

# ReadSoft EDI COCKPIT

## Configuration Guide

Version: 7.6

Date: 2018-05-24



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# Introduction

## Overview

Kofax ReadSoft EDI COCKPIT™ is a component of Kofax ReadSoft PROCESS DIRECTOR Accounts Payable™, which acts as an interface for incoming IDocs. IDocs can be converted into regular PROCESS DIRECTOR documents that can then be edited, posted, and sent to workflows in WORK CYCLE.

IDocs often contain errors that prevent them from being posted. Data may be missing or the data may be incorrectly formatted. Correcting these errors in SAP is not the easiest of tasks. In addition, the people who have permissions to correct the data often lack the required business knowledge. ReadSoft EDI COCKPIT solves this problem by converting them into regular PROCESS DIRECTOR documents that can be processed by Accounts Payable staff in the usual manner.

This document explains how to configure ReadSoft EDI COCKPIT to enable the receipt and processing of IDocs in your ReadSoft PROCESS DIRECTOR installation.

## About this guide

This document contains the following chapters:

- [About ReadSoft EDI COCKPIT](#)

Lists the different document types supported by ReadSoft EDI COCKPIT. Also contains some notes on installation and a technical overview of how ReadSoft EDI COCKPIT works.

- [SAP configuration](#)

To enable ReadSoft EDI COCKPIT, you must configure your SAP system accordingly.

- [ReadSoft EDI COCKPIT IMG](#)

A reference that describes all the settings in the ReadSoft EDI COCKPIT IMG.

- [Creating test IDocs](#)

You can create test IDocs in ReadSoft EDI COCKPIT to test your configuration, including User Exits you have implemented. This chapter explains how, and you can follow a document from its inception as an IDoc to its creation in ReadSoft PROCESS DIRECTOR.

- [Appendix A: Tables](#)

This chapter lists the main configuration tables in ReadSoft EDI COCKPIT.

- [Appendix B: User Exits](#)

ReadSoft EDI COCKPIT comes with several User Exit interfaces that you can use to customize the application, including the modification of IDoc data before and during processing by ReadSoft EDI COCKPIT.

- [Appendix C: Transactions](#)  
A list of the most common IDoc transaction codes in SAP standard.
- [Glossary](#)  
Describes some important terms you should be familiar with.

## Typographical conventions

The following typographical conventions are used:

- Menu names, commands, and dialog names appear in **bold**.
- Names of keys on your keyboard appear in **SMALL CAPITAL LETTERS**.
- Names of files, folders, and settings appear in `Courier` font.
- SAP transaction codes and program names appear in `ARIAL MONOSPACE`.
- Variables that must be replaced by an actual value are *italicized* or appear in `< >`.

# About ReadSoft EDI COCKPIT

## Overview

This chapter contains the following sections:

- [Document types](#)
- [Installation](#)
- [Technical overview](#)

## Document types

ReadSoft EDI COCKPIT processes three types of documents:

- [IDocs](#)
- [Collective invoices](#)
- [e-Invoices](#)

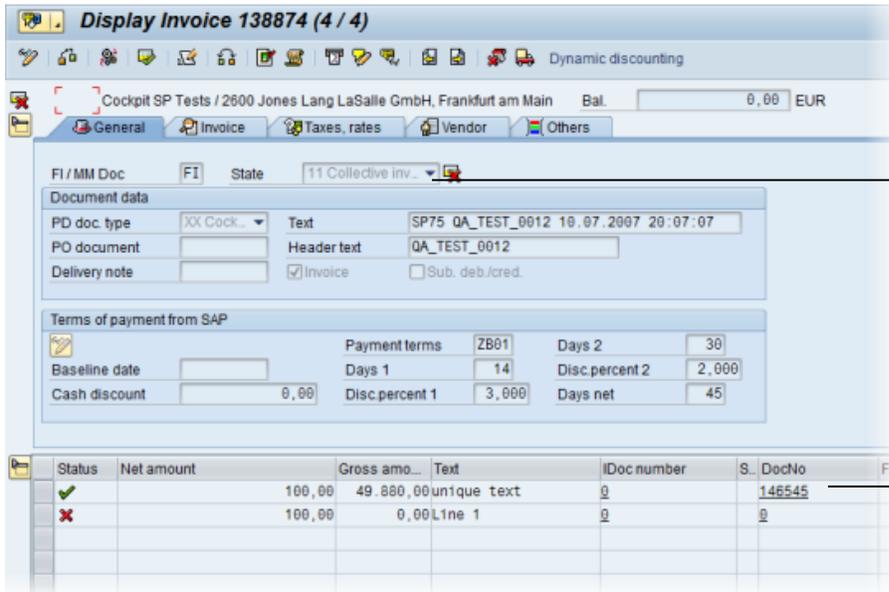
### IDocs

IDocs are a file format used by SAP to exchange data between systems belonging to different partners. IDocs can be processed in ReadSoft EDI COCKPIT in three different ways:

- All IDocs are processed by ReadSoft EDI COCKPIT and converted to PROCESS DIRECTOR documents. The standard SAP processing is not performed.
- Only IDocs with errors are processed by ReadSoft EDI COCKPIT. IDocs without errors are processed by the standard SAP interface and are not imported into ReadSoft PROCESS DIRECTOR.
- All IDocs are processed by ReadSoft EDI COCKPIT and converted to PROCESS DIRECTOR documents. Documents without errors are posted by the standard SAP interface, and are subsequently converted to posted PROCESS DIRECTOR documents.

### Collective invoices

A collective invoice is the electronic version of a covering document that includes one or more PROCESS DIRECTOR documents. They are used as a way for both vendors and purchasers to track invoices, when vendors send large numbers of them.



The state indicates it is a collective invoice. 10 for complete, 11 for incomplete.

The list of invoices contained in the collective invoice, displaying the document number and status.

A collective invoice contains:

- The list of invoices.
- The scanned image of the original collective invoice. This image is also attached to the individual invoices.
- The status:
- 10 – Complete. All listed invoices are found in ReadSoft PROCESS DIRECTOR.
- 11 – Uncompleted. One or more listed invoices are not in ReadSoft PROCESS DIRECTOR.

Unlike normal invoices, collective invoices cannot be posted, parked, or sent to a WORK CYCLE workflow.

## e-Invoices

Electronic invoices are sent by document verification companies, in a variety of formats. ReadSoft EDI COCKPIT can process e-invoices if they are sent in IDoc format. If they are in another format, ReadSoft DOCUMENTS is used to interpret the invoice data before sending to ReadSoft PROCESS DIRECTOR.

## Installation

ReadSoft EDI COCKPIT is contained as part of the ReadSoft PROCESS DIRECTOR transport. It has a separate license that you must activate. For details on installation and licenses, see the following ReadSoft guides:

- *PROCESS DIRECTOR Import Guide*
- *PROCESS DIRECTOR Accounts Payable Configuration Guide*

## Technical overview

ReadSoft EDI COCKPIT is a function module, which is specified in the process code in the partner profile. Therefore, all partner profiles that will process incoming IDocs with ReadSoft EDI COCKPIT must use the EDI COCKPIT process code (ZEBY\_EDI).

For documents posted using the standard SAP EDI interface, you then map all the customized data from IDoc into ReadSoft PROCESS DIRECTOR and then set the correct data in them (for example, the document status). IDoc segments must be numbered (they always are when using the INVOIC02 basic type). If the segments are not numbered, a User Exit is required to perform the mapping.

ReadSoft EDI COCKPIT can also retrieve the basic document data from the posted SAP document (SAP document number, fiscal year, FI/MM flag, and Company Code in case of FI documents) in order to add the correct document data into ReadSoft PROCESS DIRECTOR. By default, ReadSoft EDI COCKPIT takes the SAP document number from the IDoc status (message content). You can also use [User Exit 601](#) to retrieve this number using a different method.

Using this same User Exit, the fiscal year can also be set differently. For the FI/MM flag, it is determined the same way as in ReadSoft PROCESS DIRECTOR: A document is considered to be an MM document if a value exists for the purchase order or delivery note fields, either in the header or item structures. Otherwise, the document is considered an FI one. The only difference is that the source of the data is not in ReadSoft PROCESS DIRECTOR, but in the IDoc data.

For FI documents, the company code field is required to determine the posted SAP document. The SAP document number, fiscal year, FI/MM flag, and Company Code can all be determined in other ways, using [User Exits](#).

After the mapping is complete, the final task is to send the document to ReadSoft PROCESS DIRECTOR, using the regular /COCKPIT/RFC\_DATA\_SUBMIT function. For documents already posted, a posted PROCESS DIRECTOR document is created and no checks are performed.

If the [Transfer posted IDoc](#) setting is inactive, documents posted using the standard SAP EDI interface are not transferred to ReadSoft PROCESS DIRECTOR. ReadSoft EDI COCKPIT calls only the original function module.

All messages (warnings, errors and successes), are added to the PROCESS DIRECTOR document and IDoc status is also updated.

ReadSoft EDI COCKPIT can also create images or documents based on the IDoc for archiving, such as PDFs, XML, and HTML files.

## SAP configuration

### Overview

To enable ReadSoft EDI COCKPIT, you must configure your SAP system accordingly. Essentially, your system must be modified so that incoming IDocs (for selected partners) are processed using ReadSoft EDI COCKPIT and not the standard SAP EDI interface.

This is described in the following sections:

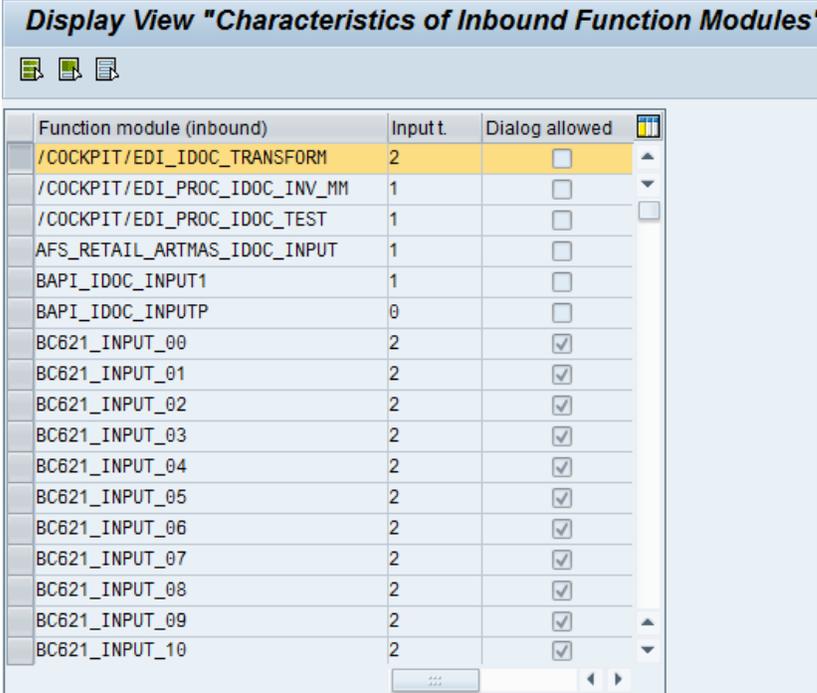
- [Input type](#)
- [Message and IDoc type](#)
- [Creating a process code](#)
- [Modifying partner profiles](#)

### Input type

The **Input type** for the /COCKPIT/EDI\_IDOC\_TRANSFORM function module must be **1 – Individual input**.

1. Go to transaction BD51.
2. Set the **Input type** for /COCKPIT/EDI\_IDOC\_TRANSFORM to **1 – Individual input**.

**Display View "Characteristics of Inbound Function Modules"**



Function module (inbound)	Input t.	Dialog allowed
/COCKPIT/EDI_IDOC_TRANSFORM	2	<input type="checkbox"/>
/COCKPIT/EDI_PROC_IDOC_INV_MM	1	<input type="checkbox"/>
/COCKPIT/EDI_PROC_IDOC_TEST	1	<input type="checkbox"/>
AFS_RETAIL_ARTMAS_IDOC_INPUT	1	<input type="checkbox"/>
BAPI_IDOC_INPUT1	1	<input type="checkbox"/>
BAPI_IDOC_INPUTP	0	<input type="checkbox"/>
BC621_INPUT_00	2	<input checked="" type="checkbox"/>
BC621_INPUT_01	2	<input checked="" type="checkbox"/>
BC621_INPUT_02	2	<input checked="" type="checkbox"/>
BC621_INPUT_03	2	<input checked="" type="checkbox"/>
BC621_INPUT_04	2	<input checked="" type="checkbox"/>
BC621_INPUT_05	2	<input checked="" type="checkbox"/>
BC621_INPUT_06	2	<input checked="" type="checkbox"/>
BC621_INPUT_07	2	<input checked="" type="checkbox"/>
BC621_INPUT_08	2	<input checked="" type="checkbox"/>
BC621_INPUT_09	2	<input checked="" type="checkbox"/>
BC621_INPUT_10	2	<input checked="" type="checkbox"/>

## Message and IDoc type

You must create multiple entries for the /COCKPIT/EDI\_IDOC\_TRANSFORM function module based on each entry for the standard IDOC\_INPUT\_INVOIC\_FI and IDOC\_INPUT\_INVOIC\_MM function modules.

1. Go to transaction WE57.
2. Go to the first instance of the IDOC\_INPUT\_INVOIC\_FI function module. For example, for the BKPF business object.
3. Use **2 – Individual input with IDoc lock in CALL TRANSACTION** if 1 causes documents to lock.

**Display View "IDoc: Assignment of FM to Log. Message and IDoc"**

Processing by

Module	IDOC_INPUT_INVOIC_FI
Type	F

IDoc type

Basic type	INVOIC01
Extension	

Message

Message type	INVOIC	Invoice / billing document
Message code	FI	
Msg.function		

Object

Object type	BKPF	Accounting document
-------------	------	---------------------

Direction

**Display View "IDoc: Assignment of FM to Log. Message and IDoc"**

Processing by

Module /COCKPIT/EDI\_IDOC\_TRANSFORM

Type F

IDoc type

Basic type INVOIC01

Extension

Message

Message type INVOIC  
Invoice / billing document

Message code FI

Msg.function

Object

Object type BKPF Accounting document

Direction 2

4. Create a new entry for the /COCKPIT/EDI\_IDOC\_TRANSFORM function module and copy the values from IDOC\_INPUT\_INVOIC\_FI to it.
5. Repeat steps 2. and 3. for each of the IDOC\_INPUT\_INVOIC\_FI and IDOC\_INPUT\_INVOIC\_MM function modules, making a copy of them for the /COCKPIT/EDI\_IDOC\_TRANSFORM function module.

Depending on your system, the result will look something like this:

**Display View "IDoc: Assignment of FM to Log. Message and IDoc Ty**

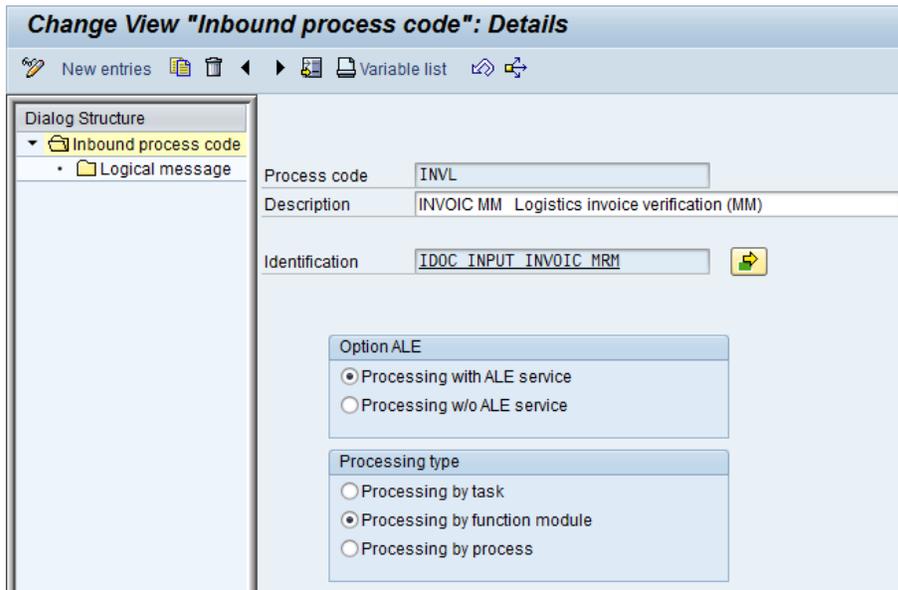
Function module	FctTyp	BasicTyp	Log.mess.type	
Obj. type	Dirctn	Extensio	Msg.code	MsgFnct.
<input type="checkbox"/> /COCKPIT/EDI_IDOC_TRANSFORM	F	INVOIC01	INVOIC	
BKPF	2		FI	<input type="checkbox"/>
<input type="checkbox"/> /COCKPIT/EDI_IDOC_TRANSFORM	F	INVOIC01	INVOIC	
BUS2020	2		FI	<input type="checkbox"/>
<input type="checkbox"/> /COCKPIT/EDI_IDOC_TRANSFORM	F	INVOIC01	INVOIC	
BUS2081	2		MM	<input type="checkbox"/>
<input type="checkbox"/> /COCKPIT/EDI_IDOC_TRANSFORM	F	INVOIC02	INVOIC	
BKPF	2		FI	<input type="checkbox"/>
<input type="checkbox"/> /COCKPIT/EDI_IDOC_TRANSFORM	F	INVOIC02	INVOIC	
BUS2020	2		FI	<input type="checkbox"/>
<input type="checkbox"/> /COCKPIT/EDI_IDOC_TRANSFORM	F	INVOIC02	INVOIC	
BUS2081	2		MM	<input type="checkbox"/>
<input type="checkbox"/> /COCKPIT/EDI_PROG_IDOC_TEST	F	INVOIC01	INVOIC	
BUS2081	2		MM	<input type="checkbox"/>
<input type="checkbox"/> /COCKPIT/EDI_PROG_IDOC_TEST	F	INVOIC02	INVOIC	
BUS2081	2		MM	<input type="checkbox"/>
APES_DETALI_APTMAS_IDOC_INPUIT	F	APTMAS01	APTMAS	

## Creating a process code

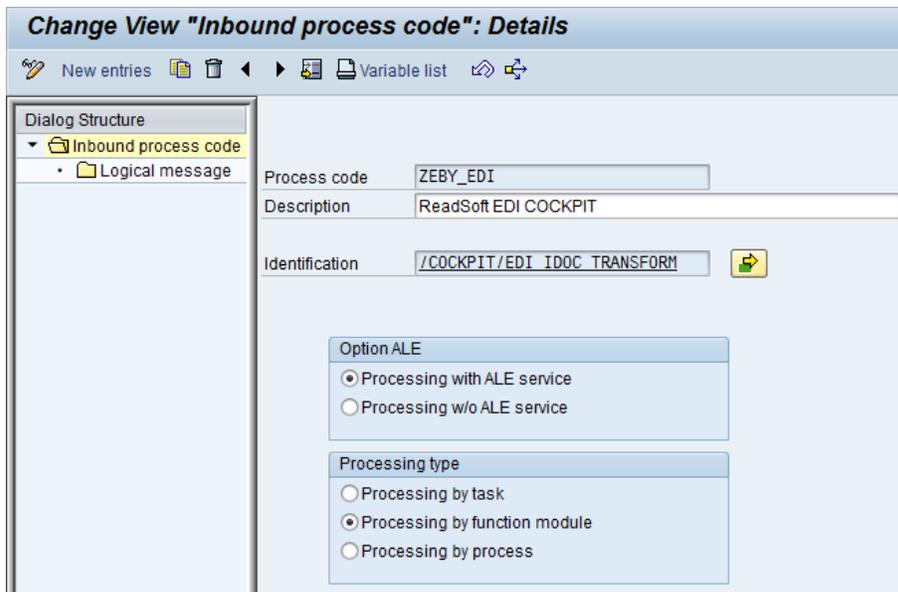
A custom process code is needed to convert IDocs to SAP documents. It must be based on your existing INVL process code.

Process codes are client-dependent.

1. Go to transaction WE42.
2. Go to the first instance of the INVL process code. Note the settings.



3. Create a new process code, copying the settings from INVL.  
Use a custom process code name, for example, ZEBY\_EDI.
4. Specify the /COCKPIT/EDI\_IDOC\_TRANSFORM as the function module.



5. Save your entry
6. Go to transaction SM30 and display the TBD52 table.

7. Copy the entry for the INVL process code to a new entry: ZEBY\_EDI.
6. Save, and exit the view.
8. Display the same table again, and change **Function module** from IDOC\_INPUT\_INVOIC\_MRM to /COCKPIT/EDI\_IDOC\_TRANSFORM.

**Display View "Function modules for inbound ALE-EDI"**

Inbound process code	Inbound function module
WPUW	IDOC_INPUT_POS_INV_MANAGEMENT
WP_E	IDOC_INPUT_WP_EAN
WP_P	IDOC_INPUT_WP_PLU
WVFB	IDOC_INPUT_STOREORDER
WVIN	IDOC_INPUT_STORE_INVENTORY
ZEBY_EDI	/COCKPIT/EDI_IDOC_TRANSFORM
ZINV	Z_INVOICE_MRM

## Modifying partner profiles

For all partner profiles that are to process IDocs via ReadSoft EDI COCKPIT, you must change the process type for inbound parameters containing the **INVOIC** message type.

In the ReadSoft EDI COCKPIT configuration, you have the option to process certain IDocs via the standard SAP EDI interface, rather than ReadSoft EDI COCKPIT (for example, those with no errors).

1. Go to transaction WE20.
2. Select a partner profile that is to process IDocs via ReadSoft EDI COCKPIT.
3. In the **Inbound parameters** table, open the first entry containing the **INVOIC** as the **Message type**.
4. On the **Inbound options** tab, change the **Process code** to [the custom one you created](#).

This process code points to the /COCKPIT/EDI\_IDOC\_TRANSFORM function module, which will be used to process incoming IDocs.

5. Repeat steps 3. and 4. for all other **INVOIC** message type entries.
6. Repeat steps 2-5 for all partner profiles that are to process IDocs via ReadSoft EDI COCKPIT.

The other parameters in the partner profiles do not need to be changed.

**Partner profiles: Inbound parameters**



Partn.number  IDES AG  
Partn.type  Vendor  
Partn.funct.

 Message type  Invoice / billing document  
Message code   
Message function   Test

**Inbound options** | Post processing: permitted agent | Telephony

Process code   INVOIC FI Invoice receipt (Fin...  
 Syntax check

Processing by function module

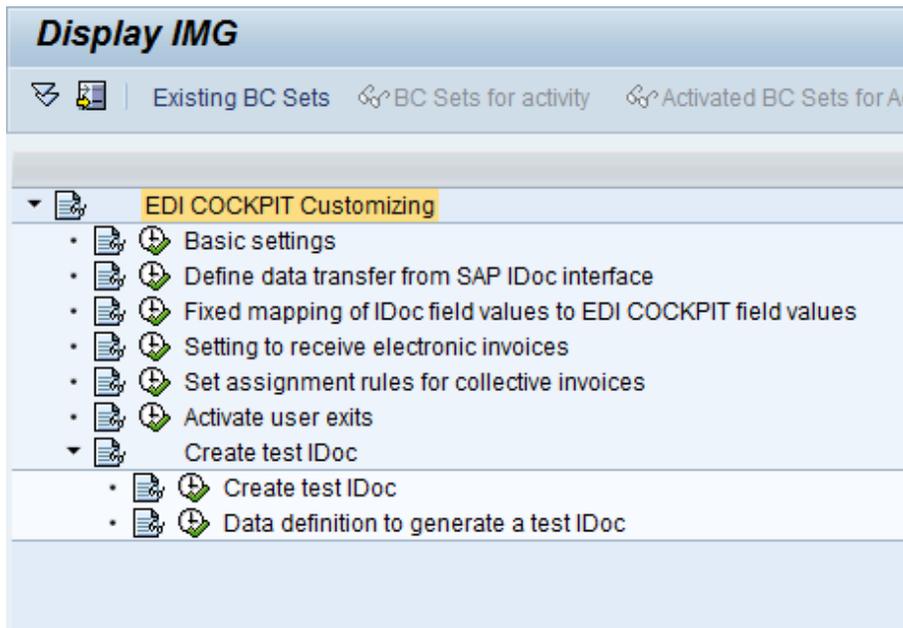
Trigger by background program  
 Trigger immediately

Example of an inbound parameter for FI invoices using a custom process type.

# ReadSoft EDI COCKPIT IMG

## Overview

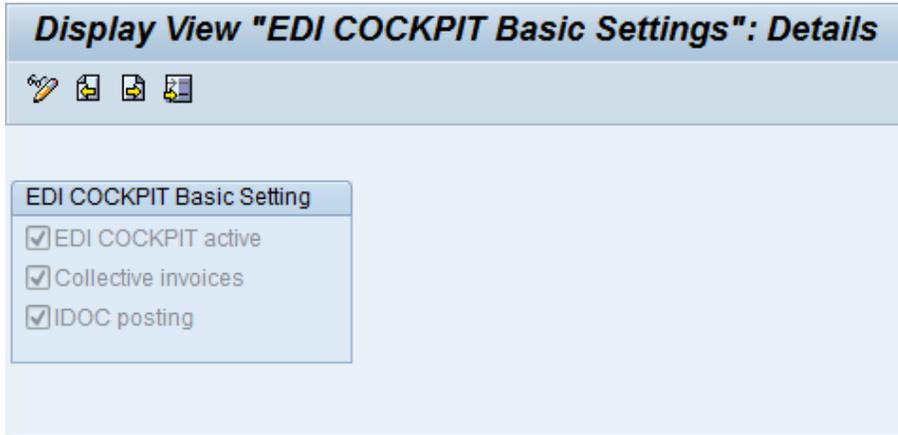
The /COCKPIT/EI transaction opens the configuration menu for ReadSoft EDI COCKPIT in SAP.



- [Basic settings](#)
- [Define data transfer from SAP IDoc interface](#)
- [Fixed mapping of IDoc field values to ReadSoft EDI COCKPIT field values](#)
- [Settings to receive electronic invoices](#)
- [Activate user exits](#)
- [Create test IDoc](#)

## Basic settings

/COCKPIT/EI2



Setting	Description
<b>EDI COCKPIT active</b>	Enables ReadSoft EDI COCKPIT. If disabled, ReadSoft EDI COCKPIT does not process incoming IDocs. Instead, ReadSoft EDI COCKPIT places a status message in the created IDocs in the system.
<b>Collective invoices</b>	Enables the processing of collective invoices.
<b>IDOC posting</b>	Enables the processing of IDocs.  Note: If this option is enabled, PROCESS DIRECTOR documents with unplanned multi-account assignments cannot be posted; the Perform function must be used instead.

## Define data transfer from SAP IDoc interface

/COCKPIT/EI1

### Define profiles

You must create an entry in this table for every partner profile in your system (WE20) for which you want to use ReadSoft EDI COCKPIT to process incoming documents.

### Profile definition fields

The first fields, listed below, define the partner profile to activate ReadSoft EDI COCKPIT processing. The profiles you define here must match those in SAP standard (WE20) in order for ReadSoft EDI COCKPIT to

process incoming documents from that partner. There is one exception, the **Partner number**, which can be different between the two profile definitions. A match is found as long as all other fields are identical.

Profile name	Partner function	Message function
Partner number	Message type	Test
Partner type	Message code	

If a profile is marked as **Test**, documents from this profile cannot be posted.

### Other fields

Setting	Description
<b>Posting as IDoc</b>	Posts documents as standard IDocs, using the <b>Process code</b> (below).
<b>Process code</b>	The code used to post the IDoc. This code is used to lookup the function in the TDB52 table to perform the posting, for example, IDOC_INPUT_INVOIC_FI.
<b>Posting copy of data</b>	Posts a copy of the original IDoc.
<b>Generate SAP data</b>	Determines the method of populating data in the resulting PROCESS DIRECTOR document for IDocs posted outside of ReadSoft EDI COCKPIT.  Active            Data is got from SAP. Inactive        Data is got from the IDoc.
<b>PD document type</b>	The PROCESS DIRECTOR document type to use for created documents.  It is also possible to change this due to different conditions in a User Exit.
<b>Transfer posted IDoc</b>	IDocs posted using the SAP standard IDoc interface are sent to ReadSoft PROCESS DIRECTOR and posted documents created there.
<b>Status non-posted IDoc</b>	The IDoc status for unposted documents. If no value is specified, 53 (posted) is used.

Setting	Description
<b>SmartForm MM for PDF</b> <b>SmartForm FI for PDF</b>	ReadSoft EDI COCKPIT allows you to create a paper-like PDF file before transferring the document to ReadSoft PROCESS DIRECTOR. The PDF file is connected to the PROCESS DIRECTOR document as the primary image.  There are two templates that you can use: one for FI and one for MM documents. You can change or copy them as needed: /COCKPIT/EDI_FI and /COCKPIT/EDI_MM.
<b>Archive document type</b>	The document type used to archive the above SmartForms.
<b>e-Invoicing sender ID</b>	The ID of the sender.
<b>Receiver ID</b>	The ID of the receiver.

## Define structures

Every structure has its own set of field definitions or mappings that indicate which field from which segment, in the incoming IDoc, is mapped to which field and structure in ReadSoft PROCESS DIRECTOR.

Setting	Description
<b>Segment name</b>	The segment ID in the IDoc.
<b>Structure</b>	The type of field in ReadSoft PROCESS DIRECTOR.

## Define fields

Here, the fields between the IDoc and PROCESS DIRECTOR document are mapped.

Setting	Description
<b>Field name</b>	The ID of the ReadSoft PROCESS DIRECTOR field.
<b>Segment name</b>	The segment ID in the IDoc.
<b>IDoc field name</b>	The ID of the IDoc field.
<b>Additional field</b>	...

Setting	Description
<b>Field value</b>	You can specify a pre-determined value for the field here. If you do, you must leave the <b>Field name</b> and <b>Segment name</b> blank.
<b>Item ID</b>	Use when some fields from segments needs to be changed permanently. For example when USD should always be changed to EUR. This configuration takes place in the /COCKPIT/CEDIM table. If the value in the incoming IDoc segment field matches that required in the /COCKPIT/CEDIM table, it is changed to value from that table.
<b>Search type</b>	<p>1 - Field search in this segment</p> <p>The field is searched in the defined segment name. This is useful for getting data for one entry table (for example, Header structure).</p> <p>2 - Field search in dependent segment</p> <p>The field is searched in all of the sub-segments (tree-like structure) of the defined segment name. This is useful for getting data for many table entries. It means that one segment in IDoc with this name will cause one entry in many entries table (Items, Accounts and Taxes structures).</p> <p>3 - Field search in other segments</p> <p>The field is searched in every main segment in the incoming IDoc. This is useful for getting information for headers.</p>
<b>Add values</b>	<p>Can be used when the data in an IDoc is stored in many of the same IDoc fields (e.g. long texts).</p> <p>Active – The data is concatenated and put into one ReadSoft PROCESS DIRECTOR field.</p> <p>Inactive – Only the first IDoc field is saved in the ReadSoft PROCESS DIRECTOR field.</p>

## Defining incoming data

The purpose of this table is to assist in the determination of the company code, the document type (FI/MM), and the fiscal year of the incoming IDoc. In some cases, fields are duplicated in this table (for example, **Company code field**), allowing you to specify more than IDoc field that may represent it.

**Display View "Define incoming data": Details**

Profile Name: TEST\_PROFILE\_2

**Define incoming data**

Company Code Sgmt	E1EDK14
Company Code Field	ORGID
Company Code Field	QUALF
Addtl Company Code	011
PO Number Segment	E1EDK02
PO Number Field	BELNR
PO Number Field	QUALF
Additional PO No.	001
Delivery Note Sgmt	
Delivery Note Field	
Delivery Note Field	
Addtl Delivery Note	
PO Number Segment	
PO Number Field	
PO Number Field	
Additional PO No.	
Delivery Note Sgmt	
Delivery Note Field	
Delivery Note Field	
Addtl Delivery Note	

## Fixed mapping of IDoc field values to ReadSoft EDI COCKPIT field values

/COCKPIT/EI3

Here you can change the values in IDoc documents. Field values are changed by searching for values only, not field names.

**Display View "EDI COCKPIT modify field values table": Overview**

EDI COCKPIT modify field values table		
Item ID	IDoc field value	IDoc field value
1	VAT	Tax
2	DEM	EUR
3	ST	PCE

Setting	Description
<b>Item ID</b>	The ID of the mapping entry. The first entry must be 1, the second 2, and so on.
<b>IDoc field value</b>	The value in the IDoc.
<b>IDoc field value</b>	The new value, which is saved in the PROCESS DIRECTOR document.

## Settings to receive electronic invoices

/COCKPIT/EI7

This table is used to configure the receipt of electronic invoices from document verification companies.

### Define sender and receiver profiles

Setting	Description
<b>Sender ID</b> <b>Receiver ID</b>	The ID of the sender and receiver.
<b>Data type</b>	The type of file containing the IDoc (XML, flat text).
<b>Path name</b>	Path for a temporary file to load the IDoc file into ReadSoft EDI COCKPIT, if an empty default directory is used.
<b>IDoc_beginning</b>	A string representing the beginning of an IDoc in the incoming XML or flat text file.
<b>Cut string at start</b>	Option if the start of the string should be removed or not.
<b>IDoc_end</b>	A string representing the end of an IDoc in the incoming XML or flat text file.
<b>Cut the end string</b>	Option if the end of the string should be removed or not
<b>Segment name</b> <b>IDoc field name</b>	A name of a segment and a field in IDoc where a new invoice GUID is written to pass to ReadSoft EDI COCKPIT.

Setting	Description
<b>Segment Name</b> <b>IDoc Field Name</b> <b>Receiver port</b> <b>Rec.partn.type</b> <b>Rec.partn.funct</b> <b>Receiver</b> <b>Sender port</b> <b>Partn.type</b> <b>Partn.funct</b> <b>Partn.number</b> <b>Message type</b> <b>Message code</b> <b>Msg.function</b>	IDoc control record data. A new IDoc is created with these values in the control record. The values should fit to the customer's EDI SAP settings and to profiles set in /COCKPIT/EI1.
<b>Port for XML</b> <b>Port for File</b>	The port to use for creating the IDoc from XML and text files (SAP 4.7 and later only).

## Define number and type of incoming files

This table defines the attachments expected from the sender.

Setting	Description
<b>Sender ID</b> <b>Receiver ID</b>	The ID of the sender and receiver.
<b>Sort number</b>	Order of files.
<b>File name pattern</b>	The name of the incoming file. Does not have to be exact, wildcards such as '*' or '?' can be used here.
<b>MimeType</b>	Binary data or text data.
<b>Document type</b>	The document type used for archiving the attachment.

Setting	Description
<b>Document (attachment) type</b>	<p>Indicates whether the attachment is an IDoc, an image, or another kind of file.</p> <ul style="list-style-type: none"> <li>▪ Other (unknown)</li> <li>▪ IDoc – will be converted to IDoc</li> <li>▪ Primary attachment – will be inserted as the primary image in ReadSoft PROCESS DIRECTOR (PDF, TIFF, etc.)</li> </ul>

## Set assignment rules for collective invoices

/COCKPIT/EI6

ReadSoft PROCESS DIRECTOR creates documents for collective invoices as well as the invoices the collective invoice contains. In order to create the PROCESS DIRECTOR document for the collective invoice, this mapping table is used.

The **Profile Name** field must be left blank. It is not yet used.

Setting	Description
<b>Invoice</b>	The ID of the field on the invoice.
<b>Collective invoice</b>	The ID of the field on the collective invoice.

## Activate user exits

/COCKPIT/EI13

Setting	Description
<b>User Exits</b>	The ID of the ReadSoft EDI COCKPIT User Exit template/interface. It is necessary for the correct connection of the User Exit to the processes to be adjusted.
<b>Function module</b>	The name of the User Exit.
<b>No standard</b>	Indicates the User Exit replaces standard functionality in ReadSoft EDI COCKPIT.
	Shortcut to view and edit the User Exit.

## Create test IDoc

You can create test IDocs in ReadSoft EDI COCKPIT to test your configuration, including User Exits you have implemented. You specify the values for the IDoc fields. Resulting IDocs are the **INVOIC02** basic type.

### Create test IDoc

/COCKPIT/EI5

For the test documents you create, you must provide some basic information about the sender and receiver.

Setting	Description
<b>IDoc type</b>	The IDoc template number. You can create up to nine IDoc templates, from which the IDocs are created. The field values for each IDoc type are specified in /COCKPIT/EI4.
<b>Number of IDocs to create</b>	The number of IDocs to create.
<b>Recipient/Partner settings</b>	Information about the recipient of the test IDocs.  Test flag – All of the settings relevant to partner settings in the SAP ALE/EDI settings. All these settings can be maintained in WE20 transaction code.
<b>Sender settings</b>	Information about the sender of the test IDocs.

### Data definition to generate a test IDoc

/COCKPIT/EI4

This table contains the field values for the IDocs you wish to create.

Setting	Description
<b>IDoc type</b>	The IDoc template number. You can create up to nine IDoc templates, from which the IDocs are created.
<b>Segment order</b>	All segments must be numbered sequentially.
<b>Segment name</b>	The name of the segment for the <b>INVOIC02</b> basic type.

Setting	Description
<b>Field name</b>	The field ID for the segment.
<b>Field value</b>	The value to be added to the created IDoc.

## Creating test IDocs

### Overview

You can create test IDocs in ReadSoft EDI COCKPIT to test your configuration, including User Exits you have implemented.

- [Creating IDocs](#)
- [Viewing IDocs](#)
- [Sending IDocs to ReadSoft PROCESS DIRECTOR](#)

### Creating IDocs

To create test IDocs:

- Specify the data for your document(s) in [/COCKPIT/EI4](#).
- Generate the documents in [/COCKPIT/EI5](#).

## Viewing IDocs

After the IDocs are created, you can view them in WE02.

**IDoc list**

Default sel. | Addit.selctn | **EDI sel.**

Time created: 00:00:00 to 24:00:00

Date created: 11.08.2011 to 11.08.2011

Time of last change: 00:00:00 to 24:00:00

Date of last change: to

Direction: to

IDoc number: to

Current status: to

Basic type: to

Extension: to

Logical message: to

Port of sender: to

Partner type of sender: to

Partner number of sender: to

Port of recipient: to

Partner type of recipient: to

Partner number of recipient: to

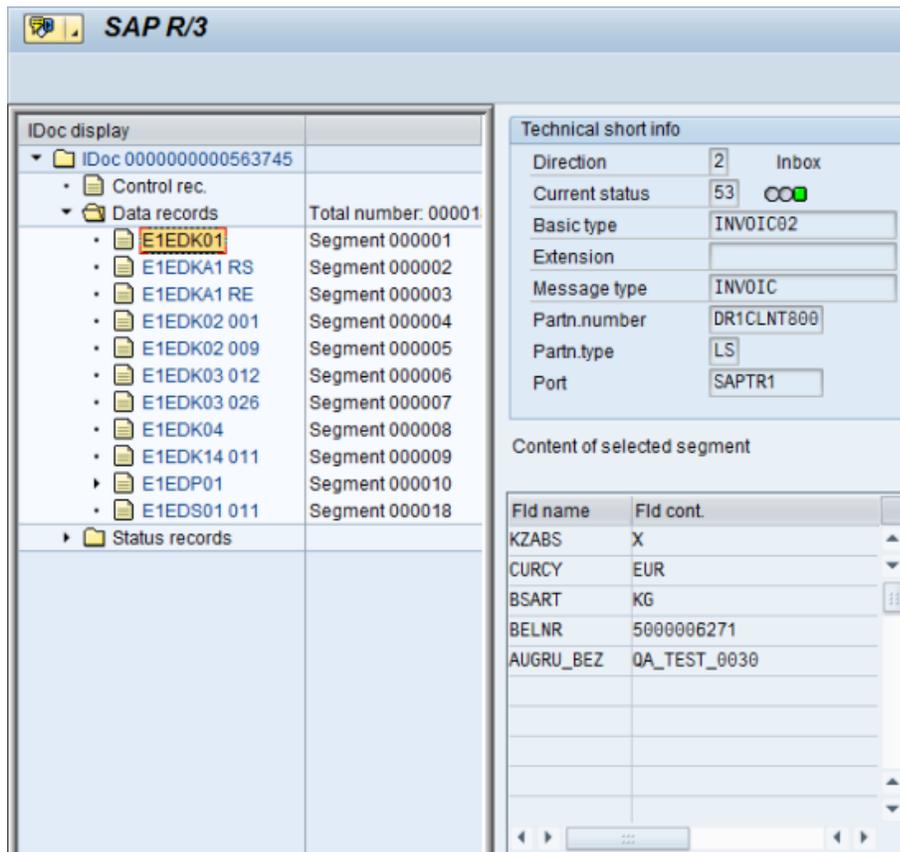
WE20 – IDoc selection screen.

**SAP R/3**

Selected IDocs

IDoc number	Seg...	Sta...	Sta...	Partner	BasicType	Date created	Tr
00000000005637...	18	53	CC	LS/ /DR1CLNT...	INVOIC02	15.07.2011	16
00000000005637...	18	53	CC	LS/ /DR1CLNT...	INVOIC02	15.07.2011	16
00000000005637...	18	53	CC	LS/ /DR1CLNT...	INVOIC02	15.07.2011	16
00000000005637...	18	53	CC	LS/ /DR1CLNT...	INVOIC02	15.07.2011	16
00000000005637...	18	53	CC	LS/ /DR1CLNT...	INVOIC02	15.07.2011	16

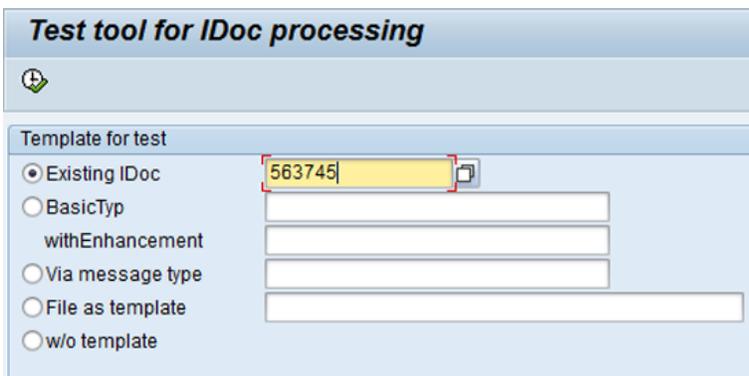
Search result.



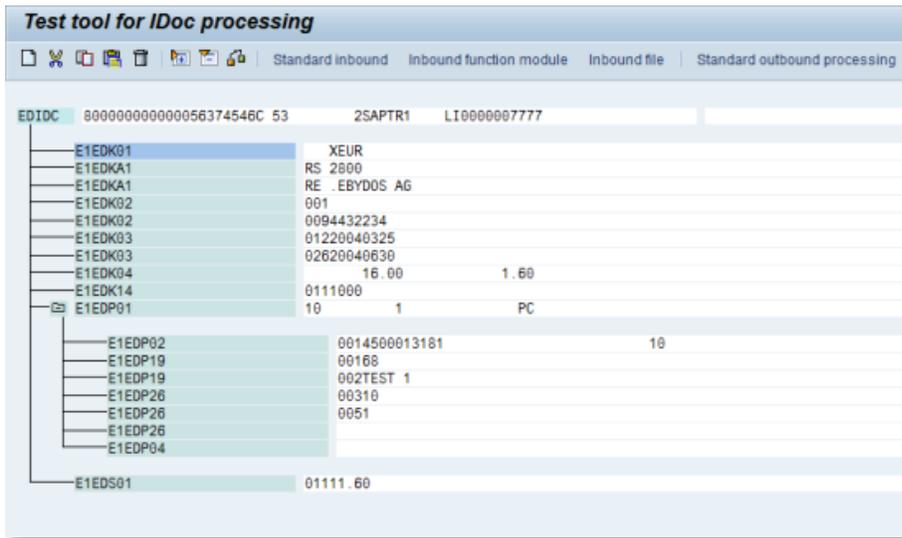
IDoc details.

## Sending IDocs to ReadSoft PROCESS DIRECTOR

After you have created your IDocs, you can send them to ReadSoft PROCESS DIRECTOR and test that ReadSoft EDI COCKPIT handles them correctly. You do this in SAP transaction WE19.



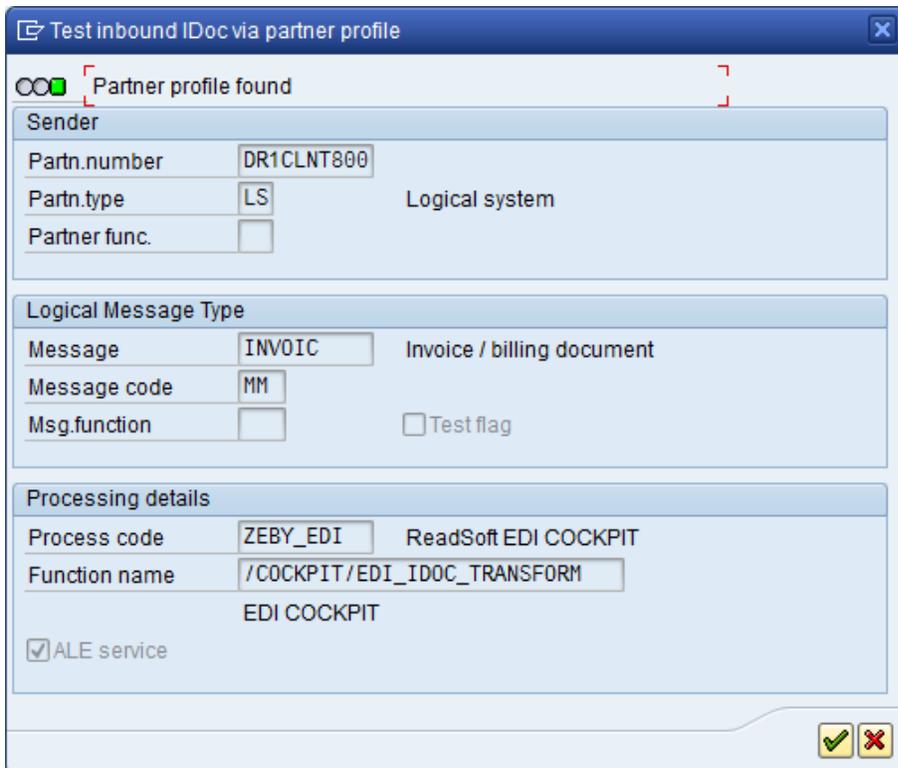
WE19 – Enter an IDoc number you generated in /COCKPIT/EI5.



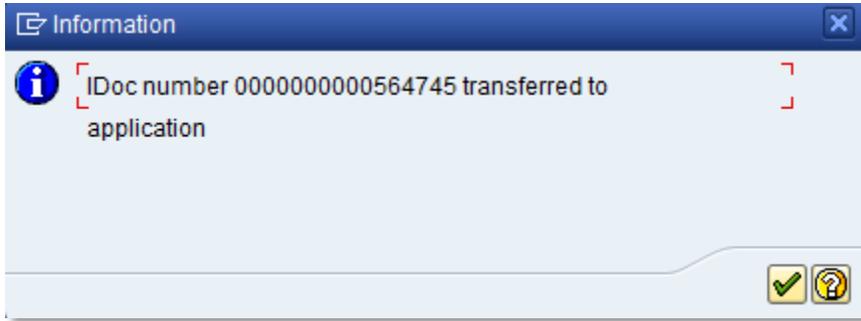
Preview of the IDoc.

In the IDoc preview window, click the **Standard inbound** button.

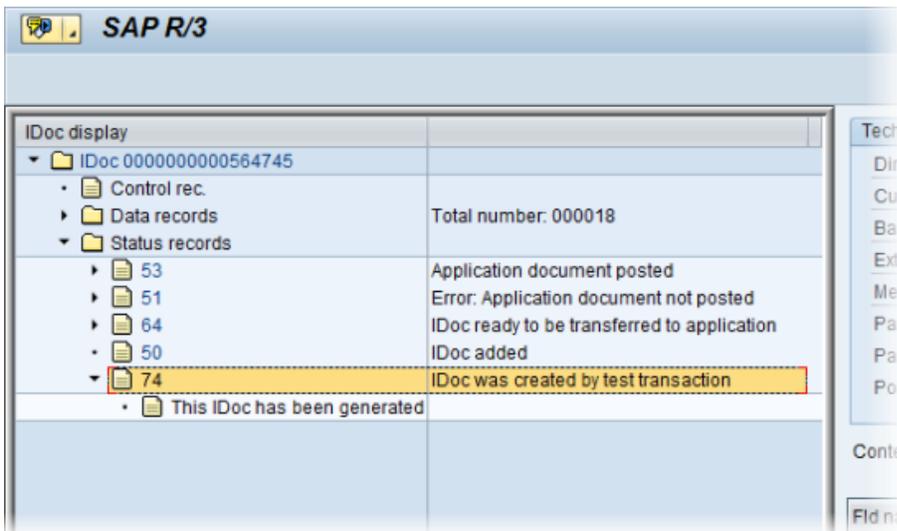
This button is enabled only when all the EDI settings in the SAP system are configured correctly.



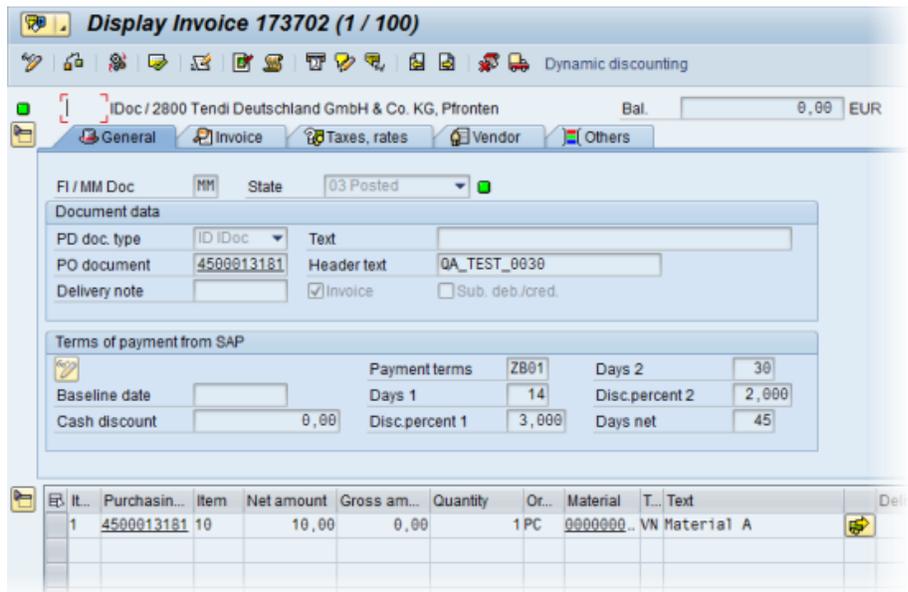
A partner profile is found. Note this document will be sent to ReadSoft EDI COCKPIT.



Confirmation the IDoc was successfully sent.



The status of the IDoc shows that it was sent.



The resulting document in ReadSoft PROCESS DIRECTOR. The Message logs show its IDoc origins.

## Appendix A: Tables

The three main configuration tables are:

Table	Content	Description
<b>/COCKPIT/CEDIP</b>	Profiles	Connects the partner profile data to the process code used to process incoming IDocs. The table also contains other configuration data.
<b>/COCKPIT/CEDIS</b>	Structures	Contains the mapping between the segments and PROCESS DIRECTOR document structures (HEADER, ITEMDATA, and so on), for each profile.
<b>/COCKPIT/CEDIF</b>	Fields	Contains the mapping between the IDoc and ReadSoft PROCESS DIRECTOR fields.

## Appendix B: User Exits

### Overview

ReadSoft EDI COCKPIT comes with several User Exit interfaces that you can use to customize the application to suit business requirements.

Function modules called from the User Exit interfaces can be found in the /COCKPIT/EDI\_EXIT\_SAMPLE function group.

These function modules can be copied and subsequently modified in order to guarantee a stable interface.

### Interface structure

The interface structures and the tables in the local interface of the User Exit function templates start with I, E, and C.

Prefix	Description
<b>E</b>	Data is exported only. Changes are possible.
<b>I</b>	Data is imported only. Changes are not incorporated.
<b>C</b>	Data can be changed. Changes are possible.

### List of User Exits

User Exit	Name
<b>600</b>	<a href="#">Change of IDoc data before processing</a>
<b>601</b>	<a href="#">Check SAP document of an IDoc</a>
<b>602</b>	<a href="#">Retrieve SAP document number for a posted IDoc</a>
<b>603</b>	<a href="#">Determine fiscal year for a posted IDoc</a>
<b>604</b>	<a href="#">Determine company code for a posted IDoc</a>
<b>605</b>	<a href="#">Check if IDoc is an FI or MM document</a>
<b>606</b>	<a href="#">Changes before mapping of IDoc to a PROCESS DIRECTOR document</a>

User Exit	Name
<b>607</b>	Changes before transferring IDoc to ReadSoft PROCESS DIRECTOR
<b>608</b>	Changes before transferring IDoc to ReadSoft PROCESS DIRECTOR
<b>609</b>	Change of IDoc data after processing
<b>610</b>	Determine posting function of an IDoc
<b>611</b>	XML import, changes in files
<b>612</b>	XML import, changes in XML before transfer to IDoc
<b>613</b>	XML import, retrieve invoice GUID from IDoc



Template
ENDFUNCTION.

## User Exit 601 – Check SAP document of an IDoc

You can check if the posting with another user-defined function module succeeded. If yes, the User Exit returns the following SAP document data: SAP document number, fiscal year, FI/MM flag and company code. You can use this User Exit to retrieve this information in another way to the standard method.

Template
<pre> FUNCTION /COCKPIT/USEX_AFTER_POST. ** ----- **" "Lokale Schnittstelle: ** TABLES **   T_TAB_MESSAGES STRUCTURE BAPIRET2 ** CHANGING **   VALUE(CC_DOCUMENT_NUMBER) TYPE RE_BELNR **   VALUE(CN_FISCAL_YEAR) TYPE GJAHR **   VALUE(CC_FI_MM_FLG) TYPE /COCKPIT/DFI_MM_FLG **   VALUE(CC_COMPANY_CODE) TYPE BUKRS ** EXCEPTIONS **   ERROR_OCCURED **   ERROR_MESSAGE **   OTHERS ** ----- ** @US@aa    =&gt; Signiture of Creator, e.g. HH for Harry Hirsch ** @CU@aaa... =&gt; Customer Name ** @K1@ ... *K9@ =&gt; Keywords for Implemented Functionality  * User exit 601 </pre>







## User Exit 604 – Determine company code for a posted IDoc

You can use this User Exit to retrieve the company code for a posted IDoc in different way to the standard implementation.

Template
<pre> FUNCTION /COCKPIT/USEX_RETR_COMP_CODE. **----- **"Local interface: ** IMPORTING **   REFERENCE(IS_SAP_DATA_CUST) LIKE /COCKPIT/CEDIW STRUCTURE **   /COCKPIT/CEDIW ** TABLES **   T_TAB_MESSAGES STRUCTURE BAPIRET2 ** CHANGING **   REFERENCE(CC_COMPANY_CODE) TYPE BUKRS ** EXCEPTIONS **   ERROR_OCCURED **   ERROR_MESSAGE **   OTHERS **----- **@US@aa    =&gt; Signiture of Creator, e.g. HH for Harry Hirsch **@CU@aaa... =&gt; Customer Name **@K1@ ... *@K9@ =&gt; Keywords for Implemented Functionality  * Dummy entry for user exit cross reference check   IF con_exit_edi_retr_comp_code IS INITIAL. ENDIF.  * User exit 604 </pre>









Template
ENDFUNCTION.

## User Exit 608 – Changes before transferring IDoc to ReadSoft PROCESS DIRECTOR

This User Exit is called when an IDoc is not posted in SAP (using the standard SAP EDI interface) due to some error. Using this User Exit, you can call an alternative function module (that is, not /COCKPIT/RFC\_DATA\_SUBMIT) to transfer the document to ReadSoft PROCESS DIRECTOR. When using this User Exit, you must ensure that /COCKPIT/RFC\_DATA\_SUBMIT is not called.

Template
<pre> FUNCTION /COCKPIT/USEX_RFC. *# ----- *#*# Local interface: *# EXPORTING *#   REFERENCE(EB_NO_STANDARD) LIKE BOOLE-BOOLE *# TABLES *#   T_TAB_ITEM STRUCTURE /COCKPIT/SITEM_EXT *#   T_TAB_TAX STRUCTURE /COCKPIT/STAX_EXT *#   T_TAB_ACCOUNT STRUCTURE /COCKPIT/SACCT_EXT *#   T_TAB_CONTENT TYPE /COCKPIT/EDI_TBL1024 *#   T_TAB_MESSAGES STRUCTURE BAPIRET2 *# CHANGING *#   VALUE(CN_CONTENT_LENGTH) TYPE SAPB-LENGTH *#   VALUE(CS_STR_HEADER) LIKE /COCKPIT/SHDR_EXT STRUCTURE *#     /COCKPIT/SHDR_EXT *#   VALUE(CS_STR_CHECK) LIKE /COCKPIT/SCHECKDATA STRUCTURE *#     /COCKPIT/SCHECKDATA *#   VALUE(CC_GUID) LIKE /COCKPIT/SIF-INVOICE_GUID </pre>









## User Exit 612 – XML import, changes in XML before transfer to IDoc

This User Exit can be used to modify data in the XML before it is converted to an IDoc.

Template
<pre> FUNCTION /COCKPIT/USEX_XML_CHANGE. *''----- *''''Local interface: *'' IMPORTING *''   REFERENCE(IC_INVOICE_GUID) LIKE /COCKPIT/SIF-INVOICE_GUID *''   OPTIONAL *''   REFERENCE(IC_SENDER_ID) LIKE /COCKPIT/CEDIATT-SENDER_ID *''   OPTIONAL *''   REFERENCE(IC_RECEIVER_ID) LIKE /COCKPIT/CEDIATT-RECEIVER_ID *''   OPTIONAL *'' TABLES *''   ET_MESSAGES STRUCTURE BAPIRET2 OPTIONAL *'' CHANGING *''   REFERENCE(CC_XML_STRING) TYPE STRING *''-----  *@US@aa      =&gt; Signiture of Creator, e.g. HH for Harry Hirsch *@CU@aaa...  =&gt; Customer Name *@K1@ ... *@K9@ =&gt; Keywords for Implemented Functionality  * Dummy entry for user exit cross reference check   IF con_exit_edi_xml_change IS INITIAL. ENDIF.  * User exit 612 </pre>





## Appendix C: Transactions

Listed below are some popular transaction codes for processing IDocs in SAP.

Prefix	Description
<b>WE02</b>	View IDocs
<b>WE19</b>	Test tool for IDocs
<b>WE20</b>	Maintain partner profiles
<b>WE21</b>	Maintain system ports
<b>WE30</b>	Create IDoc types
<b>WE31</b>	Create segments
<b>WE42</b>	Maintain process codes
<b>WE57</b>	Assign function modules to messages and IDoc types
<b>WE81</b>	Create message type
<b>WE82</b>	Assign IDoc types to message types
<b>BD57</b>	Characteristics of inbound function modules

## Glossary

### A

**ALE:** Application Link Enabling.

### E

**EDI:** Electronic Data Interchange.

### E

**IDoc: Intermediate Document.** IDocs are structured ASCII files (or a virtual equivalent). It is a file format used by SAP to exchange data with foreign systems. An IDoc consists of various records types: control record (sender, recipient, type, etc.), data record (segment data) and status record (statuses). An IDoc is a kind of asynchronous document related to its direction: inbound or outbound. The IDoc type is the name of the data structure used to describe the file format of a specific IDoc.

**INVOIC02:** The IDoc basis type for an invoice/billing document.

### M

**Message type:** Data exchanged by an IDoc and EDI is known as a message. Messages of the same kind belong to the same message type. The message type defines the semantic context of an IDoc. The message type informs the receiver about how the message must be interpreted.

### P

**Partner profile:** Different sending and receiving partners may communicate using different message types. While the information remains the same, different receivers may require different file formats. Partner profiles contain the names of the partners that are allowed to exchange IDocs with your system. They also contain a list of the message types the partner may send, permitted formats and communication protocols.

**Port definition:** IDoc data can be sent and received through a multitude of different media. In order to decouple the media from the application using it, the media is accessed via ports. A port is a logical name for an input/output device. A program talks to a port which is presented to it with a common standard interface. The port handles the translation between the standard interface format and the device dependent format.

**Process code:** The function that processes an IDoc. Different IDocs can be processed using different process codes. In most cases a process code points a function module in the R/3 system, but you can also use custom functions, such as `/COCKPIT/EDI_IDOC_TRANSFORM` for ReadSoft EDI COCKPIT.

## **S**

**Segment:** A structure of an IDoc's data.

**Status:** Every IDoc has log messages written to its status records, which contain information about the operations performed on the IDoc (for example, created, passed to another system, etc.) It is possible to add specific messages. Message types 01-49 are the message numbers for outbound processes; 50-75 for inbound processes.