

Auditing SAP IT Application Controls (ITACs) / Automated Business Application Controls (ABACs)

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Las Vegas

2023

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In This Session

Review some of the most common controls supporting financial reporting integrity, and learn of typical mis-configurations and how to spot them

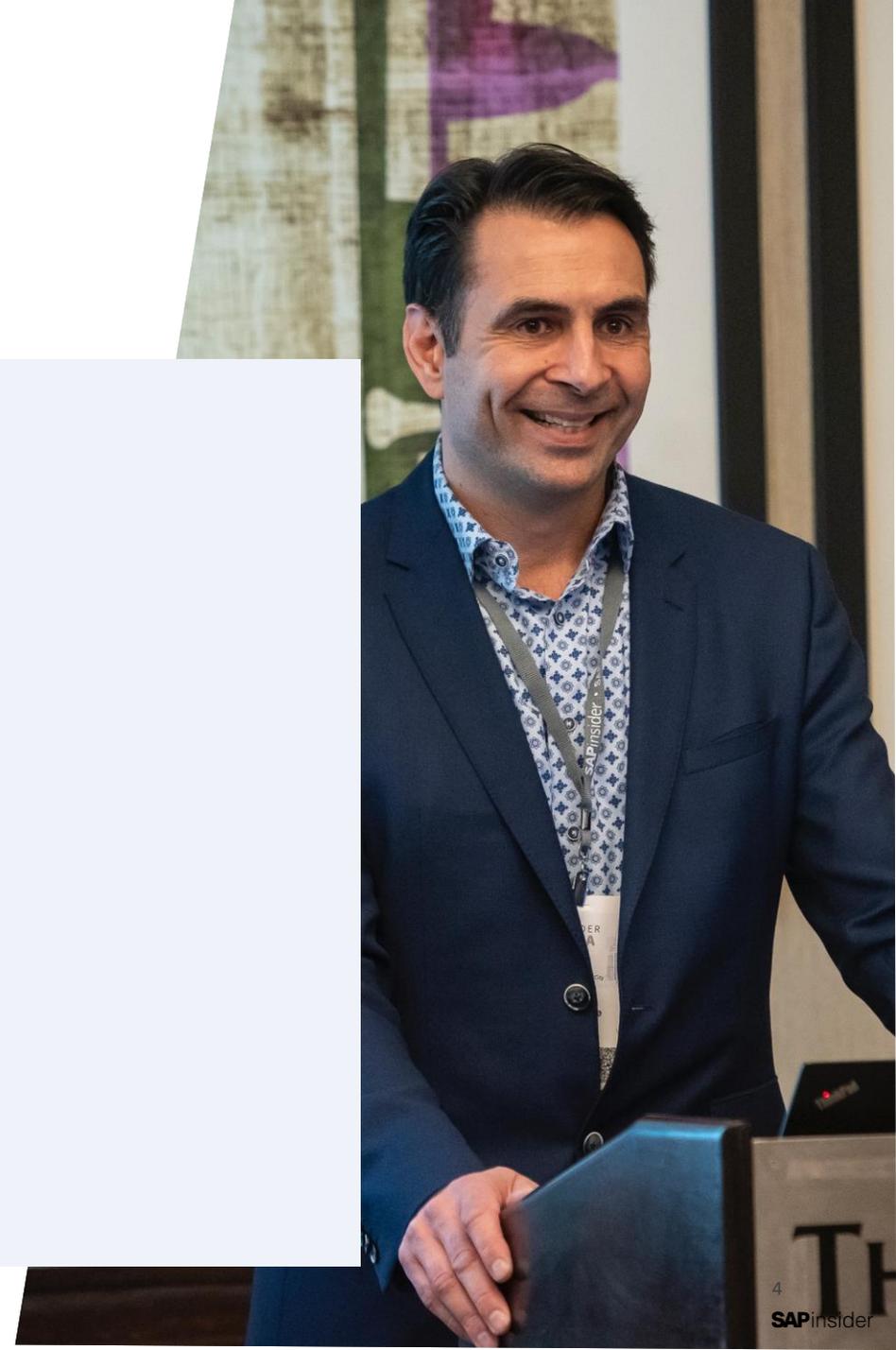
Understand emerging areas of audit focus, such as controls governing price x quantity (PxQ)

Learn valuable control settings that are not enabled by default and often missed by implementation teams, including Dual Control over Sensitive Fields, Budget Tolerances, and Inventory Adjustment Tolerances

Explore how key tables and files related to ITACs / ABACs can be used to facilitate continuous monitoring in tools like Process Control

What We'll Cover

- The Basics
- Record-to-Report Cycle
- Purchase-to-Pay Cycle
- Order-to-Cash Cycle
- Focus Areas
- Continuous Monitoring
- Wrap-Up



The Basics



Overview of Controls in SAP

Inherent Controls

Configurable Controls

Security

Master Data

Exception Reporting and Audit Trails

Examples of Controls in SAP

Logs

Matching

Pricing Procedures

Release Strategy

Recurring Entries

Tolerance levels

Automatic Postings

Credit Checking

Delivery Confirmations

Document Blocking

Exception Reporting

Field Status

General Risks: Configurable Controls

Options not often well understood by implementation team

Many controls not enabled by default

Default tolerances are typically too high for most orgs

Often specific to organizational elements (like company code) or even individual entities (like vendors)

Challenging for auditing and ongoing maintenance

By default, can be changed directly in production

Warning messages can be bypassed

May not apply to customized programs

Requires calling control-related functions in code

General Risks: Security

Challenging to learn and unlike any other system

Default user authentication settings are weak

Many of the SAP roles/profiles provided by a default installation contain segregation of duties conflicts

Administration and maintenance can be extremely difficult when using standard functionality

- Organizations can have thousands of roles and profiles

- Weak security reporting, particularly re: segregation of duties

Customizations can cause security gaps

- In-house developed programs do not have security-checking enabled by default...must be coded by the developer

- Require evaluation and possible updates to security settings to account for new transactions, programs, etc.

SAP S/4HANA introduces new security risks not relevant to SAP ECC and SAP R/3

General Risks: Master Data

Standard configuration does not support strong data integrity

- Few mandatory fields defined

- Edit checks and validation routines on data are limited

Controls are specific to each SAP client, and often:

- Company code, document type, vendor, etc.

Errors will affect all transactions referencing that master data

Require strong data entry and maintenance procedures

Duplicates can cause certain controls to no longer be effective

Change reports are generally available, but finding changes to high-risk data elements may be challenging since all changes listed

General Risks: Exception Reports & Audit Trails

Finding the right report can often be challenging

Parameters used to generate the reports generally do not appear on the report itself

Training rarely provides details for effective monitoring

Logging must be enabled; can be disabled

Not all transactions create change documents

No standard exception report of overrides (if allowed)

Report data limited by your security

No visible way to know if report is incomplete

Remember the People Issues

Policies and Procedures

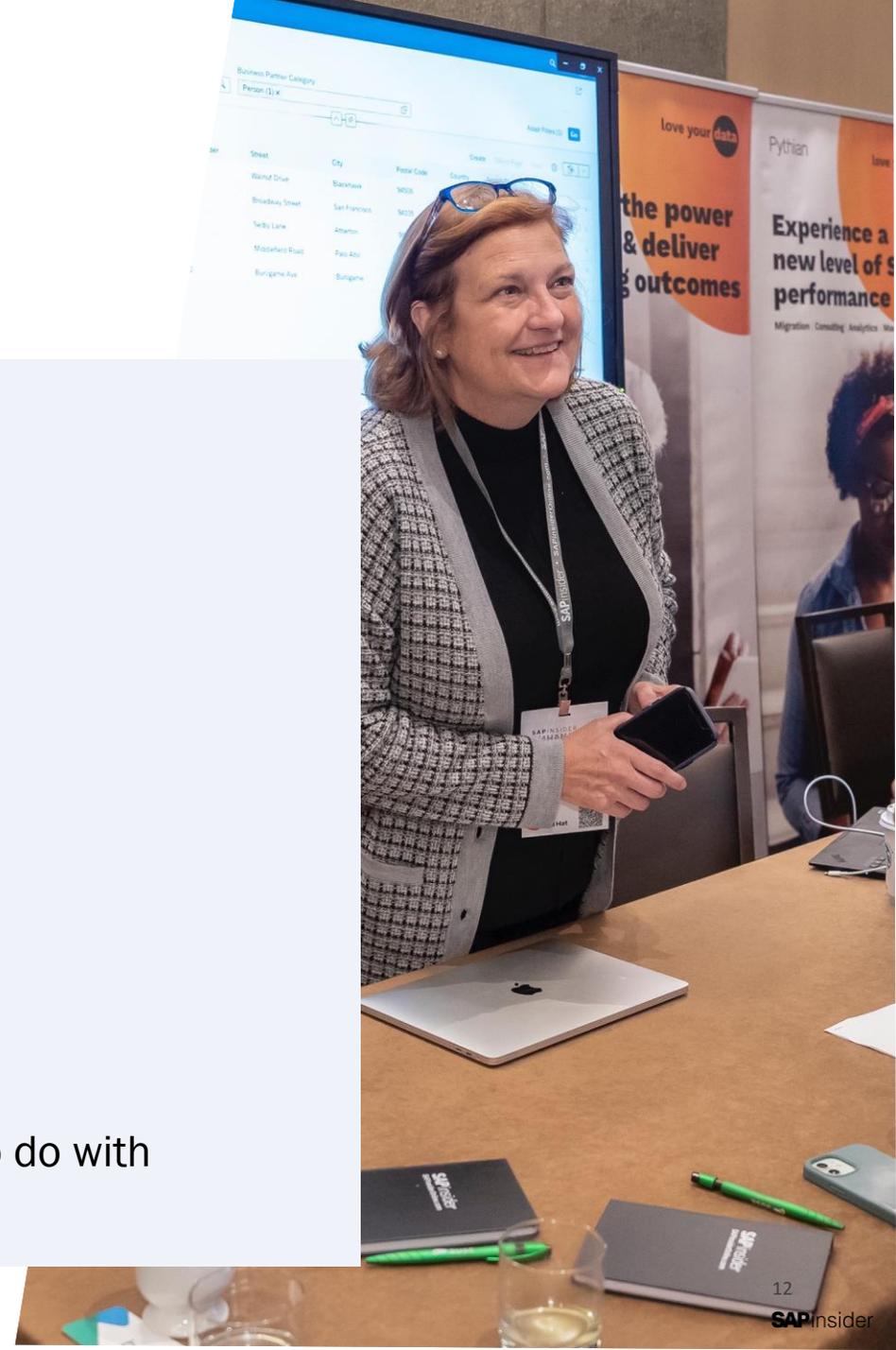
Training

On-boarding

Effective Utilization of SAP Reports



Some of the most common audit issues have little to do with SAP, and much to do with improper usage



Special Transactions – Audit Usage

Viewing Table Data

SE16N (preferred)

- Some admins may raise security concerns; these are unfounded if audit access set up correctly

SE16H (HANA-specific)

- Allows table joins (2 tables)
- Allows summarizing data (e.g., total by doc type)

SE16, SE17 (outdated and much less efficient)

Regardless of transaction used, browsing tables can expose sensitive data

Consider what is required, restrict appropriately

The screenshot shows the SAP 'General Table Display' interface for table VBAK. The table is identified as 'Sales Document: Header Data'. The interface includes fields for 'Table: VBAK', 'Text table:', 'Layout:', and 'Maximum no. of hits: 500'. There are also checkboxes for 'No texts' and 'Maintain entries', and a 'Get Field:' field. Below these fields is a 'Selection Criteria' table.

Fld name	O...	Fr.Value	To value	More	Output	Technical name
Client						MANDT
Sales Document	↕			☐→	☑	VBELN
Created on	↕			☐→	☑	ERDAT
Time	↕			☐→	☑	ERZET
Created by	↕			☐→	☑	ERNAM

Special Transactions – Audit Usage, continued...

Reviewing Configuration

SPRO (highly useful, if not required)

- Time-consuming to initially grant display access
- Many configuration settings can be viewed directly in tables via SE16N / SE16H

SPRO at times is easier to interpret than table data for certain configurations

- Field status groups
- Data validation rules
- Workflow

Use “Find” to quickly jump to a section if you know words in the title

- Tolerance
- Default
- Assign
- Set
- Check

The screenshot shows the SAP SPRO (SPRO) configuration screen. The title bar indicates 'Customizing: Execute Project'. A search bar at the top contains the text 'SAP Reference IMG', which is highlighted with a red box. To the right of the search bar are buttons for 'IMG Information', 'Project Analysis', and 'More'. Below the search bar is a tree view of the configuration structure. The tree is expanded to show the 'Define Document Types' option, which is highlighted in yellow. The tree structure is as follows:

- My Cus
 - Projec
 - SAP Customizing Implementation Guide
 - Commercial Project Management
 - Activate Business Functions
 - Conversion of Accounting to SAP S/4HANA
 - SAP NetWeaver
 - Enterprise Structure
 - Cross-Application Components
 - Mobile Application Integration Framework Configuration
 - SAP Portfolio and Project Management
 - Financial Accounting
 - Financial Accounting Global Settings
 - Regenerate CDS Views and Field Mapping
 - Ledgers
 - Global Parameters for Company Code
 - Functional Area for Cost of Sales Accounting
 - Document
 - Document Types
 - Define Document Types
 - Define Document Types in a Ledger
 - Document Number Ranges
 - Define Posting Keys
 - Screen Variants for Document Entry

Special Transactions – Audit Usage

AL01 – The Relationship Browser

From a given document, show all related SAP documents

Note the multiple sets of material documents for the given purchase order

Often not provisioned in audit roles (due to lack of knowledge about this transaction)

Relationship Tree	Descriptn
√ Accounting document	1710 5000000000 2022
√ Material Document	5000000000 2022
Inbound delivery	0180000000
√ Purchase Order	4500000000
Quality notification	Packaging Damaged
Quality notification	Broken Packaging
Purchase requisition	3000000000
√ Material Document	5000000041 2022
Accounting document	1710 5000000005 2022
Controlling Document	A000 A00000F700
√ Material Document	5000000042 2022
Accounting document	1710 5000000006 2022
Controlling Document	A000 A00000F800
> Material Document	5000000043 2022
> Material Document	5000000044 2022
> Material Document	5000000045 2022
> Material Document	5000000046 2022
√ Incoming Invoice	5105600125 2022
Workflow	Invoice: Release Blocked Invoices
Accounting document	1710 5100000027 2022
Controlling Document	A000 A000000100

Special Transactions – Audit Usage

The (FREE) Audit Information System

If granted access, AIS will appear in the user menu

Accessed by the SAP_AUDITOR role, or a variation

- Standard role requires cleanup, as it does grant some create/maintain privileges (not just display)

Standard in SAP S/4HANA, as well as SAP ECC and SAP R/3

- ✓  User Menu for Steve Biskie
 - ✓  AIS - Audit Information System
 - >  AIS - Administration
 - >  System Audit
 - ✓  Business Audit - Individual Financial Statements
 - >  AIS - Organizational Overview
 - >  Financial Statements - General
 - ✓  Balance Sheet - Assets
 - >  AIS - Tangible Assets
 - >  AIS - Real Estate
 - ✓  AIS - Material Inventories
 - ✓  Consistency Checks
 -  MB5L - List of Stock Values: Balances
 -  MB5K - Stock Consistency Check
 -  S_P6B_12000135 - List of Goods Receipt/Invoice Receipt Balances
 -  S_P6B_12000136 - MM/FI Balance Comparison
 - >  Material Master Data
 - >  Material Stocks
 - >  Physical Inventory
 - >  Balance Sheet Valuation
 - >  Ranking Lists/Key Figures
 - >  Price Calc.
 - >  Goods Movements and Documents

Record-to-Report Cycle



Company Code Setup - Screen 1

Company codes are defined in the IMG, directly accessed via transaction OBY6

SAP provides template settings for many countries

- New: S/4HANA has the ability to flag company codes as templates

The screenshot displays the SAP transaction OBY6 interface. The title bar indicates 'Change View "Company Code Global Data": Overview'. The main area contains a table with the following data:

CoCd	Company Name	City	Country	Crcy	Langu...
<input type="checkbox"/>	0001 SAP A.G.	Walldorf	DE	EUR	DE
<input type="checkbox"/>	0003 SAP US (IS-HT-SW)	Palo Alto	US	USD	EN
<input type="checkbox"/>	0046 Comapany code Student 046	Germany	DE	EUR	DE
<input type="checkbox"/>	0MB1 IS-B Musterbank Deutschl.	Walldorf	DE	EUR	DE
<input type="checkbox"/>	1710 Company Code 1710	Palo Alto	US	USD	EN
<input type="checkbox"/>	AE01 Country Template AE	Dubai	AE	AED	EN
<input type="checkbox"/>	AR01 Country Template AR	Argentinien	AR	ARS	ES
<input type="checkbox"/>	ARG1 Country Template AR	Argentinien	AR	ARS	ES
<input type="checkbox"/>	AT01 Country Template AT	Austria	AT	EUR	DE
<input type="checkbox"/>	AU01 Country Template AU	Australia	AU	AUD	EN

At the bottom of the screen, there is a 'Position...' button and a status indicator 'Entry 1 of 71'. The bottom right corner features 'Save' and 'Cancel' buttons.

FI: Company Code Setup - Screen 2

Important configuration elements include:

- Operating chart of accounts
- Country-specific chart of accounts
- Fiscal year variant
- Document entry screen variant
- Field status variant
- Posting period variant
- Sample account activation

Many organizations forget to mark the CC as productive at go-live

- Allows certain deletion and depreciation TCodes intended for development/ test to be run

Change View "Company Code Global Data": Details

Additional Data

Company Code	US01	Country Template US	U.S.A.
Country key	US	Currency	USD Language Key EN

Accounting organization

Chart of Accts	CAUS	Country Chart/Accts	
Company	RD0001	FM Area	
Credit control area		Fiscal Year Variant	K4
Ext. co. code	<input type="checkbox"/>	Global CoCde	
Company code is productive	<input type="checkbox"/>	VAT Registration No.	

Processing parameters

Document entry screen variant	2	<input checked="" type="checkbox"/> Business area fin. statements
Field status variant	0001	<input checked="" type="checkbox"/> Propose fiscal year
Pstng period variant	0001	<input checked="" type="checkbox"/> Define default value date
Max. exchange rate deviation	10 %	<input type="checkbox"/> No forex rate diff. when clearing in LC
Sample acct rules var.		<input type="checkbox"/> Tax base is net value
Workflow variant		<input checked="" type="checkbox"/> Discount base is net value
Inflation Method		<input type="checkbox"/> Financial Assets Mgmt active
Crcy transl. for tax	<input type="checkbox"/>	<input type="checkbox"/> Purchase acct proc.
CoCd -> CO Area	1	<input type="checkbox"/> JV Accounting Active
Cost of sales accounting actv.	<input type="checkbox"/>	<input type="checkbox"/> Hedge request active
<input type="checkbox"/> Negative Postings Permitted		<input type="checkbox"/> Enable amount split
<input type="checkbox"/> Activate CM		<input type="checkbox"/> Tax Reporting Date Active

SAP | OBY6 | m2bm2p | INS

FI: Chart of Accounts Setup - Screen 1

Chart of accounts defined in transaction OB13

Three types:

- Operating COA
 - Used to book day-to-day transactions
 - CC assignment required
- Group COA
 - Used for corporate consolidation
 - No direct postings allowed
- Country COA
 - Used for country-specific legal requirements
 - Elective by CC

Change View "List of All Charts of Accounts": Overview

Chart of Accts	Chart of accounts description
CANO	Chart of accounts - Norway
CAPE	State chart of accounts Peru (Trade & industry)
CAPL	Chart of accounts - Poland
CAPT	Chart of accounts - Portugal
CARO	Chart of accounts - international
CARU	Chart of accounts - Russia
CASK	Chart of accounts - Slovakia
CASL	Chart of accounts - international
CATW	Chart of accounts - Taiwan
CAUA	Chart of accounts - Ukraine
CAUS	Chart of accounts - United States
CONS	Corporate group chart of accounts
CUSE	Group Chart of Account for Canad, Europe & US
GKR	German Joint Standard Accounting System

Position... Entry 28 of 67

SAP OB13 m2bm27 OVR

FI: Chart of Accounts Setup - Screen 2

Key configuration elements include:

- Length of GL account number
- Whether CO cost elements are automatically or manually created
- Group COA
- Blocking indicator preventing GL accounts from being created

The screenshot shows the SAP FI: Chart of Accounts Setup - Screen 2. The title bar indicates the current view is 'Table View'. The main content area is titled 'Change View "List of All Charts of Accounts": Details'. The configuration details are as follows:

Chart of Accts	CAUS
Description	Chart of accounts - United States
General specifications	
Maint. language	English
Length of G/L account number	6
Integration	
Controlling integration	Manual creation of cost elements
Consolidation	
Group Chart of Accts	CONS
Status	
<input type="checkbox"/> Blocked	

The SAP logo is visible in the bottom right corner, along with the user ID 'OB13' and the system ID 'm2bm27 OVR'.

Important Configuration: R2R

Evaluation

- **Company Codes**
- **Charts of Accounts**
- **Business Areas**
- **Document Types (FI)**
- **Posting Keys**

Transaction

- **OBY6**
- **OB13**
- **OX03**
- **OBA7**
- **OB41**

Important Configuration: FICO

Evaluation

- **GL Accounts**
- **Cost Centers**
- **Cost Elements**
- **Profit Centers**

Transaction

- **FS03**
- **KS03**
- **KA03**
- **KE53**

Closing the Posting Period

Periods between (and including) the first From Per and To Per are open

- All else are closed

Posting period variants assigned to company code

Transaction OB52 allows concurrent editing based on the variant

- F-60 entry across all variants

Posting Periods: Specify Time Intervals												
Var.	A	From Account	To Account	From Per.1	Year	To Per. 1	Year	AuGr	From Per.2	Year	To Per. 2	Year
0001	+			9	2022	9	2022		13	2022	16	2022
0001	A	1	1	9	2022	9	2022		13	2021	16	2021
0001	A	2	ZZZZZZZZZZ	8	2022	9	2022		13	2021	16	2021
0001	D		ZZZZZZZZZZ	9	2022	12	2022		13	2021	16	2021
0001	K		ZZZZZZZZZZ	9	2022	12	2022	SPCL	13	2022	16	2022
0001	M		ZZZZZZZZZZ	9	2022	9	2022		13	2021	16	2021
0001	S		ZZZZZZZZZZ	9	2022	9	2022		13	2021	16	2021

Defining Important Fields as “Required Entry”

Maintain Field Status Group: Additional account assignments

Field check

General Data

Field status variant 0001 Group G004

Cost accounts

Page 1 / 3

Additional account assignments

	Suppress	Req. Entry	Opt. entry
Settlement period	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Material number	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Cost center	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
CO/PP order	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Assigned in the IMG

Search for “field status”

The specific fields on this screenshot can also be accessed directly via transaction **OBC4**

Dual Control Over Sensitive Fields

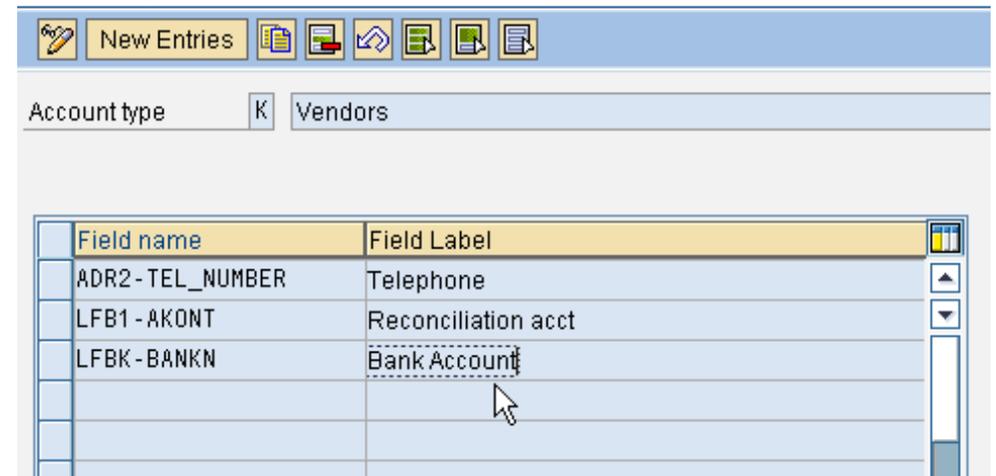
Certain data fields can create can cause significant risk, and/or are particularly susceptible to fraud

- Bank account
- Alternative payee
- Alternative payee in doc

SAP “dual control” setting places a block on payment transactions whenever a field defined as being sensitive is changed

- Can only be removed by a user ID other than the ID that changed the data

Change View "Sensitive Fields": Overview



The screenshot shows the SAP Change View 'Sensitive Fields' interface. At the top, there is a toolbar with icons for 'New Entries', 'Print', 'Refresh', 'Save', 'Cancel', and 'Help'. Below the toolbar, the 'Account type' is set to 'K' and the view is for 'Vendors'. The main area contains a table with the following data:

Field name	Field Label
ADR2-TEL_NUMBER	Telephone
LFB1-AKONT	Reconciliation acct
LFBK-BANKN	Bank Account

Account Determination: Automatic Posting to Defined Accounts

Maintain FI Configuration: Automatic Posting - Procedures

Group: WRV Goods/invoices receipt clearing

Description	Transaction	Account determ.
Invoiced but not yet delivered	BNG	<input checked="" type="checkbox"/>
Delivered but not yet invoiced	GNB	<input checked="" type="checkbox"/>

Enter Chart of Accounts dialog:

Chart of Accounts:

Maintain FI Configuration: Automatic Posting - Accounts

Posting Key: CAUS Chart of accounts - United States
Transaction: BNG Invoiced but not yet delivered

Reconciliat...	Adjustme...	Targ.acct
191000	191101	191199
191100	191101	191199

Position

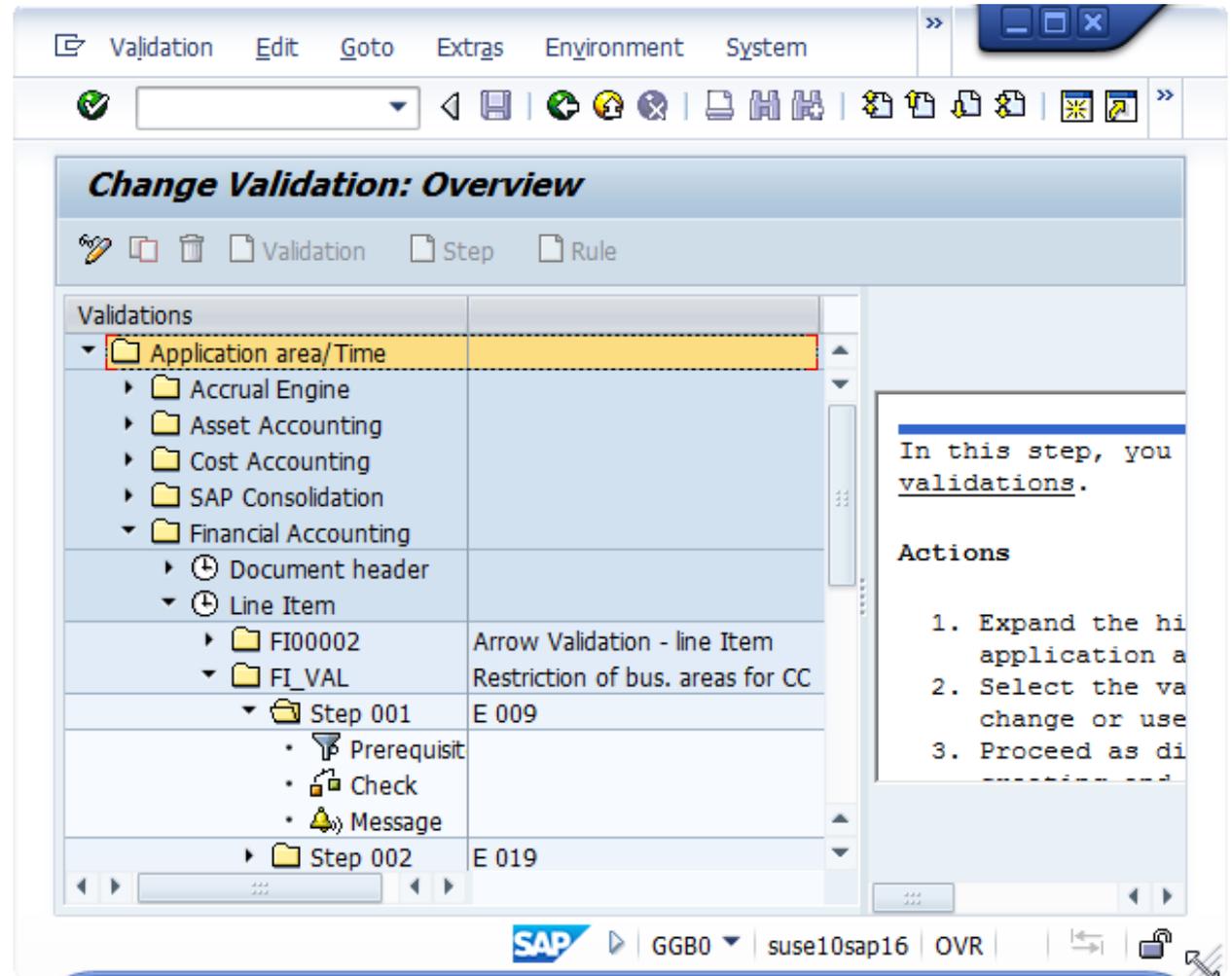
Data Validation Rules

Powerful functionality for simple-to-complex testing of data entry

Defined via transaction GGB0

Example tests may include:

- Verifying that a specific company code is posting to only authorized business areas during document posting
- Ensuring the general ledger description field contains reasonable text (e.g. text length exceeds a specified number of characters)
- Checking that entries in excess of expectations for a specific account are legitimate (e.g., a multi-million dollar entry to reserves for an insurance company may be appropriate, but a multi-million dollar entry to prepaid expense may not).
- Warning on transaction postings to accounts marked for deletion



OB32: Preventing Field Changes After Posting

Change View "Document Change Rules": Details

 **New Entries**      

Field name: Bank Account

Rule is valid for ...

Account Type	<input type="text" value="D"/>	Customer line items
Transact.type	<input type="text"/>	Payments, invoices, credit memos, ...
Company Code	<input type="text"/>	In all company codes

Possibility of changing the field

Field Can Be Changed

Stipulations for changing

- Posting period not closed
- Line item not cleared
- Customer Debit or Vendor Credit
- No invoice-related credit memo
- No credit memo from down payment

Audit-Relevant R2R Transactions

FS03 – View GL account master

FS04 – View changes to GL accounts

- Environment > Multiple Display

FB03 – View accounting documents

FB04 – View changes to accounting documents

AS03 – View asset master

S_ALR_87012289 – Compact Document Journal

S_P00_07000008 – Bank Changes (Treasury)

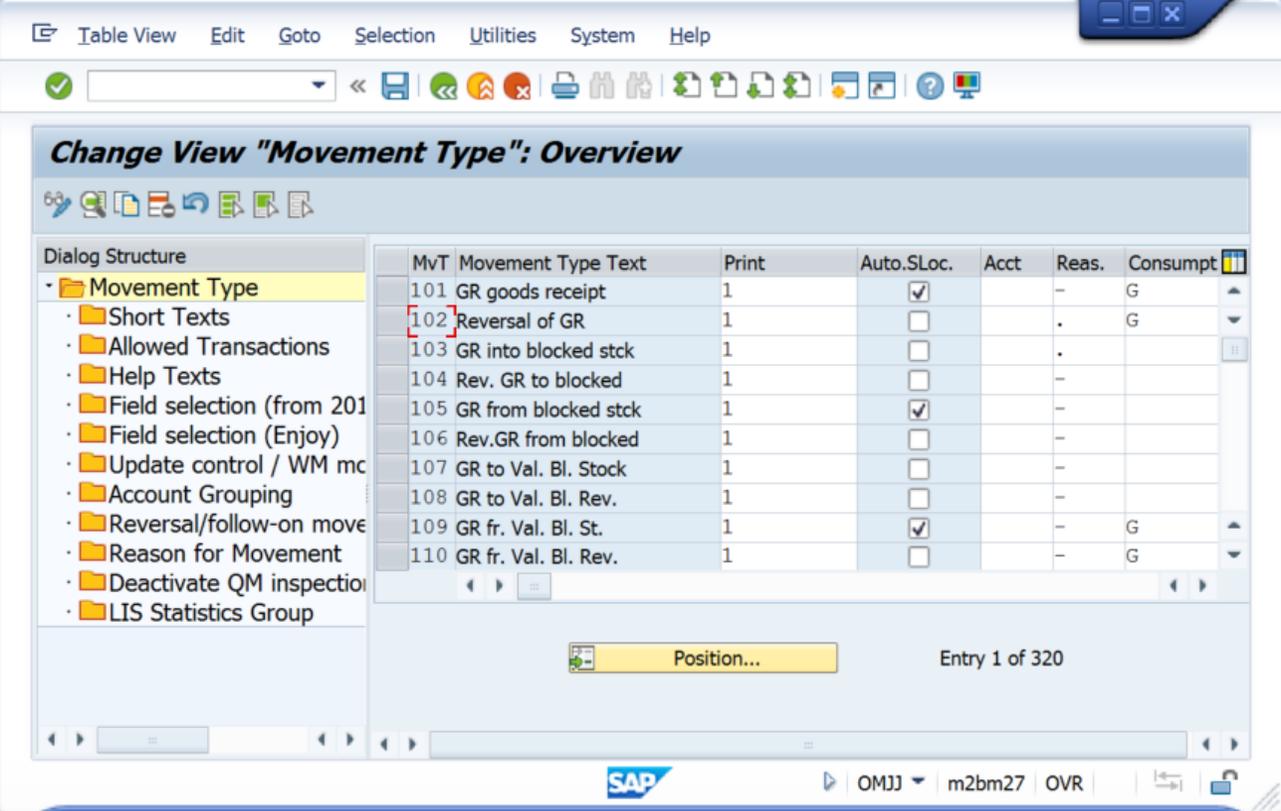
S_ALR_87012342 – Gaps in Document Numbers

Purchase-to-Pay Cycle



MM: Movement type screen 1

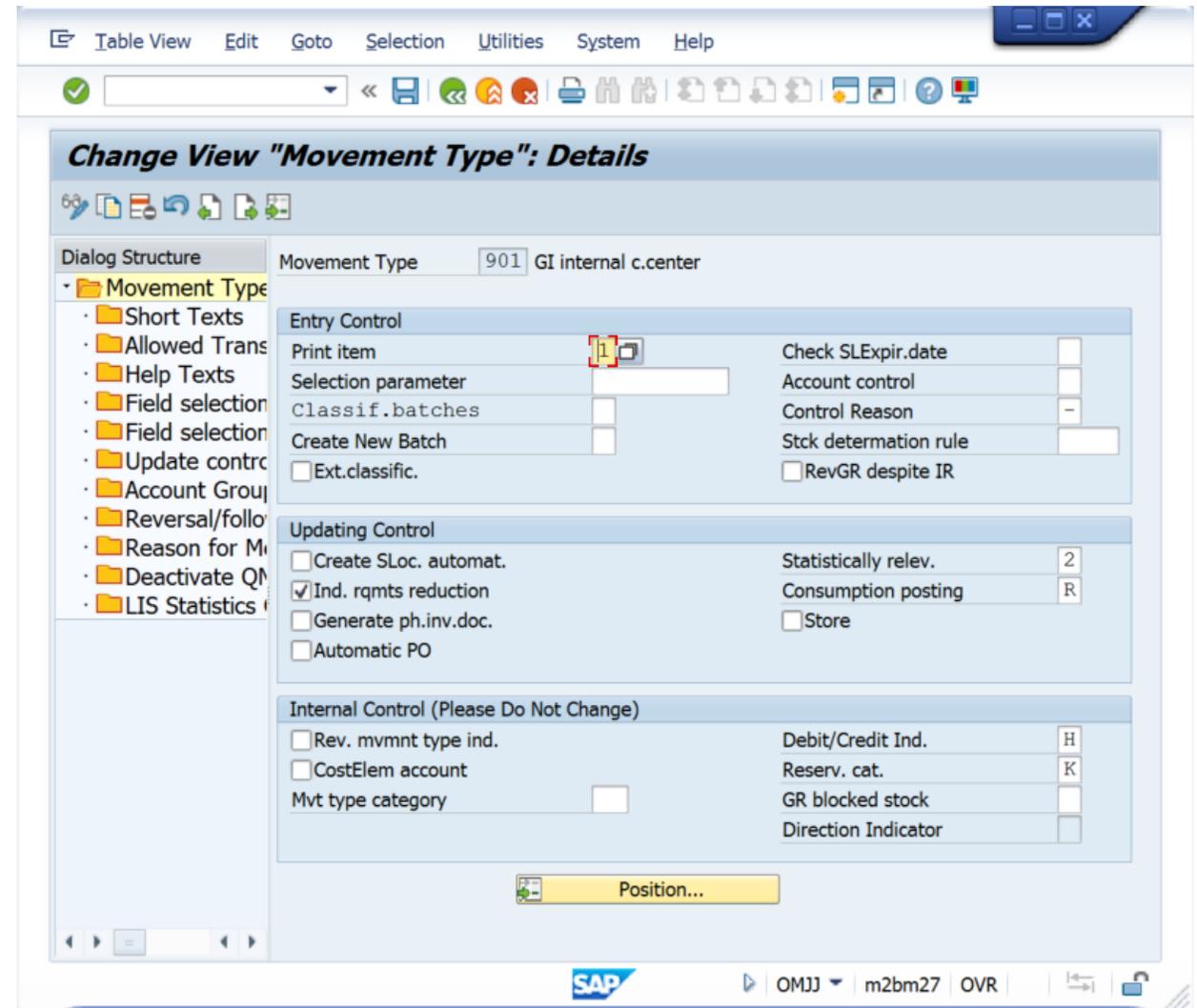
Defined in the IMG or directly in transaction OMJJ
Custom movement types start with a 9, Y, or Z



MM: Movement Type screen 2

Key configuration elements include:

- Account control
- RevGR despite IR
- Create Sloc. Automat.
- Automatic PO



MM: Purchasing document type

Defined in the IMG or directly in transaction OLIB

Key configuration elements include:

- Number range assignment
- Field selection key (must be maintained, can be maintained, hidden, display)
- Stock transfer flag (auto-adoption of vendor info)

The screenshot shows the SAP SPRO configuration screen for 'Document Types Purchase order Change'. The interface includes a menu bar (Table View, Edit, Goto, Selection, Utilities, System, Help), a toolbar with various icons, and a main content area. The main content area is divided into a 'Dialog Structure' pane on the left and a table on the right. The 'Dialog Structure' pane shows a tree view with 'Document types' expanded, containing 'Allowed item categories', 'Link purchase requisiti', and 'Serial number profiles'. The table on the right lists document types with columns for Type, Doc. Type, Descript., and ItmInt.

Type	Doc. Type	Descript.	ItmInt.
DB		Dummy purchase order	10
DIT1		TM-DIT: Standard PO	10
DP00		EC PO Direct 300	10
EC		Electronic Comm. SRM	1
ECDP		Direct Procurem. SRM	1
ECEC		Extended Classic SRM	1

At the bottom of the screen, the SAP logo is visible, along with the text 'SPRO m2bm27 OVR' and a 'Position...' button.

Important Configuration: P2P

Evaluation

- **Plants**
- **Storage Locations**
- **Movement Types**
- **Purchasing Organization**
- **Purchasing Group**
- **Purchasing Document Types**

Transaction

- **OX10**
- **OX09 & OMJ1**
- **OMJJ**
- **OX08**
- **OME4**
- **OLIB**

Purchase price tolerances

SAP allows you to establish tolerances upon PO creation, that compare the PO item price to the valuation prices stored in the material master

- If exceeded, results in warning or error message depending on configuration

Ability to set absolute and % limits

- When both limits are defined, SAP will use the lower value

Set in IMG: Materials Management > Purchase Order > Set Tolerance Limits for Price Variance

PE Price Variance

- Tolerance for PO line item price compared to valuation price in the material master
- Absolute and % values
- Resulting message no. 207

SE Maximum cash discount deduction

- Tolerance for cash discount % entered on PO
- % only

Change View "Tolerance Limits": Overview

New Entries

CoCd	Company Name	TKy	Description
0001	SAP A.G.	PE	Price variance: purchasing
0001	SAP A.G.	SE	Max. cash disc. deduction (purchasing)
0003	SAP US (IS-HT-SW)	PE	Price variance: purchasing
0003	SAP US (IS-HT-SW)	SE	Max. cash disc. deduction (purchasing)
1710	Company Code 1710	PE	Price variance: purchasing
1710	Company Code 1710	SE	Max. cash disc. deduction (purchasing)

Tolerance Key: PE Price variance: purchasing
 Company Code: 0001 SAP A.G.
 Amounts In: EUR European Euro

Lower Limit

Absolute

Do Not Check
 Check Limit
 Value:

Percentage

Do Not Check
 Check Limit
 Tolerance Limit %:

Upper Limit

Absolute

Do Not Check
 Check Limit
 Value:

Percentage

Do Not Check
 Check Limit
 Tolerance Limit %:

3-way match tolerances

SAP allows you to establish payment tolerances

- Depending on the type of tolerance key:
 - upper bounds, prevent overpayment
 - lower bounds, prevent underpayment

Ability to set absolute and % limits

- When both limits are defined, SAP will use the lower value

If outside of tolerance, transaction will be blocked and can be released by:

- Resolving the condition that created the block
- User with security authorizations allowing the release of blocks

OMRI: Invoice item quantity check

Quantity-related tolerances require that goods receipt checking be enabled for invoice verification

- Done by Item Category within company codes

Regardless of the values for quantity-related tolerance keys, if goods receipt has not been activated, the tolerance will not be considered

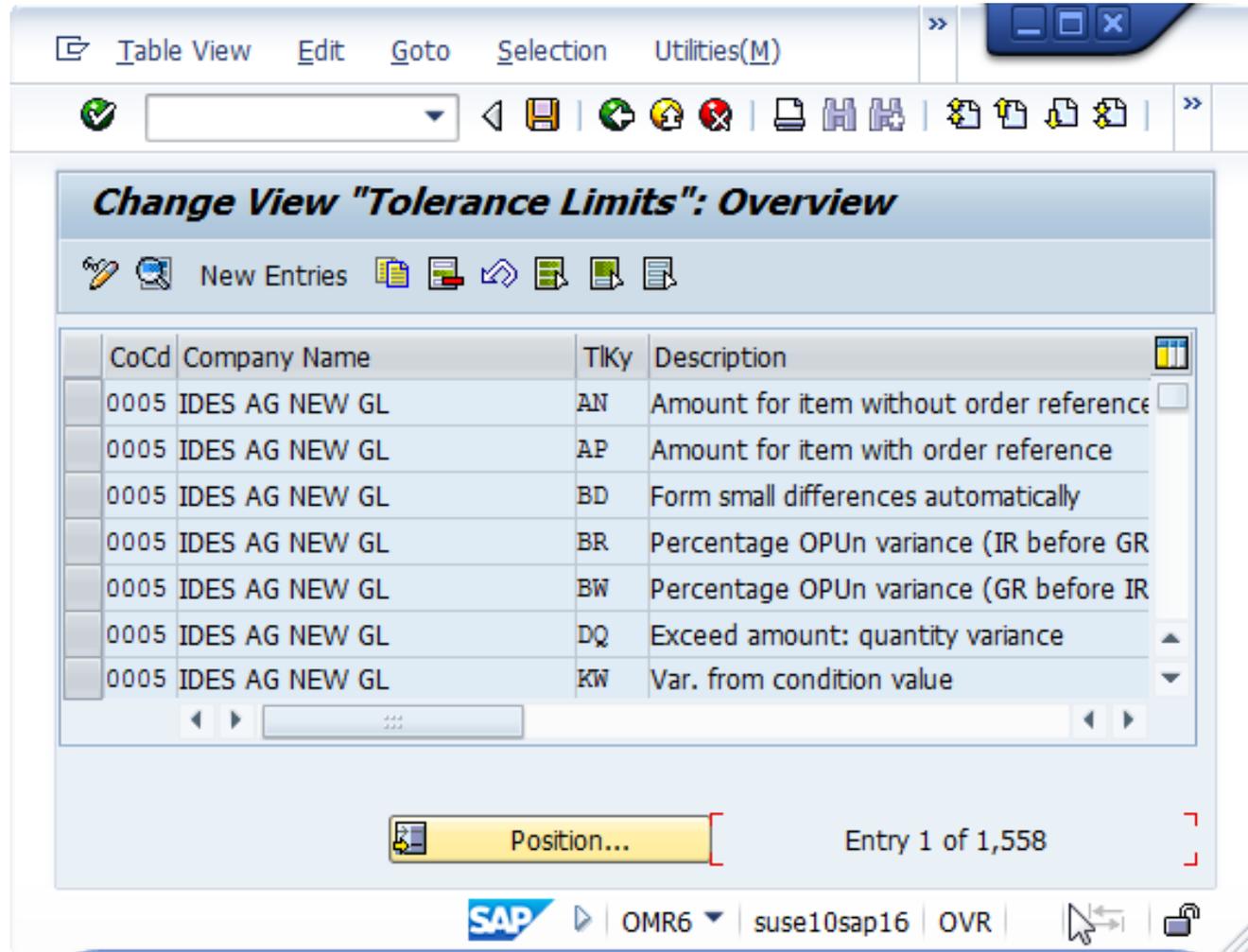
Change View "Invoice Verification: Amount Check": Overview

New Entries      

	CoCd	Company Name	I	Text for Item Cat.	Goods receipt	
	1710	Company Code 1710		Standard	<input type="checkbox"/>	
	1710	Company Code 1710		Standard	<input checked="" type="checkbox"/>	

- Standard
- B Limit
- L Subcontracting
- M Material unknown
- S Third-party
- T Text
- U Stock transfer
- W Material group
- D Service
- E Enhanced Limits
- C Stock prov.by cust.
- P Return.trans.pack.

Tolerance keys



The screenshot shows the SAP 'Change View "Tolerance Limits": Overview' window. It features a menu bar with 'Table View', 'Edit', 'Goto', 'Selection', and 'Utilities(M)'. Below the menu is a toolbar with various icons. The main area contains a table with the following data:

CoCd	Company Name	TlKy	Description
0005	IDES AG NEW GL	AN	Amount for item without order reference
0005	IDES AG NEW GL	AP	Amount for item with order reference
0005	IDES AG NEW GL	BD	Form small differences automatically
0005	IDES AG NEW GL	BR	Percentage OPU variance (IR before GR
0005	IDES AG NEW GL	BW	Percentage OPU variance (GR before IR
0005	IDES AG NEW GL	DQ	Exceed amount: quantity variance
0005	IDES AG NEW GL	KW	Var. from condition value

At the bottom of the window, there is a 'Position...' field and a status bar showing 'Entry 1 of 1,558'. The SAP logo and system information (OMR6, suse10sap16, OVR) are visible at the very bottom.

- Established in OMR6
- Defined by Company Code

Tolerance key PP

Tolerance key	PP	Price variance
Company Code	0006	IDES US INC New GL
Amounts in	USD	American Dollar

Lower limit

<p>Absolute</p> <p><input type="radio"/> Do not check</p> <p><input checked="" type="radio"/> Check limit</p> <p>Val. <input type="text" value="20.00"/></p>	<p>Percentage</p> <p><input type="radio"/> Do not check</p> <p><input checked="" type="radio"/> Check limit</p> <p>Tolerance limit % <input type="text" value="20.00"/></p>
--	---

Upper limit

<p>Absolute</p> <p><input type="radio"/> Do not check</p> <p><input checked="" type="radio"/> Check limit</p> <p>Val. <input type="text" value="10.00"/></p>	<p>Percentage</p> <p><input type="radio"/> Do not check</p> <p><input checked="" type="radio"/> Check limit</p> <p>Tolerance limit % <input type="text" value="5.00"/></p>
--	--

Price Variance

SAP determines the difference between invoice price and order price for each item and compares this variance to the absolute and percentage limits defined

Tolerance key DQ

Tolerance key Exceed amount: quantity variance
Company Code IDES US INC New GL
Amounts in American Dollar

Lower limit

Absolute

- Do not check
 Check limit

Val.

Percentage

- Do not check
 Check limit

Tolerance limit %

Upper limit

Absolute

- Do not check
 Check limit

Val.

Percentage

- Do not check
 Check limit

Tolerance limit %

Exceed Amount Quantity Variance

Multiplies the order price and the difference between:

- what was invoiced and what was received (if goods receipt has taken place)
- what was invoiced vs. what was ordered (if goods have not been received)

Tolerance key BD

Tolerance key	BD	Form small differences automatically
Company Code	0006	IDES US INC New GL
Amounts in	USD	American Dollar

Upper limit	
Absolute	
<input type="radio"/>	Do not check
<input checked="" type="radio"/>	Check limit
Val.	5.00

Form Small Differences Automatically

Balance of the invoice (Invoice value less PO value) compared against the defined upper limit—SAP posts the difference, if under the upper limit, to “Expense/Income from Small Differences.”

Other keys

AN: Amount for item without order reference

AP: Amount for item with order reference

BR: Percentage OPUn Variance (IR before GR)

BW: Percentage OPUn Variance (GR before IR)

DW: Quantity Variance when GR Qty = Zero

KW: Variance from Condition Value

LA: Purchase order: limit amount

LD: Purchase order: time limit exceeded

PC: Price variance for contract

PS: Price Variance – Estimated Price

ST: Date Variance (price x days)

VP: Moving Average Price Variance

Duplicate invoice checking

Set in IMG or transaction OMRDC

Applies to Logistics invoices only (FI invoice check is not customizable)

- Reference document number field must contain data, or check skipped
- Vendor must have duplicate invoice flag set

SAP will always check for same Business Partner #, Amount, and Currency

- Through customizing, can also check company code, reference document number, and invoice date

Display View "Duplicate Invoice Check": Overview



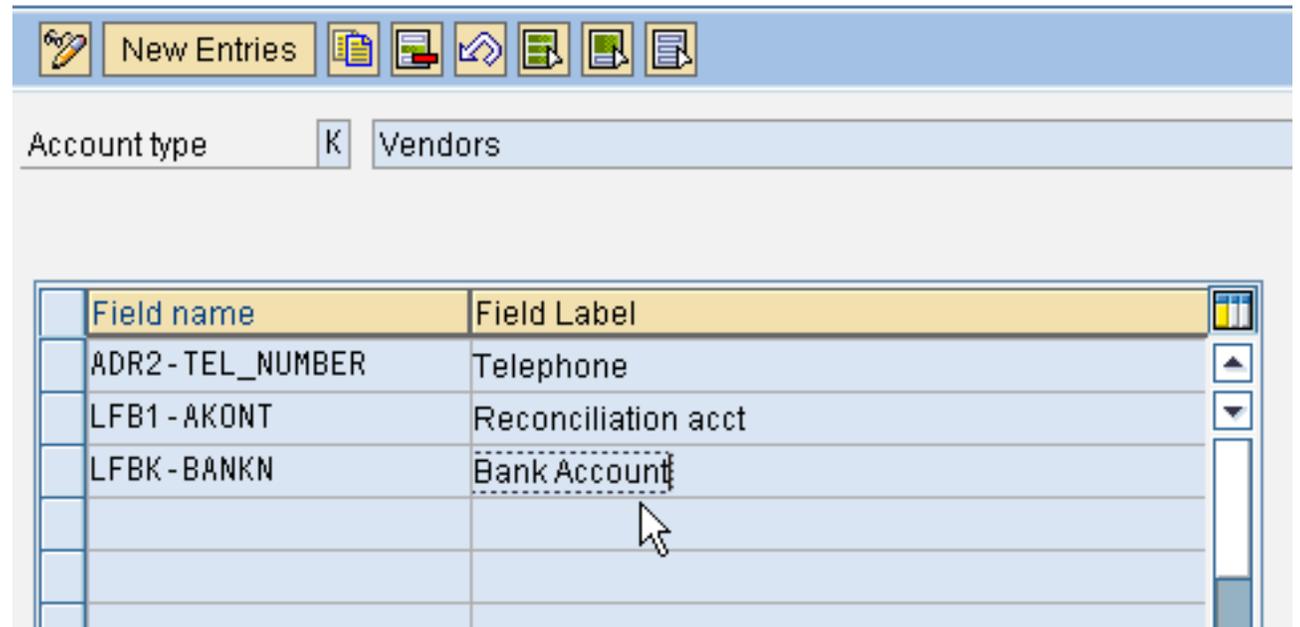
Duplicate Invoice Check				
CoC...	Name	Check co. code	Check reference	Check inv. date
2821	BestRun US MaterialLedger	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2900	BestRun Schweden	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3000	BestRun US	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3010	Euro Subsidiary - Belgium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3033	ACME Corporation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dual control over sensitive fields

SAP “dual control” setting places a block on payment transactions whenever a field defined as being sensitive is changed

- Can only be removed by a user ID other than the ID that changed the data

Change View "Sensitive Fields": Overview



The screenshot shows the SAP Change View "Sensitive Fields" interface. At the top, there is a toolbar with icons for "New Entries", "Print", "Back", "Forward", "Refresh", and "Help". Below the toolbar, the "Account type" is set to "K" and the "Vendors" view is selected. The main area displays a table with the following data:

Field name	Field Label
ADR2 - TEL_NUMBER	Telephone
LFB1 - AKONT	Reconciliation acct
LFBK - BANKN	Bank Account

Release Strategies

Change View "Release Strategies: Classification"

Object

Release group 01 Rel. Strategy EH EKH Mgr. over \$1,000
Class Type 032 Release strategy

Values for Class FRG_EBAN - Object 01 EH

General

Characteristic Description	Value
Account assignment categ	Cost center
Material Group	Material Group 001
Plant	Plant 3000
Purchasing group	EH
Requirement tracking num	
Total value of item	> 10000,00 USD
Purchase requisition docu	Purchase requisition

Inconsistent

- Release strategies define purchasing limits and flow
- There is a lot of complexity in the release strategies
 - E.g. if a scenario is not met by a release strategy, then anyone with relevant purchasing authorizations can purchase an unlimited amount with that scenario

Account assignment – key settings

Change View "Account Assignment Categories": Details

New Entries         

Acct Assignment Cat.

Detailed information

Acct.assg.changeable Consumption posting Distribution

AA Chgable at IR Account Modification Partial invoice

Derive acct. assgt. ID: AcctAssgt Scrn Multiple account ass

Del.CstsSep. Special Stock

Goods receipt GR non-valuation Invoice receipt

GR Ind. Firm GR NonVal. Firm IR Ind. Firm

Fields

Field Label	Mand.Ent.	Opt.Entry	Display	Hidden
Asset	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asset Subnumber	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Transaction OME9

Goods Receipt and Invoice Receipt flags mean each is expected

“...Ind. Firm” flag ensures that purchasing documents with line items related to that account assignment category cannot turn off the requirement for a GR or IR

Browsing the vendor master file

Key display transactions

In SAP S/4HANA, transaction BP

- Display in BP role:
 - “Business Partner (Gen.)” for general data
 - “Supplier (Fin. Accounting) for company code specific data

In ECC

- FK03 (Central + Company-Code)
- MK03 (Central + Purchasing Organization)
- XK03 (All)

Browsing the vendor master file, continued...

The screenshot displays the SAP Vendor Master File browser interface. At the top, the Business Partner is identified as EWM17-SU01, with the role 'Supplier (Fin.Accounting)'. The vendor name is 'EWM Supplier 01 / Atlanta GA 30344'. Below this, the 'Company Code' section includes fields for 'Company Code', 'Customer', and 'Vendor' (set to EWM17-SU01). A navigation bar shows 'Vendor: Account Management' as the active tab, with other options for 'Payment Transactions' and 'Correspondence'. The 'Account Management' section contains several fields, with three highlighted by red boxes: 'Reconciliation acct', 'Authorization Group', and 'Release Group'. Other visible fields include 'Head office', 'Sort key', 'Subsidy Indicator', 'Planning Group', 'Minority Indicator', and 'Certification Date'.

Every vendor expected to have invoices/payments should have a reconciliation account defined

Authorization group can be used to determine which user IDs are allowed to work with the vendor

Release group is used for release strategy configuration

Browsing the vendor master file, continued...

Change Organization: EWM17-SU01, role Supplier (Fin.Accounting)

Business Partner: EWM17-SU01 EWM Supplier 01 / Atlanta GA 30344
Change in BP role: Supplier (Fin.Accounting) (Maintaine...)

Address Address Overview Identification Control Payment Transactions Status Legal Data Vendor: General Data Vendor: Tax Data Vendor:

Authorization Group
Group key

Additional General Data
Repetition
DteLimit ext.ID
Train station
Origin Acceptance

Payment Transactions
DME indicator
Instruction Key
Payee in Document
Alternative Payee 17300031

Payee in Document is the highest-risk field in ECC, but works differently in SAP S/4HANA

Alternative Payee is another high-risk field, but must reference an existing business partner

Purchase Order Display: ME23N

Standard PO 4500017791 Vendor T-K500A01 Motolux GmbH Gr.01 Doc. date 11/04/2016

Delivery/Invo... Conditions Texts Address Communication Partners Additional Data Org. Data Status Payment Processing

Payment Terms ZB01 Currency EUR
 Payment in 14 days 3.000 % Exchange Rate 1.00000 Exch. Rate Fixed
 Payment in 30 days 2.000 %
 Payment in 45 days net GR Message
 Incoterms EXW

S... Itm	A	I	Material	Short Text	PO Quantity	OUn	C	Deliv. Date	Net Price	Curre...	Per	OPU
10			T-M500U02	Standard-Rücklicht Uli 02	1,000	PC	D	12/07/2016	0.50	EUR	1	PC
20			T-M500U02	Standard-Rücklicht Uli 02	100	PC	D	11/14/2016	0.50	EUR	1	PC
30			T-M500U01	Standard Rücklicht - Kurztext.	10	PC	D	11/15/2016	10.00	EUR	1	PC

Item [10] T-M500U02 , Standard-Rücklicht Uli 02

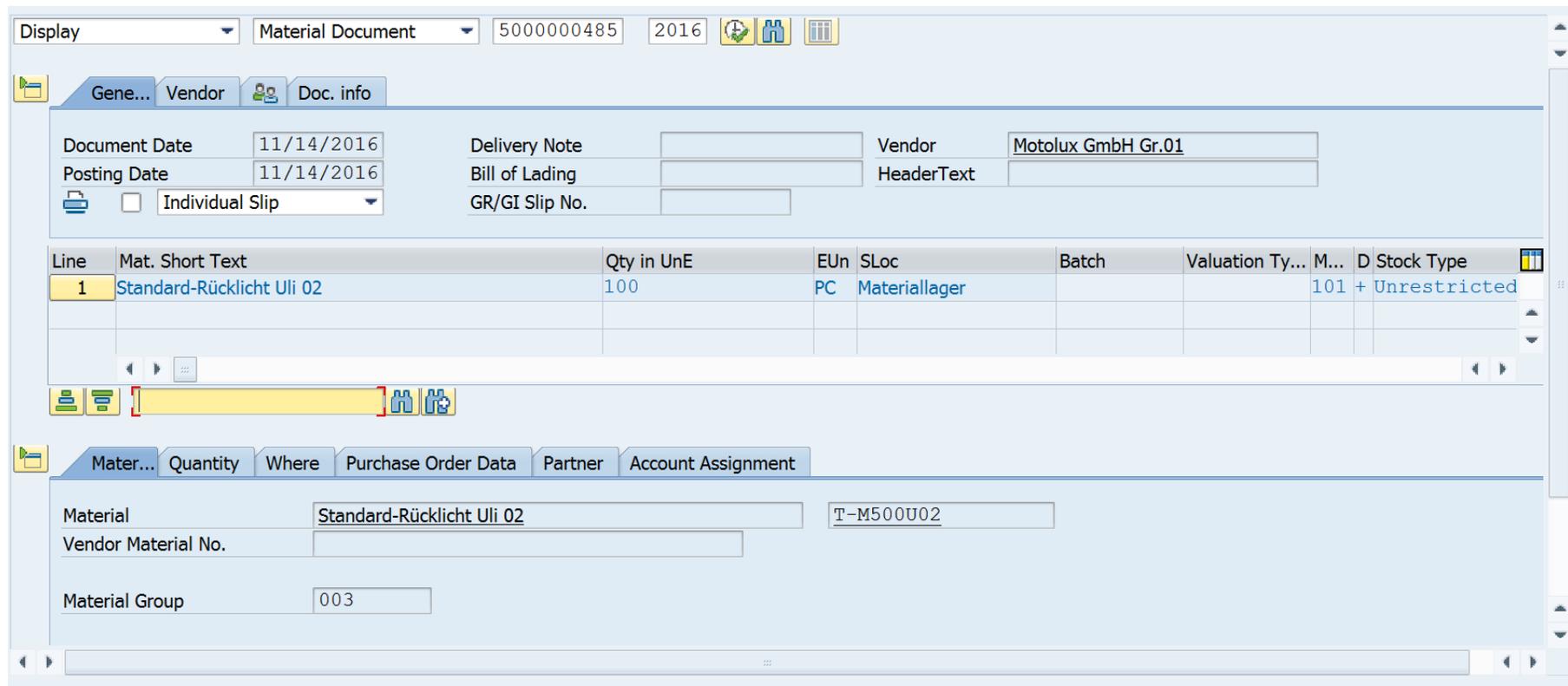
Material D... Quantities/Weights Delivery Schedule Delivery Invoice Conditions Account Assignment Purchase Order History Texts C

Material group 003 IUID-Relevant Revision Level
 Vendor mat. no. EAN/UPC
 Vendor sub-range
 Batch Vendor Batch InfoUpdate

Goods Receipt Display: MIGO

In SAP S/4HANA, MIGO replaces MB03 as the transaction used to display a goods receipt

- Auditors should be restricted to the 03 (display) activity



The screenshot shows the SAP MIGO Goods Receipt Display interface. At the top, the document type is set to 'Material Document' with document number '5000000485' and year '2016'. The 'Doc. info' tab is active, showing document details: Document Date (11/14/2016), Posting Date (11/14/2016), Vendor (Motolux GmbH Gr.01), and Stock Type (101 + Unrestricted). A table below lists the material receipt details:

Line	Mat. Short Text	Qty in UnE	EUn	SLoc	Batch	Valuation Ty...	M...	D Stock Type
1	Standard-Rücklicht Uli 02	100	PC	Materiallager			101	+ Unrestricted

The 'Mater...' tab is active, showing material details: Material (Standard-Rücklicht Uli 02), Vendor Material No., and Material Group (003).

Logistics Invoice Display: MIR4

Enter the Invoice Document Number and Fiscal Year

Click Display Document

Display Invoice Document

Display Document

Invoice Document No. 5105609212

Fiscal Year 2016

Transaction Invoice 5105609212 2016

Diff. Posting Not Applicable

Basic D... Payment Details Tax Contacts Note

Vendor FEET-44

Invoice date 10/24/2016 Reference RA-A144

Posting Date 10/24/2016

Amount 7,700.00 EUR Calculate tax

Tax amount 700.00 1I (Input tax 10%)

Text

Company Code 1000 BestRun Germany Frankfurt

Lot No.

Firma
Feet Vendor 44
Gutenbergstrasse 14
D-64289 DARMSTADT
06151898989

PO Refere... G/L Account Material Contract Reference

Layout

Item	Amount	Quantity	Or...	Purchase Or...	Item	PO Text
1	7,000.00	100	PAI	<input type="checkbox"/> 4500017789	10	Let it be 44

Other Key Audit-Relevant Transactions

XK03 – Business partner master where role = Supplier

XK04 – Changes to Vendors

- Environment > Multiple Display

(Sales Order, Delivery Document, and Billing document display transactions listed earlier)

Order-to-Cash Cycle



Sales Document Setup, Screen 1

Defined in the IMG or directly in transaction VOV8

Provided by SAP, but custom types also possible

- Start with a Y or a Z

Blocking indicators:

- A
 - Only automatic creation allowed...no manual creation
- X
 - blocked for posting

The screenshot shows the SAP transaction VOV8 'Maintain Sales Order Types' in 'Table View'. The title bar reads 'Change View "Maintain Sales Order Types": Overview'. The main area contains a table with the following data:

SaTy	Description	Block
01	Cust.Independent Req	
AA	Promotion Order	
AE	Qtn from Serv. Order	
AEBO	AEBO order	
AEBQ	AEBQ Offer	
IN	Inquiry	
QT	Quotation	
AGIS	Quotation (/ Order)	
AP	Project Quotation	A
AR	Repair Quotation	
AS	Service Quotation	
SI	Sales Information	
UI	Quotation f.contract	
B1	Rebate Cred Memo Req	
B1E	Exptd RebateCredMemo	A
B2	Rebate Correctn Rqst	

At the bottom of the screen, the SAP logo is visible, along with the transaction code 'VOV8', the user 'm2bm27', and the role 'OVR'. The status bar also indicates 'Entry 1 of 338'.

Sales Document Setup, Screen 2

Key configuration elements include:

- Number range assignment
- Reference mandatory
- Check Credit Limit
- Commitment date
 - Not maintained
 - Agreed delivery time only
 - First confirmation date
 - Best confirmation date saved up to now
- Incompleteness procedure
- Delivery block
- Shipping condition
 - Overrides customer master file entry
- Billing block

The screenshot displays the SAP 'Change View' for 'Maintain Sales Order Types: Details'. The configuration is for a 'Standard Order' (Sales Document Type GCTA). The interface is organized into several sections:

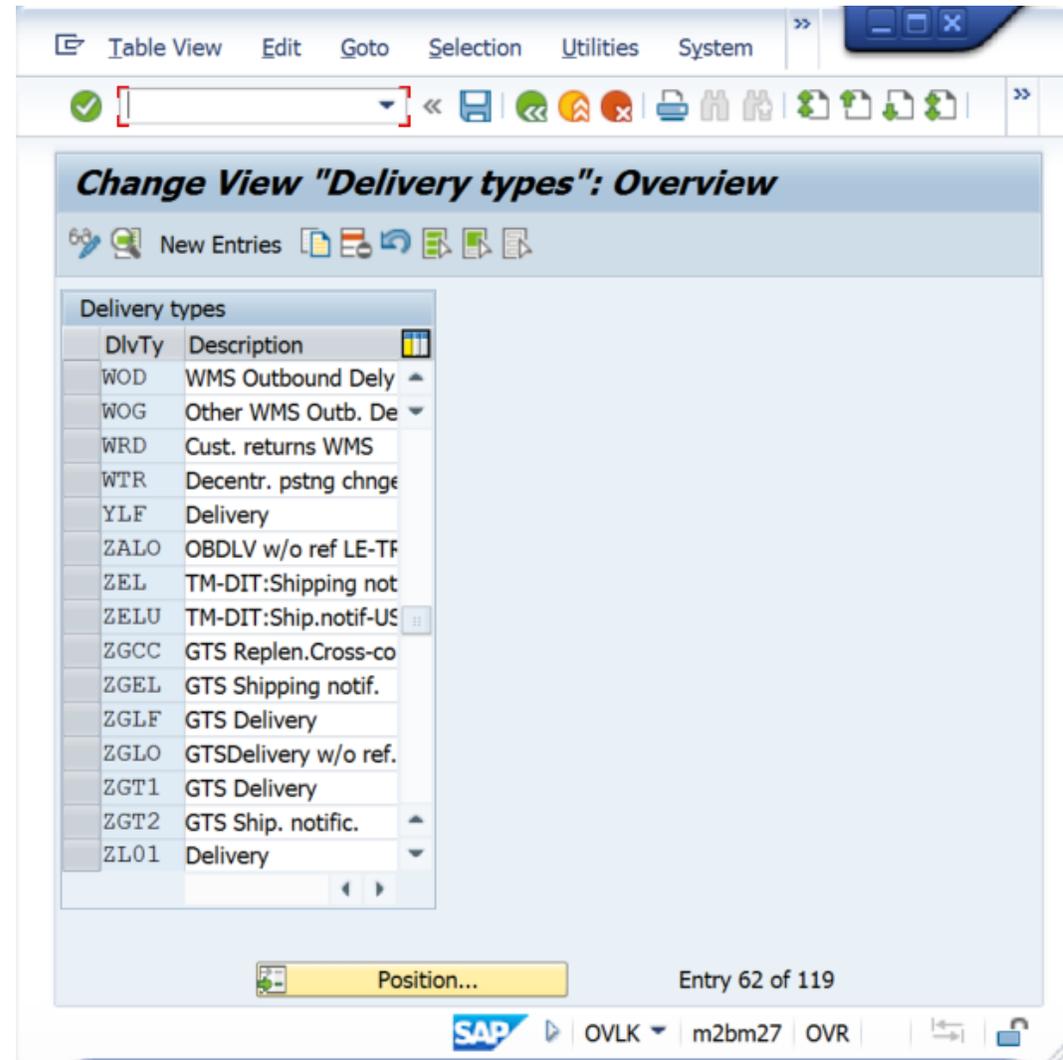
- Number systems:** No. range int. assgt. (01), No. range ext. assgt. (02), Item no. increment (10), Sub-item increment (10).
- General control:** Reference mandatory (checkbox), Check division (2), Probability (100), Check credit limit (checkbox), Credit group (checkbox), Output application (V1), Material entry type (checkbox), Item division (checked), Read info record (checked), Check purch. order no (checkbox), Enter PO number (checkbox), Commitment date (checkbox).
- Transaction flow:** Screen sequence grp. (AU), Incompl. proced. (11), Transaction group (0), Doc. pric. procedure (A), Status profile (checkbox), Alt. sales doc. type1 (checkbox), Alt. sales doc. type2 (checkbox), Variant (checkbox), Display Range (UALL), FCode for overv. scr. (UER1), Quotation messages (checkbox), Outline agrmt mess. (checkbox), Message: Mast. contr. (checkbox), ProdAttr. messages (A), Incomplet. messages (checkbox).
- Scheduling Agreement:** Corr. delivery type (checkbox), Usage (checkbox), MRP for DivSchType (checkbox), Delivery block (checkbox).
- Shipping:** Delivery type (LF), Delivery (checkbox), Immediate delivery (checkbox), Delivery block (checkbox), Shipping conditions (checkbox), ShipCostInfoProfile (checkbox).
- Billing:** Dlv-rel. billing type (F2), Invoice (F2), Order-rel. bill. type (F2), Invoice (F2), Intercomp. bill. type (IV), Intercompany billing, Billing block (checkbox), CndType line items (EK02), Billing plan type (checkbox), Paymt guarant. proc. (01), Paymt card plan type (03).

Delivery Document Setup, Screen 1

Defined in the IMG or directly in transaction OVLK

Provided by SAP, but custom types also possible

- Start with a Y or a Z



Delivery Document Setup, Screen 2

Key configuration elements include:

- Number range assignment
- Order Required
- Default order type
- Partner Determination Procedure

Delivery Type	LF	Delivery
Document cat.	J	Delivery
Number Systems		
NR int. assgt.	17	ItemNoIncrement 10
No. range ext.	18	
Order Reference		
Order required	Sales order required	
Default ord.ty.	DL	Order Type Sched ItemRequirement 202 Order w IndpdntIt
Document Content		
Stor.loc.rule	MARE	OutputDet.Proc. V10000
TextDetermProc.	02	Output Type LD00
Doc.stats.group		Application V2
Route determin.	New route determination without check	
<input checked="" type="checkbox"/> Delivery Split - WhNo	PartnDet.Proc.	ODCD
<input type="checkbox"/> Delivery Split Part.	Rescheduling	
<input type="checkbox"/> Automatic packing	Distrbtn Mode	Distribution Control By Ware
<input type="checkbox"/> Gen. pack.matl item		
Transaction Flow		
Screen seq.grp	LF	Standard text
Display Range	All items	

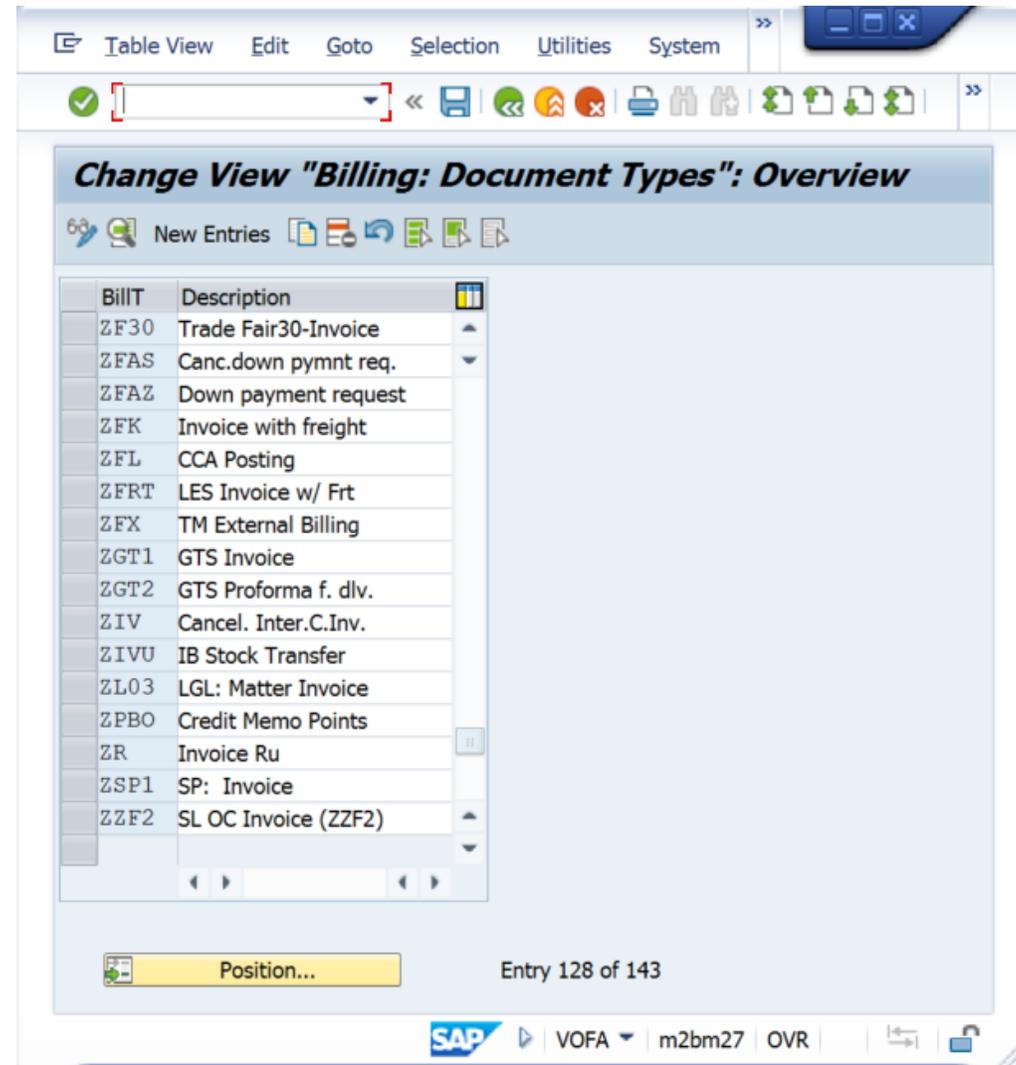
- | | |
|-----------------|---|
| Order Reference | Sales order required |
| Order required | No preceding documents required |
| | Sales order required |
| | Purchase order required |
| | Delivery for subcontracting |
| | Project required |
| | Stock transfer w/o previous activity |
| | Return delivery to vendor |
| | Goods movement through inb.deliv. / post.chge /outb. deliv. |
| | Delivery from PP interface (work order) |
| | Posting change with delivery |

Billing Document Setup, Screen 1

Defined in the IMG or directly in transaction VOFA

Provided by SAP, but custom types also possible

- Start with a Y or a Z



The screenshot displays the SAP Billing Document Setup screen, titled "Change View 'Billing: Document Types': Overview". The interface includes a menu bar with options like "Table View", "Edit", "Goto", "Selection", "Utilities", and "System". Below the menu bar is a toolbar with various icons for navigation and actions. The main area contains a list of document types with columns for "BillT" and "Description".

BillT	Description
ZF30	Trade Fair30-Invoice
ZFAS	Canc.down pymnt req.
ZFAZ	Down payment request
ZFK	Invoice with freight
ZFL	CCA Posting
ZFRT	LES Invoice w/ Frt
ZFX	TM External Billing
ZGT1	GTS Invoice
ZGT2	GTS Proforma f. dlv.
ZIV	Cancel. Inter.C.Inv.
ZIVU	IB Stock Transfer
ZL03	LGL: Matter Invoice
ZPBO	Credit Memo Points
ZR	Invoice Ru
ZSP1	SP: Invoice
ZZF2	SL OC Invoice (ZZF2)

At the bottom of the screen, there is a "Position..." button and a status bar showing "Entry 128 of 143". The SAP logo and transaction code "VOFA" are visible in the bottom right corner.

SD: Billing Document Setup, Screen 2

Key configuration elements include:

- Number range assignment
- Posting Block flag
- Negative posting flag
- Cancellation billing type
- Cancellation copy requirements
- Account determination procedures
 - Cancellation
 - Reconciliation account
 - Cash settlement
 - Payment cards
- Document price procedure

Change View "Billing: Document Types": Details

New Entries

Billing Type: ZFL CCA Posting Created by: [Redacted]

Number systems
No.range int.assgt. 19 Item no.increment

General control

SD document categ.	M	Invoice	<input type="checkbox"/> Posting Block
Doc. Cat. Extension			
Transaction group	7	Billing documents	<input checked="" type="checkbox"/> Statistics
Billing category			
Document Type	DR	Customer invoice	
Negative posting	<input type="checkbox"/>	No negative posting	
Branch/Head office	<input type="checkbox"/>	Customer=Payer/Branch=sold-to party	
Credit memo w/ValDat	<input type="checkbox"/>	No	
Invoice list type	LR	Invoice list	
Rebate settlement	<input type="checkbox"/>		<input checked="" type="checkbox"/> Rel.for rebate
Standard text			

Cancellation

Cancell.billing type	S1	Invoice Cancellation
Copying requirements	<input type="checkbox"/>	
Reference number	<input type="checkbox"/>	
Assignment Number	<input type="checkbox"/>	

Account assignment/pricing

AcctDetermProc.	KOFI00	Account Determination
Doc. pric. procedure	A	Standard
Acc. det. rec. acc.	KOFIAB	Standard rec. account determ.
Acc. det. cash. set.		
Acc. det. pay. cards	A00001	Standard

Output/partners/texts

Output determ.proc.	V10000	Billing Output	Application	V3
Item output proc.				
Output Type	RD00	Invoice		
Header partners	FK	Billing Document		
Item partners	FP	Billing Item		
TextDetermProcedure	03	Billing header		
Text determ.proc.itm	03	Billing item		
<input type="checkbox"/> Delivery text				

Important Configuration: O2C

Evaluation

- Sales Organizations
- Distribution Channels
- Sales Division
- Sales Document Type
- Delivery Document Type
- Billing Document Type

Transaction

- OVX5
- OVXI
- OVXB
- VOV8
- OVLK
- VOFA

Define Credit Checks

Defined in OVAK

Associated with sales order types

Options from strongest to weakest: DCBA

Change View "Sales Document Types - Credit Limit Check": Overview

SaTy	Description	Check credit	Credit group
01	Cust.Independent Req		
AA	Promotion Order		
AE	Qtn from Serv. Order		
AEBO	Standard order		
AEBQ	Offer		
IN	Inquiry		
QT	Quotation		
AGIS	Quotation (/ Order)	D	01
AP	Project Quotation		
AR	Repair Quotation		
AS	Service Quotation		
SI	Sales Information		
UI	Quotation f.contract		
B1	Rebate Cred Memo Req		
B1E	Exptd RebateCredMemo		
B2	Rebate Correctn Rqst		
B2E	Rebate P.Correctn Rt		

Check credit limit (2) 5 Entries Found

Check credit li ...	Short text
	No credit limit check
A	Run simple credit limit check and warning message
B	Rund simple redit limit check and error message
C	Run simple credit limit check and delivery block
D	Credit management: Automatic credit control

OVA8: Automatic Credit Control

“Released documents are still unchecked” section indicates behavior if an order that previously-passed credit checking is changed

Reactions:

- blank = no message
- A & C = warning
- B & D = error

Can call out to SAP Credit Management (FIN-FSCM-CR) using a BAdi

Change View "View for Maintenance of Automatic Credit Control": Detail

New Entries

CCAr: 1000, RkC: E, CG: 01, Credit control: Very High Default Risk Orders, Curr.: USD, Update: 000012

Document controlling: Released documents are still unchecked

No credit check: (checkbox)

Item check: (checkbox)

Deviations: Deviation in %: 5, Number of days: 10

Checks: Reaction Status/Block

SAP Credit Mngt: (checkbox), A, (checkbox)

Credit check: System reaction (warning, error) (1) 5 Entries ...

System reaction	Short Descript.
	No message
A	Warning
B	Error message
C	Like A + value by which the credit limit has been exceeded
D	Like B + value by which the credit limit has been exceeded

Extending Credit Checking to Goods Issue / Delivery

T-Code OVAD

Defining a credit group for the Delivery Document Type extends credit checking past the time of the sales order

- Credit may have changed if time between order and delivery is large

The screenshot shows the SAP OVAD transaction interface. The title bar reads "Change View 'Delivery Types - Credit Limit Check': Ov...". The main area contains a table with the following data:

DlvTy	Description	Dlv.credit group	GI credit group
BV	Cash Sale		
DIG	Inb.deliv.gds mvmnt		
DOG	Outb.deliv.gds mvmnt		
DTR	Central postng chnge		
EG	Rough GR		
EL	Inbound delivery		
HID	Inbnd dlv. HU mvmnt		
HOD	Outb.deliv.GI mvmnt	03	02
HTP	Deliv.for post.chge		
JF	Outbound delivery IN		

At the bottom of the table, there is a "Position..." button and the text "Entry 1 of 41". The SAP logo and navigation icons are visible at the bottom of the window.

Reference Documents Mandatory

T-Code VOV8

Requires reference to another Sales Order document

Default value is blank

Should be changed post go-live for sales order types,
particularly credits and returns

Change View "Maintain Sales Order Types": Details

 New Entries      			
Sales Document Type	Z620	Credit Memo CRM	
SD document categ.	K	Sales document block	<input type="checkbox"/>
Indicator	<input type="checkbox"/>		
Number systems			
No. range int. assgt.	13	Item no. increment	10
No. range ext. assg.	14	Sub-item increment	
General control			
Reference mandatory	M	Material entry type	<input type="checkbox"/>
Check division	<input type="checkbox"/>	<input checked="" type="checkbox"/> Item division	
Probability	100	<input checked="" type="checkbox"/> Read info record	
Check credit limit	<input type="checkbox"/>	Check purch. order no	<input type="checkbox"/>
Credit group	<input type="checkbox"/>	<input type="checkbox"/> Enter PO number	
Output application	V1	Commitment date	<input type="checkbox"/>

Incompleteness Procedures, Screens 1-3

Defined in the IMG and various transactions like OVA2

Fields listed on screen 3 show up on the incompleteness log

- Those checked with a warning also give a message at entry if the field is left blank

Display View "Groups": Overview

The screenshot shows the 'Display View "Groups": Overview' interface. On the left, a tree view shows 'Dialog Structure' with 'Groups' expanded to 'Procedures' and 'Fields'. The main area is divided into two panes. The top pane, 'Incompletion groups', contains a table with three rows: A (Sales - Header), B (Sales - Item), and C (Sales - Sched. Line). The bottom pane, 'Error group B', contains a table with six rows of procedures: 20 (Standard Item), 21 (Credit/Deb. Memo Item), 22 (Sched. Agreement Item), 23 (Qty Contract Item), 24 (Free of Charge Item), 25 (Service Item), and 26 (Free of charge serv.).

Group	Description
A	Sales - Header
B	Sales - Item
C	Sales - Sched. Line

InProc	Description
20	Standard Item
21	Credit/Deb. Memo Item
22	Sched. Agreement Item
23	Qty Contract Item
24	Free of Charge Item
25	Service Item
26	Free of charge serv.

Error proc. 26

The screenshot shows the 'Error proc. 26' interface. On the left, a tree view shows 'Dialog Structure' with 'Groups' expanded to 'Procedures' and 'Fields'. The main area contains a table titled 'Incompletion fields' with columns: Table, Fld name, Description, Scr., Status, Warning, and Seq.

Table	Fld name	Description	Scr.	Status	Warning	Seq.
VBAP	ARKTX	Description	PKAU	04	<input type="checkbox"/>	0
VBAP	CUOBJ	Configuration	POCO	01	<input type="checkbox"/>	0
VBAP	KWMENG	Order Quantity	PKAU	04	<input checked="" type="checkbox"/>	0
VBAP	PRSOK	Pricing	PKON	06	<input type="checkbox"/>	0
VBAP	WERKS	Plant	PDE2	02	<input type="checkbox"/>	0

Sales Order > Billing Copy Control, Screens 1-3

Copy control configuration defines what Sales Document fields are copied to Billing Documents

Set in transaction VTFA

The top screenshot shows a 'Dialog Structure' tree with 'Header' and 'Item' folders. Below it is a table with columns: Tgt, Billing Type, Source, SalesDocType.

Tgt	Billing Type	Source	SalesDocType
CBF2	BEV Invoice	PS2	PS: Billing Request
CBF2	BEV Invoice	OR	Standard Order
CBF2	BEV Invoice	TAV	Standard Order (VMT)

The bottom screenshot shows a 'Dialog Structure' tree with 'Header' and 'Item' folders. Below it are fields for 'Target billing type' (CBF2 BEV Invoice) and 'From SalesDoc Type' (OR Standard Order). Below that is an 'Item' list with columns: ItmCt, Description.

ItmCt	Description
TAD	Service
TADC	Configurable Service
TAG	Generic Article

Target		Source	
Target Bill. Type	CBF2 BEV Invoice	Ref. SalesDoc Type	OR Standard Order
Item Cat. Proposal		Item Category	TADC Configurable Service

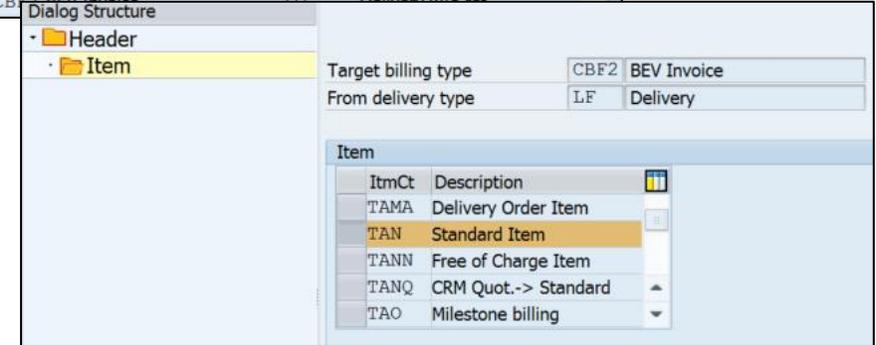
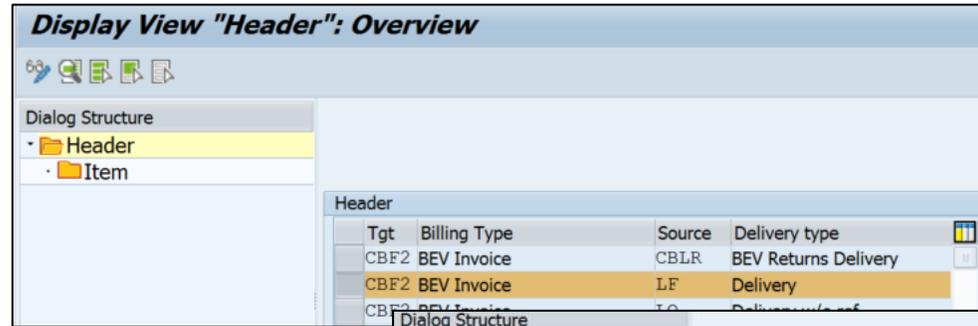
Copy			
Copying requirements	002	Item/order-related	Billing quantity
Data VBRK/VBRP	001	Inv. Split (sample)	Pos./neg. quantity
			Pricing type
			PricingExchRate type
			Price source

Billing quantity Short Descript.	
A	Order quantity less invoiced quantity
B	Delivery quantity less invoiced quantity
C	Order quantity
D	Delivery quantity
E	Goods receipt quantity less invoiced quantity
F	Invoice receipt quantity less invoiced quantity
G	Cumulative batch quantity minus invoiced quantity
H	Cumul.batch quantity
I	Purchase quantity minus quantity already billed

Delivery > Billing Copy Control, Screens 1-3

Copy control configuration defines what Delivery Document fields are copied to Billing Documents

Set in transaction VTFL



Target		Source	
Target Bill. Type	CBF2 BEV Invoice	From Delivery Type	LF Delivery
		Item Category	TAN Standard Item
Copy			
Copying requirements	004 Deliv-related item	Billing quantity	B
Data VBRK/VBRP	001 Inv. Split (sample)	Pos./neg. quantity	+
		Pricing type	G
		PricingExchRate type	<input type="checkbox"/>
		<input type="checkbox"/> Cumulate cost	
		Price source	E

Pricing type	Short Descript.
A	Copy price components and redetermine scales
B	Carry out new pricing
C	Copy manual pricing elements and redetermine the others
D	Copy pricing elements unchanged
E	Adopt price components and fix values
F	Copy pricing elements, turn value and fix
G	Copy pricing elements unchanged and redetermine taxes
H	Redetermine freight conditions
I	Redetermine rebate conditions
J	Redetermine confirmed purch. net price / value (KNTYP=d)
K	Adopt price components and cose. Redetermine taxes.
M	Copy pricing elements, turn value
N	Transfer pricing components unchanged, new cost
O	Redetermine variant conditions (KNTYP=O)
Q	Redetermine calculation conditions (KNTYP=Q)
R	Apply Price Parts and Bonus Conditions
U	Redetermine precious metal conditions (KNTYP=U)
X	Customer reserve X
Y	Customer reserve Y
Z	Customer reserve Z
1	Customer reserve 1
2	Customer reserve 2

Example Sales Document Flow

Environment >
Document Flow
from the main menu of any sales order

Double-clicking on an item goes to that document

Business partner 0000002141 Jaspers Computers			
Document	On	Status	
· Rush Order 0000005352	02/24/1998	Completed	
· Delivery 0080003749	02/24/1998	Completed	
· Picking request 19980224	02/23/1998	Completed	
· GD goods issue:delvy 0049007079	02/24/1998	complete	
· Invoice (F2) 0090005632	02/24/1998	Completed	
· Accounting document 0100007862	02/24/1998	Cleared	

Sales Order Display: Sales Tab: VA03

Key settings:

- Delivery block
- Billing Block
- Payment Terms
- Pricing date
- Incoterms

Rush Order	5352	Net value	386,864.00	DEM
Sold-To Party	2141	Jaspers Computers / Georg-Beyer-Strasse 78 / D-51061 Koeln		
Ship-To Party	2141	Jaspers Computers / Georg-Beyer-Strasse 78 / D-51061 Koeln		
PO Number	JC-TR1-02356	PO date	02/24/1998	

Req. deliv.date	D	02/24/1998	Deliver.Plant	
<input type="checkbox"/> Complete delv.			Total Weight	3,448.300 KG
Delivery block			Volume	4.275 M3
Billing block			Pricing date	02/24/1998
Payment card			Exp.date	
Card Verif.Code				
Payment terms	ZB01	14 Days 3%, 30/2%, ..	Incoterms	CFR Köln
Order reason				

All items

Item	Material	Order Quantity	Un	Description	S	Customer Material Numb
	10M-05		25 PC	Flatscreen LE 50 P	<input type="checkbox"/>	
	20M-06		30 PC	Flatscreen MS 1460 P	<input type="checkbox"/>	

Sales Order Display: Item Overview Tab: VA03

Key fields on the right (off screen)

- Billing Date
- Account Assignment Group

Rush Order 5352 Net value 386,864.00 DEM

Sold-To Party 2141 Jaspers Computers / Georg-Beyer-Strasse 78 / D-51061 Koeln

Ship-To Party 2141 Jaspers Computers / Georg-Beyer-Strasse 78 / D-51061 Koeln

PO Number JC-TR1-02356 PO date 02/24/1998

Sa... Item overview Item detail Ordering party Procurement Shipping Reason for rejection

Req. deliv.date D 02/24/1998 Deliver.Plant

All items

Item	Material	Order Quantity	Un	Description	S	Customer Material Num
	10M-05		25 PC	Flatscreen LE 50 P	<input type="checkbox"/>	
	20M-06		30 PC	Flatscreen MS 1460 P	<input type="checkbox"/>	
	30M-07		26 PC	Flatscreen LE 64P	<input type="checkbox"/>	
	40M-08		20 PC	Flatscreen MS 1575P	<input type="checkbox"/>	
	50M-09		27 PC	Flatscreen MS 1585	<input type="checkbox"/>	
	60M-10		33 PC	Flatscreen MS 1775P	<input type="checkbox"/>	
	70M-11		33 PC	Flatscreen MS 1785P	<input type="checkbox"/>	
	80M-02		1 PC	Sunny Xa1	<input type="checkbox"/>	

Group

Delivery Display: Header, Processing Tab: VL03N

Key settings:

- Billing Date
- Goods issue flag
- Billing docs flag
- POD Status

Ship-to party Jaspers Computers / Georg-Beyer-Strasse 78 / D-51061 Koeln

Processi... Picking Loading Global Trade Management Shipment Foreign Trade/Customs Financi...

Dates			
Picking	<input type="text" value="02/24/1998"/>	<input type="text" value="00:0.."/>	Billing Date <input type="text" value="02/24/1998"/>
Trans. Planning	<input type="text" value="02/24/1998"/>	<input type="text" value="00:00"/>	Billing date <input type="text"/>
Loading	<input type="text" value="02/24/1998"/>	<input type="text" value="00:00"/>	
Planned GI	<input type="text" value="02/24/1998"/>	<input type="text" value="00:0.."/>	Actual GI Date <input type="text" value="02/24/1998"/> <input type="text" value="00:00"/>
Delivery Date	<input type="text" value="02/24/1998"/>	<input type="text" value="08:30"/>	Scheduling

Overall Status			
Document Status	<input checked="" type="checkbox"/>	Checked	
Picking	<input type="checkbox" value="C"/>	Fully picked	TransPlng <input type="checkbox" value="A"/> Open transp.planning
WM Activities	<input type="checkbox"/>	No WM trnsf ord reqd	Dec. Whse <input type="checkbox"/> Not Relevant
Confirmation	<input type="checkbox" value="C"/>	Fully confirm PickRq	<input type="checkbox"/> Change Management
Pack	<input type="checkbox"/>	Packing not required	POD status <input type="checkbox"/> Not Relevant
Goods Issue	<input type="checkbox" value="C"/>	Completed	IntcoBill <input type="checkbox"/> Not Relevant
Bill.Docs.	<input type="checkbox" value="C"/>	Fully invoiced	Credit <input type="checkbox"/> Not performed

Delivery Display: Header, Picking Tab: VL03N

Ship-to party 2141 Jaspers Computers / Georg-Beyer-Strasse 78 / D-51061 Koeln

Processi... Picking Loading Global Trade Management Shipment Foreign Trade/Customs Financi...

Status

Pick. deadline	02/24/1998	00:0..		
OvrllPickStatus	C	Fully picked	Dec. Whse	<input type="checkbox"/> Not Relevant
OverallWMStatus	<input type="checkbox"/>	No WM trnsf ord reqd		<input type="checkbox"/> Change Management
Confirmation	C	Fully confirm PickRq		

Warehouse

Warehouse No.			
Staging Area			
PickedItmLocat.		Split ind.	<input type="checkbox"/>

Pack

No.of packages	0	
Packing status	<input type="checkbox"/>	Packing not required

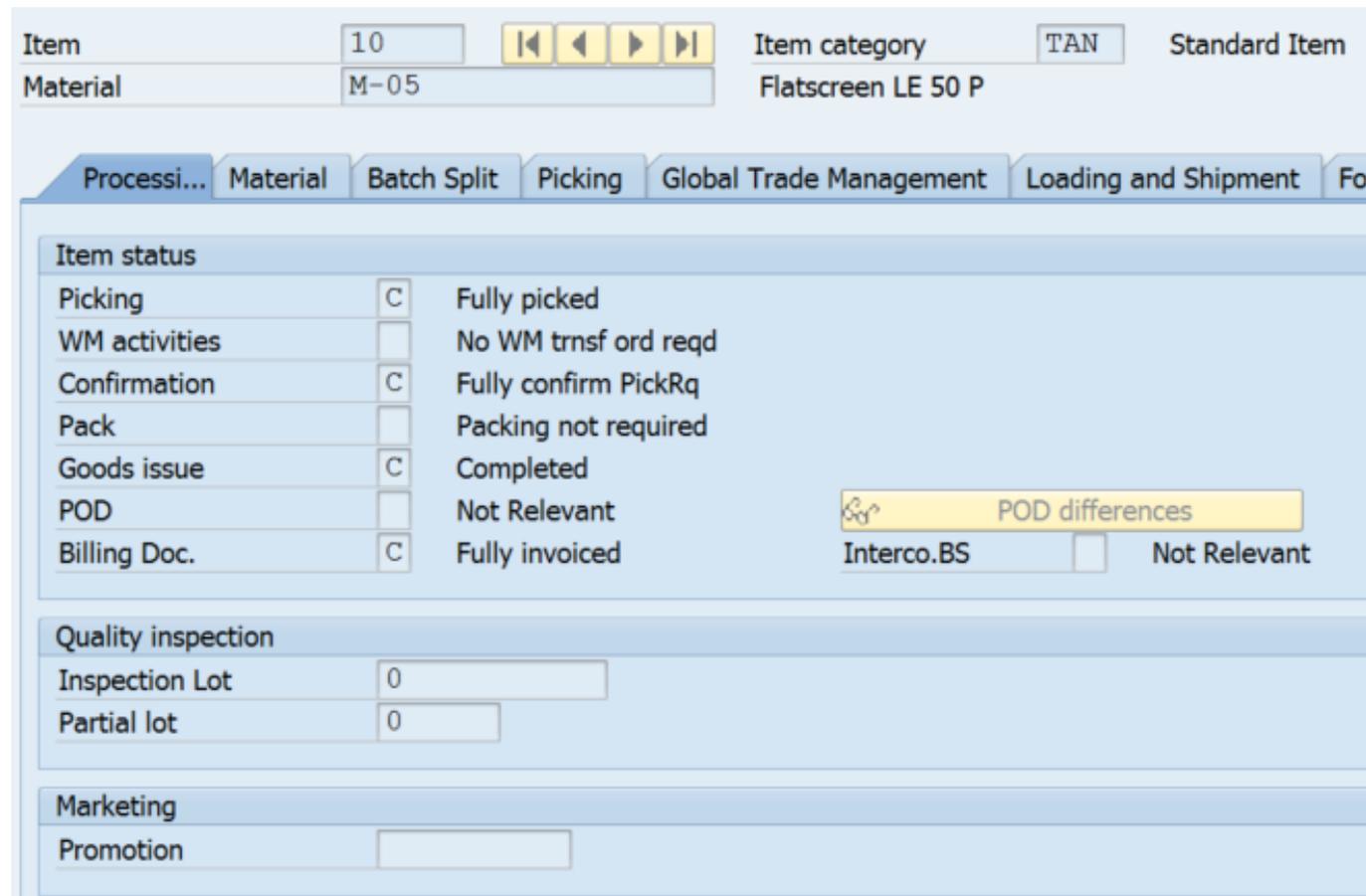
Weight and volume

Total Weight	3,448.300	KG
Net weight	3,448.300	
Volume	4.275	M3

Delivery Display: Item, Processing Tab: VL03N

Key Settings

- Goods issue status
- POD flag
- POD differences
- Billing Doc status



The screenshot shows the SAP VL03N Delivery Display interface for Item 10 (Material M-05). The 'Processing' tab is active, displaying various status fields and options.

Item: 10 | Item category: TAN | Standard Item
Material: M-05 | Flatscreen LE 50 P

Processing Tab: Processi... | Material | Batch Split | Picking | Global Trade Management | Loading and Shipment | Fo

Item status

Picking	<input checked="" type="checkbox"/>	Fully picked
WM activities	<input type="checkbox"/>	No WM trnsf ord reqd
Confirmation	<input checked="" type="checkbox"/>	Fully confirm PickRq
Pack	<input type="checkbox"/>	Packing not required
Goods issue	<input checked="" type="checkbox"/>	Completed
POD	<input type="checkbox"/>	Not Relevant
Billing Doc.	<input checked="" type="checkbox"/>	Fully invoiced

POD differences: Interco.BS Not Relevant

Quality inspection

Inspection Lot	<input type="text" value="0"/>
Partial lot	<input type="text" value="0"/>

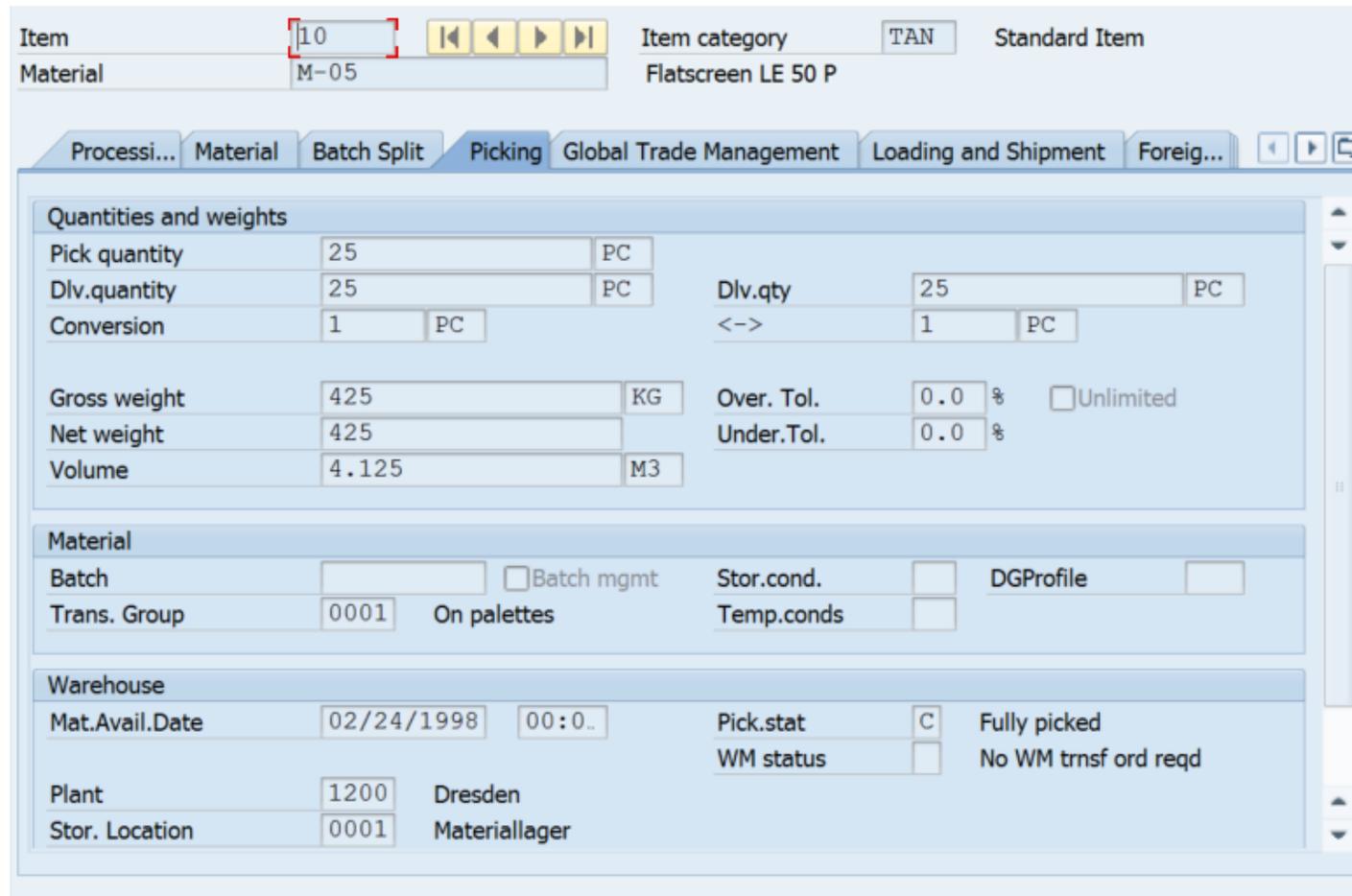
Marketing

Promotion	<input type="text"/>
-----------	----------------------

Delivery Display: Item, Picking Tab: VL03N

Key settings:

- Over. Tolerance
- Under. Tolerance
- Unlimited delivery flag
- Picking Status



The screenshot shows the SAP VL03N Delivery Display interface, specifically the Picking tab. The interface is divided into several sections:

- Item and Material:** Item number 10 is highlighted in a red box. Material M-05 is displayed below it. Item category is TAN (Standard Item) and the description is Flatscreen LE 50 P.
- Navigation:** A set of yellow navigation buttons (back, forward, search, etc.) is located above the tabs.
- Process Flow:** A series of tabs at the top: Processi..., Material, Batch Split, **Picking** (active), Global Trade Management, Loading and Shipment, and Foreign....
- Quantities and weights:** A section containing input fields for:
 - Pick quantity: 25 (unit PC)
 - Dlv.quantity: 25 (unit PC)
 - Conversion: 1 (unit PC)
 - Gross weight: 425 (unit KG)
 - Net weight: 425
 - Volume: 4.125 (unit M3)
 - Over. Tol.: 0.0 % (checkbox Unlimited)
 - Under.Tol.: 0.0 %
- Material:** A section containing:
 - Batch: (empty) (checkbox Batch mgmt)
 - Trans. Group: 0001 (checkbox On palettes)
 - Stor.cond.: (empty) (checkbox DGProfile)
 - Temp.cond.: (empty)
- Warehouse:** A section containing:
 - Mat.Avail.Date: 02/24/1998 (checkbox 00:0..)
 - Plant: 1200 (Dresden)
 - Stor. Location: 0001 (Materiallager)
 - Pick.stat: C (Fully picked)
 - WM status: (checkbox No WM trnsf ord reqd)

Delivery Display: Item, Financial Processing Tab: VL03N

Key settings:

- Billing status
- Billing block flag
- Account Assignment Info (as relevant)

The screenshot shows the SAP VL03N Financial Processing tab for item 10. The item is categorized as 'Standard Item' with category 'TAN' and description 'Flatscreen LE 50 P'. The material is 'M-05'. The 'Billing document' section shows 'Billing Status' as 'C' (Fully invoiced), 'Interco. BillSt' as 'Not Relevant', and 'Guaranteed at' as '0.00 %'. The 'Account assignment' section shows 'Business Area' as '7000', 'Order' as an empty field, and 'Profit. Segment' as an empty field with a green arrow icon.

Item	10	Item category	TAN	Standard Item
Material	M-05			Flatscreen LE 50 P
Global Trade Management Loading and Shipment Foreign Trade/Customs Financial Processing Texts				
Billing document				
Billing Status	C	Fully invoiced		
Interco. BillSt		Not Relevant		
Block				
PaytGuarantForm				
Guaranteed at	0.00	%		
Account assignment				
Business Area	7000	Order		
Cost Center		Profit. Segment		
Profit Center				
WBS Element				

Invoice Document: VF03

Scrolling to the right displays the reference document field, containing the delivery document ID

Invoice (F2) 90005632 (F2) Display: Overview of Billing Items

Accounting Billing documents

Invoice (F2) 90005632 Net Value 386,864.00 DEM
Payer 2141 Jaspers Computers / Georg-Beyer-Strasse 78 / D-51061 Koeln
Billing Date 02/24/1998

Item	Description	Billed Quantity	SU	Net value	Material
10	Flatscreen LE 50 P		25PC	22,000.00	M-05
20	Flatscreen MS 1460 P		30PC	50,400.00	M-06
30	Flatscreen LE 64P		26PC	36,452.00	M-07
40	Flatscreen MS 1575P		20PC	43,960.00	M-08
50	Flatscreen MS 1585		27PC	63,504.00	M-09
60	Flatscreen MS 1775P		33PC	81,774.00	M-10
70	Flatscreen MS 1785P		33PC	86,856.00	M-11
80	Sunny Xa1		1PC	1,918.00	M-02

SAP VF03 m2bm27 OVR

Invoice Document: Accounting Overview

Accounting document flow for customer billing similar to flow for vendor invoices

Display Document: Data Entry View

Taxes Display Currency

Data Entry View

Document Number	100007862	Company Code	1000	Fiscal Year	1998
Document Date	02/24/1998	Posting Date	02/24/1998	Period	2
Reference	JC-TR1-02356	Cross-Comp.No.			
Currency	DEM	Texts exist	<input type="checkbox"/>	Ledger Group	

CoCd	Item PK	S	Account	Description	Amount	Curr.	Text	Tx	Cost Center
1000	1 01		2141	Jaspers Computers	444,893.60	DEM		A1	
1000	3 50		175000	Output tax	58,029.60-	DEM		A1	
1000	11 50		230051	Gain/loss Euro conv.	0.00	DEM			

SAP FB03 m2bm27 OVR

Key Audit-Relevant Transactions

XD03 – Business partner master where role = Customer

XD04 – Changes to Customers

- Environment > Multiple Display

VK33 – Display Conditions

VK13 – Changes to Conditions

- Environment > Changes > Change Report

UKM_MALUS_DSP – Credit Limit Utilization

(Sales Order, Delivery Document, and Billing document display transactions listed earlier)

Focus Areas



Commonly missed by implementation teams

- Dual Control over Sensitive Fields
- Data Validation Rules
- Inventory adjustment tolerances
- Document type mandatory reference
- Price control mandatory setting

Related Risk / Benefit

- Fraudulent or erroneous entry/change to high-risk vendor or customer master data fields
- Journal Entry data entry mistakes
- Inventory count data entry mistake
- Erroneous/fraudulent credit memo, return, or other adjustment-type transactions
- Inappropriate/inconsistent inventory valuation

Commonly missed by implementation teams, continued...

- Project budget warnings and error messages
- Minimum/maximum useful lives + negative depreciation flag
- Evaluated receipts settlement
- Company Code Productive Indicator

Related Risk / Benefit

- Project budgets exceeded without approval
- Asset depreciation erroneously calculated due to user input error
- Costly invoice processing for high-volume trusted vendors
- Deletion programs wiping out accounting-relevant data with no audit trail

Other areas of external audit focus

Price x Quantity

Key report testing

“How do you know?”

Continuous Monitoring



The issue: False Sense of Reality

Traditional testing of controls often gives false sense of reality

- Typical focus on configuration settings and signoffs
- Limited real analysis of business outcomes

Certain business activities can make controls appear to be working at the surface level, when in actuality the intent of the control is being bypassed

- i.e., creating a PO after an invoice comes in almost always means the three-way-match control is met

Focused analysis can quantify exposure for management and allow for more thoughtful and fact-based decisions

Example 1

AP Baseline Date Changes (Backward)

Changing the baseline date on an invoice results in a vendor being paid faster than normal

- If abused, can be a way to bypass normal payment term requirements

By Company Code

Company Code	Avg of DiffDays	Number of Changes	Amount (USD)
3100 - Microsoft, Inc.	-21.1	688	\$88,199,837.88
SG01 - Microsoft Corp	-21.6	232	\$7,472,213.58
2100 - Microsoft	-31.0	131	\$15,281,075.59
JP02 - Microsoft	-10.9	53	\$81,502.44
CN16 - Microsoft (France)	-9.6	42	\$65,613.84
CN11 - Microsoft Tech S&S (CN)	-4.2	38	\$188,088.57
CN03 - Microsoft Co. Ltd	-23.9	27	\$409,916.01
IN02 - Microsoft Private Party	-142.1	19	\$104,881.24

By Vendor

Vendor	Avg of DiffDays	Number of Changes	Amount (USD)
0000041133 - Microsoft	-25.1	532	\$86,509,743.59
0000021891 - Microsoft	-21.6	232	\$7,472,213.58
0000045028 - Microsoft	-2.2	94	\$358,938.83
0000500888 - Microsoft	-9.9	17	\$61,008.72
0000048831 - Microsoft	-1.5	14	\$164,099.00
0000041170 - Microsoft	-39.9	14	\$1,357.22
0000300100 - Microsoft	-3.9	13	\$3,186.76
0000802727 - Microsoft	-6.3	11	\$6,121.22
0000030268 - Microsoft	-1.5	10	\$102,394.94
0000803143 - Microsoft	-4.9	9	\$663.18
0000019131 - Microsoft	-76.6	8	\$61,810.55
0000802462 - Microsoft	-289.0	8	\$4,339.50
0000500006 - Microsoft	-16.0	8	\$6,513.63
0000061434 - Microsoft	-20.3	7	\$908,800.86
0000800428 - Microsoft	-35.0	7	\$2,678.33

Key Discussion Points: Why are data changes being made? Data entry or training issues, or something else?

Actual results: Blurred content to protect sensitive client data

Example 2

Excessive manual removal of blocks

The system automatically blocks transactions outside of defined tolerances

Users manually remove blocks, rather than resolve blocking conditions

Note record 2 below, where a \$95 CAD PO line item was actually paid out at almost \$97,000

c_DiffInUSD	c_Diff_Ratio	InvAmtInUSD	_PoAmtUSD	Currency	Doc Numbe	Item Num
188967.97	1,359.79 %	203967.97	15000.00	USD	4502602990	00010
96606.68	101,963.45 %	96701.52	94.84	CAD	4502695173	00010
82960.00	262.29 %	134078.00	51118.00	USD	4502721274	00120
67750.00	369.38 %	92900.00	25150.00	USD	4502721274	00250

Example 3

ID Sharing

System security ensures the same user cannot perform incompatible functions

We spend millions on Segregation of Duties and Critical Access controls and monitoring processes...

- ...which are effectively bypassed if users are sharing IDs

ID logged into 2 different computers at the same time
snapshot from August 1, at 3:59pm

USER ID	Machine ID	IP Address	TERMID	SERVER
<i>Actual results: Blurred out to protect sensitive client data</i>	BADJMM1	172.16.65.175	612	
CBOISVER	JNQX4S1	172.16.65.216	58	

Example 4: Erroneous Sequencing

PO / receipt created after the invoice is received

When looking at frequency by company code, the “problem children” become apparent

- Note that this PO/invoice event is only one of many similar potential sequencing issues that result in controls “working” when they really are not

Company €	Num of POs 1-100 days after Invoice date
C500	2117
C300	1054
C400	771
C420	738
C740	592
C740	471
C520	395
C450	394
C650	331
C520	318
C350	245
C642	204
C700	195
C130	177
C330	

Days before PO create	PO Create dt	First invoice doc date	Line Item Amt	Currency
a few examples...				
41	03/13/2014	01/31/2014	1800.00	USD
41	04/10/2014	02/28/2014	437.63	USD
41	04/10/2014	02/28/2014	2350.89	USD
41	04/23/2014	03/13/2014	1017.00	MXN
41	04/30/2014	03/20/2014	72.00	GBP
41	04/30/2014	03/20/2014	7439.00	USD

Actual results: Blurred content to protect sensitive client data

Example 5: Impossible Invoice “Document Dates”

The invoice document date is entered at the time of invoice entry, and is intended to represent the date on the vendor’s invoice

The fact that invoice document dates have been entered many years into the future indicates that:

- Basic data validation has not been enabled in the system
- Certain manual data quality checks are not effective

Inv Doc Dt recorded in SAP	Date invoice entered in SAP	Vendor Name	Company Code	PO Doc No	Item No
11/22/2145	02/14/2014	BLU... BLU... SUPPLY INC	C510	4502536623	00010
12/20/2103	01/15/2014	GENERAL BLDG CO	C510	4502508790	00080
12/11/2103	01/16/2014	BLU... SUPPLY INC	C410	4502533267	00010
12/13/2103	01/09/2014	BLU... SUPPLY INC	C510	4502534141	01340
02/18/2017	02/20/2014	BLU... SUPPLY INC	C520	4502579697	00010
07/16/2017	09/29/2014	BLU... SUPPLY INC	C340	4502745051	00010

Actual results: Blurred content to protect sensitive client data

Lessons learned

Many of these issues are likely not being detected

- By external audits
- By most internal audits
- By current control testing procedures

Other mitigating controls might keep these from being material from a SOX perspective...

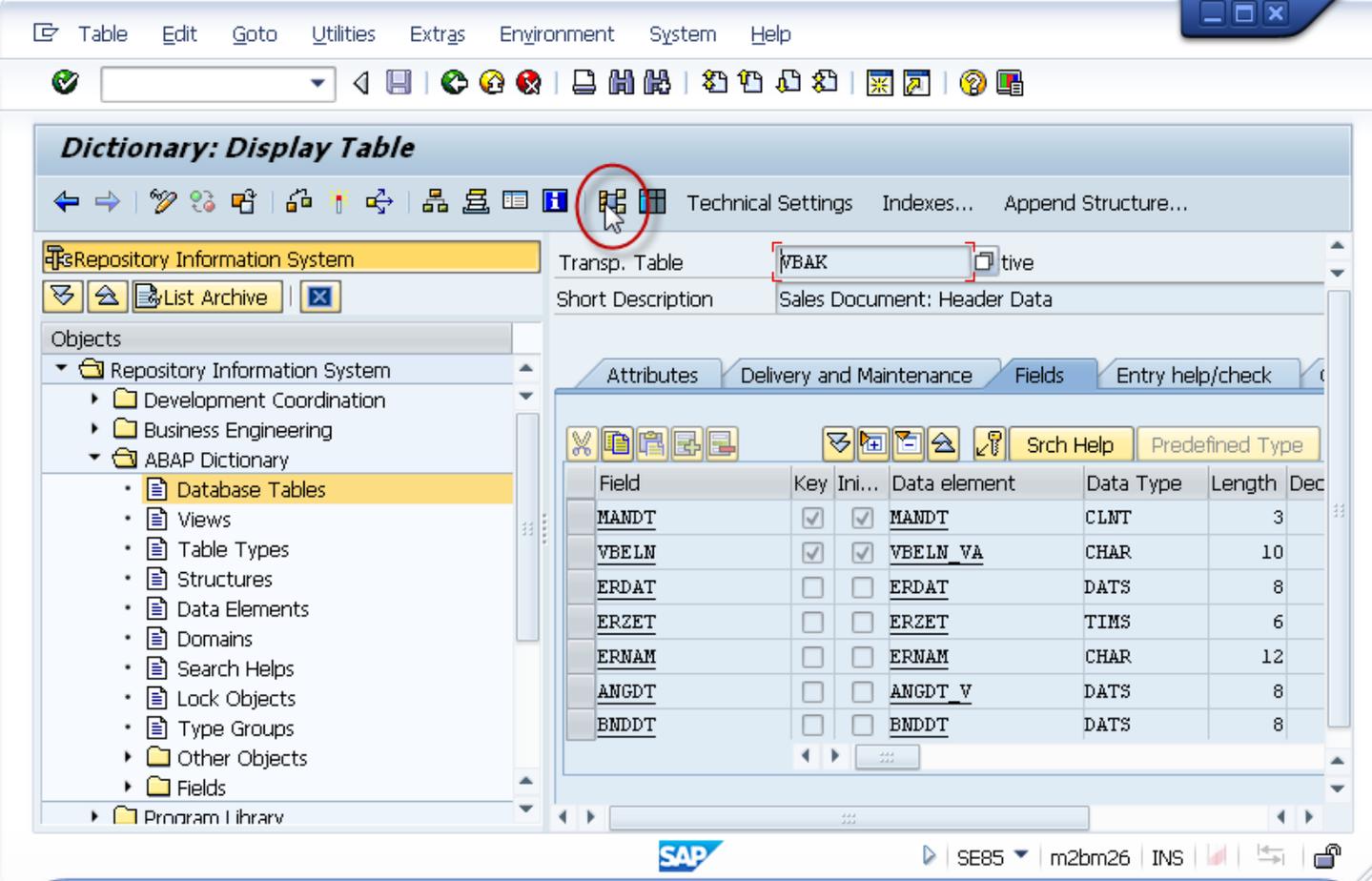
- ...but their business impact has deeper implications outside of financial reporting integrity

Specific examination is required to detect many of these

- Straightforward once one knows what to look for

Navigating to the built-in SAP E-R diagram

After selecting a table, the “diagram” icon will show the other SAP tables related to this table



The screenshot shows the SAP Dictionary: Display Table interface for table VBPAK. The 'Diagram' icon in the toolbar is circled in red. The main area displays a table of related fields.

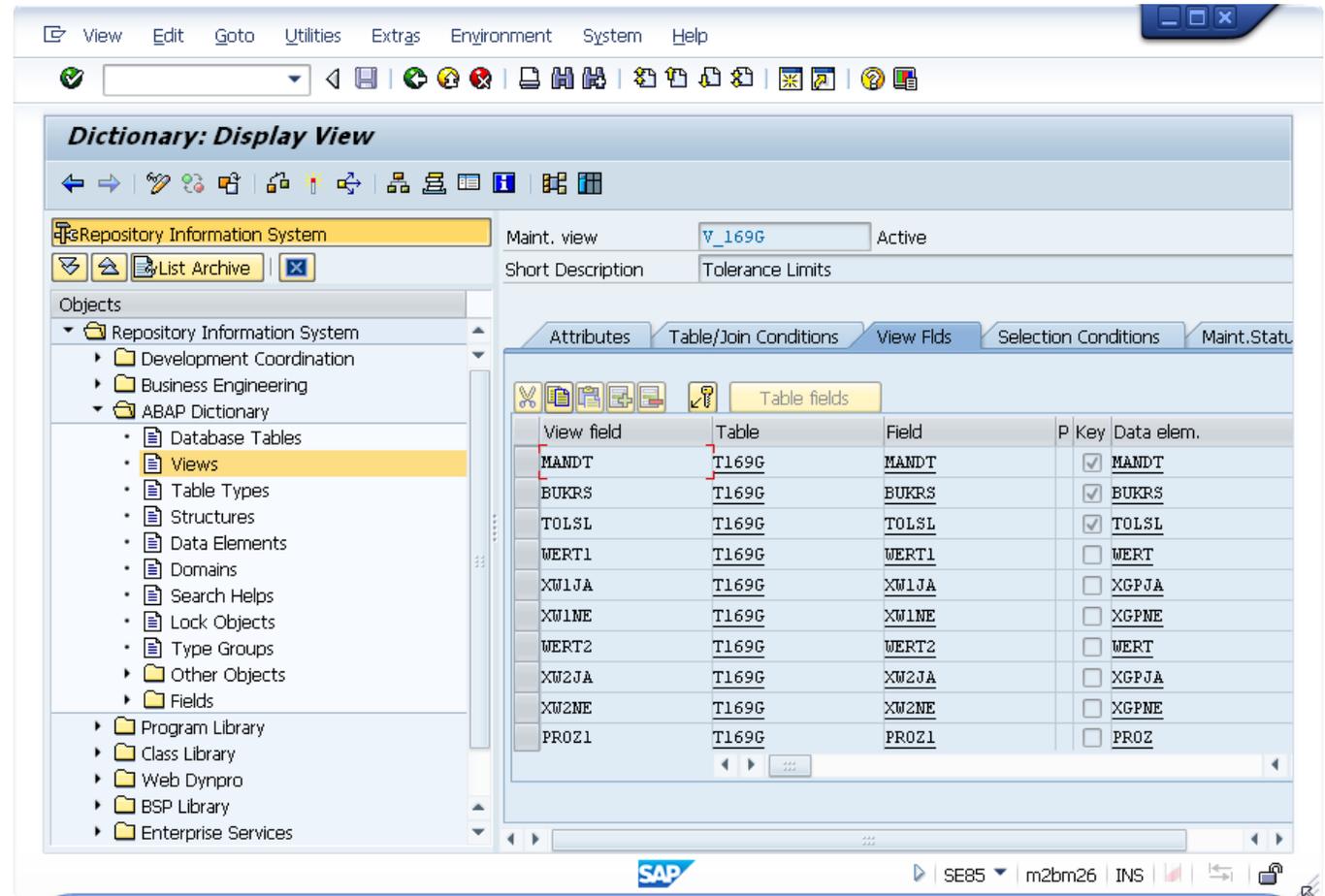
Field	Key	Ini...	Data element	Data Type	Length	Dec
<u>MANDT</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MANDT</u>	CLNT	3	
<u>VBELN</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>VBELN_VA</u>	CHAR	10	
<u>ERDAT</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ERDAT</u>	DATS	8	
<u>ERZET</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ERZET</u>	TIMS	6	
<u>ERNAM</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ERNAM</u>	CHAR	12	
<u>ANGDT</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ANGDT_V</u>	DATS	8	
<u>BNDDT</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>BNDDT</u>	DATS	8	

Deconstructing views

The View Flds tab shows the details

- View field is the field name in the view itself
- Table is the table that field is coming from
- Field is the field within that table
- Key indicates whether it is a key field for the view

May need to scroll left on the View Flds tab to see details



The screenshot shows the SAP Dictionary: Display View interface for view V_169G. The 'View Flds' tab is active, displaying a table of fields and their source tables. The table has columns for View field, Table, Field, P Key, and Data elem. The fields are listed as follows:

View field	Table	Field	P Key	Data elem.
MANDT	T169G	MANDT	<input checked="" type="checkbox"/>	MANDT
BUKRS	T169G	BUKRS	<input checked="" type="checkbox"/>	BUKRS
TOLSL	T169G	TOLSL	<input checked="" type="checkbox"/>	TOLSL
WERT1	T169G	WERT1	<input type="checkbox"/>	WERT
XW1JA	T169G	XW1JA	<input type="checkbox"/>	XGPJA
XW1NE	T169G	XW1NE	<input type="checkbox"/>	XGPNE
WERT2	T169G	WERT2	<input type="checkbox"/>	WERT
XW2JA	T169G	XW2JA	<input type="checkbox"/>	XGPJA
XW2NE	T169G	XW2NE	<input type="checkbox"/>	XGPNE
PROZ1	T169G	PROZ1	<input type="checkbox"/>	PROZ

A Note About Accessing Data From A Warehouse

Many organizations use SAP BW as a reporting tool

- If you have access, this is another potential starting-point
- Due to the customized nature of BW reporting, we will not discuss in detail

For audit and compliance purposes, consider whether BW is the right source for the data you are seeking to assess

- Often summarized (typically does not contain all transactions)
- Often cleansed (the “T” in ETL)
- Often only business data (seldom contains configuration or log data)

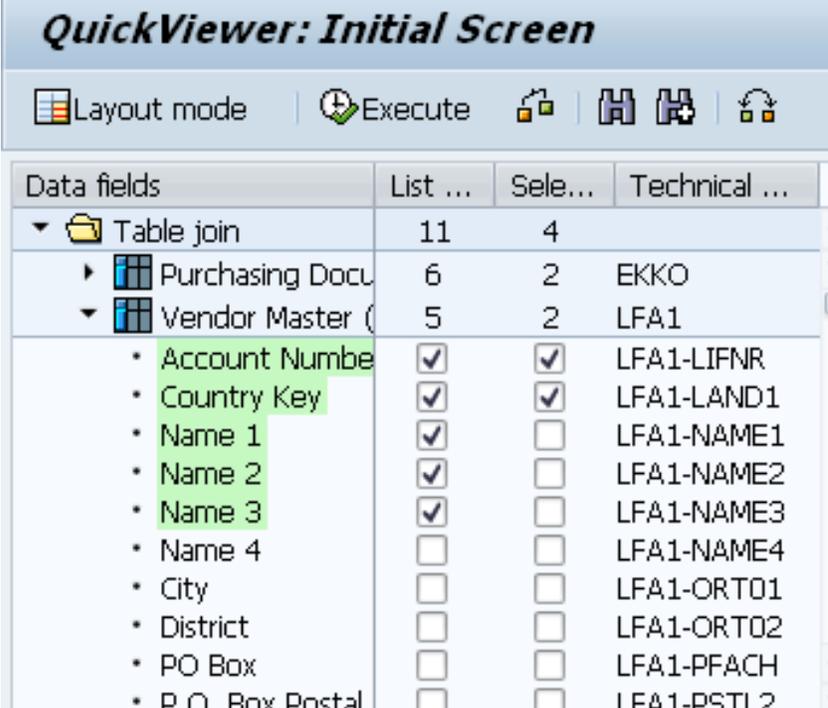
SAP Queries

Several in-SAP query transactions

- SQ01 – SAP Query
- SQVI – QuickViewer

Both have ability to:

- Join tables manual
- Leverage SAP logical DBs



QuickViewer: Initial Screen

Layout mode | Execute | [Icons]

Data fields	List ...	Sele...	Technical ...
Table join	11	4	
Purchasing Docu	6	2	EKKO
Vendor Master (5	2	LFA1
Account Numbe	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LFA1-LIFNR
Country Key	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LFA1-LAND1
Name 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LFA1-NAME1
Name 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LFA1-NAME2
Name 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LFA1-NAME3
Name 4	<input type="checkbox"/>	<input type="checkbox"/>	LFA1-NAME4
City	<input type="checkbox"/>	<input type="checkbox"/>	LFA1-ORT01
District	<input type="checkbox"/>	<input type="checkbox"/>	LFA1-ORT02
PO Box	<input type="checkbox"/>	<input type="checkbox"/>	LFA1-PFACH
P.O. Box Postal	<input type="checkbox"/>	<input type="checkbox"/>	LFA1-PSTI 2

SAP Queries, continued

Input and output will behave similar to standard SAP reports

Easy way to create simple reports without requiring ABAP coding

Security authorizations will determine ability to create or execute

Example PO query



Report-specific selections

Account Number of Vendor or Cr	<input type="text"/>	to	<input type="text"/>	
Country Key	<input type="text"/>	to	<input type="text"/>	
Company Code	<input type="text"/>	to	<input type="text"/>	
Purchasing Document Number	<input type="text"/>	to	<input type="text"/>	

Output specification

Layout	<input type="text"/>
--------	----------------------

Saving From SAP Is Not Always “Clean”

Excel option is actually just a delimited file

Will require cleanup in Excel

```

12/22/2014          Dynamic List Display          1
12/22/2014          Number of Users Selected:54
Number of Users Selected:54
  User Name          User Type          User group          Locked Reason valid from valid to
  HERRMANNSPAH      A Dialog          TRAINER
  CONNECTOR         B System          SUPER
  DDIC              A Dialog          SUPER
  DERN              A Dialog          SUPER
  M2B               B System          SUPER
  MEERWARTH        A Dialog          SUPER
  OLZOG            A Dialog          SUPER
  SAP*              A Dialog          SUPER
  TDC              A Dialog          SUPER
  TRANINGSAP       A Dialog          SUPER
  WHAERLE          A Dialog          SUPER
  STUDENT001       A Dialog          SUPER
  STUDENT002       A Dialog          SUPER
  STUDENT003       A Dialog          SUPER
  STUDENT004       A Dialog          SUPER
  STUDENT005       A Dialog          SUPER
  
```

A	B	C	D	E	F	G	H	I	J
12/22/2014		Dynamic List Display			1				
					Number of Users Selected:54				1
					Number of Users Selected:54				
User Name	User Type	User group	Locked	Reason	Valid from	Valid to			
HERRMANNSPAH	A Dialog	TRAINER							#####
CONNECTOR	B System	SUPER							
DDIC	A Dialog	SUPER							
DERN	A Dialog	SUPER							
M2B	B System	SUPER							
MEERWARTH	A Dialog	SUPER							
OLZOG	A Dialog	SUPER							
SAP*	A Dialog	SUPER					ADM		

Some Files Are Simply Too Big To Save

Limitation in SAP

- Size of download
- Total width of all fields

You will hit this limitation on several highly-useful tables

- ACDOCA (accounting document detail)
- CDHDR / CDPOS (Change Documents)
- MSEG (material movement line items)



Advancing your continuous monitoring program

SAP Process Control 12.0 Master Guide 12.0 SP17 ▼

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Getting Started

SAP Process Control 12.0 is an enterprise software solution for process control management. SAP Process Control is a customizable software solution that is delivered as an add-on and is based on SAP NetWeaver AS for ABAP 7.52.

SAP Process Control enables organizations to:

- Document their control environments
- Test and assess controls
- Track issues for remediation
- Certify and report on the state and quality of process controls
- Manage policies

Wrap Up



Where to Find More Information

https://www.sap-press.com/auditing-sap-s4hana_5526/

- SAP Press book on auditing SAP S/4HANA (largely also applicable to SAP ECC)

<https://store.isaca.org/s/store#/store/browse/detail/a2S4w000004KoD4EAK>

- Book: Security, Audit and Control Features SAP ERP, 4th Edition
- While focused on SAP ECC, much still relevant to S/4HANA

Training: Audit & Security of SAP ERP and S/4HANA

- Contact Steve.Biskie@rsmus.com

SAP Help & SAP Notes: Search on the controls discussed in this preso

- <http://help.sap.com>
- <https://support.sap.com/en/my-support/knowledge-base.html>

Key Points to Take Home

Your audit scope will depend on the audit objectives, which can vary widely

Many of the most interesting/useful SAP controls (in our opinion)

- Are not enabled by default
- Are often not raised for discussion during implementation
- May not be SOX-relevant, but instead provide operational value

Having access to browse SAP tables will make your audit much more efficient

There is not a great out-of-the-box audit role

- Starting with the Audit Information System roles (SAP_AUDITOR) can help, although they do require cleanup

You can step into continuous auditing now, and build the case for Process Control

Thank you! Any Questions?

Steve Biskie

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Please remember to complete
your session evaluation.



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