

eFLOW Control and Resolve

Configuration Guide

Version 5.2

Copyright © TIS, Top Image Systems. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, translated, transcribed or transmitted in any form, or by any means manual, electric, electronic, electromagnetic, mechanical, chemical, optical, or otherwise, without the prior explicit written permission of TIS.

Contents

About eFLOW Control and Resolve	7
About this guide	7
Configuration IMG	8
Basic settings	8
Activate license	8
About licenses	8
License document counter	9
Threshold warnings	9
Activate a license	9
View license details	9
Define document tags	11
Define eFLOW document types	12
Define field status	12
Standard field statuses	12
Create a field status	13
Notes	14
Field status inheritance	15
Define Add-on functions	16
Add-on function settings	17
Technical settings	18
Define commands	18
Define data mapping	18
Overwrite system messages	18
eFLOW Control settings	19
Define OCR field mapping	19
Define EDI field mapping	20
Configure SAP	20
Define EDI mapping	26
Mapping exits	29
Activate EDI mapping	29
Completions	29
Standard completions	30
Configure completions	34
Define default account assignments	35
Define the baseline date	36
Validations	37

Standard validations	37
Activate validations	43
Set business issues	44
Business processes	46
Automatic posting	46
Wait reasons	46
Reasons for declining	48
Vendor-specific configuration	49
Require note for actions	49
Send message templates	50
Display	51
Activate field status	51
Quick selections	51
Define fields for the Miscellaneous tab	52
Data visualization (Statistics)	53
Screen variants	57
Customer extensions/BADIs eFLOW Control BADIs	59
AP Data Model: /TISA/BADI_AP_DATA	60
Authorization Check: /TISA/BADI_FW_AUTH	61
Background processing: /TISA/BADI_FW_BG	61
Change posting logic: /TISA/BADI_FW_POST	61
Change reverse logic: /TISA/BADI_AP_REVERSE	62
Completion Handler: /TISA/BADI_FW_COMPLETION	63
Display AP document: /TISA/BAPI_AP_DISPLAY_DOCUMENT	63
Document Creation General Logic: /TISA/BADI_FW_CREATE	63
Document Creation via EDI: /TISA/BADI_FW_CREATE_EDI	64
Document Creation via OCR: /TISA/BADI_FW_CREATE_OCR	64
Main controller: /TISA/BADI_FW_CTRL	64
Message Handling: /TISA/BADI_FW_MESSAGE	65
Relations: /TISA/BADI_FW_RELATIONS	65
SAP synchronization: /TISA/BADI_AP_SAP_SYNC	65
Tax Amount Calculation: /TISA/BADI_AP_TAX	65
Validation Handler: /TISA/BADI_FW_CHECK	66
eFLOW Resolve settings	66
SAP system settings	66
Web Application settings	67
Fields and layout	67
Single Sign On (SSO)	69
Configure Web Application attachments	72
Workflows	73

Standard workflows	73
Workflow audit trail	74
Workflow tasks	75
Workflow processes	81
Email templates	85
Standard email templates	86
Assign general email templates	87
Workflow template settings	87
General workflow template commands	89
Assign workflow task email templates	89
Email approval	90
System setup	90
Activate email approval	91
Email approval settings	92
Activate a workflow task for email approval	92
Deactivate automatic responses	92
User management	92
Create Web Application users	93
Manage substitutes	93
Create user groups	93
Customer Extensions/BADIs eFLOW Resolve BADIs	94
Workflow handling: /TISA/BADI_WF	94
Workflow task process: /TISA/BADI_WF_TASK_PRC	94
Workflow task flow: /TISA/BADI_WF_TASK_FLW	94
Workflow task recipient: /TISA/BADI_WF_TASK_REC	95
Workflow user hierarchy: /TISA/BADI_WF_APPR_HIER	96
Resolve Web Application: /TISA/BADI_WF_RFC	96
Follow up to workflow result after document posting: /TISA/BADI_WF_POST_ACTION	96
eFLOW Reporting settings	97
Define the default currency	97
Define data sets	97
System settings	97
Role generator	97
Other tasks	100
Synchronize SAP changes with eFLOW Control	100
Activate SAP BADIs	100
Create linkages	102
Programs	104
eFLOW Control Accrual Report	104

Parameters	105
Create an accrual posting document	106
Process overdue workflow reminders and escalations	106
Workflow grouped notification	107
Collect open purchase orders	108
Automatic AP Document SAP synchronization	110
Automatic AP Document Posting	110
Calculate Data	110
Display workflow on database	111
Display logged RFC OCR requests	112

About eFLOW Control and Resolve

TIS eFLOW Control and eFLOW Resolve are SAP add-ons for automated invoice processing, seamlessly integrated into your SAP ERP system to provide a common look and feel for the end user and a familiar technical foundation for staff supporting the application. In combination, the two components deliver a highly automated workflow solution for vendor invoice processing that handles requirements such as automatic posting, automatic line item matching, and automatic workflow routing for exception handling and approval.

About this guide

This guide explains how to configure eFLOW Control and eFLOW Resolve.

For information on installation and other setup tasks, see the *eFLOW Control and Resolve Installation and Setup Guide*.

For information on using eFLOW Control and eFLOW Resolve, see the following guides:

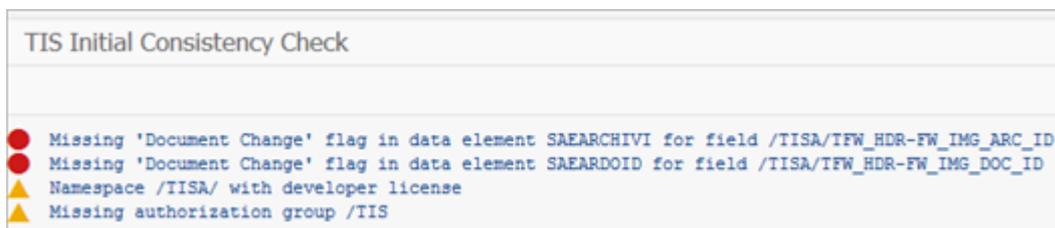
- *eFLOW Control User Guide*
- *eFLOW Resolve SAP User Guide*
- *eFLOW Resolve Web Application User Guide*
- *eFLOW Resolve Fiori App User Guide*

Configuration IMG

To open the eFLOW Control and Resolve configuration IMG, log on to SAP and enter transaction **/n/tisa/admin**.

The **eFLOW Accounts Payable Automation IMG** contains the following sections:

- **Initial Consistency check:** Checks whether everything required for successful operation of eFLOW Control and eFLOW Resolve is installed and working correctly. Messages are issued if this is not the case.



- **eFLOW Basic settings:** Settings that apply to both eFLOW Control and eFLOW Resolve.
- **eFLOW Control:** Settings that apply only to eFLOW Control.
- **eFLOW Resolve:** Settings that apply only to eFLOW Resolve.
- **eFLOW Reporting:** Settings that apply only to eFLOW Reporting.

Basic settings

This section explains how to activate licenses and configure settings that apply to both eFLOW Control and eFLOW Resolve.

Activate license

About licenses

eFLOW Control and Resolve licenses are issued per SAP installation/system ID, so a license is required for each system in an SAP landscape.

To obtain a license, you must provide Top Image Systems with the following information:

- The SAP installation number from transaction SLICENSE.
- The system ID of the development, QA and production systems.
- The volume of documents to be processed each year.

The license is delivered as a *.zip* file. A single license file may contain multiple licenses and can be uploaded to multiple systems, but a license can only be activated in a system if the SAP installation number and system ID match with the license file.

License document counter

A license is limited to a specified volume of documents per year. Every time a document is created in eFLOW Control (for example, when a document enters eFLOW Control via eFLOW Extract or the SAP IDoc interface), the document counter is incremented. The counter is reset to the specified volume at the end of each calendar year.

Threshold warnings

Threshold warning messages are issued in the **License** tab of the [About dialog box](#) in following situations:

- The number of created documents reaches 90% of the licensed volume. Normal operation is still possible.
- The number of created documents reaches 100% of the licensed volume. Normal operation is still possible. New documents can still be created, up to a maximum of one twelfth of the licensed volume.
- The number of created documents exceeds 100% plus one twelfth of the licensed volume. Operation of the system is no longer possible.

Activate a license

1. In the IMG, go to **Basic settings > Activate license**.
2. Click the **Import** button.
3. Select the license file and click **Open**.

View license details

1. In eFLOW Control or eFLOW Resolve, select the menu item **Goto > About**.
2. Click the **License** tab.

 **Your eFLOW license volume can be exceeded before end of the year.**

Version | **License** | Document counter | Installation history












Active	SAP Syst..	Doc...	Volume	Counter	Activ. Date	Activ. Time
	TAO	AP	10000	0	13.10.2016	16:23:49
	TDV	AP	10000	9.668	13.10.2016	16:23:49
	TQ5	AP	10000	0	13.10.2016	16:23:49
	PRD	AP	1000	0	13.10.2016	15:41:50
	TST	AP	1000	0	13.10.2016	15:41:50
	DEV	AP	1000	0	13.10.2016	15:41:50

The table displays for each licensed system the licensed volume and the date and time of the license activation.

For the current system, the number of documents already created is displayed in the **Counter** column. The highlight color indicates the licensed volume status:

Color	Description
Green	The number of documents created lies below the licensed volume.
Yellow	The number of documents created is likely to exceed the licensed volume before the end of the year.
Red	The number of documents created has exceeded the licensed volume. To continue to work with the system, you must activate a new license.

The icon in the **Active** column indicates the license validity:

Icon	Description
	The license is active and corresponds to the SAP installation number and system ID.
	The license is inactive and does not correspond to the SAP installation number and system ID.

To view details of the number of documents processed per client, year and month, click the **Document counter** tab.

Version		License		Document counter		Installation history	
DocType	Client	Year	Month	Σ	Counter		
AP	800	2016	1		9.000		
			2		4		
			4		5		
			5		149		
			6		71		
			7		57		
			8		56		
			9		123		
			10		99		
			11		90		
			12		182		
		20...			9.836		
	800				9.836		
	1				1		
	0				16		
AP					9.853		
					9.853		

Define document tags

Users can assign tags to documents as visual indicators that categorize, prioritize, or draw attention to the documents. Assigned tags are displayed above the header tabs in the document detail.

To define tags that users can select:

1. In the IMG, go to **Basic settings > Define document tags**.
2. Add a new entry.
3. Enter a **Tag ID** and **Description**, and select the icon to display for the tag.
4. Click **Save** .

Define eFLOW document types

Defining eFLOW document types enables you to use different configuration settings for different types of documents. Some configuration tables in eFLOW Control include an **eFLOW Document type** and a **Company Code** field. When you enter a document type and/or a company code in these fields, the configuration applies only to that document type and/or company code.

1. In the IMG, go to **Basic settings > Define eFLOW document types**.
2. Add a new entry.
3. Enter a document type ID and a description.
4. Click **Save** .

Define field status

Field statuses control user access to fields, such as whether users can view and edit specific fields, or whether they are required to enter a value.

You can apply a field status to an entire table, such as all header fields, or to individual fields of a table.

After creating a field status, you can assign it to workflow tasks (see [Create a workflow task](#)) or document types (see [Activate field status](#)). The field status is then only applied during the workflow task, or for the specific document type.

By default, if you do not assign a field status, all fields are editable in eFLOW Control and read-only in eFLOW Resolve. This default status remains for all fields unless you change the field status attributes. For example, if you set only the **Cost Center** field to **Input**, in eFLOW Resolve, all fields except the **Cost Center** field remain read-only.

Standard field statuses

The following field statuses are delivered with the TIS Business Configuration sets.

Field status	Description
Allow no changes to document READ_ONLY	Sets all document fields to Display . No changes to the document are allowed.
Complete coding and appr. WF WF_FI_APP	Allows changes to the accounting details only (table AP_ACCOUNT). This field status is applied in the standard workflow Non-PO coding and approval to enable workflow processors to enter accounting details.

Field status	Description
Missing PO WF WF_NO_PO	Allows changes to the invoice items only (table AP_ITEM). This field status is applied in the standard workflow Missing or wrong PO number to enable workflow processors to enter purchase order details.
Missing Vendor WF WF_NO_VEND	Allows changes to the Vendor number header field only. This field status is applied in the standard workflow Missing vendor to enable workflow processors to enter a vendor number.

Create a field status

1. In the IMG, go to **Basic settings > Define field status**.
2. Add a new entry.
3. Enter a **Field status ID** and a **Description**.
4. (Optional) To inherit attributes from another field status, enter a **Parent ID**. See [Field status inheritance](#) for more information.
5. Click **Save** .
6. Select the new field status and in the **Dialog Structure**, double-click **Define fields**.
7. Enter a **Table Name** and a **Field Name**.
 - To apply the field status to a specific field, enter the **Table Name** and **Field Name**.
 - To apply the field status to all fields of a specific table, such as all header fields, enter the **Table Name** and leave the **Field Name** field blank.
 - To apply the field status to all fields of a specific table except certain fields, add an entry for the table, plus entries for each field whose status differs from the table status.
8. Select an **Attribute**:
 - **Display**: The field is read only.
 - **Hide**: The field is not displayed.
 - **Input**: The field can be edited.
 - **Mandatory**: The user must enter a value in the field.
9. Click **Save** .

Notes

- The following special fields are not available in the field search help:

- MC_DROPDOWN_BUSCASE

This is the transaction selection list in the document header:

Transaction		1 Invoice
(1)	Bank data	1 Invoice
		2 Credit Memo
		3 Subsequent Debit
	Company Code	4 Subsequent Credit

To hide this list, set the attribute of the AP_HEADER table fields MC_DROPDOWN_BUSCASE and BUSCASE to **Hide**.

- MC_ICON_PMNTTRMS

This is the **Change payment terms** button in the document header:



To hide this button, set the attribute of the AP_HEADER field MC_ICON_PMNTTRMS to **Hide**.

To enable editing of payment terms, set the attribute of this field and the following AP_HEADER table fields to **Input**.

- PMNTTRMS
 - DSCT_PCT1
 - DSCT_PCT2
 - DSCT_DAYS
 - DSCT_DAYS2
 - NETTERMS
- The table name AP_ITEM_ACCOUNT can only be used to hide fields. If you want to hide columns, use the AP_ITEM table. Fields from AP_ITEM_ACCOUNT are not displayed in the AP_ITEM search help.

Items (3)		Item assignment	Item proposal	GL Account (0)		
	Item ...	Purchase ...	Item	Item amount	Quantity	
	2	4500017414	20	100.000,00	100	← AP_ITEM
		4500017414	20	50.000,00	50	← AP_ITEM_ACCOUNT

Field status inheritance

Field statuses can inherit their attributes from other field statuses. This saves you having to perform the same configuration twice for similar field statuses. For example, assume you have the following workflow tasks, to which you want to apply a field status:

Task	Purpose	Field status setting
Workflow task 1: Approval	Workflow processors may not edit the document, they can only approve it.	Field status APPROVAL: All fields in the document are read-only.
Workflow task 2: Account coding	Workflow processors may edit only the account assignments and approve the document.	Field status ACCOUNTING: All fields in the document except the GL Account table fields are read-only.

For the field status APPROVAL, you set the attributes for the header, line item, tax and account tables to **Display** to make them read-only.

Define fields			
Table Name	Field Name	Attribute	
HEADER		Display	▼
AP_ITEM		Display	▼
AP_ACCOUNT		Display	▼
AP_TAX		Display	▼

For the field status ACCOUNTING, you need the same attributes, except for the **GL Account** table, which should be editable.

Define fields			
Table Name	Field Name	Attribute	
HEADER		Display	▼
AP_ITEM		Display	▼
AP_ACCOUNT		Input	▼
AP_TAX		Display	▼

Instead of adding attributes for all tables to the ACCOUNTING field status, you can specify the APPROVAL field status as the parent ID when you create the ACCOUNTING field status.

Define Field status			
Field status	Description	Parent	
ACCOUNTING	Assign GL accounts	APPROVAL	
APPROVAL	Approval only, no editing		

You then only have to add one entry for the **GL Account** table when you define the field status. The attributes for the other tables are inherited from the parent APPROVAL field status.

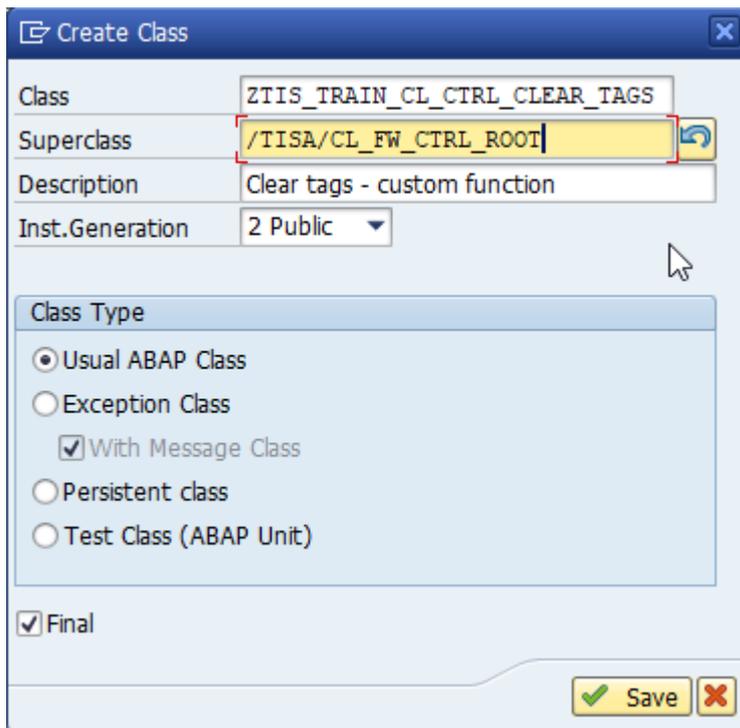
Define fields		
Table Name	Field Name	Attribute
AP_ACCOUNT		Input

Define Add-on functions

Add-on functions enable you to add your own custom functionality to eFLOW Control and Resolve. You can define up to 15 add-on functions. Three functions can be made available as toolbar buttons; the remaining functions are only available on the eFLOW Control or eFLOW Resolve **Add-On functions** menu, which is displayed after you configure add-on functions.

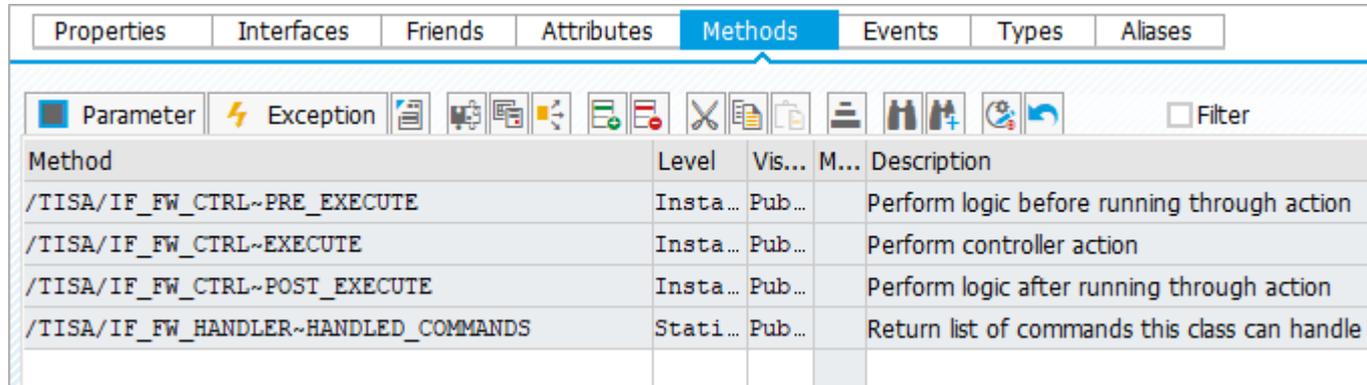
Tip: You can restrict user access to your custom function using the [Role generator](#).

1. Create a new Z class. Select the superclass /TISA/CL_FW_CTRL_ROOT.



2. On the **Interfaces** tab, add /TISA/IF_FW_HANDLER and /TISA/IF_FW_CTRL.

- In the **Methods** tab, double-click on the appropriate method (usually /TISA/IF_FW_CTRL~EXECUTE) and write the code for the custom function.



- In the IMG, go to **eFLOW Basic settings > Define Add-on functions**.
- Add a new entry.
- Enter the settings.
- Click **Save** .

Add-on function settings

Setting	Description
Document type	Select Accounts Payable .
Mode	Select the area of the GUI in which the function will be available: eFLOW Control, eFLOW Resolve, or the eFLOW Resolve Workflow History tab.
Add-on func.	Select one of the 15 available add-on functions. If you want the function to be available as a toolbar button, select functions 1, 2 or 3. The function number determines the order in which the functions are displayed in the Add-on functions menu.
Controller	Enter the Z class containing the function coding.
Dialog	This feature is currently not implemented.
Text	The text that appears in the menu.
Fastpath	The fastpath character. Fastpaths allow users to access a menu item by pressing its fastpath character on the keyboard. The character is underlined in the menu item name.
ID	The icon that appears on the button.

Setting	Description
icontext	The text that appears on the button.
Info. text	The text displayed in the function's tooltip.

Technical settings

Define commands

This table contains all eFLOW Control and Resolve system commands that require a description, and in most cases an icon (for example, toolbar buttons).

Important: This table is for reference only; do not edit it.

Define data mapping

When a document is posted, the eFLOW Control fields are mapped to SAP structures. These tables define this mapping. If you use custom fields, you should add them to these tables.

Overwrite system messages

This table enables you to replace specific system messages with other messages. For example, you can replace technical SAP system messages with messages that are more understandable to eFLOW Control and Resolve users. You define in the coding of the assigned class which messages will replace the selected messages.

Message handling			
Message Class	Message	Message Text	Class/Interface
00	344	No batch input data for screen &1 &2	/TISA/CL_FW_PROC_MSG_BDC
00	347	Field &1&2 is not an input field	/TISA/CL_FW_PROC_MSG_BDC
00	349	Field &1&2 does not exist in the screen	/TISA/CL_FW_PROC_MSG_BDC

eFLOW Control settings

This section explains how to configure settings for eFLOW Control.

Define OCR field mapping

Invoice data is exported from eFLOW Extract into eFLOW Control. The Deliver2ERP station must be configured to export the data to your SAP system. A dedicated RFC User is required for the receipt of data from eFLOW Extract. See the eFLOW Extract documentation for information on configuring data export.

The eFLOW Extract fields must also be mapped to the eFLOW Control fields. The eFLOW Control transport includes a predefined mapping configuration table for the standard fields. You only need to make changes to this table in the following situations:

- You have added custom fields to eFLOW Extract whose values should be passed to eFLOW Control.
- You want to set default values for certain fields.
- You want to add coding to adjust the data on transfer to eFLOW Control. eFLOW Control provides the following standard classes for data adjustment.

Class	Description
Map Field: Debit/Credit to Invoice Indicator /TISA/CL_AP_MAP_FIELD_DBCRIND	Sets the debit/credit indicator.
Map single value from extern /TISA/CL_FW_MAP_EXIT_EXTERN	Maps an external data format to the SAP format.

To change the mapping:

1. In the IMG, go to **eFLOW Control > Data entry > Define OCR Field Mapping**.
2. Select the **Mapping ID** /TISA/CL_AP_IF_CREATE and in the **Dialog Structure**, double-click **Field Mapping**.

Field Mapping						
Source	Field Name	Default Value	Target	Field Name	Class/Interface	
HEADERDATA	VAT_NUMBER		/TISA/SAP_EXT_CHECK	VAT_NUMBER		
HEADERDATA	VENDORNO		/TISA/SAP_HEADER	VENDORNO		
HEADERDATA	VENDOR_NAME		/TISA/SAP_EXT_CHECK	VENDOR_NAME		
ITEMDATA	COND_COUNT		/TISA/SAP_ITEM	COND_COUNT		
ITEMDATA	COND_ST_NO		/TISA/SAP_ITEM	COND_ST_NO		
ITEMDATA	COND_TYPE		/TISA/SAP_ITEM	COND_TYPE		

3. Perform the required action:
 - To add a custom field, add a new entry and enter the eFLOW Extract (**Source**) and the eFLOW Control (**Target**) table and field names.
 - To set a default value for a field, delete the entry for the field and add it again, entering the default value in the **Default Value** field. You cannot add default values for existing entries.
 - To add coding to make data adjustments, in the **Class/Interface** field, select the class containing the coding for the adjustments.
4. Click **Save** .

Define EDI field mapping

eFLOW Control can receive documents from the SAP IDoc interface. The document data can be visualized as a document attachment using a Smart Form or an XSL transformation. Like the invoice images imported from eFLOW Extract, this attachment is available in both the eFLOW Control document and the corresponding SAP document.

To process IDocs in eFLOW Control, you must perform the following configuration tasks.

1. Configure SAP to use the eFLOW Control EDI function module to process incoming IDocs for selected partners.
2. Define and activate mappings between IDoc fields and eFLOW Control fields.

Configure SAP

To receive documents in eFLOW Control from the SAP IDoc interface, you must configure your SAP system to process incoming IDocs for selected partners using the eFLOW Control EDI function module.

Set the inbound function module

1. Go to transaction BD51.
2. Add a new entry.
3. Enter the following settings:

Setting	Value
Function module	/TISA/AP_IF_EDT_CREATE
Input type	1 - Individual input
Dialog allowed	No (checkbox cleared)

4. Click **Save** .

Set message and object types

1. Go to transaction WE57.
2. Add the following entries.
 - For FI invoices, use the entry for function module IDOC_INPUT_INVOIC_FI assigned to object type BKPF as a template.
 - For MM invoices, use the entry for function module IDOC_INPUT_INVOIC_MRM assigned to object type BUS2081 as a template.

Function module	Function type	Basic type	Msg Type	Message Variant	Object Type	Direction
/TISA/AP_IF_EDI_CREATE	Function module	INVOIC01	INVOIC	FI	BKPF	Inbound
/TISA/AP_IF_EDI_CREATE	Function module	INVOIC02	INVOIC	FI	BKPF	Inbound
/TISA/AP_IF_EDI_CREATE	Function module	INVOIC01	INVOIC	MM	BUS2081	Inbound
/TISA/AP_IF_EDI_CREATE	Function module	INVOIC02	INVOIC	MM	BUS2081	Inbound

Function module	/TISA/AP_IF_EDI_CREATE
Function type	F Function module
Basic type	INVOIC01
Extension	
Message Type	INVOIC
Message Variant	FI
Mess. function	
Object Type	BKPF
IDoc: Assignment of FM to Log. Message and IDoc Type	
Direction	2 Inbound
Description	Invoice/Billing Document
Name	Accounting document

3. Click **Save** .

Set the inbound process code

1. Go to transaction WE42.
2. Add a new entry. Use the entry for process code INVL as a template.
3. Enter the following settings:

Setting	Value
Process code	/TISA/AP
Description	eFLOW Control AP Inbound EDI
Option ALE	Processing with ALE service
Processing type	Processing by function module.

Process code

Description

Identification

Option ALE

Processing with ALE service

Processing w/o ALE service

Processing type

Processing by task

Processing by function module

Processing by process

4. Select the new entry, then in the **Dialog Structure**, double-click **Logical message**.

5. Enter the following settings:

Setting	Value
Message type	INVOIC
Message code	All codes
Message function	All functions

Process code

Assignment to logical message

Message type Invoice/Billing Document
 All types

Message code
 All codes

Message function
 All functions

6. Click **Save** .

Activate settings for EDI partners

Once you have completed the inbound processing settings, you must activate them for each EDI partner that sends invoices via IDoc.

1. Go to transaction WE20.
2. Select the partner.

3. In the **Inbound parmtrs.** section, add new entries, or replace the existing entries, for FI and MM.

Partner No.	<input type="text" value="1000"/>	C.E.B. BERLIN
Partn. Type	<input type="text" value="LI"/>	
Partner Role	<input type="text"/>	
 Message type	<input type="text" value="INVOIC"/>	Invoice/Billing Document
Message code	<input type="text" value="FI"/>	
Message function	<input type="text"/>	<input type="checkbox"/> Test
<div style="border: 1px solid #ccc; padding: 2px; margin-top: 10px;"> Inbound options Post processing: permitted agent Telephony </div>		
Process code	<input type="text" value="/TISA/AP"/>	eFLOW Control AP Inbound EDI
<input checked="" type="checkbox"/> Cancel Processing After Syntax Error		
<div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p>Processing by Function Module</p> <p><input type="radio"/> Trigger by background program</p> <p><input checked="" type="radio"/> Trigger Immediately</p> </div>		

Partner No.	1000	C.E.B. BERLIN
Partn.Type	LI	Vendor

Post processing: permitted agent		Classification	T.	<	>	
----------------------------------	--	----------------	----	---	---	--

Ty.	0	<input type="checkbox"/> Organizational unit
Agent	50010120	EDI Department
Lang.	EN	English

Outbound parmtrs.

Partner Role	Message Type	Message va...	MessageFu...	Test	
VN	DELINS			<input type="checkbox"/>	
VN	GSVERF			<input type="checkbox"/>	
VN	ORDCHG			<input type="checkbox"/>	
VN	ORDERS			<input type="checkbox"/>	

Inbound parmtrs.

Partner Role	Message Type	Message va...	MessageFu...	Test	
	INVOIC	FI		<input type="checkbox"/>	
	INVOIC	MM		<input type="checkbox"/>	

4. Click **Save**

Validate the configuration

To validate the settings and test the system:

1. Go to transaction WE19.
2. Select a valid INVOIC IDoc. Make sure that you have set up the sending partner in WE20.
3. Click the **Standard inbound** button.
4. Validate the **Processing Details** in the **Test inbound IDoc using partner profile** dialog box.

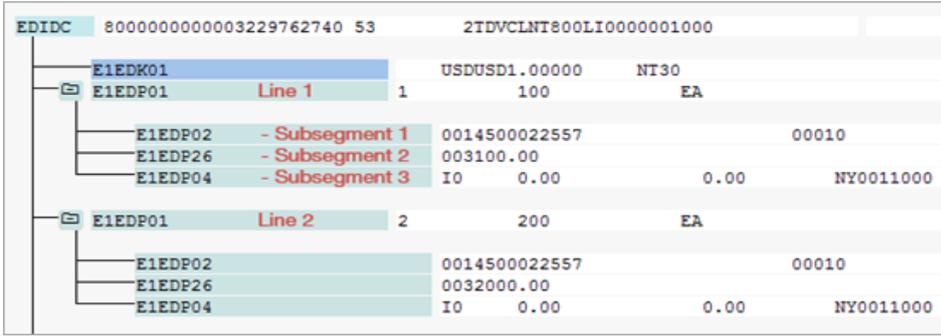
Define EDI mapping

eFLOW Control provides a default EDI mapping for IDocs in the TIS Business Configuration sets, so you only need to edit this configuration if you require new or different segments and fields, or if you need to create different mappings for different vendors.

1. In the IMG, go to **eFLOW Control > Data entry > Define EDI Field Mapping**.
2. Add a new entry.
3. Enter a unique **Mapping ID** and a **Description**, and select the **Accounts Payable** document type.
4. Select one of the following to specify how the IDoc will be visualized as an attachment in eFLOW Control:
 - **Form Name** and **Document type**: select a Smart Form and an archive document type. eFLOW Control provides a standard Smart Form that you can use: /TISA/SF_AP_DATA. The document type must be defined with the document class **PDF** in transaction OAC2.
 - **Transformation** and **Document type**: select an XSL transformation and an archive document type. eFLOW Control provides a standard transformation that you can use: /TISA/AP_XSL_INVOIC. The document type must be defined with the document class **HTML** in transaction OAC2.
5. Select your new entry and in the **Dialog Structure**, double-click **Segment Mapping**.
6. You must now map each IDoc segment to the appropriate eFLOW Control data structure. Each segment must be unique within the IDoc, with the exception of qualified segments or line item segments.

For each segment, add a new entry and enter the settings.

Field	Description
Segment type	Name of the IDoc segment.
Table Name	Name of the eFLOW Control data structure, such as /TISA/SAP_HEADER or /TISA/SAP_ITEM.
Qualifier field name	Technical name of the qualifier field within the segment structure.
Qualifier value	Value of the qualifier field in the IDoc.
Table start	Check this check box if the segment starts a table line, such as in the line items table or the header tax table.

Field	Description
Table end	<p>Check this check box if the segment ends a table line.</p> <p>Typically, a line item segment both starts and ends a table line.</p> <p>The mapping works from top to bottom, with sub-segments being processed after their parent. Thus, you do not have to activate the Table start and Table end check boxes for sub-segments, as they will become part of the open table line.</p> 

7. For each defined segment, map the segment fields to the corresponding eFLOW Control field:
 - a. Select the segment, then in the **Dialog Structure**, double-click **Field Mapping**.
 - b. Add a new entry for each field, specifying the **Segment field** and the eFLOW Control **Field Name**.
 - c. (Optional) If you need to manipulate the IDoc data in some way before passing it to eFLOW Control (for example, change the format), select the appropriate [mapping exit](#).

Mapping ID	INVOIC01	
Segm.type	E1EDKA1	
Table Name	/TISA/SAP_EXT_CHECK	
Qualifier field	PARVW	
Qualifier value	RS	
Field Mapping		
Segment field	Field Name	Mapping Exit
NAME1	REMIT_NAME	
ORT01	REMIT_CITY	
PFACH	REMIT_POBOX	
PSTL2	REMIT_POBOX_PSTL	
PSTLZ	REMIT_PSTL_CODE	
REGIO	REMIT_STATE	
STRAS	REMIT_STREET	

8. (Optional) You can map known IDoc field values to specific eFLOW Control values without using a mapping exit.
 - a. In the **Field Mapping** table, select the appropriate entry and in the **Dialog structure**, double-click **Fixed Values**.
 - b. Add new entries and specify the **EDI value** and the **TIS value**.

If the value in the IDoc matches the EDI value specified in this table, the specified TIS value will be mapped to the eFLOW Control field, not the actual IDoc value.

Mapping ID	INVOIC01
Segm.type	E1EDKA1
Table Name	/TISA/SAP_EXT_CHECK
Qualifier field	PARVW
Qualifier value	RS
Segment field	REGIO
Field Name	REMIT_STATE

Fixed Values	
EDI value	TIS value
Alabama	AL
Alaska	AK
Arizona	AZ

9. (Optional) You can also assign specific values to fields in the eFLOW Control document, even if these fields are not included in the IDoc.
 - a. In the **Dialog structure**, double-click **Default Values**.
 - b. Create new entries for the default values, specifying the eFLOW Control **Table Name**, the **Field Name** and the **TIS value** to be assigned.

Mapping ID	INVOIC01
------------	----------

Default Values		
Table Name	Field Name	TIS value
/TISA/SFW_HEADER	FW_DOCTYPE	ED

10. Click **Save** .

Mapping exits

eFLOW Control provides the following standard mapping exits that you can apply to the IDoc data before it is passed to eFLOW Control. You can also create and use your own mapping exits.

Mapping exit	Description
Map internal tax indicator/rate to tax code /TISA/CL_AP_IF_EDl_MAP_TAXCODE	Maps the tax indicator or tax rate given in the IDoc to a tax code, as defined in SAP table T076M.
Map ISO country to SAP country /TISA/CL_AP_IF_EDl_MAP_COUNTRY	Maps the ISO country given in the IDoc to the SAP country.
Map ISO currency to SAP currency /TISA/CL_AP_IF_EDl_MAP_CURRENCY	Maps the ISO currency given in the IDoc to the SAP currency.

Activate EDI mapping

After defining the EDI field mapping, you must activate it. If you use the same EDI mapping for all vendors, you only need one entry in this table.

Activate EDI Data Mapping									
Sender ...	Partner ...	Sender	Receive...	Partne...	Receiver	Messa...	Messa...	Mess. ...	Mapping ID
									INVOIC01

If you use different mappings for different vendors, you must create the appropriate mappings and add them to this table, specifying the vendor details for each mapping.

1. In the IMG, go to **eFLOW Control > Data entry > Activate EDI Field Mapping**.
2. Add a new entry.
3. In the **Mapping ID** field, enter the ID specified in the [EDI field mapping](#).
4. (Optional) Fill in the other fields, for example, if you wish to limit EDI activation to specific vendors or message types.

Completions

eFLOW Control can use data that is available on the invoice to search for and complete missing data. For example, it can:

- Search the vendor master data for address, bank or tax details that were recognized by eFLOW Extract, or manually entered by users, to find and assign the correct SAP vendor number for the invoice.

- Search purchase order and goods receipt data to match invoice line items with purchase order line items and assign the corresponding PO item number to the invoice line item.
- Search for tax codes and assign them to invoice line items.
- Automatically assign G/L accounts, cost objects and other values to invoice line items.

Completions are applied to fields on transfer of the invoice from eFLOW Extract, and on every other automatic action performed by the system, such as workflow start and posting. Existing field values are not overwritten.

Note: Values are only entered into the fields if a unique value is found and the completion is configured to assign the value.

You can define completion rules for the following data.

- Account assignments
- Baseline date
- Vendor data
- Purchase order items
- Goods receipt items
- Tax codes
- Tax jurisdiction codes

Standard completions

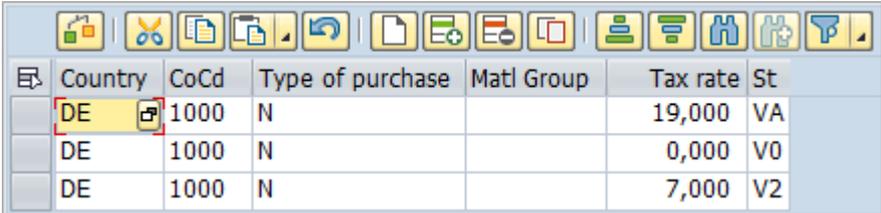
eFLOW Control provides the following standard completions.

* Entries for completions marked with an asterisk are delivered with the TIS Business Configuration sets.

Completion	Description
Find vendor by address /TISA/CL_AP_COMPL_ VENDOR_ADDR	Uses address data on the invoice to find the vendor number.
Find vendor by name /TISA/CL_AP_COMPL_ VENDOR_NAME	Uses the vendor name on the invoice to find the vendor number.
Find vendor by bank data /TISA/CL_AP_COMPL_ VENDOR_BANK	Uses bank data on the invoice to find the vendor number.

Completion	Description
<p>* Find vendor by purchase order /TISA/CL_AP_COMPL_VENDOR_PO</p>	<p>Uses the purchase order number on the invoice to find the vendor number.</p>
<p>Find vendor by tax number /TISA/CL_AP_COMPL_VENDOR_TAXNO</p>	<p>Uses the tax number on the invoice to find the vendor number. Searches in the Tax Number field of the vendor master (STENR).</p>
<p>Find vendor by tax code /TISA/CL_AP_COMPL_VENDOR_TXCDE</p>	<p>Uses the tax number on the invoice to find the vendor number. Searches in the Tax Number 1 – Tax Number 4 fields of the vendor master (STCD1 – STCD4).</p>
<p>Find vendor by VAT ID /TISA/CL_AP_COMPL_VENDOR_VATID</p>	<p>Uses the VAT Registration Number (STCEG) on the invoice to find the vendor number.</p>
<p>* Item completion by one-to-one relation /TISA/CL_AP_COMPL_ITM_1_TO_1</p>	<p>If the PO number is known and the invoice and PO both have only one line item, the PO item number is assigned to the Purchase Order Item field of the invoice line item.</p>
<p>* Item completion by one-to-many relation /TISA/CL_AP_COMPL_ITM_1_TO_N</p>	<p>If the PO number is known and the PO only has one line item, the PO item number is assigned to the Purchase Order Item field of all invoice line items.</p>
<p>Item completion by EAN/UPC /TISA/CL_AP_COMPL_ITM_EAN_UPC</p>	<p>Compares the EAN/UPC number given on the invoice with the EAN/UPC number given on the PO and assigns the PO item position if these match.</p>
<p>Item completion by material /TISA/CL_AP_COMPL_ITM_MATERIAL</p>	<p>Compares the material number given on the invoice with the material number and vendor material number given on the PO and assigns the PO item position if these match.</p> <p>If only item text is available on the invoice, and no material number, this text is compared with the PO item Short Text.</p>

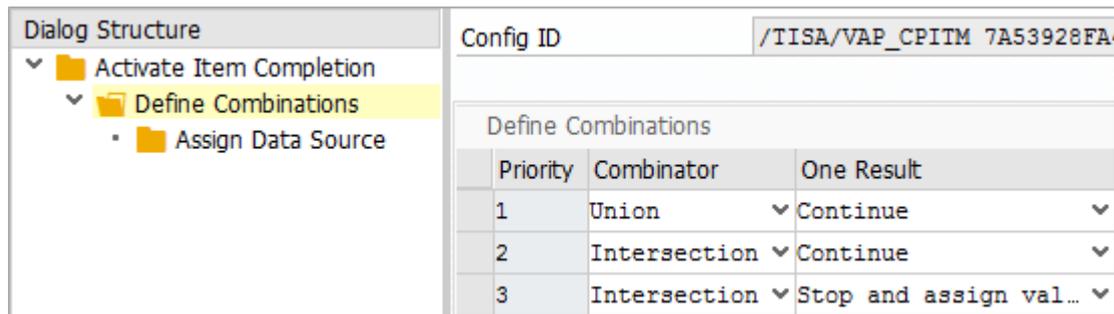
Completion	Description
Item completion by quantity to be invoiced /TISA/CL_AP_COMPL_ITM_QUANTITY	Compares the quantity of the invoice line items with the quantity of the PO line items. Takes into account already delivered or invoiced quantities as well as the PO quantity.
* Item completion by unit price /TISA/CL_AP_COMPL_ITM_UNIT_PRC	Compares the unit price of the invoice line items with the unit price of the PO line items.
Item completion by value to be invoiced /TISA/CL_AP_COMPL_ITM_VALUE	Compares the net value of the invoice line items with the net value of the PO line items.
Item completion by vendor material number /TISA/CL_AP_COMPL_ITM_VEND_MAT	Compares the vendor material number given on the invoice with the vendor material number given on the PO and assigns the PO item position if these match.
* GR completion - assign GRs to items on the 1 to 1 relation /TISA/CL_AP_COMPL_GRIV_1_TO_1	Automatically assigns goods receipts to invoice line items. This completion is only relevant if goods receipt based invoice verification (GR-IV) is used. If the invoice has only one line item and there is only one goods receipt for the PO, the completion assigns this goods receipt to the line item.
* GR completion - assign GRs to items on the quantity basis /TISA/CL_AP_COMPL_GRIV_QTY	Automatically assigns goods receipts to invoice line items. This completion is only relevant if goods receipt based invoice verification (GR-IV) is used. If there is more than one goods receipt for the PO, the completion checks whether the quantity of any of the goods receipts matches the invoice item quantity and assigns the goods receipt if this is the case.
Tax Code Completion: Binary Logic /TISA/CL_AP_COMPL_TCD_BNRY	Assigns a specific tax code to the invoice line item depending on whether or not a tax amount is quoted on the invoice. You specify which tax code to assign in each case in the completion parameters.

Completion	Description
Tax Code Completion from Info Record /TISA/CL_AP_TCD_INFOREC	Assigns the tax code specified in the PO info record or material info record to the invoice line item.
* Tax Code Completion from PO item /TISA/CL_AP_COMPL_TCD_PO	Assigns the tax code specified in the PO to the invoice line item.
Tax Code Completion: SAP default tax codes /TISA/CL_AP_COMPL_TCD_SAP_DEF	Assigns the SAP default tax code to the invoice line item.
Tax Code Completion with mapping table /TISA/CL_AP_COMPL_TCD_TABLE	Assigns the tax codes defined in the completion parameters to the invoice line item. 
Tax Jurisdiction Code Completion from Cost Center /TISA/CL_AP_COMPL_TXJCD_CSTCTR	Assigns the tax jurisdiction code defined in the cost center that is assigned to the line item.
* Tax Jurisdiction Code Completion from PO item /TISA/CL_AP_COMPL_TXJCD_PO	Assigns the tax jurisdiction code assigned to the invoice item's corresponding purchase order item.
Tax Jurisdiction Code Completion from Tax Engine /TISA/CL_AP_COMPL_TXJCD_TX_ENG	Assigns the tax jurisdiction code that was determined by a tax engine, if such an engine is in use.

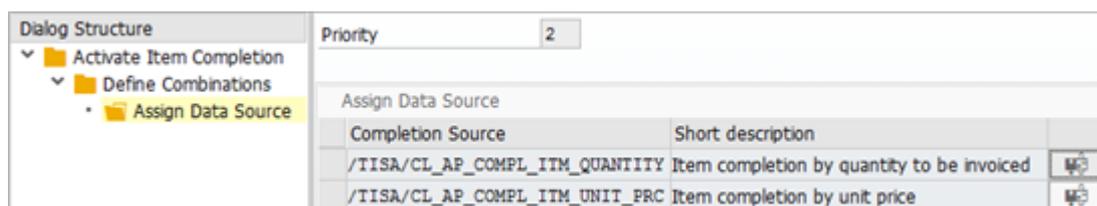
Configure completions

The method for configuring completions is the same for all data, except for default account assignments and the baseline date. See [Define default account assignments](#) for information on account assignments completion, and [Define the baseline date](#) for information on baseline date completion.

You first define combinations, which can contain one or more completions.



You then assign data sources to define which completions to use in each combination to find the required values.



When you define combinations, you must specify the following:

Field	Description
Priority	Determines the order in which the combinations run.
Combinator	<p>Determines how the results of the different completions within the combination are combined. If you include more than one completion in a combination, each of these completions may produce different results, that is, they may find different values. You therefore need to determine which of these results are included in the combination's result set.</p> <p>Union: The combination's result set contains all results of all completions within the combination. For example, if Completion 1 returns results A B C and Completion 2 returns results B C D, the result set for the combination is A B C D.</p> <p>Intersection: The combination's result set contains only results that are common to all completions within the combination. For example, if Completion 1 returns results A B C and Completion 2 returns results B C D, the result set for the combination is B C.</p>

Field	Description
	<div style="border: 1px solid black; padding: 5px;"> <p>Note: These settings apply only to the results of completions within a combination. The results of combinations are always combined with an intersection. So if Priority 1 Combination's result set is B C and Priority 2 Combination's result set is C D, the combined result set contains only result C, which is common to both combinations.</p> </div>
One Result	<p>Determines what to do if the combination produces a single result.</p> <p>Stop and assign value: The value is assigned to the field and the remaining combinations are not executed.</p> <p>Continue: Runs the next configured combination.</p>

To configure completions:

1. In the IMG, go to **eFLOW Control > Completions** and then click the appropriate completion type.
2. Add a new entry.
3. (Optional) Select an **eFLOW Document type**, or for tax completions a **Country**, and/or a **Company Code**. If you leave these fields blank, the completion applies for all document types/countries and all company codes.
4. Select the new entry and in the **Dialog Structure**, double-click **Define Combinations**.
5. Select the [settings](#) for the combination.
6. For each combination, perform these steps:
 - a. Select the combination and in the **Dialog Structure**, double-click **Assign Data Source**.
 - b. Add a new entry.
 - c. Select a **Completion Source** and click the **Parameters** button  to define parameters for the completion (if available).

Note: For completions that have parameters, make sure you open the **Maintain Parameters** dialog box and check that the settings correspond to your requirements. After checking or making changes, click **Save** in the dialog box.

Repeat this step for all completions you want to include in the combination.

7. Click **Save** .

Define default account assignments

You can configure eFLOW Control to automatically assign G/L accounts, cost objects and other values to invoice line items.

1. In the IMG, go to **eFLOW Control > Completions > Define default account assignment**.
2. Add a new entry.
3. Enter the eFLOW document type and company code (optional) and the vendor and specify the date range for which the completion will apply. You can also specify a reference number; the accounting values will only be applied if this reference number is present on the invoice.

Dialog Structure		Activate Assignment						
▼	Activate Assignment	eFLOW Dt	CoCd	Vendor	Name	Reference	Valid From	Valid To
	• Default Values		1000	BRILLIANT	Brilliant Car		18.02.2016	18.02.2031
			3000	DS1002	Parkway Utilities		03.03.2016	03.03.2050

4. Select the entry and in the **Dialog Structure**, double-click **Default Values**.
5. Enter the accounting details. Note that the **Item amount** represents a percentage, not an absolute value.

Dialog Structure		Default Values								
▼	Activate Assignment	Po...	G/L Account	Item amount	D/C	CoCd	Tax...	Tax Jurisdiction	Text	Cost Center
	• Default Values	1	451900	70,00	Debit ▼		I1	NY0011000	Utility services	4300
		2	451900	30,00	Debit ▼		I1	NY0011000	Utility services	4500

6. Click **Save** .

Define the baseline date

You can configure eFLOW Control to automatically calculate the default baseline date for invoices.

1. In the IMG, go to **eFLOW Control > Completions > Define default baseline date**.
2. Add a new entry.
3. (Optional) Enter an **eFLOW Document type**, **Country Code** or **Vendor**. If you do not enter a value here, the settings apply for all eFLOW document types, country codes and vendors.
4. In the **Source date** field, select the date on which the baseline date calculation will be based.

Value	Description
Document date	The invoice document date that was recognized in eFLOW Extract.
Scan date	Date on which the document was scanned. This date is specified in the eFLOW Extract Scan station.
Creation date	Date on which the invoice was transferred to eFLOW Control from eFLOW Extract.
Last GR date	Date of the most recent goods receipt. The system searches for the most recent goods receipt entry for corresponding purchase order items.

Value	Description
First GR date	Date of the first goods receipt. The system searches for the oldest goods receipt entry for corresponding purchase order items.
Use SAP settings	Date specified in the payment terms.

5. Specify an **Offset** value in days. This value is used to calculate the baseline date based on the selected source date: baseline date = source date plus or minus the offset.

For example, if you select **Document date** as the source and specify an offset value of **-4**, the baseline date will be four days before the invoice date recognized in eFLOW Extract.

6. Click **Save** .

Validations

eFLOW Control can validate document data to ensure that it is correct and complete, and that the document can be posted to SAP. eFLOW validations are run in addition to standard SAP checks.

After a validation runs, messages are issued. You specify in the validation configuration which type of message to display, such as **Error** or **Warning**.

Standard validations

eFLOW Control provides the following standard validations.

* Entries for validations marked with an asterisk are delivered with the TIS Business Configuration sets.

Validation	Description
Validate posting date within X days before period end /TISA/CL_AP_CHECK_AC_PSTNGDATE	For accrual posting documents, checks whether the posting date lies within a specified number of days before the end of the current period. You specify the number of days in the validation parameters.
Validate reversal date within X days after period start /TISA/CL_AP_CHECK_AC_REV_DATE	For accrual posting documents, checks whether the reversal date lies within a specified number of days after the start of the following period. You specify the number of days in the validation parameters.

Validation	Description
<p>* Check document balance /TISA/CL_AP_CHECK_BALANCE</p>	<p>Checks whether the document has a balance. For MM invoices, this check takes into account tolerance limits that have been defined in transaction OMR6.</p>
<p>Check bank data /TISA/CL_AP_CHECK_BANK_DATA</p>	<p>Checks whether the bank data on the invoice (IBAN, bank key and account number) matches the bank data in the vendor master data.</p> <p>This validation has the following parameters:</p> <p>Mandatory: Specifies whether bank data must be scanned and transferred from eFLOW Extract.</p> <p>All must match: Specifies whether all bank data must match the vendor master bank data if more than one set of bank data is transferred from eFLOW Extract.</p> <p>Check SWIFT: Specifies whether to include SWIFT data in the validation. The SWIFT code must match the IBAN. If the IBAN does not match the vendor master data IBAN, the SWIFT validation is skipped.</p> <p>Ign. miss. master: If bank data is not available in the vendor master, select No to skip the validation, or Yes to stop further processing of the invoice so that the master data can be updated.</p>
<p>Check if invoice has company address /TISA/CL_AP_CHECK_COMP_ADDR</p>	<p>Checks whether the invoice has a buyer company address. The address is considered present if one of the following is available on the invoice:</p> <ul style="list-style-type: none"> ■ A street, post code and city ■ A PO box, post code and city
<p>* Check company code of invoice against PO /TISA/CL_AP_CHECK_COMP_CODE_PO</p>	<p>Checks whether the company code on the invoice is the same as the company code on the purchase order.</p>
<p>Validate documents against requirements in German law /TISA/CL_AP_CHECK_DE_USTG_14</p>	<p>Checks whether the invoice document fulfills the requirements of paragraph 14 of the German Value Added Tax Act.</p> <p>In the validation parameters, you can specify which items should not be checked.</p>

Validation	Description
<p>* Check unplanned delivery cost /TISA/CL_AP_CHECK_DEL_COST</p>	<p>Checks whether a value is present in the Unplanned delivery costs field and issues a message if this is the case.</p> <p>In the validation parameters you can specify whether to check only FI documents, only MM documents, or both.</p>
<p>Check if document date is too long in past /TISA/CL_AP_CHECK_DOC_DATE</p>	<p>Checks whether the date specified in the Document Date field is prior to a specified number of days. You specify the number of days in the validation parameters.</p>
<p>* Check if down payment exists for vendor account /TISA/CL_AP_CHECK_DOWN_PAYMENT</p>	<p>Checks whether a down payment has previously been entered for the vendor.</p>
<p>* Check for duplicate invoice /TISA/CL_AP_CHECK_DUPL_INV</p>	<p>Checks whether the invoice already exists in the system in accordance with the defined SAP Duplicate Invoice Check rules.</p> <div data-bbox="751 1144 1437 1285" style="border: 1px solid black; padding: 5px;"> <p>Note: This check does not take declined invoices into account. To check for duplicates of decline invoices, use the /TISA/CL_AP_CHECK_DUPL_REJ check.</p> </div>
<p>Check if document has been declined before /TISA/CL_AP_CHECK_DUPL_REJ</p>	<p>Checks whether the invoice is a duplicate of a declined invoice.</p>
<p>Check if PO setup for ERS process /TISA/CL_AP_CHECK_ERS</p>	<p>Checks whether the purchase order specified in the invoice is subject to the Evaluated Receipt Settlement (ERS) process. If the ERS flag is set in the purchase order, a message is issued indicating that an invoice already exists for this purchase order.</p>
<p>Non-PO approval required /TISA/CL_AP_CHECK_FI_APPROVAL</p>	<p>For FI documents, checks whether the document has been approved in a workflow.</p> <p>In the validation parameters, you can specify a Gross amount and a Currency. The validation is only applied if the document's gross amount exceeds the specified value in the specified currency.</p>

Validation	Description
<p>* Check goods receipt /TISA/CL_AP_CHECK_GR</p>	<p>Checks whether goods receipts have been posted for the invoice, and whether the invoice open quantity is greater than zero.</p>
<p>* Check if GR date is later than invoice date /TISA/CL_AP_CHECK_GR_DATE</p>	<p>Checks whether the date of the latest goods receipt posted against the invoice is later than the invoice date. In the validation parameters, you can specify a tolerance in days.</p> <p>For example, with a tolerance setting of 3 days and an invoice with the date June 10, 2016, goods receipts with a date later than June 13th (invoice date + 3 days) would result in an error message.</p>
<p>* Check GR-IV reference /TISA/CL_AP_CHECK_GRIV_REF</p>	<p>If GR-IV is activated in the PO, checks whether goods receipts have been entered in the invoice line items.</p>
<p>* Check if document can be MM type /TISA/CL_AP_CHECK_MM</p>	<p>Checks whether an FI document could in fact be an MM document by checking for the existence of PO items for the vendor. This validation is skipped for MM documents.</p> <p>This check has the following parameters:</p> <p>PO check rule: Determines how the system checks for the existence of vendor purchase order items.</p> <ul style="list-style-type: none"> ■ Check if any PO exists for the vendor: Checks whether any PO items exist in the system for the vendor, irrespective of whether the items have been invoiced or not. ■ Check if there is a PO item open for invoice for the vendor: Checks whether any open PO items exist in the system for the vendor, that is, items that have not yet been invoiced. <p>Matching open item: If this parameter is set to Yes, the system searches for PO items that match the amounts of the invoice items.</p> <p>If there is a match, a corresponding message is displayed to the user: "Can this be an MM invoice?"</p>

Validation	Description
* Check if purchase order exists in system /TISA/CL_AP_CHECK_PO_EXIST	Checks if the purchase order specified on the invoice exists in the SAP system. This validation is not vendor-specific.
Check for purchase order text /TISA/CL_AP_CHECK_PO_TEXT	Checks whether texts have been entered on the purchase order.
Check purchase order value & limit /TISA/CL_AP_CHECK_PO_VALUE_EXC	Checks whether the invoice exceeds configured PO values and limits.
* Check price /TISA/CL_AP_CHECK_PRICE	Checks whether the invoice line item price is the same as the PO line item price.
* Check quantity /TISA/CL_AP_CHECK_QUANTITY	Checks whether the invoice line item quantity is the same as the PO line item quantity. This validation only applies if there are open goods receipts for the invoice.
Require fields for posting /TISA/CL_AP_CHECK_REQ_FIELD	Checks whether field values that are mandatory for posting have been entered. You specify the fields that must contain a value for posting in the validation parameters.
Execute SAP validation & substitution rules /TISA/CL_AP_CHECK_SAP_FI_RULES	Checks the standard SAP Validations (transaction GGB0) and Substitutions (transaction OBBH). These rules are automatically checked by SAP on posting. Activating this validation allows you to also check these rules during the eFLOW Resolve workflow.
Check document against SAP field status TISA/CL_AP_CHECK_SAP_FLDSTAT	Checks the standard SAP G/L account field status settings. For example, if a field is mandatory in SAP, it is also mandatory in eFLOW Control, and suppressed fields in SAP are also suppressed in eFLOW Control. If you do not activate this check, violations of the SAP field status can result in batch input errors.
Check total tax table TISA/CL_AP_CHECK_TAX_TABLE	Checks whether the information in the Tax tab is correct, for example, whether the tax amount of the invoice corresponds to the tax code.

Validation	Description
Check if invoice has vendor address TISA/CL_AP_CHECK_VEND_ADDR	Checks whether the invoice has a vendor company address. The address is considered present if one of the following is available on the invoice: <ul style="list-style-type: none"> ■ A street, post code and city ■ A PO box, post code and city
Check if vendor VAT ID is valid TISA/CL_AP_CHECK_VEND_VAT_ID	Checks whether the vendor VAT ID complies with the VAT identification number format for the country. It also verifies the VAT ID on the EU's official VIES website.
Check if vendor is allowed to issue FI invoices TISA/CL_AP_CHECK_VENDOR_FI	Checks whether suppliers can submit invoices without reference to a purchase order. You specify in the validation parameters whether FI invoices are generally allowed or not allowed. In the vendor-specific configuration , you can specify exceptions to this rule for specific suppliers.
* Check vendor against vendor named in PO /TISA/CL_AP_CHECK_VENDOR_IN_PO	Checks whether the vendor named on the invoice is the same as the vendor named on the purchase order. In the validation parameters, you can specify whether the validation should also check the name of the vendor's head office, alternative payees and permitted alternative payees.
Check if vendor is locked or marked for deletion /TISA/CL_AP_CHECK_VENDOR_VALID	Checks whether the vendor is locked or marked for deletion in SAP.
Check document against field status /TISA/CL_AP_CHECK_WF_FLDSTAT	Checks the field status assigned to a workflow task. See Define field status for information on field statuses.
Ensure archived image exists TISA/CL_FW_CHECK_IMAGE	Checks whether an image of the invoice exists in the archive.

Validation	Description
<p>Ensure workflow approval / resolution /TISA/CL_WF_CHECK_STATUS</p>	<p>Checks whether a workflow on the document has been approved and/or resolved. Resolution means that errors in the document have been corrected.</p> <p>This validation runs automatically on approval of the last task in a workflow, but you may want to assign it manually to a workflow task. For example, in a two step workflow, the purpose of the first task may be to correct errors or add missing information, and the purpose of the second task may be to approve the workflow. Assigning the check to the first workflow task ensures that the document is complete and ready for posting before it is sent for approval.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Note: This validation must be assigned in the workflow task, not in the general validations configuration. See Define workflow checks for more information.</p> </div>

Activate validations

1. In the IMG, go to **eFLOW Control > Validations > Activate validations**.
2. Add a new entry.
3. (Optional) Enter a company code and/or a document type. If you leave these fields blank, the validation will run for all company codes and document types.
4. Select an environment:
 - **Manual** to run the validation when the user manually checks the document.
 - **Automatic** to run the validation automatically, for example, when a document is posted or a workflow is started.

You can leave the **Environment** field blank to run the validation in both environments. Note, however, that blank entries are ignored if another entry with a specified environment (**Manual** or **Automatic**) exists for the specified company code and document type.

5. Select a **Validation ID**.
6. Select the type of message to display if the validation fails.

You can use the **No message** type to ignore the validation (for example, to skip the validation for a specific company code, but run it for all other company codes).

- Click the **Parameters** button  to define parameters (if available).

AP Configuration							
eFLOW Dt	CoCode	Environment	Validation ID	Short description	Type	Para...	
			✓ /TISA/CL_AP_CHECK_COMP_CODE_PO	Check company code of invoice against PO	Warning	▼	
			✓ /TISA/CL_AP_CHECK_COMP_CODE_PO	Check company code of invoice against PO	Warning	▼	
			✓ /TISA/CL_AP_CHECK_DUPL_INV	Check for duplicate invoice	Warning	▼	
			✓ /TISA/CL_AP_CHECK_GR	Check goods receipt	Error	▼	
			✓ /TISA/CL_AP_CHECK_GRIV_REF	Check GR-IV reference	Error	▼	
			✓ /TISA/CL_AP_CHECK_PRICE	Check price	Error	▼	
			✓ /TISA/CL_AP_CHECK_QUANTITY	Check quantity	Error	▼	
		Manual (Onli...	✓ /TISA/CL_AP_CHECK_DUPL_INV	Check for duplicate invoice	Warning	▼	
		Manual (Onli...	✓ /TISA/CL_AP_CHECK_GR	Check goods receipt	Warning	▼	

Note: For validations that have parameters, make sure you open the **Maintain Parameters** dialog box and check that the settings correspond to your requirements. After checking or making changes, click **Save** in the dialog box.

- Click **Save** .

Set business issues

You can configure business issues to specify which errors are displayed to users in the **Business issues** tab.

Basic data	Payment	Bank data (0)	Tax (1)	Note (1)	Business issue (3)
Business issue		First occurrence	Fixed at		
▼  Active issues (3) <ul style="list-style-type: none"> ▪  Missing goods receipt ▪  Quantity deviation 		11.03.2016 13:15:51			
		10.03.2016 12:41:38			
▼  Solved issues (5) <ul style="list-style-type: none"> ▼  Price deviation 		10.03.2016 12:36:51	16.03.2016 17:36		

You can also use business issues to automatically start a workflow when specific errors are present in a document (see [Define automatic workflows](#)) or to automatically put a document in the waiting queue (see [Configure automatic waiting](#)).

First you define a name for the business issue, and specify which icon to display for the issue, and whether to include SAP checks. Then you define the specific messages that apply for the business issue. These can be [eFLOW validations](#) or SAP messages.

- In the IMG, go to **eFLOW Control > Validations > Set business issues**.
- Add a new entry.
- Select the document type **Accounts Payable**.
- Enter a name and description and select an icon.

- (Optional) Activate the **SAP check** check box to include SAP checks.

Dialog Structure		Define business issue				
<ul style="list-style-type: none"> ▼ Define business issue <ul style="list-style-type: none"> Activate business issue 		DocType	BusIssue	Description	+	SAP check
		Accounts Pay_	BANKDATA	Validate bank data	@0H@	<input type="checkbox"/>
		Accounts Pay_	DUPLICATE	Duplicate document	@2U@	<input type="checkbox"/>
		Accounts Pay_	MISSING_GR	Missing goods receipt	@PB@	<input type="checkbox"/>
		Accounts Pay_	PRICE	Price deviation	@AZ@	<input type="checkbox"/>
		Accounts Pay_	QUANTITY	Quantity deviation	@EN@	<input type="checkbox"/>
		Accounts Pay_	TOO_OLD	Document is too old	@1U@	<input type="checkbox"/>
		Accounts Pay_	VENDOR_BLK	Blocked vendor	@9J@	<input type="checkbox"/>

- Select the business issue and in the **Dialog Structure**, double-click **Activate business issue**.
- Add a new entry.
- Enter a number and select a **Class/Interface**.
- Enter the message type, message class and/or message number.
- (Optional) You can specify up to four message variables.

Dialog Structure		Document type		Activate business issue						
<ul style="list-style-type: none"> ▼ Define business issue <ul style="list-style-type: none"> Activate business issue 		Business Issue	MISSING_GR	No.	Class/Interface	MsgType	Message Class	MsgNo	Msg. Var.	Msg. Var.
				1	/TISA/CL_AP_CHECK_GRIV_REF					
				2	/TISA/CL_AP_CHECK_GR					

- Click **Save** .

Standard business issues

The following business issues are delivered with the TIS Business Configuration sets.

- Validate bank data
- Duplicate document
- Missing goods receipt
- Price deviation
- Quantity deviation
- Document is too old
- Blocked vendor

Business processes

This section explains how to configure various settings that control business processes within eFLOW Control.

Automatic posting

You can configure eFLOW Control to automatically park or post documents on transfer from eFLOW Extract. You can specify different settings for PO related (MM), non-PO related (FI) and down payment (DR) documents.

Note: As the data is saved in an application table rather than a customizing table, you can configure automatic posting either in the development system and transport it to the production system, or configure it directly in the production system.

1. In the IMG, go to **eFLOW Control > Business Processes > Activate Automatic Posting**.
2. Add a new entry.
3. (Optional) Enter an **eFLOW Document type**, **Country Code** or **Vendor**. If you do not enter a value here, the settings apply for all eFLOW document types, country codes and vendors.
4. In the **FI Post**, **MM Post** and **DR Post** fields, select an option:
 - **Inactive (check only):** Documents are only checked for errors. They must be posted or parked manually.
 - **Active:** Documents are automatically posted, provided they are free of errors.
 - **Park:** Documents are automatically parked.
5. Click **Save** .

Wait reasons

Users can put documents in a waiting queue if immediate processing is not possible or desired (for example, if a goods receipt is missing).

When users set a document to wait, they must select a reason and enter a date until which the document will remain in the wait queue.

You can configure wait reasons and specify for each wait reason how long the document may remain in the wait queue.

You can also configure eFLOW Control to automatically put documents in the waiting queue if the document has a specific business issue, such as a missing goods receipt.

Configure wait reasons

1. In the IMG, go to **eFLOW Control > Business Processes > Define wait reasons**.
2. Add a new entry.
3. Type a **Wait Reason ID** and **Description**.

4. (Optional) Enter values for the other settings.

5. Click **Save** .

Wait reasons settings

Setting	Description
WaitReason	A short identifier for the wait reason.
Description	Text that appears in the Wait reason selection list in the Waiting dialog box.
Dflt. Hold	<p>Default number of wait days. The date value in the Paused until field of the Waiting dialog will default to today's date plus this number of days. If you do not enter a value here, the Paused until field defaults to today's date.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Note: This setting refers to consecutive calendar days and does not take into account factory and holiday calendars.</p> </div>
Max. Wait	<p>Maximum permitted number of wait days, that is, today's date plus this number of days. If users try to enter a date that lies after the maximum wait period, a message informs them of the date until which the document may remain in the wait queue.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Note: This setting refers to consecutive calendar days and does not take into account factory and holiday calendars.</p> </div>
Req. Note	Requires the user to enter a note before setting the document to wait.

Standard wait reasons

The following wait reasons are delivered with the TIS Business Configuration sets.

- GR Waiting for delivery
- PI Pending investigation

Configure automatic waiting

1. In the IMG, go to **eFLOW Control > Business Processes > Define wait reasons**.
2. If you have not already done so, add the wait reason you want to use.
3. Select the wait reason and in the **Dialog Structure**, double-click **Automatic waiting**.
4. Add a new entry.
5. Select the **Business Issue** to associate with the wait reason.
6. Check the **Auto wait** check box.
7. Enter a number of days in the **Default Wait** field.
8. (Optional) To automatically remove the document from the waiting queue when the business issue is resolved, or the default wait time has expired, check the **Auto Continue** check box.
9. Click **Save** .

Reasons for declining

You can define reasons that users must select when they decline a document.

1. In the IMG, go to **eFLOW Control > Business Processes > Define reasons for declining**.
2. Add a new entry.
3. Enter a **Reason for declining** ID and a **Description**.
4. (Optional) Activate the **Req. Note** check box to require users to enter a note when they select the reason for declining.
5. Click **Save** .

Standard reasons for declining

The following reasons for declining are delivered with the TIS Business Configuration sets.

- DP Duplicate document
- IL Illegible invoice image
- WC Wrong receiving company

Vendor-specific configuration

You can define the following configuration settings for specific vendors.

Setting	Description
FI exc.	FI exception. Determines whether the rules defined in the validation Check if vendor is allowed to issue FI invoices apply for the vendor. Activate this check box to define the vendor as an exception to the rules. For example, if you set the validation parameter Allow FI documents to Yes , suppliers are allowed to issue FI invoices. To disallow FI invoices for a specific supplier, in the vendor-specific configuration, add the supplier and check the FI exc. check box for that supplier.
Item capt.	Line item capture. Determines whether eFLOW Extract reads and transfers line items of the vendor's invoices to eFLOW Control.
Portal	Determines whether the vendor can participate in the Supplier Portal.

1. In the IMG, go to **eFLOW Control > Business Processes > Set vendor specific configuration**.
2. Add a new entry.
3. Enter the vendor and optionally a company code if the settings should apply only for a specific company code.
4. Select the appropriate settings.
5. Click **Save** .

Require note for actions

You can specify that users must enter a note when they perform a specific action. For example, you may require users to enter a note when they reverse a document. By default, a note is not mandatory for reversal.

1. In the IMG, go to **eFLOW Control > Business Processes > Require note for certain actions**.
2. Add a new entry.
3. Select the **System Command** for which a note is required.

4. In the **Any note OK?** field, select one of the following options:
 - **Note created during the process:** A text box is presented to the user when they perform the action, in which they must enter the note.
 - **Note created by same user:** No text box is presented. The system checks whether the user performing the action has already added a note to the document (in the **Notes** tab), and prompts the user to enter a note if this is not the case.
 - **Note created by any user:** No text box is presented. The system checks whether any user has added a note to the document (in the **Notes** tab), and prompts the user performing the action to enter a note if this is not the case.
5. Click **Save** .

Note: Although all actions are available for selection, some actions, such as the **Supervisor post** action, always require a note, even if they are not listed in this table. Mandatory notes for some actions, such as [Waiting](#), [Decline document](#), and [various workflow actions](#), can be configured elsewhere in the IMG.

Send message templates

You can define message templates that users can select when they use the **Send message** function to send an email. See the *eFLOW Control User Guide* for more information about sending email messages.

You can make the message templates available for specific company codes by assigning the templates to those company codes.

Create a message template

1. In transaction SE61, create a new documentation object of the class **General text** and add the email text.
2. In the IMG, go to **eFLOW Control > Business processes > Define Send message > Define message template**.
3. Add a new entry.
4. Enter a **Text key** (a unique identifier for the message), a **Description**, a **Subject**, and optionally a **Sender**.
5. In the **Email Template** field, select your documentation object.
6. Click **Save** .

Assign message templates to company codes

Templates that are assigned to a company code are only available if the document to which the message relates belongs to that company code.

1. In the IMG, go to **eFLOW Control > Business processes > Define Send message > Assign message template to company code**.
2. Add a new entry.

3. Select the **Company Code** and enter the message template's **Text key**.

To make the template available for several company codes, add an entry for each company code with the same text key.

If you do not enter a company code, the template is available for all documents.

If no company code is present in the document, only templates without an entry in the **Company code** field are available for that document.

4. In the **Priority** field, enter a number to determine the position of the template in the template selection list. Templates with a higher priority (that is, a lower number) appear at the top of the list.
5. Click **Save** .

Display

This section explains how to configure display options for eFLOW Control.

Activate field status

Field statuses control user access to fields, such as whether users can view and edit specific fields, or whether they are required to enter a value. For more information on field statuses and how to create them, see [Define field status](#).

You can assign field statuses to specific document types. For information on assigning field statuses to workflow tasks, see [Create a workflow task](#).

1. In the IMG, go to **eFLOW Control > Display > Activate Field Status**.
2. Add a new entry.
3. (Optional) Select a **Document type**, an **eFLOW Document type** and/or a **Company Code**.
If you leave these fields blank, the field status applies for all document types and company codes.
4. In the **Field status** field, select the field status.
5. Click **Save** .

Quick selections

Quick selections are predefined filters that users can apply to the document list by clicking a button at the top of the selection screen.



You can define up to six quick selection buttons, using variants for simple selections, and classes for more complex selections that require business logic.

eFLOW Control provides the following standard classes for quick selections. Predefined quick selection buttons using these classes are delivered with the TIS Business Configuration sets.

Class	Description
My documents with discounts coming due /TISA/CL_AP_DATA_SEL_DSCU_DUE	Displays documents assigned to the currently logged on user for which the next discount date is approaching. See <i>Discount statuses</i> in the eFLOW Control User Guide for more information on discounts.
Documents with discounts available /TISA_CL_AP_DATA_SEL_DISCOUNT	Displays documents for which discounts are available.
Oldest open 50 documents /TISA/CL_AP_DATA_SEL_OLDEST_50	Displays the 50 oldest documents (based on the document creation date) that have not yet been processed.

1. In the IMG, go to **eFLOW Control > Display > Define quick selections**.
2. Add a new entry.
3. In the **QuickSel** list, select the position on the screen for the quick selection button.
The 1st, 2nd and 3rd quick selections appear in the first row of buttons, and the 4th, 5th and 6th quick selections appear in the second row.
4. Type the text to appear on the button and in the tooltip, and select an icon to display on the button.
5. Select a **Variant** or a **Class/Interface**.
6. Click **Save** .

Define fields for the Miscellaneous tab

You can add additional fields to the **Miscellaneous** tab in the document detail. These fields can be eFLOW Control fields, standard SAP fields or custom fields. They must be included in the eFLOW Control structures. The **Miscellaneous** tab is displayed in eFLOW Control and eFLOW Resolve when at least one field is defined for the tab. You cannot add fields to other tabs.

1. In the IMG, go to **eFLOW Control > Display > Define field in Tab Miscellaneous**.
2. Add a new entry.
3. Select the **Position** of the field.
Field positions run from top to bottom, that is, fields 1-15 are displayed on the left of the tab, and fields 16-30 on the right.
4. Select the **Table Name** and **Field Name**.
5. Click **Save** .

Data visualization (Statistics)

You can define which charts are displayed in the document viewer when users click the **Statistics** button.

Note: The [Calculate Data](#) report (/TISA/FW_REP_CALC_DATA) must be scheduled to display the configured charts.

Activate data visualization

1. In the IMG, go to **eFLOW Control > Display > Activate data visualization**.
2. Add a new entry.
3. In the **Document type** field, select **Accounts Payable**, then select the **Chart Type**:
 - **Single Document:** The chart is displayed in the document detail.
 - **Document List:** The chart is displayed in the document list.

Note: Charts displayed in the document list only refer to documents that are currently displayed in the document list, that is, documents that correspond to the criteria defined in the selection screen. If you change the selection criteria, you must close and reopen the document viewer to display statistics for the new selection.

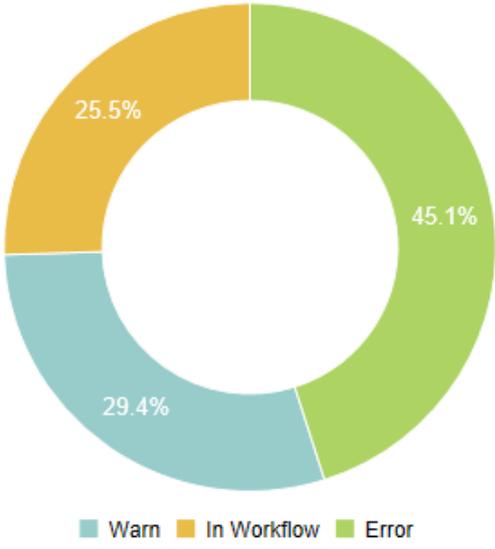
4. Enter a **Number** to determine the position of the chart in the viewer, with 1 being at the top.
5. Select an **Alignment** option to display the chart on the left, in the center, or the right of the document viewer.

This enables you to display charts side by side instead of below one another by assigning different alignment values to the charts.
6. (Optional) Enter a **Description** that will be displayed above the chart in the document viewer. If you do not enter a description, the class description is used.
7. Select the appropriate **Class/Interface**.
8. Click **Save** .

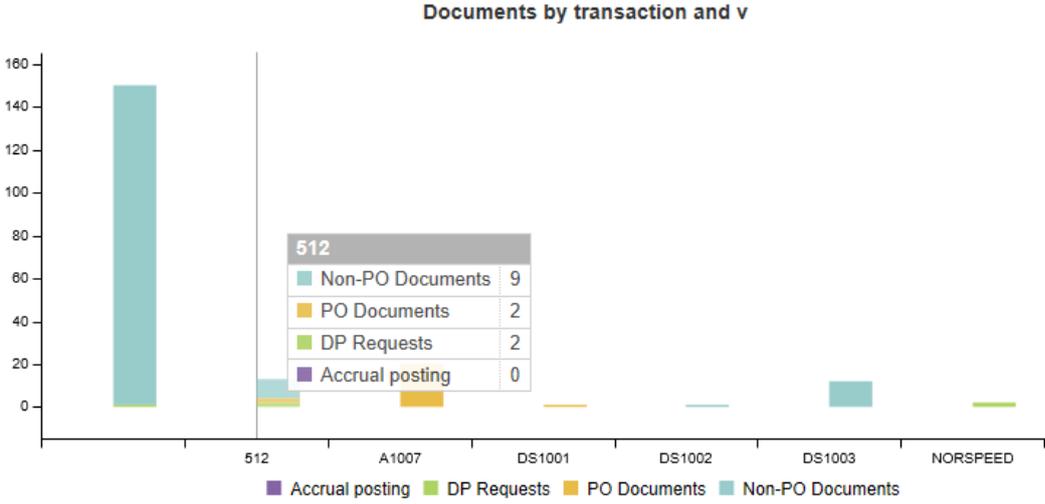
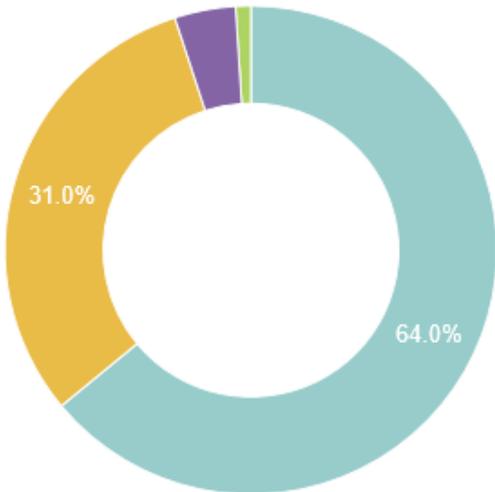
Data visualization classes

eFLOW Control provides the following standard classes for data visualization.

Class	Description																												
Documents by transaction /TISA/CL_ AP_ CHART_ DATA_BTR	<p>Document detail chart. Shows per AP document type the number of documents processed for the vendor in the last 180 days.</p> <table border="1"> <caption>Documents by transaction</caption> <thead> <tr> <th>Month</th> <th>Non-PO Documents</th> <th>PO Documents</th> </tr> </thead> <tbody> <tr> <td>May</td> <td>2</td> <td>4</td> </tr> <tr> <td>Jun</td> <td>10</td> <td>7</td> </tr> <tr> <td>Jul</td> <td>11</td> <td>14</td> </tr> <tr> <td>Aug</td> <td>2</td> <td>8</td> </tr> <tr> <td>Sep</td> <td>14</td> <td>15</td> </tr> <tr> <td>Oct</td> <td>0</td> <td>7</td> </tr> </tbody> </table>	Month	Non-PO Documents	PO Documents	May	2	4	Jun	10	7	Jul	11	14	Aug	2	8	Sep	14	15	Oct	0	7							
Month	Non-PO Documents	PO Documents																											
May	2	4																											
Jun	10	7																											
Jul	11	14																											
Aug	2	8																											
Sep	14	15																											
Oct	0	7																											
Average Document Processing /TISA/CL_ AP_ CHART_ DATA_ PRCTIME	<p>Document detail chart. Shows for the last 90 days the average processing time in days of the vendor's documents compared to the processing time of the current document.</p> <table border="1"> <caption>Avg. Document Processing</caption> <thead> <tr> <th>Month</th> <th>Non-PO Documents</th> <th>PO Documents</th> <th>This Document</th> </tr> </thead> <tbody> <tr> <td>Jul</td> <td>~72</td> <td>~72</td> <td>14.014664351851852</td> </tr> <tr> <td>Aug</td> <td>~56</td> <td>~45</td> <td>14.014664351851852</td> </tr> <tr> <td>Sep</td> <td>~5</td> <td>~5</td> <td>14.014664351851852</td> </tr> <tr> <td>Oct</td> <td>0</td> <td>~1</td> <td>14.014664351851852</td> </tr> </tbody> </table> <table border="1"> <caption>Aug</caption> <tbody> <tr> <td>Non-PO Documents</td> <td>55.73</td> </tr> <tr> <td>PO Documents</td> <td>44.78</td> </tr> <tr> <td>This Document</td> <td>14.014664351851852</td> </tr> <tr> <td>DP Requests</td> <td>0</td> </tr> </tbody> </table>	Month	Non-PO Documents	PO Documents	This Document	Jul	~72	~72	14.014664351851852	Aug	~56	~45	14.014664351851852	Sep	~5	~5	14.014664351851852	Oct	0	~1	14.014664351851852	Non-PO Documents	55.73	PO Documents	44.78	This Document	14.014664351851852	DP Requests	0
Month	Non-PO Documents	PO Documents	This Document																										
Jul	~72	~72	14.014664351851852																										
Aug	~56	~45	14.014664351851852																										
Sep	~5	~5	14.014664351851852																										
Oct	0	~1	14.014664351851852																										
Non-PO Documents	55.73																												
PO Documents	44.78																												
This Document	14.014664351851852																												
DP Requests	0																												

Class	Description								
<p>Documents by state /TISA/CL_ AP_ CHART_ DATA_ STATE</p>	<p>Document detail chart. Shows for the last 90 days the percentage of the vendor's documents in each document status.</p> <p style="text-align: center;">Documents by state</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Document Status Distribution</caption> <thead> <tr> <th>Status</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Warn</td> <td>29.4%</td> </tr> <tr> <td>In Workflow</td> <td>25.5%</td> </tr> <tr> <td>Error</td> <td>45.1%</td> </tr> </tbody> </table>	Status	Percentage	Warn	29.4%	In Workflow	25.5%	Error	45.1%
Status	Percentage								
Warn	29.4%								
In Workflow	25.5%								
Error	45.1%								
<p>Vendor / Company Code volume /TISA/CL_ AP_ CHART_ LIST_ CHORD</p>	<p>Document list chart. Shows the relationship between company codes and vendors in terms of the volume of documents.</p> <p>For example, if you position the mouse cursor over a company code, the tooltip displays per vendor the number of documents for that company code. If you position the mouse cursor over a vendor, the tooltip displays per company code the number of documents for that vendor.</p>								

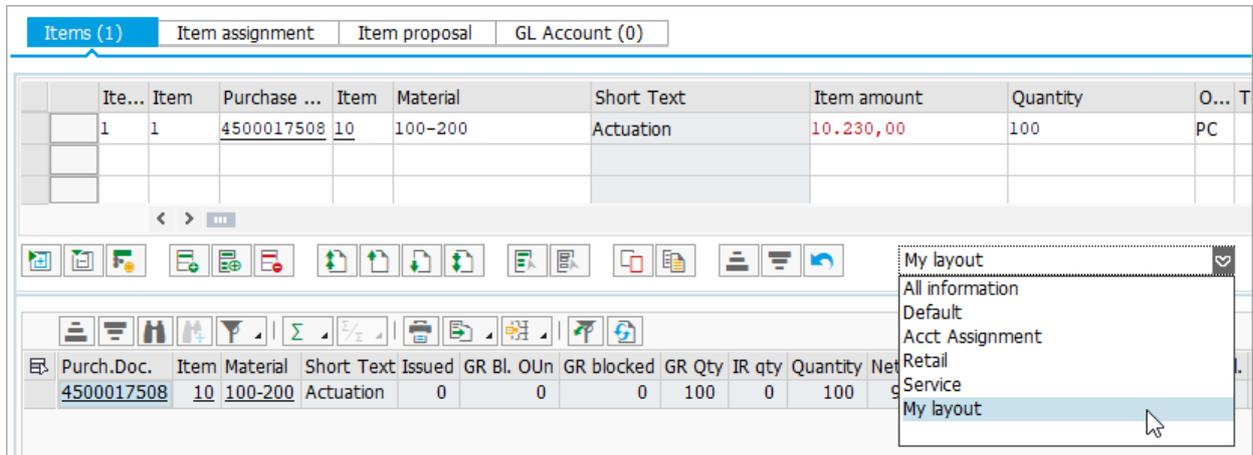
Class	Description																																																																																																																																																
	<p style="text-align: center;">Vendor / Company Code volume</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>Vend. missing</td><td>4</td></tr> <tr><td>Vend. 1000</td><td>17</td></tr> <tr><td>Vend. 2008</td><td>1</td></tr> <tr><td>Vend. BUG161014</td><td>1</td></tr> <tr><td>Vend. T27604</td><td>1</td></tr> </table>	Vend. missing	4	Vend. 1000	17	Vend. 2008	1	Vend. BUG161014	1	Vend. T27604	1																																																																																																																																						
Vend. missing	4																																																																																																																																																
Vend. 1000	17																																																																																																																																																
Vend. 2008	1																																																																																																																																																
Vend. BUG161014	1																																																																																																																																																
Vend. T27604	1																																																																																																																																																
<p>Documents in/out timeline /TISA/CL_ AP_ CHART_ LIST_ INOUT</p>	<p>Document list chart. Shows the number of documents created, posted and declined.</p> <p style="text-align: center;">Documents in/out timeline</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Documents in/out timeline Data</caption> <thead> <tr> <th>Date</th> <th>Created</th> <th>Posted</th> <th>Rejected</th> </tr> </thead> <tbody> <tr><td>Sep-16</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>Sep-17</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>Sep-18</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Sep-19</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>Sep-20</td><td>2</td><td>0</td><td>0</td></tr> <tr><td>Sep-21</td><td>12</td><td>1</td><td>0</td></tr> <tr><td>Sep-22</td><td>5</td><td>1</td><td>0</td></tr> <tr><td>Sep-23</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Sep-24</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Sep-25</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Sep-26</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Sep-27</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Sep-28</td><td>11</td><td>1</td><td>0</td></tr> <tr><td>Sep-29</td><td>11</td><td>3</td><td>0</td></tr> <tr><td>Sep-30</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-01</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-02</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-03</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-04</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-05</td><td>6</td><td>0</td><td>0</td></tr> <tr><td>Oct-06</td><td>1</td><td>1</td><td>0</td></tr> <tr><td>Oct-07</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-08</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-09</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-10</td><td>10</td><td>0</td><td>0</td></tr> <tr><td>Oct-11</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-12</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-13</td><td>5</td><td>0</td><td>0</td></tr> <tr><td>Oct-14</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>Oct-15</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-16</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Oct-17</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>Oct-18</td><td>11</td><td>0</td><td>0</td></tr> <tr><td>Oct-19</td><td>14</td><td>1</td><td>0</td></tr> <tr><td>Oct-20</td><td>8</td><td>0</td><td>0</td></tr> </tbody> </table>	Date	Created	Posted	Rejected	Sep-16	1	0	0	Sep-17	1	0	0	Sep-18	0	0	0	Sep-19	1	0	0	Sep-20	2	0	0	Sep-21	12	1	0	Sep-22	5	1	0	Sep-23	0	0	0	Sep-24	0	0	0	Sep-25	0	0	0	Sep-26	0	0	0	Sep-27	0	0	0	Sep-28	11	1	0	Sep-29	11	3	0	Sep-30	0	0	0	Oct-01	0	0	0	Oct-02	0	0	0	Oct-03	0	0	0	Oct-04	0	0	0	Oct-05	6	0	0	Oct-06	1	1	0	Oct-07	0	0	0	Oct-08	0	0	0	Oct-09	0	0	0	Oct-10	10	0	0	Oct-11	0	0	0	Oct-12	0	0	0	Oct-13	5	0	0	Oct-14	1	0	0	Oct-15	0	0	0	Oct-16	0	0	0	Oct-17	1	0	0	Oct-18	11	0	0	Oct-19	14	1	0	Oct-20	8	0	0
Date	Created	Posted	Rejected																																																																																																																																														
Sep-16	1	0	0																																																																																																																																														
Sep-17	1	0	0																																																																																																																																														
Sep-18	0	0	0																																																																																																																																														
Sep-19	1	0	0																																																																																																																																														
Sep-20	2	0	0																																																																																																																																														
Sep-21	12	1	0																																																																																																																																														
Sep-22	5	1	0																																																																																																																																														
Sep-23	0	0	0																																																																																																																																														
Sep-24	0	0	0																																																																																																																																														
Sep-25	0	0	0																																																																																																																																														
Sep-26	0	0	0																																																																																																																																														
Sep-27	0	0	0																																																																																																																																														
Sep-28	11	1	0																																																																																																																																														
Sep-29	11	3	0																																																																																																																																														
Sep-30	0	0	0																																																																																																																																														
Oct-01	0	0	0																																																																																																																																														
Oct-02	0	0	0																																																																																																																																														
Oct-03	0	0	0																																																																																																																																														
Oct-04	0	0	0																																																																																																																																														
Oct-05	6	0	0																																																																																																																																														
Oct-06	1	1	0																																																																																																																																														
Oct-07	0	0	0																																																																																																																																														
Oct-08	0	0	0																																																																																																																																														
Oct-09	0	0	0																																																																																																																																														
Oct-10	10	0	0																																																																																																																																														
Oct-11	0	0	0																																																																																																																																														
Oct-12	0	0	0																																																																																																																																														
Oct-13	5	0	0																																																																																																																																														
Oct-14	1	0	0																																																																																																																																														
Oct-15	0	0	0																																																																																																																																														
Oct-16	0	0	0																																																																																																																																														
Oct-17	1	0	0																																																																																																																																														
Oct-18	11	0	0																																																																																																																																														
Oct-19	14	1	0																																																																																																																																														
Oct-20	8	0	0																																																																																																																																														

Class	Description										
<p>Documents by transaction and vendor /TISA/CL_ AP_ CHART_ LIST_VND_ BTR</p>	<p>Document list chart. Shows per AP document type and vendor the number of documents processed in the last 180 days.</p> <p style="text-align: center;">Documents by transaction and v</p>  <table border="1" data-bbox="678 728 933 907"> <thead> <tr> <th>Document Type</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Non-PO Documents</td> <td>9</td> </tr> <tr> <td>PO Documents</td> <td>2</td> </tr> <tr> <td>DP Requests</td> <td>2</td> </tr> <tr> <td>Accrual posting</td> <td>0</td> </tr> </tbody> </table>	Document Type	Count	Non-PO Documents	9	PO Documents	2	DP Requests	2	Accrual posting	0
Document Type	Count										
Non-PO Documents	9										
PO Documents	2										
DP Requests	2										
Accrual posting	0										
<p>Documents by state /TISA/CL_ FW_ CHART_ LIST_ STATE</p>	<p>Document list chart. Shows for the last 90 days the percentage of documents in each document status.</p> <p style="text-align: center;">Documents by state</p>  <table border="1" data-bbox="422 1747 885 1780"> <thead> <tr> <th>Status</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Error</td> <td>64.0%</td> </tr> <tr> <td>In Workflow</td> <td>31.0%</td> </tr> <tr> <td>Warn</td> <td></td> </tr> <tr> <td>Ready</td> <td></td> </tr> </tbody> </table>	Status	Percentage	Error	64.0%	In Workflow	31.0%	Warn		Ready	
Status	Percentage										
Error	64.0%										
In Workflow	31.0%										
Warn											
Ready											

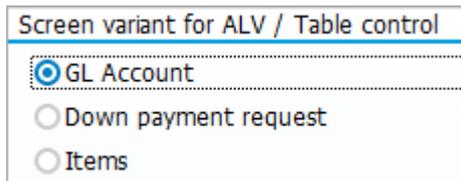
Screen variants

eFLOW Control provides standard layout variants for line items, G/L accounts and down payment requests. You can also create your own layout variants. Users can select these layout variants when working with the

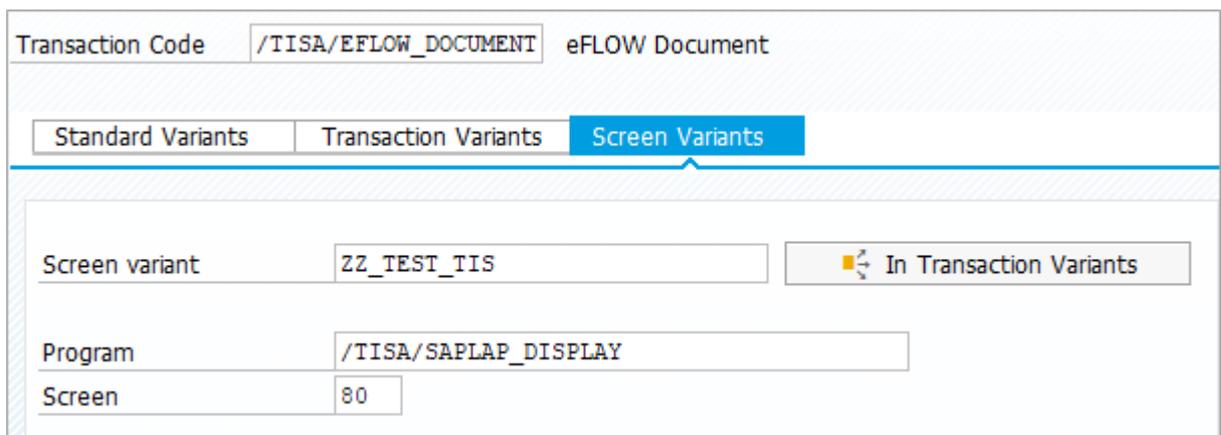
Items or GL Account tables in an eFLOW Control document.



1. In the IMG, go to **eFLOW Control > Display > Define screen variant.**
2. Select the table for which you want to define a layout variant.



3. Click the **Execute** button
4. In the **Screen variant** field, enter a name for your new variant, then click the **Create** button



5. Select the area in which the variant will be available and enter an eFLOW Control document number.

eFLOW Document



eFLOW Control
 eFLOW Resolve
 eFLOW History

Document number

6. Click the **Execute** button .
7. In the eFLOW Control document, in change mode, use drag and drop to position the table columns.
8. Click **Save** .
9. In the **Confirm Screen Entries** dialog box, make any other required changes. For example, enter a screen variant short text, or make fields required or invisible.

Screen values 0080 Program /TISA/SAPLAP_DISPLAY					
<input checked="" type="checkbox"/> Copy settings		Name of screen variant: ZZ_TEST_TIS		<input type="checkbox"/> GuiXT script	
<input type="checkbox"/> Do not display screen		Screen variant short txt			
Field	Contents	W. content	Output only	Invisible	Required
TC_ITMD (Table Ctrl)		<input checked="" type="checkbox"/> Adopt column sequence	<input type="checkbox"/> Adopt column width <input type="checkbox"/> Invisible		
/TISA/SAP_ITMD-MARK (Check box)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
/TISA/SAP_ITMD-MAA_D (Pushbutton)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item icon	1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ID	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ID	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item	1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Purchase Order	1	4500022393	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item	1	10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Click the **Exit and Save** button.
11. In the **Change screen variant** screen, click the **Save** button .
12. In the **Create Object Directory Entry** dialog box, select a package and click **Save** .

Customer extensions/BAdIs eFLOW Control BAdIs

eFLOW Control provides the following BAdIs to enable you to add custom coding. See the SAP documentation for information on implementing BAdIs.

AP Data Model: /TISA/BADI_AP_DATA

Enhancement spot: /TISA/ES_AP_DATA

Methods

- FILL_DISPLAYONLY_AP_ACC
- FILL_DISPLAYONLY_AP_BNK
- FILL_DISPLAYONLY_AP_CHK
- FILL_DISPLAYONLY_AP_HDR
- FILL_DISPLAYONLY_AP_ITM
- FILL_DISPLAYONLY_AP_MAA
- FILL_DISPLAYONLY_AP_POI
- FILL_DISPLAYONLY_AP_TAX
- FILL_DISPLAYONLY_AP_WHT
- GET_ACCOUNT
- GET_ADDRESS
- GET_EXT_BANK
- GET_EXT_CHECK
- GET_HEADER
- GET_ITEM
- GET_ITEM_ACCOUNT
- GET_POITEM
- GET_TAX
- GET_WHTAX
- SAVE
- SET_ACCOUNT
- SET_ADDRESS
- SET_EXT_BANK
- SET_EXT_CHECK
- SET_HEADER
- SET_ITEM
- SET_TAX
- SET_WHTA

Functionality

These methods are called on FILL_DISPLAYONLY* methods, on GET* methods, SET* methods on each data structure for an eFLOW AP document (methods of class /TISA/CL_AP_DATA), and on the overall SAVE method.

Authorization Check: /TISA/BADI_FW_AUTH

Enhancement spot: /TISA/ES_FW_AUTH

Methods

- AUTHORITY_CHECK
- AUTHORITY_CHECK_DOCUMENT

Functionality

These additional methods are called during authorization checks for eFLOW functions access (controlling the availability of all functions in eFLOW) and for document access (controlling whether the current user can access/modify document data depending on the document content).

Background processing: /TISA/BADI_FW_BG

Enhancement spot: /TISA/ES_FW_BG

Methods

- GET_DOCCLASS_PROCESSOR
- COMPLETE_DOCUMENT
- UPDATE_DOCUMENT

Functionality

The methods of this class are called when “eFLOW me” – background automatic document processing – is performed.

Additional data can be completed for the document using the methods COMPLETE_DOCUMENT and UPDATE_DOCUMENT.

UPDATE_DOCUMENT is called twice – before document completions and after completions – just before automatic posting operations.

Change posting logic: /TISA/BADI_FW_POST

Enhancement spot: /TISA/ES_FW_POST

Methods

- AFTER_POSTING
- BEFORE_POSTING_EARLY
- BEFORE_POSTING
- GET_INSTANCE

Functionality

The BEFORE_POSTING_EARLY and BEFORE_POSTING methods are called before document posting; they allow the adjustment of data.

AFTER_POSTING is called just after document posting in SAP.

GET_INSTANCE allows you to replace the standard posting class with a custom class using custom posting logic.

Change reverse logic: /TISA/BADI_AP_REVERSE

Enhancement spot: /TISA/ES_AP_REVERSE

Methods

- GET_INSTANCE
- AFTER_REVERSE

Functionality

This BAdI allows extensions to the standard reversal functionality in eFLOW Control.

With the method GET_INSTANCE, you can reprogram the entire reversal logic by returning a new custom class with reversal logic.

With the method AFTER_REVERSE, you can add additional logic after document reversal.

There is also an example BAdI class implementation for Italian reversal logic enhancement.

Completion Handler: /TISA/BADI_FW_COMPLETION

Enhancement spot: /TISA/ES_FW_COMPLETION

Methods

- COLLECTION_BEFORE_EXEC
- COLLECTION_AFTER_EXEC
- COMBINATION_BEFORE_EXEC
- COMBINATION_AFTER_EXEC
- COMPLETION_BEFORE_EXEC
- COMPLETION_AFTER_EXEC
- COMPLETION_EXECUTION_LIST

Functionality

These BADI methods are called around completions in eFLOW. There are methods that are called before and after collection, combination and completion. Within these methods, you can change the result of each collection/combination/completion and the overall result of all of them. For more information on how completions are built, see [Completions](#).

Display AP document: /TISA/BAPI_AP_DISPLAY_DOCUMENT

Enhancement spot: /TISA/ES_AP_DISPLAY_DOCUMENT

Methods

- NORMALIZE_FOR_SCREEN
- PAI_USER_COMMAND

Functionality

These BAdI methods are called on document display.

NORMALIZE_FOR_SCREEN is related and controls image display in eFLOW.

PAI_USER_COMMAND is a Process After Input action, and the developer has access to document display details just after an action/function is executed on the document in eFLOW Control.

Document Creation General Logic: /TISA/BADI_FW_CREATE

Enhancement spot: /TISA/ES_FW_CREATE

Methods

- INIT_DATA
- DEFAULT_DATA
- AFTER_CREATION

Functionality

This is a generic BADI called on every document creation in eFLOW Control. It is called regardless of whether the document is sent from OCR, EDI, or any other source.

INIT_DATA is called just after the creation of a new document, before any data is mapped into document structures.

DEFAULT_DATA is called after external document data is mapped into the eFLOW Control document structures, but before completions and “eFLOW me” auto-processing logic is executed.

AFTER_CREATION is called after all completions, validations and “eFLOW me”/automatic processing – it is the final stage of new document creation.

Document Creation via EDI: /TISA/BADI_FW_CREATE_EDI

Enhancement spot: /TISA/ES_FW_CREATE_EDI

Methods

- BEFORE_CREATION

Functionality

This BADI is called on new document creation from EDI.

Document Creation via OCR: /TISA/BADI_FW_CREATE_OCR

Enhancement spot: /TISA/ES_FW_CREATE_OCR

Methods

- BEFORE_CREATION

Functionality

This BADI is called on new document creation from OCR, before data is mapped to eFLOW Control document structures.

Main controller: /TISA/BADI_FW_CTRL

Enhancement spot: /TISA/ES_FW_CTRL

Methods

- GET_HANDLER

Functionality

This BADI can be used to interact with every function call in eFLOW Control.

Message Handling: /TISA/BADI_FW_MESSAGE

Enhancement spot: /TISA/ES_FW_MESSAGE

Methods

- ADD

Functionality

This method is called whenever a message is added in eFLOW Control.

Relations: /TISA/BADI_FW_RELATIONS

Enhancement spot: /TISA/ES_FW_RELATIONS

Methods

- GET_RELATED_LINKS

Functionality

This method is called on SAP relations creation between business objects (such as after posting, when relations between eFLOW Control and the posted SAP FI and MM documents are built).

SAP synchronization: /TISA/BADI_AP_SAP_SYNC

Enhancement spot: /TISA/ES_AP_SAP_SYNC

Methods

- SYNC_DR
- SYNC_DR_SAP
- SYNC_FI
- SYNC_FI_SAP
- SYNC_MM
- SYNC_MM_SAP

Functionality

These methods are called on data synchronization/update of the eFLOW Control document from the related posted SAP document.

Tax Amount Calculation: /TISA/BADI_AP_TAX

Enhancement spot: /TISA/ES_AP_TAX

Methods

- MODIFY_CALL
- MODIFY_RESULT

Functionality

These methods called around the tax calculation logic.

Validation Handler: /TISA/BADI_FW_CHECK

Enhancement spot: /TISA/ES_FW_CHECK

Methods

- BEFORE_ALL_CHECK_EXEC
- BEFORE_CHECK_EXEC
- AFTER_CHECK_EXEC
- AFTER_ALL_CHECK_EXEC

Functionality

These methods are called around Check/Validation functionality in eFLOW Control. There are methods that are called before all checks and before each individual check, and methods that are called after each individual check and after all checks. Within these methods, you can change the result of each check and the overall result of all of them.

eFLOW Resolve settings

This section explains how to configure settings for eFLOW Resolve.

SAP system settings

Depending on how you use eFLOW Resolve, there are various settings that you must configure for each SAP system you use:

- If you use the eFLOW Resolve Web Application, you must specify the Web Application URL that connects to each SAP system.
- If you want to use an RFC user for automatic posting after the workflow is completed, you must specify the RFC user for each SAP system.
- If you use email approval, you must specify the email domains and email accounts to use. See [Email approval system setup](#) for more information.

To define a Web Application URL or a posting RFC user:

1. In the IMG, go to **eFLOW Resolve > SAP System Specific > Define system settings**.
2. Add a new entry.

3. Enter the **SAP System ID** and then the **Web Application URL** or the **Automatic Posting RFC Destination** user.
4. Click **Save** .

Web Application settings

You can customize the eFLOW Resolve Web Application by specifying, for example, which fields are displayed and where they are positioned on the screen.

The Web Application supports Single Sign On (SSO) with a MYSAPSSO2 cookie. When the user opens the browser, it is expected that the MYSAPSSO2 cookie is already set. If this cookie is not set, you can define a URL that redirects to another webpage, which triggers the standard SAP web logon process and redirects to the Web Application with a MYSAPSSO2 cookie. You can activate this redirect as a BSP page in the eFLOW Resolve configuration.

The Web Application also supports SSO with Windows authentication. No configuration is required, but the user's Windows domain user name must be exactly the same as the user's SAP user name.

Fields and layout

eFLOW Resolve provides a standard layout for the Web Application in the TIS Business Configuration sets, which you can change according to your requirements. You can also specify fixed values for specific fields.

Dialog Structure		Fields							
Fields		Screen	Table Name	Field Name	Web Application Section	No.	No Label	Medium Field Label	No Tool..
Fixed Values		Detail	/TISA/SAP_HEAD_	VENDORNO	HEADER_LEFT	3	<input type="checkbox"/>		<input type="checkbox"/>
		Detail	/TISA/SAP_ITEM		ITEMDATA		<input type="checkbox"/>	Invoice Items	<input type="checkbox"/>
		Detail	/TISA/SAP_ITEM	ITEM_AMOUNT	ITEMDATA	3	<input type="checkbox"/>		<input type="checkbox"/>
		Detail	/TISA/SAP_ITEM	ITEM_TEXT	ITEMDATA	6	<input type="checkbox"/>		<input type="checkbox"/>
		Detail	/TISA/SAP_ITEM	MATERIAL	ITEMDATA	7	<input type="checkbox"/>		<input type="checkbox"/>
		Detail	/TISA/SAP_ITEM	PO_ITEM	ITEMDATA	2	<input type="checkbox"/>		<input type="checkbox"/>
		Detail	/TISA/SAP_ITEM	PO_NUMBER	ITEMDATA	1	<input type="checkbox"/>		<input type="checkbox"/>
		Detail	/TISA/SAP_ITEM	PO_UNIT	ITEMDATA	5	<input type="checkbox"/>		<input type="checkbox"/>
		Detail	/TISA/SFW_HEAD_	FW_DOCNO	HEADER_RIGHT	1	<input type="checkbox"/>	eFLOW id	<input type="checkbox"/>
		Overview	/TISA/SAP_WORK_		HEADERDATA		<input type="checkbox"/>	Header Data	<input type="checkbox"/>
		Overview	/TISA/SAP_WORK_	CURRENCY	HEADERDATA	7	<input type="checkbox"/>	Currency	<input type="checkbox"/>
		Overview	/TISA/SAP_WORK_	DOC_DATE	HEADERDATA	2	<input type="checkbox"/>	Document Date	<input type="checkbox"/>
		Overview	/TISA/SAP_WORK_	FW_DOCNO	HEADERDATA	10	<input type="checkbox"/>	eFLOW ID	<input type="checkbox"/>
		Overview	/TISA/SAP_WORK_	FW_WF_STATE	HEADERDATA	1	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
		Overview	/TISA/SAP_WORK_	GROSS_AMOUNT	HEADERDATA	8	<input type="checkbox"/>	Gross amount	<input type="checkbox"/>
		Overview	/TISA/SAP_WORK_	INVOICE_IND	HEADERDATA	6	<input type="checkbox"/>	Invoice Indicator	<input type="checkbox"/>

1. In the IMG, go to **eFLOW Resolve > Web Application > Web Application Layout**.
2. Make changes to the table:
 - Add a field: Add a new entry and enter the [field settings](#). Fields can be eFLOW Control fields, standard SAP fields or custom fields. They must be included in the eFLOW Control structures.
 - Remove a field: Select the field and click the **Delete** button .
 - Change field properties: Edit the values in the appropriate columns.
 - Define a fixed value: Select the field and in the **Dialog Structure**, double-click **Fixed Values**. Add a new entry and enter a **Value** and **Description**. You can define multiple fixed values for a field. The fixed values are displayed in a dropdown list.
3. Click **Save** .

Field settings

Field	Description
Screen	<p>Detail: The field appears in the document detail.</p> <p>Overview: The field appears in the document list.</p>
Table Name	Name of the eFLOW Control table containing the field.
Field Name	Name of the field.
Web Application Section	<p>The part of the screen on which the field appears:</p> <ul style="list-style-type: none"> ■ HEADERDATA: Document list ■ ITEMDATA: Document detail invoice items area or account assignments area (depending on the selected table) ■ HEADER_LEFT: Left side of the document detail header area ■ HEADER_RIGHT: Right side of the document detail header area
No.	<p>Determines the position of the field:</p> <ul style="list-style-type: none"> ■ In the document list and document detail line items or account assignments area: The column in which the field appears, with 1 being the first column. ■ In the document detail header area: The vertical position of the field, with 1 being displayed at the top. Separate numbering is used for HEADER_LEFT and HEADER_RIGHT.
No Label	Suppresses display of the label, for example, for fields that display an icon, such as the workflow status.

Field	Description
Medium Field Label	Text displayed for the field. In the document list, these texts are displayed in the column headings.
No Tooltip	Suppresses display of the tooltip that appears by default when the mouse cursor hovers over the field label.
Short Text	Text displayed in the field's tooltip. If left blank, the short text of the field's data element is used.
Field Name	Enables you to display a text field together with the field value, for example, to display the vendor name as well as the vendor ID.
Output Length	Maximum display length for the field.

Single Sign On (SSO)

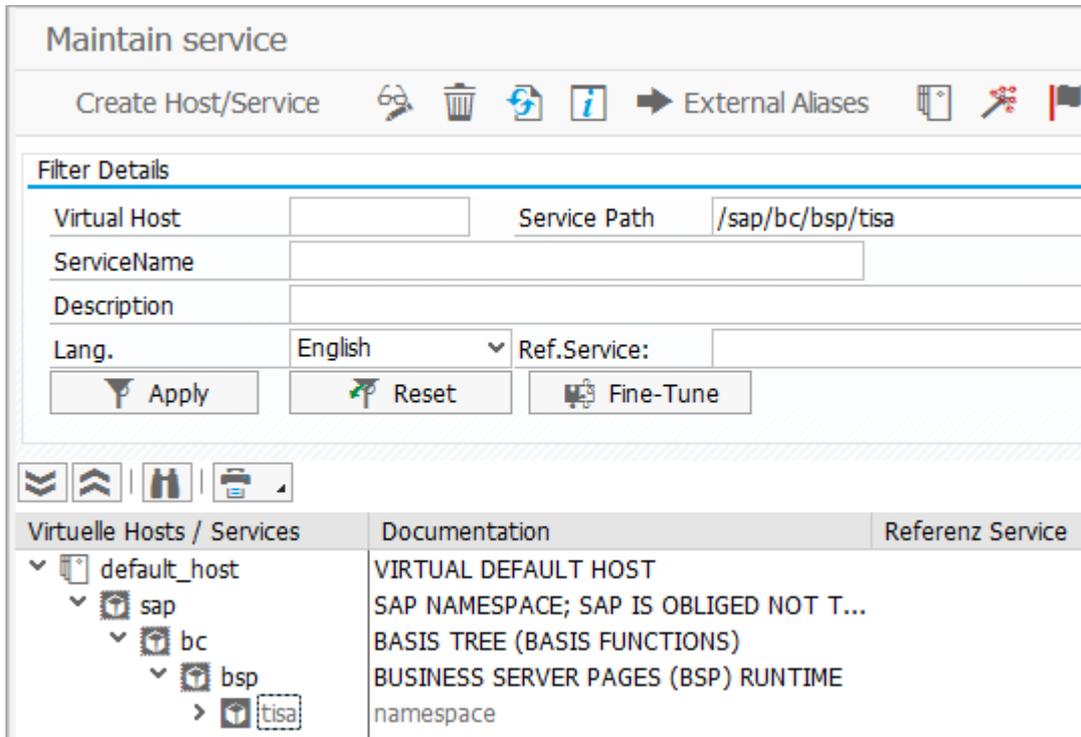
Note: This procedure is only necessary if you need to define a redirect URL for Single Sign On. Perform this procedure before deploying the Web Application.

The SAP system must be configured for SSO, specifically, the profile parameters *login/create_sso2_ticket* and *login/accept_sso2_ticket* in RZ11. See the [SAP documentation](#) for more information.

To activate SSO for the eFLOW Resolve Web Application:

1. Activate the **tisa** BSP service:
 - a. In transaction SICF, in the **Service Path** field, enter **/sap/bc/bsp/tisa**, then click the **Execute** button .

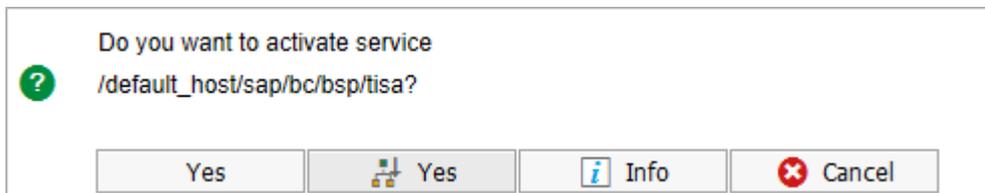
- b. In the **Virtual Hosts / Services** tree, right-click on **tisa** and select **Activate service**.



Filter Details	
Virtual Host	default_host
Service Path	/sap/bc/bsp/tisa
ServiceName	
Description	
Lang.	English
Ref.Service:	
<input type="button" value="Apply"/> <input type="button" value="Reset"/> <input type="button" value="Fine-Tune"/>	

Virtuelle Hosts / Services	Documentation	Referenz Service
<ul style="list-style-type: none"> default_host <ul style="list-style-type: none"> sap <ul style="list-style-type: none"> bc <ul style="list-style-type: none"> bsp <ul style="list-style-type: none"> tisa 	VIRTUAL DEFAULT HOST SAP NAMESPACE; SAP IS OBLIGED NOT T... BASIS TREE (BASIS FUNCTIONS) BUSINESS SERVER PAGES (BSP) RUNTIME namespace	

- c. When prompted to activate the service, click the second **Yes** button (the one with the icon).



Do you want to activate service
 /default_host/sap/bc/bsp/tisa?

2. In the IMG, under **eFLOW Resolve > SAP system specific > Define system settings**, make sure that you have defined the SAP system ID and Web Application URL (see [SAP system settings](#)).
3. In the IMG, go to **eFLOW Resolve > Web Application > Single Sign On (SSO) > Activate Single Sign On (SSO) login with redirect**.
4. Add a new entry.
5. Check the **Active** check box.
6. Click **Save** .
7. Specify the SSO URL when you install the Web Application:
 - a. In the IMG, go to **eFLOW Resolve > Web Application > Single Sign On (SSO) > Show Single Sign On (SSO) URL for Web Application** to determine the exact URL to enter:

Diagnosis

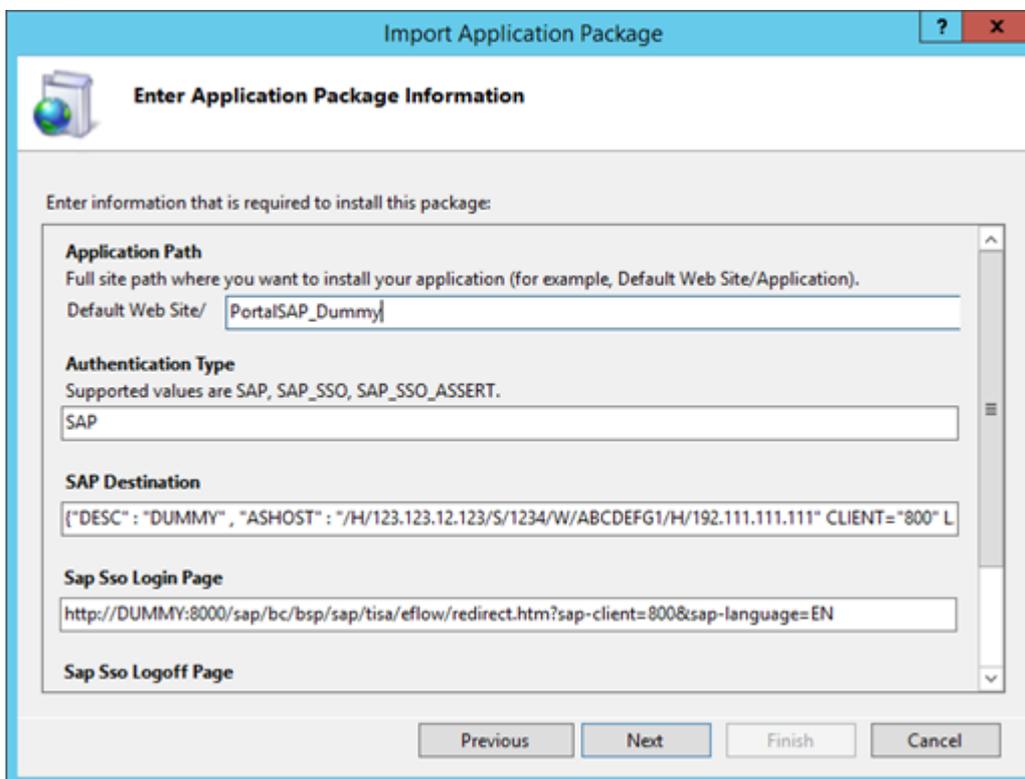
You want to login to eFLOW AP WebApp with Single Sign On (SSO) from SAP system.

Procedure

Please configure this URL in WebApp:

- <http://tq5.sap.tisa.io:8000/sap/bc/bsp/sap/tisa/eflow/redirect.htm?sap-client=800>

- b. In the Web Deploy **Import Application Package** dialog box, enter the URL in the **SAP SSO Login Page** field. See Web Application installation in the *eFLOW Installation and Setup Guide* for more information.



8. To test the SSO configuration, in the IMG, go to **eFLOW Resolve > Web Application > Single Sign On (SSO) > Test Single Sign On (SSO) with redirect**.

If you are not able to access the Web Application, go to **eFLOW Resolve > Web Application > Single Sign On (SSO) > Activate Single Sign On (SSO) login with redirect** and check the **Ticket** check box, then test the connection again.

Activating this check box creates an assertion ticket, which enables the user to log on to the Web Application just once. In this case, specify the authentication type **SAP_ASSERT** when deploying the Web Application. See the SAP documentation for more information on assertion tickets.

Configure Web Application attachments

To enable users to upload document attachments in the eFLOW Resolve Web Application, you must configure the type of files that may be uploaded. If you do not define any file types, uploading attachments is not possible.

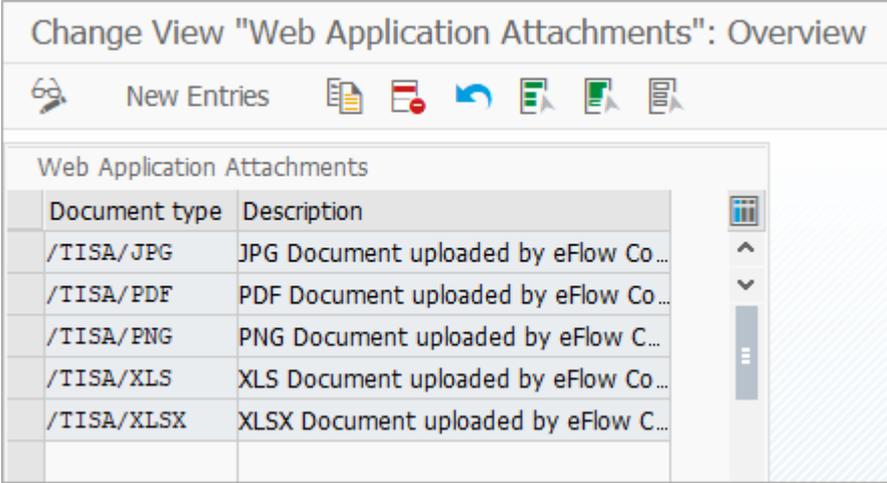
The following SAP notes are required:

- 0001451769: Enhancement in Archivelink file attributes in GOS scenario
- 0001560955: Part I: Additional Attributes for the GOS Attachment List
- 0001957962: Enhancement in ARCHIV_GET_CONNECTIONS in Archivelink

To configure attachments:

1. Go to transaction SM30.
2. Enter the **Table/View** name /TISA/VWF_WAT and click the **Maintain** button.
3. Add a new entry for each document type Web Application users should be able to upload.

These document types must have been defined in transaction OAC2 and linked to the appropriate business object types in transaction OAC3. See *Settings included in the BC sets in the eFLOW Control and Resolve Installation and Setup Guide* for information on the standard eFLOW Control and Resolve global document types.



Change View "Web Application Attachments": Overview	
Web Application Attachments	
Document type	Description
/TISA/JPG	JPG Document uploaded by eFlow Co...
/TISA/PDF	PDF Document uploaded by eFlow Co...
/TISA/PNG	PNG Document uploaded by eFlow C...
/TISA/XLS	XLS Document uploaded by eFlow Co...
/TISA/XLSX	XLSX Document uploaded by eFlow C...

4. Click **Save** .

Workflows

Users can send documents to workflows to obtain information, clarification or approval from other users. eFLOW Resolve provides standard workflows for typical business scenarios, and you can also create your own workflows.

Standard workflows

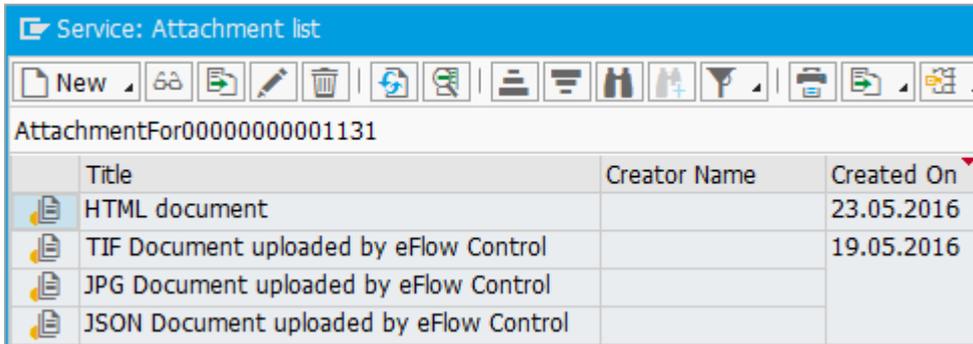
All standard workflows are configured for manual start, but you can configure them to start automatically when the corresponding business issue occurs. See [Define automatic workflows](#) for more information.

Workflow	Description
Ad hoc workflow AD_HOC	A single-task workflow that is activated for all documents and can be used for any purpose. Instructions for the task can be added in the workflow step settings.
Non-PO coding and approval FI_APP	A single-task workflow that is activated for unprocessed FI documents. The workflow processor adds account assignments and approves the workflow. The system attempts to automatically post the document after workflow approval.
Missing goods receipt workflow MM_NO_GR	A single-task workflow that is activated for unprocessed MM documents. The workflow requires resolution, so the workflow processor must enter a goods receipt or SES to be able to approve the workflow. The system attempts to automatically post the document after workflow approval.
Missing or wrong PO workflow MM_NO_PO	A single-task workflow that is activated for all unprocessed documents. The workflow processor adds the correct PO number and approves the workflow. The system attempts to automatically post the document after workflow approval.
Price mismatch workflow MM_PRICE	A single-task workflow that is activated for unprocessed MM documents. The workflow requires resolution, so the workflow processor must resolve the price difference between the invoice and the PO to be able to approve the workflow. The system attempts to automatically post the document after workflow approval.
Quantity mismatch workflow MM_QUANT	A single-task workflow that is activated for unprocessed MM documents. The workflow requires resolution, so the workflow processor must resolve the quantity difference between the invoice and the PO to be able to approve the workflow. The system attempts to automatically post the document after workflow approval.

Workflow	Description
Vendor maintenance workflow NO_VEND	A single-task workflow that is activated for all unprocessed documents. The workflow processor enters the correct vendor number and approves the workflow.

Workflow audit trail

The workflow audit trail provides information about all workflows a document was sent to. It is created when a document is posted to SAP and is available as an attachment in eFLOW Control and Resolve and in SAP via the **Services for Object** button. A standard eFLOW Control global document type entitled **HTML document** and a standard stylesheet are used to create the workflow audit trail, but you can also use your own document type, for example, if you wish to see a different description in the attachment list.



Service: Attachment list			
AttachmentFor00000000001131			
	Title	Creator Name	Created On
	HTML document		23.05.2016
	TIF Document uploaded by eFlow Control		19.05.2016
	JPG Document uploaded by eFlow Control		
	JSON Document uploaded by eFlow Control		

1. In transaction OAC2, create a new document type. It must have the document class **HTM**.
2. In the IMG, go to **eFLOW Resolve > Customize audit trail**.
3. In the **Document type** field, enter your document type.
4. Click **Save** .

Workflow tasks

A workflow consists of one or more tasks that must be performed by the workflow processors. Creating tasks independently of a specific workflow enables you to use the same task in different workflows.

Create a workflow task

1. In the IMG, go to **eFLOW Resolve > Define workflow task**.
2. Add a new entry.
3. Enter a **Task ID** and **Task Description**.
4. Enter any other required settings.
5. Click **Save** .

Workflow task settings

Setting	Description
Task instructions	<p>Documentation object containing text that will be displayed to workflow processors to assist them in processing the workflow.</p> <p>The following standard documentation objects are provided for task instructions:</p> <ul style="list-style-type: none"> ■ /TISA/AP_WF_TASK_APPR: Instructions for the standard FI completion and approval workflow. ■ /TISA/AP_WF_TASK_PRICE: Instructions for the standard Price difference workflow. ■ /TISA/AP_WF_TASK_QUANTITY: Instructions for the standard Quantity difference workflow. ■ /TISA/AP_WF_TASK_VENDOR: Instructions for the standard Missing vendor workflow. <p>See Workflows for more information on standard workflows.</p>
Field status	<p>Specifies the field access rules for the document during the workflow task, such as whether users can view and edit specific fields, or whether they are required to enter a value. For more information on field statuses and how to create them, see Define field status.</p> <p>Make sure that you also activate the validation Check document against field status. See Validations for more information.</p>

Setting	Description
Task type	<p>Specifies the type of task:</p> <p>Manual: The task must be processed by a user. This is the default setting if you do not make a selection in this field.</p> <p>Automatic: The task is not processed by a user, but runs logic to determine the processing of subsequent tasks. For example, you may want to send the subsequent task to different processors depending on the value of the invoice. You specify the class containing the logic in the Automatic task field.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Note: An automatic task cannot be the first task in a workflow.</p> </div> <p>Parallel: The tasks has two or more subtasks that are processed at the same time. For example, you may have different workflow tasks for processing price mismatches and quantity mismatches. These tasks can be processed in parallel instead of one after the other. You configure the subtasks in the workflow process flow (see Define workflow subtasks).</p>
Automatic task	<p>Class containing logic for automatic tasks. See Task type above. Currently, the following standard class is provided:</p> <p>/TISA/CL_AP_WF_AUTO_PROC_PAYBK: Removes the payment block in the document after the workflow is approved.</p>
Multi. Recipients	<p>Specifies which users must process the workflow task if multiple recipients are assigned: only one of the users, or all users.</p> <p>Select One user per recipient must take action if user groups, SAP roles or SAP Organizational Plan elements are assigned as workflow processors and only one processor must take action.</p>
Email Approval	<p>Activates email approval for the workflow task.</p>
Positive Action Negative Action	<p>Text for the links or buttons for positive actions (for example, approval or release) and negative actions (for example, rejection) in the email approval email.</p>
Reminders/Escalation	<p>Specifies reminders and escalation rules for the workflow task.</p> <p>Reminder email notifications are sent to workflow processors if they have not taken action on the task after a specified number of days.</p>

Setting	Description
	<p>Escalation email notifications are sent to a workflow processor's manager if the processor still has not taken action on the task after receiving a specified number of reminder emails. The escalation function uses the SAP HR hierarchy to determine the workflow processor's manager. If you do not wish to use the HR hierarchy, you can define customized rules for escalation using the Workflow user hierarchy BAdI /TISA/ES_WF_APPR_HIER.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Note: To send out email notifications for reminders and escalations, you must schedule the /TISA/WF_OVERDUE program to run at regular intervals.</p> </div> <p>Duration: Number of days within which the workflow task must be processed. If the processor has not taken any action after this number of days, the system sends an email reminder to the processor.</p> <p>Repeat Interval: Number of days after which further reminder emails are sent. For example, if you enter 2 in this field, reminder emails are sent to the processor every two days.</p> <p>Escalation Start: Number of reminders after which to start escalation. For example, if you enter 3 in this field, email notifications are sent to another user (such as the workflow processor's supervisor) after three reminder mails have been sent to the workflow processor and no action has been taken.</p> <p>The new user becomes the workflow processor and is now responsible for processing the workflow task. Reminder emails are sent to this user instead of the original processor.</p> <p>Escalation Levels: You can define different levels of escalation. If a workflow task is escalated and the new processor does not take action after the specified number of reminders, an email notification is sent to another user; this is the second level of escalation.</p> <p>For example, if you enter 1 in the Escalation Levels field, escalation emails are sent only to the user specified for the first escalation level. If you enter 2, emails are sent to the first escalation level, and then to the second escalation level.</p>
Require Note	<p>Requires the user to enter a note before carrying out a specific workflow action:</p> <ul style="list-style-type: none"> Approval Rejection Forward Inquiry Send Inquiry Answer

Define workflow checks

You can define checks that run when a specific workflow action, such as approval or rejection, is performed for a workflow task. If the checks fail, the workflow action cannot be performed until the problem is resolved.

1. In the IMG, go to **eFLOW Resolve > Define workflow task**.
2. Select the task and in the **Dialog Structure**, double-click **Workflow checks**.
3. Add a new entry.
4. Select a **Command** to specify when the check should run. If you leave this field empty, the check runs when the workflow task is approved.
5. In the **Validation ID** field, select the check to run. See [Standard validations](#) for information on the available checks.
6. Click the **Parameters** button  to define parameters (if available).
7. Click **Save** .

Assign default recipients

You can assign users as recipients of a workflow task. These recipients are available for assignment in the workflow task recipients list search help. This enables you to limit the list of possible recipients to specific users. You can also define users as “default” recipients. Default recipients are automatically assigned to the workflow task and appear in the recipients list.

The recipient assignment can be field-dependent. For example, you can assign different recipients for different company codes or vendors.

You can:

- Assign specific users, user groups, or SAP roles.
- Assign organizational units, positions or jobs that are defined in the SAP Organizational Plan (transaction PPOMW).
- Use classes to automatically determine the recipients. eFLOW Resolve provides the following standard classes for automatic recipient determination from the document data or the master data:

Note: You can also use transaction `/n/tisa/wf_rac` to configure automatic recipient determination for specific costs objects or vendors. See [Maintain recipients for cost objects and vendors](#).

Class	Description
/TISA/CL_WF_REC_CONTACT	Recipient determination invoice contact
/TISA/CL_WF_REC_COST_CTR	Recipient determination cost center responsible user

Class	Description
/TISA/CL_WF_REC_GR_RECIPIENT	Recipient determination GR recipient
/TISA/CL_WF_REC_HR_SUPERVISOR	Recipient determination HR supervisor
/TISA/CL_WF_REC_ORDER	Recipient determination Order responsible user
/TISA/CL_WF_REC_PO_CREATOR	Recipient determination PO creator
/TISA/CL_WF_REC_PO_REQUEST	Recipient determination PO requisitioner
/TISA/CL_WF_REC_PR_CREATOR	Recipient determination purchase requisition creator
/TISA/CL_WF_REC_PROFIT_CTR	Recipient determination Profit Center responsible user
/TISA/CL_WF_REC_PURCH_GROUP	Recipient determination purchasing group user
/TISA/CL_WF_REC_WBS_ELEM	Recipient determination WBS Element responsible user

To assign default recipients:

1. In the IMG, go to **eFLOW Resolve > Define workflow task**.
2. Select the task and in the **Dialog Structure**, double-click **Default Recipient Fields**.
3. Add a new entry.
4. Select the document type **Accounts Payable** and then enter the fields to use for recipient assignment.
5. Select an option in the **Dialog** field:
 - **No dialog:** The workflow processor cannot change the recipient assignment. No recipient assignment list is presented and the workflow task is automatically sent to the default recipients.
 - **Determined recipients only:** The workflow processor can change the recipient assignment, but can only assign predefined users as a recipient.
 - **Any recipients:** The workflow processor can change the recipient assignment, and can assign any user as a recipient.
6. Select the entry and in the **Dialog Structure**, double-click **Default Recipients**.
7. Add a new entry.
8. Enter the field values and the corresponding recipients. Select either a **Class/Interface** or a **Type** of recipient. Check the **Default recipient** check box to automatically assign a recipient to the workflow task.
9. Click **Save** .

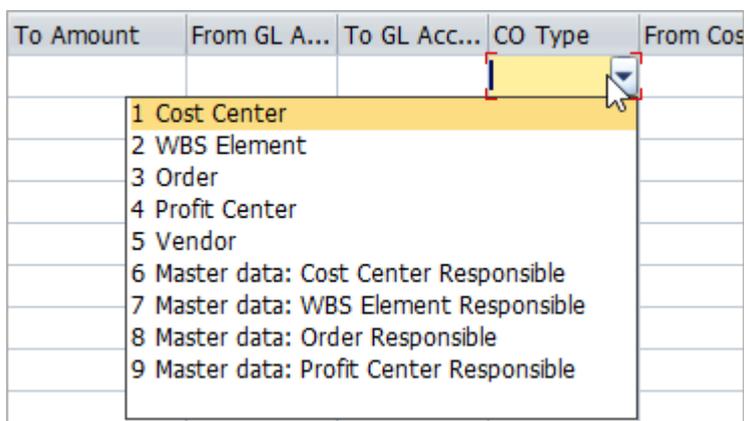
Maintain recipients for cost objects and vendors

Workflow recipients of documents related to specific cost centers, profit centers, orders and WBS elements can be determined automatically from the master data, or you can maintain these recipients manually. You can also maintain workflow recipients for documents from specific vendors. This feature requires activation of a BAAdI implementation.

1. Go to transaction `/n/tisa/wf_rac`.
2. Add a new entry.
3. (Optional) Fill in the appropriate fields to restrict the settings. If you leave a field blank, the settings apply for all (for example, for all company codes or all workflows).

Field	Description
CoCd	Restrict the settings to a specific company code.
Workflow ID	Restrict the settings to a specific workflow.
WF Task ID	Restrict the settings to a specific workflow task.
Crcy	Restrict the settings to a specific currency.
From Amount To Amount	Restrict the settings to a specific gross amount value or value range.
From GL Account To GL Account	Restrict the settings to a specific GL account or range of GL accounts.

4. In the **CO Type** field, select the appropriate entry:



- Entries 1-5 enable you to manually define recipients for specific cost objects or vendors, or for a range of cost objects or vendors. In the **From Cost Object** and/or the **To Cost Object** field, enter the cost object(s) or vendor(s), then select a user **Type** and enter the **Recipient ID**.
 - Entries 6-9 determine the recipients automatically from the master data. Leave the **From Cost Object**, **To Cost Object**, **Type** and **Recipient ID** fields blank.
5. Select an option in the **Dialog** field:
 - **No dialog**: The workflow processor cannot change the recipient assignment. No recipient assignment list is presented and the workflow task is automatically sent to the default recipients.
 - **Determined recipients only**: The workflow processor can change the recipient assignment, but can only assign predefined users as a recipient.
 - **Any recipients**: The workflow processor can change the recipient assignment, and can assign any user as a recipient.
 6. Click **Save** .
 7. In the IMG, go to **eFLOW Resolve > Customer extensions / BAdIs > BAdI workflow task recipient**.
 8. In the **BAdI Implementations** dialog box, check the **Active(IMG)** check box for the **/TISA/CL_WF_BADI_TASK_REC_RAC** implementation.
 9. Select a workbench request.
 10. Click the **Finished** button .

Assign workflow task email templates

eFLOW Resolve automatically sends email notifications to workflow recipients. Notifications can be sent as individual emails, or multiple notifications can be included in a single email. eFLOW Resolve provides standard templates for the email texts, which you can use as they are or adapt to your needs. You use the standard SAP transaction SE61 to define email templates.

You can define general workflow templates, or templates specific to a workflow task. If no workflow task template is assigned, the corresponding general template is used.

See [Email templates](#) and [Workflow template settings](#) for more information.

Workflow processes

To create a workflow, you first [create workflow tasks](#), then create a workflow process and assign tasks to the process to define the flow.

Create a workflow process

1. In the IMG, go to **eFLOW Resolve > Define workflow process**.
2. Add a new entry.
3. Enter a **Workflow ID** and **Description**.
4. Enter the **Task ID** of the first task in the workflow.

5. Enter any other required settings.

6. Click **Save** .

Workflow process settings

Setting	Description
Priority	<p>Workflows with the highest priority appear at the top of the workflow selection list. This setting is also used by automatic workflow starts to determine which workflow to start first if the document has multiple issues.</p> <p>For example, if you have a workflow for a price mismatch and a workflow for a quantity mismatch, the priority setting determines which of these workflows starts first if the document has both a price mismatch and a quantity mismatch.</p>
Automatic posting	Automatically posts the document when the entire workflow is approved, provided the document is error-free.
Duration (Days)	Maximum number of days allowed to process the workflow. If the workflow is not completed after this number of days, email notifications are sent to the workflow recipients.
Activation	<p>Enables you to specify the availability of the workflow:</p> <ul style="list-style-type: none"> ■ All documents: The workflow is available for all documents. ■ Processed documents: The workflow is only available for documents that have already been processed (for example, posted to SAP). ■ Unprocessed documents: The workflow is only available for documents that have not yet been processed (for example, not yet posted to SAP). ■ Processed - with further activation: The workflow is only available for documents that have already been processed and that fulfill the specified activation criteria. ■ Unprocessed - with further activation: The workflow is only available for documents that have not yet been processed and that fulfill the specified activation criteria. ■ Based on activation configuration: The workflow is available for all processed and unprocessed documents that fulfill the specified activation criteria. <p>See Define workflow activation for more information on activation.</p>

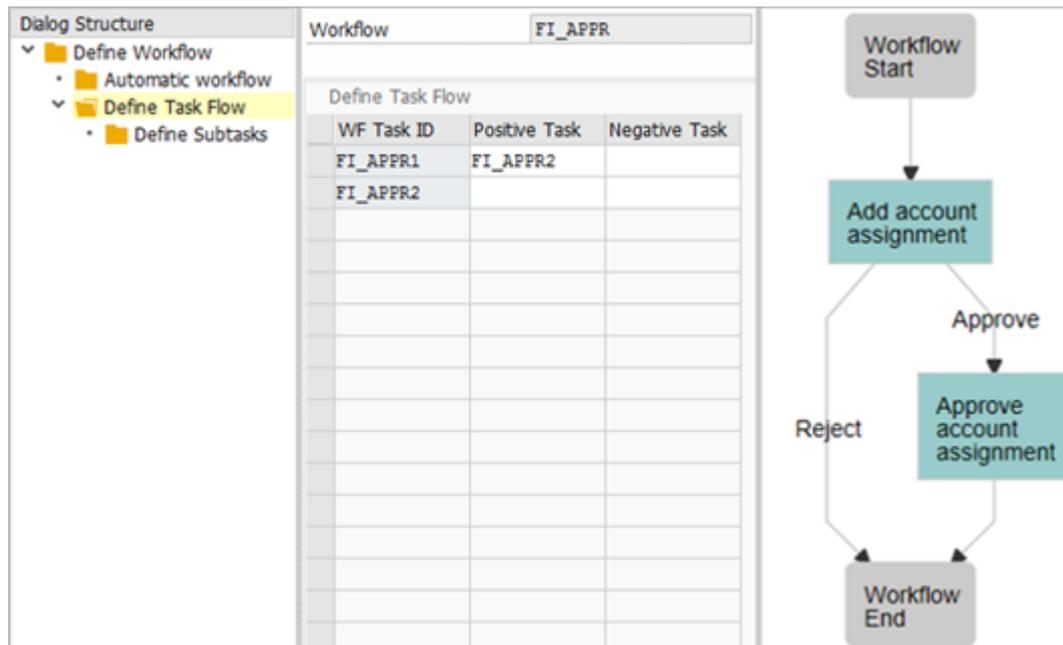
Define the task flow

1. In the **Define Workflow** screen, select the workflow process and double-click **Define Task Flow**.

2. Add a new entry.
3. In the **WF Task ID** field, enter the first task of the workflow and save.

The workflow is visualized on the right of the screen.

You can now add tasks to follow the first workflow task, if required. You can send the document to different subsequent workflow tasks depending on whether the user's response to the task is positive (for example, approval) or negative (for example, rejection).



4. For each task, add a new entry and enter the task in the **WF Task ID** field.
5. For each task except the last, enter a following task in the **Positive Task** field or the **Negative Task** field, or in both, depending on the requirements of the workflow.
6. Click **Save** .

Define workflow subtasks

Subtasks are used in parallel workflows, when you want two or more workflow tasks to be performed at the same time instead of one after another.

1. Create the workflow tasks. For the "parent" task, in the workflow task settings, set the **Task Type** to **Parallel**.
2. Create the workflow process and define the task flow.
3. Select the workflow and in the **Dialog Structure**, double-click **Define Task Flow**.
4. Select the task flow and in the **Dialog Structure**, double-click **Define Subtasks**.
5. Add the tasks to be processed in parallel.
6. Click **Save** .

Define automatic workflows

You can configure a workflow to start or stop automatically when specific errors occur. You can also specify whether errors must be resolved before the document can be posted. Automatic workflows are based on the business issues that you define. See [Set business issues](#) for more information.

1. In the **Define Workflow** screen, select the workflow process and double-click **Automatic workflow**.
2. Add a new entry.
3. Select a business issue , then select the appropriate setting.
4. Click **Save** .

Automatic workflow settings

Setting	Description
Auto Start	Starts the workflow automatically when the business issue occurs. Note: You must assign default recipients to the first workflow task.
Auto Stop	Cancels the workflow automatically when the business issue no longer occurs. For example, a workflow sent out due to a missing goods receipt is automatically canceled when a goods receipt is posted in the system.
Approval	Changes error messages related to the specified business issue to warning messages on workflow approval. This makes it possible to post the document after approval, provided no other business issues are present that prevent posting. For example, you may want to allow posting of documents with a price or quantity mismatch on workflow approval, even if the mismatch is not resolved.
Resolution	Specifies that the business issue must be resolved during the workflow, otherwise final approval and posting is not possible.

Define workflow activation

You can restrict the availability of a workflow based on specific values. In the [workflow settings](#), you can activate the workflow for all documents, processed documents only, or unprocessed documents only. In addition, you can activate the workflow based on specific field values. For example, if you activate a workflow for non-PO invoices only, the workflow is not available for other document types. Or you may activate a workflow to resolve a price mismatch for PO invoices only.

1. In the IMG, go to **eFLOW Resolve > Define workflow process**.
2. Select the workflow and in the **Dialog Structure**, double-click **Define Activation**.
3. Add a new entry.

4. Select the document type **Accounts Payable** and then enter the fields to use for workflow activation. You can specify up to five fields. The following example enables you to activate the workflow by AP document type, company code, and currency.

Define Activation					
Document type	Field Name				
Accounts Pay... ▾	AP_DOCTYPE	COMP_CODE	CURRENCY		

5. Click **Save** .
6. Select the new entry, then in the **Dialog Structure**, double-click **Activate Workflow**.
7. Add a new entry.
8. In each **Description** field, select the values to apply. The following example limits the workflow to PO invoices for company code 1000 with Euro as the currency.

Activate Workflow		
Description	Description	Description
MM	1000	EUR

9. In the **Dialog Structure**, double-click **Define Workflow**.
10. In the **Activation** list, select one of the following options:
 - **Processed - with further activation:** The workflow is only available for documents that have already been processed and that fulfill the specified activation criteria.
 - **Unprocessed - with further activation:** The workflow is only available for documents that have not yet been processed and that fulfill the specified activation criteria.
 - **Based on activation configuration:** The workflow is available for all processed and unprocessed documents that fulfill the specified activation criteria.
11. Click **Save** .

Email templates

eFLOW Resolve automatically sends email notifications to workflow recipients. Notifications can be sent as individual emails, or multiple notifications can be included in a single email. eFLOW Resolve provides standard templates for the email texts, which you can use as they are or adapt to your needs. You use the standard SAP transaction SE61 to define email templates.

You can define general workflow templates, or templates specific to a workflow task. If no workflow task template is assigned, the corresponding general template is used.

Dispatch of reminder and escalation emails for overdue workflows is controlled by the program /TISA/WF_OVERDUE.

Dispatch of grouped email notifications is controlled by the program /TISA/WF_PROC_NOTIFY.

Standard email templates

eFLOW Resolve provides the following standard email templates.

Documentation object	Use
/TISA/AP_WF_START_TASK	Email text sent to assigned recipients when a workflow is started.
/TISA/AP_WF_TASK_APPR	Task instructions for an invoice approval workflow.
/TISA/AP_WF_TASK_PRICE	Task instructions for a price deviation workflow.
/TISA/AP_WF_TASK_QUANTITY	Task instructions for a quantity deviation workflow.
/TISA/AP_WF_TASK_VENDOR	Task instructions for a vendor maintenance workflow.
/TISA/AP_WF_EMAIL_APPR	Email text for an email approval workflow.
/TISA/AP_WF_EMAIL_APPR_ERROR	Email text sent to the user when email approval fails.
/TISA/AP_WF_EMAIL_APPR_SUCCESS	Email text sent to the user when email approval succeeds.
/TISA/WF_ESCALATION	Email text sent to a recipient when a workflow step is escalated. See Workflow task settings for information on escalation.
/TISA/WF_INQUIRY_ANSWER	Email text sent to the sender of an inquiry when the inquiry is answered.
/TISA/AP_WF_INQUIRY_SENT	Email text sent to the recipient of a workflow inquiry.
/TISA/WF_REMIND	Email text sent to workflow processors when the workflow or workflow task is overdue.

Documentation object	Use
/TISA/WF_SAP_GUI_LINK	Used to create an email attachment that links to the SAP GUI. See the Link to SAP GUI workflow template setting for more information.
/TISA/AP_WF_START	Email text sent to the recipient of a workflow task.
/TISA/FW_CSS	Cascading stylesheet used for all email texts.
/TISA/WF_CSS_AUDIT_TRAIL	Cascading stylesheet used for the workflow audit trail.

Assign general email templates

1. In the IMG, go to **eFLOW Resolve > Define global email templates**.
2. Add a new entry.
3. Select the **Command** for which the template applies.
4. Select the **Template** to use and enter text for the **Subject** line of the email.
5. Enter any other required settings.
6. Click **Save** .

Workflow template settings

Setting	Description
Command	When to send an email notification. See General workflow template commands .
Email sender	User name of the user whose email address appears as the sender of the email.
No email	Deactivates email notifications for the selected command.
Grouping	Determines whether individual emails are sent, or whether multiple notifications are included in a single email. Single notification: An email is sent for each occurrence. Group same task: All notifications for a specific workflow task are included in a single email.

Setting	Description
	<p>Group same recipient: All notifications for a specific recipient are included in a single email. If a group is assigned as a recipient, each member of the group receives an email, which includes notifications for documents sent to the group as well as for documents sent to the individual user.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Note: If you select Group same task or Group same recipient, you must schedule the program /TISA/WF_PROC_NOTIFY to run at regular intervals.</p> </div> <div style="border: 1px solid orange; padding: 5px; margin: 10px 0;"> <p>Important: Links for approval and rejection are not included in grouped notifications. If you select Group same task or Group same recipient for the Initial workflow notification command, and some of your tasks are configured for email approval, you must configure task-specific templates for the email approval tasks and set the Grouping option to Single notification for those tasks. See Assign workflow task email templates for more information.</p> </div>
Email subject	Text that appears in the subject line of the email.
Email template	Documentation object to use for the text of the email.
Link to SAP GUI	<p>Check this checkbox to include a link to the SAP GUI as an attachment to the email. You must also specify the documentation object to use for the attachment. The default is /TISA/WF_SAP_GUI_LINK.</p> <p>When the user opens the attachment, the SAP GUI logon dialog box opens. After the user logs on, the eFLOW Control document is displayed for the user to process.</p>
Attach log	Attaches a PDF of the workflow audit trail to the email.
Attach image	Attaches the original invoice image to the email.
Attach doc	Attaches a rendered version of the image as a PDF file.
Rendered document Smart Form	Name of the Smart Form used to create the rendered image. A standard Smart Form, /TISA/SF_AP_DATA is provided.

General workflow template commands

* Entries for commands marked with an asterisk are delivered with the TIS Business Configuration sets.

Command	Description
Notify next recipient after task approval	When a workflow task is approved, an email notification is sent to the recipient of the next task in the workflow.
* Escalation notification to superior	When the workflow task is overdue and the workflow processor has not taken action, an email notification is sent to the user defined for the first escalation level. For more information on escalation, see Workflow task settings .
* Notify new recipient about forward	When a workflow processor forwards a workflow task to another user, an email notification is sent to that user.
Multiple documents in one task	A single email containing notifications for all documents for a specific workflow task is sent to the assigned recipient. For example, the email lists all documents sent to the processor in a price mismatch workflow.
Multiple documents to one user	A single email containing notifications for all workflow tasks for a specific user is sent to the assigned recipient. For example, the email lists all price mismatch, quantity mismatch and missing goods receipt workflow tasks sent to the processor.
* Notify inquiry originator about answer	When a user answers an inquiry, an email notification is sent to the workflow processor who sent the inquiry.
* Notify recipient about new inquiry	When a user receives an inquiry from a workflow processor, an email notification is sent to that user.
Rejection to previous recipient	When a workflow task is rejected, the recipient of the previous task receives an email notification.
* Reminder notification	When a workflow task or the entire workflow is overdue, an email notification is sent to the workflow processor.
* Initial workflow notification	When a user is assigned to a workflow task, an email notification is sent to that user.

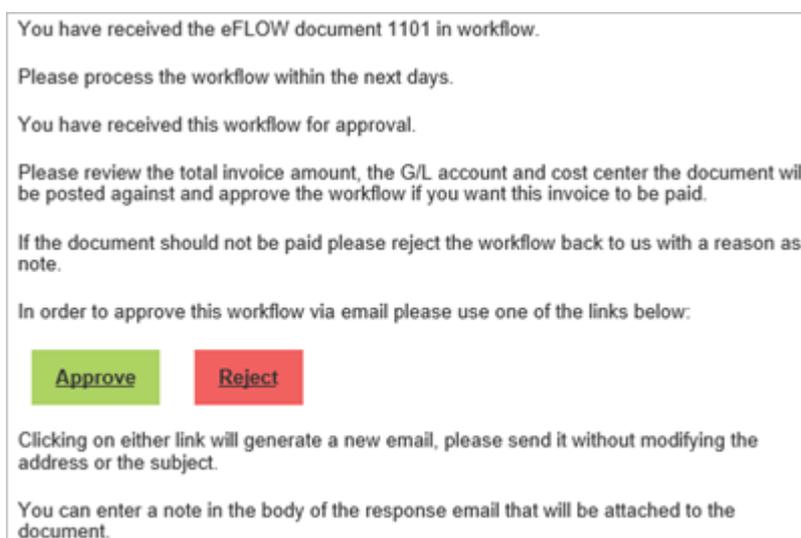
Assign workflow task email templates

1. In the IMG, go to **eFLOW Resolve > Define workflow task**.

2. Select the workflow task and in the **Dialog Structure**, double-click **Email templates**.
3. Enter the required [settings](#).
4. Click **Save** .

Email approval

Users can approve documents directly from the email that is sent to them when they are assigned to a workflow task. The email contains links that the user can click to approve or reject the document. You can specify the text to display in these links in the [workflow task settings](#). After the user clicks one of these links, a response email is sent to inform the user whether the action was successful or not.



You must activate email approval in general, and also configure the workflow task to allow email approval.

Important: Email approval emails must be sent as single notifications. Links for approval and rejection are not included in grouped notifications. See [Email templates](#) for information on grouped notifications.

System setup

You must configure the domains that may be used for email approval, and for each SAP system you use, define the email account that sends the email notifications to users when they are assigned to a workflow task..

1. In the IMG, go to **eFLOW Resolve > Email Approval > Authorize email domains**.
2. Add a new entry.
3. Enter the domain names and click **Save** .
4. Go to **eFLOW Resolve > Email Approval > Define system email account**.

5. For each SAP system, add a new entry and enter the **SAP System ID** and the **Email** address.
6. Click **Save** .

You must also set up an email account on your email server that will receive an email from users when they approve or reject the workflow from their email. This email account is simply a technical account that is required to communicate the user's action to eFLOW Control.

Note: SAP must be correctly configured to receive incoming emails. See the SAP documentation for more information.

1. Set up a dedicated email account on your email server to receive the users' response emails.
2. In the SAP transaction SCOT, select the menu item **Settings > Inbound Processing**.
3. In change mode, add a new row .
4. In the **Communication Type** field, select **Internet Mail**.
5. In the **Recipient Address** field, enter the email address of the account you created in step 1.
6. Enter the following information in the remaining fields:
 - **Document Class:** *
 - **Exit Name:** /TISA/CL_WF_CTRL_IN_EMAIL
 - **Call Sequence:** 1
7. Add another row with the same communication type, recipient address and exit name. Enter the following information in the remaining fields:
 - **Document Type:** HTM
 - **Call Sequence:** 2.

Exit Rules for Inbound Processing (Maintenance Mode)					
					
Communication T...	Recipient Address	Docu...	Exit Name	Call ...	
Internet Mail	 approval_TQ5@contserv.sap.tisa.io	*	/TISA/CL_WF_CTRL_IN_EMAIL	1	
Internet Mail	 approval_TQ5@contserv.sap.tisa.io	HTM	/TISA/CL_WF_CTRL_IN_EMAIL	2	

8. Click **Save** .

Activate email approval

1. In the IMG, go to **eFLOW Resolve > Email Approval > Activate Email Approval**.
2. Enter the settings.
3. Click **Save** .

Email approval settings

Setting	Description
Email Approval	Activates or deactivates email approval in general.
HTML Template	Template for the approval email sent to the workflow processor. A standard template, /TISA/WF_EMAIL_APPR, is provided, which contains the variables &EA_APPR& and &EA_RJCT&. These variables are replaced in the email with links that the user can click to approve or reject the document.
Email Subject	The subject of the email sent to the workflow processor to inform them whether the action they took was successful or failed.
Success notification Error notification	Templates containing the text of the email sent to the workflow processor to inform them that the action they took was successful or failed.

Activate a workflow task for email approval

1. In the IMG, go to **eFLOW Resolve > Define workflow task..**
2. Select the task and click the **Details** button .
3. In change mode, select the **Email Approval** check box.
4. Enter text for the **Positive Action** (for example, **Approve**) and the **Negative Action** (for example, **Reject**). These texts appear in the links in the email that the user can click to approve or reject the document.
5. Click **Save** .

Deactivate automatic responses

For specific messages you can deactivate the automatic email response that eFLOW Control sends to users when they approve or reject the workflow.

1. In the IMG, go to **eFLOW Resolve > Email Approval > Deactivate automatic responses.**
2. Add a new entry.
3. Select the message class and the message.
4. Click **Save** .

User management

You can create users who access eFLOW Resolve through the Web Application only, and manage substitutes for these users.

You can also create user groups that can be assigned to workflow tasks instead of individual workflow recipients. Depending on the [workflow task settings](#), all or only one of the user group users must process the workflow task.

Create Web Application users

1. In the IMG, go to **eFLOW Resolve > User Management > Maintain Web Application users**.
2. Enter a **User ID** and click the **Create** button .
3. Enter **Address** and **Logon Data** details.
4. Click **Save** .

Manage substitutes

1. In the IMG, go to **eFLOW Resolve > User Management > Maintain substitutes globally**.
2. Enter the **User ID** and click the **Change** button .
3. Enter **Recipient IDs** in the appropriate tab:
 - **Substitutes:** Users who act as substitutes for this user.
 - **Substituting for:** Users for whom this user acts as a substitute.
4. Enter a **Start date** and **End date**.
5. Check the **Active** check box to define the substitute as an active substitute. If you clear this check box, the user is a passive substitute.

Active substitutes are intended for planned absences, such as vacation. Passive substitutes are intended for unplanned absences, such as sickness. See the *eFLOW Resolve User Guide* for more information.

6. Click **Save** .

Create user groups

1. In the IMG, go to **eFLOW Resolve > User Management > Maintain workflow user groups**.
2. Add a new entry.
3. Enter a name and description for the user group, and optionally an email address to which email notifications will be sent.
4. Select the entry and in the **Dialog Structure**, double-click **Assign Members**.
5. Add a new entry.
6. In the **Type** field, select the type of recipient to assign to the group and enter the recipient ID. You can assign individual users, other user groups, SAP roles or organizational units, positions or jobs that are defined in the SAP Organizational Plan (transaction PPOMW).
7. Add new entries for the remaining recipients of the group.

8. Click **Save** .

Customer Extensions/BAdIs eFLOW Resolve BAdIs

eFLOW Resolve provides BAdIs to enable you to add custom coding for workflow processing. See the SAP documentation for information on implementing BAdIs.

Workflow handling: /TISA/BADI_WF

Enhancement spot: /TISA/ES_WF

Methods

- GET_POSSIBLE_WORKFLOWS
- CREATE_NEW_FOR_AUTO_START

Functionality

This is a general BADI for workflow availability and automatic workflow start.

In GET_POSSIBLE_WORKFLOWS, you can limit the list of available workflows that can be started for the selected eFLOW document.

In CREATE_NEW_FOR_AUTO_START, you can control whether the workflow should be started automatically for a document.

Workflow task process: /TISA/BADI_WF_TASK_PRC

Enhancement spot: /TISA/ES_WF_TASK

Methods

- PROCESS_AFTER_START
- PROCESS_AT_ACTION
- PROCESS_AFTER_DONE

Functionality

These methods are used to execute custom logic on several events that occur during workflow task processing, such as after workflow start, on a specific workflow action (for example, approval, rejection, forward), or after approval of the entire workflow.

Workflow task flow: /TISA/BADI_WF_TASK_FLW

Enhancement spot: /TISA/ES_WF_TASK

Methods

- FLOW_EXCLUDE_TASK

Functionality

This BADI method can be used to skip execution of a workflow task.

For example, you may have a three task workflow with triggering thresholds for task number 3. If the invoice amount is below the threshold, you can skip the last task using this method. In such a case, the workflow will end successfully after approval of the second task.

Workflow task recipient: /TISA/BADI_WF_TASK_REC

Enhancement spot: /TISA/ES_WF_TASK

Methods

- RECIPIENT_DEFAULT
- RECIPIENT_VALIDATE

Functionality

The RECIPIENT_DEFAULT method is used to determine recipients for the workflow task.

The RECIPIENT_VALIDATE method is used to validate recipients added to the workflow task.

Workflow user hierarchy: /TISA/BADI_WF_APPR_HIER

Enhancement spot: /TISA/ES_WF_APPR_HIER

Methods

- AUTHORIZATION_GET – not implemented/inactive
- MANAGER_GET

Functionality

The MANAGER_GET method is used to determine the escalation recipient for the overdue workflow task.

This BAdI is only called if escalation levels have been defined for workflow tasks. For more information on escalation, see [Workflow task settings](#).

Resolve Web Application: /TISA/BADI_WF_RFC

Enhancement spot: /TISA/ES_WF_RFC

Methods

- DOCUMENT_FROM_IF_DATA_PRE
- DOCUMENT_FROM_IF_DATA_PST
- DOCUMENT_IMG_INFO_GET
- DOCUMENT_TO_IF_DATA_PRE
- DOCUMENT_TO_IF_DATA_PST
- GET_MESSAGES
- READ_CONFIG_ACTION_INFO
- READ_CONFIG_FIELD_INFO
- READ_CONFIG_FIXEDVALUES
- READ_CONFIG_SEACHHELP_INFO

Functionality

This BAdI provides several methods to interact with the standard functionality on various RFC calls for the Web Application.

Follow up to workflow result after document posting: /TISA/BADI_WF_POST_ACTION

Enhancement spot: /TISA/ES_WF_POST_ACTION

Methods

- EXECUTE – not implemented/inactive

Functionality

N/A

eFLOW Reporting settings

This section explains how to configure eFLOW Reporting. eFLOW Reporting helps you monitor, analyze and optimize the performance of your Accounts Payable process.

For information on how to use eFLOW Reporting and for details of the available reports, see the *eFLOW Control User Guide*.

You can use the /TISA/REP authorization object to specify which reports are available to users.

Note: If you use eFLOW Reporting, you must schedule the [Calculate Data](#) program, /TISA/FW_REP_CALC_DATA, which calculates the report data.

Define the default currency

1. In the IMG, go to **eFLOW Reporting > Make general report settings**.
2. Select a currency.
3. Click **Save** .

Define data sets

Data sets define the time periods available for selection in the eFLOW reports.

1. In the IMG, go to **eFLOW Reporting > Define data sets**.
2. Add a new entry.
3. Enter a name and description.
4. Define the time period by entering the start and end dates.
5. Click **Save** .

System settings

This section explains how to configure various system-wide settings.

Role generator

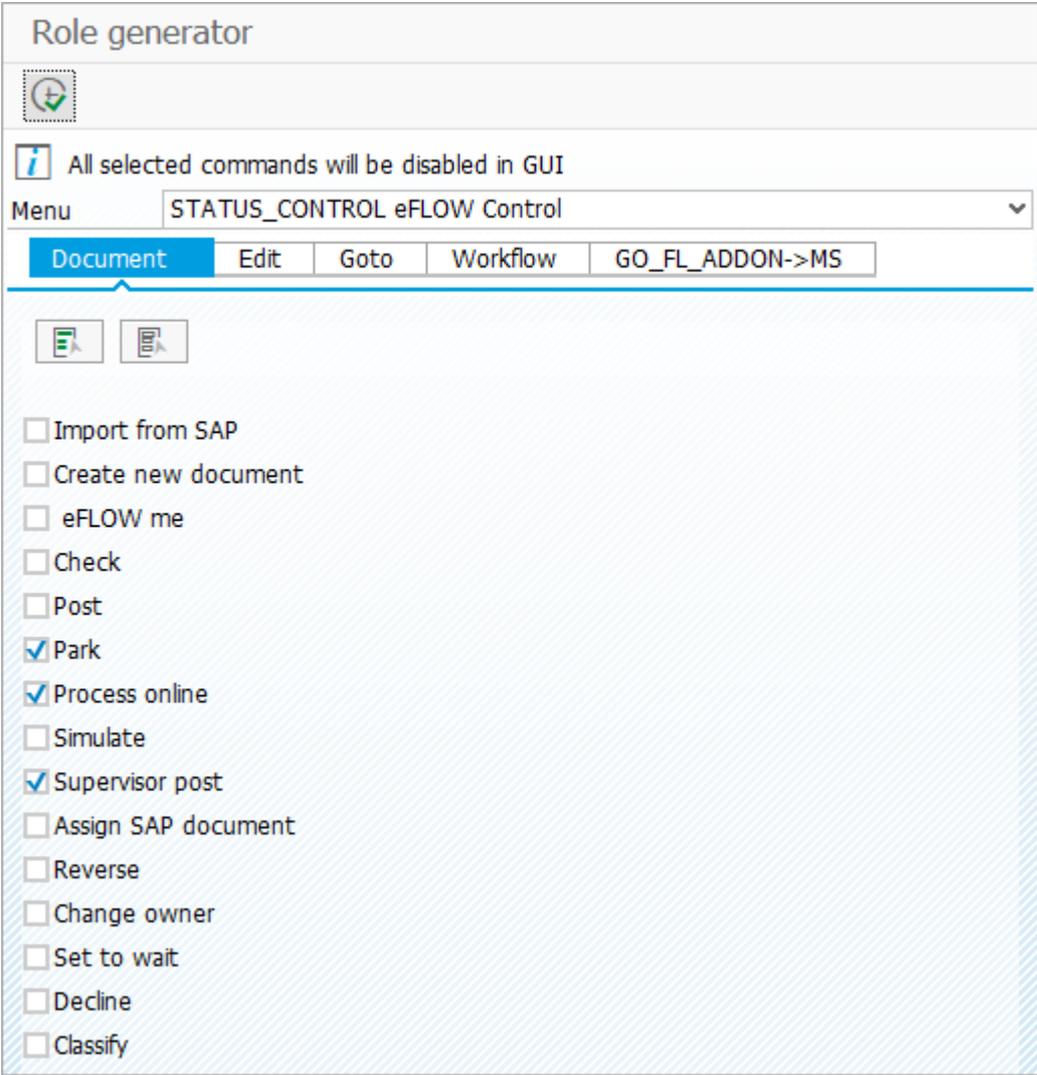
The Role generator provides an easy way to determine required values for the /TISA/CMD authorization object.

With the authorization object /TISA/CMD, you can restrict access to specific actions. For example, you may want to allow access to actions such as **Park**, **Supervisor post**, or **Process online** for specific users only. In this case, you must disable these actions for all other users.

1. Go to **System settings > Maintain roles > Role Generator for field /TISA/CMD**.
2. In the **Menu** selection list, select **eFLOW Control** or **eFLOW Resolve**.
3. Click on the tab of the menu containing the actions you want to disable.

The **GO_FL_ADDON->MS** tab contains the [Add-on functions](#) that you can define for eFLOW Control and Resolve.

4. Check the check box for each action to be disabled.



The screenshot shows the 'Role generator' configuration window. At the top, there is a title bar 'Role generator' and a refresh icon. Below that is an information icon and the text 'All selected commands will be disabled in GUI'. A 'Menu' dropdown is set to 'STATUS_CONTROL eFLOW Control'. Below the dropdown are several tabs: 'Document' (selected), 'Edit', 'Goto', 'Workflow', and 'GO_FL_ADDON->MS'. Under the 'GO_FL_ADDON->MS' tab, there is a list of actions with checkboxes:

- Import from SAP
- Create new document
- eFLOW me
- Check
- Post
- Park
- Process online
- Simulate
- Supervisor post
- Assign SAP document
- Reverse
- Change owner
- Set to wait
- Decline
- Classify

Other tasks

This section describes configuration tasks that are performed outside of the eFLOW Control and Resolve IMG.

Synchronize SAP changes with eFLOW Control

You can configure SAP to call the **eFLOW me** function when a goods movement is posted in SAP, or when changes are made to the purchase order in SAP. The **eFLOW me** function performs all actions appropriate for the document in its current state. For example, depending on which completions and validations are configured, **eFLOW me** can assign tax codes or PO items, check for errors in the document, start a workflow, or attempt to post the document.

Example scenarios:

- An eFLOW document with a missing goods receipt; this is the only error in the document. The goods receipt is posted in MIGO; this automatically triggers the **eFLOW me** function on the eFLOW Control document. As the error is no longer present, the document is automatically posted.
- An eFLOW document with a price mismatch; this is the only error in the document. The purchase order item price is changed in ME23n, and it now matches the invoice price; this automatically triggers the **eFLOW me** function on the eFLOW Control document. As the error is no longer present, the document is automatically posted.

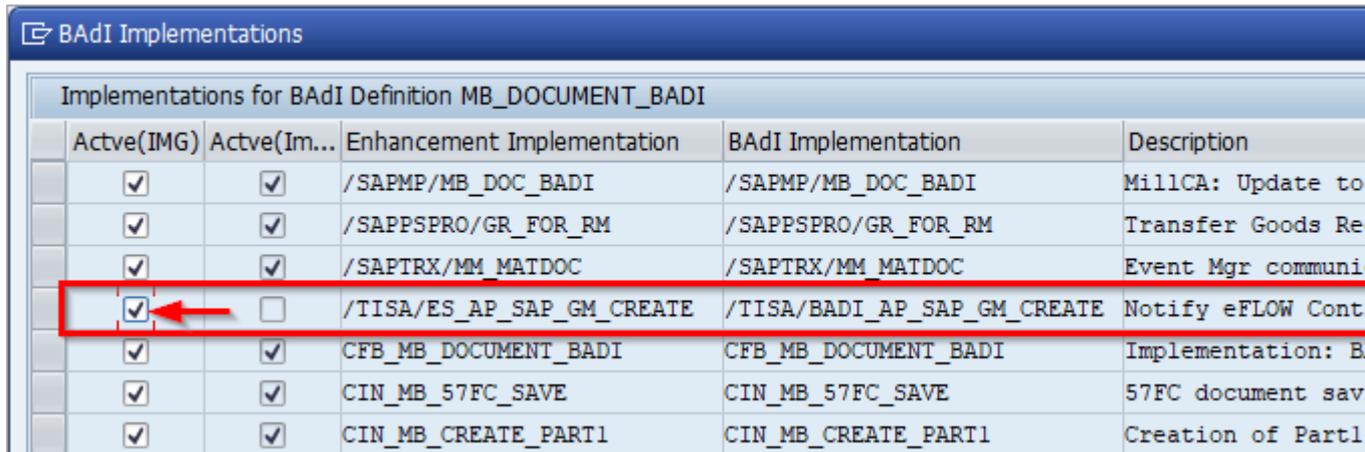
To activate this functionality, perform the following configuration steps.

Activate SAP BAdIs

You must activate TIS implementations of the appropriate SAP BAdIs.

Synchronization with goods movement posting

1. In transaction SPRO, go to **Materials Management > Inventory Management and Physical Inventory > Maintain Customer Exits and Business Add-Ins > BAdI: Creation of Material Document**.
2. Check the **Active(IMG)** check box for the BAdI implementation /TISA/BADI_AP_SAP_GM_CREATE.

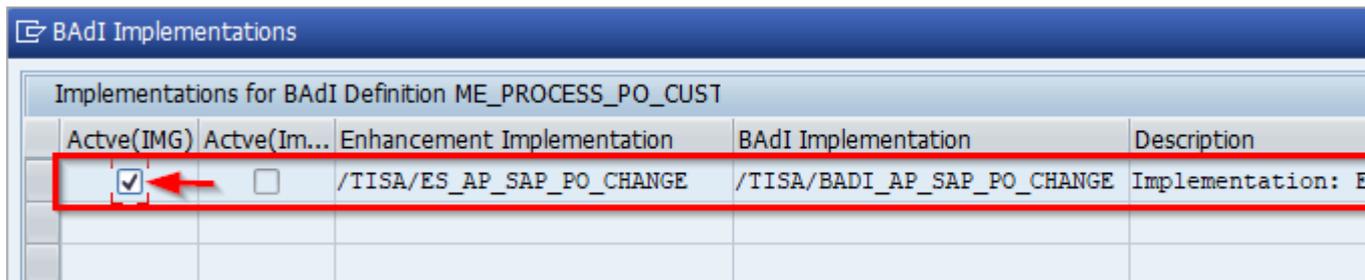


BAdI Implementations					
Implementations for BAdI Definition MB_DOCUMENT_BADI					
	Active(IMG)	Active(Im...	Enhancement Implementation	BAdI Implementation	Description
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/SAPMP/MB_DOC_BADI	/SAPMP/MB_DOC_BADI	MillCA: Update to
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/SAPPSPRO/GR_FOR_RM	/SAPPSPRO/GR_FOR_RM	Transfer Goods Re
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	/SAPTRX/MM_MATDOC	/SAPTRX/MM_MATDOC	Event Mgr communi
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/TISA/ES_AP_SAP_GM_CREATE	/TISA/BADI_AP_SAP_GM_CREATE	Notify eFLOW Cont
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CFB_MB_DOCUMENT_BADI	CFB_MB_DOCUMENT_BADI	Implementation: B
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CIN_MB_57FC_SAVE	CIN_MB_57FC_SAVE	57FC document sav
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CIN_MB_CREATE_PART1	CIN_MB_CREATE_PART1	Creation of Partl

When a goods movement is created, the SAP BAdI MB_DOCUMENT_BADI implementation raises the event CREATED on SAP BOR object 2017 and class /TISA/CL_AP_GM.

Synchronization with purchase order change

1. In transaction SPRO, go to **Materials Management > Purchasing > Business Add-Ins for Purchasing > BAdI: Enhance Purchase Order Processing (Single-Screen Transaction)**.
2. Check the **Active(IMG)** check box for the BAdI implementation /TISA/BADI_AP_SAP_PO_CHANGE.



BAdI Implementations					
Implementations for BAdI Definition ME_PROCESS_PO_CUST					
	Active(IMG)	Active(Im...	Enhancement Implementation	BAdI Implementation	Description
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	/TISA/ES_AP_SAP_PO_CHANGE	/TISA/BADI_AP_SAP_PO_CHANGE	Implementation: E

When a purchase order is changed, the SAP BAdI ME_PROCESS_PO_CUST implementation raises the event CHANGED on SAP BOR object 2012 and class /TISA/CL_AP_PO.

Create linkages

Synchronization with goods movement posting

In transaction SWE2, create a linkage between the event CREATED in the class /TISA/CL_AP_GM and the eFLOW receiver function module /TISA/AP_BADI_CL_EVENT_GM_CRTD. This function module calls **eFLOW me** for the corresponding purchase orders.

Change View "Event Type Linkages": Details

New Entries 

Object Category	CL ABAP Class
Object Type	/TISA/CL_AP_GM
Event	CREATED
Receiver Type	TIS_EFLOW

Linkage Setting (Event Receiver)

Receiver Call	Function Module
Receiver Function Module	/TISA/AP_BADI_CL_EVENT_GM_CRTD
Check Function Module	
Receiver Type Function Module	
Destination of Receiver	

Event delivery: Using tRFC (Default)

Linkage Activated
 Enable Event Queue

Behavior Upon Error Feedback	0 System defaults
Receiver Status	0 No errors

Synchronization with purchase order change

In transaction SWE2, create a linkage between the event CHANGED in the class /TISA/CL_AP_PO and the eFLOW receiver function module /TISA/AP_BADI_CL_EVENT_PO_CHGD. This function module calls **eFLOW me** for the corresponding purchase orders.

Change View "Event Type Linkages": Details

New Entries

Object Category	CL ABAP Class
Object Type	/TISA/CL_AP_PO
Event	CHANGED
Receiver Type	TIS_EFLOW

Linkage Setting (Event Receiver)

Receiver Call	Function Module
Receiver Function Module	/TISA/AP_BADI_CL_EVENT_PO_CHGD
Check Function Module	
Receiver Type Function Module	
Destination of Receiver	

Event delivery Using tRFC (Default)

Linkage Activated
 Enable Event Queue

Behavior Upon Error Feedback	0 System defaults
Receiver Status	0 No errors

Programs

The following programs are provided with eFLOW Control and Resolve.

eFLOW Control Accrual Report

The /TISA/AP_ACCRUAL report lists all line items of unposted eFLOW Control documents. This report enables you to monitor open invoice items and create eFLOW Control accrual posting documents for selected items. Users with the appropriate authorization can use the transaction /n/tisa/ap_accrual to run the Accrual Report and create documents.

eFLOW Control - Accrual Report										
DocNo	CoCode	Reference	DocType	Vendor	Name	Doc. Date	D/C...	G/L Acc	Σ Item amount	Currency
362	1000	230807027	FI	BRILLIANT	Brilliant Car	05.02.2016	S	451000	135,60	EUR
375	1000	230807027	FI	BRILLIANT	Brilliant Car	05.02.2016	S	451000	135,60	EUR
386	1000	230807027	FI	BRILLIANT	Brilliant Car	05.02.2016	S	451000	135,60	EUR
396	1000	230807027	FI	BRILLIANT	Brilliant Car	05.02.2016	S	451000	135,60	EUR
									542,40	EUR
355	1000	ARE/456-2345	FI	NORSPEED	Norspeed GmbH	21.02.2016	H	451000	124,30-	EUR
363	1000	ARE456-2345	FI	NORSPEED	Norspeed GmbH	21.02.2016	S	450000	134,00	EUR
377	1000		FI	NORSPEED	Norspeed GmbH	16.02.2016	S	450000	159,46	EUR
									169,16	EUR
354	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	100,00	EUR
354	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	28,00	EUR
361	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	02.03.2016	S	400000	100,00	EUR
361	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	02.03.2016	S	400000	28,00	EUR
364	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	150,00	EUR
364	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	28,00	EUR
372	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	150,00	EUR
372	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	28,00	EUR
376	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	150,00	EUR
376	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	28,00	EUR
379	1000		MM	SUNNY	Sunny Electronics GmbH	16.02.2016	S	400000	100,00	EUR
379	1000		MM	SUNNY	Sunny Electronics GmbH	16.02.2016	S	400000	7.500,00	EUR
379	1000		MM	SUNNY	Sunny Electronics GmbH	16.02.2016	S	400000	9.000,00	EUR
379	1000		MM	SUNNY	Sunny Electronics GmbH	16.02.2016	S	400000	7.500,00	EUR
379	1000		MM	SUNNY	Sunny Electronics GmbH	16.02.2016	S	400000	7.500,00	EUR
380	1000		MM	SUNNY	Sunny Electronics GmbH	16.02.2016	S	400000	28,00	EUR
380	1000		MM	SUNNY	Sunny Electronics GmbH	16.02.2016	S	400000	150,00	EUR
394	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	100,00	EUR
394	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	28,00	EUR
397	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	150,00	EUR
397	1000	201129865	MM	SUNNY	Sunny Electronics GmbH	17.02.2016	S	400000	28,00	EUR
									40.374,00	EUR
									41.085,5...	EUR

Parameters

eFLOW Control - Accrual Report



Header selection parameters

Company Code	1000	to	1000	
Document type		to		
Document number	0	to	0	
Vendor	1000	to	2000	
Document Date		to		
Translation Date	10.10.2016			

FI positions selection parameters

Select only P&L accounts (no Balance Sheet accounts)

G/L Account		to		
Cost Center		to		
WBS Element		to		
Order		to		

MM positions selection parameters

Select only consumption lines

Exclude GR valuated positions

Copy PO item text if text missing on the invoice

Purchase Order		to		
G/L Account		to		
Cost Center		to		
WBS Element		to		
Order		to		

Report display: parameters

Type of subtotal aggregation: Subtotal aggregation per each eFLOW document

Report display: default coding (if missing on the document)

G/L Account		
Cost Center		
WBS Element		

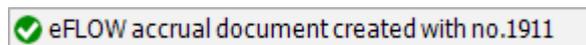
Parameters	Description
Header selection parameters	Restricts the selection to specific values of key header fields.
FI positions selection parameters	Restricts the selection to specific cost elements of non-PO invoices. Check the Select only P&L accounts check box to restrict the selection to Profit & Loss accounts. If you uncheck this check box, Balance Sheets accounts are also included in the report.

Parameters	Description
MM positions selection parameters	<p>Restricts the selection to specific cost elements of PO invoices.</p> <p>Select only consumption lines: Restricts the selection to items for which an Account Assignment Category is assigned to the PO item.</p> <p>Exclude GR valuated positions: Excludes from the report line items for which the GR Non-Valuated check box is <u>not checked</u> in the PO item.</p> <p>Copy PO item text if text missing on the invoice: Copies the line item text from the PO line item to the invoice line item if no line item text is present on the invoice.</p>
Report display: parameters	<p>Type of subtotal aggregation: Specifies how subtotals are calculated and displayed in the report:</p> <ul style="list-style-type: none"> ■ Per eFLOW document ■ Per G/L account ■ Per vendor
Report display: default coding	<p>Specifies default values for the G/L Account, Cost Center or WBS Element fields. These default values are assigned to all Accrual Report items that do not already contain values in these fields. Existing values are not overwritten.</p>

Create an accrual posting document

In the Accrual Report, select the items to include in the accrual posting document, then click the **Create accrual document in eFLOW Control** button .

A message in the status bar displays the number of the eFLOW Control accrual posting document.



You can now edit this document in eFLOW Control. Accrual postings require entry of a reversal reason and reversal date. If you do not enter a reversal date, the system automatically enters the first day of the next period, in accordance with the posting date. If you do not enter a posting date, the system automatically enters the last day of the current period. Your system may be configured to check that the entered posting date is within a specific number of days before the end of the current period, and the reversal date is within a specific number of days after the start of the next period.

Process overdue workflow reminders and escalations

The /TISA/WF_OVERDUE program checks the due date of workflows and sends reminder and escalation email notifications when workflows or workflow tasks are overdue. For more information on reminders and escalation, see [Workflow task settings](#).

Enter the parameters and schedule the program to run at regular intervals.

Parameter	Description
Workflow Due Date	Create and assign a variant with a variable date calculation in this field. This value will be used to select workflows which are overdue on the entered date.
Email sender	Select a user whose email address will be used as the sender for reminder and escalation emails. If you do not enter a value, the email of the workflow initiator is used as the sender.
Document number	Enables you to restrict the program run to a specific document or range of documents.

Workflow grouped notification

eFLOW Resolve automatically sends email notifications to workflow recipients. Notifications can be sent as individual emails, or multiple notifications can be included in a single email. When you create [email templates](#), you use the **Grouping** option to specify for each [workflow command](#) whether an individual email or a grouped email containing multiple notifications is sent.

General Workflow Email Templates			
Command	Email sender	No Email	Grouping
Notify recipient about new inquiry		<input type="checkbox"/>	Single notification
Rejection to previous recipient		<input type="checkbox"/>	Single notification
Reminder notification		<input type="checkbox"/>	Group same task
Initial workflow notification		<input type="checkbox"/>	Group same recipient

Single notification: An email is sent for each occurrence.

Group same task: All notifications for a specific workflow task are included in a single email.

Group same recipient: All notifications for a specific recipient are included in a single email. If a group is assigned as a recipient, each member of the group receives an email, which includes notifications for documents sent to the group as well as for documents sent to the individual user.

If you select the option **Group same task** or **Group same recipient**, you must schedule the /TISA/WF_PROC_NOTIFY/ program to run at regular intervals. This program checks whether any new grouped notifications are required since the last program run and sends out emails if this is the case.

In the program parameters, you can limit the notifications that are sent, for example, to send notifications only for specific workflow tasks, workflow commands, recipient types, or recipients.

Workflow Grouped Notification			
			
User Name	<input type="text"/>		
WF Task ID	<input type="text"/>	to	<input type="text"/> 
Triggering Command	<input type="text"/>	to	<input type="text"/> 
Recipient Type	<input type="text"/>	to	<input type="text"/> 
Recipient ID	<input type="text"/>	to	<input type="text"/> 
Creation Date	<input type="text"/>	to	<input type="text"/> 
Document Date	<input type="text"/>	to	<input type="text"/> 
Company Code	<input type="text"/>	to	<input type="text"/> 
Vendor	<input type="text"/>	to	<input type="text"/> 
Reference	<input type="text"/>	to	<input type="text"/> 
Document number	<input type="text" value="0"/>	to	<input type="text" value="0"/> 
Maximum No. of Hits	<input type="text" value="1.000"/>		

Collect open purchase orders

The /TISA/AP_EXTRACT_PO_UPDATE program is used to prepare purchase order data for export to eFLOW Extract. You only need to schedule this program if you use reference data to facilitate recognition and validation in eFLOW Extract.

The program collects header, line item and history data of open purchase orders from the EKKO, EKPO and EKBE tables, filters the data in accordance with the program parameters, and writes the data to the following tables:

- /TISA/TAP_EXTR1 Purchasing document header
- /TISA/TAP_EXTR2 Purchasing document item
- /TISA/TAP_EXTR3 History per Purchasing Document

The data from these tables are passed via RFC to the eFLOW Extract SapCache database. The program output is written to the spool and the job log.

The program provides parameters to filter the data. You must enter a value in the **Purch. Doc. Category** field. In the **Purchase Order Date after** and **GR/IR posted after** fields, use a variable date calculation (for example, Today - 60 days) to export only open items.

Collect open purchase orders




Selection

Vendor to 
 Account group to 

Purch. Doc. Category
 Purchase Order Date after
 Purch. Organization to 
 Purchasing Group to 

Final Invoice 
 Only items with history
 Completed items

GR/IR posted after

Test run
 Verbose
 Package Size SQL SELECT
 Delete previous data
 Package size SQL DELETE
 Package Size SQL INSERT

You can set the following parameters for the PO history:

Parameter	Description
Test run	The data is output, but no changes are made to the /TISA/TAP_EXTR1, /TISA/TAP_EXTR2 and /TISA/TAP_EXTR3 tables.
Verbose	Additional information is written to the spool, such as the run time of the individual packages.
Package size SQL SELECT/DELETE/INSERT	Determines how many entries are processed in each package. Depending on the volume of the selected data, it may be necessary to change the values in these fields. For example, if you encounter memory problems when running the program, try changing the values from 1000 to 100.
Delete previous data	Deletes data from the previous program run.

You should schedule the program to run at regular intervals (for example, daily) to update the tables with the latest data. You must also set up scheduling in eFLOW Extract to transfer the data from these tables into eFLOW Extract. See the *eFLOW Extract Implementation Guide* for information on using reference data with eFLOW Extract.

Automatic AP Document SAP synchronization

The /TISA/AP_PROC_AUTO_SAP_SYNC program checks whether a posted eFLOW document was already paid in the SAP payment run. If the document was paid, the SAP clearing document number and clearing date are entered in the eFLOW document header. The eFLOW document status is changed to Paid 🗑️.

You can limit the range of documents processed in the program parameters.

You should schedule the program to run at regular intervals.

Automatic AP Document Posting

The /TISA/AP_PROC_AUTO_POST program checks documents and posts them to SAP if they have no errors.

You can limit the range of documents processed in the program parameters.

You should schedule the program to run at regular intervals.

Calculate Data

The /TISA/FW_REP_CALC_DATA program calculates data for eFLOW Control Reporting. It should be scheduled to run once a day with the default parameters.

Note: Do not change the default parameters.

Calculate Data



Recalculate closed documents

1/3 Data set calculation

Execute calculation

2/3 Document calculations

Execute calculation

Class/Interface to 

3/3 Report calculations

Execute calculation

Reporting data set to 

Class/Interface to 

Display workflow on database

The /TISA/WF_DB_DISPLAY program is useful for troubleshooting workflows. It displays detailed information about the workflows executed on a specific document, including the workflow tasks, recipients, actions executed by the recipients, and workflow commands executed on the document.

The screenshot displays the SAP /TISA/WF_DB_DISPLAY program interface, showing five data tables with red callouts:

- 1. WF header:** Shows workflow header data including ID, WF, Workflow ID, W, Tas, Workflow Task ID, Due Date, Workflow Action ID, and Workflow Action ID.
- 2. WF tasks:** Shows workflow task details including Tas, Workflow Task ID, Workflow Task ID, W, Due Date, Workflow Action ID, and Workflow Action ID.
- 3. WF recipients:** Shows workflow recipient details including Tas, Workflow Task ID, T, Workflow Recipient ID, WF, W, L, Due Date, Repeat Date, Repe, Escal, Workflow Action ID, and Workflow Action ID.
- 4. WF actions executed by each recipient:** Shows workflow action details for each recipient, including Tas, Workflow Task ID, T, Workflow Recipient ID, WF, User ID, User ID, W, Workflow Action ID, and Workflow Action ID.
- 5. WF commands executed on document:** Shows workflow commands executed on the document, including Tas, Workflow Task ID, Workflow Action ID, System Command, ID, E, User ID, and Time Stamp.

1. In the program parameters, enter the eFLOW document number or the document GUID. You can also enter a range of documents.
To determine the GUID, in the document detail screen, enter HEXHEX in the SAP command field, then press ENTER. The document GUID is displayed.
2. If you are only interested in a specific workflow, enter the workflow number. For example, enter 2 to view only details of the second workflow to which the document was sent.
3. In the overview, double-click on a workflow in the first table to view detailed information for that workflow.

The data presented comes from the following tables:

Table	Description
/TISA/TWF_HDR	Workflow header data, including: <ul style="list-style-type: none"> ■ Workflow status ■ Workflow due date ■ Time stamps for the start and end of the workflow

Table	Description
/TISA/TWF_TSK	Workflow task data, including: <ul style="list-style-type: none"> ■ Task status ■ Task due date ■ Time stamps for the start and end of the task
/TISA/TWF_REC	Data of workflow recipients assigned to started tasks, including: <ul style="list-style-type: none"> ■ Task status for the recipient ■ An indication of whether the task is simply an inquiry ■ Due date of the task for the recipient ■ Reminders (repeats) and escalation counters
/TISA/TWF_REU	Workflow actions executed by each recipient, including: <ul style="list-style-type: none"> ■ Last task status for the recipient ■ Time stamps for the start and end of the recipient
/TISA/TWF_ATR	Workflow commands executed on the document, including: <ul style="list-style-type: none"> ■ The executed system command, such as workflow start or workflow approval. ■ The environment in which the command was executed, such as SAP GUI, Web Application, email approval, or background ■ ID of the user that executed the command ■ The time stamp of the command execution

Display logged RFC OCR requests

The /TISA/FW_OCR_LOG_DISPLAY program is useful for troubleshooting the connection to eFLOW Extract (for example, if there was a problem with the transfer of data, or incorrect values were transferred). It displays a list of all documents sent into eFLOW Control via RFC in the last 30 days; this is usually all documents coming from eFLOW Extract. You can limit the range of documents displayed in the program parameters.

UUID	User Name	Time Stamp	ID	DocumentNo
000C2920FAC51ED89980581BEC532234	RFC_EFLOW	20.180.530.121.323,8969400	000C2920FAC51ED899804802D89782...	1755
000C2920FAC51ED8998058D2C999C230	RFC_EFLOW	20.180.530.121.251,9251580	000C2920FAC51ED899804802D896C2...	1754
000C2920FAC51ED89980561F972AE22F	RFC_EFLOW	20.180.530.121.216,5074270	000C2920FAC51ED899804802D89602...	1753
000C2920FAC51ED8998053C5989E422C	RFC_EFLOW	20.180.530.121.144,1246820	000C2920FAC51ED899804802D89542...	1752
000C2920FAC51ED8998051415213C222	RFC_EFLOW	20.180.530.121.110,3460880	000C2920FAC51ED899804802D89482...	1751
000C2920FAC51ED899804E691D5A02...	RFC_EFLOW	20.180.530.121.032,6533390	000C2920FAC51ED899804802D893C2...	1750
000C2920FAC51ED899804858D686021E	RFC_EFLOW	20.180.530.120.951,2057380	000C2920FAC51ED899803AFF340EE205	1749
000C2920FAC51ED899804968886A42	RFC_EFLOW	20.180.530.120.925,1948740	000C2920FAC51ED899803AFF340F2205	1748

Table Name	No.	Field Name	Text	Page	X-Coordinate	Y-Coordinate	X-Coordinate	Y-Coordinate
HEADERDATA		Client	800	1	0	0	0	0
HEADERDATA		Bukrs	3000	1	0	0	0	0
HEADERDATA		Receiver_Name	TIS America Inc.	1	325	1.086	611	1.114
HEADERDATA		Receiver_Street	1350 Avenue of the Americas	1	328	1.142	843	1.171
HEADERDATA		Receiver_ZIP	10019	1	704	1.257	813	1.286
HEADERDATA		Receiver_City	New York	1	519	1.256	691	1.286
HEADERDATA		Receiver_email		1	0	0	0	0
HEADERDATA		Supplier_Id	DS1001	1	0	0	0	0
HEADERDATA		Supplier_Name	Solar Technology	1	540	2.468	894	2.514
HEADERDATA		Supplier_Street	371 Southland Circle NW	1	457	2.526	975	2.561
HEADERDATA		Supplier_ZIP		1	0	0	0	0
HEADERDATA		Supplier_City	San Diego	1	504	2.583	708	2.629

Doc. type	Length	UUID
/TISA/PDF X	58244	000C2920FAC51ED8998058352D5F4234
/TISA/JPG	804721	000C2920FAC51ED8998058352D5F6234
/TISA/JSON	7611	000C2920FAC51ED8998058352D5F8234

Double-click on a document in the list to view details for that document.

The table in the middle of the screen displays all data that was sent from eFLOW Extract and mapped to eFLOW Control fields. For field values that were captured via OCR, the coordinates of the ROI (Region of Interest) rectangle are given. These indicate the invoice page and the position on the page of the captured values.

The table at the bottom of the screen displays information about the document's attachments.

To send a document into eFLOW Control again, click the **Execute** button  next to the document. A new document with the same data is created in eFLOW Control.