activate the upload functionality, configure the following settings on the SAP side.

- Enable the **ARC_ATTACHMENT** action for the **MB Environment**, as described in [Action restriction](#).
- In the OAC2 transaction, create a document type for the PNG document class.
- In the OAC3 transaction, connect **ObjectType** with **Doc. Type**.

ObjectType	Doc. Type	S	Cont.Rep.ID	Relationship
/COCKPIT/B	ZEPD_PNG	X	ZE	TOA01
/EBY/PDPO	ZEPD_PNG	X	ZE	TOA01
BUS2012	ZEPD_PNG	X	ZE	TOA01

- In the OAD2 transaction, ensure that the **PNG** document class is mapped to the **image/png** MIME type.
- In the /COCKPIT/WI15 transaction, ensure that the document type associated with the **image/png** MIME type is configured for attachment upload.

When all the requirements are fulfilled, a camera and a file picker icon are available in the attachment list of the App. Users can then add attachments by uploading pictures taken by the built-in camera or by selecting files from their photo gallery.



Note: Only images (for example: PNG and JPEG files) can be displayed as attachments. PDF and TIFF files are also converted into images. File formats such as XLS, DOC, and PPT cannot be displayed.

Configure the Web Application

The web service version of the PROCESS DIRECTOR Web Application uses the same configuration structure as the normal Web Application. This guide covers only the App-specific parameters.

Parameters

All configuration files are located in the *wcconfig* folder. The Web Application files are kept separately in the *pdweb-wsa* folder. This is designed to provide an easy way to upgrade the Web Application (which replaces the *pdweb-wsa* folder) without affecting existing configuration files.

The following web service-specific parameters must be added to the *pdweb-wsa.properties* file. Ensure that they are set.

Parameter	Value	Description
history.onlyapprovals	no	If set to yes, display only approved documents in the workflow history.
imageconvertpng	2	Convert PDF documents to a series of PNG images (mandatory).
imagedimension	1000x1400	Rescale the image size.
imagedirect	0	Retrieve the image via the Web App.
pd_ignore_att_url	yes or 1	Attachments are always read using binary data. This must be set if in /COCKPIT/C21, you did not set Image Transfer to Y.

Parameter	Value	Description
pd_extended_search	yes	"Fuzzy" user search.
pd_text_search_key_ICIVWC_RECEIVER	FULL_NAME	PD AP – user search by full name.
pd_text_search_key_WC_RECEIVER	LAST_NAME_SRCH:FULL_NAME	PD – user search by full name.

Web service only

By default, the web service version of the PROCESS DIRECTOR Web Application also provides the desktop Web Application user interface. To deactivate this, go to the `webapps\pdweb-wsa\WEB-INF` Web Application installation folder and edit the `web.xml` file.

Set the `enableUI` parameter to *false*.

```
<context-param>
  <param-name>restURI</param-name>
  <param-value>rest</param-value>
</context-param>
<context-param>
  <param-name>enableUI</param-name>
  <param-value>>false</param-value>
</context-param>
<context-param>
  <param-name>enableRest</param-name>
  <param-value>>true</param-value>
</context-param>
```

Differences between ReadSoft Mobile and the Web Application

ReadSoft Mobile has the following known limitations:

- The initial passwords for both SAP and WORK CYCLE users cannot be changed from within the ReadSoft Mobile application. When required, this change needs to be carried out in the PROCESS DIRECTOR Web Application.
- The entries in the /COCKPIT/WI3 transaction code for customizing a workflow step need to be set carefully as the recipients nominated for the workflow actions are displayed on the screen in ReadSoft Mobile and are automatically defaulted. This is different from the functionality in the Web Application, where the search help must first be executed.

Example: If the **Pre-assign processor** setting is set to **B (All assigned, any other processor)** for the Forward and Query workflow actions and no underlying User Exit control mechanism (WS2 interface type) is used, all possible users are selected. On the other hand, in the PROCESS DIRECTOR Web Application, a list of the possible users is displayed in a search help window.

API interface

Currently, it is not allowed for 3rd party applications to consume the API.

Service URL

```
https://<server>[:port]/<web-app-name>/rest/<service-name>/<uri>
```

Note: It is recommended to use an `https` connection with a valid root certificate. Using an `http` connection is not recommended.

Table of operations for service name, "authentication"

Name	URI	Method
authenticate	/authenticate	POST
logout	/logout	POST

Table of operations for service name, "user"

Name	URI	Method
getDetails	/details	GET
changePassword	/pwchange	POST
getUserDetails	/details/{userName}/{userType}	POST
getUserDetails	/details/{userName}	POST

Table of operations for service name, "worklist"

Name	URI	Method
getTree	/tree	GET
getTree	/tree	POST
refreshTree	/refresh	GET

Table of operations for service name, "list"

Name	URI	Method
getList	/list/{documentType}/page/{pageNo}	POST
listAction	/listaction/{actionID}	POST
getListView	/listview/{documentType}	GET

Table of operations for service name, "document"

Name	URI	Method
getDocView	/docview/{documentType}	GET
getDetail	/detail/{documentType}/{documentID}/{action}	POST
getAttachment	/attachment/{documentID}/{attachmentID}	GET
getAttachmentData	/attachment/{documentID}/{attachmentID}/page/{pageNo}	GET
documentAction	/action/{documentID}/{actionID}	POST
upload	/upload/{documentID}/{uploadID}/{actionID}	POST
cancelForward	/cancel/{documentID}	GET
textSearch	/txtsearch/{documentType}/{documentID}	POST

Table of operations for service name, "misc"

Name	URI	Method
getVersion	/misc/version	GET
getBuildInfo	/misc/buildinfo	GET
getPatchHistory	/misc/patchHistory	GET

For details about how to use these identifiers, see [Determine the PROCESS DIRECTOR Web Application web service version](#).