

Auditing in SAP Environment

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Agenda

1. Introduction to Controls based Audit
2. Introduction to SAP
3. Accessing and Navigating SAP
4. SAP Organization
5. Review of IT General Controls (Other than BASIS)
6. Review of SAP BASIS
7. Validation of Automated Controls
8. Authorization Concept
9. Segregation of Duties
10. Data Migration to SAP
11. SAP Upgrade
12. Report Validation
13. JE Extraction and Analysis
14. Robotic Process Automation (RPA) in SAP

SESSION 1

Introduction to Controls based Audit

1.1 Standards on Auditing

- SA315 – Identifying and Assessing the Risk of Material Misstatement Through Understanding of the Entity and its Environment
 - The auditor shall
 - Obtain understanding of Internal Controls
 - Obtain understanding of Information Systems, including related business processes
 - Obtain understanding of how the entity has responded to risks arising from IT
 - Obtain an understanding of the entity's controls over risk of inaccurate or incomplete recording of transactions in highly automated processing environment
- SA330 – The Auditor's Responses to Assessed Risk
 - The auditor shall
 - Consider effectiveness of General IT Controls

1.2 Accounting in ERPs

- All entries are Journal Entries
- There are NO Primary or Secondary Books of Account – only data stored in Tables

1.3 Difficulty in Substantive Audit for ERPs

- Absence of Printouts
- Voluminous data
- Difficulty in Ledger Scrutiny
- Difficulty in audit of “manual” journal entries

1.4 Alternative?

- Reliance on IT General Controls
 - Relying on Automated Controls and Automated Accounting Procedures
 - Reliance on Reports and System-Dependent Manual Controls
 - Reliance on Underlying Data

Questions?

SESSION 2

Introduction to SAP

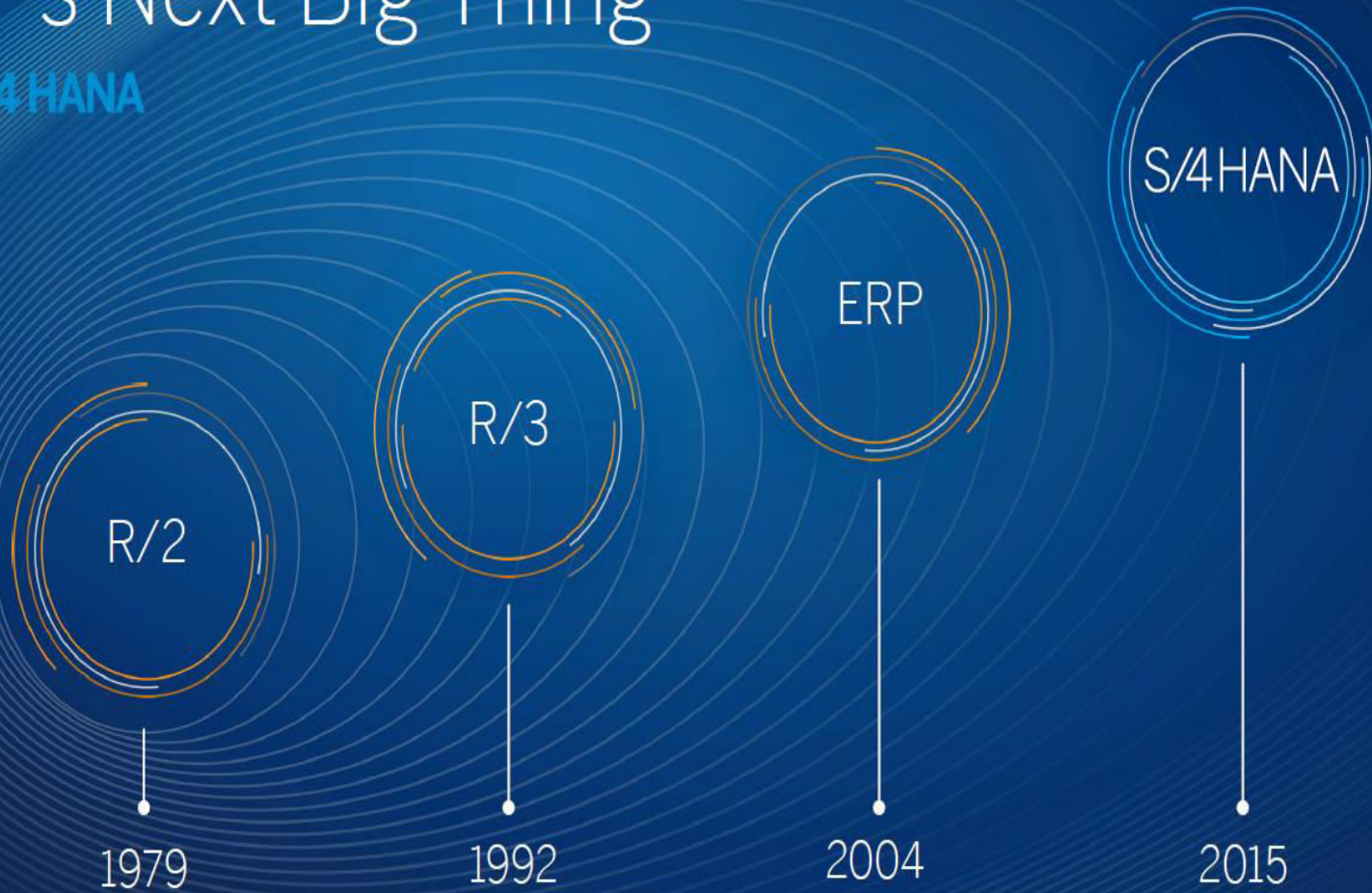
2.1 SAP — What is it?

- SAP is a German multinational software corporation that makes ERP with regional offices in almost 140+ countries and has over approx. 437,000 customers in 180+ countries.
- In German:
 - Systeme, Anwendungen und Produkte in der Datenverarbeitung
- In English:
 - Systems, Applications and Products in Data Processing
- Founded in Walldorf, Deutschland (Germany), 1972
- Not "Sap" — It is "S - A - P"

2.1 SAP — What is it? [Contd.]

SAP's Next Big Thing

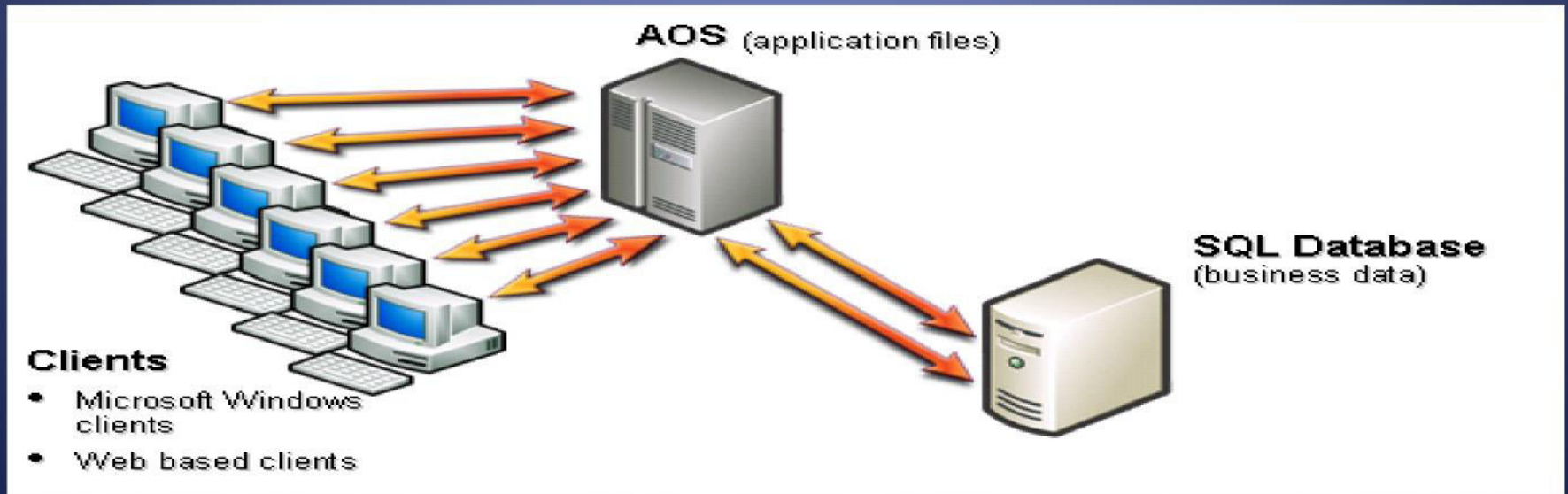
SAP S/4HANA



2.2 SAP - The Product

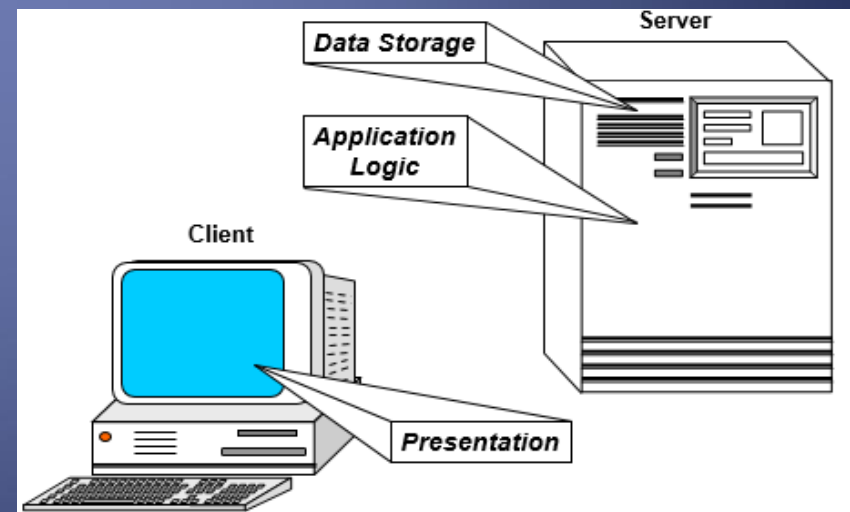
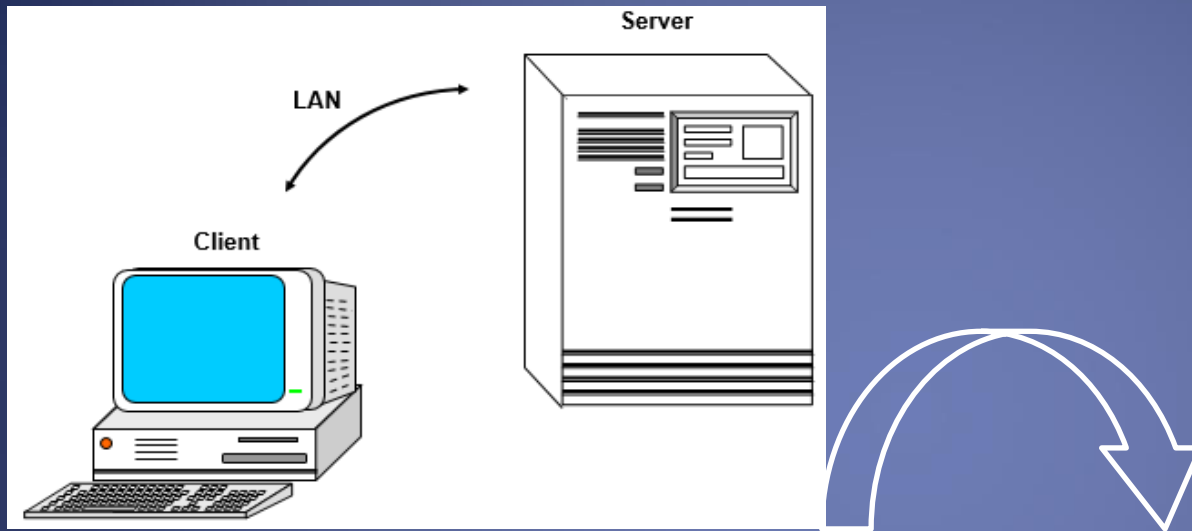
- R/3 and ERP

- Three tier architecture — Front end (GUI), Application Server, Database Server

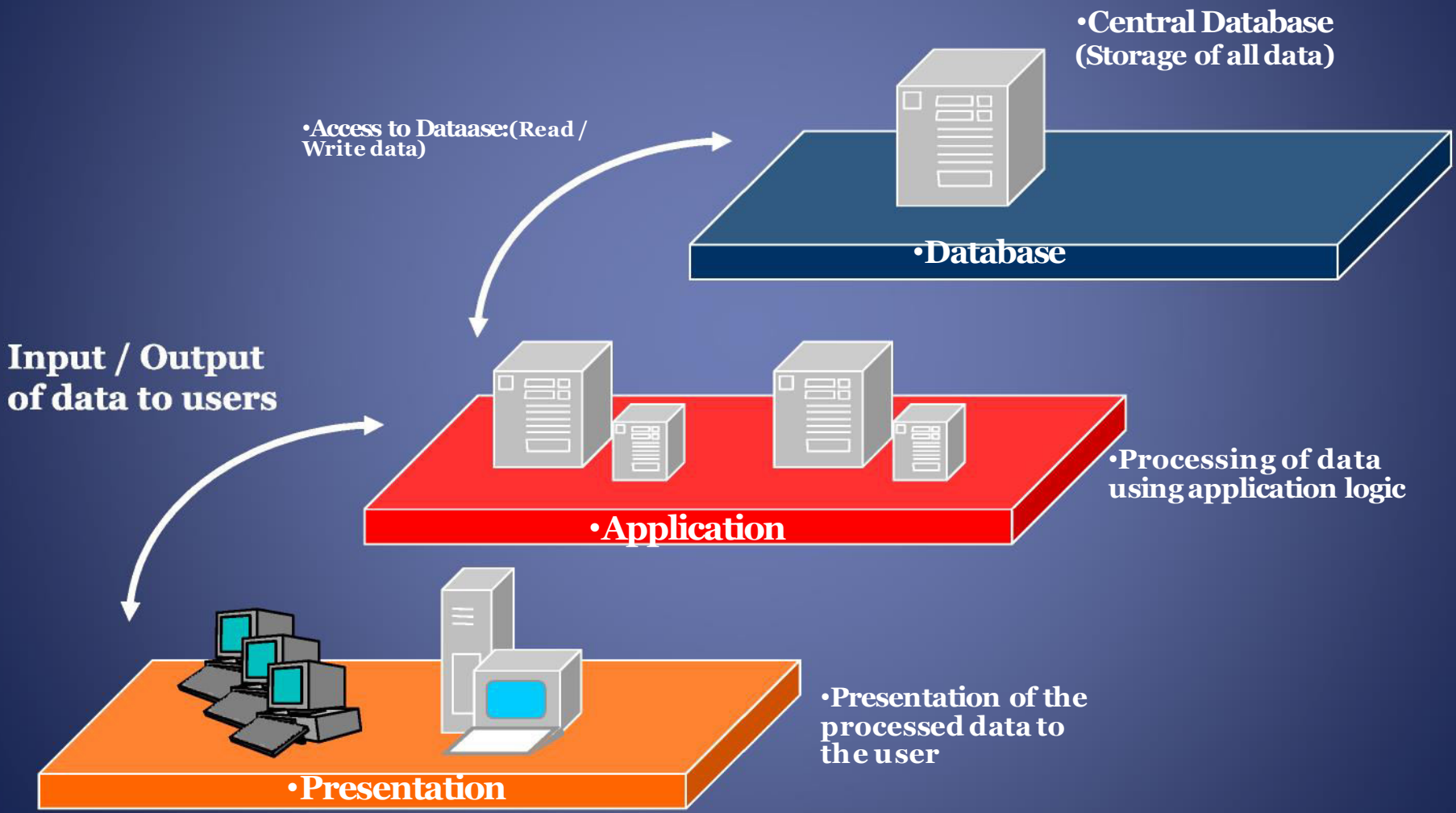


2.2 SAP – The Product [Contd.]

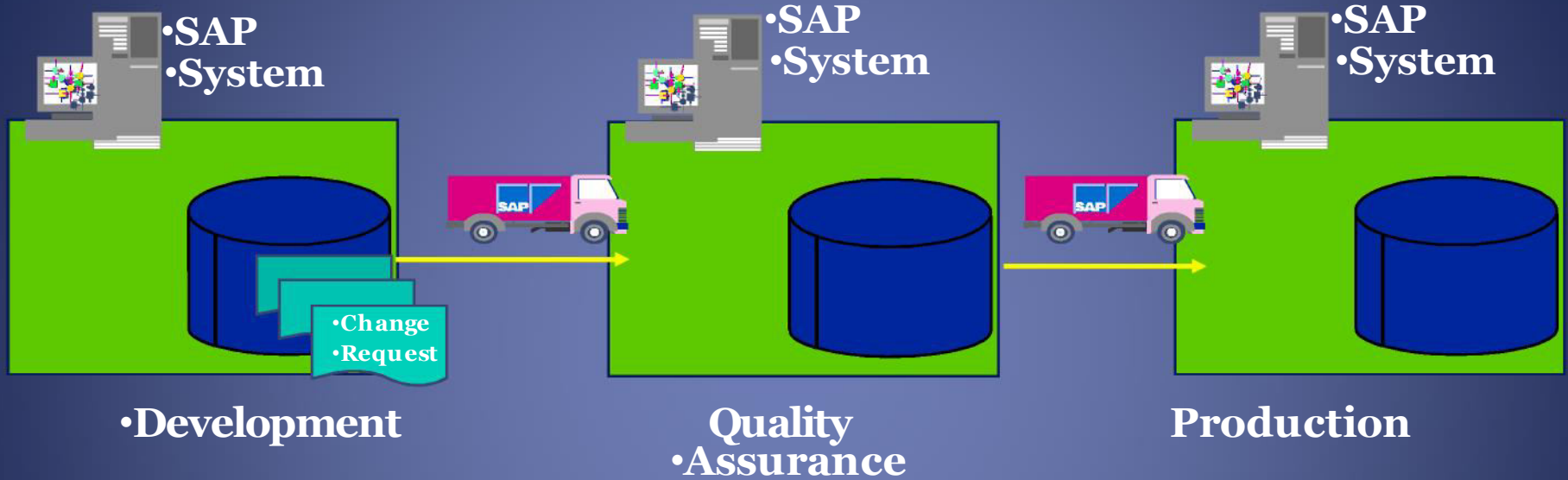
- Client – Server Architecture



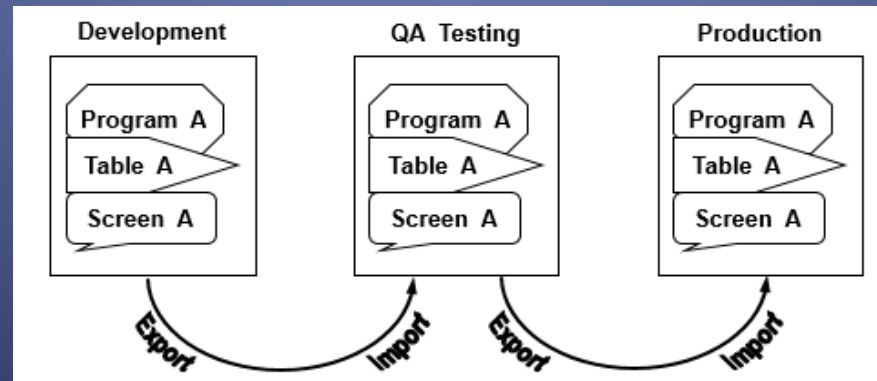
2.3 R/3 and ERP: Three-Tier Computer



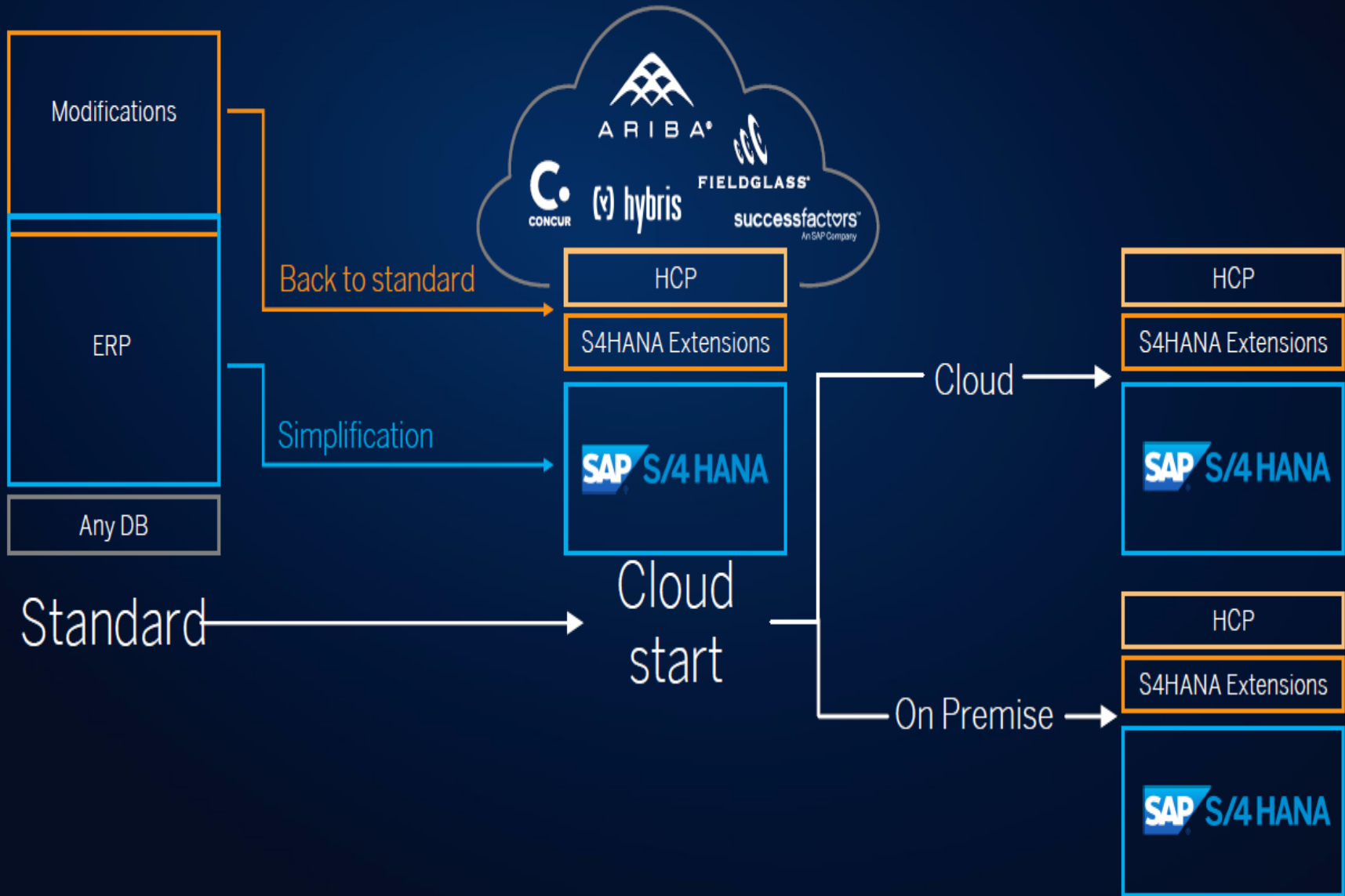
2.4 Transport System



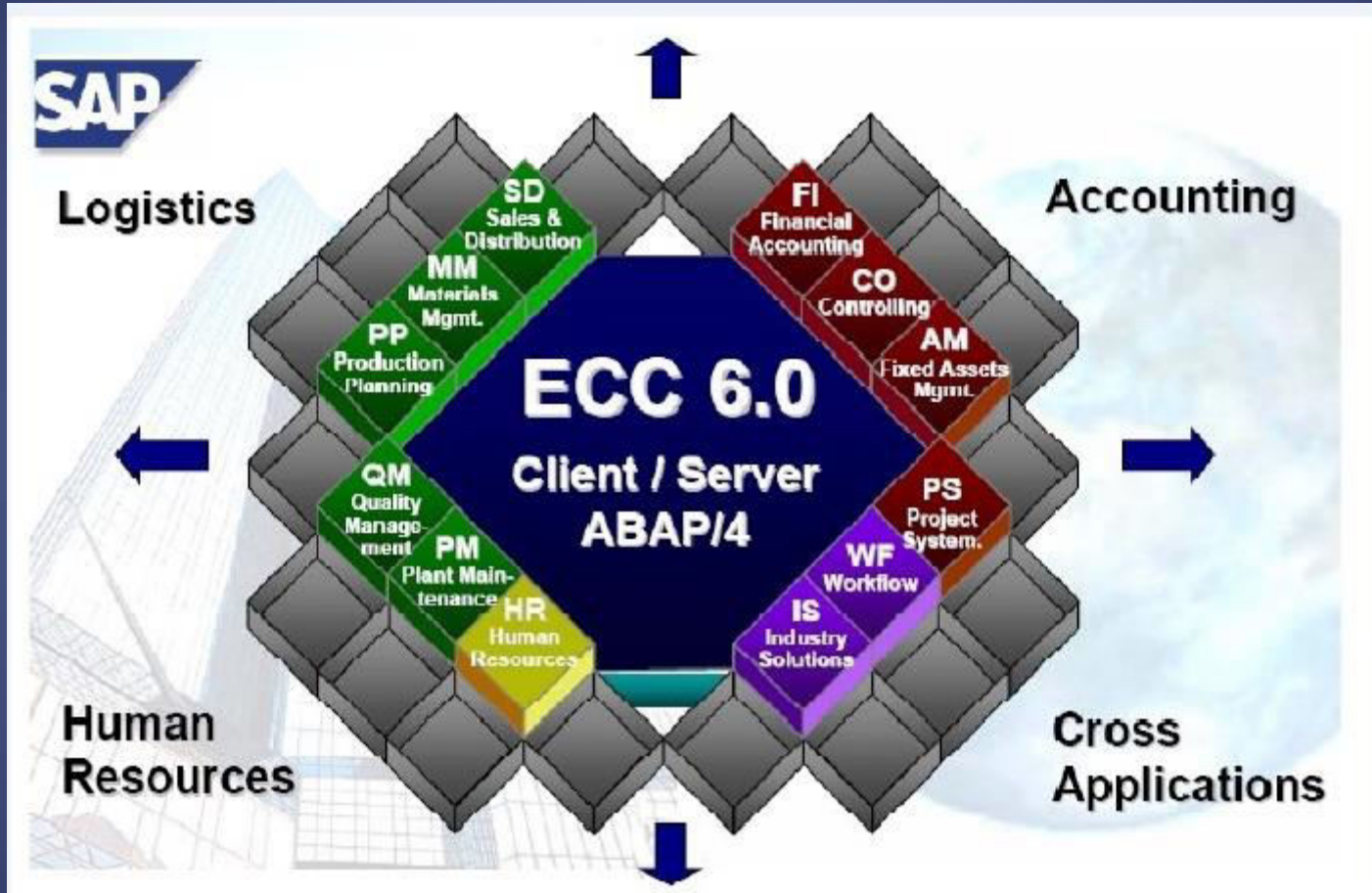
•Moving changes from one system to another



2.5 SAP S/4 HANA Journey



2.6 Modules in SAP



2.6 SAP Modules [... contd.]

➤ SAP-FI (FInancial Accounting)

- SAP FI - General Ledger (GL)
- SAP FI - Accounts Payable (AP)
- SAP FI - Account Receivable (AR)
- SAP FI - Bank Accounting

➤ SAP-CO (COntrolling)

- SAP CO - Cost Element Accounting
- SAP CO - Cost Center Accounting
- SAP CO - Activity-Based Costing
- SAP CO - Product Cost Controlling
- SAP CO - Material Ledger

➤ SAP-SD (Sales & Distribution)

- SAP SD - Master Data
- SAP SD - Sales
- SAP SD - Shipping
- SAP SD - Transportation
- SAP SD - Billing
- SAP SD - Electronic Data Interchange (EDI)

➤ SAP-MM (Material Management)

- SAP MM - Purchasing
- SAP MM - Inventory Management
- SAP MM - Warehouse Management
- SAP ML - Material Ledger

2.6 SAP Modules [... contd .]

➤ SAP-PP (Production Planning)

- SAP PP - Material Requirements Planning
- SAP PP - Capacity Requirement Planning
- SAP PP - Sales and Operations Planning
- SAP PP - Production orders
- SAP DS - Detailed Scheduling

➤ SAP-PS (Project System)

- SAP PS - Payments
- SAP PS - Confirmation
- SAP PS - Costs
- SAP PS - Resources
- SAP PS - Dates
- SAP PS - Documents

➤ SAP-HR (Human Resource)

- SAP PA - Employee Management
- SAP PA - Personnel Administration
- SAP PA - Benefits
- SAP PA - Payroll
- SAP PA - Time Management

➤ SAP-QM (Quality Management)

- SAP QM - Quality Planning
- SAP QM - Quality Inspection processing
- SAP QM - Quality control
- SAP QM - Test equipment management

2.6 SAP Product – features

- SAP Supports
 - Multiple Languages
 - Multiple Currencies
- Proprietary (High-level) Programming Language — ABAP (Advanced Business Application Programming)
- Can execute on any Operating System — UNIX, Windows etc.
- Can use any Database — Oracle, MS SQL, MS Access , SAP Hana
- Currently, no Support for versions other than SAP R/3 ECC (ERP Central Component) 6.0 and SAP HANA

2.7 SAP – Points to Ponder

- Highly integrated
- On-line, Real-time
- Complex Data Structures
- Causes business process changes
- Causes organizational changes
- Very sophisticated testing of functionality
- and standard reports
- In-Built Controls -
 - Debit Credit tally
 - Trail of all transactions entered

2.8 SAP Business one

- SAP Business one — for Small / Medium Enterprises
- Not much complex as well as Not expensive as compared to SAP R/3
- Menu driven and **NOT** T-code (Transaction Code) driven as SAP R/3
- Not much customization is possible
- No modules needs to buy entire package and Restrictions can be done on the basis of License purchased
- Generally unable to rely on automated controls

Questions?

SESSION 3

Accessing and Navigating SAP

3.1 Accessing SAP

- NEVER ACCESS LIVE ENVIRONMENT with INSERT/EDIT/DELETE RIGHTS
- Log-on only with "READ ONLY" Access

3.2 Logging On -SAP GUI

- To log on to an R/3 system with the SAP GUI, one need the proprietary SAP GUI (Graphical User Interface) software loaded on your system and an internet /network/VPN connection



- Account on
- SAP R/3 System
- at Data Centre or hosting site

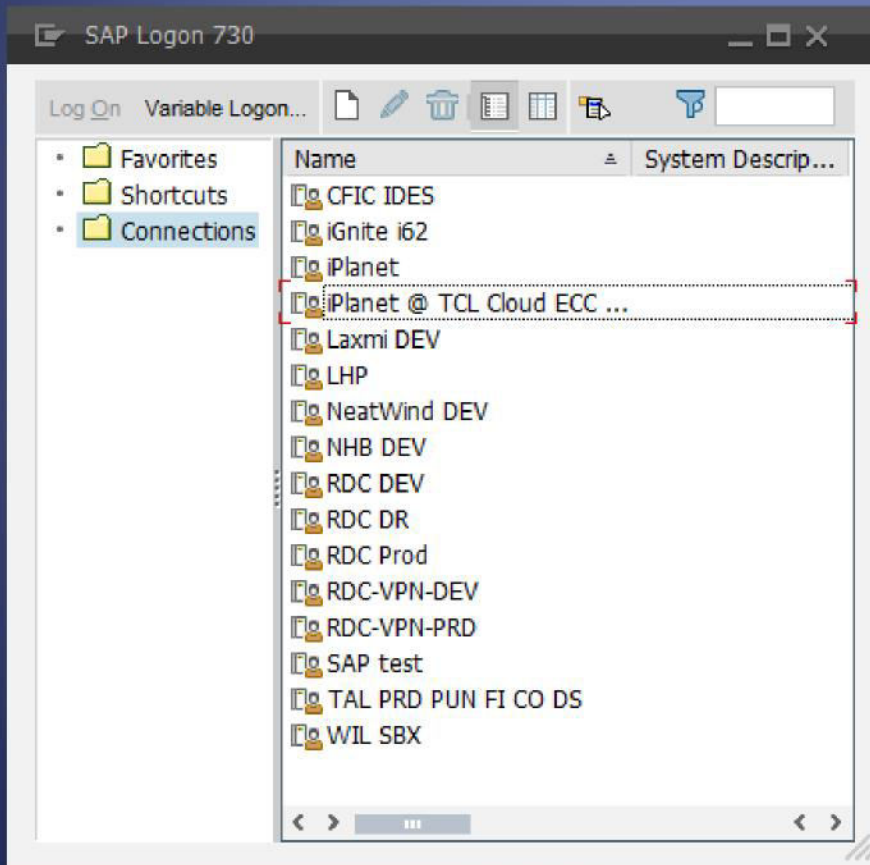
- Internet / Network, VPN
- Connection



- PC with SAP GUI

3.3 SAP GUI Configuration

- First, you need to tell the SAP GUI which system you want to log into:



3.4 System Definition

System Entry Properties

Connection Network Code Page

Choose the connection type and change the system parameters as required. Delete the old description if you want the system to propose a description. Button 'OK' is only active when all required input data has been entered.

Connection Type: Custom Application Server

System Connection Parameters

Description: iPlanet @ TCL Cloud ECC 007 EHP6

Application Server: [REDACTED]

Instance Number: 00

System ID: EH6

SAProuter String: [REDACTED]

OK Cancel Help

•Text description (free)

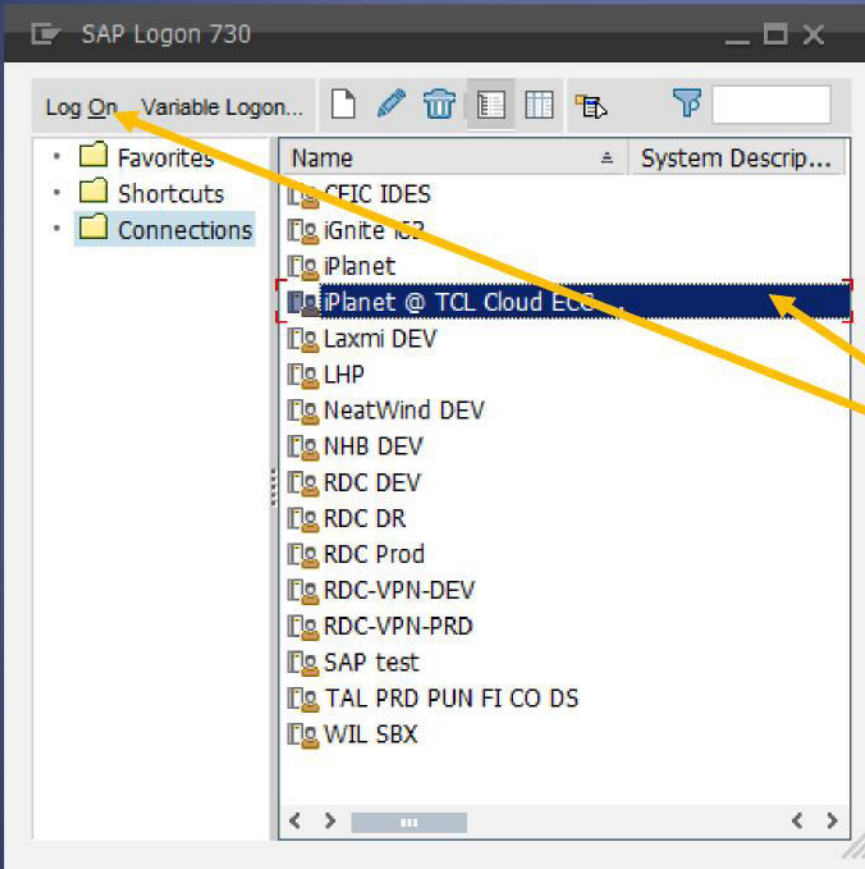
•Address of system (e.g. sapd.umssystem.edu)

•System Number

•System ID
•Logical name of system

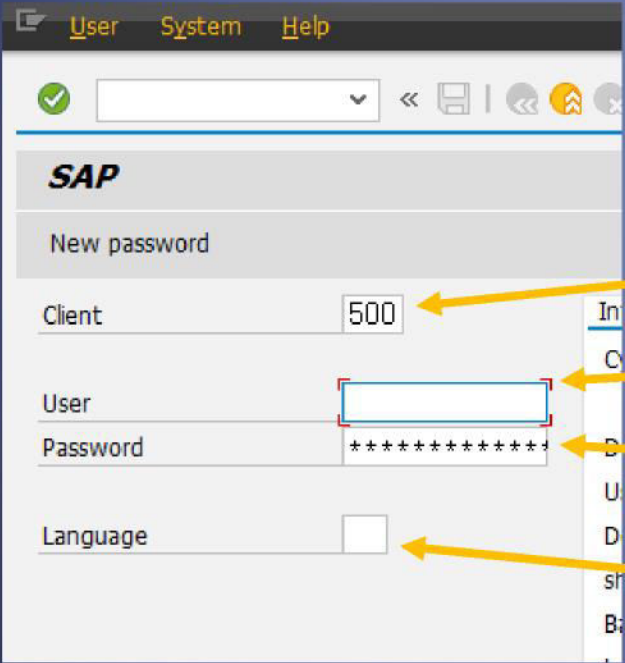
•SAP Router (usually not required)

3.5 Configured SAP GUI



- **Select System:**
- double-click or
- Logon button

3.6 Logging On



•Enter Client

•Enter User

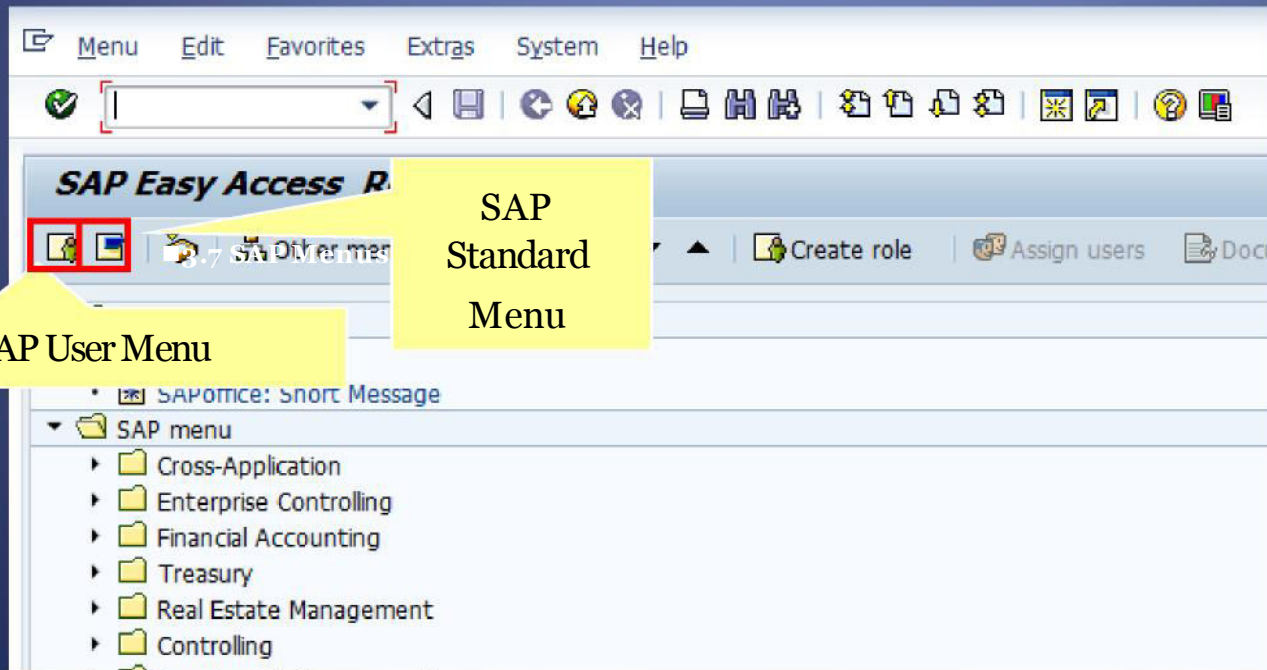
•Enter Password

•Don't worry about language—
•English will default in

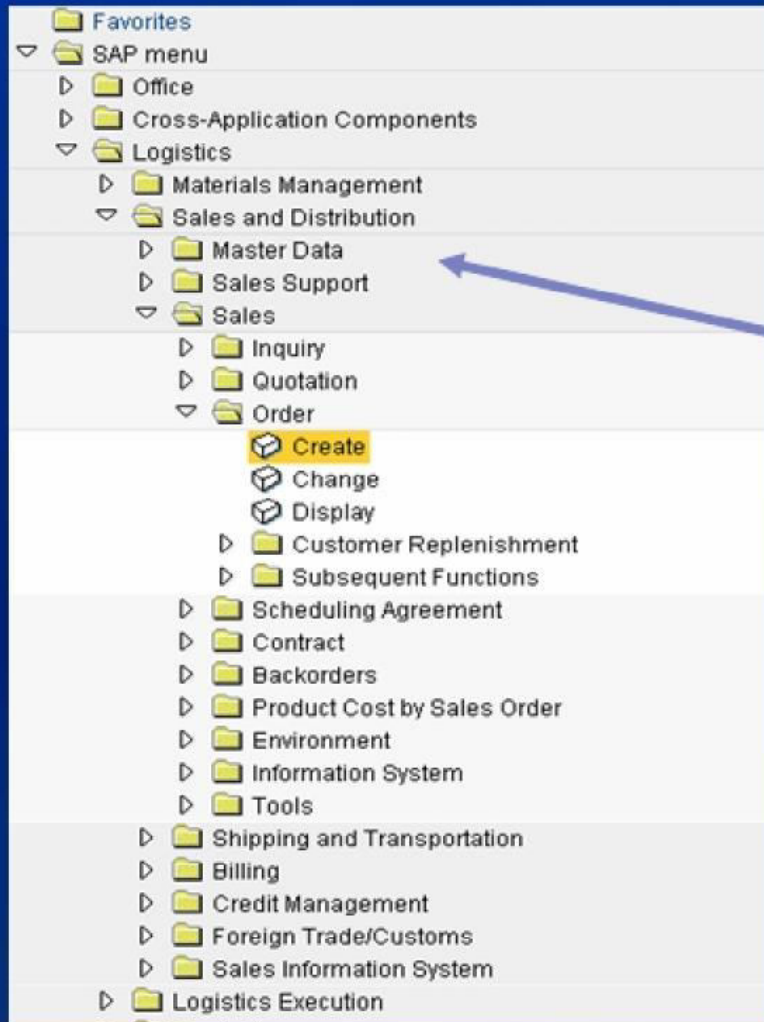
3.7 SAP Menus

The default screen is called the *SAP Easy Access* Screen.

- You can switch from one menu to the other by selecting the appropriate icon
- When you log on, you will see either your user menu (specific to your role), or the SAP standard menu (lists all transactions)



3.8 SAP Navigation: Using the System



• Two ways to choose a task:

• Clicking on the menu option

• Enter a transaction code in the command field

3.9 SAP Screen Components

The screenshot shows the SAP Easy Access interface with the following components labeled:

- SAPMenu**: Points to the menu bar at the top.
- Buttons**: Points to the toolbar below the menu bar.
- Favorites**: Points to the Favorites folder in the left-hand tree view.
- Message Bar**: Points to the bar at the bottom left of the main content area.
- Title Bar**: Points to the top window title bar.
- Standard Toolbar**: Points to the toolbar below the menu bar.
- Command Field**: Points to the search field in the toolbar.
- Navigation icons**: Points to the navigation icons in the toolbar.
- Application Toolbar**: Points to the toolbar below the main content area.
- Status Bar**: Points to the bottom status bar.

The main content area displays a tree view of SAP menus, including:

- Favorites
- Authorizations Assistant
- SAP menu
- Office
- Logistics
- Accounting
 - Financial Accounting
 - General Ledger
 - Document Entry
 - Enter G/L Account Document
 - Cash Journal Posting
 - Edit or Park G/L Document
 - Post with Clearing
 - Incoming Payments
 - Outgoing Payments
 - Value Foreign Currency
 - Reference Documents
 - Others
 - Document
 - Account
 - Master Records
 - Periodic Processing
 - Reporting
 - Information System
 - Environment
 - Accounts Receivable
 - Accounts Payable
 - Banks
 - Fixed Assets
 - Consolidation
 - Special Purpose Ledger
 - Funds Management
 - Travel Management

The right-hand pane shows a blue background with a circular ripple pattern.

•Caution:

- Depending on your GUI version,
- the screen may
- look different
- even if the SAP
- version is the
- same!

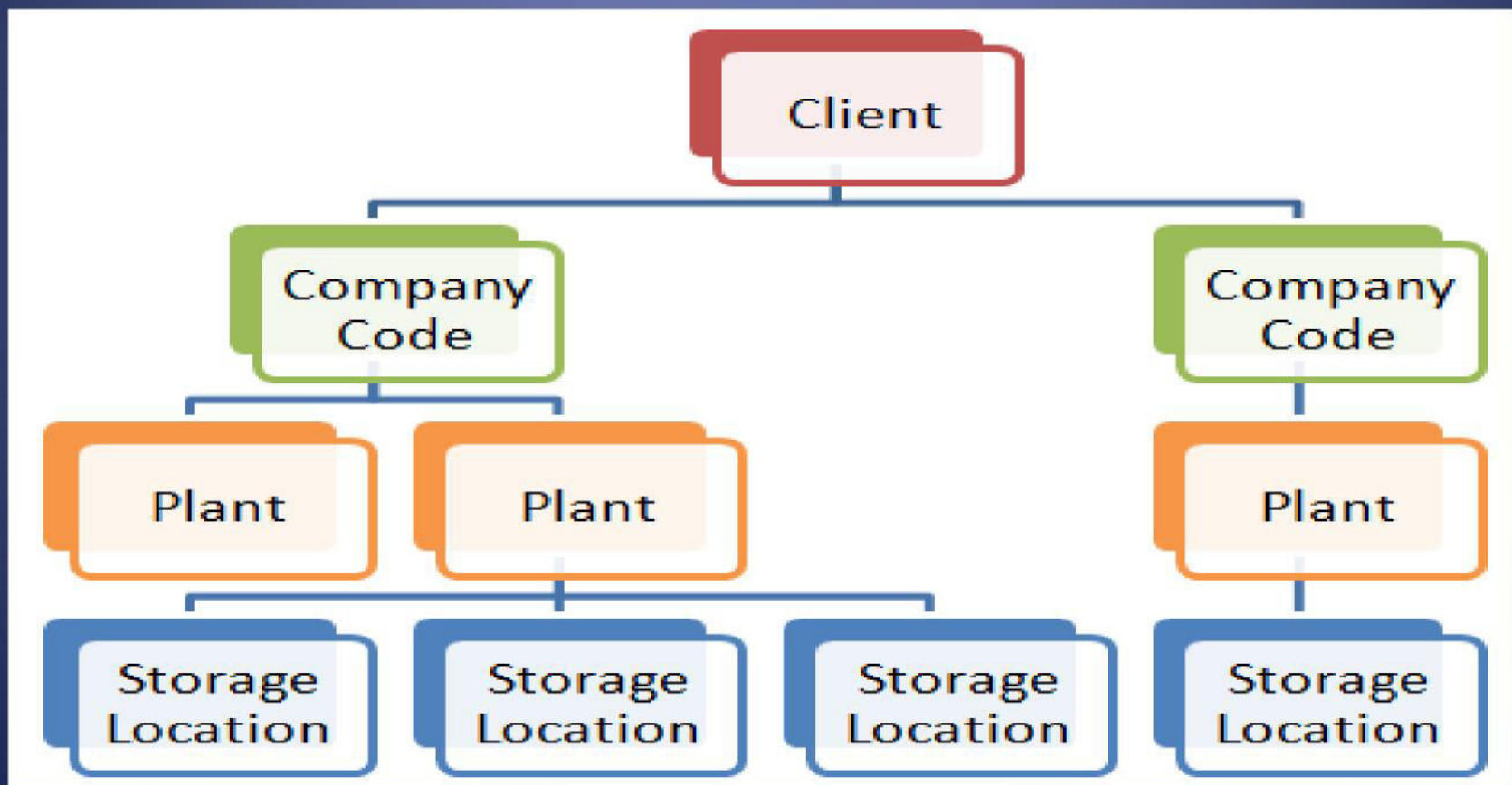
The status bar at the bottom right displays: 546 (2) (100) | SCSCP3 | INS | 14:00

Questions?

SESSION 4

SAP Organization

4.1 SAP R/3 Organization Structure



4.2 SAP Organization

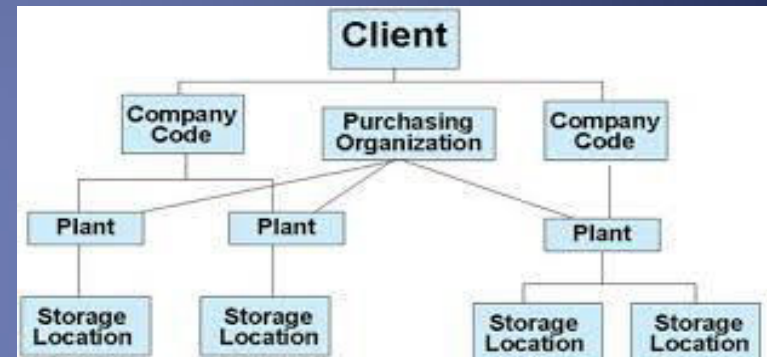
- Instance — One installation
- Client — At least one Client per Instance
- Company Code
 - At least one Company Code per Client
 - Generally a legal entity
 - Trial Balance can be drawn at this level
- Cross Instance settings are not possible
- Cross Client settings are possible
- Cross Client consolidations are possible
- Some data can be defined at Client level, will apply to all Company Codes of that Client

4.1 SAP OrganizationContd.

- Business Area — across Company Codes
- Plant — assigned to a single Company Code

- Purchasing Organization

- Sales Organization



- Very difficult to change SAP Organization after implementation
- Definition is extremely important for functionalities and security

4.2 SAP Organization Impact on Audit

- Appropriate scoping
- New GL for Multiple Reporting(s) — IFRS, Foreign Reporting, Statutory and Tax Reporting
- Consolidations

Questions?

SESSION 5

Review of IT General Controls (Other than BASIS)

5.0 IT General Controls

ITGCs may also be referred to as General Computer Controls which are defined as

"Controls, other than application controls which, relate to the environment within which computer-based application systems are developed, maintained and operated and which are therefore applicable to all applications"

5.0 IT General Controls

- ITGCs cover 5 domains -
 - IT Governance
 - Access to Programs and Data
 - Change Management
 - Program Development
 - Computer Operations
- The objectives of general controls are to ensure the proper development and implementation of applications, the integrity of program and data files and of computer operations.
- Like application controls, general controls may be either manual or programmed.

5.1 IT Governance

- Management controls over IT
- IT Organization structure, including definition of roles and responsibilities within IT
- Policies and Procedures, e.g.
 - IT Security Policies
 - Change Management
 - Infrastructure maintenance
 - HR Policies
- Regulatory compliance
- Audit issues management

5.2 Access to Programs and Data

- Provisioning and modification of end-user access (SAP, Operating Systems, Databases, Networks)
- Timely revocation of user access (resigned/absconded users)
- Privileged access to SAP, Operating Systems, Databases, Networks
- Physical Accesses (access to data center, computing facilities, environmental controls)
- Password parameters

5.2 IT Risks within Access to Programs and Data

- User access is provided without appropriate prior approvals
- User access for terminated employees is not removed in a timely manner
- User access is appropriately updated to reflect changes to individuals roles and responsibilities
- Access to the system is restricted through complex password parameters

5.2 Auditing in SAP

- Verify that access to critical system (application, operating system and database) functions is appropriately restricted on an as-needed basis
- Super-user profiles, i.e. SAP_ALL and SAP_NEW are not assigned to any user id
- Default SAP Accounts are locked and their default passwords are changed
- Privileged (super-user) user access at the application, OS, database and network level is approved
- Complex passwords are required at all levels

5.2 Auditing in SAP

- Logging is enabled at the system level and critical configuration tables are logged
- Remote access (VPN, Web, etc.) is appropriately restricted and monitored
- User accounts that support internal processes, interfaces, job schedules, etc. are defined as system accounts (user types 'B' or 'C') to prevent individuals from using those accounts

5.2 Auditing in SAP

Data Browser: Table USR02 Select Entries 500

 Check Table...

Table: USR02

Displayed Fields: 7 of 7

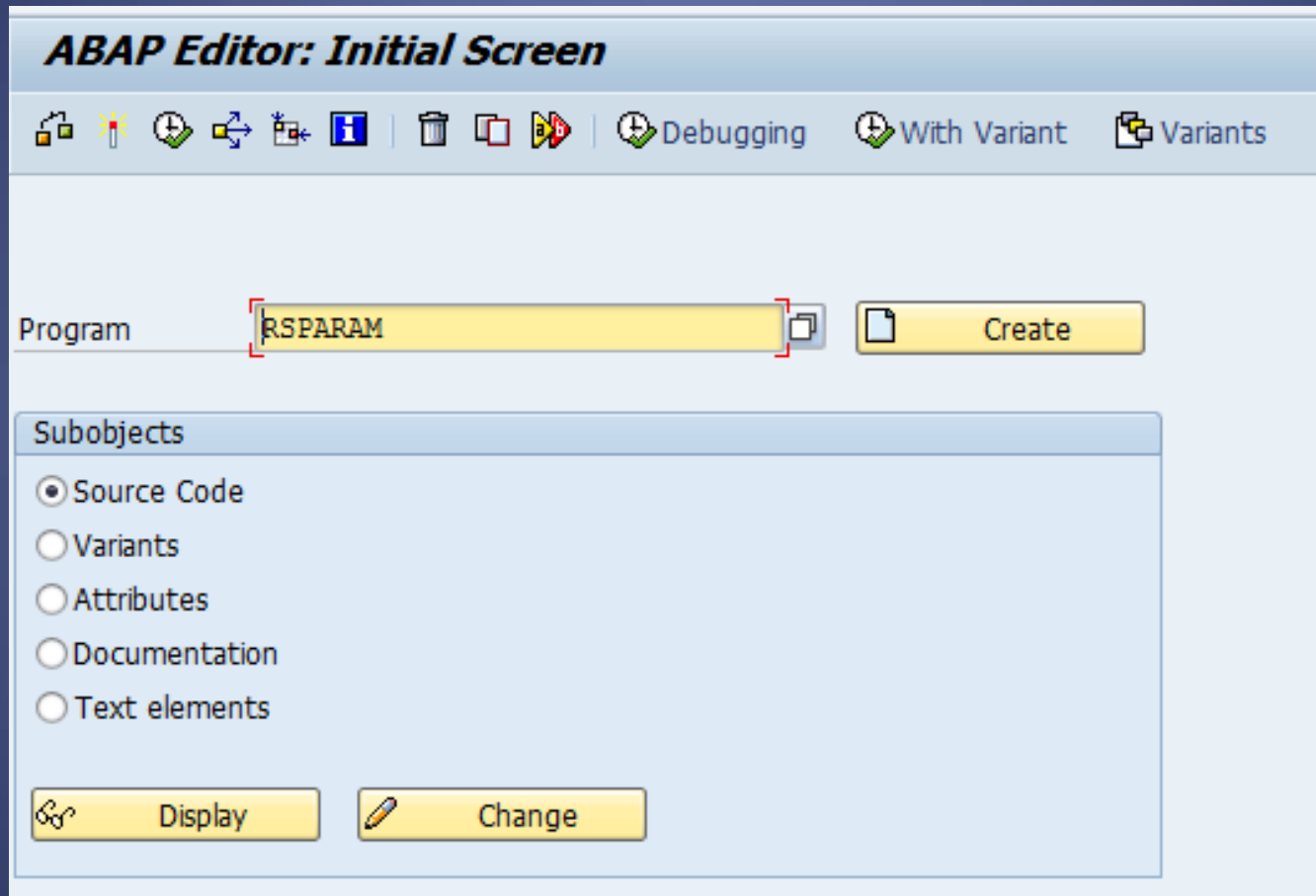
Fixed Columns:

[2]

List Width 0250

	User	Valid from	Valid through	User Type	User Lock	Created On	Last Logon Date
<input type="checkbox"/>	BITRAGNA	00.00.0000	00.00.0000	A	0	10.12.2013	00.00.0000
<input type="checkbox"/>	CAMPSTME	00.00.0000	00.00.0000	A	0	30.07.2013	00.00.0000
<input type="checkbox"/>	GARRISLA	00.00.0000	00.00.0000	A	32	23.09.2009	23.09.2009
<input type="checkbox"/>	02573A7B3F1	18.05.2006	31.12.9999	A	0	18.05.2006	18.05.2006
<input type="checkbox"/>	0434C129E41	31.03.2006	31.12.9999	A	0	31.03.2006	22.08.2006
<input type="checkbox"/>	04BFFB8C6607	01.01.1900	31.12.9999	S	0	11.03.2011	03.04.2014
<input type="checkbox"/>	04F9591D911	10.03.2008	31.12.9999	A	0	10.03.2008	10.03.2008
<input type="checkbox"/>	08741F8A221	30.06.2006	31.12.9999	A	0	30.06.2006	30.06.2006

5.2 Auditing in SAP



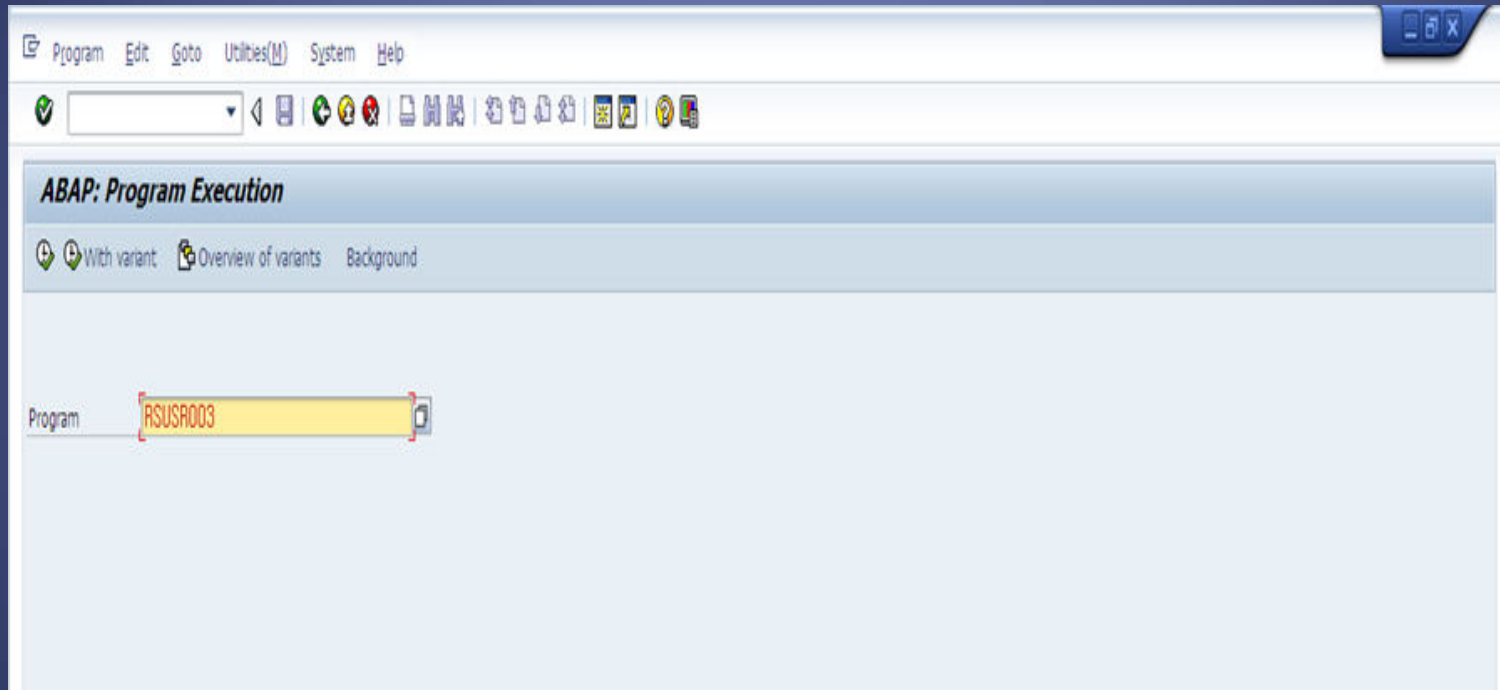
5.2 Auditing in SAP

Display Profile Parameter



Parameter Name	User-Defined Value	System Default Value	Parameter Name	Comment
login/min_password_digits		0		min. number of digits in passwords
login/min_password_lett...		0		min. number of letters in passwords
login/min_password_lng		6		Minimum Password Length
login/min_password_low...		0		minimum number of lower-case characters in passwords
login/min_password_spe...		0		min. number of special characters in passwords
login/min_password_upp...		0		minimum number of upper-case characters in passwords
login/multi_login_users				list of exceptional users: multiple logon allowed

5.2 Auditing in SAP



5.2 Auditing in SAP

Client	User	Lock	Password Status	Reason for User Lock
000	DOIC		Exists; Password not trivial.	
	SAP*		Does not exist. Logon not possible. See SAP Note 2383	
	SAPCPIC		Password ADMIN well known. See SAP Note 29276	
	TMSADM		Password PASSWORD is well known	
001	DOIC		Exists; Password not trivial.	Locked by administrator
	SAP*		Exists; Password not trivial.	
	SAPCPIC		Password ADMIN well known. See SAP Note 29276	
	TMSADM		Does not exist.	
066	DOIC		Does not exist.	
	EARLYWATCH		Password SUPPORT well known.	
	SAP*		Password 06071992 well known.	
	SAPCPIC		Does not exist.	
	TMSADM		Does not exist.	
301	DOIC		Exists; Password not trivial.	
	SAP*		Does not exist. Logon not possible. See SAP Note 2383	
	SAPCPIC		Does not exist.	
	TMSADM		Does not exist.	

5.3 Change Management

- Changes to application configurations, reports, programs
- Changes to Operating Systems, databases and network
- Segregation of environments (development, test and production)
- Developer Access to live data is restricted

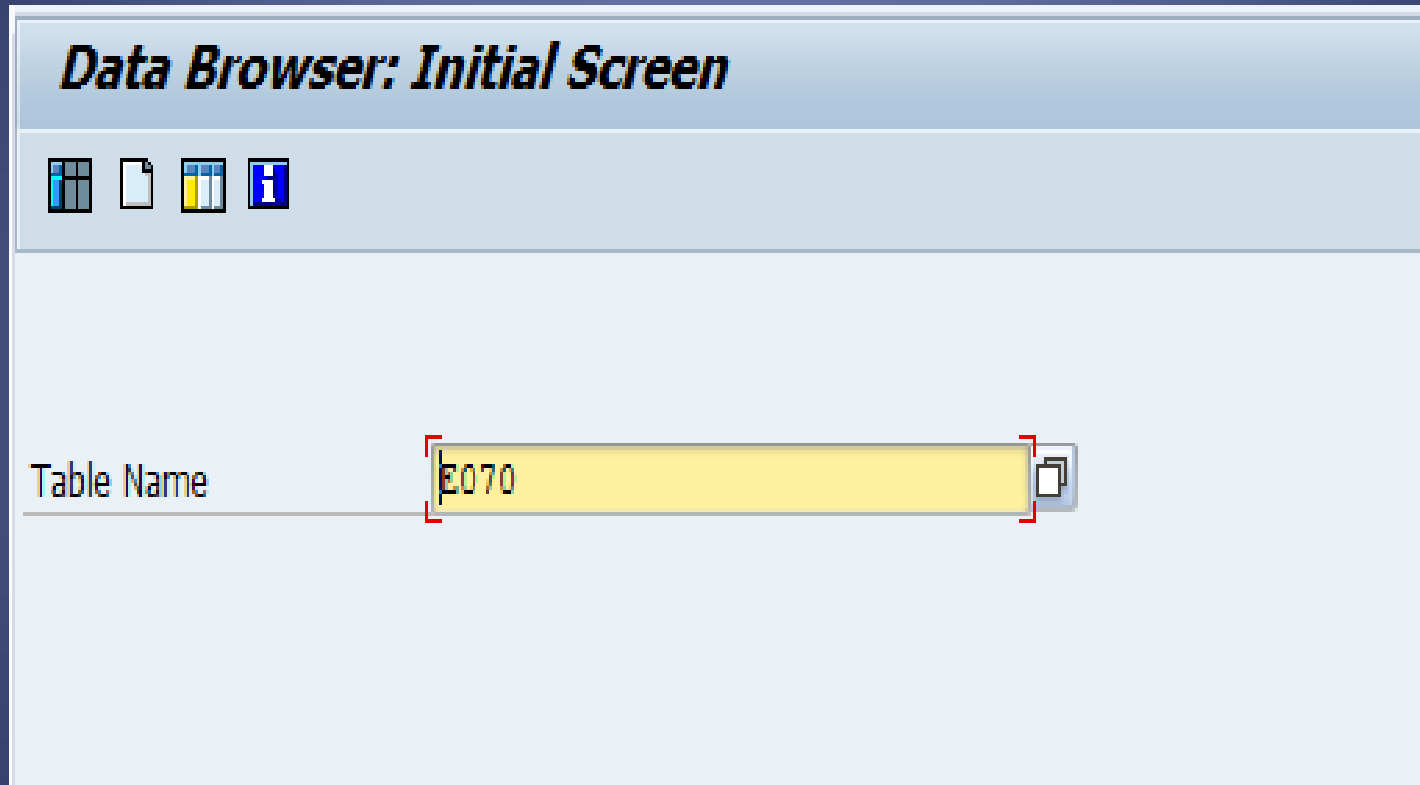
5.3 IT Risks within Change Management

- Unauthorized changes are made to the application, operating system, database or network
- Changes are not tested sufficiently prior to implementation in the production system

5.3 Auditing in SAP

- SAP environment is segregated into the 3-box system, i.e. development, testing/QA and production (live)
- Changes are adequately and independently tested and approved before being implemented in the production
- Developers should not have access to production either through developer keys or through transactions.
- Production is locked for direct changes and is opened based on specific approvals
- When direct changes are required in production, they are made only through transport requests
- Business impact analysis of changes implemented

5.3 Auditing in SAP



5.3 Auditing in SAP

Data Browser: Table E070 Select Entries 500

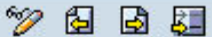
Check Table...

Table: E070
 Displayed Fields: 8 of 8 Fixed Columns: 1 List Width 0250

	Request/Task	Status	Transport Target	Category	Owner	Date	Time	Short Description
<input type="checkbox"/>	DE3K904146	R	CL5	SYST	CHANDRAS	05.05.2006	16:08:08	HR Topline
<input type="checkbox"/>	DE3K904139	R	CL5	SYST	SHAHA	05.05.2006	15:43:25	Changes to ZPYXXFO_ZSAP_PAYSLIP_US2 form
<input type="checkbox"/>	DE3K904116	R	CL5	SYST	PITTEN	05.05.2006	23:22:34	Fix MSS budget
<input type="checkbox"/>	DE3K904068	R	CL5	SYST	SOHN	11.05.2006	20:19:53	ERecruiting Succession for Beth Solomon
<input type="checkbox"/>	DE3K904049	R	CL5	CUST	C5073548	29.05.2006	21:26:51	Ticket 85133
<input type="checkbox"/>	DE3K904029	R	CL5	SYST	CHANDRAS	28.04.2006	19:14:51	HR Topline
<input type="checkbox"/>	DE3K903983	R	CL5	SYST	SOLOMON	27.04.2006	19:35:50	Workbench changes for e-recruiting-BES

5.3 Auditing in SAP

Display View "Clients": Details



Client	<input type="text" value="001"/>	IDES Sandbox	
City	<input type="text" value="MUNICH"/>	Last Changed By	<input type="text" value="CATT_USER"/>
Logical system	<input type="text" value="E6ICLNT801"/>	Date	<input type="text" value="16.04.2014"/>
Std currency	<input type="text" value="EUR"/>		
Client role	<input type="text" value="Demo"/>		


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

5.3 Auditing in SAP

Change Documents for Users





Standard Selection

User	<input type="text"/>	to	<input type="text"/>
Changes by	<input type="text"/>	to	<input type="text"/>
From Date	01.04.2015		<input type="button" value="Week"/>
From Time	00:00:00		
To Date	30.06.2015 		
To Time	23:59:59		

Output

- List of the Change History
- Table of Status History (User Attributes Horizontal)
- List of Status History (User Attributes Vertical)
- Technical View

Selection Criteria for Changed Authorizations

- Added Profiles
Profile Name: to
- Deleted Profiles
Profile Name: to
- Created Users
- Deleted Users

5.3 Auditing in SAP

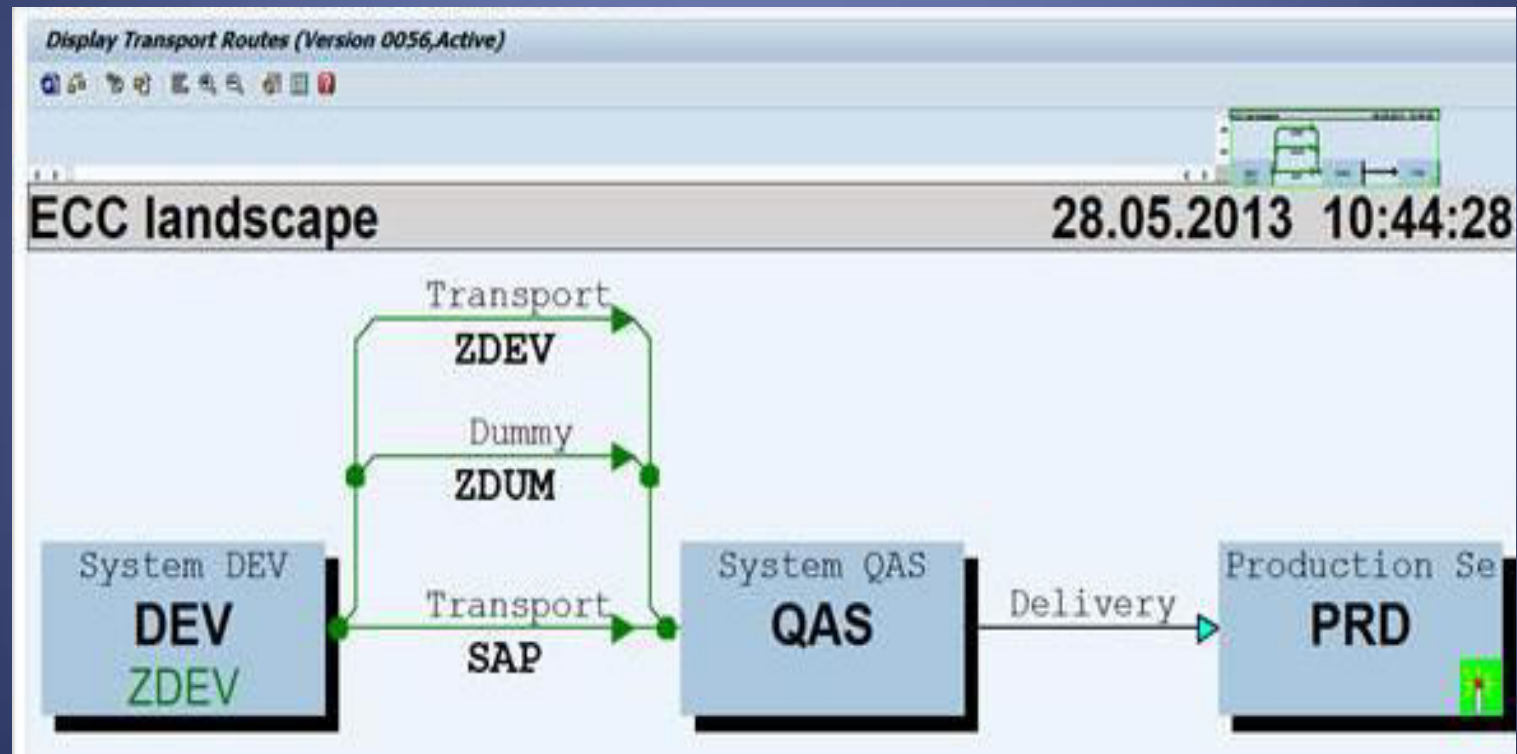
Change Documents for Users



Number of Selected Change Documents: 1.617

User Na...	Date	Time	Changed by	Action	Old Value	Text for Value	New Value	Text for the New Value
ABRAHAGE	31.05.2015	23:34:49	MOLLETKI	Lock Changed	128	Incorrect Log...	0	Not locked
		23:35:06	MOLLETKI	Password Changed	Long Passw...		Long Password 2	
			MOLLETKI	Password status changed	Productive		Initial	
ABRAMEYA	12.04.2015	11:35:22	ABRAMEYA	Password Changed	Long Passw...		Long Password 2	
			ABRAMEYA	Password status changed	Initial		Productive	
AMANGU	10.04.2015	07:06:10	AMANGU	Password Changed	Long Passw...		Long Password 2	
			AMANGU	Password status changed	Initial		Productive	
AMULYARA	09.04.2015	18:52:51	MOLLETKI	User created				
			MOLLETKI	Initial User Type			A	Dialog User
			MOLLETKI	Password Changed			Long Password 1	
			MOLLETKI	Password status changed			Initial	
			MOLLETKI	Profile Added			T-EI0100293	Profile for role Z:R3_PROJECT_...
			MOLLETKI	Profile Added			T-EI0100292	Profile for role Z:R3_PROJECT_...
			MOLLETKI	Profile Added			T-EI0100291	Profile for role Z:R3_PROJECT_...
			MOLLETKI	Profile Added			T-EI010029	Profile for role Z:R3_PROJECT_...

5.3 Auditing in SAP



5.4 Computer Operations

- Batch Processing and scheduling
- Interface testing
- Backup
- Disaster Recovery and BCP
- Network security

5.4 IT Risks within Computer Operations

- Failed batch jobs are not monitored and rescheduled
- Interfaces are not monitored
- System back-ups are not taken on a regular basis
- Back-ups are not tested for successful restoration
- Back-ups are not stored at an offsite location
- External access to the system is not appropriately restricted
- Data center is not designed to prevent damage due to heating, accidental fires, etc.

5.4 Auditing in SAP

- Access to batch scheduling and monitoring tools is restricted to the IT operations team
- Access to back-up tools is restricted to the IT operations team
- Failed batch jobs, interfaces and back-ups are tracked through a ticketing system and are resolved
- Back-ups are stored at an offsite location and are periodically tested for successful restoration
- External access to the system is appropriately restricted through firewalls, etc. and periodically tested

Questions?

SESSION 6

Review of SAP BASIS

6.0 SAP BASIS review

ITGC Domain – Computer Operations

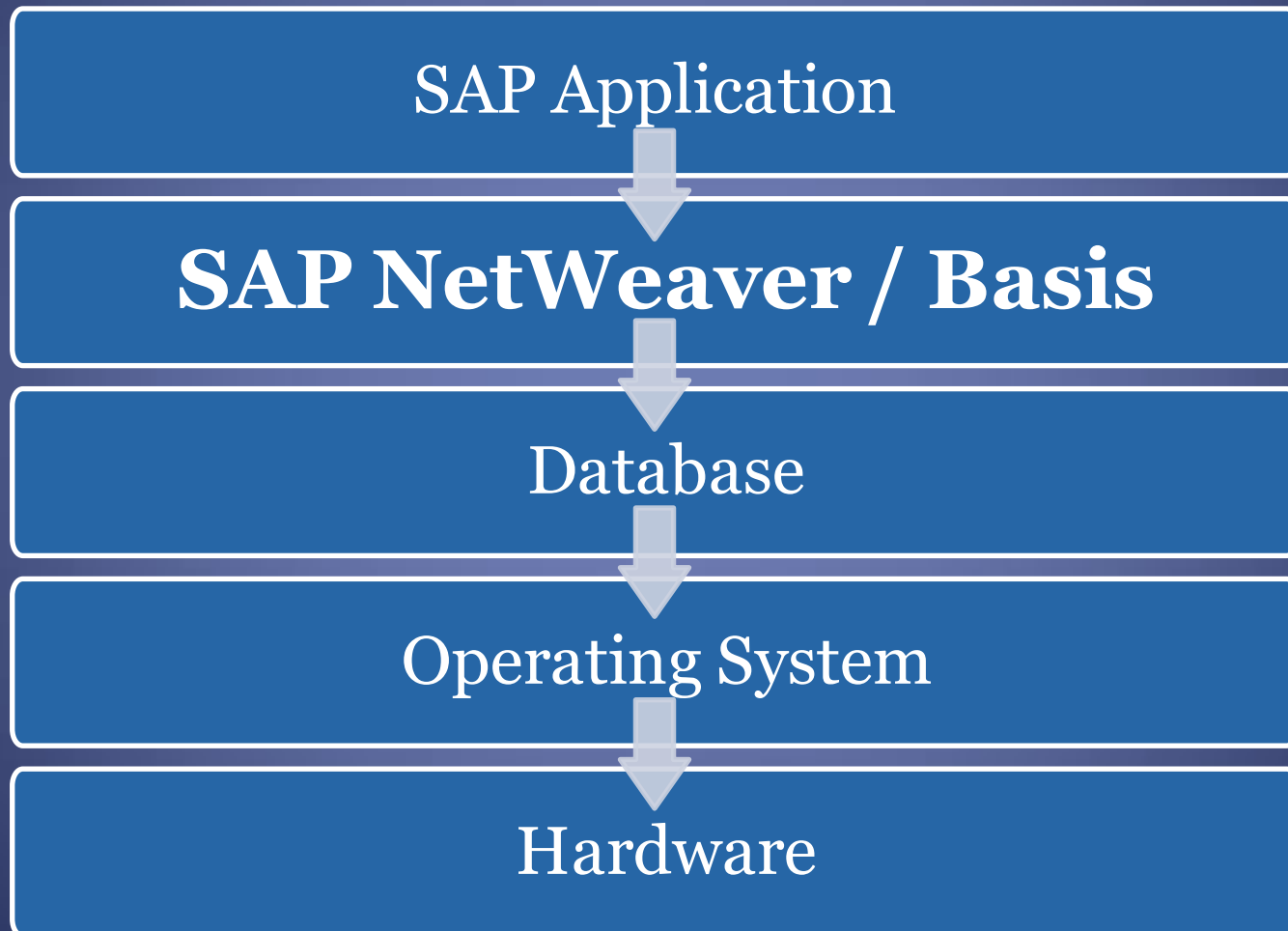
- Access to maintain (create new or change/delete existing) job schedules is appropriately restricted
- Access to executed critical job schedules is appropriately restricted
- Critical batch jobs, especially those that have a financial impact, are identified and are monitored
- Failed batches are monitored and resolved

The above procedures apply like-wise to any interfaces that have been set-up with external applications

6.0 SAP NetWeaver / Basis

- What is SAP NetWeaver / Basis
- Role of SAP Basis team member
- IT Risks within SAP Basis
- SAP Basis review

6.1 What is SAP NetWeaver / Basis?



6.1 What is SAP NetWeaver / Basis?

- NetWeaver is a toolkit used to enhance business functionalities delivered by SAP components.
- Often interchangeably referred to as **SAP Basis** (reference to the original toolkit that was the foundation of SAP R/3).
- Act as a filter between the actual business logic in SAP R/3 and the specifics of the operating system and database underneath.
- SAP business programmers could focus on writing business logic and not have to worry whether or not it would work on the various permutations of hardware, operating system and/or database.

6.2 Role of SAP Basis team member

- Activities that an SAP NetWeaver System Administrator does day-to-day, include:
 - create users/assign roles (within SAP)
 - run backup
 - check db/os space utilization, add space if necessary
 - install SAP software, configure SAP parameters
 - monitor CPU/Memory/disk space/performance
 - configure connectivity between SAP components or SAP/non-SAP components
 - SAP software change management (i.e. Transport Management).

6.3 IT Risks within SAP Basis

- Critical system administration access is not appropriately restricted, e.g.
 - super-user access across the application
 - creating/modifying user access and roles
 - direct access to data through table maintenance
 - opening production (live) system for making direct changes
 - applying tested and approved changes to the production system
 - access execute programs directly in production system
 - access to execute operating system and database commands
 - access to application activity logs
 - access to manage interfaces with other applications
 - access to modify system parameters (passwords, logging, etc.)

6.3 IT Risks within SAP Basis

- Conflicting accesses not appropriately segregated, e.g.
 - access develop/code a change AND implement it in the production system
 - developers have access to production environment
- Activities performed by Basis team members are not logged and reviewed periodically, e.g.
 - review of security audit logs for critical activities
 - where change transports are owned and implemented by Basis team, they are adequately and independently tested prior to implementation

Questions?

SESSION 7

Validation of Automated Controls

7. Business Processes

- Period End Financial Reporting
- Order to Cash
- Procure to Pay
- Manufacture to Inventory
- Acquire to Retire

7.1 Period End Financial Reporting

Key sub-processes

- Organization Structure :
Client \longrightarrow Chart of Accounts \longrightarrow Company Code
- GL accounting master data :
 - At Chart of Accounts level
 - At Company code level
- Period Maintenance :
 - FI/MM Periods
 - 12+4 periods
 - Account type wise
- Foreign Exchange
 - Exchange Rates
 - Translation accounting
 - Revaluation accounting
- New GL functionality
 - Parallel ledgers,
 - Real-time document splitting

Key T-Codes

FS00 – GL Masters
OB52 – Period Maintenance
OB08 – Exchange Rates
FB01 – Journals processing

7.1 Period End Financial Reporting

Key Automations

- GL marked for deletion and not blocked for posting
- Auto-posting enabled for key GL Accounts
- Document change rules not active for key fields
- Park and Post workflow for Journals
- Automated GL determination for Translation and Revaluation Gain/Loss
- Automated entries classification possible in SAP
- Inherent controls
 - Sub-ledger to GL reconciliation automated for Recon Accounts
 - No change possible to accounting relating fields once a document is posted
 - Debits = Credits
 - Some fields are inherently required in a Journal Entry
- Access to maintain periods is restricted
- Access to process / post Journals is restricted
- SOD between Maintain period and process Journals
- SOD between park and post journals in SAP

- Reconciliation Account Type

G/L Account test

Company Code Subsidiary Germany

Type/Description Control Data Create/bank/interest Key word/translation In...

Account control in company code

Account currency Euro (EMU currency as of 01/01/1999)

Only balances in local crcy

Exchange rate difference key

Valuation group

Tax category

Posting without tax allowed

Recon. account for acct type

- Auto Post Indicator

G/L Account test

Company Code Subsidiary Germany

Type/Description Control Data Create/bank/interest Key word/translation In...

Control of document creation in company code

Field status group General (with text, allocation)

Post automatically only

Supplement auto. postings

- Document Change Rule

Field name	BSEG-ZLSPR	Payment Block
Rule is valid for ...		
Account Type	K	Vendor line items
Transact.type		Payments, invoices, credit memos, ...
Company Code		In all company codes
Possibility of changing the field		
<input checked="" type="checkbox"/> Field Can Be Changed		
Stipulations for changing		
<input type="checkbox"/> Posting period not closed		
<input checked="" type="checkbox"/> Line item not cleared		
<input type="checkbox"/> Customer Debit or Vendor Credit		
<input type="checkbox"/> No invoice-related credit memo		
<input type="checkbox"/> No credit memo from down payment		

Foreign Exchange Accounting

Chart of Accounts	CAUS	Chart of accounts - United States
G/L Account	141010	
Currency		
Currency type		
Exchange rate difference realized		
Loss	230000	
Gain	280000	
Valuation		
Val.loss 1	230000	
Val.gain 1	280000	
Bal.sheet adj.1	140099	

- Posting Block

G/L account:	11390	Work In Process - Roller Blades
Company code	1000	FI Boots - R - Us
Block		
Block in chart of accounts		
<input type="checkbox"/> Blocked for creation		
<input type="checkbox"/> Blocked for posting		
<input type="checkbox"/> Blocked for planning		
Block in company code		
<input checked="" type="checkbox"/> Blocked for posting		

G/L account	11390	Work In Process - Roller Blades
Company code	1000	FI Boots - R - Us
Deletion flag		
Deletion flag chart of accounts		
<input type="checkbox"/> Mark for deletion		
Deletion flag in company code		
<input checked="" type="checkbox"/> Mark for deletion		

This master record is blocked ONLY in this Company Code

This master record is marked for deletion ONLY in this Company Code

7.2 Order to cash

Key sub-processes

- Organization Structure :

Client → Company Code → Sales Area → Plant

- Master data :

- Customer Master Data at Client, Co Code and Sales Area level
- Pricing master data at Sales Area level
- Credit Limits

- Sales Orders processing
- Delivery and Post Goods Issue processing
- Sales Invoice processing
- Credit Block and release
- Release of Sales Invoice for accounting
- Receipt of Money
- Ageing of Receivables Review

Key T-Codes

XDo1 – Customer Masters
VK11 – Price Masters
VA01 – Sales Order
VLo1 – Delivery
VF01 – Sales Invoice

7.2 Order to cash

Key Automations

- All Customer Masters are assigned Recon GL Accounts
- Pricing procedures appropriately configured
- Prices not changeable in Sales Orders and defaults from Price Masters
- Delivery requires a preceding Sales Order
- Deliveries cannot be processed in excess of Sales Order quantity
- Sales Invoice cannot be processed in excess of Deliveries
- Appropriate Revenue Recognition
- Prices in Sales Invoice not changeable and defaults from Price master/sales order
- Automated GL determination for Deliveries and Sales invoices
- Automated Rebate processing
- Access to maintain Price Masters is restricted
- Access to release blocked invoice is restricted
- SOD between Sales Order and Delivery and Invoicing
- SOD between Price Masters and Sales orders processing

- Sales Account Determination

Cust.Grp/MaterialGrp/AcctKey								
App	CndTy.	ChAc	SOrg.	AAG	AAG	ActKy	G/L Account	
V	KOFI	MFG	1010	DO	AS	ERL	6410003	
V	KOFI	MFG	1010	DO	R3	ERL	6000055	

- Ageing of Debtors – settings for “Payment Terms from Invoice”

Specifications for Posting Residual Items from Payment Differences	
<input checked="" type="checkbox"/> Payment Term from Invoice	Fixed payment term

- Price Masters changeability

Condit. type	PR00	Price
Changes which can be made		
Manual entries	<input type="checkbox"/>	Manual entry has priority

- Sales order – Delivery – Invoice linking

Target Bill. Type	F1	From Delivery Type	LF
	Invoice (F1)		Delivery
		Item Category	TAN
			Standard Item

Copying requirements	004	Deliv-related item
Data VBRK/VBRP	001	Inv. Split (sample)

Billing quantity	F
Pos./neg. quantity	+
Pricing type	C
PricingExchRate type	
<input type="checkbox"/> Cumulate cost	
Price source	

Delivery quantity minus Invoice Quantity

Quantity is calculated positively

Copy price elements unchanged and redetermine taxes

Order

7.3 Procure to Pay

Key sub-processes

- Organization Structure :

Client → Company Code → Purchase Org → Plant

- Master data :

- Vendor Master Data at Client, Co Code and Purchase Org level
- Purchase Info records for Vendor and Materials
- Material masters

- Purchase Orders processing
- Purchase Order Release
- Goods Receipts processing
- Vendor Invoice processing
- Three way match
- Release of Blocked Vendor Invoices for payments
- Payments

Key T-Codes

XK01 – Vendor Masters
MM01 – Material Masters
ME21N – Purchase Order
MIGO – Goods Receipt
MIRO – Vendor Invoice
F110 - Payments

7.3 Procure to Pay

Key Automations

- All Vendor Masters are assigned Recon GL Accounts
- 3 way match indicators are appropriately set in Purchase Orders
- All Purchase Orders subject to release in SAP
- Goods Receipt cannot be processed in excess of Purchase Order quantity
- Vendor Invoice cannot be processed in excess of Goods receipt
- Prices in Vendor Invoice not changeable and defaults from Purchase Order
- Tabs in invoice for differential amount posting should be inactive
- Vendor not changeable in invoice
- Automated GL determination for Goods Receipts and Vendor invoices
- Duplicate Invoice check
- Automated payments accounting
- Payments to Alternate Payees
- Access to release Purchase Orders is restricted
- Access to release blocked invoices is restricted
- SOD between PO create and PO release
- SOD between Vendor Masters and Payments processing

- Purchase Order Approval

Release group	PP	
Release Strategy	S1	OP release strategy
Release indicator	1	Released

Code	Description	Stat..
10	Release code 1	✓
20	Release code 2	✓

- 3 way match indicators in PO

Material Data	Quantities/Weights	Delivery Schedule	Delivery	Invoice	Conditions	Account Assignm
Overdeliv. Tol.	0.0 %	<input type="checkbox"/> Unlimited	1st Rem./Exped.	0	<input checked="" type="checkbox"/> Goods Receipt	
Underdel. Tol.	0.0 %	<input type="checkbox"/> Origin Accept.	2nd Rem./Exped.	0	<input type="checkbox"/> GR Non-Valuated	
Shipping Instr.			3rd Rem./Exped.	0	<input checked="" type="checkbox"/> Deliv. Compl.	

- Invoice tolerances for 3 way match

Tolerance key	DQ	Exceed amount: quantity variance
Company Code	1000	Subsidiary Germany
Amounts in	EUR	Euro (EMU currency as of 01/01/1999)

Upper Limit	
<input type="radio"/> Absolute <input checked="" type="radio"/> Do not check <input checked="" type="radio"/> Check limit Val. 3.00	<input type="radio"/> Percentage <input checked="" type="radio"/> Do not check <input checked="" type="radio"/> Check limit Tolerance limit % 4.00

- Duplicate invoice Check

Vendor 1000 C.E.B. BERLIN Berlin
 Company Code CPFO Good Food

Payment data

Payt. Terms Tolerance group
 Cr memo terms Chk double inv.
 Chk cashing time 0

Area F5

Message Control by User

Msg...	Message Text	User Name	Online	BatchI
117	Check whether document has already been entered un		E	E

- Account determination

Organization

Plant 1000 > Company Code 1000 -> Chart of Accounts INT
 -> Valuation Area 1000 -> Valuation Grpg Code 0001

Valuation

Material R-B304 -> Valuation Class 7900
 Material Type HALB -> Value Update

Movement

Movement Type 101 GR goods receipt

Posting Lines

Posting Lines Text	VIGCd	AGC	VC1	PK	Acct Deb.	PK	Acct Cr.
Gain/loss from revaluation	-e-	-e-	7900	83	232500	93	232500
Inventory posting	-e-	-e-	7900	89	790000	99	790000
Incidental costs of external a	-e-	-e-	-e-	86	415000	96	415000
External activity	-e-	-e-	7900	86	417002	96	417002
Change in stock account	-e-	-e-	7900	81	893010	91	893010
Purchase offsetting account	0001	-e-	7900	40	--Missing-	50	--Missing-
Purchase account	0001	-e-	7900	40	--Missing-	50	--Missing-
Materials management exch.rate	-e-	-e-	-e-	40	230000	50	280000
Cost (price) differences	-e-		7900	83	231500	93	281500
GR/IR clearing account	-e-	-e-	-e-	40	191100	50	191100
Inventory posting	-e-	-e-	7900	89	790000		

7.4 Manufacture to Inventory

Key sub-processes

- Organization Structure :
Client → Company Code → Plant → Storage Location
- Master data :
 - Material Master Data – Basic, Accounting, Costing, Plant, Sales Views
 - Bill of Material
 - Routing
- Consumption processing
- Production order processing
- Other goods movements
- Inventory valuation

Key T-Codes

MM01 – Material Masters
CS01 – BOM
CA01 – Routing
MB01 – Goods Movements

7.4 Manufacture to Inventory

Key Automations

- Inventory valuation method appropriate
- Automated Accounting of goods movement
- All transactions result in value and quantity update
- Negative stock not configured
- No direct changes to material cost
- No use of sensitive movement types like 501/309/561
- Split valuation active
- SOD between Inventory count and posting Inventory count results
- Access to direct changes to Material cost is restricted
- Access to sensitive movements is restricted

Moving Average Inventory Valuation

Valuation	
Price control	V Moving average price/periodic unit price
Acct cat. reference	0005 <input checked="" type="checkbox"/> Price ctrl mandatory

Current valuation	
Valuation Class	3000
VC: Sales order stk	
Price control	V
Moving price	11,773.96
Total Stock	169

Standard Cost Inventory Valuation

Valuation Class	7920
VC: Sales order stk	
Price control	S <input checked="" type="checkbox"/>
Moving price	611.00
Total Stock	200

Material Val.	ActivityTypes/Processes	Subcontracting	Ext. Proce
Priority	Strategy Sequence	Incl. Additive Costs	
1	Valuation Price According to Price Control in Ma...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Standard Price	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Current Planned Price	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	Moving Average Price	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>

7.5 Acquire to Retire

Key sub-processes

- Organization Structure :
 - Client → Chart of Depreciation → Company Code
- Master data :
 - Asset Master Data – General, Depreciation Views
- Depreciation Calculation and accounting
- Capitalization , retirement and scrapping accounting

Key Automations

- Appropriate Depreciation configuration
- Automated GL account determination
- Fields in Asset Master data
- Negative Books values not permitted
- Real-time posting and calculation
- Restricted access to Asset Masters and transactions

Key T-Codes

AS01 – Asset Masters
AFAB – Depreciation
AIBU – Capitalization
ABAVN – Scrapping
ABAON - Retirement
ABUMN – Transfer

- Asset Master Data and Depreciation

Asset: INTERN-00001 0 Chair
 Class: 1000 Real estate

General Time-dependent Allocations Origin Net Worth

Valuation

Deact	A..	Depreciation area	DKey	UseLife	Prd	ODep Start
<input type="checkbox"/>	01	Book deprec.	GD10	<input type="checkbox"/>		
<input type="checkbox"/>	02	Book deprec.	0000	0	0	

Chart of dep.: 1US Sample chart of depreciation: USA
 Dep. key: GD10 Buildings decl.bal.10.0/ 5.0 / 2.5 %

Dep Type: Ord.depreciation
 Phase: From the start of depreciation

Assignment of Calculation Methods

Base method: 0014 Ordinary: explicit percentage (after end of life)
 Decl.-bal. method: 001 0.00x / 0.0000% / 0.0000%
 Prd cont: 009 06/06/02/02
 Multilev.meth.: 046 10.0000% / 5.0000% / 2.5000%

Class: Declining-balance depreciati...

Chart of dep.: 1US Sample chart of depreciation: USA
 Multilev.meth.: 046 10.0000% / 5.0000% / 2.5000%

Acq.year	Ye...	Per	BaseVal.	Percent	Rem. life	Reduct.
9999	4	0	01	10.0000	<input type="checkbox"/>	0.0000
9999	7	0	01	5.0000	<input type="checkbox"/>	0.0000
9999	25	0	01	2.5000	<input type="checkbox"/>	0.0000

- Account determination

Asset: INTERN-00001 0
 Class: 1000 Real estate Company Code
 General | Time-dependent | Allocations | Origin | Net Worth Tax | Deprec.

General data
 Description: Chair
 Asset main no. text
 Acct determination: 10000 Real estate and similar rights

Chart of dep.: 1US Sample chart of depreciation: USA
 Chart of Accts: CAUS Chart of accounts - United States
 Account determ.: 10000 Real estate and similar rights
 Deprec. area: 1 Book depreciation

Ordinary depreciation account assignment
 Acc.dep. acct.for ordinary depreciation: 2011000
 Expense account for ordinary depreciat.: 211400

- Depreciation Posting to GL

Chart of dep.: 1000 NT chart of depreciation: India

Ar.	Name of depreciation area	Real	G/L
1	Book depreciation	<input checked="" type="checkbox"/>	1
15	Depreciation as per Income Tax Act 1961	<input checked="" type="checkbox"/>	0
20	Cost-accounting depreciation	<input checked="" type="checkbox"/>	3
30	Consolidated balance sheet in local currency	<input checked="" type="checkbox"/>	0
31	Consolidated balance sheet in group currency	<input checked="" type="checkbox"/>	0
32	Book depreciation in group currency	<input checked="" type="checkbox"/>	0
41	Investment support deducted from asset	<input checked="" type="checkbox"/>	0
51	Investment support posted to liabilities	<input checked="" type="checkbox"/>	1

Post to G/L account (1) 7 Entries found

Posting in G/L	Short Descript.
0	Area Does Not Post
1	Area Posts in Realtime
2	Area Posts APC and Depreciation on Periodic Basis
3	Area Posts Depreciation Only
4	Area Posts APC Directly and Depreciation
5	Area Posts APC Only
6	Area Posts Only APC Directly

Questions?

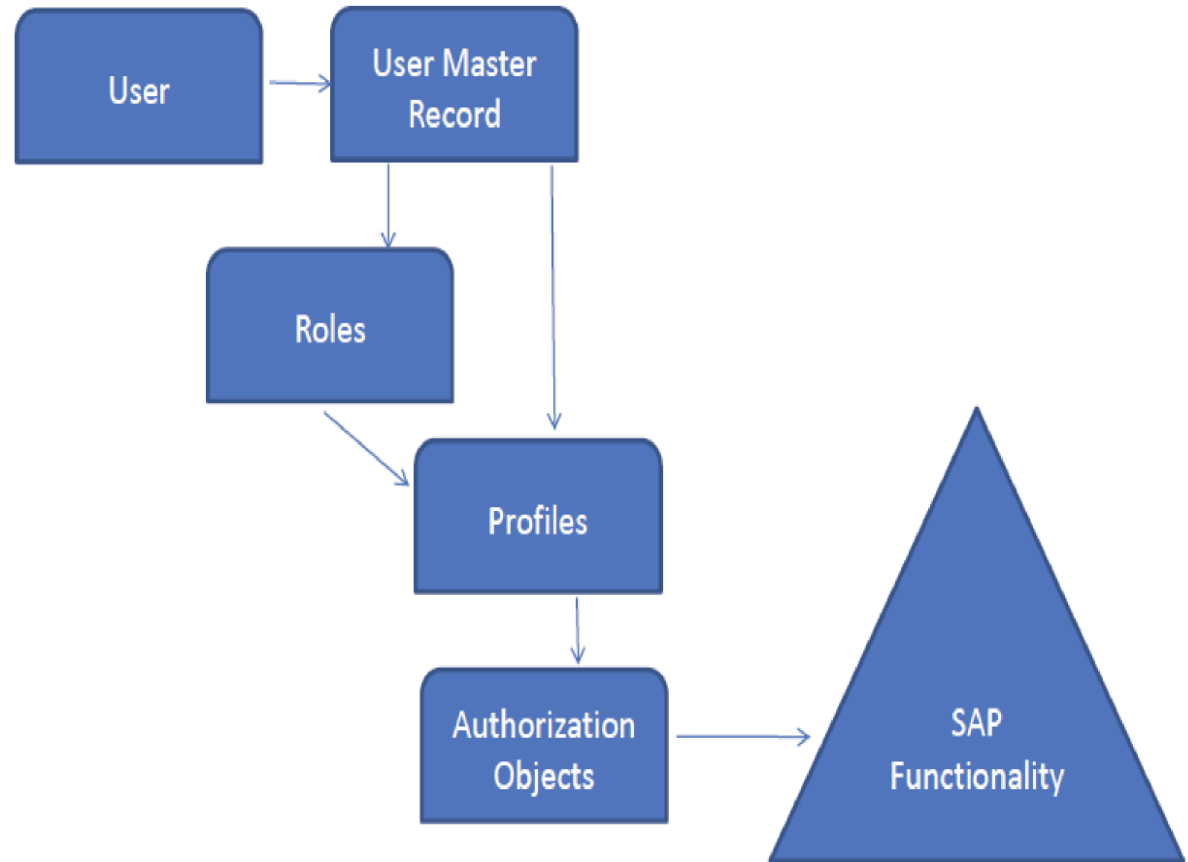
SESSION 8

Authorization Concept

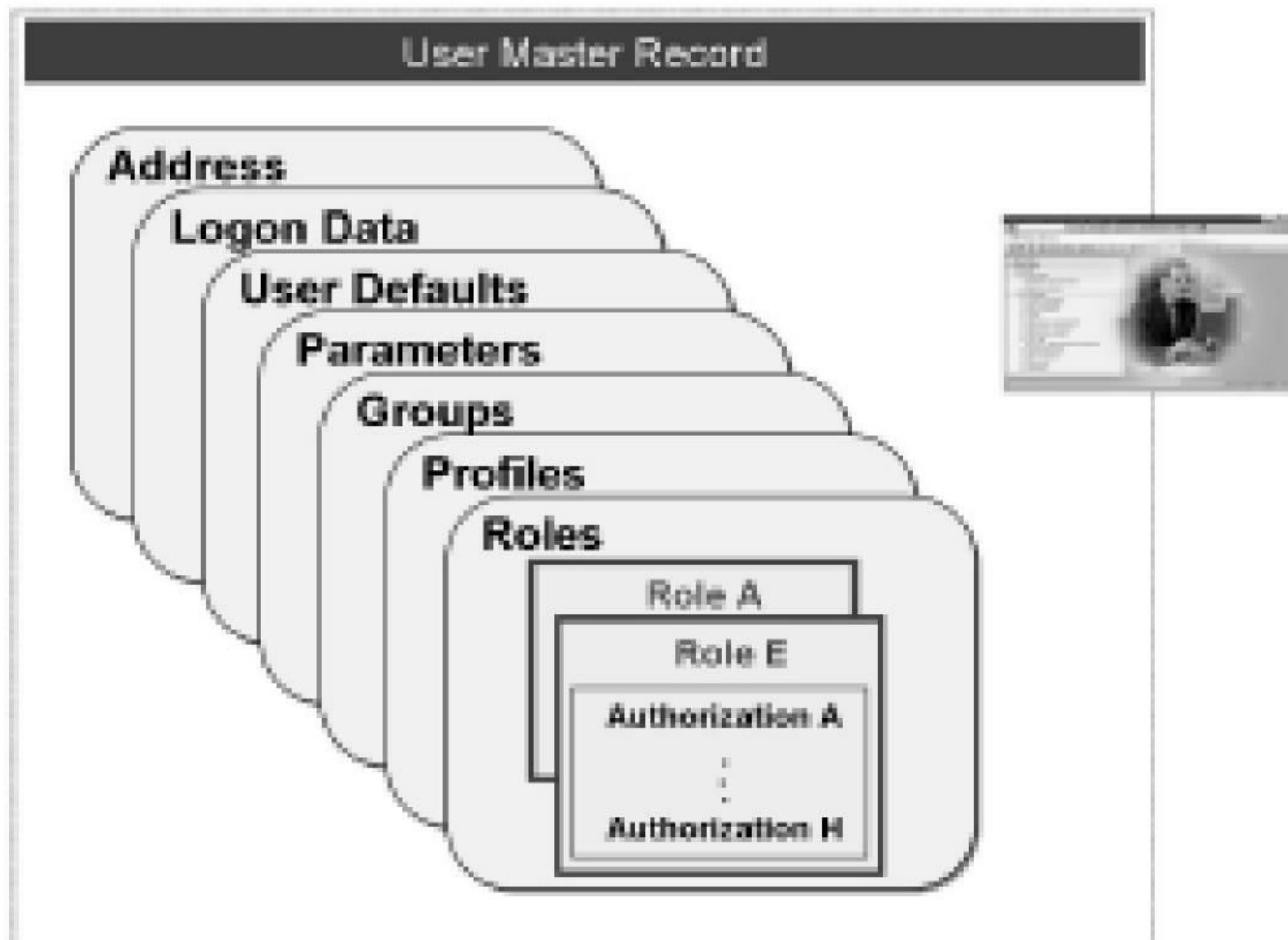
8.1 Users and Authorization Concept

- Users must be setup and roles assigned to user master records before you can use the SAP System.
- A user can only log on to the system if he or she has a user master record.
- User menu and authorizations are also assigned to the user master record via one or more roles.

Authorization Concept



8.2 User Master Record Information

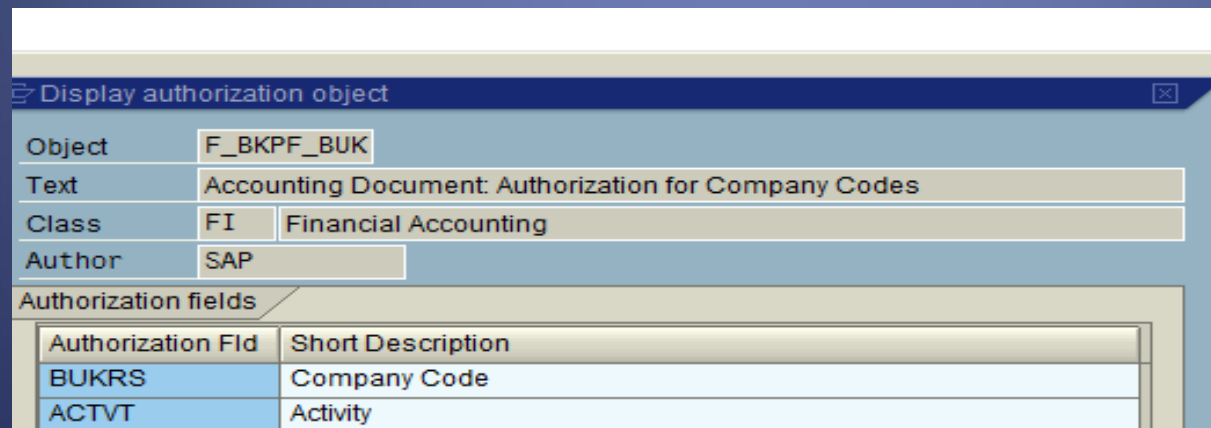


8.3 Roles and Profiles

- Roles contain Profiles. The system will automatically add the appropriate Profile(s) for each Role assigned
- Profiles contain Authorization Objects.
- Single profile consists of single or multiple Authorisations.
- Composite profile consist of multiple profiles.
- Profiles that come delivered with the system or were created from scratch can be assigned directly to users.
- Profiles that were created for a Role are attached to that Role cannot be assigned directly. You must assign the Role and the system will then assign the user the correct Profile.
- In SAP systems, users are typically assigned the appropriate roles / profiles by the security team

8.4 Authorization Objects

- Authorization Objects are the keys to SAP security
- When you attempt actions in SAP the system checks to see whether you have the appropriate Authorizations. (AUTH CHECK Statement)
- The same Authorization Objects can be used by different Transactions
- Example —in order to create, change or display an accounting document, a user must have the Authorization Object F_BKPF_BUK with the appropriate values



The screenshot shows the 'Display authorization object' dialog box in SAP. The object is F_BKPF_BUK, with the text 'Accounting Document: Authorization for Company Codes'. The class is FI (Financial Accounting) and the author is SAP. Below this, the 'Authorization fields' section is expanded to show a table of fields.

Authorization Fld	Short Description
BUKRS	Company Code
ACTVT	Activity

8.5 Examples of Authorisation

	Example 1	Example 2
Purpose	Create posting for Apple Co.	Change posting for Orange C0
Authorization	Authorization ABC	Authorization XYZ
Value 1	01 (Create)	02 (Change)
Value 2	1000 (Apple Co.)	2000 (Orange Co)

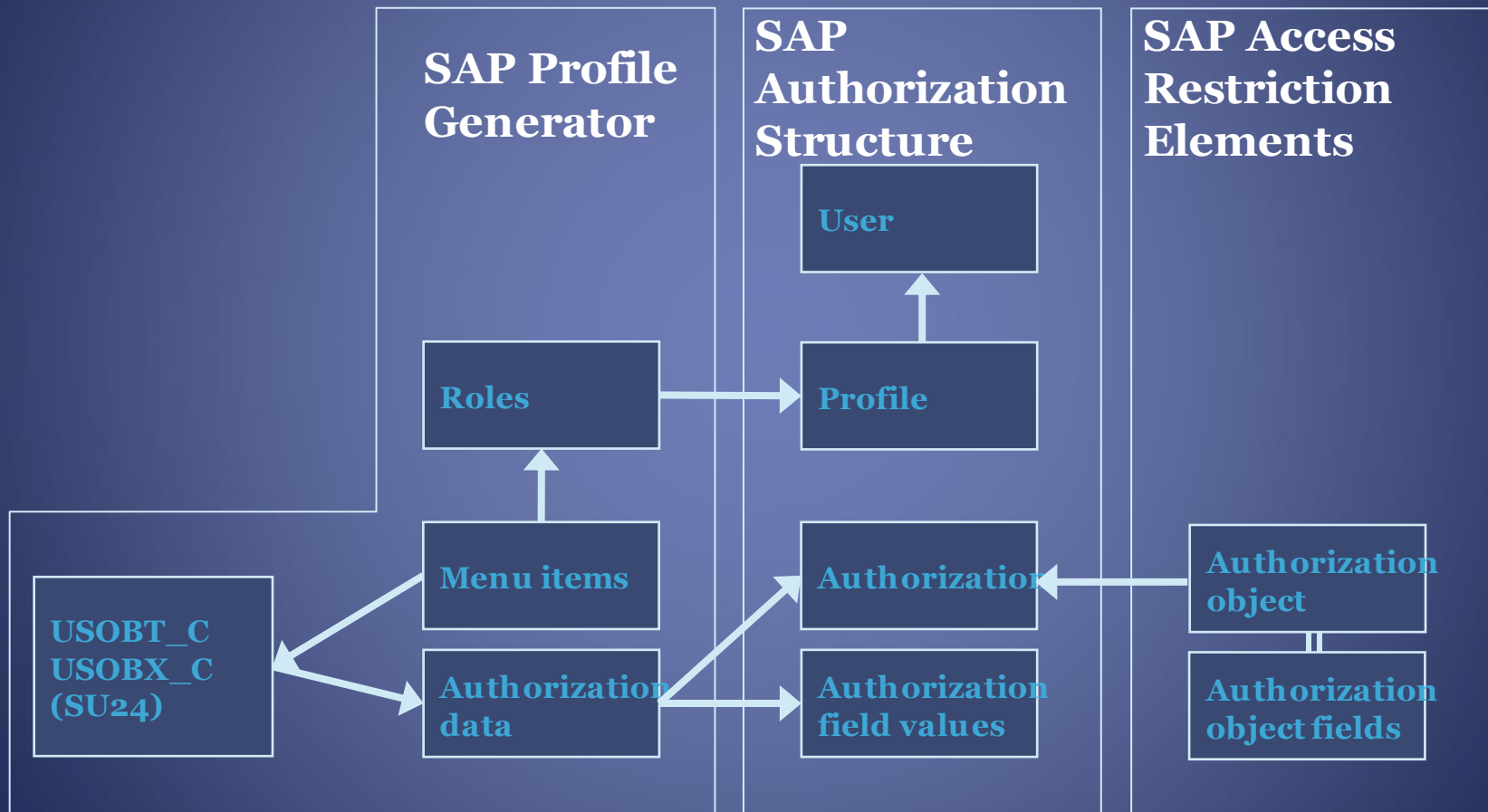
Description	Technical Name	
	F_BKPF_BUK	Authorization Object
Activity	ACTVT	Field 1
Company Code	BUKRS	Field 2

8.6 Profiles and authorisation object in SAP

Z_ML_PUR_PURCHASEORDER **Process Purchase Orders**

- Standard Cross-application Authorization Objects AAAB
- Maintained Materials Management: Purchasing NN_E
 - Maintained Document Type in Purchase Requisition M_BANF_BSA
 - Standard Purchasing Group in Purchase Requisition M_BANF_EKG
 - Standard Purchasing Group in Purchase Requisition T-C155070800
 - Activity Purchasing Group 01, 02, 08 * ACTVT ENSRP
 - Standard Purchasing Organization in Purchase Requisition M_BANF_EKO
 - Standard Purchasing Organization in Purchase Requisition T-C155070800
 - Activity Purchasing Organization 01, 02, 08 * ACTVT EKOR6
- Maintained Release Code in Purchase Requisition M_BANF_FRG
- Standard Plant in Purchase Requisition M_BANF_WRK
- Maintained Document Type in Purchase Order M_BEST_BSA
- Standard Purchasing Group in Purchase Order M_BEST_EKG
- Standard Purchasing Organization in Purchase Order M_BEST_EKO
- Standard Plant in Purchase Order M_BEST_WRK
- Maintained Document Type in Scheduling Agreement Delivery Schedule M_LPET_BSA
- Maintained Purchasing Group in Scheduling Agreement Delivery Schedule M_LPET_EKG
- Maintained Purchasing Org. in Scheduling Agreement Delivery Schedule M_LPET_EKO
- Maintained Plant in Scheduling Agreement Delivery Schedule M_LPET_WRK

8.7 SAP Structural Security Components



8.8 Mechanism of Access Control

- User logs onto SAP.
 - User authorisations loaded into the user buffer.
 - User requests transaction directly or through the menu tree.
 - SAP checks if the transaction is blocked.
 - SAP verifies access to the transaction code in the user buffer.
 - Authorisations required read from ABAP program. SAP verifies that authorisations are available in the user buffer.
 - SAP allows user to perform called transaction.
- If any of the above verifications fail – Access is denied.**

8.9 SAP Security: Transactions

- SU01: Creates and maintains users
- SU02: Creates and maintains profiles
- PFCG: Profile Generator
- SU53: Displays LAST authorization failure
- ST01: Traces keystrokes
- SU03: Lists objects and classes
- SM04: Monitors user activity
- SE16: can be used to download SAP security tables.
- SU10: Adds or deletes a profile to all users

Questions?

SESSION 9

Segregation of Duties

9.1 SOD - Impact on Audit

SOD Conflict Risks

- Evaluation of SOD is primarily for fraud risk.
- Impact of SODs on automated controls.
 - For e.g. end to end access in Purchase & Payable process.
- Multiple Tcode can perform the same function.
- I
- Identification of SOD per transaction requires SAP expertise.

9.1 SOD - Impact on Audit

Key considerations

- Identification of "critical" SODs.
- Identification of compensating controls.
- Business Process Review controls may not address the risk of SOD conflicts.
- Extracting data for such transactions can be done using SAP standard tables
- SOD Analysis is "Point-in-time"
- Profiles also may have changed
- Risk of multiple user id being used by the same person. E.g. Generic user ids, Sharing of passwords.
- Assessment of SODs through
 - Tcode —SUIM
 - Tools such as Bizrights, SAP GRC
 - Auditors proprietary tools

Questions?

SESSION 10

Data Migration - SAP

IT Migration

IT Migration

- A process of movement of any one or group of IT Assets from one state of existence to another.

IT Assets

- Hardware, Software, Data, related infrastructure

Data Migration

- A process of moving data from one data structure to another. It is required when any organisation replaces Application or Database system

Objectives of Migration Audit

- Data Integrity
- Control Adequacy
- Business Continuity
- Effectiveness

SAP Migration- Phases

- Vendor Selection
- Process Re-engineering
- Change Management
- Data Migration

Data Migration to SAP - Process

- Determining Source and Target Data Formats
- Data Mapping (Mapping A/c Balances etc.)
- Data Conversion/cleansing
- Business Sign-off
- Data Conversion program
- Test plan and Test Data
- Data Validation and Reconciliation
- Integration Testing
- Promote to Production
- Data conversion Execution
- Data Validation
- Final Signoff by all stakeholders

Data Migration to SAP – Key Points

- Addressing Open PO's Open, SO's etc.
- Uploads through T-Code “LSMW” or “LTMC” if migrating to S4 HANA
- Scrutinize the “Data Migration Account”
- Sign-Offs
- Archival of Legacy

SESSION 11

SAP Upgrade

SAP Upgrade

- SAP does not support earlier versions.
- Support for ECC 6.0 will end in 2025.
- Existing ECC6.0 installations need to Move to SAP S4/HANA.
- In a Technical Upgrade, existing functionality is not changed.
 - There is no Data Migration
- In a Functional Upgrade, all business processes and controls will have to be re-assessed for changes.
 - There will be Data Migration.

SESSION 12

Report Validation

12.1 Report Validation

- Reports may be Standard or Customized
- Customized Reports begin with Y or Z
- “System-dependent Manual Controls” also rely on Reports from SAP.
- Identify source of the Report – SAP or BW Report?

12.2 Reports – Impact on Audit

- In case ITGC are reliable -
 - Standard Reports may be relied upon in case of no change in the design/logic of the standard report. Need to establish there is no change.
 - Logic of Customized Reports (beginning with Y or Z) should be validated, either through white-box or black box testing
 - Ensure appropriateness of Input Parameters

12.2 Reports – Impact on Audit -contd..

- In case of inadequate ITGCs, additional procedures will be required to determine completeness and accuracy of the data
- Generally detailed substantive testing of reports is done to ensure completeness and accuracy of reports
- We may be able to leverage on testing performed by the client

SESSION 13

JE Extraction and Analysis

13.1 Manual JE's – Impact on Audit

- Fraud Risk and Risk of Management Override of Controls
- JE's are either manual or automated
- Non-reliance on ITGCs – all entries on par with Manual entries
- Substantive audit of manual JE's not practical

13.1 Manual JE's – Impact on Audit – contd..

- All entries posted in BSEG and BKPF Tables.
- Roll-forward to ensure completeness of population
- Cut-off to be defined for analysis
- Opening and Closing Trial Balances per SAP need to match up with audited figures

13.2 Manual JE's – Impact on Audit – contd..

- JE Roll-forward and Analysis through use of CAATs
- Identification of “Doc-Types” used for Manual Journal Entries may be incorrect
- Identification of T-Codes used for passing manual entries extremely critical

13.2 Manual JE's – Impact on Audit

– contd..

- Criteria for analysis very critical
 - Back-dated entries
 - Transactions passed by IT users
 - Materiality overall and for specific accounts
 - Unusual Account Combination/Passed at unreasonable times

Questions?

Session 14

Robotic Process Automation (RPA) in SAP



Automation

What is Automation?

Automation, the application of machines to tasks once performed by human beings or, increasingly, to tasks that would otherwise be impossible

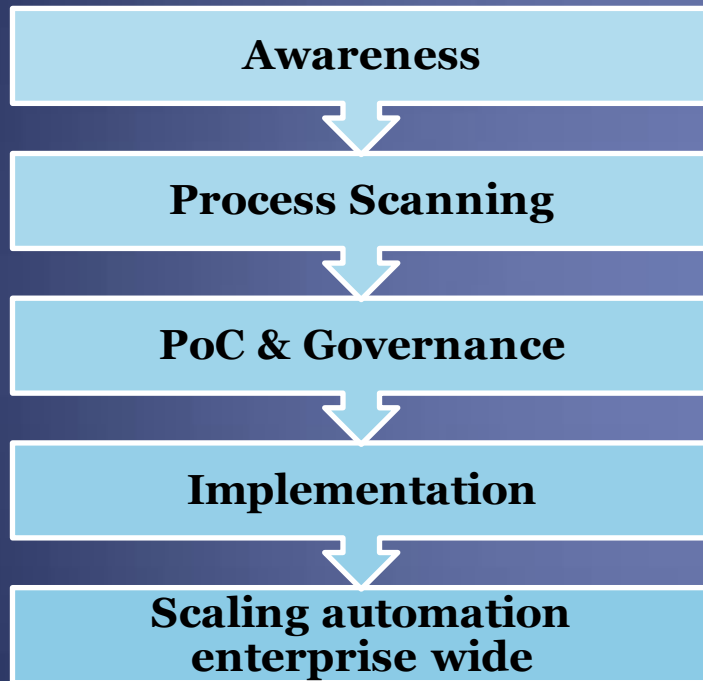
- - **Encyclopedia Britannica**

Benefits of Automation

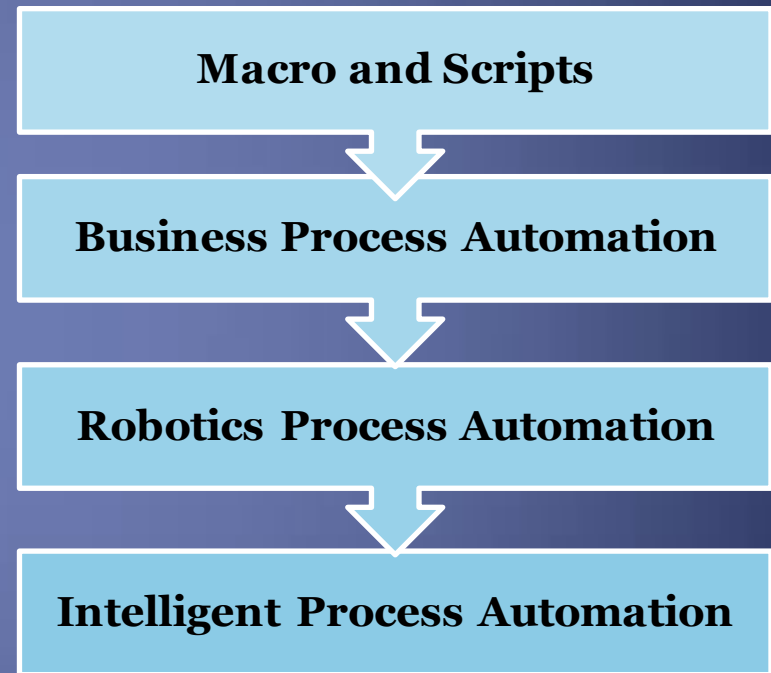
- Efficiency
- Standardization
- Manual Errors Elimination
- Repetitive Task

Automation Journey

Stages of Implementation



Technology



RPA in SAP

Why RPA is suited in SAP Environment?

- Stable Environment
- Standardisation
- Rule based

RPA at what level in SAP Environment?

Data Entry/Transaction Level

e.g. Vendor invoice entries in SAP

Reporting Level

e.g. Auto scheduling and emailing of MIS reports

Governance Level

e.g. Configurable controls and Data Analysis testing automation

RPA in SAP

Configurable Controls

Three way match in ERP

Duplicate Invoice check **etc.**

Data Analysis

Vendors not used for more than 1 year deactivated in system

Purchase Orders created and released by the same user

Purchase Order creation/change vs. GRN or Invoice

Duplicate vendor masters in system

Potential Duplicate Invoices **etc.**

THANKS