

OpenText Vendor Invoice Management for SAP Solutions

Scenario Guide

The Vendor Invoice Management Scenario Guide describes functional and technical scenarios of OpenText Vendor Invoice Management 7.5.

VIM070500-CCS-EN-1

OpenText Vendor Invoice Management for SAP Solutions Scenario Guide

VIM070500-CCS-EN-1

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Part 1

About Vendor Invoice Management

SAP Invoice Management by OpenText (VIM) is a packaged business solution for managing vendor invoices.

- VIM solves a business problem - paying correct amount to vendors on time and with the lowest cost.
- VIM delivers not technology but best-practice business processes.
- VIM provides values to customers in process efficiency, visibility and compliance.

VIM is SAP centric.

- VIM is an add-on to your SAP ERP system, the majority of the functions and processes run inside your SAP ERP system.
- VIM deals only with invoices that will be posted to SAP ERP.
- VIM uses SAP technology: ABAP®, Workflow, and SAP NetWeaver® Portal.
- VIM integrates with standard SAP functions: Invoice Verification, Financial Processing, etc.

VIM consists of the following components:

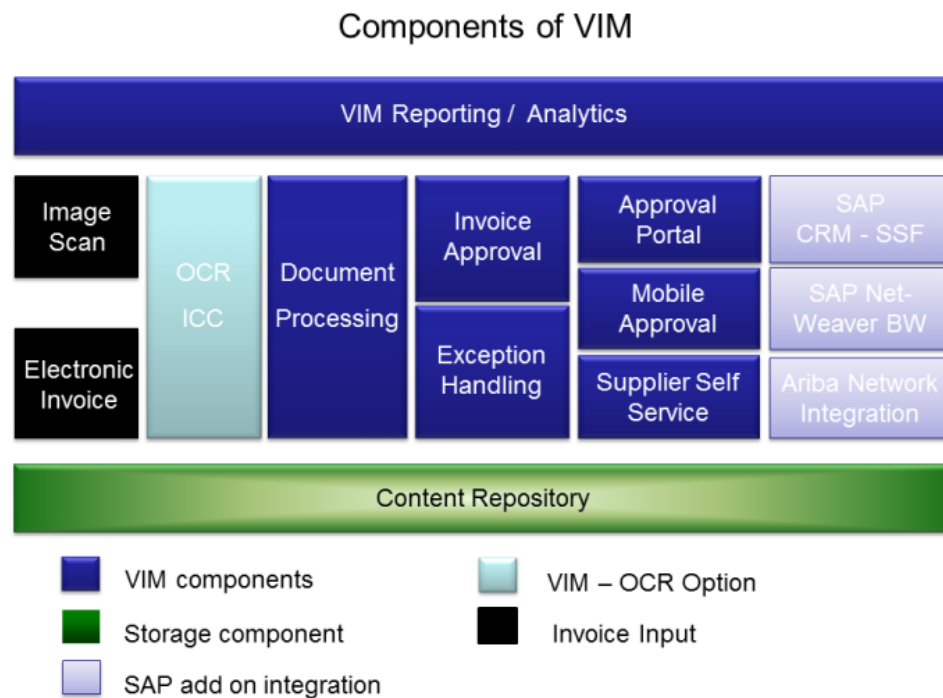


Figure 1: VIM components

ICC (Invoice Capture Center)

- Automate the capture of paper invoices by using OCR to extract invoice data.

Document Processing

- Capture invoice metadata.
- Handle suspected duplicate invoices.
- Collaborate with others.

Invoice Approval

- Receive a list of invoices to be approved.
- Code and approve the invoices.

Approval Portal

- Java based Approval Portal infrastructure running on SAP NetWeaver Application Server Java.
- Similar to Invoice Approval but with Web interface.

Mobile Approval

- Approve invoices on a mobile device, for example a Blackberry, an iPhone, or an iPad.

Exception Handling (Invoice Exception)

- Handle the exceptions that arise after a SAP invoice is created.

VIM Reporting / VIM Analytics

- VIM Reporting: Use various reports to analyze the status of invoices in your system.
- VIM Analytics: Overlook the invoices in progress in a unified dashboard.

Supplier Self Service

- Provide a web interface that enables suppliers to keep track of the status of their invoices.

SAP CRM SSF Integration

- Integrate VIM with SAP Customer Relationship Management (SAP CRM) SAP Shared Service Framework to create Service Requests from VIM dashboards.
- Provide VIM invoice information in Vendor Factsheet inside the Accounting Interaction Center (AIC).

SAP NetWeaver BW

- Integrate VIM with SAP NetWeaver® Business Warehouse (SAP NetWeaver BW) to integrate, transform, and consolidate relevant business information from productive SAP applications and external data sources.

Ariba Network Integration

- Connect VIM with Ariba Network Integration for SAP Business Suite. Suppliers create invoices in the Ariba Network. The invoices are sent to the SAP ERP system of the buyer. The buyer processes all incoming invoices in VIM.

Chapter 1

About This Document

This document describes various implementation scenarios of VIM. It distinguishes between functional and technical scenarios.

“Functional Scenarios”

Functional scenarios refer to integrating VIM with external concepts or systems, for example the implementation of Goods-Receipt-based invoices or a detailed explanation of handling multiple backend systems.

“Technical Scenarios”

Technical scenarios refer to customizing standard VIM functions, from the point of view of a special requirement or an overview of the complete system. An example for a special requirement are business requirements of Central Reporting. An example for an overview is the end-to-end description how to add new fields in ICC and VIM.

For detailed descriptions of customizing settings, technical scenarios may provide links to the standard documentation.

The Scenario Guide does not replace the standard documentation for VIM but understands itself as an addition. See also the following guides that are partly referenced in this document:

- *OpenText Vendor Invoice Management for SAP Solutions - User Guide (VIM-UGD)*
- *OpenText Vendor Invoice Management for SAP Solutions - Installation Guide (VIM-IGD)*
- *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*
- *OpenText Vendor Invoice Management for SAP Solutions - Administration Guide (VIM-AGD)*
- *OpenText Vendor Invoice Management for SAP Solutions - Reference Guide (VIM-RGD)*
- *Invoice Capture Center User's Guide*
- *Invoice Capture Center Customizing Guide*
- *Invoice Capture Center Administrator's Guide*

1.1 Target Audience

This document addresses consultants and administrators who customize and implement Vendor Invoice Management (VIM). This includes:

- SAP Basis Administrators
- SAP Workflow Administrators
- SAP Configuration and Development Support
- OpenText Global Services SAP Consultants

The following knowledge is required from the reader:

- in-depth knowledge of SAP ERP system administration

Part 2

Functional Scenarios

Functional scenarios refer to integrating VIM with external concepts or systems, for example the implementation of Goods-Receipt-based invoices or a detailed explanation of handling multiple backend systems.

Chapter 2

Parking and Non-parking Scenarios

VIM distinguishes between two main scenarios for processing invoices:

Non-parking scenario (DP process)

A DP document maps the indexing of an invoice stored in VIM tables.

Parking scenario

A parked document is an SAP document, its data is stored in SAP tables.

2.1 Business Aspects

Non-parking The DP process (non-parking scenario) is applied when an invoice is coming from ICC, IDoc, email or any other incoming e-document. All business rules are checked against the data of the invoice. If the invoice is correct, it is posted in background.

In between, the approval workflow is triggered if the process types **Approval Required (NPO)** or **Approval Required (PO)** are configured for the given document type. Until the document is posted, the DP document is visible only in VIM.

Parking The parking process is triggered when an invoice is parked using the SAP transaction FV60 (Non-PO invoices) or MIR7/MIR0 (PO invoices). The user must enter a parking reason. The parked document can be processed in VIM instead of the indexing document. The parked document is visible not only in VIM, but also in SAP. It can be seen or edited using SAP transactions.

Based on the parking reason, the work item is sent to the pre-configured actor. Every actor can perform one of some options. These options are pre-defined for every parking reason, for example refer invoice or post invoice. When the document is posted, the process ends.

A special parking scenario is the approval scenario. If the parking reason is **Approval Required**, the approval workflow is triggered. At the end of the approval process, when the document is completely approved, it is posted in background.

2.2 Technical Aspects

This section lists some differences between parking and non-parking scenarios. For more details about each scenario, see the following documentation:

Non-parking scenario

Section 9 “Document Processing Process Configuration” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*

Parking scenario

Section 10 “PO Parking Process Configuration” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*

Section 12 “Non PO Parking Process Configuration” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*

2.2.1 Workflow Template

Non-parking scenario

The DP process is based on workflow template WS00275269.

Parking scenario

The parking process is based on different workflow templates for PO and NPO invoices:

- WS00275260 for PO parking
- WS00275254 for NPO parking

2.2.2 Initial Role

Non-parking scenario

The initial role is determined based on process type (exception). For more information, see Section 9.11.1 “Defining the Process Type” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

Parking scenario

The initial role is determined based on the initial actor maintained for the parking reason. You can maintain this in the /n/OPT/SPRO transaction. For more information, see Section 10.2 “Configuring Parking Reasons” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)* and Section 12.1 “Configuring Parking Reasons (Non PO Parking Process)” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*

2.2.3 Posting Invoices in Dialog

Non-parking scenario

A DP document can be posted online in dialog using the pre-configured BDC for process option **Post Invoice** for PO and NPO. For this purpose, BDC 1/ BDC 200 and BDC 40 are delivered in VIM baseline. When the process option is executed, the SAP transactions MIR0 (for PO) and FB60 (for NPO) are called with pre-populated data respectively.

Parking scenario

A parked document can be posted online in dialog using the pre-configured BDC for process option **Change Post Invoice (P0)** and **Change/Post Invoice (NP0)** for PO and NPO. For this purpose, BDC 313 and 312 are delivered in VIM baseline. When the process option is executed, the SAP transaction MIR4 (for PO) and FBV0 (for NPO) are called with pre-populated data respectively.

2.2.4 Posting Invoices in Background

DP documents and parked document can be posted in background to complete the process.

Non-parking scenario

To allow posting the document in background using the BDC maintained for background posting, maintain the **Autopost Flag** in the document type, as described in Section 9.1.2 “Defining Process Types” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

Parking scenario

- A PO parked invoice is posted in background using method POSTPARKEDINVOICE of Object Type /OPT/B2081.
- An NPO parked invoice is posted in background using method POSTPARKEDINVOICE of Object Type /OPT/FIPP.

2.3 Customizing Aspects

This section lists customizing activities that are relevant for non-parking and parking scenarios.

Rollout criteria

For the parking scenario, you must take the rollout criteria into consideration. This is described in Section 6.1 “Defining Rollout Criteria for the PO Parking Process” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)* and Section 6.3 “Defining Rollout Criteria for the Non PO Parking Process” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

Customizing in /n/OPT/SPRO

Non-parking scenario

All customizing related to non-parking processing is maintained in /n/OPT/SPRO > **Vendor Invoice Management > Document Processing Configuration**.

Parking scenario

All customizing related to parking processing is maintained in the **OpenText Configuration**:

- For the PO parking scenario, run /n/OPT/SPRO and navigate to **Vendor Invoice Management > PO Based Invoice Configuration -> Parked Invoice Processing Configuration**.
- For the NPO parking scenario, run /n/OPT/SPRO and navigate to **Vendor Invoice Management > Non PO Based Invoice Configuration -> Parked Invoice Processing Configuration**.

Chapter 3

Multiple Backend System

VIM can be deployed in many stand-alone systems. But you might want to use some central resources, for example one of the following:

- a central invoice entry point, which includes scanning with Invoice Capture Center (ICC)
- a central archive to archive all incoming invoices
- a central controlling point for management, which uses Central Reporting

For requirements like these, you can run VIM as a multiple backend system. This means you have one central system with multiple satellite systems for invoice entry and procurement logistics. **Figure 3-1** shows an example for a multiple backend system.

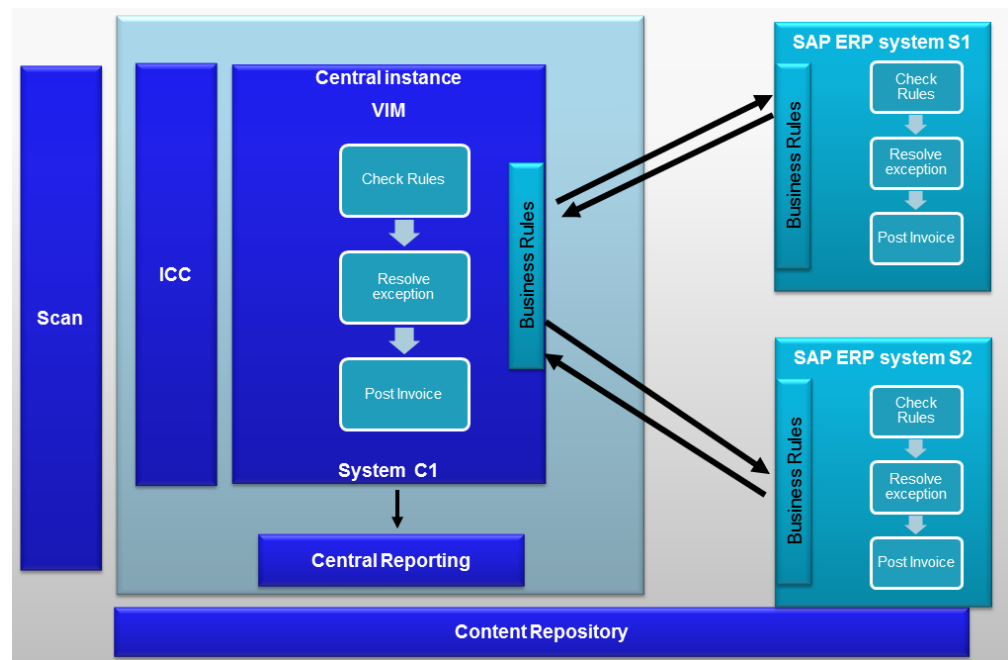


Figure 3-1: VIM as a multiple backend system



Important considerations for multiple backend systems

- There can be only one central system connected to one or more satellite systems.

- OpenText recommends connecting a single Content Repository to all systems in the landscape to ensure that image links get propagated to all systems.
- The number ranges for the Document Processing number are centralized and hence should be maintained in the central system.

All satellite systems and the central system can make use of the central number range.

- The VIM workflow can run in central or satellite systems, as needed. OpenText recommends running the VIM workflow in the system where the final SAP invoice gets posted.

3.1 Defining Logical Systems

In this step, you define the logical systems in your multiple backend system. Systems in the landscape are referred using logical system IDs. In SAP terminology, a logical system is a *client*. First, you must set up logical system IDs. In a second step, you assign the logical system IDs to the clients in the SAP ERP systems, see [“Assigning Clients to Logical Systems” on page 19](#).



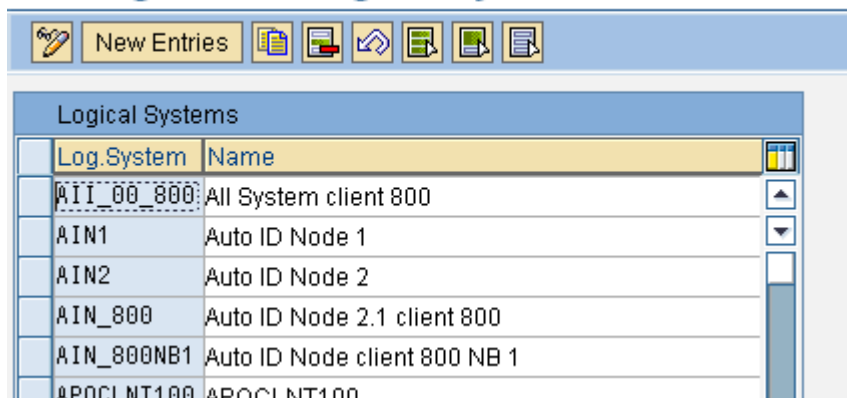
Note: It is possible that the logical system ID already exists. In this case, you can ignore this procedure and the procedure [“Assigning Clients to Logical Systems” on page 19](#).

To define logical systems:

1. Run the /n/OPT/VIM_LOG_SYS transaction.

Alternatively, run the /N/OPT/SPRO transaction and navigate to the menu path **Vendor Invoice Management > Document Processing Configuration > General Configuration > Multi-Backend Scenarios > Define Logical Systems**.

Change View "Logical Systems": Overview



Log.System	Name
ALL_00_800	All System client 800
AIN1	Auto ID Node 1
AIN2	Auto ID Node 2
AIN_800	Auto ID Node 2.1 client 800
AIN_800NB1	Auto ID Node client 800 NB 1
APOCLNT100	APOCLNT100

2. Click **New Entries** in the application tool bar.
3. Define the logical system, using the following parameters:

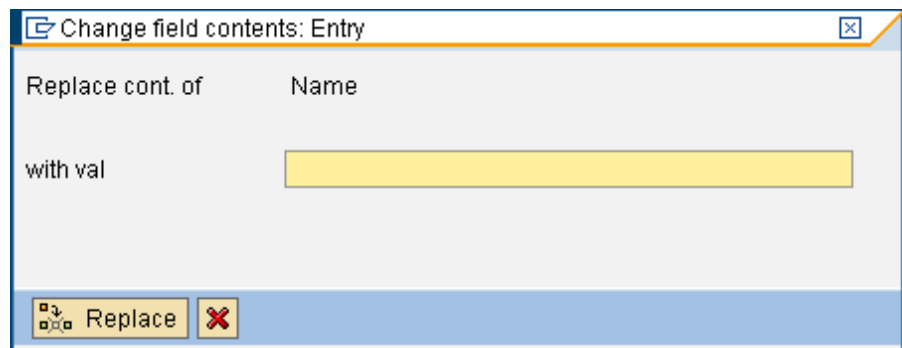
Log.System

Enter a name for the logical system you want to create.

Name

Enter a description of the logical system.

4. In case you want to change an entry:
 - a. Select the appropriate line.
 - b. Select **Change Field Contents** from the **Edit** menu.



- c. Enter the new text.
 - d. Click **Replace**.
5. Click  to save your settings.

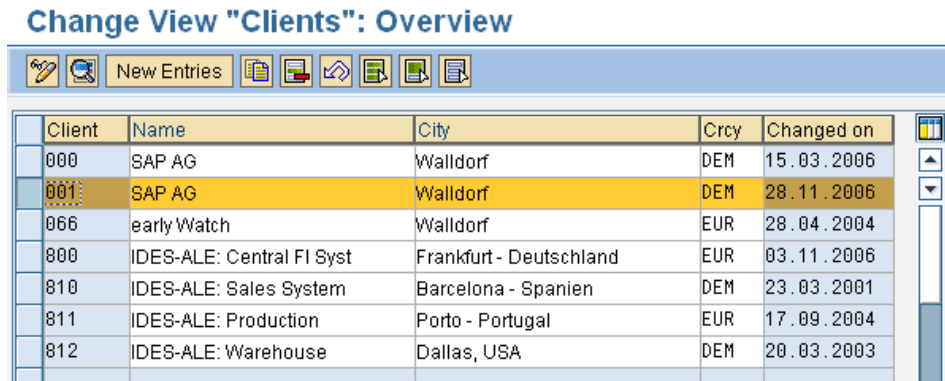
3.2 Assigning Clients to Logical Systems

In this step, you assign a client to each logical system. The ID of the logical system is used as a unique ID. It has a unique assignment to a client in an SAP ERP system. Logical systems in the landscape are assigned to their respective clients in their respective systems.

To assign clients to logical systems:

1. Run the `/n/OPT/VIM_ASGN_CLNT` transaction.
 Alternatively, run the `/N/OPT/SPRO` transaction and navigate to the menu path **Vendor Invoice Management > Document Processing Configuration > General Configuration > Multi-Backend Scenarios > Assign Client to Logical System**.

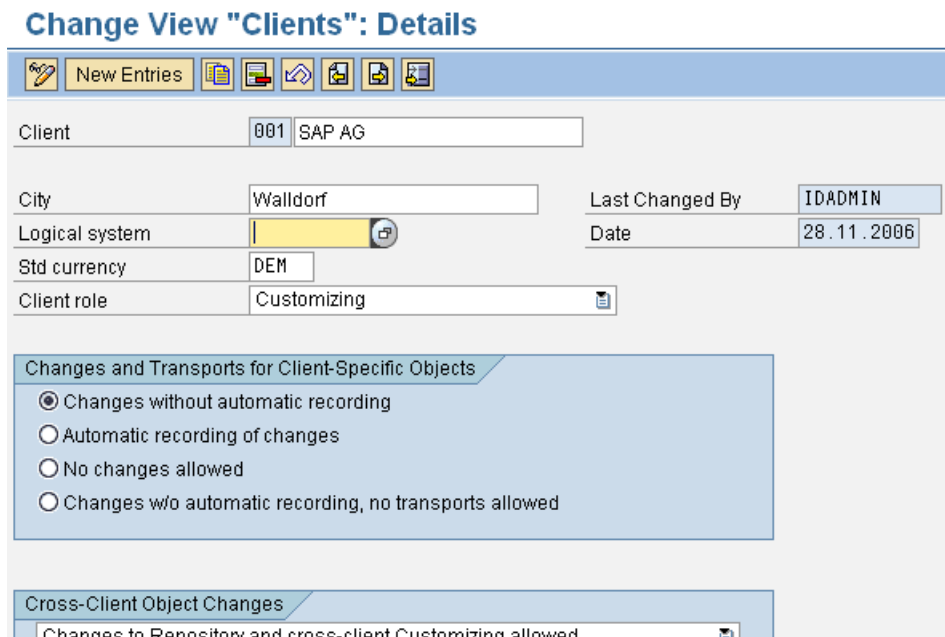
Change View "Clients": Overview



Client	Name	City	Crpy	Changed on
000	SAP AG	Walldorf	DEM	15.03.2006
001	SAP AG	Walldorf	DEM	28.11.2006
066	early Watch	Walldorf	EUR	28.04.2004
800	IDES-ALE: Central FI Syst	Frankfurt - Deutschland	EUR	03.11.2006
810	IDES-ALE: Sales System	Barcelona - Spanien	DEM	23.03.2001
811	IDES-ALE: Production	Porto - Portugal	EUR	17.09.2004
812	IDES-ALE: Warehouse	Dallas, USA	DEM	20.03.2003

2. Select the line of the client you want to assign to a logical system.
3. To display details, click the  button in the application tool bar.

Change View "Clients": Details



Client: 001 SAP AG

City: Walldorf

Logical system:

Std currency: DEM

Client role: Customizing

Last Changed By: IDADMIN

Date: 28.11.2006

Changes and Transports for Client-Specific Objects

☒ Changes without automatic recording
☐ Automatic recording of changes
☐ No changes allowed
☐ Changes w/o automatic recording, no transports allowed

Cross-Client Object Changes

Changes to Repository and cross-client Customizing allowed

4. In the **Logical system** field, enter the ID of the logical system to which you want to assign the selected client.
5. Click  to save your settings.

3.3 Maintaining RFC Destinations

Remote Function Call (RFC) is the standard SAP interface to communicate between SAP ERP systems. Using RFC, the central system in a multiple backend system can communicate with every satellite system.

In this step, you maintain RFC destinations for each logical system that you want to communicate to.



Recommendations

- OpenText recommends using RFC destinations for System Communication that have the same name as the logical system.
- For Dialog Communication, OpenText recommends to use trusted RFC connections.

For more details on setting up RFC destinations, see the SAP Help.

To maintain RFC destinations:

1. Run the SM59 transaction.

Alternatively, run the /N/OPT/SPRO transaction and navigate to the menu path **Vendor Invoice Management > Document Processing Configuration > General Configuration > Multi-Backend Scenarios > Maintain RFC Destinations**.

Configuration of RFC Connections

RFC Connections	Type	Comment
▶ R/2 Connections	2	
▶ ABAP Connections	3	
▶ HTTP Connections to External Server	G	
▶ HTTP Connections to ABAP System	H	
▶ Internal Connections	I	
▶ Logical Connections	L	
▶ TCP/IP connections	T	
▶ Connections via ABAP Driver	X	

2. From **RFC Connections**, open **ABAP Connections (Type 3)**.
3. Double-click the connection you want to maintain.

RFC Destination TMQ

Remote Logon Connection Test Unicode Test

RFC Destination: TMQ

Connection Type: 3 ABAP Connection Description:

Description

Description 1: TMQERP1

Description 2:

Description 3:

Administration Technical Settings Logon & Security MDMP & Unicode Special Options

Target System Settings

Load Balancing Status

Load Balancing: ☐ Yes ☒ No

Target Host: tmqerp1.tmwweb.ixos.de System Number: 00

Save to Database as

Save as: ☐ Hostname ☒ IP Address 149.235.224.126

Gateway Options

Gateway Host: Gateway service: Delete

4. Enter the connection parameters, like **Description**, **Target Host**, and **System Number**.
5. Click to save your settings.

3.4 Working with the System Landscape Directory (SLD)

The SLD helps to get the overview of the system landscape; for example of the following settings:

- How many systems are involved? And which ones?
- Which one is the central system? Which ones are the satellite systems?
- How does the central system communicate with each satellite system? Using which RFC?

In the SLD, you must maintain all systems with which interaction can happen. This includes the own system.



Terminology note

“Own system” means the system where the activity is being done or where the current SLD is being maintained.

All systems must be defined as logical systems before they can be used in the SLD. See [“Defining Logical Systems” on page 18](#) and [“Assigning Clients to Logical Systems” on page 19](#) for details.

Logical systems are client dependent, hence in a given system T01, client 800 and client 900 could be set up as different systems with different logical system defined.

3.4.1 Maintaining the SLD

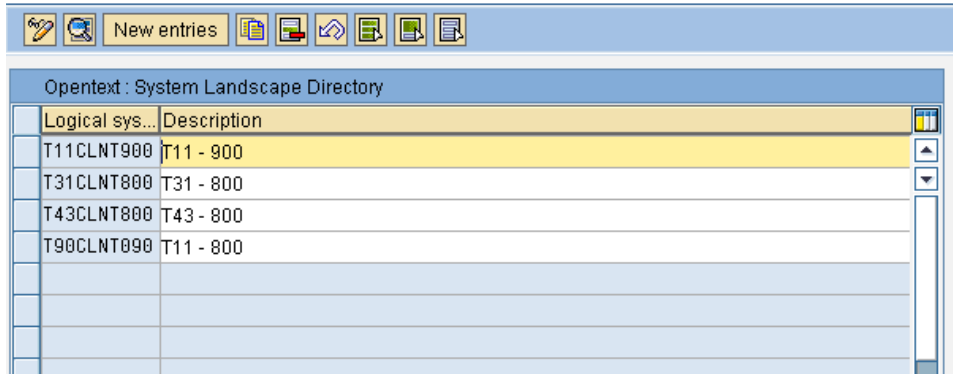
You must maintain the SLD manually in all SAP ERP systems involved.

To maintain the SLD:

1. Run the /N/OPT/VIM_SLD transaction.

Alternatively, run the /N/OPT/SPRO transaction and navigate to the menu path **Vendor Invoice Management > Document Processing Configuration > General Configuration > Multi-Backend Scenarios > System Landscape Directory > System Landscape Directory**.

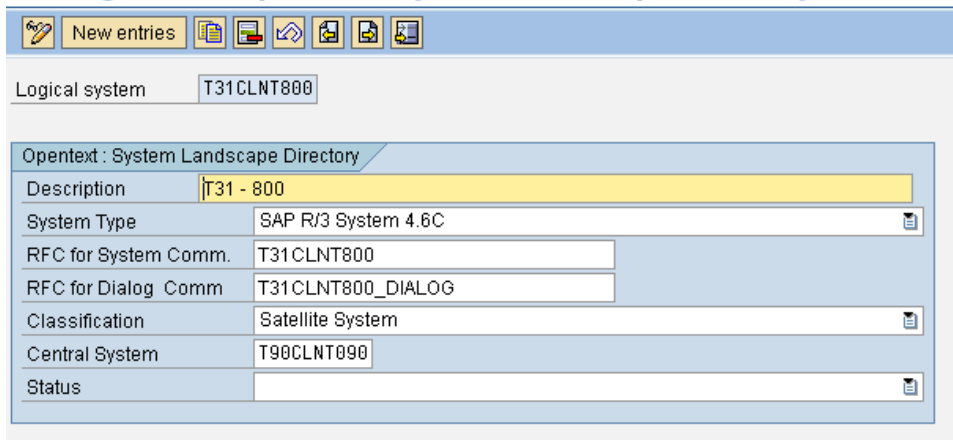
Change View "Opentext : System Landscape Directory": Overview



Logical sys...	Description
T11CLNT900	T11 - 800
T31CLNT800	T31 - 800
T43CLNT800	T43 - 800
T90CLNT090	T11 - 800

2. Double-click a line to display details for a logical system.

Change View "Opentext : System Landscape Directory": Details



Logical system	T31CLNT800
----------------	------------

Opentext : System Landscape Directory	
Description	T31 - 800
System Type	SAP R/3 System 4.6C
RFC for System Comm.	T31CLNT800
RFC for Dialog Comm	T31CLNT800_DIALOG
Classification	Satellite System
Central System	T90CLNT090
Status	

3. Maintain logical systems, using the following parameters:

Description

Enter a description for the system.

System Type

Select the proper SAP ERP System Type.

RFC for System Comm.

Enter the RFC destination for communicating to the system. OpenText recommends using this RFC destination with system or communication users, not with dialog users.

On the own system, insert NONE.

RFC for Dialog Comm

Enter the RFC destination for communicating by active dialog screen. OpenText recommends using a trusted RFC destination in this case. See the SAP documentation on how to set up trusted connections between SAP ERP systems.

Classification

Select the classification of the system. The following values are available:

- Central System
- Satellite System

The values above are relevant for multiple backend systems.

- External System

External System refers to any system which is not an SAP ERP system. For example, a non-SAP system is treated as an External System. An SAP Supplier Relationship Management (SAP SRM) system could also be part of the landscape. SAP SRM is an SAP system but not of ERP type. Therefore, an SAP SRM system must also be classified as an External System.

- Single System Landscape

Select this value if your system landscape comprises only one system.

Central System

Enter the Central System if the own system is classified as Satellite System.

Status

Select the status of the system. Available values: Active or Inactive.

4. Click  to save your settings.

3.4.2 Setting Up the SLD in a Multiple Backend System



Note: This configuration is only necessary for multiple backend systems. See [“Setting Up the SLD in a Single System Landscape” on page 26](#) for single system landscapes.

In multiple backend systems, one SAP ERP system is the *central* system; the other SAP ERP systems are *satellite* systems.

To set up the SLD in a multiple backend system:

1. In the central system, define all logical systems (see [“Defining Logical Systems” on page 18](#)) for all systems involved (SAP or non SAP). Make sure that the logical system ID is unique in the entire landscape.
2. Assign the client to the logical system, see [“Assigning Clients to Logical Systems” on page 19](#). This action is only relevant for the own system. Normally, it is always assigned so crosscheck if the own system is already assigned to the client.
3. Maintain the SLD in the central system, as described in [“Maintaining the SLD” on page 23](#), for each of the systems involved.

Once you finished setting up the SLD in the central system, login to the satellite systems and do the following:

4. Define the logical system (see [“Defining Logical Systems” on page 18](#)) for the central system. The name must be the same as in the central system.
5. Assign the client to the logical system (see [“Assigning Clients to Logical Systems” on page 19](#)) for the own system if it is not yet assigned.
6. Maintain the SLD in the satellite systems, as described in [“Maintaining the SLD” on page 23](#), for the central system and the own system.

For the own system, set **RFC for System Comm.** to NONE, and leave **RFC for Dialog Comm** blank.

For the central system, assign proper **RFC for System Comm.** You may skip **RFC for Dialog Comm.**

7. Click to save your settings.

3.4.3 Setting Up the SLD in a Single System Landscape



Note: This configuration is only necessary for single system landscapes. See “Setting Up the SLD in a Multiple Backend System” on page 25 for multiple backend systems.

In a single system landscape, OpenText recommends maintaining the SLD with the following basic information:

To set up the SLD in a single system landscape:

1. Define the logical system (see “Defining Logical Systems” on page 18) for the own system if it is not already defined.
2. Assign the client to the logical system (see “Assigning Clients to Logical Systems” on page 19) for the own system. Normally, it is always assigned so crosscheck if the own system is already assigned to the client.
3. Maintain the SLD, as described in “Maintaining the SLD” on page 23. The following parameters are relevant:
 - **System Type**
 - **RFC for System Comm.:** set to NONE.
 - **RFC for Dialog Comm:** leave blank.
 - **Classification:** Single System Landscape
4. Click  to save your settings.

3.5 Maintaining Channels

A channel uniquely identifies the source of an incoming invoice to the VIM system across the landscape. Channels drive the System Determination Procedure in a multiple backend system and drive the set of mapping to be executed.

For further details, see Section 8.1 “Maintaining Channels” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

3.6 Maintaining Mapping IDs

Invoices come through different channels, for example from ICC, from IDOC, or by email. Parameters or values of the incoming invoice will be mapped to parameters or values of the indexing document. The mapping can be different depending on the channel. Therefore for every channel a mapping set or mapping ID is assigned.

A Mapping ID can be created to logically group a mapping set for a particular channel. A Mapping ID is tied to a channel so that proper mapping is executed for an incoming invoice for that channel.

For further details, see Section 8.2 “Maintaining the VIM Field Mapping” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

3.7 Maintaining the System Determination

In multiple backend systems, you can specify the system determination procedure to determine in which system the VIM workflow should start. The system determination is attached to the Channel ID. Thus, system determination works only if the channel is maintained. See “[Maintaining Channels](#)” on page 26. By default, if no system determination ID is specified, the OpenText standard look up table of Company Code and Logical System is used to determine the system.

To maintain the system determination:

1. Run the /n/OPT/VIM_SYS_DET transaction.

Alternatively, run the /N/OPT/SPRO transaction and navigate to the menu path **Vendor Invoice Management > Document Processing Configuration > General Configuration > Multi-Backend Scenarios > System Determination Procedure > Maintain System Determination Procedure**.

2. Click **New Entries**.

New Entries: Details of Added Entries

Sys Det. ID	ICC
Maintain System Determination ID	ICC
Sys Determination FM	/OPT/VIM_SYSTEM_DETERMINE

3. Maintain the System Determination ID, using the following parameter:

Sys Determination FM

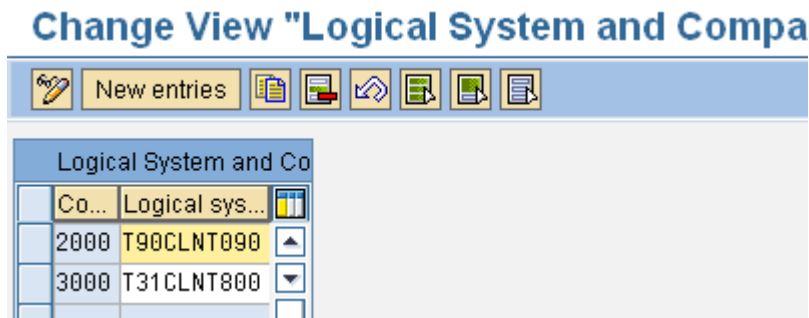
If you want to determine the system where the VIM workflow should start in a multiple backend system, enter a custom function module. The interface of the function module should be compatible with /OPT/VIM_SYSTEM_DETERMINE.

4. Click  to save your settings.

To maintain system determination based on the Company Code:

1. Run the /n/OPT/CC_LOGSYS transaction.

Alternatively, run the /N/OPT/SPRO transaction and navigate to the menu path **Vendor Invoice Management > Document Processing Configuration > General Configuration > Multi-Backend Scenarios > System Determination Procedure > System Determination via Company Code**.



2. Specify a mapping of company code and logical system in a multiple backend system.
3. Click  to save your settings.

3.8 Working with ICC in a Multiple Backend System

A multiple backend system can also include OpenText Invoice Capture Center (ICC); see [Figure 3-1: “VIM as a multiple backend system” on page 17](#).

On VIM side, the central system gets the invoice data from the staging tables of the satellite systems and consolidates the data in its own staging table. Together with the data, the central system also stores the information about the satellite system where the data stems from.

For more information, see “More than One SAP ERP System Involved” in *Invoice Capture Center Customizing Guide*.

ICC downloads the data to its database. This affects the following types of download data:

Vendor data

This type of data is needed to determine the vendor ID of the invoice. This is relevant, for example, if the vendor is only given in a satellite system. For more information, see section “Specifying Vendor ID Detection” in *Invoice Capture Center Customizing Guide*.

Purchase order data

This type of data refers to the purchase order that is the basis of the invoice. The downloaded purchase order data can be used to determine the vendor ID. For more information, see section “Specifying Vendor ID Detection” in *Invoice Capture Center Customizing Guide*.

Company code data

This type of data is needed to determine the company code of the invoice. You must import this database table from a text file, there is no download for this

database table. You must prepare the text file manually. VIM provides only an initial text file to start with. You must export the company code data from each satellite system separately. The separate files must be merged manually. For more information, see sections “Company Code Detection” and “Specifying Company Code Detection” in *Invoice Capture Center Customizing Guide*.

Chapter 4

Handling Line Items in ICC or VIM

Handling line items of invoices plays an important role for end to end automation. The goal to reach in this context is optimizing the rate of invoices being automatically posted. This section discusses the pros and cons of handling line items in ICC or VIM.

Automation The following conditions define automation:

- Invoices pass touchless through ICC and VIM.
- Invoices do not need to be processed by ICC Validation.
- Invoices do not need to be processed by the VIM indexing screen.

Prerequisites There are a couple of organizational and technical prerequisites that you must consider:

Invoice volume and complexity

- Analyze the invoice volume per vendor and find the best lever for enhancements.
- To ensure a good cost-performance ratio, enhance recognition for standard invoices from vendors with highest invoice volumes. Consider regular and reliable vendors first.
- Do not focus on complex invoices which are to be processed manually anyway because of exceptions.

Invoice quality

- Clean images without stamps and annotations
- Clean invoice layout without designer ambitions. Fields with colored or grey background, for example, become black pixels during binary scanning and thus disturb the reading flow.

Quality of the data downloaded from SAP ERP

- Vendor data
- Recipient data
- PO data

Invoices might contain little information about the vendor. For example, US invoices do not contain tax registration or bank account number. In this case, it makes sense to use numeric values and derive the vendor from the PO.

Scanning equipment: impact on image quality

- Scanner hardware
- Scanner parameters

ICC or VIM The basic question is: Where does it make more sense to perform line item mapping, inside ICC or inside VIM? Here are some recommendations:

- You should avoid a setup where the same task must be performed twice.
- The VIM indexing screen provides more customizing features than the ICC Validation. Regarding the line item mapping between invoice and PO data, ICC provides only few customizing features whereas VIM provides much more features. For example, mapping customer specific material numbers is usually easier to implement in VIM.
- The decision also must consider the users who will perform the task, for example their experience in working with an SAP ERP environment.

The user's background also plays an important role. An accountant might prefer working in the VIM indexing screen because they can jump to SAP ERP from there.

The ICC Validation Client rather addresses pure data collectors. It might be more intuitive for users.

4.1 ICC Line Item Recognition

This section describes the line item recognition as performed on ICC side. Line item recognition must be distinguished from line item mapping.

Line item recognition recognizes invoice item data, without using PO download data. The underlying DOKuStar method for line item recognition takes text lines found by pure OCR as a starting point.

These text lines are analyzed for occurrences of syntactical structures like table header keywords, amounts, quantities, units of measure, phrases typical for summarizing lines at the end of the table, and so on.

Results of this first step are used to find table header and end of table as well as horizontal position of columns. Logical checks like calculation of unit price x quantity = item price are also used in this second step. All this results in a list of line items, each line item consisting of one or more text lines.

The following list shows some recognition use cases:

- PO invoices with price or quantity discrepancies
- Invoices related to multiple POs. This case should be excluded where possible. Consider changing the process on vendor side.
- Invoices with discounts and unplanned costs. For more information, see ["Use Case 2: Invoices with Planned or Unplanned Expenses"](#) on page 35.

- PO invoices related to blanket POs (periodic delivery). For more information, see [“Use Case 3: Invoices Related to Blanket Orders” on page 37](#).

ICC 7.0 introduced some new features regarding line items:

- All line items found on the invoice are delivered, also discount items and additional costs. This is accomplished by a new customizing function for custom line item type determination. For more information, see “Specifying Line Item Processing” in *Invoice Capture Center Customizing Guide*.
- ICC delivers the complete line item text to VIM, to allow customer specific PO data mapping on VIM side, for example by using numeric values (like material numbers) from the line item text.

4.2 Line Item Mapping

ICC ICC line item mapping (SnapMatch) tries to match recognized invoice item data with downloaded PO details data, and if available, also GR data, for assigning a PO number to every line item. For more information, see “Line Item Mapping” in *Invoice Capture Center Customizing Guide*.

ICC standard mapping does not use material numbers but only quantity, unit price, total price, and, with low priority, the line item description. On VIM side, customer specific mapping is easier to implement because ICC line item mapping provides only limited customizing features.

VIM VIM 7.0 SP3 introduced an enhanced line item mapping. For more information, see Section 9.1.9 “Maintaining the PO Line Determination” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*. To use this line item mapping, you must skip the ICC line item mapping. This helps reducing the download data volume for PO details in ICC and the download report running time in VIM.

VIM offers the following functionality:

- Deriving the line item data from the PO(s) and GR(s)
- Matching the PO and GR data against the data provided by ICC, and, based on the PO and GR data, completing the data in the line item fields where it is missing

OpenText recommends that you keep the PO header download. If the **Check PO numbers against downloaded data** check box is selected in the **Settings** dialog box, ICC checks if PO and vendor fit. For more information, see “Check against Downloaded Data” in *Invoice Capture Center Customizing Guide*.

For more information about the VIM line item mapping strategy, see Section 9.12.1 “Configuring Indexing Line Matching from OCR Results” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

ICC Validation To perform the line item data handling in ICC Validation, you must adjust the VIM rules for Validation determination. For more information, see Section 17.3

“Validation Framework” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.



Note: Not all invoices must go to Validation.

The ICC Validation client by default shows line item data *only* for PO invoices, not for Non PO invoices. You can configure this in ICC Customizing; see *Invoice Capture Center Customizing Guide*.

The line item data completion can be performed in various locations:

- ICC Validation (for PO/for Non PO/for specific vendors)
- VIM indexing screen
- MIRO transaction

The use cases that are described in the following sections are only relevant for the VIM side.

4.3 Use Case 1: Invoices Matching PO - Fully Automated Posting

This is the ideal use case. It has more organizational than technical aspects:

- A 1:1 relation between PO and invoice is required.
 - Order only few items per invoice.
 - Avoid price or quantity discrepancy.
 - Exclude blanket POs.
- Document type PO_AUTO is a good example for the document type customizing that is needed here:
 - Configure document type determination with a customer specific function module (like certain vendors).
 - Configure document type to keep the number of processes assigned small.
 - Configure auto-posting for certain process types.

ICC line item data is no prerequisite for auto posting. Posting on header level is possible if the total amounts of invoice and PO match. You must adjust the following VIM configuration settings:

- Create rules for document type PO_AUTO: check field data, vendor, and company code. For more information, see Section 9.1 “Configuring DP Document Types” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.
- For document type PO_AUTO, set the PO line determination settings to PO (default). For more information, see Section 9.1.9 “Maintaining the PO Line

Determination” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

As a consequence, the ICC line item data does not need to be verified in ICC Validation.

4.4 Use Case 2: Invoices with Planned or Unplanned Expenses

This use case aims at automation support for specific invoices (specific business scenarios, specific business segments). As a purpose, ICC should deliver more line item information to VIM, for example discounts, material overhead costs, and incidental costs. *All* invoice item lines, also negative items, should be delivered.

For your environment, you must customize an identifier for invoice item types. To do this, you must create a custom phrase list. For more information, see “Specifying Extraction of Additional Costs and Discounts” in *Invoice Capture Center Customizing Guide*.

Expenses The following screenshot shows an invoice with expenses:

C.E.B. New York
 7890 Broad Street
 New York, 10001
 Phone: 212-666-9600
 Fax : 212-661-6161
 Email: INFO@CEBNY.COM
 TaxID: NY12345678

Invoice
 Date: December 11, 2012
 Invoice No.: QQ41254489
 Pmt. Terms: 2%/10, Net 30

Ship to:
 Dan Gallagher
 IDES US Inc.
 1230 Lincoln Avenue
 New York, NY 10019
 Phone: 45-0963
 Email: requester-na@ides-us.com

Bill to:
 Innovate Corporation
 1230 Lincoln Avenue
 New York, NY 10019
 Phone: 212-345-0963

Shipment Date: December 10, 2012 Ship Via: Best Way P.O. Number: 4500017744 Salesperson: P. Miller

Quantity	Description	Unit	Unit Price	Total
50	LSS-FG1	PC	20.00 USD	1,000.00 USD
1	Setup Costs			40.00 USD
100	LSS-FG2	PC	20.00 USD	2,000.00 USD
1	Setup Costs			60.00 USD
100	LSS-FG3	PC	30.00 USD	3,000.00 USD

Freight	70.00 USD
Subtotal	6,170.00 USD
Sales Tax: 6%	- USD
Invoice Total	6,170.00 USD

Remit to:
 C.E.B. New York
 P.O. BOX 477890
 New York, NY 10019

THANK YOU FOR YOUR BUSINESS!

1 Expenses (or discounts) related to invoice items (for example material overhead costs)

2 Expenses (or discounts) related to all invoice items (for example transportation costs, volume discount)

Freight The following screenshot shows the ICC Validation of an invoice including line items with material overhead (freight).

Chapter 5

Scenarios for Special Countries

VIM supports many countries “out-of-the-box”. However, for some countries, a special configuration is necessary. These countries have a specific business background and incoming invoice processes. In the baseline, VIM delivers the configuration as characteristic specific customizing.

This applies to the following countries:

- “Brazil” on page 39
- “China” on page 43
- “India” on page 50
- “Russia” on page 53

This chapter describes the specific business background and incoming invoice processes of these countries. It also describes how VIM supports the processes and requirements for these countries.

5.1 Brazil

This section describes the main incoming invoice processes in Brazil, and how ICC and VIM support them. Other processes with smaller volumes are not covered.

Best automation results are achieved if the customer has created POs for goods, services, and transports.

For Brazil, the following types of invoices can be distinguished:

- Goods invoices
- Service invoices
- Transport invoices
- Imported goods invoices

VIM support is integrated in the PO_GLOBAL document type.



Notes

- VIM does **not** provide XML validity checking functionality or any other SEFAZ communication facility. This has to be covered by other tools.
- VIM uses an **example** XML style sheet. It might be necessary to enhance the XML transformation (Maintain Service Modules – Transform - Transformation); for more information, see Section 8.3 “Maintaining Service

Modules” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

It also might be necessary to enhance the mapping (Maintain Mapping ID); for more information, see Section 8.2 “Maintaining the VIM Field Mapping” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

The style sheet /OPT/IDH_TRANS_XML_NFE needs to be copied and changed.

The new style sheet should contain fields that are already included in the tables /opt/vim_1head or /opt/vim_1item. Otherwise, it is required to implement table appends and enhanced data handling.

5.1.1 Goods Invoices

All goods invoices must be electronically registered at the ministry of finance (SEFAZ) before shipping. The registered and signed invoice is an XML document, called Nota Fiscal Electronica (NFe). It is sent to the customer using input channel Email, File system or FTP.

Goods must be accompanied by a printed version of the NFe, called DANFE.

No deviation is allowed between delivered goods and billed goods. Either the whole delivery plus invoice are rejected or the whole delivery plus invoice are accepted.

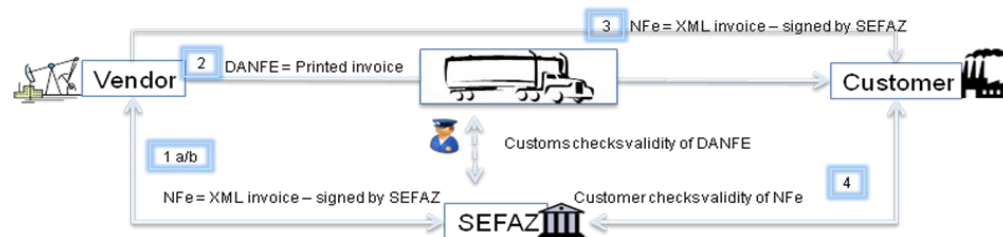


Figure 5-1: Brazil: goods invoice process

Supporting the Goods Invoice Process with VIM

1. The VIM DP document process is started when an XML document (NFe) arrives via email or other configured input channel.
2. VIM triggers PO mapping and standard Business Rule checks.
3. The DP document process waits until the GR is posted.
4. With all required data being available, the invoice is posted automatically in the background.
5. If the posting fails, somebody has to perform one of the following actions:
 - change or complement the invoice data manually
 - post the invoice manually

5.1.2 Service Invoices

All service invoices must be registered at the local city tax portal at the vendor's city. The vendor creates the Nota Fiscal Electronia de Servicos (NFS-e) invoice, sends it to the city tax portal, and receives the NFS-e in PDF format from the city tax portal.

The vendor now sends the NFS-e (PDF) to the customer, normally using email. The customer checks the validity of the NFS-e with the city tax portal. This must be done outside of VIM.

Supporting the Service Invoice Process with ICC and VIM

1. The process is started for the ICC input channel as configured (for example OAWD with PDF file).
2. ICC extracts the header data. The following fields are relevant for Brazil:
 - Tax Invoice
 - Invoice Category

The validation step is optional.

3. After ICC has finished, a VIM DP document process is started based on the PO data delivered by ICC.

If no PO data has been delivered from ICC, the accountant must select or enter a PO number manually.
4. VIM triggers Business Rule checks.
5. With all required data being available, the invoice is posted automatically.
6. If the posting fails, somebody has to perform one of the following actions:
 - change or complement the invoice data manually
 - post the invoice manually

5.1.3 Transport Invoices

All transport invoices must be registered at and signed by the ministry of finance (SEFAZ). The vendor creates the Conhecimento de Transporte (CT-e) XML invoice and sends it to the SEFAZ to be signed. After receiving the signed XML invoice, the vendor sends it to the customer, normally using email. The customer checks the validity of the CT-e with the SEFAZ. This must be done outside of VIM.

Supporting the Transport Invoice Process with VIM

1. The VIM DP document process is started when an XML document (CT-e) arrives via email or other configured input channel.
2. VIM triggers PO mapping and standard Business Rule checks.

If no PO data is available, the accountant must select or enter a PO number manually.

3. With all required data being available, the invoice is posted automatically in the background.
4. If the posting fails, somebody has to perform one of the following actions:
 - change or complement the invoice data manually
 - post the invoice manually

5.1.4 Imported Goods Invoices

A foreign vendor delivers goods and sends a paper invoice to the customer. For the transport of the goods within Brazil it is compulsory to have a DANFE. Usually it is the customer who creates an NFe and a DANFE and sends it to the ministry of finance (SEFAZ) to be registered and signed. After registration and signing, the DANFE is sent to the customs office to be used for the goods transport.

Supporting the Imported Goods Invoice Process with ICC and VIM

This process is only relevant for a couple of customers and contains some manual steps.

1. A paper invoice arrives. It is scanned and sent to ICC.
2. ICC extracts data and delivers the results. Validation is optional.
3. A VIM DP document is started.
4. Invoice data has to be completed **manually**.
5. The process waits until the goods receipt is posted.
6. With all required data being available, the invoice is posted automatically.
7. If the posting fails, somebody has to perform one of the following actions:
 - change or complement the invoice data manually
 - post the invoice manually

5.1.5 Business Rules

The following business rules are specific for Brazil. For more information, see Section 19.76 “Brazil - Missing NF Data (PO)” in *OpenText Vendor Invoice Management for SAP Solutions - Reference Guide (VIM-RGD)* and the subsequent sections.

- Missing NF Data (PO)
- Missing NF Customizing (PO)
- NF Validation Check Failed (PO)
- Wait for GR - Simple Check (PO)
- Wait for GR - Enhanced Check (PO)

5.1.6 Indexing Screen Fields

The following indexing screen fields are specific for Brazil.

- **NF-e Number**
- **Nota Fiscal Type**
- **Protocol Number**
- **Processing Date**
- **Processing Time**
- **Random Number**
- **Check Digit**
- **Electronic NF check box**
- **Service NF check box**

5.2 China

This section describes the main incoming invoice processes in China, and how ICC and VIM support them. For China, the following types of major invoice categories are supported:

- Special VAT invoices
- Common VAT invoices
- Transportation invoices

On ICC side, you can customize an application with country setting for China. For more information, see “Customizing a Chinese Application” in *Invoice Capture Center Customizing Guide*.

Import invoices are currently not supported in the Chinese ICC application. For import invoices, a separate ICC application for international invoices must be used. For other invoice categories, currently, data needs to be captured manually. Support for more invoice categories will be implemented following the roadmap.

GTS A government-certified Golden Tax Software (GTS) is used to generate special VAT invoices, VAT calculation and statutory reporting. A VAT invoice received by the purchaser can be cross-checked using GTS. For more information, see the website of the Chinese Tax administration: <http://www.chinatax.gov.cn/n2925/index.html>

Various implementation considerations

- Electronic invoicing is only allowed for international companies.
- Beginning with January 1st, 2010, the VAT invoice verification with tax authorities should happen within 180 days of the VAT invoice issue date. Before January 1st, 2010, the period was 90 days.

- It is possible to have multiple invoice documents for one transaction (example: freight provided by a third party).
- For invoices with an amount higher than 100,000 Renminbi, 2 or more forms must be used. In ICC and VIM, these forms are currently treated like single invoices if they arrive as separate image files. If a PO reference exists, they can be consolidated in SAP ERP using the PO reference.
- If there are more than 6 line items, an appendix is added to the invoice. If invoice and appendix arrive in one image file, ICC detects them as related.

Physical storage is required (5 years minimum) for the following:

- Duplicate invoices
- Invoice originals
- Original PO

5.2.1 ICC Fields

ICC captures the following fields specific for Chinese invoices:



Note: For more information, see the corresponding subsections in section “Field Reference” in *Invoice Capture Center Customizing Guide*.

- Invoice category: see “China” on page 43



Note: If the invoice category is not filled, the validation user must choose the invoice category manually.

- Invoice code: 10 digits (12 digits for Ordinary invoices)
- Secret code: 108 characters (in 4 strings of 27 characters each)
- Item serial number: 20 characters
- Total amount: only numeric values are recognized in ICC, not the Chinese text.

5.2.2 Special VAT Invoices

The invoice category **Special VAT invoice** is determined from the invoice code; the indicator is the 10 digit number, digit 1 to 4 on 8th position.

Special Value-Added Tax invoices (special VAT invoices) are issued by general taxpayers to their customers when selling commodities or providing taxable services. A special VAT invoice is only issued to general commercial customers, but not to normal consumers and small scale VAT payers.

For special VAT invoices, the VAT is applicable (deductible). Special VAT invoices make up about 80% of all invoices. They are typically used for B2B.

Fraud Prevention

Special VAT invoices are printed by the supplier using the GTS. The recipient must validate these invoices by uploading information to a web site supplied by the government or tax authority. This check is crucial to avoid paying fraudulent invoices and to reclaim tax.

The validation system is called Anti Forge Tax Control System (AFTCS). For more information, see [“Working with the AFTCS Programs” on page 46](#).

The following list shows the invoice fields that are relevant for fraud prevention:

- Invoice code
- Invoice number
- Invoice date
- Buyers VAT registration
- Seller VAT registration
- Total amount
- Tax amount
- Secret code

5.2.3 Common VAT Invoices

The invoice category **Common VAT invoice** is determined from the invoice code; the indicator is the 10 digit number, digit 6 on 8th position.

Common VAT invoices are used as evidence of payment where special VAT invoices do not apply. They are used by the following taxpayers:

- Business tax taxpayers
- VAT small-scale taxpayers
- VAT general taxpayers who are not allowed to issue special VAT invoices; for example commercial business general taxpayers who engage in retail of cigarettes, liquor, food, clothing, shoes and hats, makeup, and other consumer goods.

Enterprises or individuals who are not able to issue special VAT invoices should issue common VAT invoices when selling commodities, providing taxable services, or conducting other operating activities.

For common VAT invoices, the VAT is mentioned on the invoice but it is not deductible.

5.2.4 Transportation Invoices

The invoice category **Transportation Invoice** is determined from the invoice code; the indicator is the 10 digit number, digit 7 on 8th position.

Transportation invoices are relevant for export oriented manufacturers, they are a specific type of service invoices, which do not go through GTS, but another tax verification process.

PO number (s) are searched in the comments field.

From the invoice itself, it is not clear if **Carrier** or **Shipper** are to be identified as the vendor. ICC will determine the one or the other depending on vendor download data.

Capturing of the **Shipment route** is not implemented as this field does not exist in VIM.

5.2.5 Working with the AFTCS Programs

Chinese invoices require an Anti Forge Tax Control System (AFTCS) validation. This section describes VIM programs you can use in this context. These programs are used only for China.

AFTCS Admin Tool

The program is used to check and modify the validation statuses for the Chinese invoices.

Download and Upload file for Anti Forge Tax Control System

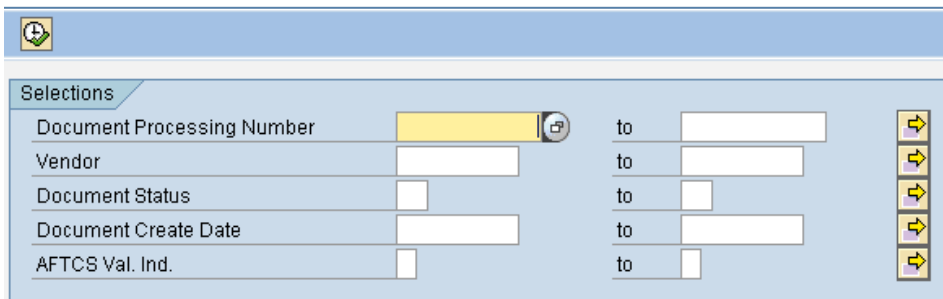
The program is used to upload and download the data for the AFTCS validation.

5.2.5.1 Working with the AFTCS Admin Tool

To check and modify validation statuses:

1. Run the SA38 transaction, enter program /OPT/VR_AFTCS_ADMIN, and click .

AFTCS Admin Tool



Selections			
Document Processing Number	<input type="text"/>	to	<input type="text"/>
Vendor	<input type="text"/>	to	<input type="text"/>
Document Status	<input type="text"/>	to	<input type="text"/>
Document Create Date	<input type="text"/>	to	<input type="text"/>
AFTCS Val. Ind.	<input type="text"/>	to	<input type="text"/>

2. Enter selection criteria.



Note: The following list provides additional information about the more complex options.

AFTCS Val. Ind.

Anti Forge Tax Control System (AFTCS) validation indicator

Enter one of the following parameters:

U

Upload

M

Manual

A

Administrator

<blank>

Not Verified

3. Click

The program selects the DP documents based on the values provided in the selection criteria. It considers only the DP documents for China.

AFTCS Admin Tool

OPEN TEXT | Vendor Invoice Management™ for SAP® Solutions

Doc. Id	DP Doc Typ	Document Status	Description	Process Type	AFTCS Ind	User ID	
5	PO_INV_CN	Indexed		Missing invoice code (PO)	A	NKUSUMA	20.1
6	PO_INV_CN	Error in Starting Approval Workflow		Missing invoice code (PO)	A	APARAKH	20.1
7	PO_INV_CN	Indexed		Invalid Tax Info(PO)			
31	PO_INV_CN	Created		Missing invoice code (PO)			
32	PO_INV_CN	Created		Missing invoice code (PO)			
33	PO_INV_CN	Created		Missing invoice code (PO)			
34	PO_INV_CN	Created		Missing invoice code (PO)			
35	PO_INV_CN	Created		Missing invoice code (PO)			
36	PO_INV_CN	Suspected Duplicate		Suspected Duplicate (PO)			
37	PO_INV_CN	Suspected Duplicate		Missing invoice code (PO)	A	APARAKH	20.1
38	PO_INV_CN	Suspected Duplicate		Suspected Duplicate (PO)			
39	PO_INV_CN	Created		Invalid characters in Secret code (PO)			
40	PO_INV_CN	Created		Invalid characters in Secret code (PO)			
41	PO_INV_CN	Created		Invalid characters in Secret code (PO)			
42	PO_INV_CN	Created		Invalid characters in Secret code (PO)			
43	PO_INV_CN	Created		Invalid characters in Secret code (PO)			
44	PO_INV_CN	Indexed		Invalid vendor invoice number (PO)			
45	PO_INV_CN	Indexed		Missing invoice code (PO)	A	APARAKH	20.1
46	PO_INV_CN	Suspected Duplicate		Suspected Duplicate (PO)			
47	PO_INV_CN	Indexed		Missing invoice code (PO)	A	APARAKH	20.1
48	PO_INV_CN	Indexed		Missing invoice code (PO)	A	APARAKH	20.1
49	PO_INV_CN	Indexed		Missing invoice code (PO)	A	APARAKH	20.1

4. Select the DP documents and set the AFTCS validation indicator for them.
5. Click the **Confirm AFTCS Validation** button in the application toolbar.

The program sets the validation indicator and releases the DP document from the exception **Verification Required**.

5.2.5.2 Working with the Download and Upload file Program

The program is used to upload and download the data for the AFTCS validation. The data from the upload file is used to set the verification indicator of the DP invoices.

To upload and download data for the AFTCS validation:

1. Run the SA38 transaction, enter program /OPT/VR_AFTCS_FILE, and click .

The selection screen differs depending on the type of **File Operation**.

Download File

Download & Upload file for Anti Forge Tax Control System



File Operation

☒ Download File

☐ Upload File

Selections

Document Processing Number	<input type="text"/>	to	<input type="text"/>	
Vendor	<input type="text"/>	to	<input type="text"/>	
File Name	<input type="text"/>			
File Path	<input type="text"/>			

Upload File

Download & Upload file for Anti Forge Tax Control System



File Operation

☐ Download File

☒ Upload File

Selections

File Path	<input type="text"/>
-----------	----------------------

2. **Download file**

- a. In **File Operation**, click **Download File**.
- b. Enter selection criteria for the download.
- c. Click .

The program creates a CSV file for the following fields:

- INVOICE_CODE

- XBLNR
 - BLDAT
 - RECEPIENT_VAT_NO
 - VENDOR_VAT_NO
 - GROSS_AMOUNT
 - TAX_AMOUNT
 - SECRET_CODE
3. Use the CSV file to manually check the invoices with the government authorized software.



Note: This software is not part of the VIM functionality.

4. Upload File

- a. After validation, upload the validated records in the same format (CSV file with fields in the same order as downloaded).
- b. Enter the path to the CSV file in **File Path**.
- c. Click .

The uploaded records are used to release the corresponding DP documents from the exception and the DP workflow will run the business rules again.

5.2.6 Business Rules

The following business rules are specific for China, each for PO and NPO. For more information, see Part VI “Business Rules” in *OpenText Vendor Invoice Management for SAP Solutions - Reference Guide (VIM-RGD)*.

- Missing/invalid invoice code format
- Missing/invalid characters in secret code
- Invalid common ordinary invoice (VAT exists)
- Invoice older than allowed
- Invalid vendor invoice number
- Check hand written invoice
- Verification required

5.2.7 Indexing Screen Fields

The following indexing screen fields are specific for China:

- **Secret code:** 108 characters: 4 fields of 27 characters each
- **Invoice code:** 12 characters
- **Validation code:** 30 characters
- **Not hand written** check box: 1 character
- **Serial number** (for PO items): 20 characters

5.3 India

This section describes the main incoming invoice processes in India, and how ICC and VIM support them. The localization for India in VIM enables you to handle different types of taxes imposed in India. You can also handle the relevant account numbers of vendors during processing an NPO or PO invoice in India. When processing an invoice, the system cross-checks the information provided in the vendor master record related to India.

Categories The following invoice categories are introduced for PO invoices for India:

Domestic Material

Invoices raised by vendors in India where the purchase order is a standard PO

Domestic Service

Invoices raised by vendors in India where the purchase order is a service PO.

Import Material

Invoices raised by vendors outside India where the purchase order is a standard PO.

Import Service

Invoices raised by vendors outside India where the purchase order is a service PO.

For NPO invoices, no invoice categories are introduced.

For information how to configure categories, see Section 16.1.1.5 “Invoice Categories” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)* and Section 16.2 “Invoice Categories, Category Groups, and Mapping” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

5.3.1 Business Rules

The following business rules are introduced for India:

Business Rules for PO invoices

- GR Not Done - Simple Check
- Invalid Tax Description (PO)
- Missing Vendor ECC Number (PO)
- Mismatch Vendor ECC Number (PO)
- Missing Vendor CST Number (PO)
- Mismatch Vendor CST Number (PO)
- Missing Vendor TIN/TOT Number (PO)
- Mismatch Vendor TIN/TOT Number (PO)
- Missing Vendor LST Number (PO)
- Mismatch Vendor LST Number (PO)
- Missing Vendor PAN Number (PO)
- Mismatch Vendor PAN Number (PO)
- Missing Vendor STC Number (PO)
- Mismatch Vendor STC Number (PO)

Business Rules for NPO invoices

- Invalid Tax Description (NPO)
- Missing Vendor PAN Number (NPO)
- Mismatch Vendor PAN Number (NPO)
- Missing Vendor STC Number (NPO)
- Mismatch Vendor STC Number (NPO)
- Missing Vendor CST Number (NPO)
- Mismatch Vendor CST Number (NPO)
- Missing Vendor TIN/TOT Number (NPO)
- Mismatch Vendor TIN/TOT Number (NPO)
- Missing Vendor LST Number (NPO)
- Mismatch Vendor LST Number (NPO)

5.3.2 Indexing Screen Fields

There are some screen fields that are exclusively used for Indian localization. For general information about the screen field configuration, see Section 16.3.1 “Characteristic Specific Screen Fields” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*. The following fields are exclusive for Indian localization:

- TAX_Desc
- CST_NO
- PAN_NO
- STC_NO
- LST_NO
- ECC_NO
- EDC_CESS
- EXC_DUTY
- TIN/TOT
- SAHE_CESS

Except the ECC_NO field, which is marked as HIDE for Non PO invoices, all other fields are INPUT fields for PO and Non PO invoices.

5.3.3 Downloading Vendor Data to Staging Table

To integrate ICC into VIM, you must download the vendor database from SAP ERP to the /OPT/VIM_STG_LIF staging table. This was previously handled by the /OPT/IR_DL_VENDOR_TO_STG_TABLE program. For more information, see Section 6.1 “Downloading the Vendor Database from SAP ERP” in *OpenText Vendor Invoice Management for SAP Solutions - Administration Guide (VIM-AGD)*.

For the Indian localization, use the /OPT/VENDOR_TO_STG_TABLE_INDIA program. This program has the same user interface as /OPT/IR_DL_VENDOR_TO_STG_TABLE but stores data in a different way.



Note: The India program is an extension of the standard program and contains all the features of the standard program. You must replace the standard download program by the India download program.

5.4 Russia

This section describes the main incoming invoice processes in Russia, and how ICC and VIM support them. In Russia, almost 100 percent of the invoices are based on a purchase order. VAT invoices without goods entry or service entry must not be posted without manual intervention.

A corrective invoice refers to an invoice that has arrived earlier at the customer. The corrective invoice contains item changes that can be posted as invoice, credit memo, subsequent debit, or subsequent credit.

VIM support is integrated in the PO_GLOBAL document type.

Russian invoice forms do not have a field specified for the PO number. OpenText recommends that the vendor is asked to print the PO number onto the invoice, either into a special field or always into the same header location. Otherwise, it is always a manual task for the accountant to find the matching PO.

Russian delivery note (TORG-12) and acceptance of service document (ACT) do not contain information on PO or related invoice. Matching is very difficult. OpenText therefore recommends scanning invoice and TORG-12 together or scanning invoice and ACT together.

ICC tries to identify the invoice category based on key words. It might be necessary to adjust it in the ICC validation screen. The following categories are supported, as shown in the selection box of the validation screen:

- VAT invoice goods
- VAT invoice services
- Revision invoice goods
- Revision invoice services
- Correction invoice (goods)
- Revision of correction invoice (goods)
- TORG-12 (goods)
- Acceptance ACT (services)
- Proforma invoice
- Import invoice
- Combination of VAT invoice goods + TORG-12
- Combination of VAT invoice services and AccACT
- Other

The list shows some combinations of documents because, for example, an invoice can come in together with the ACT in one PDF, or also the invoice without ACT

and the ACT come in separately, and then VIM has to wait until all documents are complete before posting the invoice.

Revision invoices are not covered 100 percent by ICC and VIM now but this is planned for future releases.

5.4.1 Goods Invoices

The goods invoice process is based on two printed documents: the bill of lading (TORG-12) and the goods VAT invoice.

The vendor sends the VAT invoice to the customer. The TORG-12 is sent together with the goods.

Supporting the Goods Invoice Process with ICC and VIM

1. The VAT invoice and the TORG-12 should be scanned together and sent to ICC for OCR.
2. ICC extracts header and item data, and identifies the invoice category.
3. From the VAT invoice, VIM starts the DP process.
4. VIM performs a PO mapping if the PO number is available from ICC.
5. VIM waits for the goods receipt.
6. If data is missing, VIM performs other checks.
7. With all the required data being available, the invoice can be posted automatically.
8. If the posting fails, somebody has to perform one of the following actions:
 - change or complement the invoice data manually
 - post the invoice manually

5.4.2 Service Invoices

The Russian service invoice process is based on 2 printed documents: the act of acceptance (ACT) and the VAT invoice. The vendor sends the ACT and the VAT invoice to the customer.

Supporting the Service Invoice Process with ICC and VIM

1. The VAT invoice and the ACT are scanned together and sent to ICC for OCR.
2. ICC extracts header and item data, and identifies the invoice category.
3. From the VAT invoice, VIM starts the DP process.
4. VIM performs a PO mapping if the PO number is available from ICC.
5. VIM waits for GR or SES.
6. If data is missing, VIM performs other checks.
7. With all the required data being available, the invoice can be posted automatically.

8. If the posting fails, somebody has to perform one of the following actions:
 - change or complement the invoice data manually
 - post the invoice manually

5.4.3 Corrective Invoices

In the corrective invoice scenario, goods arrive with quality or quantity differences to TORG-12. The customer requests an invoice change. The vendor sends a corrective invoice to the customer.

Supporting the Corrective Invoice Process with ICC and VIM

1. The corrective invoice is scanned and sent to ICC for OCR.
2. ICC extracts header data including the original invoice number and date. ICC also extracts item data including special item delta details. ICC identifies the invoice category.
3. The VIM DP process is started.
4. VIM calculates which document lines need to be posted and how. VIM considers only the difference to the original invoice.
 For a quantity discrepancy, VIM creates an invoice or a credit memo.
 For a price discrepancy, VIM creates subsequent debit or subsequent credit.
5. If data is missing, VIM performs other checks.
6. With all the required data being available, the invoice can be posted automatically.
7. If the posting fails, somebody has to perform one of the following actions:
 - change or complement the invoice data manually
 - post the invoice manually

5.4.4 Business Rules

The following business rules are specific for Russia. For more information, see Section 19.81 “Russia - Wait for TORG-12/ACT - Simple Check (PO)” in *OpenText Vendor Invoice Management for SAP Solutions - Reference Guide (VIM-RGD)* and the subsequent sections.

- Wait for TORG-12/ACT - Simple Check (PO)
- Wait for TORG-12/ACT - Enhanced Check (PO)
- Original Invoice Mismatch (PO)

5.4.5 Indexing Screen Fields

The following indexing screen fields are specific for corrective invoices:

- **Original invoice number**
- **Original invoice date**
- **Contract number**

Part 3

Technical Scenarios

Technical scenarios refer to customizing standard VIM functions, from the point of view of a special requirement or an overview of the complete system. An example for a special requirement are business requirements of Central Reporting. An example for an overview is the end-to-end description how to add new fields in ICC and VIM.

For detailed descriptions of customizing settings, technical scenarios may provide links to the standard documentation.

Chapter 6

Adding New Fields in ICC and VIM

Adding a new field is a common requirement when customizing OpenText Invoice Capture Center (ICC) and VIM. This chapter collects information where and how you can add fields throughout the complete application, from custom fields in ICC to additional selection fields and report columns in VIM Analytics.

6.1 ICC

You can extend ICC by adding custom fields that will be exported to VIM automatically. See section “Adding Custom Fields” in *Invoice Capture Center Customizing Guide*.

To process the custom fields, you must extend VIM accordingly:

- ICC uses an external field name, for example `InvoiceNumber`. Map this name to the VIM document field name, for example `XBLNR`. See “[Maintaining Mapping IDs](#)” on page 26.
- Then, you must perform a mapping for the field, as described in Section 9.10 “Mapping External System Data (OCR/IDoc)” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*. For this mapping, use the document field name (for example `XBLNR`), as the **External Field**.
- If you are adding a field in the item table, you have to add the target field name to the index item configuration of the document type. If you do not perform this action, the field value will be cleared when the DP workflow starts.

Overwriting standard fields

In ICC, you can add custom fields, as described in “Adding Custom Fields” in *Invoice Capture Center Customizing Guide*. You can use the value of a custom field to overwrite an ICC standard field. For more information, see “Using Rule-Based Custom Methods for Standard Fields” in *Invoice Capture Center Customizing Guide*. In this scenario, no further customizing is needed on VIM side.

Additional costs fields

In ICC, the extraction of additional costs and discounts is switched off by default. However, you can activate the extraction to new fields, for example a **Discount** field. For more information, see section “Specifying Extraction of Additional Costs and Discounts” in *Invoice Capture Center Customizing Guide*.

To process these fields on VIM side, some configuration is necessary; for more information, see Section 9.16 “Maintaining Additional Cost Handling” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

ICC field reference

For a comprehensive description of ICC fields, see section “Field Reference” in *Invoice Capture Center Customizing Guide*. This section describes recognition and

processing details for the ICC fields, as well as the meaning of the corresponding fields in the VIM process.

6.2 Standard VIM Tables

You can enhance the standard VIM tables, for example, add custom fields, using SAP *Append Structures*. See the SAP Help: http://help.sap.com/saphelp_nw73/helpdata/en/cf/21eb61446011d189700000e8322d00/content.htm.

This applies to the following VIM tables:

/OPT/VIM_1HEAD

Customer specific header fields table

/OPT/VIM_1ITEM

Customer specific line item fields table

When making appends, use user defined field names ZZxxx as recommended by SAP. If you use SAP field names, there may be difficulties with updates and even wrong behavior.

The safest way of adding new fields is adding an append structure at the end of the table. However, you cannot use this method if you want to see the field in the indexing screen. A different way is described in Section 9.9 “Extending Document Data” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CCG)*. The structures mentioned there are included in /OPT/VIM_1HEAD but as they are not at the end of the table, difficulties can arise if there is coding which does not consider such extensions in the middle of a table.

Custom fields If you do not want to modify the standard, you can use dedicated fields in the /OPT/VIM_1HEAD and /OPT/VIM_1ITEM tables. These fields are named CUSTOM_FIELD<X>, for example CUSTOM_FIELD4.

The custom fields provided in tables /OPT/VIM_1HEAD and /OPT/VIM_1ITEM have different data types. You can reuse the custom fields to process any information that is process and business relevant within the whole process of indexing and approval. You can also use the custom fields to transfer necessary information within the SAP posting and parking transactions.

6.3 Integrated Invoice Cockpit

You can add additional columns (customer specific fields) to the detail view of the Integrated Invoice Cockpit. See Section 18.6 “Configuring Customer Specific Fields in the Detail View” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*. See also “Dynamic columns” on page 73.

6.4 VIM Workplace

You can implement the following extensions to the VIM Workplace.

- “Adding Custom Selection Screens to the VIM Workplace Classic Selection Pane” on page 61
- “Adding Custom Smart Selections to the VIM Workplace Smart Selection Pane” on page 67
- “Adding Custom Output List Fields to the VIM Workplace Output List” on page 68
- “Exit Function Module Templates for VIM Workplace Extensions” on page 69

6.4.1 Adding Custom Selection Screens to the VIM Workplace Classic Selection Pane

The VIM Workplace classic selection pane allows you to add custom selection screens. Perform the following steps:

- “Creating a Custom Function Group” on page 61
- “Defining Custom Selection Subscreens” on page 62
- “Creating Custom Selection Subscreen Synchronization Functions” on page 65
- “Enhancing the Standard Data Selection” on page 66
- “Adjusting the VIM Workplace Customizing Profiles” on page 67

6.4.1.1 Creating a Custom Function Group

In your corresponding Z or partner namespace, you must create a custom function group without any objects.

This function group acts as a “dummy” function group. Its only purpose is to allow easy maintenance of selection texts for any custom select options or parameters without modifying the VIM standard product components.

After you have created the new function group, add the following coding to its top include.



Note: This action accesses some important global data declarations used by the VIM Workplace selection pane.

```
INCLUDE /opt/vim_pmc_ui_seldata.  
INCLUDE /opt/lvim_pmc_ui_compsel.
```

6.4.1.2 Defining Custom Selection Subscreens

In this step, you define custom selection subscreens, which appear in the VIM Workplace classic selection pane.

Navigate to the top include of your function group and define the custom selection subscreens between the two include statements:



Important

The location between the two include statements is technically important.

```
INCLUDE /opt/vim_pmc_ui_seldata.  
  
***** add your custom selection screen coding here*****  
  
INCLUDE /opt/lvim_pmc_ui_compsel.
```



Note: You can define the custom selection subscreens in the same way as all standard-delivered screen definitions already available in the include /opt/lvim_pmc_ui_compsel. However, to avoid future conflicts that may be caused by service packs, all custom selection subscreens must be defined using a 9* screen number range. If new selection fields are not available in the structure /OPT/CPMC_SELECTION_FIELDS_ST, you can add them by an append structure. In general, you can use all other structures or tables as data reference by adding them to the top include using a TABLES statement.

Arranging the Horizontal Classic Selection Pane

The VIM Workplace horizontal classic selection pane offers the following frame screens to which you can add custom selection subscreens.

Frame screen 1001

This frame screen offers three predefined areas (left, middle, and right) for fixed positioning of custom selection subscreens or fields.

Frame screen 1003

Empty horizontal screen which allows completely free positioning of custom selection subscreens or fields.

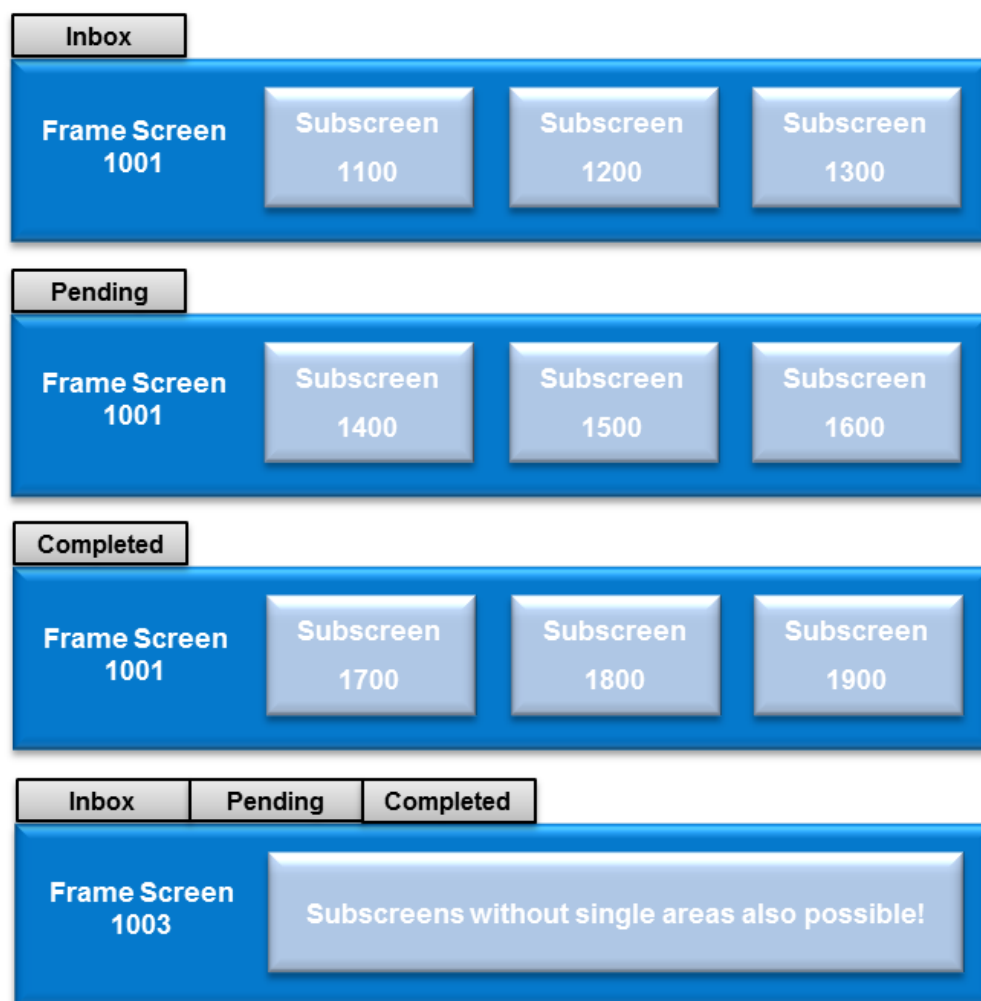


Figure 6-1: Horizontal classic selection pane frame screens

If you want to use, for example, the selection pane frame screen 1003 instead of 1001, run the `/n/OPT/SPRO` transaction and navigate to **Cross Component Configuration > VIM Workplace > Maintain Customizing Profiles > General Profile Settings**. For more information, see Section 19.2.2 “Maintaining General Profile Settings” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

Arranging the Vertical Classic Selection Pane

The VIM Workplace vertical classic selection pane offers the following frame screen.

Frame Screen 1002

Empty vertical screen which allows completely free positioning of custom selection subscreens or fields.

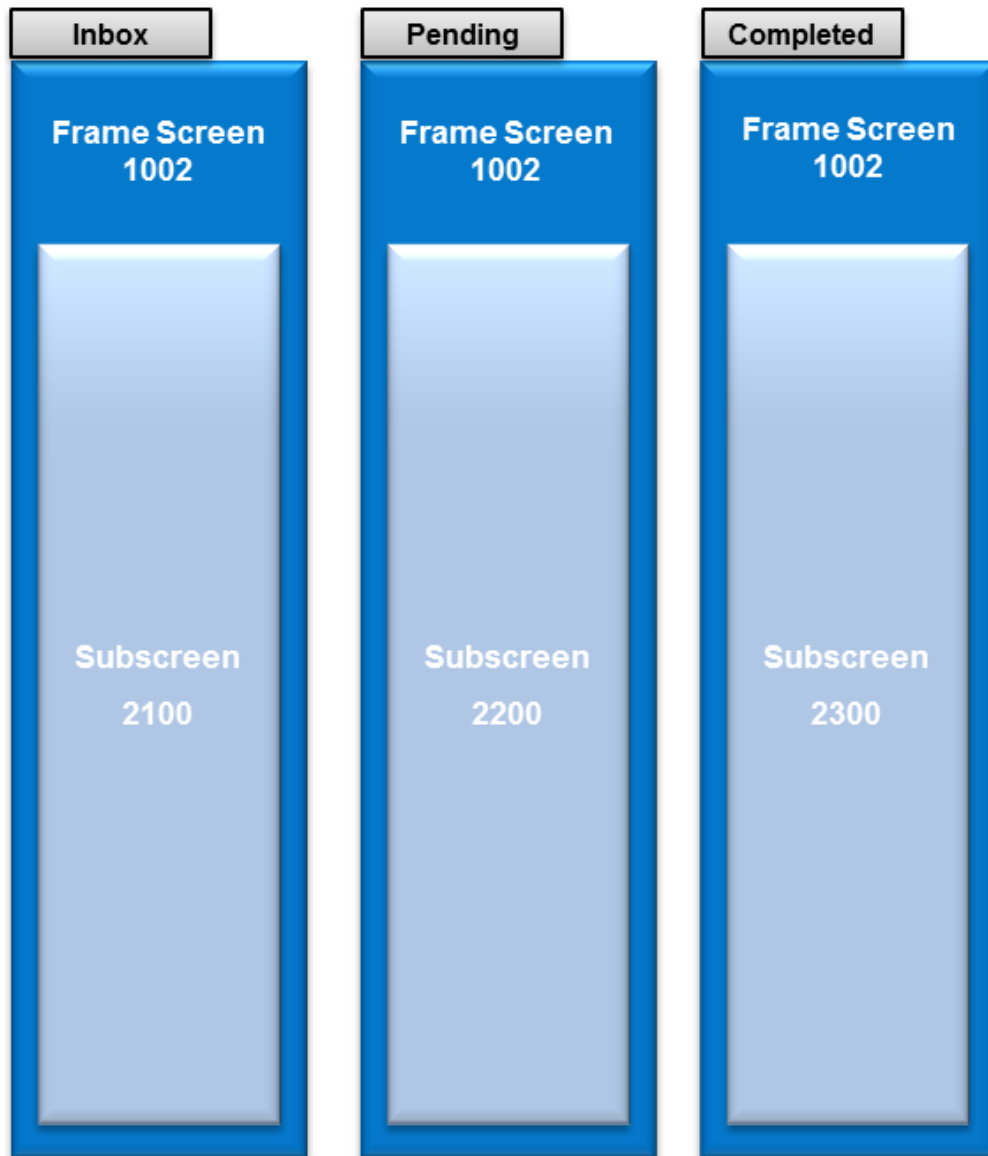


Figure 6-2: Vertical classic selection pane frame screen

Prefix Naming Convention

To ensure automatic data synchronization between the different subscreen arrangements, any custom select option or parameter must follow a special prefix naming convention depending on the selection tab and the selection pane arrangement.

Prefixes for horizontal classic selection pane selection options**Inbox Tab**

H1*

Pending Tab

H2*

Completed Tab

H3*

Prefixes for vertical classic selection pane selection options**Inbox Tab**

V1*

Pending Tab

V2*

Completed Tab

V3*

6.4.1.3 Creating Custom Selection Subscreen Synchronization Functions

The prefix naming convention for selection options (see [“Prefix Naming Convention” on page 64](#)) ensures an automatic synchronization between horizontally and vertically arranged selection panes. It also ensures an automatic reset of selection fields and automatic locking of activated selection options.

To activate the automatisms for custom selection screens:

1. Copy the following function modules to your own function group within the Z* or partner namespace.
 - /OPT/C_PMC_SEL_OPTIONS_SYNC
 - /OPT/C_PMC_SEL_OPTIONS_RESET
 - /OPT/C_PMC_SEL_PANE_LOCK_GET
2. Maintain the function modules in the corresponding customizing profile(s).

6.4.1.4 Enhancing the Standard Data Selection

All data selections are performed by the function module /
OPT/C_PMC_DATA_GET_PROC_RFC, which also automatically receives the entered
values of custom selection fields.

The function module provides multiple enhancement points to add custom logic
without the need to copy the whole function module.

To enhance the technical database selection by the custom selection fields:

1. Define local selection ranges for your custom selection fields.

```
* =====  
* add custom selection ranges using this enhancement point  
ENHANCEMENT-POINT /opt/ep_vim_pmc_get_proc_data SPOTS /opt/es_vim_pmc_get_proc_fm  
STATIC .  
* =====
```

2. Add custom authority checks.

```
* =====  
* add custom authority checks using this enhancement point  
ENHANCEMENT-POINT /opt/ep_vim_pmc_get_proc_auth SPOTS /opt/es_vim_pmc_get_proc_fm.  
* =====
```

3. Map custom selection fields to the local selection ranges.

```
* =====  
* map custom selection field criteria using this enhancement point  
ENHANCEMENT-POINT /opt/ep_vim_pmc_get_proc_map SPOTS /opt/es_vim_pmc_get_proc_fm.  
* =====
```

4. Enhance the database selections for all selection tabs (**Inbox**, **Pending**, and
Completed) with your custom selection ranges.

Inbox

```
ENHANCEMENT-SECTION /opt/ec_vim_pmc_get_proc_inbx SPOTS /opt/es_vim_pmc_get_proc_fm.
```

Pending

```
ENHANCEMENT-SECTION /opt/ec_vim_pmc_get_proc_pend SPOTS /opt/es_vim_pmc_get_proc_fm.
```

Completed

```
ENHANCEMENT-SECTION/opt/ec_vim_pmc_get_proc_compl SPOTS /opt/es_vim_pmc_get_proc_fm.
```

5. **Optional** Enrich the output data if required.

```
* =====  
* enrich selected process data using this enhancement point  
ENHANCEMENT-POINT /opt/ep_vim_pmc_get_proc_enrch SPOTS /opt/es_vim_pmc_get_proc_fm.  
* =====
```

6.4.1.5 Adjusting the VIM Workplace Customizing Profiles

You must finally activate your custom selection subscreens. Therefore, you adjust the general settings of all corresponding VIM Workplace customizing profiles.

To adjust customizing profiles:

1. Run the /n/OPT/SPRO transaction and navigate to **Cross Component Configuration > VIM Workplace > Maintain Customizing Profiles > General Profile Settings**.
2. Enter your custom selection subscreens in the corresponding horizontal or vertical selection-tab subscreen fields.

6.4.2 Adding Custom Smart Selections to the VIM Workplace Smart Selection Pane

The VIM Workplace smart selection pane allows you adding custom smart selection criteria and dependent restrictions.

Perform the following configuration steps:

1. Creating a custom smart selection class implementation
2. Defining a custom smart selection in the VIM Workplace customizing
3. Running the check result evaluation program

6.4.2.1 Creating a Custom Smart Selection Class Implementation

Every smart selection is based on a class implementation that contains the selection criteria and restriction check logic.

To create a custom smart selection class implementation:

1. Create a custom ABAP class with superclass /OPT/CL_C_PMC_BS.
2. Redefine the method CHECK_BS_GROUP and add your custom selection criteria and restriction check logic.
3. Redefine the method CUSTOM_SUB_GROUPS_GET if the dependent restrictions cannot be defined using the standard smart selection definition customizing and therefore need to be defined in a different way.



Note: When creating custom logic for the selection criteria and restriction check within the redefined method CHECK_BS_GROUP, keep the following in mind: Each check run can only result in exactly one combination of selection criteria and depending restriction at the same time. If a selection criteria/restriction combination is valid, return this combination. If no combination is valid, simply do not return any combination. If a selection criteria has no depending restrictions, only the selection criteria has to be returned if it is valid.

6.4.2.2 Defining a Custom Smart Selection in the VIM Workplace Customizing

You must define every custom smart selection in the corresponding VIM Workplace customizing.

To define a custom smart selection:

1. Run the /n/OPT/SPRO transaction and navigate to **Vendor Invoice Management > Cross Component Configuration > VIM Workplace > Define Smart Selections**.
2. Configure a suitable custom smart selection and assign your custom class implementation, which contains the selection criteria and restriction check logic.
3. Configure the selection pane assignments accordingly.



Note: You can use the constant value field on selection restriction level to set any constant values that are used during the check logic execution. The constant values may be object to change from time to time (for example, settings depending on number of days). Therefore they may be difficult to handle if they are hardcoded in the custom class implementation logic.

6.4.2.3 Running the Check Result Evaluation Program

After defining new custom smart selections, you must run the check result evaluation program /OPT/CR_PMC_BS_CHECK. Run it once for the newly defined selection criteria to get the initial result registrations. If the initial check run is not performed, the smart selection will not return any hits in the VIM Workplace for older processes that have been started before the initial check run.

6.4.3 Adding Custom Output List Fields to the VIM Workplace Output List

Apart from custom selection screens, the VIM Workplace also allows adding custom output fields to the standard output list. To add custom output fields, you must perform the following actions.

Appending Custom Fields to the Standard Output Structure

You must append any custom output fields to the standard VIM Workplace output structure /OPT/CPMC_OUTPUT_PROCESS_ST. For this purpose, use a custom append structure.

Maintaining Output Field List Settings

After you have appended the custom fields to the output structure, you must maintain the output field list settings depending on the selection tab (**Inbox**, **Pending**, and **Completed**). For more information, see Section 19.2.3 “Maintaining

Output List Field Settings” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

(Optional) Enhancing the Output List Data

Your custom selection fields might not be populated directly by the database select and they might need further logic to be filled. In this case, you can use the following enhancement point of function `/OPT/C_PMC_DATA_GET_PROC_RFC` to fill the necessary information:

```
* =====
* enrich selected process data using this enhancement point
ENHANCEMENT-POINT /opt/ep_vim_pmc_get_proc_enrch SPOTS /opt/es_vim_pmc_get_proc_fm.
* =====
```

6.4.4 Exit Function Module Templates for VIM Workplace Extensions

The following list gives an overview of all available exit function module templates that can be used to implement extensions or custom enhancements for the VIM Workplace.

Exit function templates - overview

/OPT/C_PMC_EXIT_TEMPL_BUTTON

Purpose

Allows to skip the creation of an action button during runtime.

Customizing table usage

/OPT/CT_PMC_BTN-BTN_EXIT

Source code call

Class method:

/OPT/CL_C_PMC_UI_ALV=>EXT_TOOLBAR_BUTTONS_GET

/OPT/C_PMC_EXIT_TEMPL_ICON

Purpose

Allows to influence the icon properties during runtime.

Customizing table usage

/OPT/CT_PMC_OUT-OUTPUT_ICON_EXIT

Source code call

Class method:

/OPT/CL_C_PMC_UI_ALV->ICONS_SET

/OPT/C_PMC_EXIT_TEMPL_FLD_STAT

Purpose

Allows to influence the properties of an output list field during runtime.

Customizing table usage

/OPT/CT_PMC_OUT-OUTPUT_STAT_EXIT

Source code call

Class method:

/OPT/CL_C_PMC_UI_ALV->FIELDCATALOG_SET

/OPT/C_PMC_EXIT_TEMPL_PRE_ACT

Purpose

Runs before the action logic of a button or icon action is executed. In case of multiple backend, it is always called once for all selected work items on the local system and a second time for all corresponding work items of each backend system.

Customizing table usage

/OPT/CT_PMC_OUT-OUTPUT_PREAMT_FM

/OPT/CT_PMC_BTN-BTN_ACT_PREAMT_FM

Source code call

Local system level function module:

/OPT/C_PMC_ACTION_EXECUTE_RFC

Backend system level class method:

/OPT/CL_C_PMC_ACT_CONTROLLER->DISPATCH_ACTION_EXECUTE

/OPT/C_PMC_EXIT_TEMPL_ACT_EXE

Purpose

Executes the action logic of a button or an icon action.

Customizing table usage

/OPT/CT_PMC_BTN-BTN_ACT_EXE_FM

/OPT/CT_PMC_OUT-OUTPUT_ACTION_FM

Source code call

Class method:

/OPT/CL_C_PMC_ACT_HANDLER->ACT_CUSTOM_EXECUTE

/OPT/C_PMC_EXIT_TEMPL_PROC_RFC

Purpose

Executes the data selection directly on each involved backend system.

Customizing table usage

/OPT/CT_PMC_CUST-DATA_SEL_FM_RFC

Source code call

Class method:

/OPT/CL_C_PMC_DATA_SOURCE->DATA_SELECTION_PROCESS

/OPT/C_PMC_EXIT_TEMPL_DISCOUNT**Purpose**

Controls the behavior of the discount light in the output list, for example when should it switch to red, yellow or green.

Customizing table usage

/OPT/CT_PMC_CUST-DATA_SET_DISC_FM

Source code call

Function module:

/OPT/C_PMC_DATA_GET_PROC_RFC

6.5 DP Dashboard

You can customize existing index fields of the indexing screen (DP Dashboard). The procedure differs for header fields and line item fields. For more information, see Section 9.1.5 “Configuring the Index Header” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)* and Section 9.1.6 “Configuring the Index Item Fields” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

If the existing index fields are not sufficient and custom fields are necessary, you can define customer specific programs and subscreens, both for header and line item fields, and assign them to DP document types. See the description for **Header Program/Header Subscreen** and **Item Program/Item Subscreen** in Section 9.1.1 “Creating a New DP Document Type” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*. The procedure differs for header fields and line item fields.

To create custom header or line item fields:

1. Create an Append Structure to the following standard structures:
 - /OPT/VIM_1RDOC_DATA for customer specific header fields.
 - /OPT/VIM_1RITEM_DATA for customer specific line item fields.

Alternatively, reuse one of the existing custom fields (see “Custom fields” on page 60).
2. Copy function module /OPT/C_IDX_SYNC_APPLICATION into your custom function group.
3. Copy function module /OPT/C_IDX_SYNC_LABELS into your custom function group.
4. Copy the wanted subscreen from program /OPT/SAPLVIM_IDX_UI (screen 1100-1500) into your custom function group.
5. Append the following existing includes from the function group / OPT/VIM_IDX_UI into your custom function group:

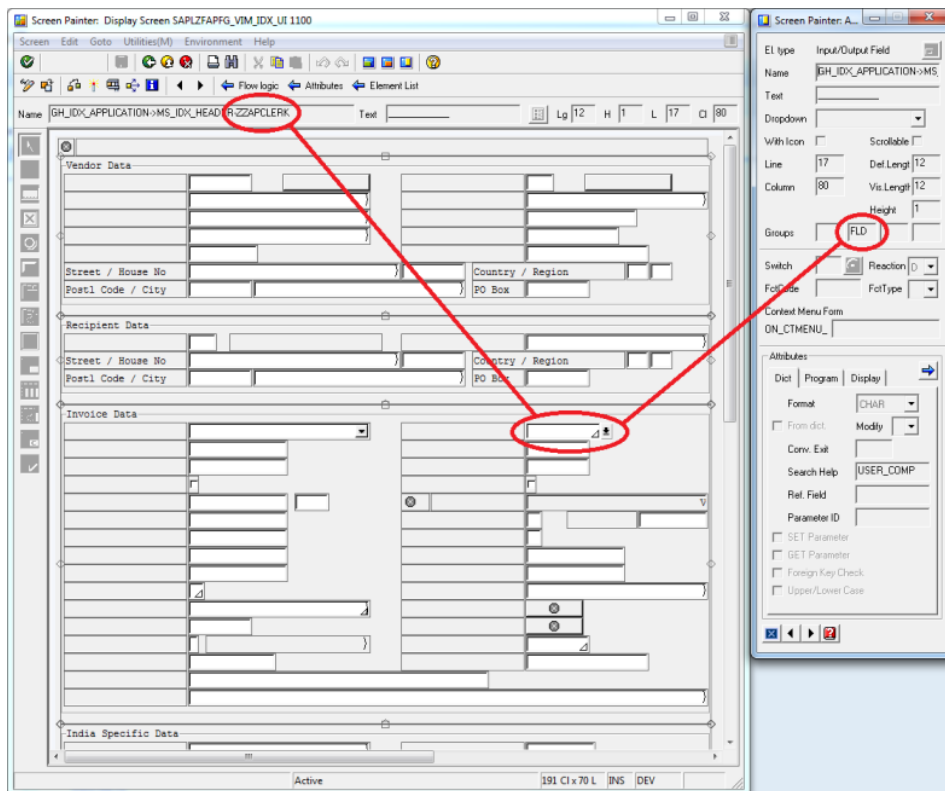
```

INCLUDE /opt/lvim_idx_uidat.
INCLUDE /opt/lvim_idx_uui01.
INCLUDE /opt/lvim_idx_uio01.
INCLUDE /opt/lvim_idx_uif01.
INCLUDE /opt/lvim_idx_uif02.

```

- Maintain function modules and the copied screens for the relevant document types in the Document Type Configuration in the /OPT/SPRO transaction.
- Manually add the new index fields to the program/Header Subscreen or program/Item Subscreen. Therefore, use the graphical screenpainter and declare the text label, using type LABEL_LENGTH.

Make sure to put FLD in the second group box. Otherwise, the new index fields are not automatically set to read-only in **Display** mode. See the following screenshot.



- Display or hide the new index fields, by creating a maintenance view of the tables /OPT/VIM_NW_SCRN (for new header fields) and /OPT/VIM_IDX_T (for new item fields). Therefore, perform the Index Item Configuration in the Document Type Configuration in the /OPT/SPRO transaction.
- Adjust the corresponding BDC: Identify the relevant BDC in the Customizing, copy, and adjust.

This step is necessary to achieve the following:

- Creation of a parked or posted invoice in the foreground with pre-filled fields
- Automatic Parking or Posting in the background

Adjusting the BDC makes it possible to pass the new fields to the SAP transaction (FB60 for Non PO invoices, MIRO for PO invoices) or (in case of background) to the SAP BAPI®.



Note: It may make sense to create new BDC IDs. The system loses the ability to be patched in case of changes. With new BDC IDs, you can manually check the changes of the patch.

See Section 9.7.1 “Using the BDC ID Infrastructure” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*

Dynamic columns

You can maintain dynamic columns that appear in the user’s inbox during work item processing. See Section 9.13.4 “Maintaining Dynamic Columns” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

6.6 Notifications Program

You can add fields (columns) to the emails that are sent within the Notifications program. In the **Mail Configuration** screen, create new entries. See Section 33.3.2 “Configuring the Notification Email Body” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

6.7 Invoice Approval

Header fields

You can add header fields to the approval screen, in SAP GUI as well as in the OpenText Approval Portal. These fields will be available in the section showing the header data information. See Section 13.6.12 “Configuring Fields for Invoice Approval” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

Line item section

You can add customer specific fields in the line item section of the coding screen in the approval process. This applies to OpenText Approval Portal (Approval Portal) and to SAP GUI Approval. The purpose is to activate additional coding fields for parked NPO / DP NPO documents in the approval process.

Users process the approval or coding step in the approval screen in SAP GUI or in the Approval Portal. Both the approval screen in SAP GUI and in the Approval Portal provide a limited amount of fixed line item fields in the baseline delivery. In the customizing, you can adjust these fields using the **OpenText Configuration** (/OPT/SPRO transaction).

The fields are limited and described with the structure /ORS/INVOICE_ACCT_DATA.

The following sections describe how you can add coding fields within the approval processing.

6.7.1 Changing an Existing Field

This section describes how you can reuse a custom field to provide an “own” coding field.

To customize the coding screen, you must configure fields for the invoice detail page and define the coding fields. To do this, use the following customizing:

Run the `/n/OPT/SPRO` transaction and navigate to **Vendor Invoice Management > Invoice Approval Configuration > User Experience > Invoice Detail Configuration > Maintain Invoice Detail Fields**.

Run the `/n/OPT/SPRO` transaction and navigate to **Vendor Invoice Management > Invoice Approval Configuration > Financial Processing > Coding Configuration > Maintain Coding Fields Mapping**.

In the customizing, the following ways are available to change an existing field:

- Choose an existing unused field.
- Add a new field (which you want to reuse with different information) to the structures `/ORS/INVOICE_ACCT_DATA` and `/OPT/A_INVOICE_ACCT_ST`.
- Create a new append in the structures `/ORS/INVOICE_ACCT_DATA` and `/OPT/A_INVOICE_ACCT_ST` with your customer specific fields.

See also Section 13.6.12.1 “Configuring Fields for the Invoice Detail Page” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

6.7.2 Changing the Invoice Class

VIM 7.0 introduced level based approval. The custom invoice class is now configured in the approval flow settings (AFS); see Section 13.6.5 “Configuring Approval Flow Settings” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

6.7.3 Changing BDC IDs

DP related document

If the document is related to a DP process, and if the new field is not provided in table `/OPT/VIM_1ITEM`, you must create an append structure with the new field.

To pass the field to the SAP accounting document, you must change the corresponding BDC codes for the DP processing; for example BDC ID 34 for background posting, and BDC ID 35 or BDC ID 40 for online posting.

Parked document

For parked document approvals, you must copy the corresponding function module `/ORS/000007_NPO_SAVE_CODING` to change the parked document. Maintain the function module in `/PTGWFI/Z_CONST`.

Change View "WebFlow Constant Table": Details of Selected Set	
Product Code	IAP
Product Version	
Constant	BDC_FUNCTION
WebFlow Constant Table	
Description	BDC Function to Be Called to Write to Database
Constant Value	Z_OR5_000007_NPO_SAVE_CODING

VIM provides a function module /ORS/000007_NPO_SAVE_CODING2. This function module is used to retrieve and provide data for the parking scenario within structure VBSEG, and not within BSEG. This approach applies whenever not all fields (for example VORNR) are available in structure BSEG. Structure BSEG is used within function module /ORS/000007_NPO_SAVE_CODING2.

6.7.4 Creating Custom Search Help

You can create a search help for the new field. The search help can be used on the Approval Portal. For details, see Section 13.6.13 "Configuring Search Help for Web Screen Fields" in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

6.7.5 Displaying the New Field in the Indexing Screen

To display the new field in the indexing screen, you must enable the field in the country specific settings. For more details, see also "[Standard VIM Tables](#)" on page 60.

For the necessary configuration, see Section 9.1.6 "Configuring the Index Item Fields" in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*

6.8 VIM Analytics

- You can display selection fields that are hidden by default, because there are too many. Pick the additional selection fields by clicking  in the selection screen, and then selecting from a list. See Section 3.1 “Using the Selection Screen” in *OpenText Vendor Invoice Management for SAP Solutions - Reference Guide (VIM-RGD)*.
- You can add additional panels with additional selection criteria below the **Report Options** panel. See Section 15.1 “Adding User Items in the Selection Screen” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.
- You can add columns to the report output. See Section 15.3 “Adding or Changing Document View and Workflow View Fields” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

Chapter 7

Using the Metadata Interface of the ICC Dispatcher

7.1 Overview

The metadata interface of the ICC Dispatcher is used to populate values from VIM to the ICC extraction. All values for fields in the /OPT/VIM_1HEAD table can be transported.

The following conditions apply:

- The field value must not be empty.
- There must be a mapping entry for the field as target in mapping ID GENERAL.

For more information about ICC, see *Invoice Capture Center Customizing Guide*.

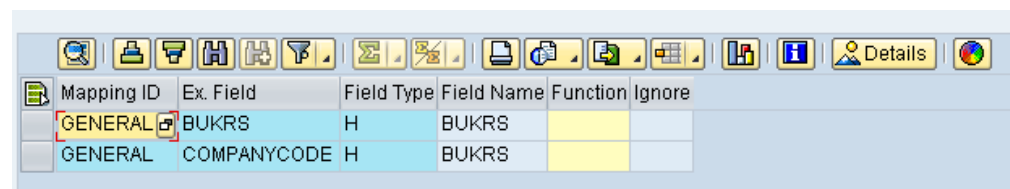
7.2 Functional Description

The interface is called when the ICC Dispatcher selects a document to be extracted. It works the following way:

1. All fields in /OPT/VIM_1HEAD are considered.
2. If the field value is not empty, there is a check if the field name is target for a mapping entry in mapping ID GENERAL.
3. An entry is generated at the metadata interface for every mapping entry found. The interface entries will have the external field name of the mapping entry as field name and the field value as value.
4. ICC turns these entries into annotations in the datapool.

7.3 Example

The value for /OPT/VIM_1HEAD-BUKRS is 3000. There are two entries with target BUKRS in the mapping table for ID GENERAL.



Mapping ID	Ex. Field	Field Type	Field Name	Function	Ignore
GENERAL	BUKRS	H	BUKRS		
GENERAL	COMPANYCODE	H	BUKRS		

So there will be two entries in the mapping interface. The ICC will turn the entries into annotations in the datapool, as highlighted in the example.

Example 7-1, “Metadata interface” on page 78 shows the annotation section in the datapool of the ICC application. Most of the annotations are generated by the metadata interface. In this case, it was generated from a document that was already recognized once and then reset to be recognized again. Therefore, there are many values in the /OPT/VIM_1HEAD table, and consequently many annotations. Normally, there are not many entries because most of the values in /OPT/VIM_1HEAD are still empty.



Example 7-1: Metadata interface

```
<?xml version="1.0" encoding="utf-8" ?>
- <DOKuStar.Data baseType="documentType" state="Ok"
  confidence="0">
- <annotations>
  <annotation key="SAPLink.DocumentId">000000004835
    </annotation>
  <annotation key="SAPLink.RetryNr">2</annotation>
  <annotation key="SAPLink.DocumentType" />
  <annotation key="SAPLink.DocumentUri">http://149.
    235.136.137:8080/archive?get&pVersion=0046&
    contRep=Y4&docId=005056189DDF1EE2A7A36F6506791DC5
    </annotation>
  <annotation key="SAPLink.InputUri" />
  <annotation key="SAPLink.OutputUri" />
  <annotation key="ARCHIVE_DATE">20130404</annotation>
  <annotation key="ARCHIVE_TIME">073341</annotation>
  <annotation key="ARCHIVE_USER">INDEXER</annotation>
  <annotation key="ARCHIV_ID">Y4</annotation>
  <annotation key="ARC_DOC_ID">005056189DDF1EE2A7A36F6
    506791DC5</annotation>
  <annotation key="AR_OBJECT">ZAK_PDF</annotation>
  <annotation key="BLART">RE</annotation>
  <annotation key="BLDAT">20130304</annotation>
  <annotation key="BUDAT">20130304</annotation>
  <annotation key="BUKRS">3000</annotation>
  <annotation key="COMPANYCODE">3000</annotation>
  <annotation key="CHANGE_DATE">20130419</annotation>
  <annotation key="CHANGE_TIME">043813</annotation>
  <annotation key="CHANGE_USER">HFICHT</annotation>
  <annotation key="CHANNEL_ID">ICC</annotation>
  <annotation key="DOCID">000000004835</annotation>
  <annotation key="DOCTYPE">NPO_GLOBAL</annotation>
  <annotation key="EBELN">4500017821</annotation>
  <annotation key="GROSS_AMOUNT">6170.00</annotation>
  <annotation key="INV_CAT">I</annotation>
  <annotation key="LIFNR">0000003000</annotation>
  <annotation key="MANDT">800</annotation>
  <annotation key="ORIG_AR_OBJECT">ZAK_PDF</annotation>
  <annotation key="PYMNT_TERMS">ZB01</annotation>
  <annotation key="REMIT_AD_CITY1">New York</annotation>
  <annotation key="REMIT_LAND1">US</annotation>
  <annotation key="REMIT_PSTLZ">10019</annotation>
  <annotation key="REMIT_REGIO">NY</annotation>
  <annotation key="REMIT_STREET">POBOX 477890</annotation>
```

```

<annotation key="SCAN_DATE">20130404</annotation>
<annotation key="SCAN_TIME">073340</annotation>
<annotation key="SHIPTO_AD_CITY1">New York</annotation>
<annotation key="SHIPTO_HSNM1">1230</annotation>
<annotation key="SHIPTO_LAND1">US</annotation>
<annotation key="SHIPTO_PSTLZ">10019</annotation>
<annotation key="SHIPTO_REGIO">NY</annotation>
<annotation key="SHIPTO_STREET">Lincoln Avenue</annotation>
<annotation key="STATUS">01</annotation>
<annotation key="STC_NO">NY12345678</annotation>
<annotation key="SUPPLY_DATE">20130304</annotation>
<annotation key="TARGET_SYSTEM">TW6CLNT800</annotation>
<annotation key="TAXAMT_1">10.00</annotation>
<annotation key="TAXRATE_1">20.000</annotation>
<annotation key="TAX_DESC">X</annotation>
<annotation key="VEND_NAME">C.E.B. New York</annotation>
<annotation key="InvoiceCurrency">USD</annotation>
<annotation key="WAERS">USD</annotation>
<annotation key="XBLNR">QQ41337645</annotation>
<annotation key="Sitemap">\\IN05520\DOKuStarDispatchData\
  config\RdaProject\JobClass1_Steps\Recognition\JobClass1_
  Recognition.sitemap</annotation>
<annotation key="ConnectorGuid">25d431d2-0c60-4733-973e-
  d6014d80f16f</annotation>
<annotation key="ConnectorName">SAP Extraction Link
  </annotation>
<annotation key="ConnectorInstanceName">Application1
  </annotation>
<annotation key="Filename">SAPLink(Extraction, DocumentId=
  000000004835, ActivityRetryNr=2)_c53f1285-58d6-4104-b9c3-
  be5ccdac5e01</annotation>
<annotation key="JobClass">JobClass1</annotation>
<annotation key="Cache">C:\Windows\TEMP\DOKuStar Pro
  fessional\3.0\Cache\JobClass1_Recognition\c87b9cca-61df-
  4d4d-bcf8-586827b843e5</annotation>
<annotation key="Scripting">Indexing</annotation>
</annotations>

```



7.4 Customer Fields

If you want to add a customer field to the metadata interface, you have to perform two steps.

To add a customer field to the metadata interface:

1. Add a customer field to table /OPT/VIM_1HEAD. For more information, see [“Standard VIM Tables” on page 60](#).
2. Create a mapping entry with this field as target in the mapping table with mapping ID GENERAL. For more information, see [“Maintaining Mapping IDs” on page 26](#).

Chapter 8

Invoice Approval: A Typical Flow Example

Within a department, you are implementing the coding of Non PO invoices by the AP team. There are two levels of approval, with separate responsibilities for different cost centers at the first level. The first approval level is able to approve lines with the maximum amount of 5,000 Euro. The second approval level can approve up to 50,000 Euro.



Note: Both amounts are not meant as individual line amounts but as sums of line item amounts grouped for each approver (“pack amounts”).

Basic settings

You use the following cost centers: 1100 and 1101 for purchasing, and 2200 for production.

The coding is performed by users CODER1 and CODER2. Both of them are able to approve the coding for any of the cost centers listed above.

Goods and services are requested by users EMPLOYEE1, EMPLOYEE2, and EMPLOYEE3.

The first level approvers are APPR_PUR for the purchasing cost centers, and APPR_PRD for the production cost center.

The second level approvers are APPR_MGR1 and APPR_MGR2.

As an exceptional situation, an invoice with the grouped lines amount higher than 50,000 Euro might be received. To handle this exception, maintain the fallback user APPR_ADM for the AFS ID to be used.

The coder determination is set to By company code.

For more information about the fallback user and coder determination, see Section 13.6.5 “Configuring Approval Flow Settings” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

COA settings

Configure the following setup in the COA maintenance:

For more information about the settings in the COA, see Section 5.5 “Maintaining Chart of Authority” in *OpenText Vendor Invoice Management for SAP Solutions - Configuration Guide (VIM-CGD)*.

User Details tab

Enter all users mentioned above who are participating in the approval process.

Approval Limit/Level tab

Set up the following levels for the corresponding company code:

- Coder level with the limit 0
- Requester level with the limit 0
- Approval level 1 with the limit 5,000 Euro
- Approval level 2 with the limit 50,000 Euro

Enter the expense type as * - A11.

COA Details, Coder/Requester Details tab

For the coder level, enter coders: CODER1 and CODER2, with cost center *.

For the requester level, enter requesters: EMPLOYEE1, EMPLOYEE2, and EMPLOYEE3, with cost center *.

COA Details, Approver details tab

For approval level 1, enter APPR_PUR with cost center 1100 and 1101, and APPR_PRD with cost center 2200.

For approval level 2, enter APPR_MGR1 and APPR_MGR2, both with cost center *.



Note: Internally (and often shown in the documentation), the coder level is level 0, the requester level is level 1, the first approval level is level 2, and the second approval level is level 3.

Coder Settings tab

Maintain CODER1 and CODER2 for the company code.

Invoice flow

With the setup described above, all invoices are first sent to CODER1 (the first in the list, sorted alphabetically). The first coder can enter the accounting information or forward the invoice to CODER2.

After coders have finished entering the accounting data, the invoice is sent to the respective requester. The requester reviews the invoice and can approve it, thus passing the invoice to the approvers in the approval level 1.



Note: At this point, if sequential approval flow is used, the invoice is sent to one of the approvers. If parallel approval flow is used, the invoice is sent to both approvers simultaneously.

After both first level approvers have approved the invoice, it is sent to APPR_MGR1. If the total amount on all lines does not exceed 50,000 Euro, APPR_MGR1 can finally approve the invoice. After this, the invoice typically returns into the DP workflow and is posted automatically, or reviewed by other departments or processors.



Example 8-1: Example invoice

Header amount is 15,000 Euro (Zero tax rate is used).

Line 1

Cost center 1100, amount 4,000 Euro. This line has to be approved by APPR_PUR, no final approval at the first approval level.

Line 2 Cost center 1101, amount 5,000 Euro. This line has to be approved by APPR_PUR, no final approval at the first approval level.

Line 3 Cost center 2200, amount 6,000 Euro. This line has to be approved by APPR_PRD, no final approval at the first approval level.

Both sums of line item amounts per approver ("pack amounts") exceed 5,000 Euro. Therefore, the invoice is sent to the second approval level to APPR_MGR1.



Glossary

AAK

See *SAP Add-On Assembly Kit (AAK)*.

After Image

Technical option to realize an delta upload from the source systems into the SAP NetWeaver BW system. A data record loaded as After Image provides the status of the record after it has been changed, or after data has been added.

Aging Report

Part of the Central Reporting infrastructure. The Aging Report reports about the aging of documents and work items in the current system.

AP processor

Accounts Payable personnel

Application Component Hierarchy

Hierarchy of folders to structure *DataSources* in SAP NetWeaver BW.

Approval chart of authority (COA)

The Approval chart of authority (COA) determines first approver and next approver for an invoice by combinations of Company Code (specific or range), Expense Type (marketing expense, utility), Cost Objects (G/L account, Cost Center), and HR objects (Position, Job code).

Approval Portal

VIM web interface for approving invoices.

Archive system

Computer system that enables storage, management and retrieval of archived data and documents

ArchiveLink document types

Document types that need to be customized for *ArchiveLink*

ArchiveLink

Service integrated in the SAP NetWeaver Application Server ABAP for linking archived documents and the application documents entered in the SAP ERP system

Authorization profiles

The SAP administrator assigns authorizations to the users that determine which actions a user can perform in the SAP ERP system. These authorizations are stored in Authorization profiles.

Automation Report

Tool that provides data about automated and manual processing steps of VIM documents

BAdI

See **Business Add-Ins (BAdI)**.

BAPI®

SAP programming interface: Business Application Programming Interface

Baseline

Set of functionality with pre-defined configuration and the starting point to implement VIM

BasisCube

See **InfoCube**.

BDC ID

Business Data Communication ID. The BDC ID is used by the system to process an SAP transaction to create an SAP Document in user context.

Block

Situation where an invoice has a price or quantity variance that prevents invoice from posting

BTE

See **Business Transaction Event (BTE)**.

Business Add-Ins (BAdI)

Business Add-Ins (BAdI) is an SAP enhancement technique based on ABAP objects. BAdI can be inserted into the SAP ERP system to accommodate user requirements too specific to be included in the standard delivery.

Business rules

Rules that describe the operations, definitions and constraints that apply to an organization

Business Transaction Event (BTE)

Event used for extending a *Non PO invoice* functionality to call a custom program

Buyer

Person who is in charge of the *PO*. This role should have authorization to create and change the purchase order. This role is also responsible for negotiating and communicating with vendors.

Central Audit Report

Part of the Central Reporting infrastructure. The Central Audit Report is a slimmed *VIM Analytics* (VAN). The main difference to VAN is that the Central Audit Report serves as a single point of access in a multiple backend scenario.

Central Reporting

Reporting infrastructure that provides several reports that enable you to measure certain properties of VIM documents and their work items, in order to optimize working with VIM. Central Reporting comprises the following individual reports: *Aging Report*, *Central Audit Report*, *Exception Analysis Report*, *Key Process Analytics Report*, *Productivity Report*, and *Summary Report*.

Characteristic

Type of *InfoObject* in SAP NetWeaver BW that represents descriptions of fields, such as Vendor ID, Invoice Number, Unit of Measure, and Posting Date.

COA

See *Approval chart of authority (COA)*.

Coding

Coding allocates an invoice to G/L account and cost object if required.

Contract agent

Person who can create and modify SAP contracts.

Dashboard

User interface that organizes and presents information in a way that is easy to read. Users can also perform actions from the dashboard.

Data Transfer Process (DTP)

Object in SAP NetWeaver BW to transfer data from source objects to target objects

DataSource

Set of fields in SAP NetWeaver BW that provide the data for a business unit for data transfer to the SAP NetWeaver BW system; technically, it contains an extract structure and an extraction function module.

DataStore Object (DSO)

Storage location for consolidated and cleansed data in SAP NetWeaver BW

DocuLink

OpenText DocuLink enables the archiving, management and retrieval of SAP CRM or SAP ERP documents from within the SAP infrastructure.

Document Processing (DP)

VIM component that captures invoice metadata including line items for *PO* and performs preconfigured business rules

Document type

Type of document such as *PO*, *Non PO*, *OCR*, Non OCR

DP

See *Document Processing (DP)*.

DSO

See *DataStore Object (DSO)*.

DTP

See *Data Transfer Process (DTP)*.

Duplicate analyzer

Person who is responsible to identify duplicate invoices

EDI

See *Electronic Data Interchange (EDI)*.

Electronic Data Interchange (EDI)

Method for transferring data between different application systems in the form of messages. SAP applications support EDI with messages sent in an SAP Intermediate Document (IDoc) format. VIM supports the creation of vendor invoices through the EDI/IDoc interface.

Event Type Linkage

Error handling method. Event Type Linkage determines what the application should do in case an error could not be handled.

Exception Analysis Report

Part of the Central Reporting infrastructure. The Exception Analysis Report reports all work items with exceptions, grouped by exception, company code or vendor.

Exception

Action that is not part of normal operations or standards

FI

See *Financial Accounting (FI)*.

Financial Accounting (FI)

SAP module for the Finance and Accounting department

IAP

See *Invoice Approval (IAP)*.

ICC

See *Invoice Capture Center (ICC)*.

IDoc

See *Intermediate Document (IDoc)*.

IE

See *Invoice Exception (IE)*.

Indexer

Person responsible for entering index data

Indexing

Process of entering or storing data into the system

InfoArea

Folder in SAP NetWeaver BW to organize *InfoCubes*, *DataStore Objects*, *InfoObjects*, and *InfoObject Catalogs*

InfoCube

Self-contained dataset in SAP NetWeaver BW, for example, of a business-oriented area; an InfoCube is a quantity of relational tables arranged according to the enhanced star schema: A large fact table in the middle surrounded by several dimension tables

InfoObject Catalog

Folder structure in SAP NetWeaver BW to organize *InfoObjects*

InfoObject

Smallest information unit in SAP NetWeaver BW. *Key figures* and *Characteristics* are collectively called InfoObjects.

InfoPackages

Object in SAP NetWeaver BW that specifies when and how to load data from a given source system to the SAP NetWeaver BW system

InfoProvider

Object in SAP NetWeaver BW for which queries can be created or executed. InfoProviders are the objects or views that are relevant for reporting.

Information provider

Receiving role for option `Refer for Information`

Integrated Invoice Cockpit

VIM component that gathers and displays all VIM exceptions in one place. Users can start the respective dashboard by processing a work item directly from the Integrated Invoice Cockpit.

Intermediate Document (IDoc)

Standard SAP message document format for the *EDI* interface.

Invoice Approval (IAP)

VIM component that enables users to perform coding, approving and rejecting invoices

Invoice approver

Person who approves invoices

Invoice Capture Center (ICC)

Optional VIM *OCR* component

Invoice characteristic

A value specific to each invoice (for example country) that allows flexible processing in VIM. An invoice characteristic is determined during runtime and depends on the corresponding index data of the document.

Invoice coder

Person who enters the accounting info on invoices to allocate the cost

Invoice Exception (IE)

VIM component that handles the exceptions that arise after an SAP invoice is created

Invoice requester

Person who requested goods and services for *Non PO* invoices

Key Figure

Type of *InfoObject* in SAP NetWeaver BW that represents numeric values or quantities, such as Number of Invoices and Gross Invoice Amount.

Key Process Analytics Report

Part of the Central Reporting infrastructure. The Key Process Analytics Report reports about a variety of key figures regarding the VIM process: It shows the accumulated amounts of all documents in the DP workflow, in parked state and in posted state.

KPI Dashboard

Tool for managers showing VIM related process data at a glance in graphical charts.

LIV

See *Logistic invoice (LIV)*.

Logistic invoice (LIV)

purchase order invoice

Materials Management (MM)

Materials management module of the SAP ERP software package. Materials management is used for procurement and inventory management.

MM

See *Materials Management (MM)*.

Mobile Approval Portal

VIM component for approving invoices on mobile devices.

MultiProvider

Object in SAP NetWeaver BW that is based on *InfoCube(s)*, *DataStore Object(s)*, and/or *InfoObject(s)*. A MultiProvider is used as a layer for the creation of end user queries; the MultiProvider itself does not contain any data; rather, data resides in the *BasisCubes*.

Namespace

Name range reserved by SAP for customer objects and SAP objects to make sure that objects are not overwritten by SAP objects during the import of corrections or an upgrade

Non purchase order (Non PO)

Order that is not based on a *PO*

Non purchase order (Non PO) invoice (PIR)

Invoice based on a *Non purchase order (Non PO)*

Number range

Array of numbers that can be used for an object in the SAP ERP system

OCR

See *Optical character recognition (OCR)*.

Optical character recognition (OCR)

Mechanical or electronic translation of images of handwritten, typewritten or printed text (usually captured by a scanner) into machine-editable text

Park

Situation where an invoice is not posted and is waiting for further processing

Parked invoice document

Temporary document that the *AP processor* can change and post. SAP assigned document number becomes real number when posted.

Persistent Staging Area (PSA)

Data staging area in SAP NetWeaver BW. It allows to check data in an intermediate location before the data is sent to its destinations in SAP NetWeaver BW.

PIR

See *Non purchase order (Non PO) invoice (PIR)*.

PO

See *Purchase order (PO)*.

Posted invoice document

Invoice that has already been posted in SAP ERP. Only free-form text fields can be changed. Related documents such as *POs* or good receipts may be created or changed to effect the invoice. If the document is not needed, it must be cancelled (*PO invoice*) or reversed (*non-PO invoice*).

Price variance

Situation where the price on the invoice is different from the price in the purchase order

Process Chain

Sequence of processes in SAP NetWeaver BW that are scheduled to wait in the background for an event; used to automate, visualize and monitor the processes.

Process options

Processing options for the user in the dashboard, such as Referral, Authorization, and Actions

Process type

Process type for a document. The process type determines the initial actor and various collaboration options available to the various actors during the process flow.

Productivity Report

Part of the Central Reporting infrastructure. The Productivity Report reports about the productivity of users/roles and the activities of users/roles.

PSA

See *Persistent Staging Area (PSA)*.

Purchase order (PO) invoice

Invoice based on a *Purchase order (PO)*

Purchase order (PO)

SAP module. PO indicates a document sent from a buyer to a seller. The purpose of the document is to order the delivery of goods or services.

Quantity variance

Situation where the quantity on the invoice is different from the quantity in the purchase order

Receiver

Person who can create and reverse the goods receipt in SAP ERP

Requisitioner

Person who requested goods and services

Roles

Set of predefined roles for the SAP user

SAP Add-On Assembly Kit (AAK)

Standardized delivery procedure for software

SAP Customer Relationship Management (SAP CRM)

SAP application that provides software for ticket systems, for example in the Accounts Payable department.

SAP NetWeaver Business Warehouse (SAP NetWeaver BW)

SAP application that allows to integrate, transform, and consolidate relevant business information from productive SAP applications and external data sources.

SAP Shared Service Framework

SAP software that contains a rich set of tools to improve and automate Shared Service Center operations.

SAP Supplier Relationship Management (SAP SRM)

SAP application that automates, simplifies, and accelerates procure-to-pay processes for goods and services.

Scan operator

Person who scans the invoices into images (may not have a SAP ID)

Service approver

Person who approves a service entry

Service requisitioner

Person who enters a service entry

Summary Report

Part of the Central Reporting infrastructure. The Summary Report provides a summary of all documents processed through VIM.

Swimlane

Diagram representing a specific VIM process. A swimlane comprises the process description, roles, user interface and options of the process.

Tax expert

Person who advises on invoices that need tax audit. Normally tax department personnel.

Transformation (TRF)

Object in SAP NetWeaver BW to connect source objects to data targets; it allows to consolidate, cleanse and integrate data

TRF

See **Transformation (TRF)**.

VAN

See **VIM Analytics (VAN)**.

Vendor Invoice Management (VIM)

Packaged business solution that solves a business problem – paying correct amount to vendors on-time and with the lowest cost. VIM delivers not technology but best-practice business processes. VIM provides values to customers in process efficiency, visibility and compliance.

Vendor maintenance

Person who is responsible for creating and maintaining the vendor master records

VIM Analytics (VAN)

VIM component that gives users a clear data report on their invoices in progress. VIM Analytics allows to track the documents routed through SAP workflows via VIM.

VIM Workplace

Tool for VIM super users, which allows users to display lists of their work items that meet a selection they have entered before. Users also can display work items of other users and of their team as a whole.

Workflow

SAP Business Workflows can be used to define business processes that are not yet mapped in the SAP ERP system.

