SAP BASIS ECC Concepts	Pg. No
SAP BASIS ECC Concepts	1
T-Codes	3
Introduction to SAP BASIS	6
Introduction to ERP	7
How to Download & Install SAP GUI for Windows	7
SAP Instance & SAP SID	8
R/1, R/2, R/3 Architecture	9
SAP Logon Process Work	14
Client Creation	15
Client Copy	18
Local Client Copy	20
Remote Client Copy	22
Client Import/Export	24
Client Deletion	27
Create a New User	28
Users Lock & Unlock	33
Logon Limit Attempts	37
Password Restrictions	39
Background Job	43
How to schedule the background job	44
How to Reschedule a background job	51
Background Job Monitoring	53
Background Job Deletion	56
TMS (Transport Management System)	59
Configure STMS (SAP Transport Management System)	66
STMS Routes & Layers	68
SAP Transport Request? How to Import/Export TR	72
SAP Monitoring & Performance Checks	78
Remote Function Call (RFC) in SAP Tutorial	93
How to Configure & Test RFC Connection in SAP	98
Work Process	103
START & STOP PROCESS in Linux & Windows	111
Logical System Creation	113
Managing Queue	115
Enable SAP*	118
How to Check Active Servers	129
How to check Work Process Overview (Instance Wise)	129
How to check Globally Work Process Overview (Multiple Instance in System Wise)	125
How to check User Overview	130
How to Create Mass User (Multiple Users)	130
How to Check Overview of Lock & Un-Lock Users List	131
How to Lock & Un-Lock T-code's	132
How to Lock & Un-Lock Clients	133
How Monitoring Lock Entries (Users, Clients, T-codes, etc.)	133
How to Monitoring Update Process	134
How to Monitoring System Logs	134
now to monitoring system rogs	Pag

SAP BASIS ECC Concepts	Pg. No
How to check Buffer Statistics (Tune Summary)	135
How to Create Profiles and Generate the Profiles	137
Single Role Creation	138
Derived Role Creation	147
Composite Role	151
How to maintain Logon Load Balance	154
How to Assign T-code as Manually	158
How to Restrict Activities of T-codes	164
How to Create Standard Jobs (House Keeping Jobs)	167
What is Profile Parameters	168
How to Delete Operational Modes	169
How to Create Operational Modes	173
What is Spool Administration	184
How to Create Spool Requests (Print Request)	184
How to Create Spool Request (Print Request) Overview	187
How to Delete Old Spool Request (Print Request)	188
How to Overview of TEMSE Management	189
What is ABAP Dumps	189
What is Memory Management	190
How to Kill the Long Run Job	191
How to Check CPU Utilization	191
NetWeaver System	192
NetWeaver Architecture	193
What is OSS Notes, SAP SNOTE	196
SAP Kernel Download & Upgrade	197
Support Package & Stack Upgrade	202
Import SLL/TLS Certificates	210
DB Refresh	214

T-Codes

User Administration

SU01	User Maintenance (Single User Creation / Lock & Un-Lock Users)
SU01D	User Display
SU10	Mass User Creation (Multiple Users)
EWZ5	Overview of Lock & Un-Lock Users
SUIM	Overview of Users Data
SMLG	Create Log On Load Balance

Client Administration

SCC1	Transport Role / Import Role
SCC3	Copy Logs / Transport Log Analysis
SCC4	Client Creation
SCC5	Client Deletion
SCC7	Client Import
SCC8	Client Export
SCC9	Remote Client Copy
SE37	Lock & Un-Lock Clients
SCCL	Local Client Copy

Database Administration

DB01	Analyse Exclusive Lock Waits
DB02	Analyse Tables and Indexes
DB03	Database Parameters
DB12	DB Backup Monitor
DB13	DBA Planning Calendar
DB14	DB BR Tools Logs
DB15	Data Archiving: Database Tables
DBACOCKPIT	Monitor DB Logs

Background Jobs Administration

SM36	Background Job's Design / Standard Background Job's Design
SM37	Background Job's Monitoring / Background Job's Deletion

Spool Administration

SP00	Spool and related areas
SP01	Print Request Overview
SP02	Display Spool Requests
SPAD	Create Spool Administration Request

Transport Management System

SE01	Transport Organizer (Extended View)
SE03	Transport Organizer Tools
SE06	Set Up Transport Organizer
SE09	Transport Organizer
SE10	Releasing Request
STMS	Create TMS Configuration (Transport Management System)
STMS_IMPORT	TMS Import Queue Task

Alert Monitoring T – Codes

RZ20	CCMS Monitoring
AL01	SAP Alert Monitor
AL02	Database Alert Monitor
AL05	Monitor Current Workload
AL18	Local File System Monitor
AL16	Local Alert Monitor for Operating System

Other Administration T – Codes

AL11	Display SAP Directories
SICK	Installation Check
SM35	Batch Input Monitoring
SM58	Asynchronous RFC Error Log
SM59	Remote Function Call Destination (Display/Maintain)
SM01_CUS	Lock & Un-Lock T-codes
SM02	System Message Send
BD54	Logical System Creation & Deletion
SE38	Background Job's Pause / Client Size
SU24	Relation b/w T-codes & Authorization Objects
SU53	Missing Authorizations
DICO	Delete TMS Configuration
SCUM	Create CUA & Distribution Model
SNRO	Increases no. of TEMSE Requests
PFCG	Profile Creation & Generation (Single, Derived & Composite Roles)
SAINT	SAP Add On Installation Tool
SPAM	Support Package Manager
SM14	Update Program Administration
SM56	Number Range Buffer
SM04	User Activities / User Overview
AL08	Global User List (all instance)
SM63	Display/Maintain Operation Modes
RZ03	Check Status of Server
RZ04	Operational Mode Creation & Deletion
ST03	Perform Workload Analysis
RZ10	Profile Maintenance & Change SAP Static Parameter Value / SAP* Enable
RZ11	Dynamic Parameter Creation

Page **4** of **214**

ST01	SAP System Trace
RZ12	RFC Server Group Maintenance
SMGW	Gateway Monitor
ST07	Application Monitor
ST02	Tune Summary (view sap buffer & memory configuration)
ST04	Performance Overview
	SQL Trace Performance Trace (works performed by users on system written in this
ST05	trace)
SM18	Reorganize Security Audit Log
SM19	Enable Security Audit Log
SM20	Analysis of Security Audit Log
ST11	Monitor the Trace and Log

Daily Monitoring T – Codes

SM50	Work Process Overview for Individual Instances
SM51	Monitoring Work Process for Instance wise
SM12	Monitoring Lock Entries
SM13	Monitoring Update Process
DB02	DB Space Overview
DB12	Monitor DB Backup Logs
SM37	Overview of Background Job
SMQ1	Outbound Queue Monitor
SMQ2	Inbound Queue Monitor
ST22	ABAP Runtime Error Analysis
ST06	Monitoring CPU Utilization
SM21	Monitoring System Logs
SM66	Work Process Overview for System wide (Globally(Multiple Instances))

Other BASIS T - Codes

SLICENSE	SAP License Administration
SNOTE	Adding SAP Notes
I18N	Adding Language
SMLT	Importing Language
SU25	Initial Profile Generator
SGEN	SAP Load Generator
SE12	ABAP Dictionary
SE13	Dictionary: Technical Settings
SBWP	Business Workplace of User
SO00	Create Document and Send Mail
SOST	Status of Mail
SCOT	Node Creation for Mail Configuration
SALE	Create Logical System
SCUA	Create Model View (Central User Administration)
WE05	Check Intermediate Doc (IDocs)
WE20	Partner Profiles
WE21	Ports in IDocs Processing
BD64	Display Distribution Model
SP12	TEMSE Management (Temporary Sequential)

Page **5** of **214**

Introduction to SAP BASIS

Basis is a set of programs and tools that act as an interface with Database, Operating system, Communication protocols and business applications (such as FI, CO, MM, etc.). Full form of **BASIS is "Business Application Software Integrated solution"**.

SAP applications such as FI, CO, PP etc. can run and communicate with each other across different Operating systems and Databases with the help of BASIS.

Nowadays Basis is known as NetWeaver.

Alias of BASIS is SAP Application Server Technology and alias of NetWeaver is SAP Web Application Server.

After adding **java stack (the applications which are developed in J2EE, BSP, JSP, etc.) enhanced security standard for business process.** Both ABAP and Java stack can be monitored from one platform. NetWeaver supports standard protocols such as HTTP, SMTP, XML, SOAP, SSO, WEBDAV, WSDL, WMLSSO, SSL, X.509 and Unicode format **(representation of handling text).**

We can say **Basis is the operating system for SAP applications and ABAP**. Basis provides services like communication with the operating system, database communication, memory management, runtime collection of application data, web requests, exchanging business data etc...

Basis supports a number of known operating systems (Unix flavours, Microsoft windows server edition, AS400, z/OS, etc.) and databases (Oracle, DB2, Informix, Maxdb, Microsoft SQL Server, etc.).

As we know BASIS is a set of tools. This tool has the following different functionalities:

- System monitoring and administration tools
- Common monitoring tool CCMS (**Computing Centre Management System**) to monitor alerts of R/3 system from one place.
- Server side scripting in ABAP and JavaScript.
- Use of Business server pages to build online stores and portals.
- Database monitoring and administration utilities
- Resource management like memory, buffer, etc.
- Authorization and profile management tools for user management.
- Internet access control to the system and business objects.
- Transfer modifications in a screen, program, layout from the development to a production system for accuracy purpose by **Transport Management System**.
- Client-server architecture and configuration.
- Graphical User Interface designing for the presentation layer.

SAP Basis consultant's responsibilities:

- SAP Basis is a middleware tool for applications, operating system, and database. SAP Basis consultant should able to do the following tasks: -
- SAP application server monitoring, ABAP dump, and system log analysis.
- Performance tuning
- Database maintenance, Database backup schedule and restore
- R/3, NetWeaver, solution manager installation, etc.
- SAP license maintenance.
- SAP landscape, transport management system installations, etc.
- Client creating, client copying, client deletion, etc.
- Creating user, assigning roles, locking and unlocking users, etc.

- Background jobs scheduling, job monitoring, job deletion, etc.
- Profile and operation mode maintenance
- Applying support patches, upgrading and installing add-ons
- SNOTE applying and removing errors.
- System copy, System refresh, etc.

This a generic list. There are many other responsibilities that a Basis consultant shoulders. Every day you learn something new!

ECC stands for SAP ERP Central Component, which is an on-premises enterprise resource planning (ERP) system. It's a key technology in business that integrates data from different areas of a company in real time.

Introduction to ERP

SAP is a market leader in providing ERP (Enterprise Resource and Planning) solutions and services.

Enterprise Resource Planning (ERP) is a software that is built to organizations belonging to different industrial sectors, regardless of their size and strength. Its purpose is to manage any organization/company functions. It is a way to integrate the data and processes of an organization into one single system.

Example - SAP, Oracle, NetSuite, Epicor, Microsoft, Dynamics 365 etc.

The ERP package is designed to support and integrate almost every functional area of a business process such as procurement of goods and services, sale and distribution, finance, accountings, human resource, manufacturing, production planning, logistics & warehouse management.

How to Download & Install SAP GUI for Windows

Before you can configure and use the SAP GUI, you need to download the software from the SAP Marketplace as per steps below

Time to configure your GUI

1.Connection Type: - Custom Application Server (Particular one host)

2. Description: - Name of instance

3. Application Server: - IP address of remote application server

4. Instance number which you can find from os level (Unix) GoTo /usr/sap/Sid/DVEBGMS00 Here instance number = 00

5. System ID: - As per you setting which you have specified during installation time.

SAP Instance & SAP SID

What is an Instance

Sap Instance is a group of resources such as

- Memory
- Work Processes
- Dispatcher
- Gateway

usually for a single application or database server within a SAP R/3 client-server environment.

There are three types of instances:

- 1. Dialog instance
- 2. Central Instance
- 3. Database Instance

```
SAP System= Dialog Instance + Central Instance + Database Instance.
```

For one SAP system, all three instances share the same directory.

- **Dialog Instance:** Dialog instance exists in the application layer. Its purpose is to maintain the load on the server. Dialog instance exists on the different host. If a number of dialog instance increases hardware resources, dispatcher, work processes also increases so that more number of users can login at a time.
- **Central Instance:** Central instance can also work as dialog instance. But the main thing is that it contains Enqueue and message servers. All dialog instances communicate with central instance before requesting database with message server. When an instance is started, the dispatcher process attempts to establish a connection to the message server so that it can announce the services it provides (DIA, BTC, SPO, UPD, etc.). Lock table is managed in central instance by Enqueue service.
- **Database Instance:** As normal database instance accepts requests from central instance to fulfil the user's requests. As lock management system provided by Enqueue server, it will provide service to users.

What is SID

SID is a unique identification code for every R/3 installation (SAP system) consisting of a database server & several application servers. SID stands for SAP System Identification. SAPSID — a three-character code such as C11, PRD, E56, etc.)

Logical System Names:

When data is distributed between different systems, each system within a network has to be clearly identifiable. The "logical system" deals with this issue.

A logical system is an application system in which the applications work together on a common database. In SAP terms, the logical system is a client.

Since the logical system name is used to identify a system uniquely within the network, two systems cannot have the same name if they are connected to each other as BW systems or as source systems, or if there are plans to connect them in any way.

Page 8 of 214

Example for production system logical system name might be:

SID – PBG

SID Description - P=Production(type), B=BW(component), G=Germany. (plant name)

Logical System name

PBGCLNT100.This form is easy to understand.

R/1, R/2, R/3 Architecture

R/1 System

R- Real Time

1 Tire

PC-1

Presentation Layer
Application Layer
DB Layer

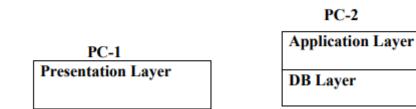
Note: Here in Application Layer Work Process Are going on.

Drawback: If we Lost Power in Presentation Layer we can't able to Login Remaining Systems.

R/2 System

R- Real Time

2-2 Tire



Drawback: If we Lost Power in Presentation Layer we can't able to Login Remaining 2 Layers.

There is No Q-Mechanism

R/3 System

SAP R/3 is a 3 tier architecture consisting of 3 layers

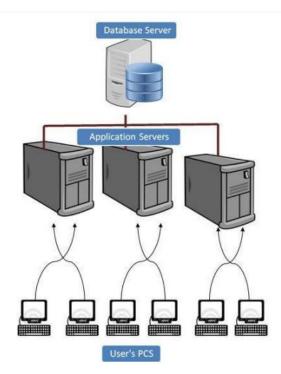
1. Presentation

2. Application

3. Database

In simple words, it's a client server architecture.

- **R** signifies Real-time system.
- **3** represents 3-tier architecture.



User's PC:

Users can access SAP system in two ways:

- 1. Through SAP GUI
- 2. Through Web Browser

It's called front-end. Only the front-end is installed in the user's PC not the application/database servers.

Front-end takes the user's requests to database server and application servers.

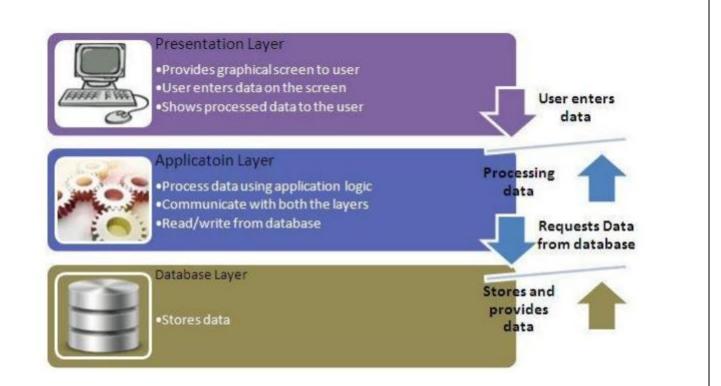
Application Servers: Application server is built to process business-logic. This workload is distributed among multiple application servers. With multiple application servers, the user can get the output more quickly.

Application server exists at a remote a location as compared to the location of the user PC.

Database Server: Database server stores and retrieves data as per SQL queries generated by ABAP and Java applications.

Database and Application may exist on the same or different physical location.

Understanding different SAP layers



Presentation Layer

The **Presentation Layer** contains the software components that make up the SAP GUI (graphical user interface). This layer is the interface between the R/3 System and its users. The R/3 System uses the SAP GUI to provide an intuitive graphical user interface for entering and displaying data.

The presentation layer sends the user's input to the application server, and receives data for display from it. While a SAP GUI component is running, it remains linked to a user's terminal session in the R/3 System.

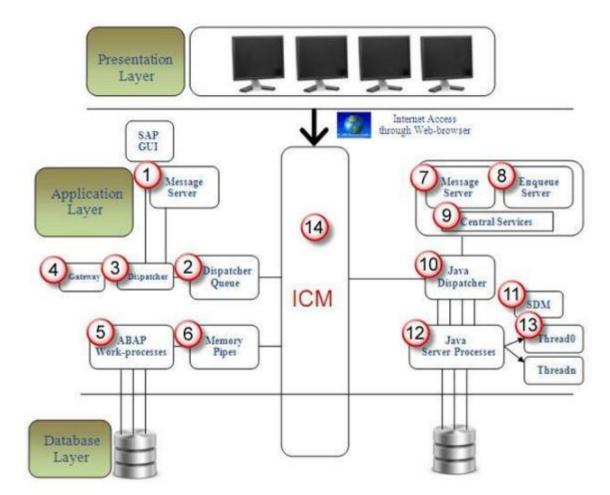
Application Layer

The **Application Layer** consists of one or more application servers and a message server. Each application server contains a set of services used to run the R/3 System. Theoretically, you only need one application server to run an R/3 System. In practice, the services are distributed across more than one application server. The message server is responsible for communication between the application servers. It passes requests from one application server to another within the system. It also contains information about application server groups and the current load balancing within them. It uses this information to assign an appropriate server when a user logs onto the system.

Database Layer

The **Database Layer** consists of a central database system containing all of the data in the R/3 System. The database system has two components - the database management system (DBMS), and the database itself. SAP has manufactured its own database named Hana but is compatible with all major databases such as Oracle. All R/3 data is stored in the database. For example, the database contains the control and customizing data that determine how your R/3 System runs. It also contains the program code for your applications. Applications consist of program code, screen definitions, menus, function modules, and various other components. These are stored in a special section of the database called the R/3 Repository, and are accordingly called repository objects. R/3 repository, objects are used in ABAP workbench.

Understanding the components of SAP R/3 3-tier Architecture:



ABAP+Java System Architecture

- **1.Message Server:** It handles communication between distributed Dispatchers in ABAP system.
- 2. Dispatcher Queue: Various work process types are stored in this queue.
- **3. Dispatcher:** It distributes requests to the work processes.
- 4. Gateway: It enables communication between SAP system and between SAP system and external systems.
- **5. ABAP-Work processes:** It separately executes dialog steps in R/3 applications.

Types of work processes are given as below: -



6. Memory-pipes: It enables communication between ICM and ABAP work processes.

7. Message Server: It handles java dispatchers and server processes. It enables communication within java runtime environment.

8. Enqueue Server: It handles logical locks that are set by the executed Java application program in a server process.

9. Central Services: Java cluster requires a special instance of the central services for managing locks and transmitting messages and data. Java cluster is a set of processes that work together to build the reliable system. Instance is group of resources such as memory, work processes and so on.

10. Java Dispatcher: It receives the client requests and forwards to the server process.

11. SDM: Software Deployment Manager is used to install J2EE components.

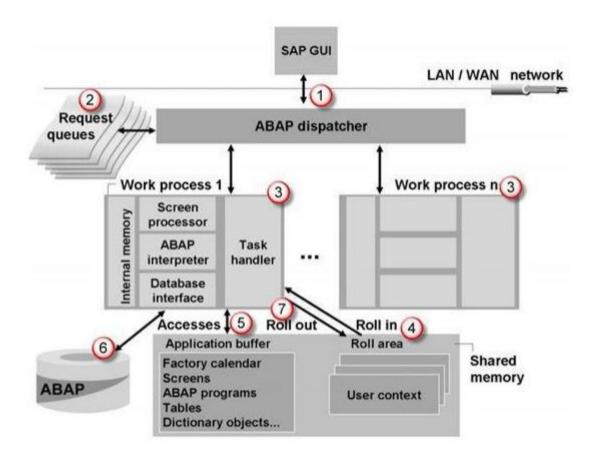
12. Java Server Processes: It can process a large number of requests simultaneously.

13. Threading: Multiple Processes executes separately in the background; this concept is called threading.

14. ICM: It enables communication between SAP system and HTTP, HTTPS, SMTP protocol. It means by entering system URL in the browser you can access SAP from browser also.

One more component is JCO. JCO is used to handle communication between java dispatcher and ABAP dispatcher when system is configured as ABAP+Java.

SAP Logon Process Work



Step 1) Once a user clicks on the SAP system from GUI, the user request is forwarded to Dispatcher.

Step 2) Request is stored in **Request queues first**. Dispatcher follows **First in First out rule**. It will find free work process and if available will be assigned.

Step 3) As per user request, particular work process is assigned to user. For example, when user login to the system then Dialog work process is assigned to the user. If user runs a report in background, then background work process is assigned to the user. When some modifications are done at database level then update work process is assigned. So as per user's action work process is assigned.

Step 4) Once user is assigned the dialog work process then user authorizations, user's current setting are rolled in to work-process in shared memory to access user's data. Once dialog step is executed then user's data is rolled out from work process. Thus shared memory will be cleaned and other user's data can be saved in shared memory area. Dialog step means the screen movements. In a transaction, when a user's jumps from one screen to other the process is called a dialog step.

Step 5) First work process will find the data in the buffer. If it finds data in buffer, then there is no need to retrieve data from database. Thus response time is improved and this process is called hit. If it does not find the data in buffer, then it will find the data in database and this process is called miss. Hit ratio should be always higher than miss ratio. It improves the performance of system.

Step 6) Other requested data is queried from the database and once the process is complete, the result is sent back to GUI via dispatcher.

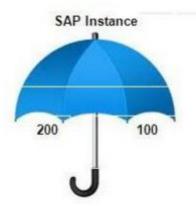
Step 7) At the end user's data is removed from shared memory so the memory will be available to other users. This process is called rollout.

Page 14 of 214

Client Creation

What is a SAP Client

Client is a 'Customer'. in SAP. We can say that each customer maps to one client. Within one SAP instance, a number of Clients can be created. No need to install separate software's for each and every customer. It provides isolation, one client cannot see the data of another client.



As depicted above 100 and 200 clients exist under one roof. We can create a number of clients in SAP Application (from 000 to 999).

Advantages of Client Concept

Client concept comes in with the following advantages

- You can share the same resources between multiple users.
- You can manage SAP system landscape as you can create multiple clients for DEV, QA and PROD team.
- You can share your SAP system with a large number of users.
- You can create clients in SAP system from **000-999**.

What does client contain

1. Application Data - Application data is the data that are stored in the database tables.

2. Customizing Data - Customizing data is data created by customers when they customize their systems

3. User Master Record - A user master record defines the authorizations assigned to a user. Basis consultants are responsible for maintaining the user master record and assigning authorizations.

Advantages of Client concept

1. Clients enable SAP SAS providers to install a small number of SAP Systems, but still cater to a large number of customers.

2. Costs are not only saved by sharing hardware and software but multiple customers also use the same application solution, including administration and support.

3. Clients help establish your SAP landscape. For instance, you can have a client for the development team, a client for a test team and a production client.

SAP comes with three "standard clients":

1.000

2.001

3.066

000 Client: - We can find this client in the system as soon as we install SAP r/3 software. This is called master client. Client 000 contains a simple organizational structure of a test company and includes parameters for all applications, standard settings, and configurations for the control of standard transactions and examples to be used in many different profiles of the business applications. It contains client independent data.

001 Client: - This client is a copy of the 000 client including the test company. This client's settings are client-independent if it is configured or customized. People normally use 001 clients to create a new client.

066 Client: - This client is called early watch client. The SAP early watch alert is a diagnosis service, for solution monitoring of SAP and non-SAP systems in the SAP Solution Manager. Alert may contain Performance issue, average response time, current system load, Database administration, etc.

How to create a new Client

Theoretically, we can create clients from 000 to 999.But maintenance of such a large number of clients becomes a challenge.

Step 1) Execute T-Code SCC4



Step 2) It will bring you to the initial screen of SAP clients.

Displa	ay View "Clients":	Overview		
99	BERGients			
Client	Name	City	Crey	Changed on
999	SAP AG Konzern	Walldorf	EUR	22.03.2011
866	Test EarlyWatch Profiles	Walldorf	EUR	09.05.2003

Click New Entry to make a new SAP Client

Display View "Clients": Overview					
22	New Entry				
Client	Name	City	Crcy	Changed on	
000	SAP AG Konzern	Walldorf	EUR	22.03.2011	
866	Test Earl/Watch Profiles	Walldorf	EUR	09.05.2003	

Page 16 of 214

Step 3)

- 1. Enter basic details as given below.
 - Client number & description
 - City to which client Belongs (etc, NY-New York)
 - Logical system may be <Std>CLNT<Client Number>
 - Std Currency may be (etc EUR)
 - Client roles may be Customizing, Demo, Training/Education, Production, etc..

2. Enter your client specific data and set permission for the clients as per your requirement

3. Save

4. Press F3 to come back to SCC4

40 Now Entrine				
and the second se	A CONTRACT OF A CONTRACT. A CONTRACT OF A CONTRACT. A CONTRACT OF A CONTRACT. A CONTRACT OF A CONTRACT. A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT. A CONTRACT OF A CONTRACT O		_	
Client (1	100 Dev Client			
	Amsterdam	1 1 1 1 1 1		0010
City Logical system	SD1CLNT108	Date	hanged By	22.03.2011
Std currence	EUR	Date		22.03.2011
Client r 2	Customizing	5		
2	Contraction of the second seco			
changes and Trans	ports for Client-Specific Objects	La.	100000	
and a second s	ut automatic recording	Client s	pecifi	cations
Automatic record			Peerra	
O No changes all				
A STATE OF A STATE OF A STATE	utomatic recording, no transport			
		ts allowed		
C changes no s	utomasc recording, no sanspor	ts allowed		
C changes no e	utomasc recording, no eanspor	ts allowed		
		ts allowed		
Cross-Client Object	Changes			
Cross-Client Object			5)	
Cross-Client Object	Changes		D]	
Cross-Client Object Changes to Repo	Changes		5	
Cross-Client Object	Changes sitory and cross-client Customi opier and Comparison Tool		5	
Cross-Client Object Changes to Repo Protection: Client Cl	Changes sitory and cross-client Customi opier and Comparison Tool			
Cross-Client Object Changes to Repo Protection: Client Cl	Changes sitory and cross-client Customi opier and Comparison Tool			
Cross-Client Object Changes to Repo Protection: Client Cl	Changes sitory and cross-client Customi opier and Comparison Tool No restriction			
Cross-Client Object Changes to Repo Protection: Client Co Protection level 0:	Changes sitory and cross-client Customi opier and Comparison Tool No restriction			
Cross-Client Object Changes to Repo Protection: Client Co Protection level 0: CATT and eCATT R	Changes sitory and cross-client Customi opier and Comparison Tool No restriction		8	
Cross-Client Object Changes to Repo Protection: Client Co Protection level 0: CATT and eCATT R	Changes sitory and cross-client Customi opier and Comparison Tool No restriction		8	
Cross-Client Object Changes to Repo Protection: Client Co Protection level 0: CATT and eCATT R	Changes sitory and cross-client Customi opier and Comparison Tool No restriction		8	
Cross-Client Object Changes to Repo Protection: Client Co Protection level 0: CATT and eCATT R eCATT and CATT	Changes sitory and cross-client Customic opier and Comparison Tool No restriction estrictions Allowed		8	

Step 4) New client will be there in the list. Here we have created client 100.

A R R R R		
client Creatent	loev	Crcy Changed on
000 EAP AD X3	Walldorf	EUR 22.03.2011
000 CAP AD SOL	Walldorf Walldorf	EUR 22 03 2011 EUR 09 05 2003

Client Copy

Client Copy

We can generate a blank client with SCC4.But how to fill the data in the client? "Answer is the client copy."

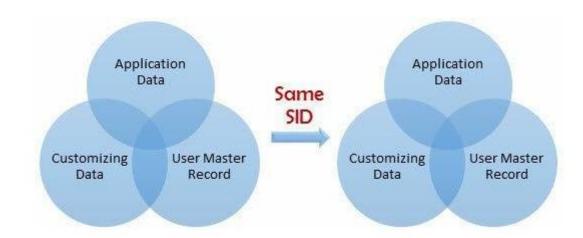
Client copy means **"transferring client specific data"** within the same instance(SID) or between different instances(SID).

Client copy can be performed with three different methods

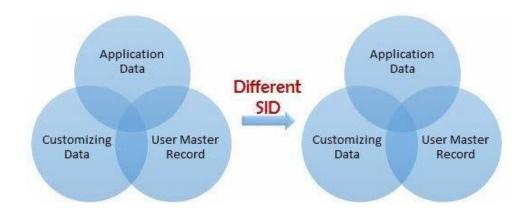
- 1. Local client copy.
- 2. Remote client copy.
- 3. Client Import/Export.

Below brief details are given about client copy methods.

Local Client Copy: This method is used to copy client within the same instance (SID). It is done by T-code **SCCL.**



Remote Client Copy: This method is used to copy client between different instances(SID). It is performed by T-code SCC9.



Client Import/Export: This method is used to copy client between different instances(SID). It is performed by T-code **SCC7/SCC8**.

Page **18** of **214**

Client Copy Pre-steps

To avoid data **inconsistencies** there are few pre-steps to be performed before starting client copy:

1) Disconnect and lock business users(SU10). You can end the session of active users in the system through SM04. Once all users are logged out, check that no cancelled or pending update requests exist in the system.

U	ser	List						
0	Ses	isions 🐣 🤇			9	7		
B	Clie	User	Terminal	Transaction	Time	Sess.	Туре	Megabyte
	500	DEVELOPER	APURVSULTANIA	RSA1	09.04.24	1	GUI	37
	500	DEVELOPER	dragos-PC	SMARTFORMS	09.04.28	3	GUI	50
	500	DEVELOPER	10.0.0.5		07.38.20	1	RFC	7
	500	DEVELOPER	sridhar-PC		08.09.51	1	GUI	2
	500	DEVELOPER	TED-PC	SE38	08.54.16	1	GUI	31
	500	DEVELOPER	JaiMataDi-VAIO	SE38	08.58.02	3	GUI	34
	500	DEVELOPER	192.168.15.211		08.42.01	1	RFC	11
-	500	DEVELOPER	FAMMOS-PC	SE38	08.33.01	1	GUI	4

2) Suspend all background jobs

• Execute **SE38** as given below.

SE38	3 🕅 1 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
SAP Eas	y Access - User Menu For DEVELOPER DEVELOPE
🚯 🖻 🤣	
• 😋 Favorite	s
• 🕑 URI	- >>> Wir suchen tolle neue Kollegen :-)
• 🕑 URI	consolut Homepage
• 🕑 URI	- consolut IDES Support Forum
• 🕑 URI	- Ärzte ohne Grenzen
• 🗗 URI	- Doctors Without Borders
• 🕑 URI	- You Want to Improve Your Career ?
• 🙆 URI	- Interesse an einer Karriere bei consolut ?
. 🗟 HD	Einfachas CAD Barachtigungekontant mit Excel Quppert 9

- Fill program name with "BTCTRNS1" as above figure.
- Press Execute.

AP Editor: Initial Screen		
2 C + + II I I & Debugging	With Variant	S Variants
\sim		
Program BTCTRNS1	Create	
Subobjects		
Source Code		
Variants		
Attributes		
ODocumentation		
O Text elements		
[a. a.] [a. a.]		
🗞 Display 🖉 Change		

3) For a local copy, the system must have enough space in the database or table space.

For remote copy, target system must have enough space in the database or table space. Check space using Tx **DB02**.

Tablespaces				
Total number	9		_	Current sizes
Total size/KB	465.453.056			
Total free/KB	67.422.912	14 %		Space statistics
Minimum free/KB	210.624			

4) To avoid inconsistencies during client copy users should not be allowed to work in source client.

5) **rdisp/max_wprun_time** parameter should be changed to 2000 second as a SAP recommendation. Although you use parallel processes and schedule job in the background, dialog processes will be used.

Local Client Copy

Local client copy is performed using Tcode SCCL.

Note: Here we have to Login Target Client.

Eg: Source Client (Default Client): 800

Target Client (Where we need to Transfer): 103

Pre-Requirements

- Check out whether Source Client & Target Client Existing or not.
- If not Create Client using T-code as SCC4
- We have to Locked all Active Users in Source Client
- Check out Size of Source Client & Target Client by using the T-code as SE38, Program as SPACECHECK
- We have to Pause all Background Job's by using T-code as SE38

Scenario:

- Source Instance & client: = DKM-000
- Target Instance & client: = DKM-202

Step 1) Create an entry for your new target client using **SCC4**. In our scenario, we will create client 202 in DKM system. Log on to this newly created target client **(DKM-202)** with user SAP* and default password pass.

Step 2) Execute T-code SCCL.



Step 3)

- Select your desired profile
- Enter Source client.
- Enter Description

ំភ្នំ ⁶ Schedule as Background Job	Start Immediately	
Target Client	100 Dev Client	
Selected Profile	SAP_CUST @	
Description (1)	Customizing	
Source Client	000 SAP AG Konzern	
Test Run		-

Step 4) By default Client Copy is executed as a single process. A Single process will take a lot of time. We will distribute the workload of single the process to parallel(multiple) processes which will reduce time in copying a client.

- 1. Select **GoTo** from the menu bar.
- 2. Select Parallel Process. Parallel processes are used to exploit the capacity of database better

0	Request Copy	F7
Client Copy	Delete Client	F9
12 Sch (2)	Parallel Processes	Shift+F1
Target Client Selected Profile	REC Destinations Back	F3

Step 5) Always execute long running processes in background mode rather than foreground/dialog mode. In fact, some processes run more quickly in the background.

😤 Schedule as Background Job	1) int Immedia	tely			
Target Client	100 Dev Clie	nt			
Selected Profile	SAP_ALL @				
Description	All Client-Specific Data w/o Change Documents				
Source destinat	BD1CLNT101				
System Name	BD1				
Source Client	101				
Test Run					
L] Test Run					

Step 6) The client copy logs are available in **SCC3.** Status - "**Successfully Completed**" means client copy is completed.

	elete Log	All Clients	All Transport Requests Exports	Transport Re	quests
lient Copie	s in Cli	ent	202 : 5		
Date	Time	Source	Status Text	Profile	Node Test
04.09.2006	18:03:29	200	Successfully Completed	SAP_ALL	Local
23.08.2006	01:00:27	200	Successfully Completed	SAP_ALL	Loost
18.07.2006	08:28:46	000	Buccepstully Completed	SAP_UCSV	Local
17.07.2006	07:45:04	200	Successfully Completed	SAP USER	Local

Remote Client Copy

This technique uses Remote function call. You can view RFC from SM59. This technique depends on the network, so network connectivity must be strong enough.

Note: Logon with Target Client

Eg: Source Client 800 Target Client 101

Pre-requisites:

- For this we require Logical System & RFC
- 1st we need to check whether client having Logical System or not (In Source Client). If not, we have to create Logical System with the T-code as **BD54**
- 2nd we need to check whether client having RFC or not. If not, we have to create the RFC with T-code as **SM59** (In Source Client)

Scenario:

- Source Instance & client: = **BD1-101**
- Target Instance & client: = **DKM-202**

Step 1) Log on to the target system. Here we will log on to DKM system. Create a new target client entry (202) using **SCC4**. Log on to this new target client with user **SAP*** and default password "**pass**". Here we will log on to DKM-200 system.

Step 2) Execute Transaction Code SCC9.



Step 3) Fill the basic details as per your requirement.

양 Schedule as Background Job	🗈 Start Immediately		
Target Client	100 Dev Client		
Selected Profile	SAP_ALL @		
Description (1)	All Client-Specific Data w/o Change Documents		
Source destinat.	BD1CLNT101		
System Name	801		
Source Client	101		

Step 4) Select Parallel Process. Parallel processes are used to exploit the capacity of database better.



Step 5) Schedule the client copy in background

Schedule as Backgroun	d Job (1) it Immediately 🔠 RFC System Comparison 🗣			
Target Client	100 Dev Client			
Selected Profile	SAP_ALL @			
Description	All Client-Specific Data w/o Change Documents			
Source destinat	BD1CLNT101			
System Name	BD1			
Source Client	101			
Test Run				

Step 6) The client copy logs are available in **SCC3** as given below.

0 9 🖬	Selete Log	All Clients	All Transport Requests Exports	Transport Re	quests
lient Copie	es in Clie	ent	202 : 5		
Date	Time	Source	Status Text	Profile	Node Test
04.09.2006	18:03:29	200	Successfully Completed	SAP_ALL	Local
23.08.2006	01:00:27	200	Successfully Completed	SAP ALL	Loost
18.07.2006	08:28:46	000	Duccecofully Graphened	SAP_UCSV	Local
17.07.2006	07:45:04	200	Successfully Completed	SAP USER	Local

Client Import/Export

For large database, it is recommended to use client import/export instead of remote client copy.

Scenario:

Source Instance & client: = PKT-300

Target Instance & client: = DKM-202

This technique always starts with client **export** step.

Note: You must have enough space in the /usr/sap/trans_SID file system to perform the client export.

In SAP command line enter T-code as SCC8/ SCC7 (Client Export/Import)

How to export client

Step 1) Log on to the target system(DKM). Create an entry for your new target client using **SCC4**. Log on to the source system/source client(PKT).

Step 2) **Before you import a Client you need to export.** Export is nothing but transferring data files and co-files from source system's database to target system's import buffer. Execute T-code **SCC8**.



Step 3)

- Select profile
- Choose target system.



Step 4) Schedule the export in background

Client Export	
* Schedule as Background Job	1 Int Immediately
Selected Profile	SAP_USER
Selected Profile Description	SAP_USER 🕢 User Master Records and Authorization Profile:

Step 5) Once the job is executed data files and co-files of profiles from **PKT system's database are transferred to DKM** system's import buffer. Once we will import request in DKM only then it will be reflected in a database of **DKM** system.

Depending on the chosen export profile there can be up to 3 transport requests created:

- Request PKTK000151 will hold the cross-client data,
- Request PKTKT00151 will hold the client dependent data,
- Request PKTKX00151 will also hold some client dependent data.

How to import the Client

Step 1) Log on to the newly created target client(DKM-202) using SAP* and password pass.

Step 2) Start the STMS_IMPORT transaction



As shown below, import queue will open

0		• 4		000) A A 🔄 🖉 🕒	
Import	t Queue: Sj	vsten	n N4	s			
0 4 5	7 % @ @ *	F 60	65	3660	8 8 8 8	8 6 8 8	
🔒 Reque 😿 Reque	sts for N4S: ' st '	1 / 29				14.02.2013 19	23:3
Number	Request	Cit	RC	Owner	Project	Short Text	St
1	E34K975388	500	۵	RALPH	E34_P00011	TP_UPLOAD: Complete Delivery (Version 1.09 of 18.	1
2	E34K975764	500		YOLKER	E34_P00022	I62 Rollen für N4S - 88.11.2812	V
3	E34K975596	888	0	VOLKER	E34_P00025	IDES Entwicklungen - 2.32 - complete	V
4	E34K975558	888		VOLKER	E34_P00020	System-Check W8 V02.36 - 13.89.2012 - Complete	V
5	E34K975768	588	0	VOLKER	E34_P00022	Z162_EXT_PORTAL	V
6	E34K973239	500	0	RALPH	E34_P00036	EXPLORER: StandardTayout	V
7	E34K973259	500		RALPH	E34_P00036	EXPLORER: Auslieferungscustomizing (Stand 01.04.2	V
8	E34K973883	500	0	RALPH	E34_P00036	EXPLORER: Auslieferung Rolle (83.82.2811)	V
9	E34K975348	500		RALPH	E34_P00036	EXPLORER: Complete Delivery (Version 1.88 of 28.8	V
10	E34K974191	588	0	RALPH	E34_P00036	EXPLORER: Sicherheitsprüfung aktivieren (Version	V
11	E34K974193	500		RALPH	E34_P00036	EXPLORER: Sicherheitsprüfung deaktivieren (Versio	V
12	E34K975764	888	4	VOLKER	E34_P00022	162 Rollen für N4S - 08.11.2012	V
	E34K975768	888	0	VOLKER	E34 P00022	Z162 EXT_PORTAL	V
13	E34K974129	888	ŏ	VOLKER	E34_P00025	IDES Entwicklungen - 2.98	V

Step 2) Select the transport requests generated by client export. Import theses transport requests on the target client.

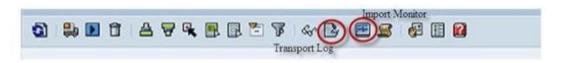
The transport requests should be imported in the following sequence:

1. Request PKTK000151

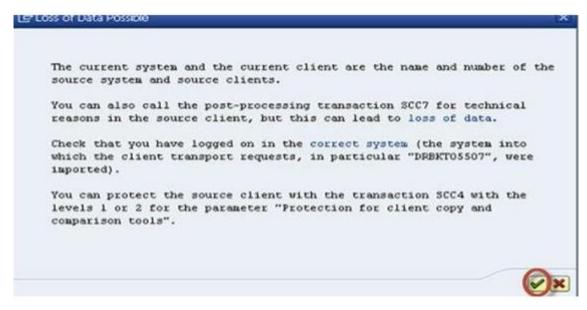
2. Request PKTKT00151

3. Request PKTKX00151 The system automatically detects these are client export transport requests and automatically performs the import of the 3 requests.

The import logs can be seen in **STMS_IMPORT**.



Step 3) Post import phase: - Once the import is done, execute SCC7 to perform the post client import actions,



Schedule the post import job in background.

SAP		
암 Schedule as Background Job	1)tart Immedia	tely
Post-Client Import Methods		
Request	SD1KT00002	
Profile name	SAP_USER	
Export time	01.06.2011	09:43:15
Export system	SD1	

Step 4) Import log will be available in **SCC3.** The Client is successfully imported.

Client Deletion

Following are the detailed steps to Delete a client in SAP

Step 1) T-code which is used for client deletion is SCC5.



Step 2) Click on "delete in the background" to run client deletion as background job. You can also check the option **"Delete an entry from T000"** table.

'욘 Delete in Background	1)Start	Immediately
Delete client		
Client to be deleted	100	Delete entry from T00

Table "T000" contains clients' entry which we have created in SCC4.

		Browser: Table T000 A 🗑 🗟 🕞 🕥 🖬 Check		5	
al Di s	ole: splaye	T000 d Fields: 17 of 17	Fixed Columns:		1
	MANDT	MTEXT	ORT01	MWAER	ADRN
Ĩ	000 066 500 800	SAP AG Konzern Test EarlyWatch Profiles MiniSAP external MiniSAP internal	Walldorf Walldorf Mannheim Mannheim	EUR EUR EUR EUR	

Step 3) Check the status of client deletion process using SM50.



Work process overview will open. "BGD" denotes background work process.

10	F14.6	12005	TRAILING	100			
11	BGD	2071	Waiting	Yes			-
12	BGD	2094	Waiting	Yes			
13	BGD	1815	Waiting	Yes			
14	BGD	32284	Waiting	Yes			
15	BGD	31109	Running	Yes	8841	SAPLRHAS	800
16	BGD	1766	Waiting	Yes			
17	BGD	1874	Waiting	Yes			1
18	BGD	4032	Waiting	Yes			

Once complete. Client will be deleted

Create a New User

Following are the detailed steps to Create a user in SAP

Step 1) Execute T-code SU01



Step 2)

- 1. Enter **Username** which you want to create.
- 2. Click the create button



Step 3) In the next screen

- 1. Click the Address tab.
- 2. Enter Details

3					
	DEMO	-			
ser ast Changed On	DENO		00:00:00	Status	Not saved
ast changed on		-	00.00.00	Status	Noc saved
Address	gon data SN	C Defau	ts Parameter	s Systems	Roles
Autress	yunuara Si	r. Delau	its prarameter:	SISTERIO	Nulles
Person					
Title	Mr.		•		
Last name	surname				
First name	XYZ				
Academic Title	-				
Format					
Function					
Department	buisness				
Room Number	PCV-234	Floor		Building	
Communication					
Language	English	*		Other	communication
Telephone			Extension		
Mobile Phone	123456789				
Fax			Extension		
E-Mail	XYZ@domain.	com			
Comm. Meth	Remote Mail	*			

Step 4) Choose the user type in Logon Data tab.

There are 5 different user types available in SAP system.

- **1** Communication
- 2 Dialog
- 3 Reference
- 4 Service
- 5 System

Communication Users

Users are not allowed/possible to logon using SAP GUI and can't able to access the data through SAP GUI screens. Users are allowed to change the password if expired using external link.

SAP system always checks for the password expiry, initial password and prompts when it requires to change depends on the logon method (interactive or non-interactive).

These users main purpose is to use for external RFC calls. These users can access the SAP system data through frontend or external applications.

This user is used for external RFC calls.

Dialog Users

Users are allowed to logon using SAP GUI and can able to access the data through SAP GUI screens. System validates the password expiration, initial password and multi-logons. The user can change the password by their own using SAP GUI. These users are individual users and individual personalized system access allowed.

This user is used for interactive system access from GUI.

Page **29** of **214**

Reference Users

Users are not allowed/possible to logon using SAP GUI and can't able to access the data through SAP GUI screens. System doesn't check for initial password and password expiration.

Users for general, non-person related which allows the assignment of additional authorizations to the users like internet users. These users used to give authorization to other users.

It is not possible to log on to the system with this user type. User type for general, non-person related users that allows the assignment of additional authorizations.

Service Users

Users are allowed to logon using SAP GUI and can able to access the data through SAP GUI screens. System doesn't check for initial password and password expiration.

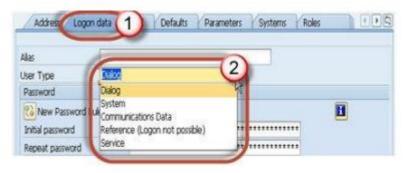
Multiple logins are allowed for this kind of users. Users are not allowed to change the password and only administrator can change the password. These users have very restricted/minimum authorizations. There type users are created for anonymous users. After an individual authentication, an anonymous session begin with service user can be continued as person-related session with a dialog user.

This user is created for a larger and anonymous group of users.

System Users

Users are not allowed/possible to logon using SAP GUI and can't able to access the data through SAP GUI screens. System doesn't check for initial password and expiration of password. Users are related System-related and internal system processes. The password change requirement does not apply to these user's passwords and it cannot be initial or expired. Only user administrator can change the password and multiple logons are permissible. These users are for background processing, external and internal RFC calls.

This user is used for background processing, communication within a system.



Step 5) Type the **initial password** for 2 times.

On first logon of the new user, system will ask to re-set the password.

Alias	
Jser Type	Dialog 👻
Password	
New Password R	Rules (Case-sensitive)
Initial password	08
Repeat password	
Password Status	
User Group for Auth	orization Check
and a star property of the second star second	orization Check
and a family and a start of the second start of the second	orization Check
User group	orization Check
User group Validity Period	orization Check
User group Validity Period Valid from	orization Check
User group Validity Period Valid from	orization Check
User Group for Auth User group Validity Period Valid from Valid through Other Data	orization Check
User group Validity Period Valid from Valid through	

Step 6)

- 1. Select the roles tab
- 2. Assign roles as per requirements

ale.	nce user for additional rights				(
	Assignments Role	Ту	Valid From	Valid to	Name
	SAP_ALM_ADMINISTRATOR	0	A COLORADO	1	Alert Management Adminis
	SAP_ALM_CUSTOMIZER	0			Alert Management: Role fc
	SAP_BC_AI_LANDSCAPE_DB_RFC	0	05.02.2013	31.12.9999	Application Integration: RF
	SAP_SLD_ADMINISTRATOR	0	05.02.2013	31.12.9999	Rolle für die Administration
	SAP_SLD_CONFIGURATOR	0	05.02.2013	31.12.9999	Rolle für die Konfiguration
	SAP_SLD_DEVELOPER	0	05.02.2013	31.12.9999	Rolle für die Nutzung des S
	SAP_SLD_GUEST	0	05.02.2013	31.12.9999	Rolle für das Anzeigen von
	SAP_SLD_ORGANIZER	0	05.02.2013	31.12.9999	Rolle für die Organisation a
٠	SAP_XI_ADMINISTRATOR	0	05.02.2013	31.12.9999	Exchange Infrastructure: A
	SAP_XI_ADMINISTRATOR_ABAP	0	05.02.2013	31.12.9999	Exchange Infrastructure: A
	SAP XI ADMINISTRATOR JZEE	0	05.02.2013	31.12.9999	Exchange Infrastructure: A

Step 7)

- 1. Select the **profiles** tab
- 2. Assign profiles as per requirements

Assigned Autho	rizatio	n Profiles
Profile	T.	Text
SAP_ALL	0	All SAP System authorizations
SAP_NEV	0	SAP_NEW
T_ALM_CONF	9	Profil zur Rolle SAP_ALM_ADMINISTRATOR
T_ALM_CUST	9	Profil zur Rolle SAP_ALM_CUSTOMIZER
T_B0960155	9	Profil zur Rolle SAP_SLD_GUEST
T_B0960156	9	Profil zur Rolle SAP_SLD_DEVELOPER
T_B0960158	9	Profil zur Rolle SAP_SLD_ORGANIZER
T_B0960159	9	Profil zur Rolle SAP_SLD_ADMINISTRATOR
T_BE111057	9	Profil zur Rolle SAP_BC_AI_LANDSCAPE_DB_RFC
T_BI560001	•	Profil zur Rolle SAP_XI_CONFIGURATOR_ABAP
T BI560002	9	Profile for the Role SAP_XI_ADMINISTRATOR_ABAP

You can assign **SAP_ALL** and **SAP_New** profile to user for full authorization.

- **SAP_ALL:** You assign this profile to users who are to have all R/3 authorizations, including super-user authorization.
- **SAP_NEW:** You assign this profile to users who have access to all currently unprotected components. The SAP_NEW profile grants unrestricted access to all existing functions for which additional authorization checks have been introduced. Users can therefore continue to work uninterrupted with functions which are subject to new authorization checks which were not previously executed.

Step 8)

- 1. Press save
- 2. Then the **back button (F3)** button



User will be created!

Users Lock & Unlock

Locking a user

The Purpose of locking user is to temporarily deactivate the users so that they cannot longer access the system.

Users can be locked in 2 ways:

- Automatically
- Explicitly/Forcefully

Automatically: There are two possibilities when users get lock automatically

- Maximum number of failed attempts: controlled via the parameter login/fails_to_user_lock. If a value is set to 3 it means after 3 failed attempts user will be locked.
- Auto unlock time: "login/failed_user_auto_unlock" defines whether user locked due to unsuccessful logon attempts should be automatically removed at midnight.

Explicitly/Forcefully: We can lock and unlock users in 2 ways

1. Lock single user (SU01)

2. Lock multiple user (SU10)

Procedure to lock a single user

Step 1) Execute T-code SU01



Step 2) Enter a username in User field.

User	Maintenance: Initial Scr	een
00	« Î 🖸 🖀 💰	
_		
User	ABC	

Step 3) Press Lock/Unlock button

D /	er D C B d
User	ABC
Alias	

Step 4) In the next screen, Press **Lock** button again to lock the user.

~

Procedure to lock multiple users

Step 1) Execute T-code SU10



Step 2) Enter users a username in User field.

lser selecti	on	
	Address data	Authorization data
User		
Licor	Full Name	
ABC		
XYZ		
Test		
Demo	10	

Step 3) Press Lock/Unlock button

User Ma	intenance: Mass	Ch
000		
User selectio	Lock/Unlock (Ctrl+F5)	0-5
	Address data	
User		
User	Full Name	
ABC		
XYZ		
Test		
Demo	0	

All the users listed will be locked

Procedure to unlock a user

Step 1) Execute T-code su01



Step 2) Enter username in **User** field.

		User	Maintenance: Initial	Screen
	ABC	00	« 🗊 🗅 🖀 💰	
	ABC			
User ABC		Iser	TABC	

Step 3) Press Lock/Unlock button

User	Maintenance: Initial Screen
	er ti te a
User	ABC
Alias	

Step 4) Press Unlock button

Locked due to incorre	ict logons !	

Procedure to unlock multiple users

Step 1) Execute T-code SU10



Step 2) Enter users' username in User field.

	tion	1
	Address data	Authorization data
Iser		
loor	Full Name	
ABC		
(YZ		
Test		
eno	10	

Step 3) Press Unlock button

User Main	ntenance: Mass Chang
000	
User selection	V
A	ddress data
User	
User	Full Name
ABC	
DEMO	
TEST	
XYZ	٥

Users will be unlocked

Logon Limit Attempts

Before we learn to limit logon attempts we need to know parameter

What is a parameter

Parameter is the set of keys and values to manage the SAP system. There are two types of parameters

- **1. Static:** It needs a restart. It doesn't effect to the system immediately once you set the value for it.
- **2. Dynamic:** It does not need restart. It effects to the system immediately once you set the value for it.

How to view a Parameter?

Step 1) Execute T-code RZ11.



Step 2)

1. Put parameter name "login/fails_to_session_end" in text field. You can put any Parameter name.

2. Click Display

Maintai	n Profile P	arameters		
E				
		G	\	
Profile par	ameter mainten)	
Param. N				
Param. N	_to_session_er			

Step 3) The screen below shows the current value set for the parameter by the admin

Documentation		
Parameter Name		
login/fails_to_session_end		
Short Description (Engl.)	Number of invalid login attempts	until session end
Application Area	Logon	0
Parameter Type	Integer value	D
Changes allowed	Change permitted	O
/alid for Operating Sys.	All operating systems	Ø
Minimum	1	
Maximum	99	
Dynam, switchable		
Same on all servers		
Default Value	3	
Profile Value	3	
Current Value	3	

In order to change a parameter, click the pencil icon and make desired changes.

Important Parameters to limit login attempts

- **login/fails_to_session_end:** This parameter specifies the number of times that a user can enter an incorrect password before the system ends the logon attempt. The parameter is to be set to a value lower than the value of parameter
- **login/fails_to_user_lock:** This parameter specifies the number of times that a user can enter an incorrect password before the system locks the user against further logon attempts. Default value is 12. You can set it to any value between 1 and 99 inclusive.

Incorrect Login Parameters

- **login/fails_to_session_end:** Specifies the number of unsuccessful logon attempts. The system does not allow any more logon attempts. The parameter set to be a value lower than the login/fails_to_user_lock value. The default value is 3. The allowed values are 1 to 99.
- **login/fails_to_user_lock:** Specifies the number of unsuccessful logons attempts before the system locks the user. The default value 5. The allowed values are 1 to 99.
- **login/failed_user_auto_unlock:** Specifies whether user locks due to unsuccessful logon attempts should be automatically removed at midnight. The default value is 0 (locks due to incorrect logon attempts remain in force for an unlimited period). The allowed values are 0 or 1.

Password Restrictions

Every user requires a configured userid and password to access the SAP system. Initially, the password configured by the SAP system administrator.

On the first logon, user needs to change the password according to the rules/restrictions configured in the system by administrator. The rules/restrictions are configured in the system with some set of the parameters. The parameters with password rules are called as password rules parameters.

Parameter	Description
login/min_password_lng	Specifies the minimum length of the password. The default value is 6. The allowed values are from 3 – 40.
login/min_password_digits	Specifies the minimum number of digits (0-9) in passwords. The default value is 0. The allowed values are from 0 – 40.
login/min_password_letters	Specifies the minimum number of letters (A-Z) in passwords. The default value is 0. The allowed values are from 0 – 40.
login/min_password_lowercase	Specifies the number of characters in lower-case letters a password must contain. The allowed values are from 0 – 40. The default value is 0.
login/min_password_uppercase	Specifies the number of characters in upper-case letters a password must contain. The allowed values are from 0 – 40. The default value is 0.
login/min_password_specials	Specifies the minimum number of special characters in the password. The special characters allowed are !"@ $\$ =?'`*+~#,::{[]}\<> and space and the grave accent. The default value is 0. The allowed values are from 0 – 40.

Password rules parameters

login/password_charset	 This parameter specifies the password characters set. Allowed values are: 0 (restrictive): The password can consist only following (ASCII) special characters: !"@ \$%&/()=?*+~#,;:{[]}\<> and space and the grave accent.
	 1 (backward compatible, default value): The password can consist of any characters including national special characters (ISO Latin-1, 8859-1).
	 2 (not backward compatible): The password can consist of any characters.
	There are some other set of parameters with rules which are in effect when changing the password in the SAP system. Those parameters are called as password changes parameters.

Password changes parameters

Parameter	Description
login/min_password_diff	Specifies the minimum number of characters that must be different in the new password compared to the old password. The default value is 1. The allowed values are from 1 – 40.
login/password_expiration_time	Specifies the validity period of passwords in days. The default value is 0. The allowed values are from 0 – 1000.
login/password_history_size	Specifies the number of passwords that the system stores and that the user cannot use again. The allowed values are from 1 – 100. The default value is 5. In this unit is number of entries.
login/password_change_waittime	Specifies the number of days that a user must wait before changing the password again. The allowed values are from 1 – 1,000. The default value is 1. In this unit is days.

Table USR40: Specifying Impermissible Passwords

Users can be prevented from choosing passwords that administrator/company do not want to allow. Table USR40 contains the prohibited rules for the users.

To add new restriction, the restriction should be entered in table USR40. To maintain the table USR40, SM30 transaction can be used. There are two wildcard characters:

- ? Specifies a single character
- * Specifies a sequence of characters in any combination of any length.

Example

• 567* - Rejects any password that begins with the sequence "567".

• *567*- Rejects any password that contains the sequence "567."

• KL? - Rejects all passwords that begin with "KL" and have one additional character like "KLA", "KLB", "KLC" and so on.

Table USR40: Adding new restriction

Step-1: Go to SM30.

Menu Edit Eavorites Extras System Help	<u>^</u>
🚺 🐨 🐨 🐨 🐨 🖓 🐨 🖓 👘 👘 👘 👘 👘 👘	
AP Easy Access	
), 🖙 😓 🛔 Other menu 🛛 📩 📩 🥢 🖙 🔺 🛛 🖾 Create role 🚽 🍰 Assign users 🛛 🔝 Documentation	
Favorites	
SAP Menu	
Office	
Cross-Application Components	
Logistics	
Accounting	
Human Resources	
Information Systems	
Tools	
WebClient UI Framework	

Page 40 of 214

Step-2: It navigates to the "Maintain Table Views: Initial Screen".

🛗 Find Maintenanc	e Dialog					
		 -				
Table/View	1					
Restrict Data Range						
 No Restrictions 						
OEnter conditions						
○ Variant						

Step-3: Enter USR40 in the "Table/View" field. Click on the maintain icon.

🛗 Find Maintenance Dialo	9			
		_		
able/View	SR40			
Restrict Data Range				
No Restrictions				
 Enter conditions 				
O Variant				

Step-4: It displays an informational dialog box showing a caution like below. Click on tick mark.

Ма	intain Ta	ble V	iews: Initi	ial Sci	reen		
ŴЯ	nd Maintenand	e Dialog					
Table/	View	U	SR40				
Restri	ict Data Range						
	Restrictions						
O En O Va	ter conditions	_					
Ova	iriant						
6 ₆ r	Display	0	Maintain	.	Transport	-	Customizing
	Er Info	rmation					×
			The table is cro				1
	L	aution:	The table is cro	oss-client			а.

Step-5: Click on the new entries in the below screen to add a restriction.

ole for illegal passwords		
sssword Patt./Indiv. Value	Case-Sens?	

Step-6: Now the table is editable.

Table for illegal passwords		
Password Patt./Indiv. Value	Case-Sens?	
Password Patch and Value	Case-Selis	
-		Ŧ
		Ξ.
	4	<u>۲</u>

Enter the restrictions to the table below and click on save to restrictions become active.

New Entries: Overview of Ad	ded Entries	
≫ B. B. B. B.		
Table for llegal passwords		
Password Patt./Indiv. Value	Case-Sens?	
*567		-
567		
KL?		
	•	F.

Step-7: It prompts for a workbench request. Click on the right mark to proceed. Once the work bench request completed, all the restrictions added in effect.

New Entries: Overview of Ad	ded Entries	
≫ B, B B B B		
Table for illegal passwords		
Password Patt./Indiv. Value	Case-Sens?	
* 567		
567		
KL?	· · · ·	
	4 3	
Position	Entry 1 of 39	
Data was saved	SAP	

Page **42** of **214**

Background Job Create, Schedule, Reschedule

What is a Background Job

Background job is a non-interactive process that runs behind the normal interactive operations. They run in parallel and do not disturb interactive (foreground jobs) processes and operations.

It is scheduled from SM36. You can analyse it from SM37 by viewing its job log.

Advantages of Background Jobs

- It reduces manual effort & automates the task.
- It can be scheduled as per user's choice.
- It reduces user interaction and can run seamlessly in the background without user input
- Once you define the variant for background job, the user doesn't have to worry about value input in the field. Thus, user confusion is also reduced.
- Ideal for time- consuming/resource intensive programs which can be scheduled to run in the night (when system load is low).

Background jobs are classified into three categories

1. Class A (High/critical Priority): - Some tasks are urgent or critical and must be scheduled with class A priority job. Class A priority reserves one or more background work processes. Users have to decide how many background work processes should be assigned to Class A priority job. Suppose a user chooses 2 background work processes for this category then available background work processes for class B and C = (Total number of work processes set in operation modes RZ03)- (Background work processes allowed to class A category).

2. Class B (Medium Priority): - Once Class A jobs are completed, Class B job will start executing in the background before class C jobs.

3. Class C (Low Priority): - It runs after both class A and class B jobs are completed.

Possible status of background jobs

1. Scheduled: - You have defined the program name and variant but not defined start condition like Start Date, End Date, Frequency etc. That means you have not defined when a job should be scheduled in system.

2. Released: - All required criteria are fulfilled for job definition. Start condition is must for the job to be in release status.

3. Ready: - All the required conditions are met to run the job in a background work process. But job scheduler has put the job in the queue because it is waiting for background work process to be free.

4. Active: - Job has started running in the background. We cannot change the status of the job once it is in Active status.

5. Finished: - Job is executed successfully. It means the desired task is competed without any error.

Page **43** of **214**

6. Cancelled: - There are two possibilities for this. The Administrator has forcefully cancelled the job or there might be some issue with job. You can investigate this from Job logs.

How to schedule the background job

You can schedule the background job using SM36. Planned or immediate jobs can be scheduled.

Step 1) Execute T-code SM36.

0	SM36	0
SA	AP Easy Access	- User l
	s 👌 😹 🔀 🦉	•
	Sectors.	

Step 2) Fill the job name, priority **(A/B/C)** and the target server. Background jobs once scheduled on a target server run on that server. Main purpose of defining target server is the workload balancing.

	Step	
General data		
Job name	USER_LIST	
Job class	C	
Status	Scheduled	
Exec. Target	0	
		J
Job start		Job f

Step 3) Click on "spool list recipient". You will get output in your mailbox. You can check email from SBWP.

}eneral data		
Job name	USER_LIST	
Job class	C	
Status	Scheduled	
Exec. Target		Spool list recipient

Step 4) Insert your SAP username and click the copy button.

ecipient	DEVELOPER	🔄 🗗 AP user name 🛛 🗍
Conoral at	tributec	
Сору		🔲 Blind copy
Express	3	🗌 No forwarding
	3	

Step 5) Click **Step** button to define ABAP program, variant's details, etc.

P Start condition	Step	Job selection	🚮 Own jobs
General data	U	etine steps (F6)	
Job name	USER_L	IST	
Job class	C		
Status	Schedu	led	
Exec. Target			6

Step 6) Define program name, variant details.

1. Enter your program name, Variant name in the field. If you have not created variant as per your requirement, then leave it blank.

2. Press save button.

ABAP pro	gram External command External program
BAP program	
Name (1)	RSUSR200
Variant 1	M_TEST O
Language	EN
Name Parameters	
	(command pre-defined by system administrator)
Operating sys.	
Target server	
	lirect command input by system administrator)
External program (d Name	

Step 7) Once you schedule the job you will get the following screen.

St	tep List Overview							
0	🗋 🔍 🔝 🛷 🗊 🖉 s	pool		H 4	•	H		
-			_	_	_			-
No.	Program name/command	Prog.	type	Spool	list	Parameters	User	Lang

Step 8) Click Start conditions to fill start date, end date, frequency, etc. for job. If you do not specify start condition, **then job will always remain in scheduled status.** A job in scheduled status will never run.

1. Click on Date/Time (For periodic jobs). If you click "Immediate" then job will start running right away. But it will not be set as periodic job. It's like "press and run."

2. Define job's start date/time, end date/time. The job will be released only once it meets its Scheduled start date/time.

3. Press periodic values.

Date/Time	-			-	
Scheduled start No Start After	2 Date Date	10.03.2013	Time Time	11:00:00	
After job			At op	eration mode	
After event		R			

Step 9) Click on Hourly/Daily/Weekly period to define the frequency of the job as per your requirement. We will select Other Period

	Hourly
	Daily
	Weekly
	Monthly
C	Other peripd

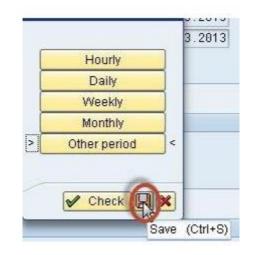
Step 10) Here you specify the recurring criteria of the job. For example, you can have the Job run after every 5 days from the Start Date. Here we select job to run every 10 minutes.



Step 11) Click on save button.



Step 12) Click on save again.



Step 13) Click save again

Scheduled start No Start After	Date Date	10.03.2013 11.03.2013	Time Time	11:00:00 11:00:00	
fter job			At ope	ration mode	
uter event					

Step 14) Once **Job step and start conditions** are defined the following window will appear.

Start condition	Step \$	A Job selection	🕜 Own jobs	S Job wizard
General data				
Job name	USER_LIS	T]		
Job class	0			
Status	Schedule	d		
Exec. Target			Sp	ool list recipient
Ob start Planned Start		provincestation		quency 11 nute (s)
Planned Start	03.2013	Time [11:00:00	18 1	
Planned Start	03.2013	Time 11:00:00	18 1	
Planned Start Date 10. No Start after		Time 11:00:00 Time 11:00:00		
Planned Start Date 10. No Start after				
Planned Start Date 10. No Start after				
Planned Start Date 10. No Start after				

Step 15) Press save.

Define Back	ground	Job	
🔊 Start condition	🔊 Step	Sob selection	🚯 Own ja
General data			
Job name	USER_L18	<mark>ат</mark>	
Job class	C		
Status	Schedule	d	
Exec. Target			

Step 16) GoTo **SM37** to know the status of the job.

Start condition	🖑 Step	2 Jo	ob selection	🕜 Own j	jobs	🔑 Job wizard	Standa
General data							
Job name	USER_LIS	6T					
Job class	C						
Status	Schedule	ed					
Exec. Target					Spo	ol list recipient	
Job start Planned Start		_	44.00.00		10 M	inute(s)	
Date 16	.03.2013	Time	11:00:00] [WC-an	
No Start after							
Date 11	.03.2013	Time	11:00:00]

Step 17) Select your criteria for the job which you want to monitor.

- 1. Put your job name and username who scheduled the job.
- 2. Select the status of the job.

3. Specify the date range. In our scenario, we just specify the end date while keeping from Date Open.

🕏 Execute 🕅	Extended job selection 🔢 Information	0
ob name	USER_LIST	4
ser name	DEVELOPER	
Job status	Released Ready Active	inished Canceled
Planned		inished Canceled

Step 18) You will get the following screen. Look at the status, it's a released means start conditions are met, and the job is in the queue is waiting for **background work process to be free**.

Selected job na Selected user names:	mes: USER_LIST DEVELOPER				
Scheduled 📝 Release Event controlled E ABAP program Prog	vent ID:	Active	Finished	Canceled	
	a second	- insurance -		and the second	-
Job	Spoo	Job Doc	Job CreatedB	Status	
Job	Spool	I Job Doc	Job CreatedB DEVELOPER	Status Released	

How to Reschedule a background job

Rescheduled jobs will not run in the future. Remember, you cannot deschedule the job once it's in active status. **Step 1)** Execute SM37.

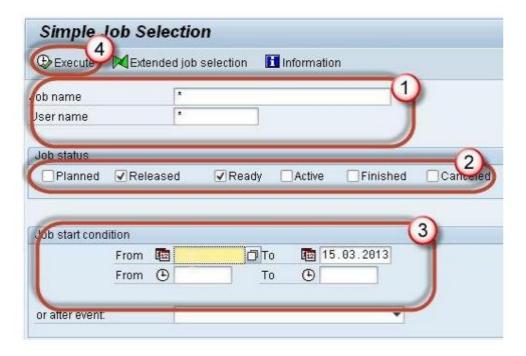


Step 2) Fill the criteria.

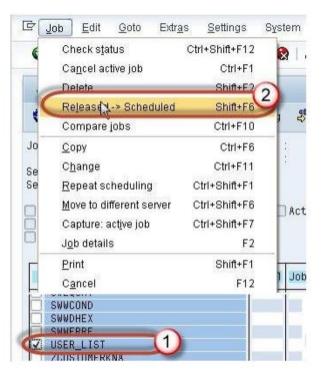
1. Job name and username by which job is scheduled.

Page **51** of **214**

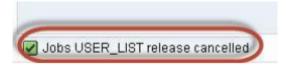
- 2. Select the status. To deschedule the job you can only select Released/Ready status.
- 3. Specify the date range.
- 4. Press Execute(F8) button.



Step 3) Select specified job and press Job -> (Released -> Scheduled).



Step 4) You will find the message in the status bar once you press "Released -> Scheduled".



Background Job Monitoring

Monitoring background job is important because once you schedule the job it might be cancelled due to some error. To investigate the root cause use SM37.

Step 1) Execute T-code SM37.



Step 2) Fill the required criteria.

1. **Job name and username** (who scheduled the job). You can put * to get details of all jobs scheduled by all the users.

2. Select job status which you want to monitor. If you find that a background job is not completed, select Cancelled status.

3. Put the date range as per your requirement.

empre.	Job Selection
Execute	Extended job selection
lob name	
Jser name	
1.1.1.1	
Joh status	
Sched.	Released Ready Active Finished Canceled

Step 3) You will get a screen as shown below.

DI_FRUUCOO_URAIN	
RT PROCESS CHOIN	DEVELOPER Concolor
BI_PROCESS_CHAIN	DEVELOPER Canceled
DI DDOCECC CUAIN	

Step 4) Click on Job Log button to trace the error due to which job was cancelled.

		-	10				40.5		-
C PReleas	e 🔘	🖬 📓 Sp		hjop log	- St	ep 🛛	Applicati	on servers	76
Job overview	from:	00.00.0	000 at:	11	-				
	to:	13.03.2	013 at:	:	:				
Selected	jo	b names:	*						
Selected use	r names	:	*						
Scheduled	Rel	eased	Rea	ady	Activ	e 🗌 Fi	nished	Cance.	led
Event cont	rolled	Event		103125	2010/201	an analasi	AND DEPENDING OF	2012 (CC24) (CC	

Step 5) You will get the following details. In the below example, job was cancelled since there was an issue with RFC connection to the remote system. As a resolution use SM59 to check if there is an authorization issue to the remote system.

Deter	Tiac	Theorage bank	
07.03.2013	19:00:24	RFC connection check failed. Check connection	
7.03.2013	19:00:24	Job cancelled after system exception ERROR_MESSAGE	

Sometimes jobs in Active status may also cause an issue.

You may face issues like table spaces are full; the duplicate job is running with the same name and timing, job is selecting or updating large data, etc.

You can also check such jobs from SM37. Follow the procedure as below.

Step 1) Execute SM37.

Step 2) Fill the required criteria.

1. Job name and username (by which job is scheduled).

2. Select job status which you want to monitor. **If you find a system performance issue or if a task is not completed for a very long time, then select active status.**

3. Put the date range as per your requirement.

Simple .	Job Selection
Execute	Extended job selection
Job name User name	
Job status 2 Sched.	□Released □Ready ☑Active □Finished □Canceleg
Job start con	dition 3 om 13.03.2013 To O

Page 54 of 214

Step 3) Look into Duration column (which signifies the job is running since n seconds). If you find a large number in duration, then investigate the job details from job log. Some jobs use a large number of data. Using SE16 check table entries for the tables used by the job.

Status	Start date	Start time	Duration(sec.)
Active	13.03.2013	16:02:06	4.796
		-	4.796

Sometimes jobs show to be in Active Status even though they are completed.

How to correct them? Follow the below set of procedure

Step 1) As shown above, Execute T-code SM37 and select the job with an active status.

Step 2) Select the active job which is causing the problem.

Job		Ln	Job ReatedB
BI WRITE PROT TO APPLLOG)		DDIC

Step 3) Click the Job->Check status

ob 1 t Goto Extra	s <u>S</u> ettings S <u>y</u> s	tem
Check status	Ctrl+Shift-2	0
Cancel active job	Ctrl+F1	
D <u>e</u> lete	Shift+F2	
Released -> Scheduled	Shift+F6	0
Compare jobs	Ctrl+F10	42
		-

Step 4) In the **status bar** of the window you will find as below message. This will repair Job Status if there was a problem.



Step 5) If still job is in running status then GoTo **SM50**. Below screen will open. Have a look at "**Reason**" column which shows any errors or exceptional issue. Investigate it further.

G	٢		≩ I4 ∢	+ H	C F	891	
	No	Ty.	PID	Status	Reasn	Start Err	Sem CPU
3	0	DIA	13092	running		Zes 1	
	1	DIA	28798	waiting		(es	
3	2	DIA	1824	running		(es	
	3	DIA	19616	waiting		les	
	4	DIA	19672	waiting		Zes	
	5	DIA	28014	waiting		les	
	6	UPD	16721	waiting		les	
	7	ENQ	18915	waiting		les	
	8	BGD	6535	waiting		/es	
	9	BGD	24024	running		Zes	
	10	SPO	23530	waiting		Zes	
	11	UP2	21179	waiting	1	Yes	

Background Job Deletion

Why Delete Background Job

Old jobs occupy space on the system. To avoid any inconsistencies within the system normally we delete the logs. Because if the file system gets full, your SAP system will crash!

You can delete jobs in two ways:

1. Multiple jobs at once.

2. Single job deletion.

Delete Multiple Jobs at once The best way to do this is use report **RSBTCDEL2(New version of RSBTCDEL)**. Old job logs will be deleted and will not show in the job overview.

Step 1) Execute T-code SE38.



Step 2) Put the program name in the field as RSBRCDEL2.

6 · D	2. 5. 10 18	Debugging	A taring training	R.
		- Cebugging	www.mvanani	
	_	 -		
Program	RSBTCDEL2		Create	
Program	RSBTCDEL2		Create	

Step 3) Fill the proper details.

1. Which job do you want to delete? If you put * means all jobs. If you want to delete jobs from a specific user, give Username.

2. Specify Status of Job to be deleted. Specify time period of Deletion. For instance, delete jobs older than 14 days. NOTE: Once the job is inactive status, it is impossible to delete them.

3. Specify Commit. Commit value is proportional to program performance. If the commit value is high, then job deletion will run faster. Recommended value is >= 1000.

4. Check Test run to simulate the deletion. Jobs will not be deleted. Once you are sure only then uncheck the Test run.

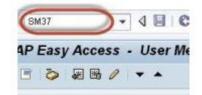
5. Press Execute.

fferentiation Spo Job Name	concarono.	(\$		
User Name			¢	5	
Event			\$	$\mathbf{\nabla}$	
Event Paramete	r.		\$		
				/	
atuses, Classe	s, and Time	Specifications			
_			A	Job Class B	C
Released		Older Than (Days)	14	14	14
Scheduled	ä	Older Than (Days)	14	14	14
Finished	2	Older Than (Days)	14	14	14
Canceled	1	Older Than (Days)	14	14	14
			11		
erformance Opti					
Commit	10	888 3			
location in the					
ecution	0				
Test Run 🗸	(4)				

Single job deletion

You can also delete a single job from **SM37**.

Step 1) Execute SM37.



Step 2) Fill your criteria.

1. Job name and username

2. Status of the job.

3. Select the date range.

Job name	USER_	TCT	_		
Jser name	(*				
Job status	_				
Planned 🔽	Release 2	Ready [Active	Finished	Canc
Job start condition					
	om 🜆	ОТо	1 4.	03.2013	
Fro		To To	₫ 14. €	03.2013)
Fro	om 📧 📃			03.2013)
Fre	om 📧 📃			03.2013	
Fre	om 📧 📃			03.2013	

Step 3) Select the job you want to delete.

- surty	Spool	Job Dac	Job CreatedB	Status	Start date	Start time	Duration(sec.)	Delay (sec.)
2 INSER LIST			DEVELOPER	Released			0	5

Step 4) GoTo Job-> Delete.



You can also delete the jobs from OS level under directory

/usr/sap//SYS/global/JOBLG. Folder.

But deletion from OS level may cause **Temse** inconsistency issue. To remove inconsistencies GoTo **SP12-> Consistency check.** Once you get the list, delete the objects.

Normally, Job- **SAP_REORG_JOBS** (Program to Delete old background jobs) must be scheduled within the system with program **RSBTCDEL2** at the daily frequency.

TMS (Transport Management System)

What is TMS

TMS is used to move, manage, control, copy development objects and customizing settings in an orderly fashion across SAP systems in a landscape through pre-defined transport routes (RFC Connections). The transport process basically consists of exporting of objects out of the source SAP system and importing them into the target SAP system/s. TMS Stands for Transport Management System

Why do we need a Transport System



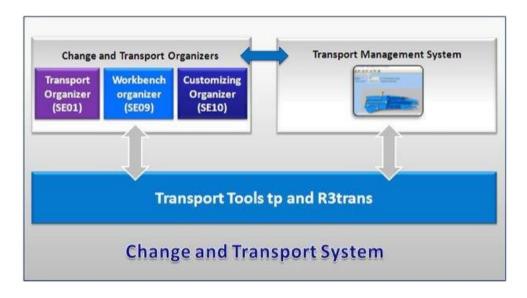
The CTS components play an important role in the overall development and customization environment. CTS stand for Change and Transport System

Page 59 of 214

CTS is an instrument for:

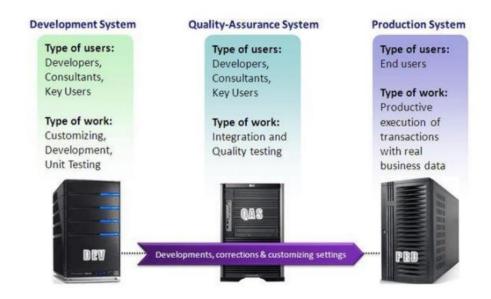
- Administering & controlling new development requests.
- Managing transports
- Recording of where and by whom changes are made
- Configuring systems landscape

Overview of CTS Components



- **CTO (Change and Transport Organizer)** It's the main tool for managing, browsing, and registering the changes done on the repository and customizing objects. It's the central point for organizing the development projects. SE01 is the transaction with the new extended view.
- Transport Tools The actual transports happen in the backend at the OS level using transport tools, which are part of SAP Kernel and includes the program **R3trans** and the transport control program **tp**.
- (TMS) Transport Management System

System Landscape



The system landscape (also known as SAP System Group) is the arrangement of SAP servers. Ideally, in a SAP environment, a three system landscape is recommended. It consists of the

1. Development Server - DEV

2. Quality Assurance Server - QAS

3. Production Server - PRD

Transport cycle in a very basic sense is the release of new Developments/ Customizing Changes from DEV which are imported in both Quality and Production systems. However, import in PRD can happen only once integration Testing and quality check have been performed in QAS (and marked as checked).

What is Customizing, How does

TMS help in Customizing

- Customizing is a process to adapt the SAP system according to the customer's need. To perform the customizing, users and consultants take help of SAP Reference Implementation Guide (IMG), which is accessible through transaction SPRO.
- Customizing is ideally done in DEV. The Transport Organizer (SE01) is used in conjunction with IMG to record and transport customized changes further.



Most of the Customizing changes (though, not all) are client specific, i.e., the changes are supposed to be reflected in a particular client only and not intended for all the system clients. When the Transport Request is exported, it extracts the relevant table entries from the database of the SAP system and copies them to the

transport directory. Relevant table entries are locked when the customizing transaction is being used. However, they are unlocked as soon as the changes are saved to a Transport Request.

Repository and Development Changes

Apart from customizing already existing objects, new developments are also required in most of the cases. Development object is any object that is created (developed) by you in SAP system.

A Collection of all such objects (client-specific or cross-client) is called **Repository**.

Development is mostly done with the help of ABAP Workbench (SE80). Therefore, such changes are also known as Workbench Changes.

Examples:

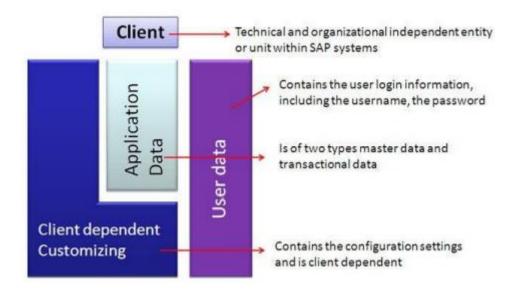
- ABAP Dictionary Objects: Tables, Domains, Data elements, etc.
- ABAP Programs, function modules, menus, screens
- Documents, Application defined transport-objects, etc.

Workbench is also fully integrated with TMS, to record and transport the changes.

Most of the Workbench changes (though, not all), are **cross-client**, i.e. changes will be reflected in all the system clients of the target system. Objects transported from the source system overwrite objects in the target system that has the same names.

Clients and the type of Data in SAP System

- Conceptually, client is a technical and organizational independent unit, that contains its own set of data (Master Data, Application/ Operational data, Customizing Data)
- Clients create separate environments for users from different user groups or with a different purpose, within same SAP system, without actually using the different database.
- From the Technical point of view, a client is specified using 3-digit numeric ID, which also acts as the value for the table field 'MANDT', in the case of client-specific jobs.



Among client specific data, there are 3 types of data:

• User Master Data contains the user login information, including the username, the password and the user defaults, the authorization profiles or roles, and the other useful information such as user groups, communication and so on. This data is physically present in a specific set of tables (the USR* tables).

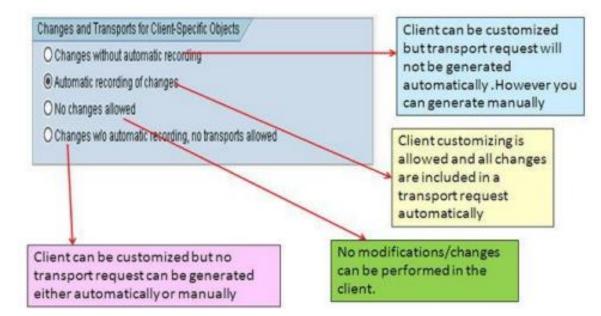
Page 62 of 214

- **Customizing Data** contains the configuration settings to customize organizational structure and the business processes for the companies implementing SAP. This data is client dependent and is stored in tables known as customizing tables.
- **Application Data** are also client dependent and normally users distinguish two types' master data and transactional data.

1. Master Data such as vendor master, material master (tables such as MARA)

2. Transactional data such as sales order, financial documents, Production Orders (POs) and so on.

Client Customization Options



Transport Directory and Its configuration

SAP Transport Directory:

- It is the global transport directory (/usr/sap/trans), which is actually a shared location (residing in the Domain Controller System) among all the member systems of a landscape (system group). It also contains certain subdirectories, that are created automatically during the installation of the SAP system. This is mandatory for setting up the Transport Management System.
- Basically, Transport Directory is the location where all the changes are saved (in the form of files) after they are released from DEV. Therefore, it acts as a source for the changes to be eventually imported in QAS and PRD. Hence, we have to make sure that the transport directory is shared properly among all the systems in a landscape.

As an example, in Windows NT, the shared directory location can be accessed using the following address: \\

< **SAPTRANSHOST** >**sapmnt****trans** where SAPTRANSHOST (Domain Controller System's address) is defined in the host's file in Windows Directory of all SAP systems in the landscape. Domain Controller – is one of the systems in a landscape that acts as an overall controller for change management and transport process in the landscape. Domain Controller is chosen (out of D / Q / P) by the team of system administrators, on the basis of system availability and the time of installation.

Change Request Types

4 Types

Customizing Request

It Contains Client Specific Objects (Data Dependent).

Workbench Request

It Contains Cross Client Object (Data Independent).

Transport of Copies

It is used to Move the Tables for User Data.

Relocation

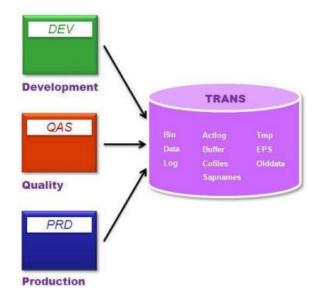
It is used to Changing the Location of the Objects from One System to Another System.

Written Codes

02Import with Successfully.
42Import with Warnings.
82Some Objects are not Transformed.
122Critical Transport Errors.

Main Subdirectories:

- **Cofiles:** Contains Change Request Information files with complete details and commands. It Starts with "K".
- **Data Files:** Contains the actual values and data to be used in implementing the change. It Start with "R".
- **Log:** Contains Transport logs, traces or statistics, used for troubleshooting, in case any error occurs in the transport process.
- **EPS:** Download directory for advanced corrections and support packages



Page 64 of 214

Other Subdirectories are:

bin: Configuration files for tp (Transport Program) and TMS

old data: Old Exported Data for archival or deletion

actlog: Action logs for all requests and tasks

buffer: Transport buffer for each system declaring the transports to be imported

Sapnames: Information regarding transport requests made by respective users

tmp: Temporary and data log files

Setting up of Transport Directory and TPPARAM

- While configuring TMS, one of the main pre-requisite is to setting up the Transport Directory and the Transport Parameter file.
- It ensures that the Directory is shared properly among all the systems in a Landscape, for that all the systems taking part in the group/landscape are to be included in the global configuration file TPPARAM (transport parameter file), located under the **bin** subdirectory of /use/sap/trans. We have to make sure that the entries for all the participating systems are made in this file.
- In case, any entry is missing, copy another system's entry and change the values (for instance, System ID, Host name)
- At the time of installation, transport directory & the subdirectories are created automatically, including an initially configured template of TPPARAM file.

Operating System Tools - TP and R3trans

tp – The Transport Control Program:

- **tp** is the SAP program that administrators use for performing and planning transports between systems and also in upgrades of the SAP systems. This is used by the CTO and TMS.
- Actually, **tp** uses other special tools/programs and utilities to perform its functions. Mainly, it calls **R3trans** utility program. However, it also offers a more extensive control of the transport process, ensuring the correct sequence of the exported/imported objects, to avoid severe inconsistencies in the system, which may arise due to the wrong sequence.
- **tp** is located in the standard runtime directory of the SAP system: **/usr/sap/SYS//exe/run.** It is automatically copied in the installation process.
- As a pre-requisite, the **tp** global parameter file (**TPPARAM**), must be maintained, specifying at least, hostnames of the systems taking part in the transport process.
- **tp** is mainly used for performing imports in target systems. It uses utilities called Import Dispatchers **RDDIMPDP & RDDIMPD_CLIENT_<nnn>**, these are ought to be scheduled as background jobs in every system where imports will be performed. If for any reason they are deleted, we can schedule these jobs by running report **RDDNEWPP**.
- These jobs are actually "event triggered", meaning that **tp** sends a signal (an event) to the R/3 system and the job starts. These events are named as **SAP_TRIGGER_RDDIMPDP** and **SAP_TRIGGER_RRDIMPDP_CLIENT**.

R3trans – The Transport Control Program

- **R3trans** is the SAP system transport program that can be used for transporting data between different SAP systems. It is normally not used directly but called from the **tp** control program or by the SAP upgrade utilities.
- **tp** controls the transports and generates the r3trans control files, but does not connect to the database itself. All the "real work" is done from **R3trans**.
- It supports the transporting of data between systems running on different OS and even different DB.

Configure STMS (SAP Transport Management System)

STMS is the transport tool that assists the CTO for central management of all transport functions. TMS is used for performing:

- Defining Transport Domain Controller.
- Configuring the SAP system Landscape
- Defining the Transport Routes among systems within the system Landscape
- Distributing the configuration
- **Transport Domain Controller** one of the systems from the landscape that contains complete configuration information and controls the system landscape whose transports are being maintained jointly. For availability and security reasons, this system is normally the Productive system.

Within transport domain, all systems must have a unique System Ids and only one of these systems is identified as the domain controller, the transport domain controller is the system where all TMS configuration settings are maintained. Any changes to the configuration settings are distributed to all systems in the landscape. A transport group is one or more systems that share a common transport directory. Transport Domain – comprises all the systems and the transport routes in the landscape. Landscape, Group, and Domain are the terms that are used synonymously by system administrators.

TMS Configuration

Step 1: Setting up the Domain Controller

Log on to the SAP system, which is decided to be the Domain Controller, in client 000 and enter the transaction code STMS.

If there is no Domain Controller already, a system will prompt you to create one. When the Transport Domain is created for the first time, following activities happen in the background:

- Initiation of the Transport Domain / Landscape / Group
- Creating the user **TMSADM**
- Generating the RFC Destinations required for R/3 Configurations, TMSADM is used as the target login user.
- Creating **DOMAIN.CFG** file in usr/sap/trans/**bin** directory

This file contains the TMS configuration and is used by systems and domains for checking existing configurations.

Step 2: Transaction **STMS**



Step 3: Adding SAP systems to the Transport Domain

- Log on to SAP systems (to be added in the domain) in client 000 and start transaction STMS.
- TMS will check the configuration file DOMAIN.CFG and will automatically propose to join the domain (if the domain controller already created). 'Select' the proposal and save your entries.
- For security purpose, system status will still be in 'waiting' status, to be included in the transport domain.

• For complete acceptance, login to Domain Controller System (Client 000) -> **STMS -> Overview -> Systems**. New system will be visible there. From the menu choose '**SAP System' -> Approve**.

sorts FS exist H6 tSystem tsems Shit-F5 t System tsems Shit-F7 t S	
stems Saint+F6 system using this op t Saint+F3 t Saint+F3 box system	
I Shit+F7 Shit+F3 WIII) SCA DCM SYSTEM	; this option
INT SCA DCM SYSTEM	
Townson	
TRANSPORT	
MANAGEMENT	
AN A	
No. of systems: 4 13.05.2010 02:09:43	09:43
* System Typ Short lead Reisace Ba	Reisabe Status
Bystem Typ Short text Release State CBO J0' B1 7.0 Development 700	Release Status
Bystem Typ Short text Release State CBO J0' B1 7.0 Development 700	Release Etatus 700 1 700 1

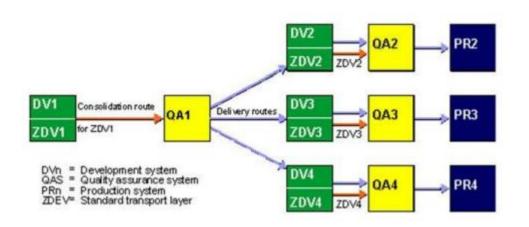
Step 4: Configuring Transport Routes

- **Transport Routes** are the different routes created by system administrators and are used to transmit changes between the systems in a system group/landscape. There are two types of transport routes:
- Consolidation (From DEV to QAS) Transport Layers are used
- Delivery (From QAS to PRD) Transport Layers not required
- **Transport Layer** is used to group the changes of similar kinds, for example, changes are done in development objects of same class/category/package, logically should be sent through same transport route. Therefore, transport layers are assigned to all objects coming from DEV system. Layers are used in Consolidation routes, however after Testing happens in QAS, layers are not used and the changes are moved using single routes towards PRD system.

Package – (formerly known as Development Class) is a way to classify the objects logically belonging to the same category or project. A package can also be seen as an object itself and is assigned to a specific transport layer (in consolidation route), therefore, changes made in any of the development object belonging to a particular Package, will be transmitted towards target system through a designated Transport Layer only, or else the change will be saved as a Local (non-transportable) modification.

STMS Routes & Layers

Consolidation routes – We need to establish a consolidation route for each transport layer. Development/ Integration system is taken as the source of these consolidation routes. Quality assurance/ Consolidation system as the transport target. Any modified objects that have a consolidation route for their transport layer can be included in change/transport requests. After the request has been released the objects can be imported into the consolidation system. If the changes are made to the objects with no consolidation route set-up (or in Customizing requests without a transport target) for their transport layer, such changes will be automatically taken as local change requests, i.e., not-transportable. **Only one consolidation route per transport layer per system can be set-up**.



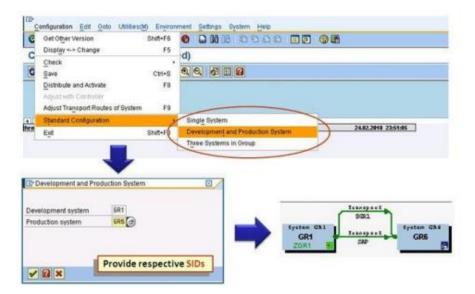
Setting up Transport Routes

Once the Domain and other systems of a landscape are defined, we need to connect them with the help of proper transport routes (and layers). As for many customers' systems landscape falls into the same categories, the TMS provides some standard system groups that can be used for easily defining routes. When standard options are used, routes are generated automatically; we can select one of the following options:

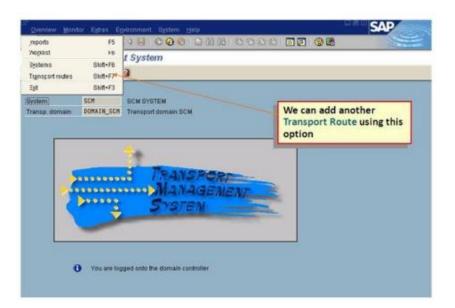
- Single System
- Two-System landscape: DEV and PRD
- Three System landscape: DEV, QAS, and PRD

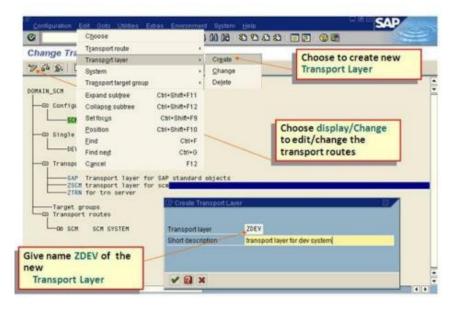
If we need to define a more complex transport system, we can also use standard options initially and there after defining additional consolidation and delivery routes.

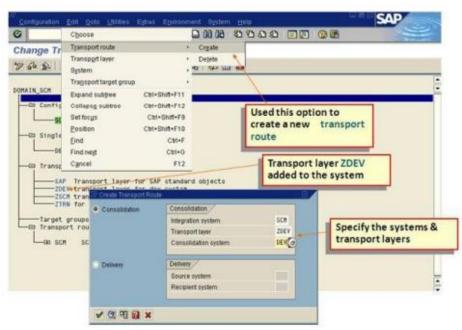
Transport Routes – Standard Configuration



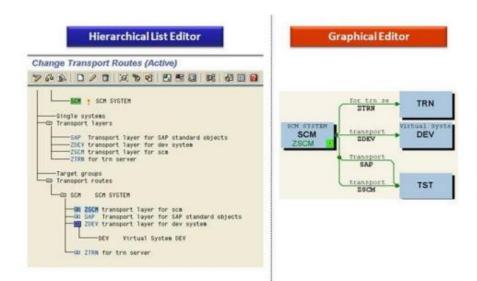
Transport Routes – Manual Configuration



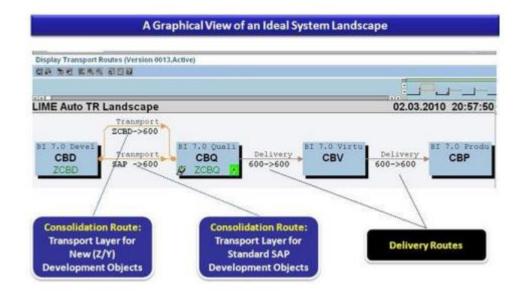




Page 70 of 214



Transport Routes



Distributing and Verifying the Configuration

After the transport route settings are made or modified in the domain controller, all other member systems of the domain ought to know the new configuration. For that we need to execute **STMS -> Transport Routes Screen -> Systems Overview -> Configuration -> Distribution and Activate Configuration**

Additionally, we should also verify various check-points, to ensure that the whole arrangement is behaving in the desired manner:

For **RFC Connections**: Overview -> Systems -> SAP System -> Check -> Connection Test

For Network: Transport Routes Overview -> Config. -> Check -> Request Consistency

For tp & TPPARAM: System Overview Screen -> SAP System -> Check -> Transport Tool

SAP Transport Request, How to Import/Export TR

What is a Transport Request

- **Transport Requests (TRs)** is a kind of 'Container / Collection' of changes that are made in the development system. It also records the information regarding the type of change, the purpose of transport, request category and the target system. It is also known as Change Requests.
- Each TR contains one or more change jobs, also known as change **Tasks** (minimum unit of transportable change). Tasks are stored inside a TR, just like multiple files are stored in some folder. TR can be released only once all the tasks inside a TR are completed, released or deleted.
- Change Task is actually a list of objects that are modified by a particular user. Each task can be assigned to (and released by) only one user. However multiple users can be assigned to each Transport Request (as it can contain multiple tasks). Tasks are not transportable by themselves, but only as a part of TR.

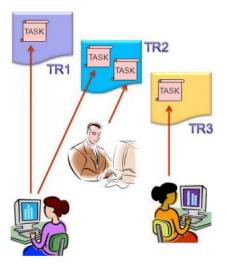
Change requests are named in a standard format as: **<SID>K<Number>** [Not modifiable by system administrators]

- **SID** System ID
- K Is fixed keyword/alphabet
- Number can be anything from a range starting with 900001

Example: DEVK900030

Tasks also use the same naming convention, with 'numbers' consecutive to the number used in TR containing them.

For Example, Tasks in the above mentioned TR Example can be named as: **DEVK900031, DEVK900032** ...



- The project manager or designated lead is responsible to create a TR and assign the project members to the TR by creating task/s for each project member.
- Hence, she/he is the owner with control of all the changes that are recorded in that TR and therefore, she/he can only release that TR.
- However, assigned project members can release their respective change tasks, once completed.



Workbench Request – contains repository objects and also 'crossclient' customizing objects. These requests are responsible for making changes in the ABAP workbench objects.

Customizing Request – contains objects that belong to 'client- specific' customizing. As per client settings, these requests are automatically recorded as per when users perform customizing settings and a target system is automatically assigned as per the transport layer (if defined).

SE01 – Transport Organizer – Extended View

Transport Organizer (Extended)	View)			
Display Transports Piece Lists Clien	nt Delivery Tr	ansp.		
User				
Request Type	Global Info	rmation	Trans	port Proposals
Customizing Requests				
Workbench Requests	0		-	Lorenza Martine
Transport of Copies	000	31	04 02	Transports
Relocations	000	- 1	1 <u>4</u>	Repairs
Request Status				
Modifiable				
Released				

Create a Change Request

Change Request can be created in two ways:

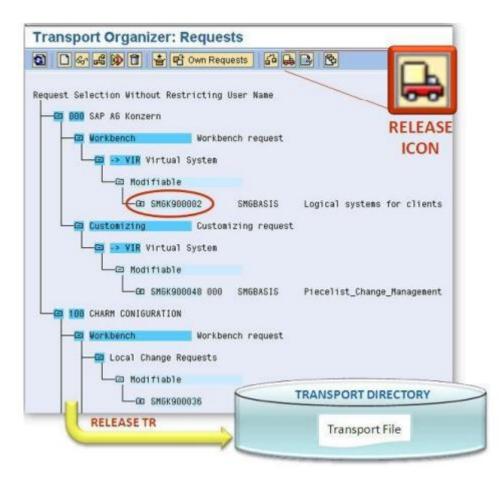
Automatic – Whenever creating or modifying an object, or when performing customizing settings, the system itself displays the 'Dialog box' for creating a change request or mention name of an already created request, if available.

Manually – Create the change request from the Transport Organizer, and then enter required attributes and insert objects.

	equest click here already created licking the 'Own tton.	Request	Customizing request Change Request for Z_NEW_ACTIVITY_OROUP equests
		-	
P Creste Request			
Request		Customizing request	Enter DESCRIPTI
hort description	Change Request for Z_NE	W_ACTIVITY_GROUP_1	& target SERVER
Project	0		
her	SAPBASIS	Source client	609
tatus	New	Target	TST
ast changed	19.09.2002 15:55:35	CP Prompt for Custon	ntang request (3)
asks	User SAPBASIS	Request	Change Request for Z_NEW_ACTIVITY_GROUP_1
	•		
9 6 2 x		New Change request will generated	
Ensued Ent o	do gettiñgs Egekonment D J El O C	Dystem Education	
Esquirit Ent of ransport Org	na gettings Egmonment	Dystem Education	be
Request Edt O 7 ransport Org) 42 11	ab gebligg Egysonneid D Q EI O O anizer (extended vid	Characteria	be
Request Edt o 7 ransport Org) 42 11	do gettiñgs Egekonment D J El O C	Characteria	be
Request Edt o 7 ransport Org) 42 11	ab gebligg Egysonneid D Q EI O O anizer (extended vid	Characteria	
Cosplay Tran	ab gettings Egekonnend D G B O C Janizer (extended vie sports Piece Buts Ch	Charles Help	Enter the
Pequett Ect. (C 7 ransport Org 0 कि 1 Display Tran	ab gettings Egekonnend D G B O C Janizer (extended vie sports Piece Buts Ch	Characteria	
Enquient Eat of ransport Org) 42 II Display Tran	ob Gattings Egenommend D G E C C amizer (extended vio sports Piece lists C Ch BCRK900314	Charles Help	Enter the
Enquiest Edit of ransport Org) 42 11 Display Tran	ob Gattings Egenommend D G E C C amizer (extended vio sports Piece lists Ch BCRK900314 +	errt Cestvery	Enter the
Enquiest Edit of ransport Org) 42 11 Display Tran	ob Gattings Egenommend D G E C C amizer (extended vio sports Piece lists Ch BCRK900314 +	errt Cestvery	Enter the
Enquiest Edit of ransport Org) 42 11 Display Tran	ob Gattings Egenommend D G E C C amizer (extended vio sports Piece lists Ch BCRK900314 +	errt Cestvery	Enter the
Enquiest Edit of ransport Org) 42 11 Display Tran	ob Gattings Egenommend D G E C C amizer (extended vio sports Piece lists Ch BCRK900314 +	errt Cestvery	Enter the change request
Englisht Edit (2 ransport Org) 22 II Display Tran	ob Gattings Egenommend D G E C C amizer (extended vio sports Piece lists Ch BCRK900314 +	errt Cestvery	Enter the

Release the Transport Request (Export Process)

- Position the cursor on the TR name or a Task name & choose the Release icon (Truck), a record of the TR is automatically added to the appropriate import queues of the systems defined in the TMS.
- Releasing and importing a request generates export & import logs.



The Import Process

Importing TRs into the target system

After the request owner releases the Transport Requests from Source system, changes should appear in quality and production system; however, this is not an automatic process.

As soon as the export process completes (releasing of TRs), relevant files (Cofiles and Data files) are created in the common transport directory at OS level and the entry is made in the **Import Buffer** (OS View) / **Import Queue** (SAP App. View) of the QAS and PRD.

Now to perform the import, we need to access the import queue and for that, we need to execute transaction code **STMS -> Import Button** OR select **Overview -> Imports**.

It will show the list of systems in the current domain, description, and a number of requests available in Import Queue and the status.

Import Queue -> is the list of TRs available in the common directory and are ready to be imported into the target system, this is the SAP Application View, at the OS level it is also known as **Import Buffer.**

144	NA ERR ROM		
h Nater	r af Import spanne a	16 (B) 2018 (B) 2	11.17
Duriue :	bearightee	Requests Dist	rtvs
	ET 7.8 Geologeest ET 7.8 Production ET 7.8 Venuettion ET 7.8 Venuet System		4141414
-			
	To display the contents of an Import Queue, we need to one of the systems. To extract the latest list, use refresh bu	and the second	ļ
	one of the systems. To extract the latest list, use refresh bu	and the second	Quer
mpo	one of the systems. To extract the latest list, use refresh bu ort Queue: System CBQ 방영 및 한 영화 왕기 및 호텔 등 등 등 등 등 등 등 등 등 등 등 등 등 등 등 등 등 등	tton.	-
mpo	one of the systems. To extract the latest list, use refresh bu ort Queue: System CBQ 방영 또 또 한 한 한 한 한 한 한 한 한 한 한 한 한 한 한 한 한	tton. Import all Requests in Q : Import Selected Requ	-

The Import Status

Import Queue shows some standard **'status icons'** in the last column, here are the icons with their meanings, as defined by SAP:

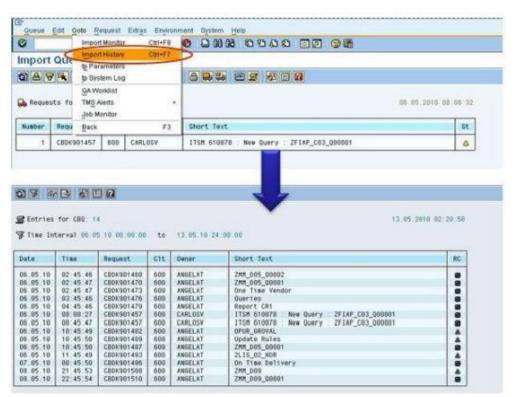
8	Request must still be approved
	The request is in the QA worklist because it has not yet been approved completely. See also: Manuality Assurance
\$	Request was rejected. The request was rejected while in the QA worklist.
•	Request will not be imported: These requests are not imported due to specific settings made in the transport control program. If you choose Edit Display more in the import queue, which displays more technical information, the column / (import flag) gives you a more precise explanation. r+ gives you a description of the various tp import flags.
٠	Request after end mark: Requests after the end mark are not imported during the next import. The end mark is automatically deleted only when the next import has completely ended. Afterwards, the requests can be imported.
۵	Request is ready for import again: The request has already been imported into the target system. To avoid inconsistencies that can occur when changing the import order, this request is imported again during the import of the entire queue. Therefore, this request stays in the import queue until all the requests have been imported.
•	Request waiting to be imported. The change request will be imported into the target system with the next import.
0	Import is scheduled
B	Import is running
~	Request is already imported. The request has already been imported into the target system, but has not been flagged as a preliminary import. These requests will not be imported again during the next import.

In case, a request is not added automatically in the import queue/buffer, even though the OS level files are present, then we can add such requests by the following method, however, we should know the name of intended TR:

		8	Legend	Ctri+Shift+F4		
mport	Queue: S	vster	Personal S	ettings Ctri+Shift+F12		0
			Other Requ	ests •	Add	
	7403	\$ 64	Activate Ina	ctive Requests	Find in Other Groups	
A Reque	sts for CBQ:	t	Delete imp	orted Requests		65 05 2910 00 00 3
Nusber	Request	Cit	Owner	Short Text		St
	C80K981457	600	CARLOSY	175M 618878 . New D	uery : 2FIAP_C03_000001	۵

Import History

We can also check the previous imports that happened in the system as follows:



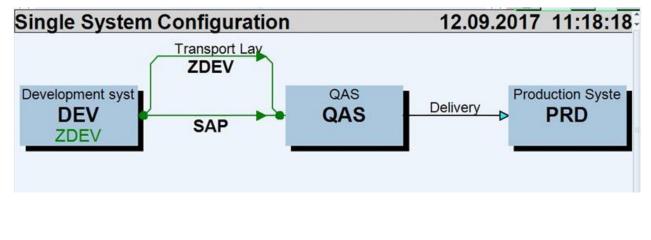
Transport logs and return codes

After the transport has been performed, the system administrator must check whether it was performed properly or not, for that SAP has provided us with the following type of **logs (SE01 -> GOTO -> Transport Logs):**

- Action Log which displays actions that have taken place: exports, test import, import and so forth.
- **Transport Logs –** which keep a record of the transport log files.

One of the important information provided by logs are the return codes:

- **0:** The export was successful.
- 4: Warning was issued but all objects were transported successfully.
- 8: A warning was issued and at least one object could not be transported successfully.
- **12 or higher:** A critical error had occurred, generally not caused by the objects in the request.



SAP Monitoring & Performance Checks

What is System Monitoring

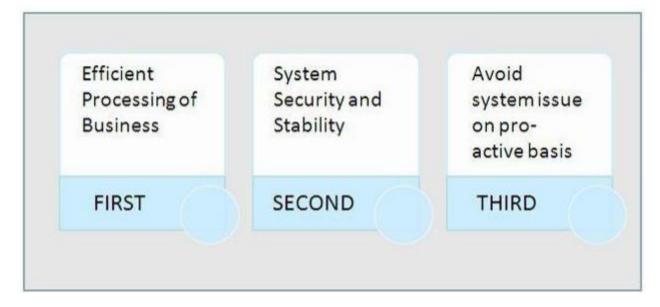
System monitoring is a daily routine activity and this document provides a systematic step by step procedure for Server Monitoring. It gives an overview of technical aspects and concepts for proactive system monitoring. Few of them are:

- Checking Application Servers.
- Monitoring System-wide Work Processes.
- Monitoring Work Processes for Individual Instances.
- Monitoring Lock Entries.
- CPU Utilization
- Available Space in Database.
- Monitoring Update Processes.
- Monitoring System Log.
- Buffer Statistics

Some others are:

- Monitoring Batch Jobs
- Spool Request Monitoring.
- Number of Print Requests
- ABAP Dump Analysis.
- Database Performance Monitor.
- Database Check.
- Monitoring Application Users.

Why Daily Basic checks / System Monitoring



How do we do monitor a SAP System

Checking Application Servers (SM51)

This transaction is used to check all active application servers.

🗿 😨 🐣 隋 Release Not	es 🕱 📓 ┥ 🔶 州 🌾	🕄 🖗 🛱 🚱 🚱 Choose 🚱 Save 📅 😫 目	8
Server Names	Host name	Ty.	Status
bwcidbg_8P2_20	bwcidbg	Dialog Update Enqueue Backg Spool ICM	Active

Here you can see which services or work processes are configured in each instance.

Displays all running, waiting, stopped and PRIV processes related to a particular instance. Under this step we check all the processes; the process status should always be waiting or running. If any process is having a status other than waiting or running, we need to check that particular process and report accordingly.

Pre	000	855	Overvie	W									
0	٢				381	9 A		8	Choose 6	Sa Sa	ve 📅 🖓		
	No	Ty.	P10	Status	Reasn Star	t Err	Sen CPU	Tine	Report	C1.	User	Action	Table
1	0	DIA	351522	Running	Yes	1			SAPLTHEB	602	JATAX002		
	1	DIA	66108	Running	Yes			18	SAPLRSORS	602	RAMLX005	Sequential read	/BIC/FZSD
	2	DIA	344896	waiting	Yes								
	3	DIA	316814	waiting	Yes								
	4	DIA	75074	waiting	Yes	10							
	5	DIA	350614	waiting	Yes								
	6	DIA	313262	waiting	Yes								
1	7	DIA	333432	waiting	Yes	1							
	8	DIA	311296	eaiting	Yes								
18	9	DIA	52570	waiting	Yes								

This transaction displays a lot of information like:

- 1. Status of Work process (whether it's occupied or not)
- 2. If the work process is running, you may be able to see the action taken by it in the Action column.
- 3. You can which table is being worked upon

Some of the typical problems:

- The user takes a long time to log on/not able to logon/online transaction very slow. This could be the result of the DIA work processes are fully utilized. There could be also the result of long running jobs (red indicator under the Time column). If necessary, you can cancel the session by selecting the jobs then go to Process>Cancel Without core. This will cancel the job and release the work process for other user/process
- Some users may have PRIV status under **Reason** column. This could be that the user transaction is so big that it requires more memory. When this happen the DIA work process will be 'owned' by the user and will not let other users use. If this happens, check with the user and if possible run the job as a background job.
- If there is a long print job on SPO work process, investigate the problem. It could be a problem related to the print server or printer.

Page **79** of **214**

Monitoring System-wide Work Processes (SM66)

0	ũ	0	8 0	00	B H C	8	00	8	1 @					
Systemwide Wo	rk Pro	oce	ss Ove	rview										
CPU A De	bugging) 8	Long «	> short nar	nes Sele	ct proce	55 8	Settings						
Sort: Server														
Server	No T	yp,	PIO	Status	Reaso Se	Start	Err	CPU	Tine	C11	User	Report	Action/Rea	ion f
a113pae8_SP5_52 a116pae8_SP5_53	0 0 3 0		24964 27440	running		Yes Yes			108	210	JACCX010	SAPLZLTL	Sequential	read
nacr3c1dbg_SP5_00	0 D 20 B	IA	118168	running		Yes	18				SAPSYS		Sequential	read
nacr3c1dbg_SP5_00 nacr3c1dbg_SP5_00	20 B	0.75.1	98246 100500	running		Yes	18				SAP_BATCH SAP_BATCH	ZNCRO_AP RLLL01SE	Sequential	read
nacr3c1dbg_SP5_00 nacr3c1dbg_SP5_00	22 B 24 B	TC	101248 92276	running		Yes	16 6		265	210	SAP_BATCH SAP_BATCH		Sequential	

By checking the work process load using the global work process overview, we can quickly investigate the potential cause of a system performance problem.

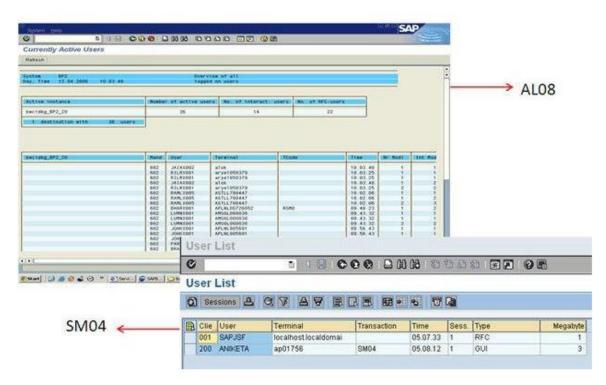
Monitor the work process load on all active instances across the system

Using the Global Work Process Overview screen, we can see at a glance:

- The status of each application server
- The reason why it is not running
- Whether it has been restarted
- The CPU and request run time
- The user who has logged on and the client that they logged on to
- The report that is running

Monitor Application User (AL08 and SM04)

This transaction displays all the users of active instances.



Monitoring Update Processes (SM13)

Execute Transaction SM13 and put '*' in the field USER and click on Executive button.

	602		
User	-1		
Status			
Canceled			
To be updat	ed		
○V1 executed			
○ V2 executed			
C A11		Global View	
Belection			
From date	12.04.2006	To date	
From time	00:00:00	To time	00:00:00
rionn anne			
	AND AND A DESCRIPTION OF		
Maximum no. r Update server	ecords 99.999	1	

If there are no long pending updates records or no updates are going on than this queue will be empty as shown in the below screen shot

Update Req	uests											
🗿 😂 🕒 Re	peat update	196	Modules	•	14 4	•	H		87		8	3
0 Upd	ate records 1	found										
Cln User	Date	Time	TCode		I	n	1	0	 Statu	JS		
List contains	no data											

But, if the Update is not active then find the below information:

- Is the update active, if not, was it deactivated by the system or by a user?
- Click on **Administration** button and get the information.
- Click on Executive button and get the below information:
- Is any update cancelled?
- Is there a long queue of pending updates older than 10 minutes?

Monitoring Lock Entries (SM12)

Execute Transaction SM12 and put '*' in the field User Name

Ø	ē			21日間間(21日)	ඩ න 🛛 🖾 🖉 🖉 🖪
Select Loci	k Entries				
List					
Table name	*				
Lock argument					
Client	682				
Username					
o bor manne					
o soi name					
o o o name					
			6.6	<u>። </u>	88 55 00
0		a (000	9 I L M M I S S S	88 88 98
Cock Entry	List		00	2 日 3 13 13 13 13	88 2 2 9 5
Ø	List		00	9 La (1) (2) (2) (2) (2)	68 5 7 9 7
Cock Entry	List		Table	2 🕞 (約) (約 約 12) Lock argument	68 5 7 9 7
C1. User	List Details	Mode			8250P_C01
C1. User	List Details	Mode	Table	Lock argument	

SAP provides a locking mechanism to prevent other users from changing the record that you are working on. In some situations, locks are not released. This could happen if the users are cut off i.e. due to network problem before they are able to release the lock.

These old locks need to be cleared or it could prevent access or changes to the records.

We can use lock statistics to monitor the locks that are set in the system. We record only those lock entries which are having date time stamp of the previous day.

Monitoring System Log (SM21)

We can use the log to pinpoint and rectify errors occurring in the system and its environment. We check the log for the previous day with the following selection/option:

- Enter Date and time.
- Select Radio Button Problems and Warnings
- Press Reread System Log.

3 stem log entries imported	0
Selection	0
From date/time	11.04.2006 / 00:00:00
To date/time	11.04.2006 / 23:59:59
User	
Transaction code	
SAP process	~
Problem classes	2 Problems only Problems and warnings
Further restrictions	<none></none>
Format	
No. pages for individual entries	100
With statistics	

Tune Summary (ST02)

Step 1: Go to ST02 to check the Tune summary.

Step 2: If you see any red values, in SWAPS, double –click the same.

©	9 0 8	000	00 08 \$	0000		19 UT			
Tune Summary									
Current parameters	Detail and	ilysis menu 🕌	2						
iystem: Nate & time of snapshot	t; 25.02.200	3 12:47:40	Tune sussa Startup: 2		11:10:24				
Buffer	Hitratio [t]	Allocated [kB]	Free st [kB]	pace [1]	Dir size Entries	Free dire Entries	ctory [1]	Swaps	Database accesses
Nametab (NTAB) Table definition E Field description Short NTAB Initial records	95,51 92,15 98,26 95,00	7.261 51.378 5.878 7.378	4,995 31,872 2,272 3,857	84,58 66,40 90,88 76,43	43.200 86.401 86.401 85.401	80.119 84.765	94,57 92,73 98,11 96,60	000	7 378 6 736 1 636 2 940
Program CUA Screen Calendar	99,12 97,28 98,18 100,00	554 633 6 000 23 438 488	205.345 2.483 17.218 248	38,03 47,53 74,47 51,88	135.000 3.000 5.400 200	2.249 4.886	95,45 74,97 89,00 17,50	0 0 0	18,489 787 600 165
Tables Generic kay Single record	99,46 05,04	58.594 30.000	12.069 24.376	22,31 01,42	6.000 500		12,80	16	26 47
Export/import	58,97	20.000	13.351	89,95	20.000	19.252	90,26	0	0
SAP memory	Currer [1]	t use [XB]	flax use in a [k9] [i		d1sk (k0)	SAP cursor ca		atio [1]	
Roll area Paging area Extended Memory Heap Memory	1,41 0,61 43,44	3 688 1 608 444 416 0	4.264 6/		96.609 96.600	10s Statements		, 80 , 60	

Step 3: In the below screen click on the tab 'Current Parameters'

0		000	80 60 🖂	20
Tune: Detail Ani	alysis			
G Current param	eters R Buffered	obiects		
	*	(managed)		
System: Date & time of snaps	not: 25, 82.2883 1	2:47:48	Generic I Startup:	
	1		1000100010	
Efficiency	Hitratio			99,46
	Hits			1.877
	Requests		7.94	4,187
	DB access gual1	ty t		98,86
	DB accesses		21	6.147
	DB accesses sav	red	2.25	8.988
	Reorgs			39
Size	Allocated	KB.	5	8,594
	Available	k.B	5	7.692
	Used	kB	4	4.823
	Free	ĸВ	1	2.869
Directory entries	Available			6.000
10 11 10 10 10 10 10 10 10 10 10 10 10 1	Used			5.232
	Free			768
Swaps	Objects swapped			16
	Frames swapped			0
Resets	Total			5
	Last		02.2803 15	E-E0

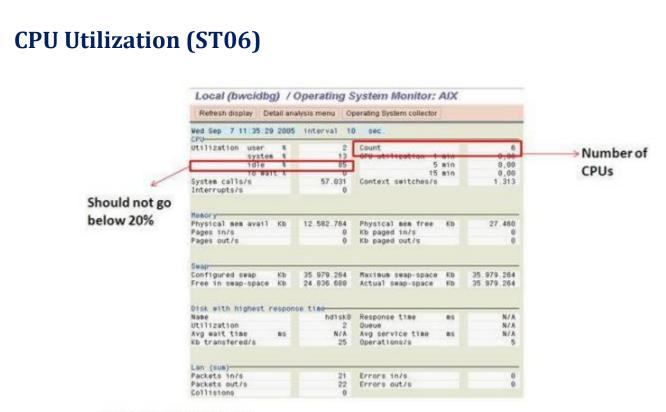
Step 4: Note down the value and the Profile parameters

0		00 08	8988 00 00	
Tune: Profile paran	neters for SAP buff	ers	HILL AN EXCLUSION	
Other tune All parameters	Profile maintenance	Profile parar	neter	
vie & time : 25.02.2003	12:52:08	Profile	parameters for SAP buffers	
ate & time : 25.02.2003				
ystem: SCC5AP01_SR1_00 ate & time : 25.02.2003 Profile parameter	12:52:08 Value		Comment	

Step 5: Go to RZ10 (to change the Profile parameter values)

Step 6: Save the changes.

Step 7: Restart the server to take the new changes effect.



OS level commands -top

Idle CPU utilization rate must be 60-65%, if it exceeds the value then we must start checking at least below things:

- Run OS level commands top and check which processes are taking most resources.
- Go to SM50 or SM66. Check for any long running jobs or any long update queries being run.
- Go to SM12 and check lock entries
- Go to SM13 and check Update active status.
- Check for the errors in SM21

ABAP Dumps (ST22)

Here we check for previous day's dumps

Number of numbers errors	. To-day J Vesterday		*>		Open the details log of
Biorgeour selection Date Date Date Date Viser Viser Viser Clean C	12.04.0000 (* 00.00.00	50 50 80 80 80 80 80 80 80	00 00 00	888888888	each and every dump by double clicking it and try to find out any suitable notes, analyze them and propose suitable solution as per SAP standards.
List of Selected Runtime En	1015				/
B 0 8 4				/	
a) A V (M V) Marine Marine Province Alexandre Ale		U	/		
	Name Cil Nam SAP_BATCH 602 C COM	e of runtil		Exception CX_SY_CONVER	ISION_OVERFLOW

Spool Request Monitoring (SP01)

For spool request monitoring, execute SP01 and select as below:

- Put '*' in the field Created By
- Click on execute button.

Spool Request Number	1	•	
Created By	CI		
Date created	10-01-0000	2 13 04 2006	4
Client	602	\$ \$	20
Authorization			
Output Device		•	
Fitte		\$	
Recipient		000	
Department		\$	
System Name	EP2	•	

Here we record only those requests which are terminated with problems.

Spool	no	Type	User namé	Date	Time	Status	Pages	Title	
	4576	m	SAP_BATCH	13.04.2006	00:31	- 4	1	LIST1S	RSBDCRE0_SAM
	4575		SAP_BATCH	13.84.2006	00:30		2	LIST15	RSP00841_SAF
	4574	-	SAP_BATCH	13.04.2006	88:38		5	LIST15	RSP01041_SAF
	4573	-	SAP_BATCH	13.04.2006	88:21		17	LIST1S	BOLATRUN_URE

Monitoring Batch Jobs (SM37)

For Monitoring background jobs, execute SM37 and select as below:

- Put '*' in the field User Name and Job name
- In Job status, select: Scheduled, Cancelled, Released and Finished requests.

	N	endedjor	selection		ourrand			
ob name								
lser name		0.						
Job status /								
and an other states of the second states	-		-		1.0200	-		(m)
Sched.	Rei	eased	Rea	ay 🗀	Active	Fini	shed	Canceled
Job start cond	From	13.0	4.2006	То	13	. 84 . 200	6	
		٢			٢			
or after event							۵	

Transactional RFC Administration (SM58)

Transactional RFC (tRFC, also originally known as asynchronous RFC) is an asynchronous communication method which executes the called function module in the RFC server only once.

Ø	5 I B	0	00		a . es	Mr. Eli	63 B	2 63	0
•			8.63	O UN UN	0 1 20	L.J. 6.J	0.1		a a
Transactional	RFC								
•									
Display Period				to	-				
User Name		*		to					
TRFC Function		*		to					
TRFC Destination	8	•		to					
TRFC Status	1	*		to					

We need to select the display period for which we want to view the tRFCs and then select '*' in the username field to view all the calls which have not be executed correctly or waiting in the queue.

QRFC Administration (Outbound Queue-SMQ1)

We should specify the client name over here and see if there any outgoing qRFCs in waiting or error state.

Ø	0	
qRFC Moni	tor (Outbou	nd Queue)
•		
Indate Assessed		
Client		200
Client Queue Name		200

QRFC Administration (Inbound Queue-SMQ2)

Ø	۵		000	日間間	8008	*	0
qRFC Mon	itor (Inbou	nd Qu	ieue)				
•							
Client		2	90				
Queue Name]		
adede Manne							

We should specify the client name over here and see if there any incoming qRFCs in waiting or error state.

Database Administration (DB02)

ø		5 4 B 6 6		0000		01	
Databas	e Perform	ance: Tables	and Indexe	s			
Database Sys							
Database	ORACLE	Date/Time of	this Analysis	18.04.2018 2	0:00:57		
Nase	CMP	(D) and (c)		100		E.	
		Refresh	Ga Checks	Space St	anspes		
Tablespaces	7						Current Sizes o
Total Numb		8		Current si	zes		tablespaces in
Total Size	/KB	87.562.240					database
Total Free	/KB	15.576.832	17 %	Space St	atistics		Galabase
Miniaus Fri	ee/KB	19.264					
Max. Autoe	xtensible/KB	286.728.000		Freespace St	atistics		
Tables and In	dexes						
		Tables	Indexes	Detailed An	alysis		
Total Numbe	er	33.054	43.408				
Total Size	/KB	30,194,176	28.274.752	Missing Ind	lexes		
Hore than	1 Extent	1.923	2.381				
Missing fr	om Database	0	0	Space-Critical	Objects		
Missing in	ABAP DDIC	8	0				
Space-crit	ical objects	0	0	Space St	atistics		

After you select **Current Sizes** on the first screen we come to the below screen which shows us the current status of all the table spaces in the system.

C Tablind 🗑 History of table	sp. Storage managem	ent 🔍 Freespac	e analysis (Dritical tablesi	ind				
14.05.2010 05.43.32 (85 lablespace status									
Tablespace	\$128 (kb)	Free (kb)	Used (1)	Tab/ind	Extents	AutoEst (kB)	Used (t)	Status	Backup
PSAPCEP	170.967.040	114.150.528	33	51.371	85.858	645.120.000	9	ONLINE	NOT ACTIV
PSAPCBP640	27.955.200	27.954.432	. 0	0		122.888.808	0	ONLINE	NOT ACTIVE
	17.817.608	13.448	99	968	5.894	28.488.088	87	ONLINE	NOT ACTIVE
		a start of the set of				38.728.888	4	ONLINE	NOT ACTIVE
PSAPCBPDB	5.120.000	4.813.632	21	1.012	1.618				
PSAPCEPDB PSAPCEPUSR	5.120.000 48.968	48.192	21	.11	11	10.240.000	8	ONLINE	
PSAPCEPDB PSAPCEPUSR PSAPSR3DB	5.120.000 40.968 5.120.000	48.192 5.119.888	1 8	11 0	11	10.240.000 38.720.000	8	ONLINE ONLINE	NOT ACTIVE
PSAPCEPUB PSAPCEPUSR PSAPSR3DB PSAPTEMP	5.128.008 48.968 5.128.008 18.248.008	48.192 5.119.888 18.237.952	1 8 9	11 9 9	11 0 8	18 248 000 38 729 000 18 248 009	8	ONLINE ONLINE ONLINE	NOT ACTIVE NOT ACTIVE
PSAPCBPDB PSAPCBPUSR PSAPSR3DB PSAPTEMP PSAPUNDO	5,120,000 48,968 5,120,008 10,240,000 10,240,000	48.192 5.119.888 18.237.952 18.173.184	1 8 8 8	11 9 9 17	11 0 0 91	10.240.000 30.720.000 10.240.000 10.240.000	8	ONLINE ONLINE ONLINE ONLINE	NUT ACTIVE NUT ACTIVE NUT ACTIVE NUT ACTIVE NUT ACTIVE
PSAPCBPDB PSAPCBPUSR PSAPSR3DB PSAPIRDP PSAPINDO STSAUX	5,120,000 48,968 5,120,000 18,249,000 18,240,000 1,624,000	48.192 5.119.888 19.237.952 16.173.184 804.224	1 8 8 8 21	11 0 0 17 986	11 0 8 91 2.188	10 240 000 30 720 000 10 240 000 10 240 000 10 240 000	8 8 8 9 2	ONLINE ONLINE ONLINE ONLINE ONLINE	NOT ACTIVE NOT ACTIVE NOT ACTIVE NOT ACTIVE
PSAFCBP700 PSAFCBPUSR PSAFCBPUSR PSAFSBUSR PSAPTENP PSAPUNDO STSAUX STSAUX STSTEM	5,120,000 48,968 5,120,008 10,240,000 10,240,000	48.192 5.119.888 18.237.952 18.173.184	1 8 8 8	11 9 9 17	11 0 0 91	10.240.000 30.720.000 10.240.000 10.240.000	8 8 8 8 2 5	ONLINE ONLINE ONLINE ONLINE	NOT ACTI NOT ACTI NOT ACTI

If any of the tablespaces is more than 95% and the auto extent is off then we need to add a new datafile so that the database is not full.

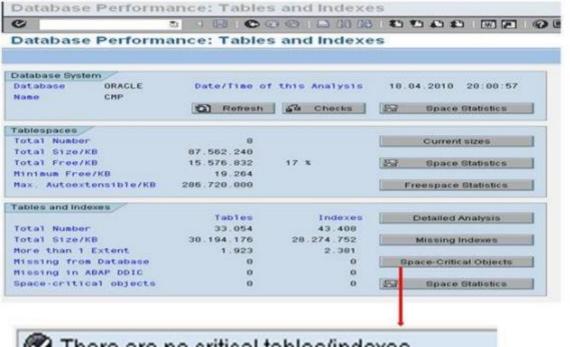
We can also determine the history of tablespaces.

Taniespace	History									
Choose Months	Weeks Days	Sort								
04.05.2010 05.4 History of Table Interval: 04.04		A)	rements: 30	Scale: (
Scale: Day Tablespace	Size (K Total	byte)	Free(Xbyte) Total		(Kbyte)	t-Us Total		/Indices	Exter Total	
Scale: Day Tablespace Syskux PSAPUNDO	and the second se		and the second se	Used Total 219.776	(Kbyte) Chg/day 488	t-Us Total 21 8		/Indices Chg/day 1 0		its Chg/day 6 2

We can select Months, Weeks or Days over here to see the changes which take place in a tablespace.

We can determine the growth of tablespace by analyzing these values.





🛇 There are no critical tables/indexes

Database Backup logs (DB12)

From this transaction, we could determine when the last successful backup of the system was. We can review the previous day's backups and see if everything was fine or not.

We can also review the redo log files and see whether redo log backup was successful or not.

C	0.08	80 19 4444 500 000	
Backup Logs:	Overview I	or Database CMP	-
C Q Retesh Ser	lecovery report		
Backup Logs			Specifies the last
DB Name 😡 CMP	Started	23.03.2010	
DB Server D copro	m@1	(C) #2 27 60	successful backup
DB Release 10.2.0	28		
-	essful backup	Not available:	
Last sx	essful backup Wabase backups		
Last sx			
Last out Overview of Redo log backups			
Last out Overview of Redo log backups Archiving	wlabuse barrups		

Quick Review

Daily Monitoring Tasks

- 1. Critical tasks
- 2. SAP System
- 3. Database

Critical tasks

No	No Task Transaction Procedur	nark
----	------------------------------	------

1	Check that the R/3System is up.		Log onto the R/3 System	
2	Check that daily backup executed withouterrors	DB12	Check database backup.	

SAP System

No	Task	Transaction	Procedure / Remark
1	Check that all application servers are up.	SM51	Check that all servers are up.
2	Check work processes (started from SM51).	SM50	All work processes with a "running" or a "waiting" status
3	Global Work Process overview	SM66	Check no work process is running more than 1800 second
3	Look for any failed updates (update terminates).	SM13	Set date to one day ago • Enter * in the user ID • Set to "all" updates Check for lines with • "Err."
4	Check system log.	SM21	Set date and time to before the last log review. Check for: Errors • Warnings • Security messages • Database problems
5	Review for canceled jobs.	SM37	Enter an asterisk (*) in User ID.Verify that all critical jobs were successful.

6	5	Check for "old" locks.	SM12	Enter an asterisk (*) for the user ID.
7	7	Check for users on the system.	on our moo	Review for an unknown or different user ID and terminal.This task should be done several times a day.
				Enter an asterisk (*) for Created ByLook for

8	Check for spool problems.	SP01	spool jobs that have been "In process" for over an hour.
9	Check job log	SM37	Check for: • New jobs • Incorrect jobs
10	Review and resolve dumps.	ST22	Look for an excessive number of dumps. Look for dumps of an unusual nature.
11	Review buffer statistics.	ST02	Look for swaps.

Database

No	Task	Transaction	Procedure / Remark
1	Review error log for problems.	ST04	
2	Database GrowthMissing Indexes	DB02	If tablespace is used more than 90 % add new data file to itRebuild the Missing Indexes
3	Database Statisticslog	DB13	

Remote Function Call (RFC)

What is **RFC**

RFC is a mechanism that allows business applications to communicate and exchange information (in predefined formats) with other systems. RFC stands for **'Remote Function Call'**

RFC consists of two interfaces:

- 1. A calling interface for ABAP Programs
- 2. A calling interface for Non-SAP programs.

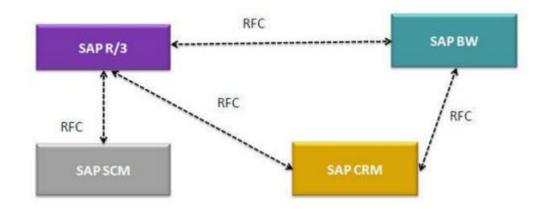
Any ABAP program can call a remote function using the **CALL FUNCTION...DESTINATION** statement. The **DESTINATION** parameter tells the SAP System that the called function runs in a system other than the callers. **Syntax-**

CALL FUNCTION 'remotefunction' DESTINATION dest EXPORTING f1 = IMPORTING f2 = TABLES t1 = EXCEPTIONS

Logical Destinations are defined via transaction SM59 and stored in Table RFCDES

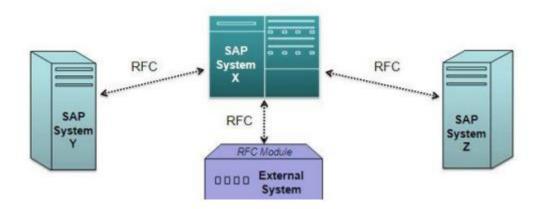
Functions of the RFC interface

- Converting all parameter data to the representation needed in the remote system
- Calling the communication routines needed to talk to the remote system.
- Handling communications errors, and notifying the caller, if desired (using EXCEPTIONS parameter of the CALL FUNCTION).



RFC is a SAP protocol to handle communications between systems to simplify the related programming. It is the process of calling a function module which is residing on a different machine from the caller program. RFCs can

be used to call a different program on the same machine as well, but usually, it is used when 'calling' and 'called' function modules/ programs are running on separate machines.



In SAP, RFC Interface system is used for setting-up RFC connections between different SAP systems, and also between a SAP and an external (non-SAP) system.

Must Know Details About RFC

- SAP Uses CPIC (Common Programming Interface for Communication) Protocol to transfer data between Systems. It is SAP Specific protocol. Remote Function Call (RFC) is a communications interface based on CPI-C, but with more functions and easier for application programmers to use
- The RFC library functions support the C programming language and Visual Basic (on Windows platforms)
- RFC connections can always be used across the entire system. This means that an RFC connection you have defined in client 000 can also be used from client 100 (without any difference).
- RFC is the protocol for calling special subroutines (function modules) over the network. Function modules are comparable with C functions or PASCAL procedures. They have a defined interface through which data, tables and return codes can be exchanged. Function modules are managed in the R/3 System in their own function library, called the Function Builder.
- The Function Builder (transaction SE37) provides application programmers with a useful environment for programming, documenting and Testing function modules that can be called locally as well as remotely. The R/3 System automatically generates the additional code (RFC stub) needed for remote calls.
- You maintain the parameters for RFC connections using transaction SM59. The R/3 System is also delivered with an RFCSDK (Software Development Kit) that uses extensive C libraries to allow external programs to be connected to the R/3 System.
- The only difference between a remote call of a function module to another server and a local call is a special parameter (destination) that specifies the target server on which the program is to be executed.

The RFC Advantages

RFC helps to reduce the efforts of programmers, by letting them avoid the re-development of modules and methods at remote systems. It is capable enough to:

- Convert the data into the format understandable by the remote (target) system.
- Convert the data into the format understandable by the remote (target) system.
- Call up certain routines which are necessary to start communication with the remote system.
- Handle errors that might occur in the process of communication

Types of RFC

Synchronous	Asy	nchronous
sRFC		aRFC
R	FC	
Ту	pes	
Transactional	-	Queue(d)
tRFC		qRFC

Synchronous

Requires both the systems (client and server) to be available at the time of communication or data transfer. It is the most common type and is required when the result is required immediately after the execution of sRFC.

sRFC is a means of communication between systems where acknowledgments are required. The resources of the Source System wait on the target system and ensure that they deliver the message/data with ACKD. The Data is consistent and reliable for communication.

The issue is if the target system is not available, the source system resources wait until target system is available. This may lead to the Processes of source system to go into Sleep/RFC/CPIC Mode at target systems and hence blocks these resources.

Used for

- For communication between systems
- For communication between SAP Web Application Server to SAP GUI

Asynchronous

It is communication between systems where acknowledgments are not required (it is similar to postcard delivery). It doesn't require both the systems to be available at the time of execution and the result is not immediately required to be sent back to the calling system.

The Source System resource does not wait for the target system as they deliver the message/data without waiting for any acknowledgment. It is not reliable for communication since data may be lost if the target system is not available. **Used for –**

- For communication between systems
- For parallel processing

Transactional

It is a special form of aRFC. Transactional RFC ensures transactionlike handling of processing steps that were originally autonomous.

Transactional RFC is an asynchronous communication method that executes the called function module in the RFC server only once, even if the data is sent multiple times due to some network issue. The remote system need not be available at the time when the RFC client program is executing a tRFC. The tRFC component stores the called RFC function, together with the corresponding data, in the SAP database under a unique transaction ID (TID). tRFC is similar to aRFC as it does not wait at the target system (Similar to a registered post). If the system is not available, it will write the Data into aRFC Tables with a transaction ID (SM58) which is picked by the scheduler RSARFCSE (which runs for every 60 seconds). **Used For**

- Extension of Asynchronous RFC
- For secure communication between systems

Queued

Queued RFC is an extension of tRFC. It also ensures that individual steps are processed in sequence.

To guarantee that multiple LUWs (Logical Unit of Work/ Transaction) are processed in the order specified by the application. tRFC can be serialized using queues (inbound and outbound queues). Hence the name queued RFC (qRFC). Used For

- Extension of the Transactional RFC
- For a defined processing sequence
- Implementation of qRFC is recommended if you want to guarantee that several transactions are processed in a predefined order.

Types of RFC Connections

Configuration of RFC Connection	ons
3 (B) □ 2 4 (C)	1700
RFC Connections	Type
ABAP Connections	3
HTTP Connections to External Server	G
Internal Connections	1
SNA/CPI-C connections	S
D CD TCP/IP connections ————————————————————————————————————	т
Connections via ABAP Driver	×

Type 3 - entries specify the connection between ABAP systems. Here, we must specify the host name / IP address. You can, however, specify logon information if desired. This is applicable for both type of RFCs, between ABAP systems and external calls to ABAP systems

Type I - entries specify ABAP systems connected to the same database as the current system. These entries are pre-defined and cannot be modified. Example entry name: ws0015_K18_24

ws0015=host name

K18=system name (database name)

24=TCP-service name

Type T - destinations are connections to external programs that use the RFC API to receive RFCs. The activation type can be either Start or Registration. If it is Start, you must specify the host name and the pathname of the program to be started.

How to Code an RFC

1.In the function module attributes tab (transaction code SE37), set the processing type as Remote-enabled module to create a remote function module.

Attributes	port Export Ch	anging Tables Exception	ons Source code
	ben rabou on	ending tents muchos	
Classification /			
Function Group	ZZMM82	Reminder mail	I sent to make goods receipt
Short Text	Send user detail	s to ODA for reminder mail for go	ods receipt
Processing Type /		General Data	
Normal Function	Workida	Person Responsible	EOPAN006
Remote-Enabled	Module	Last Changed By	EOPANOO6
Ottyldate Module		Changed on	08/14/2006
. Start immed.		Package	Z_OPERA_SRM
O Immediate Sta	rl, No Restart	Program Name	SAPLZZMM02
O Start Delayed		INCLUDE Name	L22MM02U01
O Coll.run		Original Language	EN

2.Write the code for the function module.

tant upon dataile from	CDM system	
*get user details fro		
CALL FUNCTION 'ZZ	_MM_GET_USER_DETAILS' destination 1_dest	
EXPORTING		1
p_objectid	= 1_objectid	
IMPORTING		1
	= l_userid	1
p_fullname		
	= l_email	
	= 1 langu	1
	= l_userid_po	
	= 1_fullname_po	
		1
p_email_po		1
p_langu_po	= 1_langu_po.	

3.Define the destination of the RFC server in the RFC client system that calls the remote function (via SM59 transaction).

S		C 🙆 🚷 🖵 🛗 🐯 23	23 63
Configura	tion of RFC Conne	ctions	
3 6 0 /	2 68 🛅		
RFC Connection	s	Type Comment	
D 🗋 ABAP Cor	inections	3	
	nnections to External Server	G	
HTTP Cor		10. C	
 HTTP Cor Internal C 	onnections	1	
D 🚺 Internal C		L	
	onnections	L T	

4.Declaring Parameters: All parameter fields for a remote function module must be defined as reference fields, that is, like ABAP Dictionary fields.

5.Exceptions: The system raises COMMUNICATION_FAILURE and SYSTEM_FAILURE internally. You can raise exceptions in a remote function just as you would in a locally called function.

Debugging Remote Function Calls

- It is **not possible to debug** a remote function call to another system.
- However, when testing ABAP-to-ABAP RFC calls, you can use the ABAP debugger to monitor the execution of the RFC function in the remote system.
- With remote calls, the ABAP debugger (including the debugging interface) runs on the local system. Data values and other run Page 197 information for the remote function are passed in from the remote system.

How to Configure & Test RFC Connection in SAP

This tutorial is divided into 4 sections

Step 1: Setup an RFC connection

Step 2: Trusted RFC connection

Step 3: Testing an RFC connection

Step 4: Error Resolution

Step 1: Procedure to setup an RFC connection:

Enter Transaction Code SM59



In the SM59 screen, you can navigate through already created RFCs connection with the help of option tree, which is a menu-based method to organize all the connections by categories.

Destinations	
- R/3 connections	
CUA TRUSTED	CUA TRUSTED
CentralMonitoringServer-XIAlerts	Used to send XI Alerts to the Centr
Dunny	For ALE deactivation
FF_GRC	CNX FOR GRC
IRBCLNT222	IRBCLNT222
QAACLNT500	QAACLNT500
QAVCLNT570	SCM QAV Client 570
QBACLNT300	QBACLNT300
QGVCLNT280	QGVCLNT280
QKVCLWT300	BW QKV Client 300
QHVCLNT700	QMVCLNT700
ONACLNT770	ONACLNT770

Click the 'CREATE' button. In the next screen , Enter -

- **RFC Destination** Name of Destination (could be Target System ID or anything relevant)
- **Connection Type –** here we choose one of the types (as explained previously) of RFC connections as per requirements.
- **Description** This is a short informative description, probably to explain the purpose of connection.

RFC Destin	atio	n El6		
Remote Logon	Conne	ction Test	Unicode Test 🦻	
RFC Destination		E16		
Connection Type	3	ABAP Con	nection	Description
Description				
Description 1	Tes	t Connectio	on	
Description 2			-22	
Description 3				

After you **'SAVE'** the connection, the system will take you to 'Technical Settings' tab, where we provide the following information:

- **Target Host-** Here we provide the complete hostname or IP address of the target system.
- **System Number –** This is the system number of the target SAP system.
- Click Save

Load Balancing S	tatus			
Load Balancing	O Yes	No		_
Farget Host	10.112.49.40		System Number	00
Save to Database	as	Management of the second second		_
Save as	O Hostname	IP Address 10.112.49.40		

In the 'Logon and Security' Tab, Enter Target System Information

Language – As per the target system's language

Client – In SAP we never logon to a system, there has to be a particular client always, therefore we need to specify client number here for correct execution.

User ID and Password – preferably not to be your own login ID, there should be some generic ID so that the connection should not be affected by constantly changing end-user IDs or passwords. Mostly, a user of type 'System' or 'Communication' is used here. Please note that this is the User ID for the target system and not the source system where we are creating this connection.

Security Options				
Trusted System/Lo	gon Screen Status	1		
Trusted System	No No	OYes	Logon Screen	
Status of Secure P	rotocol			i
TH SNG	Inactive	O Active		
		1	_	
Authorization for De	stination		_	
ogon				
Logon /	- Province - Contraction - Con			
Language	EN			
and the second se	EN 001			
Language	- Andrewson - A	E	Current User	Logon details for
Language Client	801		Current User	Logon details for

Click Save. RFC connection is ready for use

Note: By default, a connection is defined as aRFC. To define a connection as tRFC or qRFC go to Menu Bar -> Destination aRFC options / tRFC options ; provide inputs as per requirements. To define qRFC, use the special options tab.

Step 2: Trusted RFC connection There is an option to make the RFC connection as **'Trusted'**. Once selected, the calling (trusted) system doesn't require a password to connect with target (trusting) system.

Remote Logon	Connection Test Unicode Test 🔗		
RFC Destination	SM_CBDCLNT600_READ		
Connection Type	3 ABAP Connection	Description	
Description			
Description 1	Generated Destination		
Description 2			
Description 3			
Administration	Technical Settings Logon 6 Set	anty MDMP & Unicode Special Opt	lons
Security Options			
A REAL PROPERTY OF A DESCRIPTION OF A DE	Logon Screen Status		Switch to
Trusted System	and a first of the local day is a second s	Logon Screen	
Thussed Oresetti		English sectors.	
Status of Secure	Protocol		mode.
The second	Intactive O Active		
Continued			
Authorization for E	Sestination		
Logon			
Language	EN		No
Client	600		A Contraction of the second second
	SOLMANCMP200	CurrentUser	Password
User	aver the state of	C Contain Contr.	

Following are the advantages for using trusted channels:

- Cross-system Single-Sign-On facility
- Password does not need to be sent across the network
- Timeout mechanism for the logon data prevents misuse.
- Prevents the mishandling of logon data because of the time-out mechanism.
- User-specific logon details of the calling/trusted system is checked.

The RFC users must have the required authorizations in the trusting system (authorization object **S_RFCACL**). Trusted connections are mostly used to connect SAP Solution Manager Systems with other SAP systems (satellites)

Step 3: Testing the RFC Connection

After the RFCs are created (or sometimes in the case of already existing RFCs) we need to test, whether the connection is established successfully or not.

		0	Test		Connection Test	Ctrl+F3
RFC Destination CEQC		Remote Logon	Remote Logon Ctrl+F7		Ctri+F4	
				Unicode Test	Ctrl+F5	
Remote Logon	Conne	ection Test	Unicode Test		2	
RFC Destination	1	CEQCLNT	300			
Connection Type	8 3	ABAP Conn	ection	De	escription	
Description						
Description 1	SAF	ECC Quality	y System			
Description 2						

As shown above we go to SM59 to choose the RFC connection to be tested and then we expand drop down menu - **"Utilities->Test->...".** We have three options:

Connection test -> This attempts to make a connection with the remote system and hence validates IP address / Hostname and other connection details. If both systems are not able to connect, it throws an error. On success, it displays the table with response times. This test is just to check if the calling system can reach the remote system.

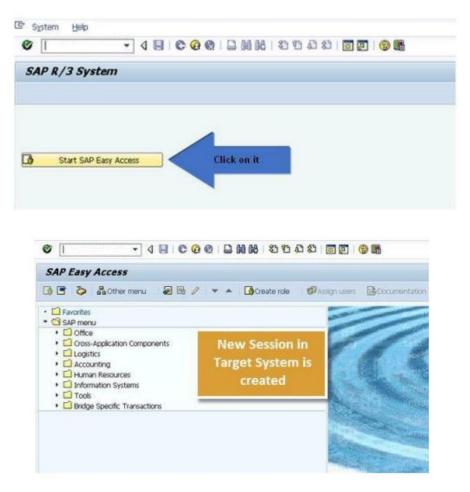
Connection Type SAP Con	est CEQCLNT300	Output (Response times)
Action	Result	after successful Connection
Logon	62 msec	Test
Transfer of 0 KB	0 msec	
Transfer of 10 KB	1 msec	
Transfer of 20 KB	1 msec	
Transfer of 30 KB	1 msec	

Authorization Test -> It is used to validate the User ID and Password (provided under 'logon and security' tab for the target system) and also the authorizations that are provided. If a test is successful, then the same screen will appear as shown above for the connection test.

Unicode Test -> It is to check if the Target system is a Unicode or not.

2 information	
Target is a unicode system (character size 2)	Output after successful
	Unkode Test
70	

Remote Logon ->This is also a kind of connection test, in which a new session of the target system is opened, and we need to specify a login ID and Password (if not already mentioned under 'Logon and Security' tab). If Page **101** of **214** the user is of type 'Dialog' then a dialog session is created. To justify the successful connection test, output will be the response times for the communication packets, else error message will appear.



Step 4: What went wrong?

If somehow the RFC connection is not established successfully, we can check the logs (to analyze the issue) at OS level in the 'WORK' director. There we can find the log files with the naming convention as "dev_rfc" and the error description can be read from such files.

cwprdm01:cmpadm 10> pwd /usr/sap/CMP/DVEBMGS00/work	Path for 'Work' directory at OS level
cwprdm01:cmpadm 11> more dev_rfc1 **** Trace file opened at 20100415 203854 EST SAP-REL 701,0,5 =====> CPIC-CALL: 'ThSAPOCHINIT' : cmRc=2 thRc=679	Log File name
Transaction program not registered ABAP Programm: CL_SLD_ACCESSOR===================================	()
Transaction program not registered DEST =SAFJZE HOST =%4RFCSERVER44 PFCG =sapfallback GWROST =cwprdm01 GWSGTV =sapgw00 =====> CFIC-CALL: 'ThSAFOCHINIT' : cmRc=2 thRc=579	Error Description
Transaction program not registered ABAP Programm: CL_SLD_ACCESSOR===========CP (Transaction: User: RYANK (Client: 000) Destination: SAPJ2EE (handle: 2, ,) Error RFCIO_ERROR_SYSERROR in abrfcpic.c : 1501 CPIC-CALL: 'ThSAPOCMINIT' : cmRc=2 thRc=679 Transaction program not registered DEST = SAPJ2EE	

Page **102** of **214**

Work Process

SAP system resources and they are responsible for processing all the tasks executed by the users. Work process are 5 types in every central instance.

DVEBMGS

- D Dialog
- V Update
- E Enqueue
- **B** Background
- M Message
- **G** Gateway
- S Spool

Dialog work process (DIA)

It is the only Work Process to Interact directly with SAP System.

Act as Engine.

It should be 2 for Every Server (DIA-2).

Parameter is, RDISP/WP_NO_DIA=Total no. of DIA's

It is only process which is used to communicate with the user's interactivity.

Take the request and process the user request.

SM66 - Global WP Overview

SM50 - Local WP Overview

S	4P I	Easy Acce	55								
		-									
G2	C,	🧽 晶 Ot	her Mei	nu 🛛 🏷	📌 🖉 🛛	▼ ▲	🔓 Create role	Se Assi	jn Users	🗟 Docu	imentati
				101000							
			8 🐝 🕒 1			2 ⁰					
Work	Proces	ses of AS Instanc	e brisndb	ox_SND_00							
2 01 1		Work Processes Only 😪									
0 36 1	A ACCA	e work Processes Only 160	P -								
Update Backgrou Spool Update T	Task 2	1 / 1 (Tot 7 / 7 (Tot 1 / 1 (Tot 1 / 1 (Tot	tal/Free) tal/Free) , Av tal/Free)	werage Load = (0.09 erage Load = (0.000							
Jpdate Backgrou Spool Jpdate T	Task 2	1 / 1 (Tol 7 / 7 (Tol 1 / 1 (Tol	tal/Free) tal/Free) , Av tal/Free)								
Update Backgrou Spool Update T Configur	Task 2 rable	1 / 1 (Tot 7 / 7 (Tot 1 / 1 (Tot 20 Process ID WP Status	tal/Free) tal/Free) , Av tal/Free)		5 / 0.012 / 0.011) Requ (CPU Time	Time Priority	Executed Program		User ID	Current Action	Current Ad
Jpdate Backgrou Spool Jpdate T Configur 8 Num 0	Task 2 rable	1 / 1 (Tot 7 / 7 (Tot 1 / 1 (Tot 1 / 1 (Tot 20 Process ID WP Status 41,096 Running	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	6 / 0.012 / 0.011) Regu CPU Time 00:02:53		Executed Program CL_SERVER_INFO		User ID MMOKSHITH	Current Action	Current Ad
Jpdate Backgrou Spool Jpdate T Configur B Num 0 1	Task 2 rable DIA DIA	1 / 1 (Tot 7 / 7 (Tot 1 / 1 (Tot 20 Process ID WP Status 41,096 Running 41,097 Walting	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	Requ CPU Time 00:02:53 00:02:30	Time Priority				Current Action	Current Ad
Apdate Backgrou Spool Update T Configur 8 Num. 0 1 2	Task 2 rable DIA DIA DIA DIA	1 / 1 (Tot 7 / 7 (Tot 1 / 1 (Tot 20 Process ID WP Status 41,096 Running 41,097 Wating	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	5 / 0.012 / 0.011) Requ CPU Time 00:02:53 00:02:30 00:02:29	Time Priority				Current Action	Current Ac
Jpdate Backgrou Spool Jpdate T Configur 8 Num. 0 1 2 3	Task 2 rable DIA DIA DIA DIA DIA	1 / 1 (Tot 7 / 7 (Tot 1 / 1 (Tot 20 Process ID WP Status 41,096 Running 41,097 Wating 41,098 Wating 41,098 Wating	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	Requ CPU Time 00:02:53 00:02:29 00:02:29	Time Priority				Current Action	Current Ac
Update Backgrot Spool Update T Configur 8 Num. 0 1 2 3 4	Task 2 rable	1 / 1 (10 7 / 7 (10 1 / 1 (10 1 / 1 (10 1 / 1 (10 20 Process ID WP Status 41,096 Running 41,097 Walting 41,098 Walting 41,098 Walting 41,099 Walting	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	5 / 0.012 / 0.011) Requ CPU Time 00:02:53 00:02:30 00:02:29 00:02:29 00:02:29	Time Priority				Current Action	Current Ac
Update Backgrou Spool Update T Configur 8 Num. 0 1 2 3 4 5	Task 2 rable	1 / 1 (10 7 / 7 (10 1 / 1 (10 1 / 1 (10 1 / 1 (10 20 Process ID WP Status 41,096 Running 41,099 Walting 41,009 Walting 41,009 Walting 41,100 Walting	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	Requ. CPU Time 00:02:53 00:02:53 00:02:29 00:02:29 00:02:29 00:02:29 00:02:23 00:02:29	Time Priority				Current Action	Current Ac
Update Backgrot Spool Update T Configur B Num. 0 1 2 3 4 5 6	Task 2 rable	1 / 1 (To 7 / 7 (To 1 / 1 (To 1 / 1 (To 20 Process ID WP Status 41,006 Running 41,007 Waiting 41,008 Waiting 41,008 Waiting 41,100 Waiting 41,101 Waiting 41,101 Waiting	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	Requ. CPU Time 00:02:53 00:02:29 00:02:29 00:02:29 00:02:29 00:02:37 00:02:37 00:02:37	Time Priority				Current Action	Current Ac
Update Backgrot Spool Update T Configur B Num 0 1 2 3 4 5 6 7	Task 2 rable	1 / 1 (10) 7 / 7 (10) 1 / 1 (10) 1 / 1 (10) 1 / 1 (10) 20 Process ID WP Status 41,096 Running 41,097 Wating 41,099 Wating 41,009 Wating 41,101 Wating 41,101 Wating 41,102 Wating 41,102 Wating	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	5 / 0.012 / 0.011) Requ (CPU Time 00:02:53 00:02:29 00:02:29 00:02:44 00:02:37 00:02:49 00:02:44	Time Priority				Current Action	Current Ad
Update Backgrot Spool Update T Configur	Task 2 rable	1 / 1 (Tot 7 / 7 (Tot 1 / 1 (Tot 20 Process ID VIP Status 41,005 Running 41,009 Walting 41,009 Walting 41,009 Walting 41,100 Walting 41,101 Walting 41,102 Walting 41,102 Walting 41,103 Walting	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	Requ. CPU Time 00:02:53 00:02:29 00:02:29 00:02:29 00:02:29 00:02:37 00:02:37 00:02:37	Time Priority				Current Action	Ourrent Ad
Update Backgrou Spool Update T Configur B Num 0 1 1 2 3 3 4 4 5 6 6 7 7 8 9	Task 2 rable	1 / 1 (10) 7 / 7 (10) 1 / 1 (10) 1 / 1 (10) 1 / 1 (10) 20 Process ID WP Status 41,096 Running 41,097 Wating 41,099 Wating 41,009 Wating 41,101 Wating 41,101 Wating 41,102 Wating 41,102 Wating	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	Requ. CPU Trme 00:02:53 00:02:23 00:02:29 00:02:29 00:02:23 00:02:23 00:02:23 00:02:49 00:02:249 00:02:249 00:02:249 00:02:249 00:02:249 00:02:249	Time Priority				Current Action	Current Ac
Update Backgrou Spool Update T Configur B Num 0 1 1 2 3 3 4 5 5 6 7 7 8 9 10	Task 2 rable	1 / 1 (To 7 / 7 (To 1 / 1 (To 1 / 1 (To 1 / 1 (To 20 Process ID: WuP Status 41,006 Walting 41,009 Walting 41,009 Walting 41,101 Walting 41,101 Walting 41,102 Walting 41,102 Walting 41,104 Walting 41,104 Walting 41,104 Walting	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	Requ. CPU Time 00:02:53 00:02:53 00:02:23 00:02:29 00:02:29 00:03:44 00:02:24 00:02:44 00:02:244 00:02:244 00:02:241 00:02:244	Time Priority				Current Action	Current Ad
Update Backgrou Spool Update T Configur B Num 0 1 1 2 3 3 4 4 5 6 6 7 7 8 9 9 10 11	Task 2 rable	1 / 1 (T) 7 / 7 (To 1 / 1 (To 1 / 1 (To 20 Process ID WP Status 41,006 Running 41,009 Wating 41,009 Wating 41,009 Wating 41,101 Wating 41,102 Wating 41,102 Wating 41,103 Wating 41,105 Wating 41,105 Wating	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	Requ CPU Trme 00:02:53 00:02:29 00:02:29 00:02:29 00:02:29 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24 00:02:24	Time Priority				Current Action	Current Ac
Update Backgrou Spool Update T Configur B Num. 0 1 1 2 3 4 4 5 6 6 7 7 8 9 9 10 11 12	Task 2 rable	1 / 1 (ft m // 7 Ctor // 2 (tor 1 // 1 (tor 2) 1 // 1 // 1 // 1 // 1 // 1 // 1 //	tal/Free) tal/Free) , Av tal/Free) tal/Free)	erage Load = (0.000	5 / 0.012 / 0.011) Requ. CPU Time 00:02:53 00:02:29 00:02:29 00:02:29 00:02:49 00:02:41 00:	Time Priority				Current Action	Current Ac
Update Backgrou Spool Update T Configur B Num 1 1 2 3 4 4 5 5 6 7 7 8 9 9 10 11 11 12 2 3 3 4 4 12 3 3 4 4 12 3 3 4 4 12 3 3 12 12 12 12 12 12 12 12 12 12 12 12 12	Task 2 Task 2 DIA DIA DIA DIA DIA DIA DIA DIA DIA DIA	1 / 1 (10	tal/Free) tal/Free), Av tal/Free) tal/Free)	erage Load = (0.000	8 / 0.012 / 0.011) Requ. CPU Trme 00:02:25 00:02:29 00:02:29 00:02:29 00:02:37 00:02:44 00:02:44 00:02:41 00:02:41 00:02:42 00:02:44 00:02:41 00:	Time Priority				Current Action	Current Ac
Update Backgrou Spool Update T Configur 0 1 2 3 4 4 5 6 6 7 8 9 9 10 11 12 13 14	Task 2 rable DIA DIA DIA DIA DIA DIA DIA DIA DIA DIA	1/1(10) 7/1(10) 1/2(10) 1/2(10) 7/2(10	tal/Free) tal/Free), Av tal/Free) tal/Free)	erage Load = (0.000	8 / 0.012 / 0.011) Requ. CPU Time 0:02:53 0:002:29 0:002:29 0:002:29 0:002:49 0:002:44 0:002:44 0:002:41 0:002:44 0:002:10 0:002:41 0:002:23 0:002:24 0:002:23 0:002:23 0:002:24 0:002:23 0:002:23 0:002:23 0:002:24 0:002:23 0:002:23 0:002:23 0:002:24 0:002:23 0:002:23 0:002:24 0:002:23 0:002:23 0:002:23 0:002:24 0:002:23 0:002:23 0:002:24 0:002:23 0:002:23 0:002:24 0:002:23 0:002:23 0:002:23 0:002:24 0:002:23 0:002:23 0:002:23 0:002:24 0:002:23 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0:002:25 0	Time Priority				Current Action	Current Ar
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Task 2 Type DIA DIA DIA DIA DIA DIA DIA DIA DIA DIA	1/1 (10) 1/1 (1	tal/Free) tal/Free), Av tal/Free) tal/Free)	erage Load = (0.000	5 / 0.012 / 0.011) Requ. CPU Trme 0:0:02:53 0:0:02:29 0:0:02:29 0:0:02:40 0:0:02:44 0:0:02:41 0:0:02:41 0:0:02:41 0:0:02:42 0:0:02:42 0:0:02:42 0:0:02:42 0:0:02:43 0:0:02:44 0:0:00:00:44 0:0:02:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:00:44 0:00:44	Time Priority				Current Action	Current Ar

Page 103 of 214

Update work process (UP-1)

Initiated by Dialog Work Process. Used for Update the User Records. Eg: User Id, Password, Parameters, Authorizations etc,. These are Min-1 & Max-2 for any Server. Parameters are, **RDISP/WP_NO_VB=1◊Critical Updates.**

RDISP/WP_NO_VB1=1◊Normal Updates.

It is used to update the database by reading from the tables. Update the user records into Database.

There are two types of update work processes V1 update-processes & V2 update-processes.

V1 update-processes (UPD) handle time-critical database changes (high priority database updates)

V2 update-processes (UPD2) handle non-time-critical database changes (low priority database updates)

SM13 - To check if they are any failed updates.

? Update Re	equests: Initial Screen
Ø	💌 🖉 🐼 😪 🚔 🕅 👘 🏝 🏝 🎝 💭 💭 🔽 🎯 🖳
Update Req	quests: Initial Screen
🕸 🇱	
Client User	* MMOKSHITH
Status	
Canceled	
O To be updated	
○V1 executed	
○V2 Executed	
• All	Global View
Selection	
From date	25.01.2024 To date
From time	00:00:00 To time 00:00:00
Maximum no. reco Update server	rds 99,999
Update System	Administration
Update is acti	

SM14 - We can check whether active or not.

🖉 🔽 – ଟ 🕄 👷 i 🚔 🖞 🚔 🕈 🕈 🕈 🖓 i 🖉 🖳	
Update Program Administration	
⑦ 密 Statistics III	
Update Server Server groups Parameter Status Update is active Deactivate Canceled Update Requests All Update Requests Reorganize update requests	

Page 104 of 214

Enqueue work process (ENQ-1)

Initiated by Dialog Work Process.

Used for Lock & Un-Lock User Objects during DB Update

Parameter is, RDISP/WP_NO_ENQ=1

Every Server should be having 1 Enque Work Process.

It is responsible for locking mechanism and used to lock or unlock the records during an update. Whenever one user is working on particular job on that time the system will be automatically locked the particular user.

SM12 - Lock entry

Image: A start of the start	🔻 🖓 🗔 💭 🖓 🖓 🚔 🕅 🍈 🖏 🎝 💭 💭 🔽 🚱 🖳
Falact L	ock Entries
Select L	In Linuies
List	
able name	
ock argument	
lient	300
Jser Name	MMOKSHITH
	Lock Entry List
	🖉 📃 👻 👷 🔛 🕲 🔛 🎆 👘 👘 🏦 🏛 🎝 🎝 🎝 💭 🐨 💭
	Lock Entry List
	⑦Refresh ④Detais 🔐 影 当 草 节 室 梁 冬 砲 翌 田 田
	E Clent User Name Date/Time Lock mode Table name Lock Argument Counter 1 Counter 2 Context Draft ID Context Component
	No lock entries found

Background work process (BGD-2)

Initiated by Dialog Work Process.

It having the Time Taking & Long Running Jobs.

Parameter is, RDISP/WP_NO_BTC=Total no. of BGD's.

It having Restriction Time is 1800sec.

Parameter is, RDISP/MAX_WPRUN_TIME=1800/2000sec

It is the process of programs that can be executed without user interaction and doesn't any particular time limit.

SM36 - Define Background Job

Define Back	ground Jo	ob			
Start condition	🐥 Step	∑Job Selection	🗳 Own jobs	🎇 Job wizard	Standard job
General Data					
Job Name					
Job Class	С				
Status	Scheduled				
Target			Spoo	ol List Recipient	
Job Start			Job Freq	uency	
Job Steps					

Enter Job Name and after click on Job selection

Simple	Tob Selection
🚱 Execute	Extended Job Selection
Job Name	X
User Name	MMOKSHITH
Job Status	
Sched.	✓Released ✓Ready ✓Active ✓Finished ✓Canceled
Job Start Con	dition
	From 1 25.01.2024 To 1 25.01.2024
	From 1 25.01.2024 From 1 25.01.2024 To 1 25.01.2024
Or after even	From (b) To (b)
Or after even	From (b) To (b)
Or after even	From (b) To (b)
Or after even Job Step	From () To ()
	From © To ©

Go back and click on start condition

Define Backgroun	d Job		
🍽 Start condition 🛛 🐥 Ste	p 🛛 🔊 Job Selection	🔤 Own jobs 🛛 🎘 Job wizar	d Standard jobs
🖙 Start Time			×
Immediate Date/Tin	ne After Job	After Event Operatio	n Mode 📄 📼
Date/Time			
After Job		Operation Mode	
After Event			
			Check 🔚 🗙

Page **106** of **214**

SM37 - Check the status

Simple Jol	b Selection
🚱 Execute 🛛 🕨	Extended Job Selection
Job Name	*
User Name	MMOKSHITH
Job Status	
Sched.	Released Ready Active Finished Canceled
Job Start Conditi	on
Fi	rom 🔞 25.01.2024 To 🐻 25.01.2024
FI	rom 🕙 To 🕑
Or after event	▼
Job Step	
ABAP Program N	ame

Spool work process (SPO-1)

Initiated by Dialog Work Process.

Used to take Doc Prints from Output Devices Eg: Printer, Fax

Parameter is, RDISP/WP_NO_SPO=1

Every Server should be having 1 Spool Work Process.

It is used to O/P the documents to Printers/Emails/SMS

SPAD - Administration

	💌 « 🚽 🗞 😪 🚔 🖞 🐇 🗳 🗘 🤹 🕄 🧐
Spool Administ	ration: Initial Screen
Extended admin. Full	administration
Devices / servers	Admin.
Output Devices	Display
Spool Servers Access Methods	Display Display
Destination Host	Display

Click on Output Devices Display

Spool Administration: Li	st	of Outpu	it Devices (18 entries)	
🥖 🕀 🤁 🏛 〒 🗏 🔮 🛟 🚽					
Dev.	ĸ	Dev. type	Spool servers	Location or message	G
FRONTEND PRINTER		SAPWIN			
HSIL Frontend Dotmatrix Print	F	/OBIZ/PS			
IVL Frontend Dotmatrix Printer	F	/OBIZ/PS			
LABEL FRONTEND PRINTER	F	SWINCF			
LABEL STICKER PRINTER	G	ZSWINCF		For External Labels	
LP01	L	HPLJIIID		Beispieldrucker. Mit SPAD anpassen.	х
Line printer CD2 Secbad	F	ZPTXLPP		Secunderabad-CD2	
		SAPWIN		For Internal Stickers	
		SAPWIN			
		ZCHEQUE			
Printer for Inv with Ac Meth G	G	ZINVOICE			
		ZINVOICE			
		ZINPRINT			
		ZCHEQUE			
		POST2			
Printer-PF Rpts Form 12A,5,10					
	1 - 1	PDFUC			
frontend dot matrix printer	F	ZINVOICE			

Click on edit to create new printer

Spool Administration: Li	ist of Outp	ut Devices (Cha	nge) (18 ent	
《 🖗 🤣 흐 후 📅 <mark>D</mark> 🗟 👳	k 🗉 🗳 🚭	,		
	1 1			
Dev.	K Dev. type	Spool servers	Location or message	G
FRONTEND PRINTER	F SAPWIN			
HSIL Frontend Dotmatrix Print				
IVL Frontend Dotmatrix Printer	F /OBIZ/PS			
LABEL FRONTEND PRINTER	F SWINCF			
LABEL STICKER PRINTER	G ZSWINCF		For External Labels	
LP01	L HPLJIIID		Beispieldrucker. Mit SPAD anpassen.	X
Line printer CD2 Secbad	F ZPTXLPP		Secunderabad-CD2	
PIPES-LABEL PRINT	G SAPWIN		For Internal Stickers	
PIPES-LABEL PRINT1	G SAPWIN			
Printer for Bhiwadi	F ZCHEQUE			
Printer for Inv with Ac Meth G	G ZINVOICE			
	G ZINVOICE			
Printer for Invoice in BBNR	F ZINPRINT			
	F ZCHEQUE			
Printer-PF Annual Rpts	F POST2			
Printer-PF Rpts Form 12A,5,10	F JPHPLJ4			
Webgui printing	F PDFUC			
frontend dot matrix printer	F ZINVOICE			

Click on create symbol

tput Device scription	Short Name	
DeviceAttribute	es Access Method Output Attributes Tray Info	
Device Type	:	
Spool Server		
Server Description	1	
Host	Real Server	
Device Class	Standard printer 🔹	
Authorization Grou	up	
Model		
Location		
Message		
Lock Printer in	I SAP System	

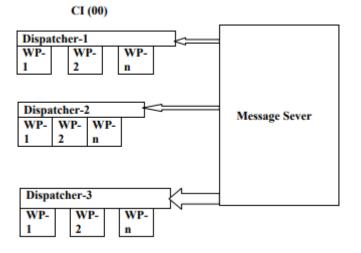
Page **108** of **214**

SP01 - Print the check o	autauts
	S 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、
	💫 💠 🖥 📾 Further selection criteria
F	Spool requests Output requests
	Spool Request Number [
	Created By MMOKSHITH Created On 29.01.2024 Clent 300 Authorization Image: Clean Cle
	Output Device
	Title Constraint Const
	System Name SND
	💌 🔍 📃 I 😪 😪 I 🖨 🛍 🟠 I 🏝 I 💭 📰 I 😨 💻
Output C	Controller: List of Spool Requests
0 🖴 🖨 t	ों 🗳 🗞 🛼 🕂 🖴 🙍 🖌 🔸 🕨 🥞 🚢 📮 💽 🕼 🍞 🗕 🏂 🗓
Spool no.	Type Date Time Status Pages Title
List does a	not contain any data

Message Server

It is responsible for communication between SAP applications.

It is responsible for load balance activity



Note:

Here Dispatcher Range from 00 to 99 Only.

WP- Work Process.

Used for Load Balance on Dispatchers.

Page 109 of 214

It is looking for 1st Dispatcher (CI) if 1st Dispatcher Busy Message Sever Assign the Request to 2nd Dispatcher likewise Cycle will be going on.

SMLG - To create logon groups

	🖉 🔄 💌 🗶 🛛 🖉 🐘 👘 👘 👘 👘 🖬 💭 💭 💭 💭 🖳
	CCMS: Maintain Logon Groups
	😚 🗋 🖉 🛱 Delete Assignment 🛛 Delete Group 🔐 Remove instance 🛛 🖓 📳 🗳 🏹 । 🚢 🐺 🖽 📆
	Logon Group Instance Status hpr_group brlsndbox_SND_00 hsprdci_HPR_00 Image: Comparison of the status
SMMS - Messa	ge Server Monitor
	🖻 🤹 Release Info 🍞 🚢 😇 🕃 🗊 🇮 🖽 📅 🖶 🗐 🥞 🖬
Message Trace lev	

₽	AS Instance	Host Name	Services	Server Status	Trace
	brlsndbox_SND_00	brlsndbox	Dialog Batch Update Upd2 Spool ICM	Active	Off

Gateway Server

* 1 AS instances logged on***

Security Vulnerability

It is used to communicate between SAP to SAP and SAP to Non-SAP systems

SMGW - Gateway Monitor

Ø	• « 📙	🗟 🚫 💭 🛛	∋ // // I ≭	0000	📮 🗖 🕜 🤅				
Gateway Mo	onitor for AS In:	stance br	lsndbox_S	SND_00 /	Active Con	nections			
12 🔁 👒 1 🙇	1917 4 T			' 🗟 🍜 🔲	I				
Connections : 0 /			nt / Maximum		Clients : 6 / 100	0 (Current / Maximum) 10 (Current / Maximum)			
B Nu Local LU N	Name Local TP Name	LU Name	TP Name	User	Status	Symbolic Destination ConvID	Protocol	Last Request	SAP

Page **110** of **214**

START & STOP PROCESS

START the Process

Open PUTTY and Enter the IP Address

Enter username and password

First start DB and then start the application



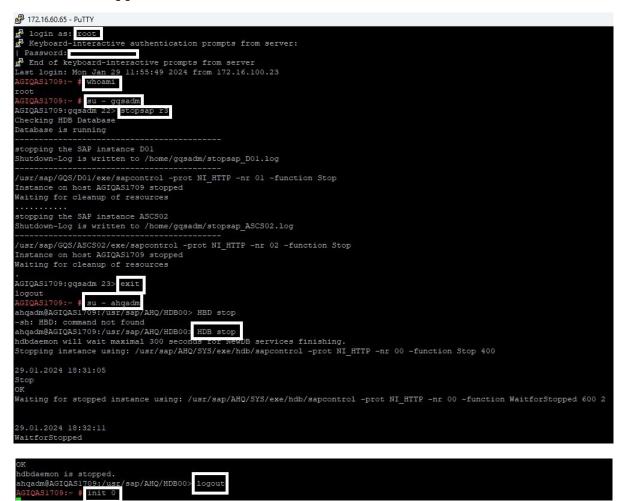
Page 111 of 214

STOP the Process

Open **PUTTY** and Enter the IP Address

Enter username and password

First shutdown the application then after shutdown the DB.

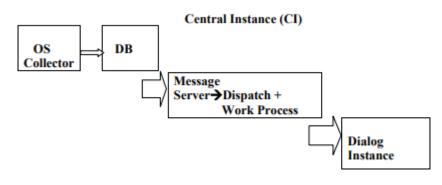


Start & Stop process in windows

Startup Process

Double Click on, SAP MMC[©]Select Our Server[®]Right Click on Server[®]All Tasks[®]Start. Eg:

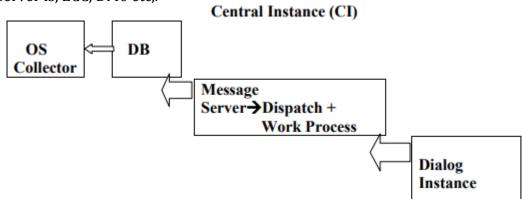
Server is, ECC, DM0 etc,.



Page 112 of 214

Stop Process

Double Click on, SAP MMC[®]Select Our Server[®]Right Click on Server[®]All Tasks[®]Stop. <u>Eg:</u> Server is, ECC, DM0 etc,.



SAP Stopping in Real Time Procedure

Check out Logged on Users by Using T-code as SM04.

- > We have to Send System Messages for All Active Users using T-code as **SM02**.
- Check whether Background Jobs Are Running or not using T-code as
- Enter the Program Name as,

RSBTCTRNS1 - For Pause.

RSBTCTRNS2 -For Resume.

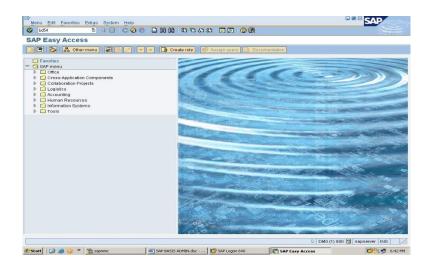
Note:

/n – For Back Page.

/o – For New Page.

Logical System Creation

In SAP command line enter the T-code as BD54



Click on Continue

Page 113 of 214

도 <u>T</u> able <u>E</u> dit <u>O</u> oto S <u>y</u> stem <u>H</u> elp			SAP
	《二丁王王 (19) (19) (19) (19) (19) (19) (19) (19)		
Maintain Table Views: Initial Scre	een		
🛱 Find Maintenance Dialog			
Teleformation			
Coulton, The table is cross-client			
Caution: The table is cross-client			
 Caution: The table is cross-client Image: Image:			
Caution: The table is cross-client			
 Caution: The table is cross-client Image: Image:			
 Caution: The table is cross-client Image: Image:			
 Caution: The table is cross-client Image: Image:			
 Caution: The table is cross-client Image: Image:			
 Caution: The table is cross-client Image: Image:			
 Caution: The table is cross-client Image: Image:			
 Caution: The table is cross-client Image: Image: Imag		DM0 (1) 800 E8	sapserver II

Click on Change/Display and then Continue Click on New Entries

Table View Edit Goto Selection Utilities(M) Sy	stem Help		-	SAP
		81 🛒 💌 🕜 🖪		
Change View "Logical Systems":	Overview			
🎾 New Entries 🗈 🖬 🖬 🕼				
Logical Syst New Entries (F5)				
Log.System Name				
AII 00 800 All System client 800				
AIN1 Auto ID Node 1				
AIN2 Auto ID Node 2				
AIN_800 Auto ID Node 2.1 client 800				
AIN_800NB1 Auto ID Node client 800 NB 1				
APOCLNT100 APOCLNT100				
APOCLNT808 APOCLNT800				
APOCLNT801 APOCLNT801				
APOCLNT802 APOCLNT801				
APOCLNT810 APOCLNT801				
AT2CLNT001 AT2 System				
B2B_IDES BTB IDES IAC				
B3TCLNT800 ID3 client 800				
BA1CLNT100 BA1CLNT100				
BA4CLNT100 BA1CLNT100				
BBP DII Procurement nach IDES				
BC619CNTRL BC619 Central System				
BC619MDREF BC619 Master Data Reference System				
BC619PR0D1 BC619 Manufacturing site 1				
BC619PR0D2 BC619 Manufacturing site 2				
BC619SALES BC619 Sales System				
BC_CONSOL				
4 F				
Resition	Entry 1 of 320			
			DM0 (1) 800 🖿	sapserver INS
🍠 Start 🛛 🞯 🧔 😕 🕈 🖄 sapmme	SAP BASIS ADMIN.doc	😥 SAP Logon 640	🚰 Change View "Logical	😥 📴 🗾 6:44 PM

Enter the Logical System and Name

⊡ 	<u>E</u> dit <u>O</u> oto	Selection Uti								
Ø		ē 🛛 📙	i 😂 🚱 🚷	📮 備 偽	80 10 AB :	🗅 🐹 🍋	🔞 🖪			
New Entr	ies: Ove	erview of /	Added E	ntries						
🦻 🖬 🖪 🛛										
Logical Syste										
Log.System										
DEVCLNT101		on								
DETOENTION		011								
M				——————————————————————————————————————						
M										
M										
S										
	R									
	R									
	< >									
	5	Position		Entry 1 of 1						
								⊳	DM0 (1)	800 🖻 sapserver INS 🛛 /
🍠 Start 🛛 🞯	<i>i</i> 🥥 🔊	📸 sapmmc		🔁 SAP BASIS A	MMIN.doc	📁 SAP Logo	640	New Entries: Ove	rvie	😥 📴 🍠 6:46 PM

Then Save it and Continue

Page **114** of **214**

ole Edit Goto System Help		
	8 L H H H 1 4 4 4 4 4 1 8 2 9 E	
intain Table Views: Initial Scre	en	
Find Maintenance Dialog		
🖙 Prompt for Workbench request		
View Maintenance: Data V_TBDLS		
Request DM0K900002 Short Description MMS	Workbench request	
🖌 🕼 🗋 Own Requests 🛛 🗙		
Compiling % CTROBJ in separate task.		▶ DM0 (1) 800 團 sapserver INS

Managing Queue

Queue is used to validate support packages for different SAP components in system landscape. Managing the Queue has below stages

- **1. Defining Queue**
- 2. Importing Queue
- 3. Verifying Queue

Define Queue

Step-1: Go to SPAM transaction.

문 Menu Edit Favorites Extras System Help 중FAM					
SAP Easy Access					
🕼 📴 🏷 💑 Other menu 🛛 🎋 🎋 🖉 👻 🔺 🕼 Create role 🔢 🔐 Assign	users 🔂 Documentation				
• 🛅 Favorites					
SAP Menu Office					
Cross-Application Components					
• 🦲 Logistics					
Counting Description					
Information Systems					
 Tools 					
WebClient UI Framework					

Step-2: Click on Display/Define.

Support Package Manage	- Version 7.31/0045	
🥦 🕄 🔓 🎾 🗓		
Queue	Display/define	

Step-3: A list of installed software components (SAP_BASIS, SAP_HR, SAP_BW etc.) is displayed.

Component	Software C	SP-Level	Support Package	Short description of the component	
SAP_BASIS	731	0002	SAPKB73102	SAP Basis Component	-
SAP_ABA	731	0002	SAPKA73102	Cross-Application Component	*
PI_BASIS	731	0002	SAPK-73102INPIBASIS	Basis Plug-In	
ST-PI	2008_1_700	0005	SAPKITLRD5	SAP Solution Tools Plug-In	
SAP_BW	731	0002	SAPKW73102	SAP Business Warehouse	
GRCPINW	V1000_700	8000	SAPK-10308INGRCPINW	SAP GRC NW Plug-in	
LCAPPS	2005_700	0010	SAPKIBHD10	LC Applications (LCAPPS) 2005_700	
MDG_FND	731	0002	SAPK-73102INMDGFND	MDG Foundation 731	
SAP_AP	700	0026	SAPKNA7026	SAP Application Platform	
SAP_BS_FND	731	0002	SAPK-73102INSAPBSFND	SAP Business Suite Foundation	
WEBCUIF	731	0002	SAPK-73102INWEBCUIF	SAP Web UI Framework	
MDG_APPL	606	0002	SAPK-60602INMDGAPPL	MDG Applications 606	
SAP_APPL	606	0002	SAPKH60602	Logistics and Accounting	
SAP_HR	604	0046	SAPKE60446	Human Resources	
SAP_HRCAR	604	0046	SAPK-60446INSAPHRCAR	Sub component SAP_HRCAR of SAP_HR	
SAP_HRCAT	604	0046	SAPK-60446INSAPHRCAT	Sub component SAP_HRCAT of SAP_HR	-
SAP_HRCAU	604	0046	SAPK-60446INSAPHRCAU	Sub component SAP_HRCAU of SAP_HR	Ê
CAD LIDCOF	C04	0045	CARL COAACTUCARURORE	Cub serveres CAD UDODE -5 CAD UD	

Step-4: Once the required component selected, the current queue appears with the Support Packages available for the selected component in the system.

If the displayed queue meets the requirements, confirm it by choosing Confirm Queue. Step-5: If the queue successfully defined, the status bar shows the message "Support Package queue defined and saved".

Importing Queue

Once the Queue defined, need to perform 'Import queue' to start importing the selected support pack. Step-1: Click on Support Package --> Import Queue

Load package	/SAINT Update	💀 🐼 😒 । 🚔 🖄 👘 🕮 🎝 💭 🕄 🔚 🛛 🔛 🗐 🖳	
Import gueur		- Version 7.31/0045	
Confirm			
Exit	Shift+F3		
ue		by Display/define	

Step-2: It opens a new dialog box and the support package import has been started.

Confirm Queue

As a last step, we need confirm the queue has been imported successfully.

This process is required to import Support Packages in the future. If queue not confirmed, then support packages can't able to inform in future.

Step-1: Once Queue imported, SPAM status becomes YELLOW like below.

Support Package> Confirm" to confirm the package.
Support Package $->$ Confirm" to confirm the package
Support Package> Confirm" to confirm the package
Jupport i achage > commin to commin the pachage.
Goto Extras Utilities Environment System Help
• 🙍 😪 😂 🖞 🐇 I む む む む に 🗖 🗖 I 🞯 🖤
ate
- Version 7.31/0045
hift+F3
3

Step-3: After successful confirm, SPAM status becomes GREEN like below.

s 9 G 🕹 🍠 🖗 🖬		
Queue	Display/define	
Directory	Status	
New Support Packages Aborted Support Packages Imported Support Packages	No queue has been defined SPAM status:	
 All Support Packages 		

Logs

Import Log: Displays Support Package Manager Phases logs used by transport control program. To open import log, click on Go to--> Import log -->Queue

 Image: Image: Ima	Status Object list	:	1999912125	
Support Package	Import Logs	•	Queue Shift+F8	
📙 🕄 🔓 🖉 🖉 🛄	Action Log Sh Queue Calculation L	hift+F9 .og	Support Package SPAM/SAINT Update	
	Back	F3	to System Log	

Action Log: Displays actions information taken during the individual phases and has detailed information. To open action log, click on Go to-->Action log.

⊘•	<u>S</u> tatus Object list	1111111 	
Support Package I		· (0045	
. 9 . 5 1	Action Log Sh	ít+F9	
» Эк (63 😂 У ГШ •	Queue Calculation Lo	29	
	Back	F3	

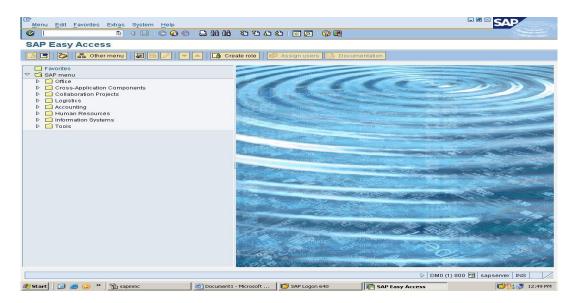
Enable SAP*

Whenever we install SAP $1^{\rm st}$ time in our system by default SAP* was in Disable Mode.

Parameter value is"1" and we need to change this value to "0".

Navigation is,

Login with Default client 800 with the User of SAP USER and the Password is india123.



In SAP Command line enter the T-code as **RZ10** (Static i.e., if we done any changes then we need to Restart Server to effect the changes.)

🕞 Menu Edit Favorites Extras System Help			
SAP Easy Access			
	🔺 🚺 Create role 🛛 💷 Assign users 🗟 Do	cumentation	
Favorites	A The Target of the Area and th		
7			
Cross-Application Components Collaboration Projects			<u></u>
D Consticution			
 Accounting Human Resources 	and the second s	and Sorvice and and	
 Information Systems Cols 			
		Contraction of the second s	
	and the second se	mentano orden	200
		a for the Symposite of	and the second
	and the second se	and the second states of	and the second
	and the second	ARKS BARS	19300
	and the second second	Contraction of the local division of the	
		all to the second second second	
	Contraction of the second seco	and the second second	S A A
	and the second sec	The Register of the Register o	
	The second second	and recipitance of the Poly	
	and a state of the		and the second the
		DM0 (1) 80	10 🗎 sapserver INS 🛛
Start 🛛 🚱 🥥 👋 🔤 📸 sapmmc	🛃 Document1 - Microsoft 📗 💋 SAP Logon 640	SAP Easy Access	12:59 Pi
			SAP
Profile Edit Goto Utilities System Help	그 (1) (13) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2		SAP
dit Profiles			
🖹 Create 🚰 Check 🔟 Copy 🛃 Import			
Profile 🛛			
Version			
Edit Profile S Administration data			
O Basic maintenance O Extended maintenance			
🗞 Display 🖉 Change			
		DM0 (1) 8	00 🛅 sapserver INS

Profile Selected from browser > Default

Profile Edit Goto Utilities System					
۵ ۹ 🖳	B & & & B & & & & B & & B & & B & & B & & B & & & B & & & B & & & B & & & B & & & &	10 AD AD I 😹 🛃 I 🕲 🛛	8		
dit Profiles					
🗅 Create 🚰 Check 🛅 Copy 😰	Import				
Profile DEFAULT	 Default profile)			
Version 000022	(Saved, activated)			
Edit Profile	1				
Administration data					
O Basic maintenance O Extended maintenance					
C Extended maintenance					
🛷 Display 🖉 Change					
			Þ	DM0 (1) 800 📧 sapserver INS	
Start 🛛 🥶 🥌 🔾 👋	Document1 - Micro	osoft 🛛 💋 SAP Logon 640	Edit Profiles		1:01 PM
				,	

Page **119** of **214**

ect the Radiant button 🛛 Extended maintenance	
CP Profile Edit Ooto Utilities System Help ② ① 4 日 〇 ② 食 日 街 機 約 名 紀 ※ 原 ③ 曜	SAP
Edit Profiles	
Create 🚰 Check 🛍 Copy 😰 Import	
Profile DEFAULT Version 22 Edit Profile	
Administration data Basic maintenance Ended maintenance	
<u>&r Display</u> ℓ Change	
	10 (1) 800 🖭 sapserver INS
🏄 Start 🞯 🥭 📀 » 📸 sapmmc 📃 Document 1 - Microsoft 🗊 SAP Logon 640 🛛 📻 Edit Profiles	💭 🕃 🧾 1:06 PM

Click on change

Profile Parameter Goto System Help				SAP
Ø 🛛 🖉 🖓	G 😧 😒 🖴 🛗 🖓	80 C 6	3 🛒 🖉 😨 📑	State of the second sec
Maintain Profile 'DEFAULT'	/ersion '000022	21		
Copy 🦅 🚰 🗋 Parameter 🖉 Parame	eter 🐼 Parameter 🕨			
02.12.2015 Act	ive parameters		13:06:35	
Parameter Name	F	'arameter va	ue	
SAPDBHOST	sapserver			
j2ee/dbtype	ona			
j2ee/dbname	DMO			
j2ee/dbhost	sapserver			
SAPSYSTEMNAME	DMO			
SAPGLOBALHOST	sapserver			
j2ee/scs/host	sapserver			
j2ee/scs/system	00			
j2ee/ms/port	3900			
rdisp/bufrefmode	sendoff,exeau	rto		
rdisp/mshost	sapserver			
rdisp/msserv	sapmsDMO			
rdisp/msserv_internal	3901			
login/system_client	800			
				DM0 (1) 800 🗎 sapserver INS ////
🍠 Start 📔 🛃 🥭 🔘 🎽 🎦 sapmme	Document1	- Microsoft	[SAP Logon 640	🛱 Maintain Profile 'DEFA 🛛 🚺 🕄 1:06 PM

Click on Create Parameter & Select Parameter name from browser

Page **120** of **214**

C			
Parameter Edit Goto System Help			SAP
	I 🗅 (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) us	
Maintain Profile 'DEFAULT' Version			
Copy 🥙 🛃 Line 🚘 Line 🔺 PARAM+ 🔻 PA	ARAM-		
Parameter name:	Status Seq. no		
	Active 1	8	
Parameter val.:			
Unsubstituted standard value:			
Substituted standard value:			
Comment:			
*			
			1) 800 🖪 sapserver INS 🛛 🏑
🎒 Start 🛛 🞯 🧑 🔾 » 🎼 sapmme	🖷 Document1 - Microsoft 🛛 💋 SAP Logon 64		1:07 PM
🥪 scare j 💟 🥏 🥪 刘 🔟 saprime	SAP Logon 64	III Maintain Profile 'DEFA	1:07 PM

Again click on browser

¢	Parameter Edit Goto System Hel;		
C		· · · · · · · · · · · · · · · · · · · ·	
	C Restrict Value Range (1) 500 Entries	Found	1
IV	Restrictions		
		$\overline{\nabla}$	
	✓ X H H L □ □		
	Parameter Name		
P	DIR_ATRA	Laufzeitanalyse: Verzeichnisname für Meßdatendateien	
		Directory for security audit files	
	DIR_BINARY	I 🗧	
P	DIR_CLIENT_ORAHOME	Root-path of Oracle software on client side	
	DIR_CT_LOGGING		
	DIR_CT_RUN	1	
	DIR_DATA I	directory for datas	
	DIR_DBMS		
	DIR_EPS_ROOT	root path for EPS file transfer	
U	DIR_EXECUTABLE		
	DIR_EXE_ROOT		
	DIR_EXTRACT	directory for extract file	
	DIR_GEN		
5	DIR_GEN_ROOT		
	DIR_GLOBAL		
	DIR_GRAPH_EXE		
Co	DIR_GRAPH_LIB		
		Ihome directory	
	DIR_INSTALL		
	More than 500 input options		
			DMO (1) 800 🖪 sapserver 🛛 INS 🛛 🦯
ð	Start 🛛 🞯 🧔 📀 👋 🔤 sapmmc	📄 Documenti - Microsoft 🛛 🔯 SAP Logon 640 🛛 👫 Mainte	ain Profile 'DEFA 🚺 😳 📑 1:08 PM

Parameter name as $\ensuremath{\mathbbm 2}$ type LOGIN/NO* then hit the enter

	a 💷 🗠	A CP CP LA	8 🐷 🗖 🔊 💻			
🖻 Restrict Value Rang						
Restrictions						
Parameter Name						
Maximum no. of hits	500					
🖌 🊸 🖪 🖂						
Start search	3	Δ				
	1					
Parameter Name DIR_ATRA	ll sufre	itanalyse: Verzeichnisname für Meßd	atendateien			
DIR_AUDIT		ory for security audit files	atenuateren			
DIR_BINARY	l I	Reat with of Oresta coff ware	iontoido			
DIR_CLIENT_ORAHOM DIR_CT_LOGGING	IE I	Root-path of Oracle software on cli	ient side			
More than 500 input op						
more than bee mpdt op						
					D DM0 /13 999	🖻 sapserver INS 🛛
tart 🛛 🚱 🥌 🝛 👋	j 🛗 sapmme	Document1 - Microsoft	SAP Logon 640	Maintain Pro	ofile 'DEFA	1:10 PM
arameter <u>E</u> dit <u>G</u> oto	S <u>y</u> stem <u>H</u> elp					SAP
		0. C* C* I & H & E I & 9	\$1 🕱 🗷 🛞 🖷			
🔄 Restrict Value Rang				⊠/—		
Restrictions						
Trestrictions						
		∇				
	1	Σ				
✔ 🛛 🕅 🔀 斗 Parameter Name		▽				
✓ ■ (1) (1) (1)			er SAP*			
✔ 🛛 🕅 🔀 斗 Parameter Name		⊽ Control of the automatic login us	er SAP*			
✔ 🛛 🕅 🔀 斗 Parameter Name		⊽ [Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🖨 Parameter Name		⊽ [Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🗎 Parameter Name		⊽ Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🗎 Parameter Name		⊽ Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🗎 Parameter Name		⊽ [Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🗎 Parameter Name		⊽ [Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🗎 Parameter Name		⊽ [Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🗎 Parameter Name		Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🗎 Parameter Name		Control of the automatic login us	er SAP*			
✔ 🛛 🖓 🖓 斗 Parameter Name		Control of the automatic login us	er SAP*			
✔ 🛛 🖓 🖓 斗 Parameter Name		Control of the automatic login us	er SAP*			
✔ 🛛 🖓 🖓 斗 Parameter Name		Control of the automatic login us	er SAP*			
✔ 🛛 🖓 🖓 斗 Parameter Name		Control of the automatic login us	er SAP*			
✔ 🛛 🖓 🖓 斗 Parameter Name		Control of the automatic login us	er SAP*			
✓ ☑ (A) (B) □ Parameter Name Iogin/mo_automatic_us		Control of the automatic login us	er SAP*			
🖌 🖾 🕼 🔀 🗎 Parameter Name		Control of the automatic login us	er SAP*			
✓ ☑ (A) (B) □ Parameter Name Iogin/no_automatic_us		Control of the automatic login us	er SAP*			
✓ ☑ (A) (B) □ Parameter Name Iogin/no_automatic_us		Control of the automatic login us	er SAP*			
Image: A second se		Control of the automatic login us	er SAP*			
✓ ☑ (A) (B) □ Parameter Name Iogin/no_automatic_us		Control of the automatic login us	er SAP*			
✓ ☑ (A) (B) □ Parameter Name Iogin/no_automatic_us		Control of the automatic login us	er SAP*			
✓ ☑ (A) (A) (A) Parameter Name Iogin/no_automatic_us		Control of the automatic login us	er SAP*			
✓ ☑ III III III III III Parameter Name login/no_automatic_us		Control of the automatic login us	er SAP*			
✓ ☑ III III III III III Parameter Name login/no_automatic_us		Control of the automatic login us	er SAP*		DM0 (1) 800	Sapserver INS

Click on copy

Parameter Edit Goto System Help				SAP
	I 🗅 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	D 🕱 🗾 🕜 📑		See 1
Maintain Profile 'DEFAULT' Version	n '000022'			
Copy 🎾 🛃 Line 🚘 Line 🔺 PARAM+ 🔻 PA	RAM-			
Parameter name:	Status	·		
ogin/no_automatic_user_sapstar	🕝 Activ	/e 18		
Parameter val.:				
Unsubstituted standard value:				
1				
Substituted standard value:				
1				
Comment				
#				
			DM9 (1)	800 🖻 sapserver INS 🛛 🖊
🕈 Start 🛛 🕑 🥔 🝛 🐐 📸 sapmmc	Document1 - Microsoft	💋 SAP Logon 640	Maintain Profile 'DEFA	1:12 PM
🔽 secure 1 🛤 🕿 🦱 1 🛅 sebinine		U DHI LOGON 040		

NOTE: By default, Parameter value as empty. We need to enter "0" manually.

Parameter Edit Goto System Help			
S I 4 8 6 6 8 8 8 8 8	10 10 11 🛒 🔁 1 🔞 🛙		See See
Maintain Profile 'DEFAULT' Version '000022'			
Copy 🦻 🛃 Line 🚘 Line 🔺 PARAM+ 🔻 PARAM-			
Parameter name:	Status Seq. no.		
login/no_automatic_user_sapstar	Active 18		
Parameter val.:			
0			
Unsubstituted standard value:			
1]		
Substituted standard value:			
	1		
Comment:			
#			
		DM0 (1) 800 🖪 sapserver INS 🛛
🕽 Start 🛛 🚱 🧶 🄌 🎁 sapmmc 🔛 Document 1 - Micr	osoft 🛛 😥 SAP Logon 640	Maintain Profile 'DEFA	1:16 PM

Click on back One pop-up will be come Click on Yes

A Copy 2			
Copy 🦻 🖶 Line 🖬 Line 🔺 PARAM+			
arameter name:			
	▼ PARAM-		
gin/no_automatic_user_sapstar	Status Seq. no.		
	Active 18		
ar 🔄 Maintain Profile 'DEFAULT' Version '0000			
The parameter was changed			
Save			
changes?			
n: Yes No Cancel			
ubstituted standard value:			
mment:			
#			
			800 🗐 sansener INS
	W Descused Museub (W) contains 640		800 🖻 sapserver INS
itart 🗍 🚱 🥌 🍛 👋 🛉 🚡 saprenc	Document 1 - Microsoft 🛛 🞁 SAP Logon 640	DM0 (1)	1:16 F
Profile Parameter Goto System Help			
Profile Parameter Goto System Help) 週 Document 1 - Microsoft) 1月 SAP Logon 640 2 중 음 尙 많 왕 한 삼 왕 동 등 중 영 唱		1:16 F
Profile Parameter Goto System Help			1:16 F
laintain Profile 'DEFAULT' Ve	④ ✿ I ⊒ 佾 ዙ 한 한 관 원 I I I I I I I I I I I I I I I I I I		1:16 F
Profile Parameter Goto System Help	④ ✿ I ⊒ 佾 ዙ 한 한 관 원 I I I I I I I I I I I I I I I I I I		1:16 F
Profile Parameter Goto System Help	④ ✿ I ⊒ 佾 ዙ 한 한 관 원 I I I I I I I I I I I I I I I I I I		1:16 F
Profile Parameter Goto System Help	연 🕲 금 🕅 1월 환 한 쇼 む 환 ፵ 🖉 🖗 🖷 ersion '000022' : 《 Parameter) ▶		1:16 F
Profile Parameter Goto System Help A C C C C C C C C C C C C C C C C C C C	② ● □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		1:16 F
Profile Parameter Goto System Help Inintain Profile 'DEFAULT' Ver Topy 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	 ② ● □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		1:16 F
Profile Parameter Goto System Help a C C C C C C C C C C C C C C C C C C C	② ② □ 简 № 2 ℃ む む 〒 ◎ ● ersion '000022' ◇ Parameter → e parameters 13:16:58 Parameter value sapserver ora ph0		1:16 F
Profile Parameter Goto System Help A Composition of the system of	Image: Constraint of the second s		1:16 F
Profile Parameter Goto System Help aintain Profile 'DEFAULT' Ve opy 20 20 Parameter 20 Parameter 12.2015 Activ Parameter Name PDBHOST ee/dbhost ee/dbhost PSYSTENNAME	② ② □ 简 № 2 ℃ む む 〒 ◎ ● ersion '000022' ◇ Parameter → e parameters 13:16:58 Parameter value sapserver ora ph0		1:16 F
Profile Parameter Goto System Help aintain Profile 'DEFAULT' Ve opy 22 20 Parameter 2 Parameter 12.2015 Activ Parameter Name PDBHOST ee/dbhype ee/dbhype ee/dbhost PSYSTEMAME PGL06ALHOST PGL06ALHOST PGL06ALHOST	• ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●		1:16 F
Profile Parameter Goto System Help A C Q Q Q Q laintain Profile 'DEFAULT' Ve copy 2 2 C Q Q Q Parameter Name PDBHOST ce/dbtype ce/dbtype ce/dbhost PSYSTEMNME PGLOBALHOST ce/scs/kost ce/scs/kost ce/scs/kost	• ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●		1:16 F
Profile Parameter Goto System Help A Goto System Help A Goto System Help A Goto System Help A Goto System I Constraint Profile 'DEFAULT' Vec A Goto System A Goto Sy	• ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●		1:16 F
Profile Parameter Goto System Help Taintain Profile 'DEFAULT' Ve copy 20 20 Parameter 20 Parameter 12.2815 Activ Parameter Name PDBH0ST tee/dbtype tee/dbhost PSVSTEINAME PSUBALH0ST tee/scs/system tee/scs/system tee/scs/system tee/scs/system			1:16 F
Profile Parameter Goto System Help Copy Copy Copy Copy Copy Copy Copy Copy	Image: Constraint of the second s		1:16 F
Profile Parameter Goto System Help A Goto System Help A Goto System Help A Goto Constraint of the system A Goto Constraint of the system Parameter Name POBHOST Rev Job St Post EntMAME PGLOBALHOST Rev Job St Rev Job St Post EntMAME PGLOBALHOST Rev Job St Rev Job St R			1:16 F

Click on Exit one pop-up will be come

Profile Edit Goto Utilities System H	telp	
dit Profiles		
) Create 🔓 Check 💼 Copy 😰 Im	port	
Profile DEFAULT	(Default profile)	
Version 22	(Not saved)	
Edit Profile		
O Administration data		
O Basic maintenance		
Extended maintenance		
😪 Display 🖉 Change		
The changed profile was transferred		DM0 (1) 800 🗎 sapserver INS 🛛 🦯
itart 🛛 🕝 🥥 🔌 🌇 sapmmc	🕘 Document1 - Microsoft 🛛 😰 SAP Logon 640 🛛 👫 Edit Profile	es 🚺 🔂 1:19 PM

Click on Save one pop-up will be come

면 Profile Edit Goto Utilities System Help				
	IBHH;18000;	81 🗙 🗾 🔞 🖪		- Star
Edit Profiles				
🗋 Create 🚰 Check 🛅 Copy 🛃 Import				
	Default profile)		
Version 22 (Not saved)		
Edit Profile				
O Administration data	D	<		
Basic maintenance Incorrect parameter Extended maintenance Displayurphises	values detected.			
Extended maintenant Display values?				
🚱 Display 🥖 Yes	No 🔀 Cancel			
-				
			DM0 (*	I) 800 🖻 sapserver INS 🛛 🖊
🐮 Start 🛛 🞯 🥭 🕓 » 👫 sapmmc	Document1 - Microsoft	💋 SAP Logon 640	Edit Profiles	1:21 PM

Click on Yes

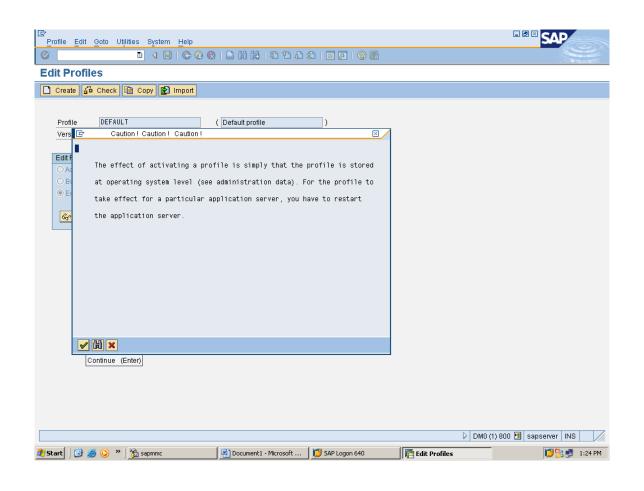
Profile Parameter Goto System Help			
	x 🗅 (i) (i) (2) (2) (2) (x x 2) (2) 📳		
Maintain Profile 'DEFAULT' Versi	on '000022'		
Copy 🎾 🚰 🗋 Parameter 🖉 Parameter 🗞	Parameter D		
02.12.2015 Active pa	nameters 13:22:12		▲ ▼
Parameter Name	Parameter value		
SAPDBHOST	sapserver		
12ee/dbtype	ora		
j2ee/dbname	DMO		
E:j2ee/dbname changes not permitted	•		
j2ee/dbhost	sapserver		
SAPSYSTEMNAME	DMO		
SAPGLOBALHOST	sapserver		
j2ee/scs/host	sapserver		
W:Unknown parameter j2ee/scs/host , a check			
j2ee/scs/system	00		
V:Unknown parameter j2ee/scs/system , a che			
j2ee/ms/port	3900		
W:Unknown parameter j2ee/ms/port , a check			
rdisp/bufrefmode	sendoff,exeauto		
rdisp/mshost	sapserver		
rdisp/msserv	sapmsDMO		
rdisp/msserv_internal	3901 800		
login/system_client	800		
login/no_automatic_user_sapstar	0		
🥝 Invalid profile parameters detected		▷ DM0 (1) 800 🖭 sapserver 🛛 INS 👘 🎽
🎒 Start 📗 🚱 🥥 🔌 🔤 📸 sapmmc	🛛 🔁 Document1 - Microsoft 🛛 💋 SAP Logon 640	Maintain Profile 'DEFA	💭 🔡 💕 1:22 PM

Click on Exit one pop-up will be come & Click on Yes.

Ø ▲ ■ 4 ■ 6 @ @ ■ H H H 4 12 D A Ⅲ ■ ■ Ø ■	1
Edit Profiles	
Create 🔏 Check 🕼 Copy 😰 Import	
Profile DEFAULT (Default profile) Version 22 (Not saved)	
Edit Profile Administration data Basic maintenance Extended maintenance Second and the profile Yes No X Cancel	
DM0 (1) 800 🖻 sapserver IN	
🔊 Start 🛛 🕝 🧑 🍥 🔌 👔 sapmme 🛛 🔄 Document 1 - Microsoft 🛛 💆 SAP Logon 640 🛛 🦵 Edit Profiles 👘 😭 👘	1:23 PM

-		
Profile Edit Goto Utilities System		SAP
	C	
Edit Profiles		
🗋 Create 🚰 Check 🛅 Copy 🛃 Ir	mport	
Profile DEFAULT	(Default profile)	
Version 23	(Not saved)	
Edit Profile		
O Administration data		
O Basic maintenance		
Extended maintenance		
🗞 Display 🖉 Change		
og biopiaj p citange		
□ Information		
Profile DEFAULT (version activated	1000023) saved and:	
		DM0 (1) 800 🕑 sapserver INS

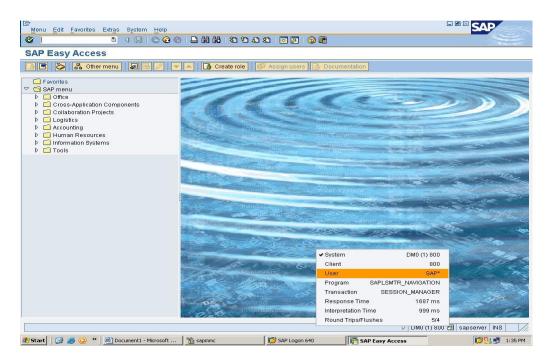
Click on Continue



Again click on continue & then Click on Yes

Maintain Profile 'DEFAULT' Version '000022' Copy % & Parameter & Parameter & 13:16:50 Parameter Name Parameter Name Parameter value AAA Minimian Profile DEFAULT Version '00000 Sapser ver Ora OH8 Save Changes? Copy * No Cancel Sapser ver OB Save Changes? Save Changes? Save Changes? Save Sapser ver	Profile Parameter Goto System Help	28日 SA ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	
Copy Image: Second			3
2.12.2015 Active parameters 13:16:50 Parameter Name Parameter Name Parameter Name Parameter Value Sapser ver Ora Ora Ora Ora Ora Ora Ora Ora Ora Or			
Parameter Name Parameter value AAI C. Maintain Profile DEFAULT Version '0000[] sapserver or a DHB Save sapserver Save sapserver Changes? No Cancel sapserver Sapserver sapserver Odisp/ssserv_internal sapserver Sapserver sapserver Ogin/system_Client 0			
124 Ora 125 Ora 126 Saperver 127 Save 128 Saperver 129 No 129 Yes 129 No 129 Saperver 129 Saperver 129 Saperver 129 No 129 Saperver 129 Saperver 129 Saperver 129 No 129 No 129 No 129 No 129 Saperver 129 Saperver <th></th> <th></th> <th></th>			
DM0 (1) 800 🗃 sapserver INS	12e 12e 12e 12e 12e 12e 12e 12e 12e 12e	ora DN0 Sapserver DN0 Sapserver 00 3900 Sendoff,exeauto Sapserver 3900 Sendoff,exeauto Sapserver 3900 Sendoff,exeauto Sapserver 3900 Sendoff,exeauto Sapserver	

After Restart the Server login with SAP* and the password is pass(or) 06071992



OS Level:

Path is, In SAP Installed Drive/USR/SAP/SID/SYS/PROFILE Then Click on Default Profile Add the Parameter as LOGIN/NO_AUTOMATIC_USER_SAPSTAR=0

How to Check Active Servers

In SAP command line enter T-code as SM51

Here we can see the below col's

년 List Edit Goto Setting	ıs S <u>y</u> stem <u>H</u> elp		
Ø	🔟 🗸 🔛 I 😋 🚱 I 🖴 🕅 🖓	2222	
SAP Servers			
🗿 🏽 🐣 🅅 Release I	Notes 💈 📓 🕄 🍞 📇 🖓 🗮	🖷 🖷 🔽 🖪 🔲 🖪	
Server Name	Host Name	Message Types	Server Status
sapserver_DM0_01	sapserver	Dialog Batch Update Upd2 Spool Enqueue ICM	Active
*** 1 active servers ***			
			DM0 (1) 800 🖪 sapserver INS 🥢
🏄 Start 🛛 🔞 🙆 🔘 👋	💌 SAP BASIS ADMIN.doc 🏻 📸 sapmme	SAP Logon 640	ers 12:09 PM

How to check Work Process Overview (Instance Wise)

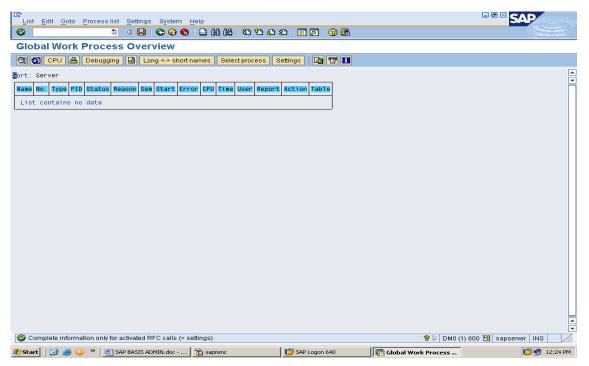
In SAP command line enter the T-code as SM50

		ogramio						System			_				
sm	50				60	8		88	89 YG .	ali 🌮 I 🐹 🕻	2 (3 🖬			
oc	ess	Overv	view												
٩		2 3	7 8 7				II =	H 45	1	2 🖬					
															_
	. Type			Reasn		Err	Se	CPU	Time	Report	CI.	User Names	Action	Table	
	DIA	2492	Waiting		Yes										_
	DIA	2500	Waiting		Yes										_
	DIA	2508	Waiting		Yes										_
	DIA	2516	Running		Yes				2	SAPLTHE	800	SAPUSER			_
	UPD		Waiting		Yes						-				_
	ENQ BGD		Waiting		Yes Yes						-				_
	SPO		Waiting Waiting		Yes						-				_
	UP2		Waiting		Yes										_

Page 129 of 214

How to check Globally Work Process Overview (Multiple Instance in System Wise)

In SAP command line enter the T-code as SM66



How to check User Overview

In SAP command line enter the T-code as **SM04/AL08**. If you can use T-code as SM04 we can see the below col's

ser <u>E</u> dit <u>G</u> oto <u>L</u>	ist <u>S</u> ettings S <u>y</u> ste	m <u>H</u> elp							- • • SA	P
1			日間日	80 fD fD :	😂 🐹 🛃 🤅	2 🖪				
er List										
Sessions 🐣	37887				2 8 5					
Clie User names	Terminal	Transaction	Time	Sess.	Туре	Megabyte				
000 SAPSYS	192.168.2.1			1	Plugin HTTP	0				
800 SAPUSER	sapserver	SM04	12.29.10	1	GUI	0				
2 users logged on v	vith 2 modes ***									
! users logged on v	with 2 modes ***									
								DM0 (1) 8	00 💌 sapserve	
	with 2 modes ***	vIIN.doc ∫ 📸	Saprime		SAP Logon 64	o[🔁 User List	DM0 (1) 8		r INS 712:29 PM

Page **130** of **214**

in use T-code as AI	2 08 we	e can se	e th	e below	col's.					
List Edit Ooto Settings Sy		<u>6</u> 🗞 i 🗅 (H) (23)	89668	× 2 0	-			_ 8 ×	SAP
List of All Users Logg										
Refresh										
System DM0 Date, Time 06.12.2015	12:30:0	Overview of 8 users logge								
Active Instances										
sapserver_DM0_01	3			1		1				
1 Destinations with 3 users.										
sapserver_DM0_01	Client	User Name	Termi	nal	Transactio	n Code	Time	Ext. Sess	. Int. Sess.	
	800 800 000	SAPUSER SAPUSER SAPSYS	sapse sapse 192.1		AL08		12:30:06 12:30:05 12:04:17	1 1 1	1 2 1	
()) 2* Start (2) (2) (2) (2)		doc 🏾 📸 sapr			AP Logon 640	(17		DMC) (1) 800 🔳 sap	

How to Create Mass User (Multiple Users)

In SAP command line enter the **SU10** for Mass User Creation. Give Multiple Users. Click on Create.

User Edit Goto Information Environment System Help	
S	2 🕲 🖪
User Maintenance: Mass Changes Initial Screen	
UsCreate (F8)	
Address data Authorization data	
User	
User Full Name	
R1 @	
R3	
	DM0 (1) 800 💌 sapserver INS
🐉 Start 🛛 🞯 🧑 🔾 🎽 🔄 SAP BASIS ADMIN.doc 🛛 🏠 sapmmc 🛛 👘 SAF	ogon 640 I 🔂 User Maintenance: M

Page **131** of **214**

If you can use T-code as AL08 we can see the below col's .

Fill all fields.

「 Users Edit Goto Information Environment System Help ②	
Address Logon data Defaults Parameters Roles Profiles Groups CP	
User Type Dialog E	
User Group for Authorization Check User group	
Validity Period	
Valid from Valid through	
Other Data	
Accounting Number	
DM0 (1)	800 📧 sapserver INS 🛛 🥢
🟄 Start 🛛 🚱 🥥 🔌 🔄 SAP BASIS ADMIN.doc 🏠 sapmine 🛛 💭 SAP Logion 640 🛛 👫 Mass User Changes	<mark> 🔊 </mark> 1:07 PM

How to Check Overview of Lock & Un-Lock Users List

In SAP command line enter T-code as EWZ5

Choose	<u>Edit G</u> oto Syst		ء 😒 😧	3008 800.C:	5 💥 🗾 🕜 📑	L	SAP
EMU Co	onversion:	Lock and U	nlock U	sers			
🎸 Choose	e user 🔒 Lock i	iser 🗗 Unlock u	ser 📇 N	ame 📇 Group 📇 T	ype 📇 Admin.flag		
					_		-
		trators (select are locked with		er"			
EuroAdm.	Name	Group	Туре	Status			
	101197 100226 100226 100227 100222 100222 100229 100230 123456 13480560591 45708062981 45708062981 45708062981 8544255661 A-CRM AAKOLK AAKOLK AAKOLK AAKOLK AAKOLK AC200-99	ESSUISER ESSUISER ESSUISER ESSUISER ESSUISER ESSUISER ESSUISER ESSUISER TEMPLATE TRAINING	Dialog Dialog	Locked Lo		DM0 (1) 800 P	sapserver INS
Start	3 🦔 🔿 » 🖩	SAP BASIS ADMIN.	tor 198	sapmme	💋 SAP Logon 640	EMU Conversion: Lock	[🖉 🛒 1:16 PM

Page **132** of **214**

How to Lock & Un-Lock T-code's

In SAP command line enter T-code as **SM01**

Lock/Ur	action Codes:	LUCK/OIIIO	CK			
	TCode /AIN/2200001 /AIN/3000001 /AIN/3000002 /AIN/3000005 /AIN/3000005 /AIN/3000006 /AIN/3000006 /AIN/3000006	SAPLS_CU SAPLS_CU SAPLS_CU SAPLS_CU SAPLS_CU SAPLS_CU SAPLS_CU SAPLS_CU SAPLS_CU	Scr. 0200 0200 0200 0200 0200 0200 0200 02	Transaction Text Barcode Customizing		
	/AIN/38000010 /AIN/38000010 /AIN/38000012 /AIN/38000012 /AIN/38000013 /AIN/38000014	SAPLS_CU	0200 0200 0200 0200			

How to Lock & Un-Lock Clients

In SAP command line enter T-code as **SE37**

Function Module Edit	Goto Utilities(M) Environm	ent System Help			
8	🗈 🔄 🔛 🚱 🚱 🚷	1 📮 🛗 🖓 🎝 🏠 🖓	😂 🕱 🗾 😨 📑		
Function Build	er: Initial Screen				
🕯 🔭 🖳 🕂 🖪	î 🗈 😥 Reassign				
Function Module		Ø			
ୈନ Display 🏑	🖉 Change 🚺 Cr	eate			
				DM0 (1) 80	IO 🖻 sapserver INS 🛛 🎢
🖁 Start 🛛 🚱 🥵 🔾	SAP BASIS ADMIN.doc	🚡 sapmme	💋 SAP Logon 640	Function Builder: Initi	搅 🛃 1:24 PM

Note: If you want to Lock Client,1st you have to logion Different Client Then Lock

Page 133 of 214

the Client. If you have already gave the Remote Connection then you can't able to Un-Lock.

How Monitoring Lock Entries (Users, Clients, T-codes, etc)

In Sap command line enter the T-code as **SM12** Here we can Check Table Name Wise.

List Lock Entry Edi	t <u>G</u> oto <u>S</u> ettings Extras Sys	tem Help			SAP
©			E 🐹 🗖 😨 📑		
Select Lock En	tries				
List					
Table name					
Lock argument Client	800				
User name	SAPUSER				
				D. DMO.	1) 800 🛅 sapserver INS 🛛 🦯
		167b			
📶 Start 🛛 🕑 🥮 🔘	SAP BASIS ADMIN.doc	ීසි sapmme	💋 SAP Logon 640	Filect Lock Entries	💋 🗾 1:32 PM

How to Monitoring Update Process

In SAP command line enter T-code as SM13

Note: Update System Should Be Active.

Goto System Help					SAP
©	5 4 🖯 😋 🚱 🚱	0.010000	8 🐹 🗷 🔞 🖪		and the second se
Update Requests:	Initial Screen				
Client *					
Status					
 Canceled To be updated 					
OV1 executed					
OV2 Executed					
 All 	🔲 Global View				
Selection					
From date 06.12.2					
From time 00:00:00	To time	00:00:00			
Maximum no. records 99	999				
Update server					
	S Administratio				
Update System Update 1s active	🏽 🔉 Administratio				
opurce to accive					
				DM0 (1) 800 🔚	sapserver INS
ಶ Start 🛛 🔂 🥌 🕓 👋 🖣	SAP BASIS ADMIN.doc	apmmc	SAP Logon 640	Init	🔂 🛃 1:37 PM

Page **134** of **214**

How to Monitoring System Logs

In SAP command line enter the T-code as SM21

System Log: Local Analysis of sapserver Reread system log System log entries imported B Selection From date/lime 06.12.2015 / 12.00.00 To date/lime 0.12.001 / 12.00.00 Process No. Problem classes 0 Problems and warnings 0 All messages Format No. pages for individual entries 150 Output to Screen Settings	Cr System log Edit Goto Environment	System Help				
Reread system log System log entries imported 0 Selection From date/lime 0 ds r 1 ds r			10 🕰 🕄 🕱 🖻	😨 🖪		
System log entries imported 0 Selection Form dateMime 06.12.2015 / 12:00.00 To dateMime 0.12.2015 / 12:00.00 To dateMime 0.1 Serees Set OProblems only OProblems and warnings Settings Further restrictions Format No. pages for individual entries 150 With statistics Output to Screen Settings DM0 (1) 800 13 sapserver INS	System Log: Local Analysi	s of sapserver				
Selection From dateMine 06.12.2015 / 12:00:00 To dateMine User Transaction code SAP process Process No. Problems and warnings O Problems and warnings O Problems and warnings O All messages Format No. pages for individual entries T50 With statistics Outputto Screen Settings DM0 (1) 800 T sapsever INS	Reread system log					
From date/time 06.12.2015 / 12.00.00 To date/time / User	System log entries imported	0				
From date/time 06.12.2015 / 12.00.00 To date/time / User	Selection			1		
User Transaction code SAP process Process No. Problems and warnings O Problems and warnings O All messages Further restrictions Format No. pages for individual entries 150 Output to Screen Settings DM0 (1) 800 sapserver IN8		06.12.2015 / 12:00:00				
Transaction code SAP process Process No. Problems only Problems and warnings All messages Further restrictions Format No. pages for individual entries 150 With statistics Output to Screen Settings DM0 (1) 800 September INS	To date/time	/				
SAP process Process No. Problems only Problems and warnings © All messages Further restrictions Format No. pages for individual entries 150 With statistics Output to Screen Settings DM0 (1) 800 👻 sapserver INS	User					
Process No. Problems and warnings © Problems and warnings © All messages Further restrictions Format No. pages for individual entries 150 With statistics Output to Screen Settings DM0 (1) 800 🛱 sapserver IN8	Transaction code					
Problems only Problems and warnings All messages Further restrictions Format No. pages for individual entries No. pages for individual entries Output to Screen Settings DM0 (1) 800 Sapserver INS	SAP process					
Problems and warnings O All messages Further restrictions Format No. pages for individual entries 150 With statistics Output to Screen Settings DM0 (1) 800 🖼 sapserver IN8	Process No.					
All messages Further restrictions Format No. pages for individual entries 150 Output to Screen Settings DM0 (1) 800 sapserver IN8	Problem classes					
Further restrictions Format		O Problems and warnings				
Format No. pages for individual entries 150 With statistics Output to Screen Settings DM0 (1) 800 September INS		All messages				
No. pages for individual entries 150 With statistics Output to Screen Settings	Further restrictions	<none></none>				
With statistics	Format			1		
Output to Screen Settings	No. pages for individual entries	150				
DM0 (1) 800 🗐 sapserver INS	With statistics]				
	Output to	Screen	Settings			
]		
🕈 Start 🛛 🚱 💫 😕 🐼 SAP BASIS ADMIN.doc 🏦 saprımc 🛛 🔯 SAP Logon 640 🛛 🔚 System Log: Local An 🕅 🕅 🗰 1:44					DM0 (1) 800 🔚 sapserver INS 🛛 🦯
	🏄 Start 🚱 🥭 📀 👋 🔤 KAP BASIS AD	MIN.doc 📸 sapmme	💋 SAP Logor	640	System Log: Local An	😥 🛃 1:44 PM

How to check Buffer Statistics (Tune Summary)

In SAP command line enter T-code as **ST02**

If SWAPS Col having any Red color values Double Click on that.

C Tune Summa			😧 😵 📮		ت ة ت ⁴ ت								3.0
Current parame													
ystem: Date + Time of Sna	saps	erver_DM0_(Tune s Startu		2 2015	12:03:0	,			
Buffer	·		B Freesp. KB	8 % Free Sp.	Dir. Size	FreeDirEnt		1					
Nametab (NTAB)								0					
Table definitio Field definitio Short NTAB Initial records	on 66,87 58,00	6.329 30.859 3.332 6.332	4.417 20.517 2.904 4.930	77,45 68,39 96,80 82,17	20.000 20.000 5.000 5.000	15.490 15.987 4.656 3.253	77,45 79,94 93,12 65,06	0 0 0	5.604 4.534 344 1.747				
program CUA Screen Calendar OTR	90,46 92,87 97,37 100,00 100,00	3.000 4.297 488	16.371 1.441 3.488 261 3.439	11,29 57,50 85,20 55,30 100,00	37.500 1.500 2.000 200 2.000	33.522 1.444 1.951 98 2.000	89,39 96,27 97,55 49,00 100,00	0	11.934 63 49 102				
Tables Generic Key Single record	98,59 63,42		7.016	71,19	5.000	2.595 449	51,90 89,80		2.790 3.140				
Export/import Exp./ Imp. SHM	29,33 100,00		3.139 3.439	91,28 100,00	2.000 2.000	1.867 2.000	93,35 100,00	0					
SAP Memory (Curr.Use % C	urUse (KB)	1axUse[KB] I	(n Mem[KB] O)nDisk[KB]	SAPCurCach	HitRatio %						
Roll area Page area Extended memory	0,35 0,02 17,81	208 56 93.184 0	584 360 110.592 0	60.000 32.000 523.264 0	0 230.144 0 0	IDs Statement	98,54 87,00 0,00 0,00						
Heap memory Call Stati	tRatio % AB	AP/4 Req Al	BAP Fails DB	BTotCalls Av	Time[ms] [BRowsAff.		_		> DM0 (1) 800 🕨	sapserv	er INS
Call Stati H) » <u>₪</u> sap	BASIS ADMIN.				BRowsAff.)))	Tune	Summary			sapserv	rer INS
Call Stati H ()) ()) ()) ()) ()) ()) ()) ()) » j SAP Monitor Sy	BASIS ADMIN stem Help	doc 🏠 si	apmmc	<u>ן</u> מממ) SAP Logon 640	,	Tune					rer INS
Call Stati H ()) ()) ()) ()) ()) ()) ()) ()	Monitor Sy	BASIS ADMIN.	doc) 🚡 si د 😧 🕲 🕒 SAP buffe	apmmc Mai0a8 ⊨ \$2) ers(saps	<u>ן</u> מממ) SAP Logon 640	,	Tune					rer INS
Call Stati H Call Stati H Start Call Call Tune Edit Octo Tune: Profile Other tune All pan System: sa	Monitor Sy Parameters Pro Property of the second	BASIS ADMIN. stem Help I III C ters for S	doc) 👘 si a 😵 🕒 SAP buffe nce 🖉 Profi Profile Pa	apmmc Mai0a8 ⊨ \$2) ers(saps	ሮ ይ ይ server_[) SAP Logon 64()))))))))))))	,	Tune					rer INS
Call Stati H Call Stati H Stati C C C Stati C C C Tune Edit Goto C Tune: Profile Othertune All page	Monitor Sy Monitor Sy ameters Pro osserver_DM0_ 12.2015 Com	BASIS ADMIN.	doc) 🚡 si C	apmmc (A) (A) (S) (S) ers (saps lie parameter	ሮ ይ ይ server_[) SAP Logon 64()))))))))))))	,	Tune					rer INS
Call Stati H Call Stati H Start 0 0 0 0 0 Start 0 0 0 0 C Tune Edit Goto C Tune: Profile Other tune All para System: sa System:	Monitor Sy Parameters parame	BASIS ADMIN. stem Help lers for t file maintena 01 14:05:22 ment Unit Co L 000 Byte S:	doc) 😭 si doc) 😭 si SAP buffe Profile Pa smment ize of gener	apmmc (ਮਿ) (ਮਿ) (&) ers (saps lie parameter) rameters for rameters for	۲۵ ۵۵ ۶۵ server_C r SAP Buffr) SAP Logon 64()))))))))))))	,	Tune					rer INS
Call Stati H Call Stati H Start Call Call Call Call State Call Call Call Start Call Call Call Call Call Call Call Call Call Call Call Call Call	Monitor Sy Monitor Sy Parameters Pro Parameters Pro Server_DN9 12.2015 Com Value a buffer TAB -area 30000 a bo 5000 a one of the	BASIS ADMIN. stem Help ters for t file maintena 01 14:05:22 ment Unit CC L 000 Byte S: Nit	doc) 🚡 si doc) 🚡 si SAP buffe Profile Pa Sament Ize of gener ax. number o	apmmc (ਮਿ) (ਮਿ) (&) ers (saps lie parameter) rameters for rameters for	۲ می دی server_C e buffer objects) SAP Logon 640 () () () () () () () () () () () () ()			Summar	(saps			rer INS
Call Stati H Call Stati H Stati C C C Stati C C C C C C C C C C C C C C C C C C C	Monitor Sy Monitor Sy Parameters Pro Parameters Pro Parameters Pro Parameters Pro Source Pro Pro Pro Pro Pro Pro Pro Pro	BASIS ADMIN. stem Help I I I I I I I I I I I I I I I I I I I	doc) 😭 si CO 🐼 I 🖨 SAP buffe nce 🖉 Profile Pa smment ize of gener size of gener size of gener size of gener size of gener size of gener size of gener	apmmc Al (A) (S) (S) ers (saps lie parameter rameters for ic key table f buffered f	۲ کی کی کی server_C r SAP Buffr e buffer objects) SAP Logon 64()))))))))))))	S\profile\C		Summar	(saps			rer INS
Call Stati H Call Stati H Start Call Call Call Call Start Call Call Call Call Start Call Call Call Call Call Call Call Call Call Call Call Call	Monitor Sy Monitor Sy Parameters Pro Parameters Pro Parameters Pro Parameters Pro Source Pro Pro Pro Pro Pro Pro Pro Pro	BASIS ADMIN. stem Help I I I I I I I I I I I I I I I I I I I	doc) 😭 si CO 🐼 I 🖨 SAP buffe nce 🖉 Profile Pa smment ize of gener size of gener size of gener size of gener size of gener size of gener size of gener	apmmc Al (A) (S) (S) ers (saps lie parameter rameters for ic key table f buffered f	۲ کی کی کی server_C r SAP Buffr e buffer objects	SAP Logon 640 Image: Comparison of the second se	S\profile\C		Summar	(saps			rer INS
Call Stati H Call Stati H Start Call Call Call Call Start Call Call Call Call Start Call Call Call Call Call Call Call Call Call Call Call Call	Monitor Sy Monitor Sy Parameters Pro Parameters Pro Parameters Pro Parameters Pro Source Pro Pro Pro Pro Pro Pro Pro Pro	BASIS ADMIN. stem Help I I I I I I I I I I I I I I I I I I I	doc) 😭 si CO 🐼 I 🖨 SAP buffe nce 🖉 Profile Pa smment ize of gener size of gener size of gener size of gener size of gener size of gener size of gener	apmmc Al (A) (S) (S) ers (saps lie parameter rameters for ic key table f buffered f	۲ کی کی کی server_C r SAP Buffr e buffer objects	SAP Logon 640 Image: Comparison of the second se	S\profile\C		Summar	(saps			rer INS
Call Stati H Call Stati H Start Call Call Call Call Start Call Call Call Call Start Call Call Call Call Call Call Call Call Call Call Call Call	Monitor Sy Monitor Sy Parameters Pro Parameters Pro Parameters Pro Parameters Pro Source Pro Pro Pro Pro Pro Pro Pro Pro	BASIS ADMIN. stem Help I I I I I I I I I I I I I I I I I I I	doc) 😭 si CO 🐼 I 🖨 SAP buffe nce 🖉 Profile Pa smment ize of gener size of gener size of gener size of gener size of gener size of gener size of gener	apmmc Al (A) (S) (S) ers (saps lie parameter rameters for ic key table f buffered f	۲ کی کی کی server_C r SAP Buffr e buffer objects	SAP Logon 640 Image: Comparison of the second se	S\profile\C		Summar	(saps			rer INS
Call Stati H Call Stati H Start Call Call Call Call Start Call Call Call Call Start Call Call Call Call Call Call Call Call Call Call Call Call	Monitor Sy Monitor Sy Parameters Pro Parameters Pro Parameters Pro Parameters Pro Source Pro Pro Pro Pro Pro Pro Pro Pro	BASIS ADMIN. stem Help I I I I I I I I I I I I I I I I I I I	doc) 😭 si CO 🐼 I 🖨 SAP buffe nce 🖉 Profile Pa smment ize of gener size of gener size of gener size of gener size of gener size of gener size of gener	apmmc Al (A) (S) (S) ers (saps lie parameter rameters for ic key table f buffered f	۲ کی کی کی server_C r SAP Buffr e buffer objects	SAP Logon 640 Image: Comparison of the second se	S\profile\C		Summar	(saps			rer INS
Call Stati H Call Stati H Start Call Call Call Call Start Call Call Call Call Start Call Call Call Call Call Call Call Call Call Call Call Call	Monitor Sy Monitor Sy Parameters Pro Parameters Pro Parameters Pro Parameters Pro Source Pro Pro Pro Pro Pro Pro Pro Pro	BASIS ADMIN. stem Help I I I I I I I I I I I I I I I I I I I	doc) 😭 si CO 🐼 I 🖨 SAP buffe nce 🖉 Profile Pa smment ize of gener size of gener size of gener size of gener size of gener size of gener size of gener	apmmc Al (A) (S) (S) ers (saps lie parameter rameters for ic key table f buffered f	۲ کی کی کی server_C r SAP Buffr e buffer objects	SAP Logon 640 Image: Comparison of the second se	S\profile\C		Summar	(saps			rer INS
Call Stati H Call Stati H Start Call Call Call Call Start Call Call Call Call Start Call Call Call Call Call Call Call Call Call Call Call Call	Monitor Sy Monitor Sy Parameters Pro Parameters Pro Parameters Pro Parameters Pro Source Pro Pro Pro Pro Pro Pro Pro Pro	BASIS ADMIN. stem Help I I I I I I I I I I I I I I I I I I I	doc) 😭 si CO 🐼 I 🖨 SAP buffe nce 🖉 Profile Pa smment ize of gener size of gener size of gener size of gener size of gener size of gener size of gener	apmmc Al (A) (S) (S) ers (saps lie parameter rameters for ic key table f buffered f	۲ کی کی کی server_C r SAP Buffr e buffer objects	SAP Logon 640 Image: Comparison of the second se	S\profile\C		Summar	(saps			rer INS

Then Click on Current Parameters

Current parameters Buffered objects stem: sapserver_DNO_0 Et i Time of Snapshot: 06.12.2015 194.436 194.436 194.226 194.226 DB access squality t 99 DB access squality t 85 DB access squality t 99 DB access squality t 85 DB access squality t 85 DB access squality t 99 DB access squality t 99 DB access squality t 99 DB access squality t 99 </th <th>8</th> <th>🛯 🔍 🔛 😋 😪 🕒 🏭 🎼 🌾</th> <th>8 19 4 8 I 🛪 🛛 🖓 📭</th> <th></th>	8	🛯 🔍 🔛 😋 😪 🕒 🏭 🎼 🌾	8 19 4 8 I 🛪 🛛 🖓 📭	
stem: sapserver_DM0_0 te + Time of Snapshot: 06.12.2015 13:57:34 Startup: 06.12.2015 12:03:02 stficiency HITRATIO * 99 HITS 194.436 RECUESTS 194.436 DB access quality * 05 DB access quality * 05 DB access saved 16.317 Reorgs 1 1 Size Allocated KB 27.917 Used Size Saved 0 Free KB 0 Free KB 0 Free KB 0 Free Susped 0 Free Susped 0	une: Detail A	nalysis (sapserver_DM0_01)		
Efficiency HITRATIO * 99 HITS 194.436 REQUESTS 197.226 DB access guality * 85 DB access saved Reorgs 1 51ze Allocated KB 29.297 Available KB 29.297 Used KB 23.776 Free KB 0 Directory entries Available Used 5.000 Used 5.000 Directory entries Swaps Dijects swapped 0	🛛 🛃 🛛 Current para	meters 😹 Buffered objects		
HTS 194.436 FEQUESTS 197.226 DB access quality 05 DB access saved 65.17 Baccess saved 16.17 Reorgs 1 Allocated KB Vailable 82.791 Used KB Free KB Free KB Objects swapped 5.000 Used 2.405 Free 2.595 Swaps Objects swapped Fraes swapped 0	tem: .e + Time of Snap	sapserver_DM0_0 shot: 06.12.2015 13:57:34		
Size Allocated KB 29.297 Available KB 27.917 Used KB 23.776 Free KB 0 Free KB 0 Directory entries Available 5.000 Used 2.405 Free 2.595 Objects swapped 0	fficiency	HITS 194.436 REQUESTS 197.226 DB access quality % 05 DB access saved 1.730 DB access saved 16.317		
Used 2.405 Free 2.595 Objects swapped 3 Frames swapped 0		Allocated KB 29,297 Available KB 27,917 Used KB 23,776 Free KB 0		
Frames swapped 0	irectory entries	Used 2.405		
	iwaps			
	esets			
				▲ ▼
	•		N	

Now Note it down the Profile Parameter and Value in above mentioned screenshot.

How to Create Profiles and Generate the Profiles

Note: Authentication:

Provide the User id & Password to the Users.

Authorization:

Give the Permission to Perform some Activities in The System by using User id & Password.

Authorization Object Class:

Collection of Authorization Objects.

Authorization Object:

- **Collection of Authorization Field.**
- 2 1 Authorization Object having not more than 10 Authorizations.
- 2 Overview of Authorization Object by using the T-code as SU21/SU22

Authorization Fields:

- Collection Authorization field values.
- 2 Overview of Authorization Field by using the T-code as SU20

Signals:

Here we are having 3 types of Colors.Red : Unmaintained Organization Levels.Yellow: Partially Unmaintained Authorization Fields.Green : Maintain Authorization Fields.

Legend:

Here we are having 6 types of Colors. Orange - Authorization Object Class Green - Authorization Objects Yellow - Authorizations Gray - Authorization Fields Blue - Field Change White - Field Values

Here we are having 3 types of Profile Role Creations.
Single Role Creation, Derived Role Creation, Composite Role Creation (Collection of Single Role)

Single Role Creation, Derived Role Creation, Composite Role Creation (Collection of Single Role Creation).

Note:

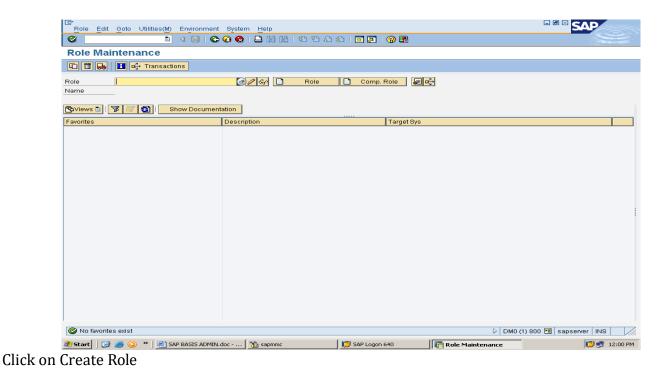
Naming conversion start with Y: or Z:

Single Role Creation

Pre-Requirements

We have to check whether User was existing or not for which we are going to assign Role.

In SAP command line enter the T-code as **PFCG**



Role Edit Goto Utilities(M) Environment C <	System Help	😂 🐹 🔎 🖗 🖷		
🔁 Views 🗈 🍞 😽 🛐 Show Documen	tation			
Favorites	Description	Target Sys		
				1) 800 🖭 sapserver INS
🏄 Start 📋 🞯 🥔 💫 👋 📑 🔤 SAP BASIS ADMIN.	.doc 📸 sapmme	SAP Logon 640	Role Maintenance	💋 🗾 12:04 PM

Here fill all the fields as per below screenshots and Save it.

C2 Role Edit Goto Utilities(M) System Help	SAP
Image: A state of the state	S.
Create Roles	
1 Cher role	
Role	
Role Z:RAKHI_SINGLE_ROLE Description single role	
Uescription single role	
🔍 Description 🛛 🎽 Menu 🏾 🎽 Authorizations 🖉 User 🛛 MiniApps 🛛 👹 Personalization	
Administration Information Transaction Inheritance	
Created Derive from Role	
Date	
Time 00:00:00	
Li 1, Co 1 Ln 1 - Ln 1 of 1 lines	
DM0) (1) 800 🔚 sapserver 🛛 INS 🛛 🎢
🐮 Start 📗 🎯 🧔 🄌 📓 SAP BASIS ADMIN.doc 🏠 sapmmc 🕼 SAP Logon 640 🛛 🕞 Create Roles	[🔊 🛃 12:06 PM

Click on Menu tab Click on Transaction tab.

Role Edit Goto Utilities(M) System Help	
	2 🖪
Change Roles	
-	
😢 🖻 Other role	
Role	
Role Z:RAKHI_SINGLE_ROLE	
Description single role	
🔇 Description 🖉 Menu 🖉 Authorizations 🖉 User 🛛 MiniApps 👘 Persor	alization
Transaction Report Other	
Authorization Default Role menu Target System	[]
Dest.	
No destination	
S Distribute	
Copy menus	
🎲 From SAP Menu	
🍪 From other role	
🚸 From area menu	
🎲 Import from file	
Additional activities	
Translate Node	
ිල Display documentatio	n l
Collapse Menu	
Conapse Menu	
	DMO (1) 800 🖭 sapserver INS
🎒 Start 📔 🙆 🥥 🎽 SAP BASIS ADMIN.doc 🏠 sapmmc 🛛 🚺 SAP Logon	i40 🔀 Change Roles 😥 😻 12:09 PM

Enter the T-codes which you need to assign to the Role.

Role Edit Goto U	Jtilities(M) System <u>H</u> elp			SAP
Ø		฿ ฃฃฃ๛๛๛๛๛๛๛		
Change Roles				
💖 🖷 Other role				
🖙 Assign transactions				
Transaction code	Text			
	Ø			
		ializatio	n	
				▲ ▼
4 -				
Assign transaction	• 			
		Se Display documentation		
		Find in docu.		
		Collapse Menu		▲ ▼
P.				•
			DM0 (1) 80	0 🖭 sapserver INS 🛛
ಶ Start 🛛 🚱 🥥	» 🛛 🖭 SAP BASIS ADMIN.doc 🏻 📸 sapmm	c 🗾 🚺 SAP Logon 640	Change Roles	😥 🗾 12:10 PM

Click on Assign Transactions Then Save it.

Role Edit Goto Utilities(M) System Help Image: Change Roles Image: Change Roles Image: Change Roles Image: Change Roles	2 2 4 4 x a 9 6	
Role Z:RAKHI_SINGLE_ROLE Description single role Q Description Menu Q Description Menu		
Image: Control in the second secon	All Control Contr	T
C Data was saved	Additional activities	DM0 (1) 800 sapserver INS ange Roles

Click on Authorization tab

C Role Edit Goto Utilities(M) System Help		
C C C C C C C C C C C C C C C C C C C	82 💌 🗷 🕜 📭	
Change Roles		
🦅 🖷 Other role 🕰 🔳		
Role		
Role Z:RAKHI_SINGLE_ROLE		
Description single role		
🔍 Description 📔 Menu 🖉 👰 Authorizations 🖉 👰 User 🛛 MiniApps	😽 Personalization	
Created by Last Changed On/By User User Date Date Time 00:00:00		
Information About Authorization Profile		
Profile Text Status No authorization data exists		
Maintain Authorization Data and Generate Profiles		
- Change Addionization Data		
Expert Mode for Profile Generation		
		DM0 (1) 800 🖪 sapserver INS
🛃 Start 📔 👩 🥥 \Rightarrow 🔤 SAP BASIS ADMIN.doc 🃸 sapmmc	SAP Logon 640	🔁 Change Roles

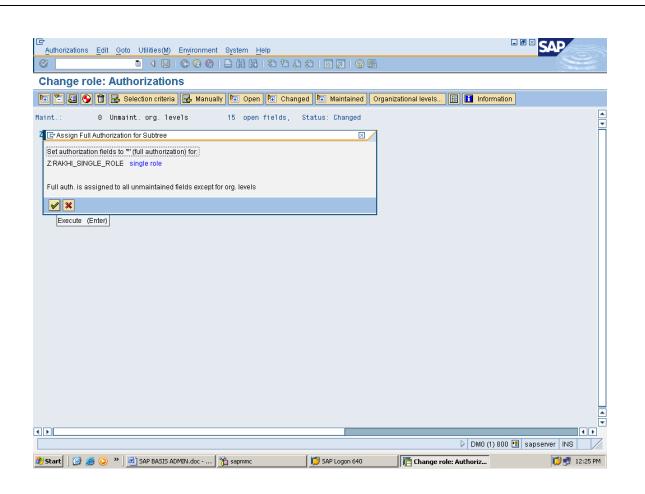
Click on Profile Name Browser then data will be automatically fetched and Save it.

Role Edit Goto Utilities(M)				SAP
2	4 🛛 🕞 🚱 🚱 📄 🖓 🖓 🎦	u xu 🗶 🖉 🕲 📲		Sec.
Change Roles				
🞾 🖷 Other role 🛶 🚹				
Role				
	_SINGLE_ROLE			
Description single ro	le			
		dett. man and the state		
🔍 Description 🛛 🗖 Menu	💓 Authorizations 🛛 🏹 User 🛛 MiniA	pps 🛛 🙀 Personalization		
Created by	Last Changed On/By			
User	User			
Date 00:00:00	Date Time 00:00			
Time 00:00:00	Time 00:00	00		
Information About Authorization Pr	ofile			
Profile Name T-D0900002				
Profile Text Profile for role Z:	RAKHI_SINGLE_ROLE			
Status No authorization	data exists			
Melateia Adhesiadian Data and O				
Maintain Authorization Data and G	enerate Profiles			
Expert Mode for Profile Gene	ration			
			DMC) (1) 800 🖻 sapserver INS 🛛 🃈
🖥 Start 🛛 🚱 🥥 👋 🖃 SA	P BASIS ADMIN.doc 🏻 📸 sapmme	SAP Logon 640	Fight Change Roles	12:19 PM
🐸 🐱 🤝 _ 🔜 🗠				

Click on Change Authorization Data

Cr Authorizations Edit Goto Utilities(M) Environment System Help	SAP
Ø ■ ■ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	
Change role: Authorizations	
🖿 🔁 🚱 🗊 🛃 Selection criteria 🛃 Manually 🔁 Open 陆 Changed 陆 Maintained Organizational levels 🗄 🖬 Inform	ation
Maint.: 0 Unmaint. org. levels 15 open fields, Status: Changed	▲ ▼
Z RAKHI_SINGLE_ROLE OS single role	
Constandard Cross-applyssngvalues horization Objects Basis - Development Environment Ba OLO Standard Basis - Development Environment Ba OLO Standard Human Resources	
	▼ ▲ ►
	800 📧 sapserver INS 🥢
🍠 Start 📔 🍘 🥥 👋 🔄 SAP BASIS ADMIN.doc 🏂 sapmmc 👘 SAP Logon 640 👘 Change role: Authoriz	[🔊 🛃 12:24 PM

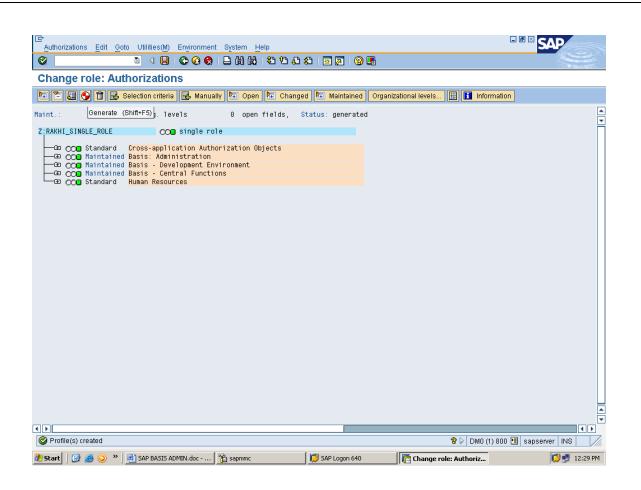
Click on Last Circle Symbol of Single Role in above screenshot i.e Missing Values. Then click on Execute.



Now all the fields will be come into Green color then Save it.

Cr Authorizations Edit Goto Utilities(M) Environment System Help	
◎ ↓ ■ © @ @ ↓ 曲 曲 む む む む む む ■ ■ @ ■	Ser and a series of the series
Change role: Authorizations	
🖿 🎦 🛃 🊱 🗊 🛃 Selection criteria 🛃 Manually 🖿 Open 陸 Changed ២ Maintained Organizational levels 🗄 🖬 Informa	tion
Maint.: 0 Unmaint. org. levels 0 open fields, Status: Changed	▲ ▼
Z:RAKHI_SINGLE_ROLE COO single role	Π
G2 OCM Standard Cross-application Authorization Objects G2 OCM Maintained Basis: Administration G2 OCM Maintained Basis: - Development Environment G2 OCM Maintained Basis: - Central Functions G2 OCM Standard Human Resources	
	_
▲ ► DM0 (1) 8	00 🖻 sapserver INS
🏄 Start 🛛 🕝 🥥 🔌 📝 SAP BASIS ADMIN.doc 🎢 sapmmc 🛛 🕎 SAP Logon 640 🛛 👫 Change role: Authoriz	12:27 PM

Click on Generate Symbol. Now Profile was created.



Click on Back now Authorization field come into Green color

도 Role Edit Goto Utilities(M) System Help	
·····································	
Change Roles	
💅 🖷 Other role 🚭 🖪	
Role	
Role Z:RAKHI_SINGLE_ROLE	
Description single role	
🔍 Description 🖉 🗅 Menu 🖉 🗖 Authorizations 🖉 User 🖉 MiniApps 🏾 👹 Personalization	
Created by Last Changed On/By	
User SAPUSER User SAPUSER	
Date 07.12.2015 Date 07.12.2015	
Time 12:28:20 Time 12:28:20	
Information About Authorization Profile Profile Name T-D0900002	
Profile Text Profile for role Z:RAKHI_SINGLE_ROLE	
Status Authorization profile is generated	
Maintain Authorization Data and Generate Profiles Change Authorization Data	
Change Authorization Data	
Expert Mode for Profile Generation	
	👂 DMO (1) 800 🔚 sapserver INS 🛛 🦯
🍠 Start 🛛 😰 🧔 📀 👋 💷 SAP BASIS ADMIN.doc 🏦 sapmmc 👘 SAP Logon 640 🛛 👫 Change Ro	les 🛛 😥 🛃 12:31 PM

Click on User tab and give the User id. Click on User Compression.

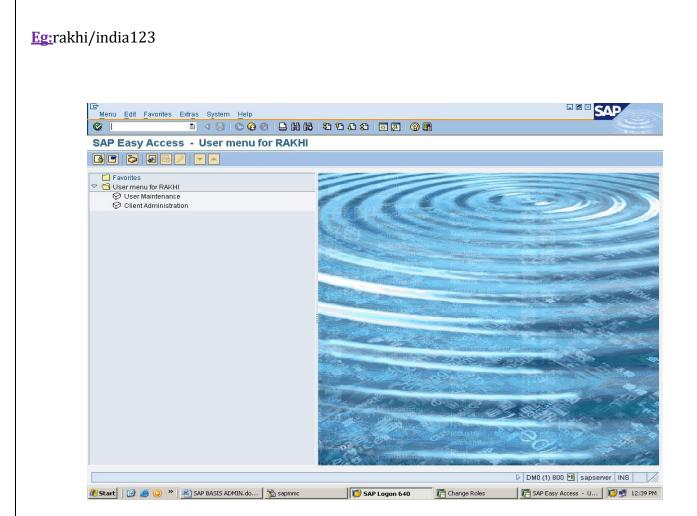
⊡ Role Edit Goto	∪tilities(<u>M</u>) System <u>H</u> elp				
Ø	1 🕢 📙 I 😋 😧 I 🖨 🖟) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B	😠 🛛 🖓 📑		
Change Role	es				
💖 🖷 Other role					
Role /					
Role	Z:RAKHI_SINGLE_ROLE				
Description	single role				
Description		la an Atini Amar At	. Develoption		
Q Description	🖸 Menu 🔹 Authorizations 🛆	User MiniApps 🧑	Personalization		
RE BB	😚 🍪 Selection	💓 User comp	arison 🔢		
User Assignmen	to				
User ID	User name	From to			
RAKHI	RAKHI	07.12.2015 31.12	. 9999 🔺		
	Ø		•		
_					
-					
				DM0 (1) 8	00 🖻 sapserver INS 🛛 🎢
🖥 Start 🛛 🚱 🥭 🄇	🄰 🎽 📕 SAP BASIS ADMIN.doc 🏻 📸 sapr	nma 🔤 🕅 5	AP Logon 640	📑 Change Roles	🚺 🛃 12:34 PM

Then click on Complete Compression then click on Yes

Cr Role Edit Goto Utilities(M) System Help Image: Comparison of the system Image: Comparison of the system Image: Comparison of the system Image: Comparison of the system	3 I B H H H I 8 1 8 1 8			
Change Roles				
🦅 🖷 Other role 🚭 🔳				
🖙 Compare Role User Master Record				
Last comparison User Date Time 00:00:00	Complete adjustment User Date Time 00:00:00			
Information for user master comparison Status User assignment has changed since the las Complete comparison Ill Information X	st save			
User master comparison (Enter)				
			DM0 (1) 800 🖻 sapserver INS 🛛 🎢
🛃 Start 📗 🚱 🥥 🌞 🔛 SAP BASIS ADMIN.doc	. 📸 sapmmc	SAP Logon 640	Change Roles	12:36 PM

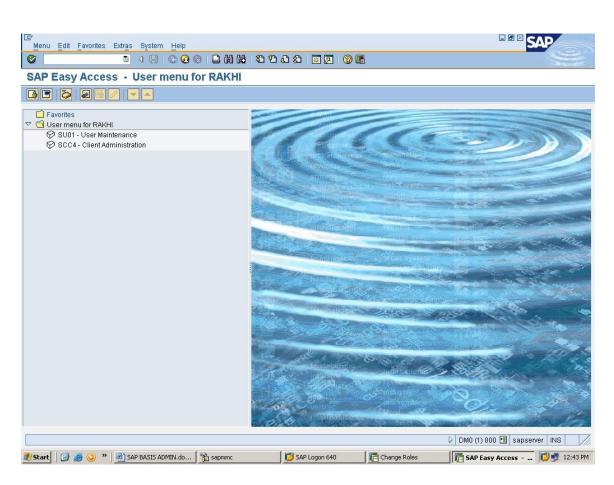
Now User tab also come into Green color. For Checking Login with Roles assigned User.

Page **145** of **214**



Here we can see the Assign T-codes to the User For showing T-codes Technical Names, in top menu bar click on Extras[®]Settings[®]Check the display names

Page 146 of 214



Derived Role Creation

Pre-Requirements

One Parent Role & another one Child Role **Eg:** Parent Role rakhi_single_role T-codesSU01, SCC4

Child Role teja_single_role

T-codesS(CC5, SC	С3									
		<u>G</u> oto Uti	lities(<u>M</u>) E	Environment	System Help			a)			300
l	Ø				🐼 🕄 🖴 H) H3	1 27 27 27 27		3			
	Role Ma			_							
	TO 🗃 🖶	🖪 🕂 1	ransactions	S							
	Role	Z:DERIVE	D_ROLE_SU	INITHA	🕑 🖉 🎸 🗋	Role	🗋 Comp. Role	₩ 🕂			
	Name										
	🔁 Views 🖹	76 🗠 🖸) Show	w Documen	tation						
	Favorites				Description		Targe	et Sys			
											1
									DM0 (1) 8	00 🖻 sapserver INS	
	🏄 Start 🛛 🚱) 🧃 🜔 "	🛛 📸 sapm	mc	SAP Logon 64		ole Maintenance	SAP Easy Access		IS ADMIN.doc	10:45 PM
L						n					

Click on Create Role and Save it

Contractor	
Create Roles	
💅 🖻 Other role 🔤	
Role	
Role Z:DERIVED_ROLE_SUNITHA	
Description derived role	
🔍 Description 🛛 🕱 Menu 🖉 Authorizations 🖉 User 🛛 MiniApps 🛛 👹 Personalization	
Administration Information Transaction Inheritance User Derive from Role Date Derive from Role Long Text Image: Comparison of the second s	
Li 1, Co 1 Li 1 - Ln 1 of 1 lines	
DMI	0 (1) 800 🖪 sapserver 🛛 INS 🛛 🦯
🝠 Start 🛛 🥶 🧔 🕗 » 🌇 sapmmc 👘 SAP Logon 640 🛛 📻 Create Roles 👘 SAP Easy Access - U 🔤 SA	AP BASIS ADMIN.doc 🔀 🗾 10:47 PM

Click on Menu tab and Enter the Derived from Role then Save it. Here one Link was enable i.e, Delete Inheritance Relationship

C Role Edit Goto Utilities(M) System Help				
	😒 i 🗅 (i) (i) (i) 🔁 🔁 i	🕰 🕄 🐹 🗾 😨 📑		
Change Roles				
🦅 🖷 Other role				
Role Z:DERIVED_ROLE_SUNITHA				
Description derived role				
Q Description 🔲 Menu 🌘 Authorizati	ons 🍯 User MiniA	pps 🛛 👼 Personalization	1	
Administration Information Created Changed User SAPUSER SAPUSE Date 10.12.2015 10.12.2015 Time 22:49:07 22:59:16 Long Text	single role Delete Inheritance F	TEJA_SINGLE_ROLE		
S Data was saved				DM0 (1) 800 🖻 sapserver INS ///////////////////////////////////
🔭 Start 📔 🚱 🥥 🐃 🏠 sapmme	SAP Logon 640	F SAP Easy Access - U	Change Roles	SAP BASIS ADMIN.doc

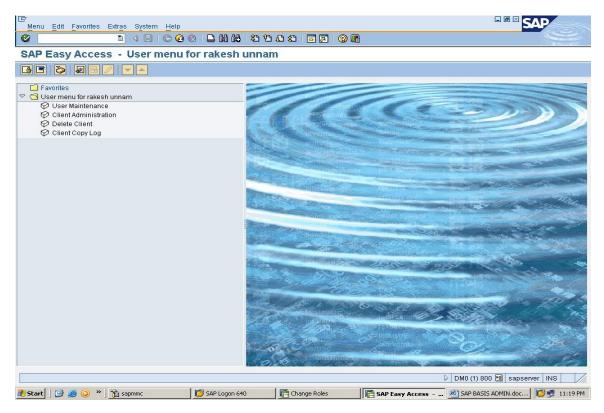
Click on Authorizations

E∻ Role Edit Goto Utilities(M) System Help	
◎ 4 🕒 6 6 6 1 - 6 6 1 - 6 1	Ŵ
Change Roles	
🎷 🖻 Other role 🔄 🔳	
Role /	
Role Z:DERIVED_ROLE_SUNITHA	
Description derived role	
🝳 Description 📋 Menu 🖉 Authorizations 🏹 User MiniApps 🔞 Personalization	
Created by Last Changed On/By	
User	
Date	
Time 00:00:00 Time 00:00:00	
Information About Authorization Profile	
Profile Name T-D0900005	
Profile Text Profile for role Z:DERIVED_ROLE_SUNITHA	
Status No authorization data exists	
Maintain Authorization Data and Generate Profiles	
Change Authorization Data	
Expert Mode for Profile Generation	
Load data for authorization fields	DM0 (1) 800 🖻 sapserver INS
🕈 Start 🛛 🧭 🥥 🔌 🏠 sapmmc 🛛 👘 SAP Logon 640 🛛 👘 SAP Easy Access - U 🛛 📻 Change Roles	👜 SAP BASIS ADMIN.doc

Similarly to the Single Role Creation

Role Eat Outo Viete Gat Outo <				
Change Roles Change Roles Change Role Conservation Con	Role Edit Goto	Utilities(M) System Help		
Change Roles			🗕 (i) (i) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	
Role Role Role Role Z: DERIVED_ROLE_SUNITHA Description derived role Construction	Change Role	S		
Role Role 2: DERIVED_ROLE_SUNITHA Description derived role Construction Menu Authorizations User MiniApps Construction User Assignments User rom Vasu vasu unnam 10:12:2015 31:12:9999				
Role Z:DERIVED_ROLE_SUNITHA Description derived role C Description Menu Authorizations User Assignments User ID User name From to VASU vasu unnam 10.12.2015 21.12.9999				
Description		7 DEDIVED DOLE CUNITUR		
Description Menu Mathorizations User comparison User Assignments User ID User name From VASU vasu unnam 10.12.2015 21.2				
User Assignments User ID VASU vasu unnam 10.12.2015	· · · · · · · · · · · · · · · · · · ·			
User ID User name From to II VASU vasu unnam 10.12.2015 31.12.9999 • VASU vasu unnam 10.12.2015 31.12.9999 • O O 1 10.12.2015 Vasu Image: State	Q Description	🕒 Menu 🛛 🖨 Authorizations	🗖 User 🛛 MiniApps 🛛 👹 Personalization	
User Assignments User ID User name From to I VASU vasu unnam 10.12.2015 31.12.9999 • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • <		Ca A Selection	Liser comparison	
User ID User name From Io I. VASU vasu unnam 10.12.2015 31.12.9999 • Vasu Image: State S				
VASU vasu unnam 10.12.2015 31.12.9999 Image: Strate S				
Image: Constraint of the second of the se				
	VASU			
Suser master record for all roles adjusted DM0 (1) 800 🖻 sapserver INS	🚱 Liser master reco	rd for all roles adjusted		DM0 (1) 800 📕 sensenter INS
	-			

Now Login with Client - 800, User - rakhi, Password – india123 Here we can see the Both Single Role's T-codes



If we Delete the Link (Delete Inheritance Relationship) Both the Single Role's will be act as Independent

Composite Role

Collection of Single Role's as Composite Role.

Pre-Requisites

Here we need 2 Single Role's **Eg:**

Rakhi_single_role,teja_single_role

Click on Comp.Role tab.

I Role Edit Goto Utilities(M) Environment Sys [™]	tem Help							
		8 🐹 🗾 🔞 🖪		S.				
Role Maintenance								
🗋 🛱 🖶 🕴 🗗 🚭 Transactions								
	🕑 🖉 🕼 🗋 🔹 Role	🗋 Comp. Role 🐺 🛛	÷					
Name derived role								
CeViews 🔄 🔽 🚱 Show Documentation								
Favorites Des	cription	Target Sys						
🞯 No favorites exist			DM0 (1)) 800 🖻 sapserver 🛛 INS 🛛 🦯				
🏄 Start 🛛 🚱 🧔 🍛 🐐 🃸 sapmme	SAP Logon 640	Role Maintenance	SAP BASIS ADMIN.doc	[🔊 🛃 11:29 PM				

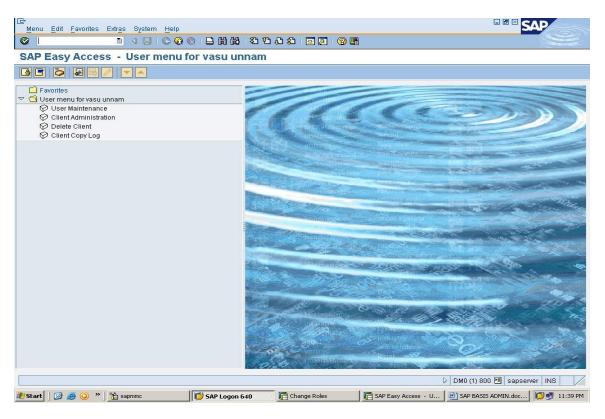
E≯ Role Edit Goto Utilities(M) System Help	
Create Roles	200
Image: Second secon	
Role Z:COMPOSITE_ROLE	
Description composite role	
🔍 Description 🛛 🏘 Roles 🛛 🎘 Menu 🖉 User 👹 Personalization	
Administration Information	
Created	
User	
Date	
Time 00:00:00	
Long Text	
Li 1, Co 1 Ln 1 - Ln 1 of 1 lines	
Homepage	

Click on Roles tab & fill the Role's as below then Save it.

Role Edit Goto Utilities(M)	System Help			SAP
		ចមាស្ត្រ 🛛 🕱 🖉 🛛 😨	P	N.
Change Roles				
🕎 🖷 Other role 🛶 🚹				
Role				
	SITE_ROLE			
Description composite	e role			
🔍 Description 🦯 🇞 Roles	🍯 🍎 Menu 🏾 🍎 User 🛛 👹 P	ersonalization		
		H		
Role	Name	Target sys Activ		
Z:RAKHI_SINGLE_ROLE	single role	user system		
Z:TEJA_SINGLE_ROLE	single role	user system		
			DM0	(1) 800 🖻 sapserver INS 🛛 🎢
	() ()			
🏄 Start 🛛 🞯 🥭 🔘 👋 🛅 sap	mmc 😥 SAP Logon 64) 🦰 Change Role	SAP BASIS ADMIN.doc	😥 🗾 11:36 PM

	<u> 3</u> oto Utilities(<u>M)</u> System <u>H</u>			SA
Ø		C, C* C* S, K) 🖾 S 😧 🖸	🖇 🐹 🖉 😰 📑	
Change R				
🦅 🖷 Other r	ole 🛛 🚭 🚹			
Role				
Role	Z:COMPOSITE_ROLE			
Description	composite role			
🔄 🔍 Descript	ion 🛛 🚸 Roles 🛛 💆 Men	u 🤁 User 🛛 👼 Personalizat	ion	
		**	r comparison	
	🖹 🐼 🍪 Selection		r comparison 📘	
Lines de siene	ments			
User Assign		From	to I T	
User ID VASU	User name vasu unnam	From 10.12.2015	to I 🛅 31.12.9999 🔺	
User ID	Username			
User ID	User name vasu unnam		to I [1] 31.12.9999	
User ID	User name vasu unnam		to J 711 31.12.9999	
User ID	User name vasu unnam		to J 711 31.12.9999	
User ID	User name vasu unnam		to L 171 31.12.9999	
User ID	User name vasu unnam		to	
User ID	User name vasu unnam		to	
User ID	User name vasu unnam		to I	
User ID	User name vasu unnam		to I 111 31.12.9999	
User ID	User name vasu unnam			
User ID	User name vasu unnam			
User ID	User name vasu unnam		to L	

Now Login to Client: 800, User: vasu, Password: india123 Here we can see the T-codes of 2 Single Roles



How to maintain Logon Load Balance

Note:

Each Work Process having 10 Users only

In SAP Logon Icon

🖃 SAP Logon 6	640						
S <u>h</u> ortcuts	Systems						
Joneaus	Systems						1
							Log on
ECC							
ECC							(
							R
							-
							Groups
							Server
							User-Defined
							User-Derined
							Change Item
							Delete Item
For help, press F	1						
L		(m)			_		1.1
🏄 Start 🔡 🞯	' 🥭 🜔 *	📸 sapmme	📁 SAP Logon 640	🛅 Trace Display	🛅 Trace List	🐏 SAP BASIS ADMIN.doc.	😥 🛃 7:19 PM

Click on New Tab or User Specified System

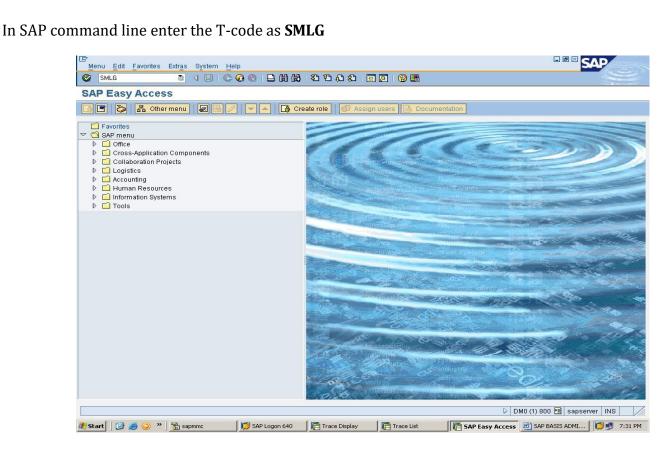
Spaced System	SAP Logon 640				
New Entry System Description I System ID System Number SAP bystem Add Log gn Add Log gn Encel Add and Log on Heb	Shortcuts Systems				
Description Application Server SAProuter String System ID System Number SAP System ID SAP System ID Add Log gn Cancel Add and Log gn Help Interpret Cancel	1				
Add and Log on Help		Description Application Server SAProuter String System ID System Number	I ● R/3 ○ R/2 ▲<		
User-Defined Change Item				(<u>G</u> roups
tart 🔯 🍠 😳 🔌 🏠 saprımıc 🔯 SAP Logon 640 👘 Trace Display 👘 Trace List 💌 SAP BASIS ADMIN.doc 🔯 🦉 7:23 PM					User-Defined

Fill the details as below & then click on Save and Logon	
Er SAP Logon 640 Signitauts Systems	- 2 ×
	Log on
Properties System	
Application Server sapserver SAProuter String	
System ID DM0 System Number 01	
SAP System R/3 R/2 Advanced	
Save Log on Cancel Save and Log on Help	
	<u>G</u> roups
	Server
	<u>C</u> hange Item <u>D</u> elete Item
🔭 🛃 Start 🛛 🚱 🥥 🍅 🎲 sapmme 🛛 🗭 SAP Logon 640 🛛 📻 Trace Display 🛛 👰 Trace List 🔹 🕅 SAP 🖉 🗐 SAP BASIS ADI	4I 🕅 🛃 7:26 PM

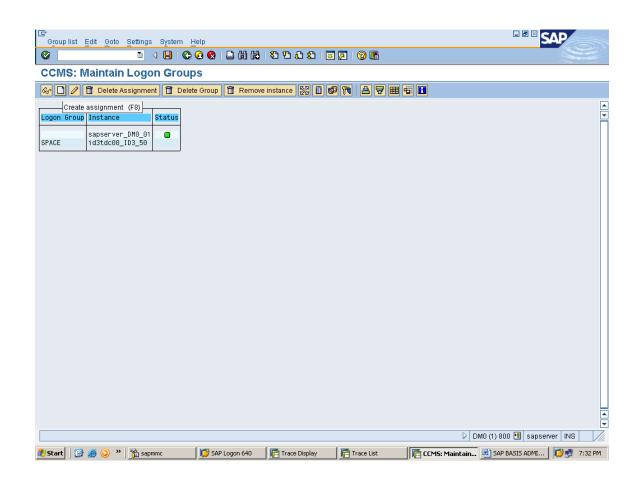
You will directly go to Dialog Instance as below

년 User System Help		- • × <u>S</u>	AP
		<u> </u>	
			3
SAP			
New password			
Client 800			
User			
Password *********			
Language			
	✓ System DM	0 (1) 000	
	Client	000	
	User		
	Program SA	PMSYST	
	Transaction	S000	
	Response Time	281 ms	
	Interpretation Time	156 ms	
	Round Trips/Flushes	1/0	
	יען ע	ທບ(1) ບບບ 🖻 sapserv	er INS
🏂 Start 🛛 🧭 🥥 🔌 🌇 sapmmc 👘 SAP Logon 640 🛛 🛱 Trace Display 🛛 🛱 Trace List	F SAP	E SAP BASIS ADMI	搅 🛃 7:29 PM

Page **155** of **214**



Now click on Create Assignment



Page 156 of 214

Group list Edit Goto Settings System	Help	SAP
	 • • • • • • • • • • • • • • • • •	
CCMS: Maintain Logon Gro		
	elete Group 📋 Remove instance 💥 🗈 💕 🎀 🖴 😽 🆽 🖬	
Logon Group Instance Status		v
sapserver_DM0_01		
	🖻 Create Assignment 🛛 🗹	
	Assignment Attributes	
	Logon Group	
	Instance	
	Copy 🔞 🗙	
		💌 🗐 sapserver INS
🏄 Start 🛛 🚱 🥥 » 🃸 sapmme	SAP Logon 640 I 📻 Trace Display I 📻 Trace List I 📻 CCMS: Maintain 💌 SA	
🥌 scarcj j 🕼 🥪 🥥 j 👜 sapmme		r bhoto homt

Give the details as below

C Group list Edit Goto Settings System	Help	
CCMS: Maintain Logon Gro	ups	
🚱 🗋 🖉 🛱 Delete Assignment 🛱 D	elete Group 📋 Remove instance 🔀 🖬 🕼 🥵 🎮 🖴 🛱 🎟 🖷 🖬	1
Logon Group Instance Status sapserver_DM0_01 103tdc80_ID3_50 Image: Compare the same the sam		•
		DM0 (1) 800 🖻 sapserver INS //
🏂 Start 🛛 🕑 🥭 🔘 🔌 🚡 sapmme	😥 SAP Logon 640 🛛 🕞 Trace Display 🗍 🚰 Trace List	CCMS: Maintain SAP BASIS ADMI V 7:34 PM

Click on Copy & Save it.

How to Assign T-code as Manually

Eg:

We have Role as rakhi_single_role, Now we need to add one

T-code as SCC1 (Local Client Transport Role or Import Role)

- Ist we need to assign T-code as SU53 as temporally to the Role.
- SU53 T-code is used for to getting Missing Authorizations.
- After got missing Authorizations we need to Remove the SU53 T-code from the Role.

Note:

- 2 We need to open both SAP Admin Window
- (SAP Consultant Window) Eg: Client: 800, User: sapuser & User Window (Eg: Client: 800, User: rakhi).
- Before going to open User Window we have to check User Roles with the help of T-code is SU01

SAP Admin Window (SAP Consultant Window):

Eg: Client: 800, User: sapuser

In SAP command line enter the T-code as **PFCG** Give the Role and Click on Change icon.

C Role Edit Goto Utilities(M) Environment S	ystem Help				
	😣 📮 🛱 🛗 約 約	li 🕄 🗮 🛃 🕜 🖪		1	
Role Maintenance					
🖸 🛱 🖶 🚺 🔂 Transactions					
Role z:rakhi_single_role	🙆 🖉 🚱 📘 🔹 Role	Comp. Role	*		
Name	Change role				
🔂 Views 🗉 🛛 🍞 🐼 🛐 🛛 Show Documentatio	n				
Favorites De	escription	Target	Sys		
					· ·
🤡 No favorites exist				👂 DMO (1) 800 🖭 sapserver 🛛 INS	3 ////
🛃 Start 🛛 🞯 🥔 🔍 🎽 📸 sapmmc	💋 SAP Logon 640	Role Maintenance	🛅 SAP Easy Access - U	🔄 SAP BASIS ADMIN.doc	8:26 PM

Click on Menu tab.				
Role Edit Goto Utilities(M) System Help	🞗 🔒 🎁 🍪 🎝 🐿	A X 💥 🛛 😗 🖪		
Change Roles				
Cole Z:RAKHI_SINGLE_ROLE Role Z:RAKHI_SINGLE_ROLE Description single role	ons 🖸 User Mini	Apps 🖌 🤠 Personalization		
Administration Information Created Changed User SAPUSER SAPUSER Date 10.12.2015 10.12.2015 Time 23:16:04 23:36:59	Transaction Inheritance Derive from Role			
		[
	Co 1	Ln 1 - Ln 1 of 1 lines		
🍠 Start 📔 🚱 🥥 🎽 🎽 saprime	SAP Logon 640	Figure Roles	SAP Easy Access - U	DM0 (1) 800 🖻 sapserver INS SAP BASIS ADMIN.doc Image: Sap Basis Admin.doc Image: Sap Basis Admin.doc

Click on Transaction tab.

C Role Edit Goto Utilities(M) System Help	
🖉 📄 < 🔛 i 😋 😧 🗎 🖽 🖽 i	3 4 4 8 🗑 🛛 🔞 🖫
Change Roles	
The other role of the role of	
Role Z:RAKHI_SINGLE_ROLE Description single role	
🔍 Description 🗖 Menu 🖨 Authorizations 🖨 User	MiniApps 6 Personalization
C P Fransaction Image: Report Image: Other ▼ ▲ Authorization Default	
Client Administration	Target System Dest No destination Distribute Copy menus
	From SAP Menu From other role From area menu Import from file
	Additional activities P Translate Node &r Display documentation Image: Second Secon
	DM0 (1) 800 🖻 sapserver INS

Add T-code as SU53 (Evaluate Authorization Check) Then click on Assign Transaction.

C Role Edit Goto Utilities(M) :	System Heln		
		H 1 2 2 4 2 1 X 2	
Change Roles			
🦅 🗗 Other role 🚭 🚹			
🖙 Assign transactions		×	
Transaction code Text			
	Copy - Special Selections		
3			
			alization
		•	
🖌 Assign transactions			
Add transactions	(Shift+F7)	Sc Display documenta	tion
		Find in docu.	
		Collapse Menu	
			DM0 (1) 800 🖻 sapserver 🛛 INS
🍂 Start 🛛 🚱 🥌 🍛 👋 🚡 sapn	nmc 🛛 😥 SAP Loga	on 640 🦷 Change Role	es 👘 SAP Easy Access - U 🔄 SAP BASIS ADMIN.doc 🛛 😥 🔮 8:31 PM

Click on Authorization tab

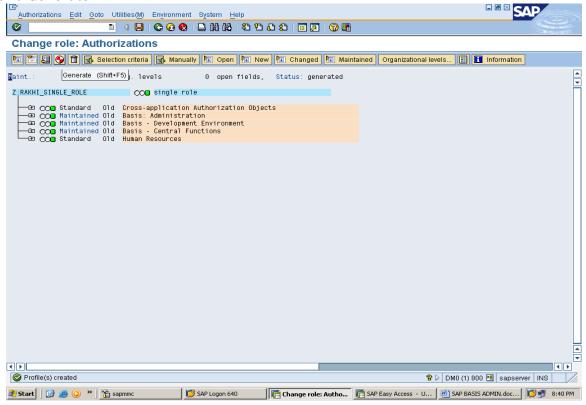
도 Role Edit Goto Utilities(M) System Help		
	82 12 42 🛒 🖉 🔞 📑	
Change Roles		
🕎 🖷 Other role 🚭 🚹		
Role Z:RAKHI_SINGLE_ROLE Description single role Q Description Menu Authorizations & User	MiniApps 🖉 Personalization	
Transaction Report Other Authorization Default Add other object Role menu User Maintenance Evaluate Authorization Check Client Administration	All Control of the second	× • • • • •
Sentry created		DM0 (1) 800 🛅 sapserver INS
🕈 Start 🛛 😰 🧔 🍛 🔭 🛛 📸 sapmmc 🛛 🚺 SAP Logon 640	Change Roles 📄 SAP Easy Act	cess - U 🔄 SAP BASIS ADMIN.doc

Page **160** of **214**

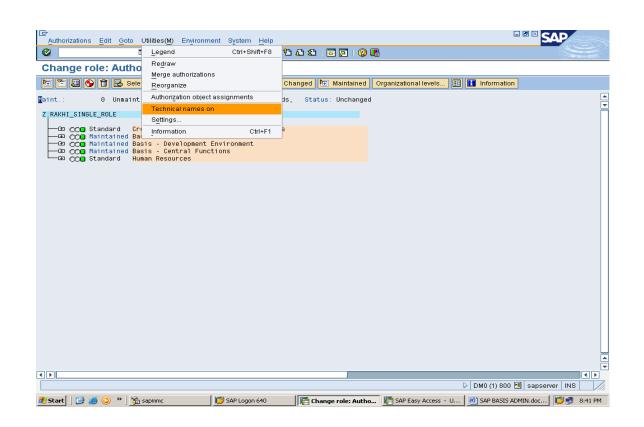
Click on Change Authorization Data

Role Edit Goto Utilities(M) System Help				
		🗘 🕄 I 🛒 🖉 I 🛞 📑		Sec. 1
Change Roles				
🌮 🖻 Other role				
Role				
Role Z:RAKHI_SINGLE_ROLE				
Description single role				
Og Description Image: Menu in the mail of the		pps 👘 Personalization	1	
User SAPUSER Save now? Date 10.12.201 Yes Time 23:16:42 Yes	No 🔀 Cance	<u>1</u>		
Information About Authorization Profile Profile Name T-D0900006 1 Profile Text Profile for role Z.RAKHI_SINGLE_ROL Status Authorization profile is generated	E			
Maintain Authorization Data and Generate Profiles Change Authorization Data				
Expert Mode for Profile Generation				
Load data for authorization fields				▶ DM0 (1) 800 🖪 sapserver INS
🎒 Start 🛛 🞯 🥭 🔕 义 🕅 🏠 sapmme	💋 SAP Logon 640	Ehange Roles	SAP Easy Access	U SAP BASIS ADMIN.doc 🔀 🔊 8:37 PM

Click on last circle symbol of Single Role to change the Yellow color to Green color Save it and Generate.



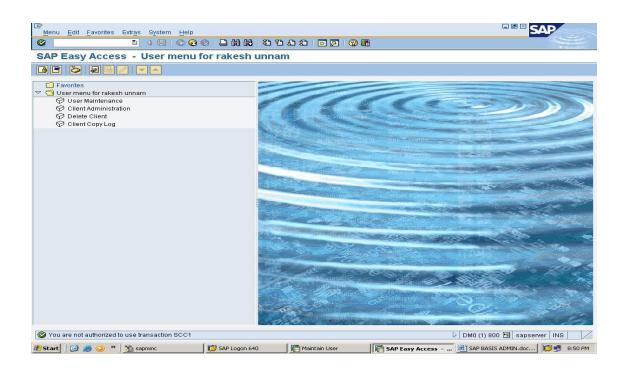
Click on Utilities Technical Names On



User Window

Eg: Client: 800, User: rakhi

In SAP command line enter the T-code which we need to add Manually (Eg: SCC1) Here we will get one Error Message like you are not Authorized



Now in SA	AP con	nmar	nd li	ine en	ter the	e T-code as	SUS	53			
	Authoriz	ation Valu	es <u>E</u> di		dr <u>a</u> s System 🚽 👁 🙆 ') <u>H</u> elp 🞗 😄 🎁 🎝 🕹 🏖	£7 47	8 x 2 9 L		- ® × <mark>S</mark>	
		-			ata for U	ser RAKHI					
		ස් 🖳 s	witch La	yout							
	Users Authorizatio	on obi.	RAK S T	(HI CODE	Profile Pa	rameter auth/new buffe	ring	4			
	Description							Authorization Values			1
	🗢 🖏 Aut										1
	D Auth	norization (er's Author			Transaction C	ode Check at Transacti	on Start				
		norization			Transaction C	ode Check at Transacti	on Start				
										DM0 (1) 800 🗐 sapserve	r INS
	🏄 Start 📗	10 🥘	○	📸 sapmmo		搅 SAP Logon 640		Maintain User	🗌 📑 Display Authorizati.	E SAP BASIS ADMIN.doc	

Now Expand Authorization Object & Copy the Highlighted Authorization Object.

Image: Construction Data for User RAKHI Users RAKHI Profile Parameter auth/new buffering 4	Authorization Values Edit Goto Extras System Help	
Weight Structure Users RAKHI Profile Parameter autivinew buffering 4 Authorization obj. S_TODDE Description Perception Perception Authorization obj. S_TODDE Transaction Code Check at Transaction Start Perception Authorization Object S_TCODE Transaction Code Check at Transaction Start Perception Contract of the state of		S.
Users RAKHI Profile Parameter auth/new buffering 4 Atthorization obj. S_TCODE Authorization Values Subscription Authorization Collect S_TCODE Transaction Code Check at Transaction Start Buff Authorization Object S_TCODE Transaction Code Check at Transaction Start D Authorization Object S_TCODE Transaction Code Check at Transaction Start D Authorization Object S_TCODE Transaction Code Check at Transaction Start D Authorization Object S_TCODE Transaction Code Check at Transaction Start D Authorization Object S_TCODE Transaction Code Check at Transaction Start	Display Authorization Data for User RAKHI	
Authorization obje. S_TCODE Pescription Authorization Code Check at Transaction Start Authorization Object S_TCODE Transaction Code Check at Transaction Start Authorization Object S_TCODE Transaction Code Check at Transaction Start Description Description	📧 🛅 🖫 Switch Layout	
Image: Subject S Transaction Code Check at Transaction Start Image: Subject S Transaction Code Check at Transaction Start Image: Subject S Transaction Code Check at Transaction Start		
Authorization Object & Tconsaction Code Check at Transaction Start Authorization Object & TCODE Transaction Code Check at Transaction Start Authorization Object & TCODE Transaction Code Check at Transaction Start Multiplication Object & TCODE Transaction Code Check at Transaction Start Multiplication Object & TCODE Transaction Code Check at Transaction Start	Description Authorization Values	
DMD (1) 800 🖷 sapserver INS	Authorization Object S_TCODE Transaction Code Check at Transaction Start C User's Authorization Data	
🎒 Start 📔 🧭 🙆 🍅 🔌 📓 SAP BASIS ADMI 🛛 📧 Microsoft Excel 🏂 saprımc 🛛 💭 SAP Logon 640 🛛 🗮 Change role: Aut 🕅 🛅 Display Authori 🚺 🧖 7:40 PM		DM0 (1) 800 🖪 sapserver INS
	🏄 Start 📔 🥶 🧔 🔌 📕 SAP BASIS ADMI 🛛 🖼 Microsoft Excel 🏂 sapmmc 🛛 💭 SAP Logon 640 🔹 🗮 Change rol	le: Aut 🕞 Display Authori 💖 🝠 7:40 PM

SAP Consultancy Window Click on Manually tab.

Cr Authorizations Edit Goto Utilities(M) Environment System Help	
Ø ■ Ø ■ Ø Ø Ø ■ ₩ ₩ ₺ ₺ ₽ ₽ ₽ ₪	See .
Change role: Authorizations	
🖿 🏲 🛃 🊱 🗊 🛃 Selection criteria 🛃 Manually 🖿 Open 🖿 Changed 🐚 Maintained Organizational levels 🔡 🚹 Informat	ion
Maint.: 0 Unmaint.org.levels 0 open fields, Status: generated	A
Z:RAKHI_SINGLE_ROLE COO single role	
COO Manually Cross-application Authorization Objects	
COD 🖶 🔏 Manually 🛛 Transaction Code Check at Transaction Start S_TCODE	
ారు? Transaction Code SCC4, SU01, SU53	TCD
🖵 🖂 🕞 Manually 🛛 Transaction Code Check at Transaction Start T-D090000601	
💴 🥒 Transaction Code S@C1	TCD
BD COM Maintained Basis: Administration BC_L BD COM Maintained Basis: - Development Evidence CD Maintained Basis: - Central Functions BC_Z CD COM Standard Human Resources HR	(i)
Profile(s) created Profile(s) created Profile(s) created	0 🗉 sapserver INS
🐨 Prolitie(s) created 🐨 🗸 DMU (1) 80	

Now one screen will be open in that past the Authorization Object.

- > Then again go to User Window Copy the T-code.
- Then again go to SAP Consultancy Window Click on Empty T-code area & then one screen will be open in that past the Copied T-code. Now all the Circle Symbol's will be Convert as Green color.
- Save it and Generate.

NOTE:

After Manually Adding the T-code as SCC1 we need to Delete SU53 T-code from SAP Consultancy Window.

How to Restrict Activities of Tcodes

In SAP command line enter the T-code as **PFCG** Client: 800, User: sapuser

In SAP Consultancy Window

Authorizations Edit Ooto Utilities (M) Environment	And the second s	L 2 x 2 9 4		■ ® ¤ <mark>S</mark>		5
Change role: Authorizations						
📧 🔁 🚱 🗊 🛃 Selection criteria 🛃 Manuali	ly 🎦 Open 🎦 Chai	nged 🖭 Maintained 🛛	Organizational levels 🔢	Information		
Maint.: 0 Unmaint.org.levels	0 open fields,	Status: generated				*
Z:RAKHI_SINGLE_ROLE COB single rol	e					П
COM Maintained Basis - Development Environ COM Maintained Basis - Development Environ COM Maintained Basis - Development Environ COM Maintained Basis - Central Functio COM Maintained Basis - Central Functio	rironment	BC	AAB C_A C_C C_Z R			
						•
				DM0 (1) 800 🖭 sapser	eor INR	
🏂 Start 🚱 🧶 📀 🔌 📸 sapmme 🛛 🚺	SAP Logon 640	📑 Change role: Autho		SAP BASIS ADMIN.doc	1113 9:05 PM	M

Click on Basis: Administration

Authorizations Edit Ooto Utilities(M) Environment System Help	
Change role: Authorizations	
🖻 🖺 🚱 🗊 🛃 Selection criteria 🛃 Manually 🏝 Open 🖿 Changed 🍽 Maintained Organizational levels 🗄 🚹 Informa	ation
Maint.: 0 Unmaint.org.levels 0 open fields, Status: generated	▲ ▼
Z;RAKHI_SINGLE_ROLE COD single role	
COD Standard Cross-application Authorization Objects AAAB B COD Haintained Basis: Administration BC_A B COD A Ministrated Calls in ABAP programs S.C_FUNCT B COD Standard Cross-Client Table Maintenance S.TABU_CLI B COD A Maintained Authorizations: S.TABU_DLI S.TABU_DLIS B COD A Maintained Authorizations: S.USER_ARR S.USER_ARR B COD A Maintained User Master Maintenance: Authorizations S.USER_ARR B COD Maintained User Master Maintenance: System Specific Assignments S.USER_SAS B COD Maintained User Master Maintenance: System for Central User Maintenance System Specific Assignments S.USER_SYS B COD Maintained User Master Maintenance: System for Central User Maintenance System Specific Assignments S.USER_SYS B COD Maintained Basis - Development Environment BC_C B COD Maintained Basis - Central Functions BC_Z B COD Maintained Resources HR	
(►) DM0 (1) 8	Reference in the second
🏂 Start 🛛 🚱 🥥 🎽 🏦 saprimic 👘 SAP Logon 640 🛛 🚰 Change role: Autho 👘 Display Authorization 🔤 SAP BAS	SIS ADMIN.doc

Authorizati	ons <u>E</u> dit <u>G</u> oto Utilities(M) Environmer	nt System <u>H</u> elp		
©	E 4 📙 I 😋 😪 😪) 🗅 () () () () () () () () () () () () ()	2 E	
Change	e role: Authorizations			
	🌀 📋 🛃 Selection criteria 🛃 Manu	ally 🔁 Open 陆 Changed 陆 Mainta	ined Organizational levels 📳 🚹	Information
Maint.:	0 Unmaint.org.levels	0 open fields, Status: gene	rated	
Z:RAKHI_SI	NGLE_ROLE OOD single r	ole		
	Standard Cross-application Aut Maintained Basis: Administration		AAAB BC A	
	- COD - A Maintained C calls in A		S_C_FUNCT	
	। COC∎ 🚘 ጄ Standard 🛛 Table Mainto । COC∎ 🚘 🍣 Maintained <mark>Authorizati</mark> o	enance (via standard tools such as ons: Role Check	S_USER_AGR	
	OCO 🖶 🍰 Maintained User Master	Maintenance: Authorizations Maintenance: User Groups	S_USER_AUT S_USER_GRP	
	🖵 🖂 🕞 Maintained <mark>User Maste</mark>		T-D090000600	
	 Activity Activity User group in user in 	01, 02, 03, 05, 06, 08, master main *	24, 78	ACTV CLAS
	COC	Maintenance: Authorization Profile Maintenance: System-Specific Assig Maintenance: System for Central Us	s_USER_PRO s_USER_SAS er Maintenance S_USER_SYS	
	🖕 Maintained Basis - Development E 🖕 Maintained Basis - Central Funct		BC_C BC_Z	
	Standard Human Resources	10110	HR	

Click on all Activity no's. Then Un-Check all Activities & Save it.

Authorizations Edit Goto Utilities(M) Environmen C 1 1 1 0 0 0	it System Help 日 時 時 1월 1월 4월 4월 1 展 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SAP
Change role: Authorizations		
🖿 🛅 🛃 🕒 📋 🛃 Selection criteria 🛃 Manu	ally 📧 Open 📧 Changed 📧 Maintained 🛛 Organizational levels) 🔢 📘 Informatio	on
Image: Selection criteria Imagee: Selection criteria Image	0 open fields, Status: generated	on ACTYT CLASS
		▲ ▼
		0 🖭 sapserver INS
🏄 Start 🛛 🚱 🥭 📀 👋 🔤 📸 sapmme	📁 SAP Logon 640 🥼 🧗 Change role: Autho 👘 Display Authorization 🐏 SAP BASIS	5 ADMIN.doc 🔀 🗾 9:10 PM

How to Create Standard Jobs (House Keeping Jobs)

In SAP command line enter the T-code as **SM36**

Job Edit Goto System Help	SAP
Define Background Job	
🖗 Start condition 🐉 Step 🛛 🧟 Job selection 🕞 Own jobs 🦃 Job wizard Standard jobs	
General data	
Job name	
Job class C	
Status Schedulled	
Exec. Target Spool list recipient	
Job start Job frequency	
Job steps	
Compiling SAPLSFTX in separate task.	800 🛅 sapserver INS 🛛 🦯
🔰 Start 🛛 🚱 🥥 🍅 📖 SAP BASIS ADMIN.doc 🎢 sapmmc 👘 SAP Logon 640	[🖉 🛃 2:52 PM

Click on Standard Jobs

E Reorg. job Goto System Help			SAP
			- Andrews
Standard Jobs			
🚹 Information 🗐 Default scheduling 🗋 Predefine new job 🕤 Delete job def	inition		
	3 1		
Co_Background Job Name SchedStart SchedStart Start dat	e Start time Status	Job info	
Schedule standard job	StartTime		
SAP Component	StartTime	Period	
Job name	Immed.	None	
Job info	🔿 Date / time	O Hourly	
Rept Name		O Daily	
Variant		O Weekly	
ServerName	۰.	O Monthly	
		DM0 (1)	800 🖻 sapserver INS 🛛 🎢
🍠 Start 🛛 🞯 🥭 🔘 🎽 🔄 SAP BASIS ADMIN.doc 🏻 🏠 sapmmc	搅 SAP Logon 640	F Standard Jobs	🗭 📑 2:52 PM

Note: If you enter T-code as SM36 Background Jobs Automatically Running.

What is Profile Parameters

Whenever we Install the SAP in our System, Default Profiles are created at OS level.

Profile contain parameters that specifies how to Start Instance & Stop Instance.

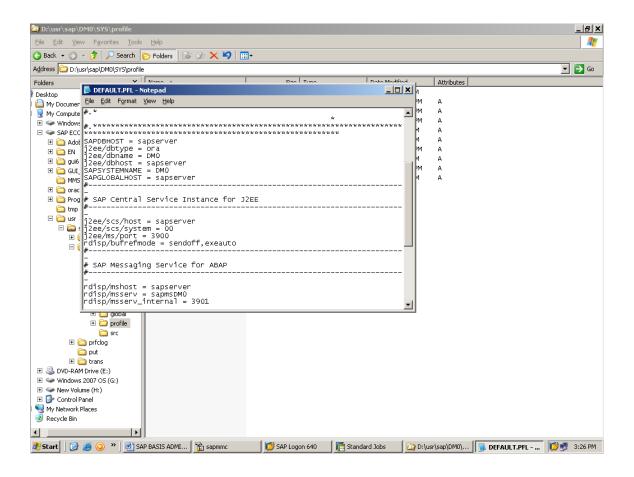
Profile Path is, USR/SAP/SID/SYS/PROFILE Eg: sapserver/sapmmc/dm0/sys/default

We have to Import these OS level Profiles to SAP level by using flowing procedure. RZ10²Utilities²Import Profiles²Of Active Servers

Profiles are 3 Types

Default Profile

It having Global Parameters. Changes are made in Default Profile those Changes effect in All Instances within Server. **Naming Convention**, DEFAULT.PFL



Startup Profile:

Page 168 of 214

It is used to Start DB, Message Server, Dispatcher & Work process (App.Server) Naming Convention, START_INSTANCE NAME_HOST NAME Eg: START_DVEBMGS01_SAPSERVER

Instance Specific Profile:

It contains Instance Specific Profile Data & the Changes will be effect within Instance only. Naming Convention is, SID_INSTANCE NAME_HOST NAME Eg: DM0_DVEBMGS01_SAPSERVER

T-code as RZ10:

It is Static. We need to Restart the SAP Server to Effect the Changes. Few Static Parameters, RDISP/WP_NO_DIA RDISP/WP_NO_BTC etc,.

T-code as RZ11:

It is Dynamic. We no need to Restart the SAP Server to Effect the Changes. Few Dynamic Parameters, RDISP/MAX_WPRUN_TIME RDISP/TRACE RDISP/MAX_PRIV_TIME etc,.

Note: We can Change the Work Process (DIA & BTC) no's.

What is Operational Modes

In Day Shift we need More Dialog Work Process & Less Background Work Process.

In Night Shift we need More Background Work Process & Less Dialog Work Process.

We can Change No.of Work Process (Dialog, Background) as per our requirement.

Note:

If Operational Modes are already Existing in Instance, 1st we have to Delete those Operational Modes.

How to Delete Operational Modes

In SAP command line enter the T-code as RZ04

Page **169** of **214**

? Operation mode <u>E</u> dit	: <u>G</u> oto S <u>y</u> stem <u>H</u> elp			
3	1 4 🛛 I 🕲	2 🔇 I 🗮 II		- Wi
CCMS: Maintai	n Operation Mo	odes and Instances		
Instances/operation	n modes Instances/Pro	nies		
Productive operatio	on modes (normal ope	ration)		
Operation mode	Time	Text		
Normalbetrieb	00:00 - 23:59	Normalbetrieb		
			DMO (1) 800	🖻 sapserver INS 🗾

Click on Operational Mode & Time Table on Top Header level.

Click on Change.

Control of the set Control of th	
Dp. mode set ∕ ® Normal operation (24 hr) O Exception operation	
Normal operation (24 hr) Exception operation	
	DM0 (1) 800 🖻 sapserver INS //
Start 🗍 🚱 🧔 🍅 📗 🖄 SAP BASIS ADMIN. doc 🦹 🏠 sapmme 🛛 💭 SAP Logon 640 🛛 🦷	Tisplay/Maintain Ope
Operation mode Edit Goto System Help	
5 4 📙 C C C C L L L L L C C C 💀 🖉	
dit Operation Mode Set for Normal 24h Operation	
ssign Delete Assignment	
Start/end time Name of the active operation mode	l I
Start/end time Name of the active operation mode 00.00 - 01.00 Normalbetrieb 01.00 - 02.00 Normalbetrieb 02.00 - 03.00 Normalbetrieb 03.00 - 04.00 Normalbetrieb 04.00 - 05.00 Normalbetrieb 05.00 - 06.00 Normalbetrieb 06.00 - 07.00 Normalbetrieb 06.00 - 07.00 Normalbetrieb 07.00 - 08.00 Normalbetrieb 08.00 - 09.00 Normalbetrieb 09.00 - 11.00 Normalbetrieb 11.00 - 12.00 Normalbetrieb 12.00 - 13.00 Normalbetrieb 13.00 - 14.00 Normalbetrieb 14.00 - 15.00 Normalbetrieb 15.00 - 16.00 Normalbetrieb 16.00 - 17.00 Normalbetrieb 19.00 - 29.00 Normalbetrieb 19.00 - 21.00 Normalbetrieb 10.00 - 12.00 Normalbetrieb 10.00 - 12.00 Normalbetrieb 10.00 - 13.00 Normalbetrieb 10.00 - 14.00 Normalbetrieb 10.00 - 18.00 Normalbetrieb <td></td>	
Start 📔 🙆 🍋 🄌 💽 SAP BASIS ADMIN.doc 🏠 sapmmc	DM0 (1) 800 • sapserver INS Edit Operation Mode \$207 PM

Now Double click on Start Time & End Time as per our requirement.

Operation mode Edit	Goto System Help	1806.	L 🐹 🖉 🖗 📑		
Edit Operation N	lode Set for Normal 24h Op	peration			
Assign Delete Assignm	ent				
Start/end time	Name of the active operation mode]			
00.00 01.00 01.00 01.00 02.00 03.00 02.00 03.00 04.00 05.00 04.00 05.00 06.00 07.00 08.00 07.00 08.00 09.00 08.00 09.00 09.00 11.00 11.00 11.00 12.00 13.00 13.00 13.00 14.00 15.00 15.00 16.00 17.00 19.00 13.00 19.00 10.00 11.00 12.00 13.00 19.00 12.00 14.00 15.00 17.00 15.00 16.00 17.00 19.00 19.00 19.00 19.00 23.00 23.00 23 00 00.00	Normal betrieb Normal betrieb	_			
					0 (1) 800 🖪 sapserver INS
🏄 Start 🛛 🚱 🥌 🕒 👋	SAP BASIS ADMIN.doc 📸 sapmme		搅 SAP Logon 640	Edit Operation Mode	😥 🗾 4:07 PM

Click on Delete Assignment & Save it.

C Oper	ration mode Edit G	ato System Help				
			日間間 2000	l 🕄 🛒 🖉 😨 📑		Sa la companya da compa
Edit	Operation M	ode Set for Norma	l 24h Operation	1		
Assig	n Delete Assignme	int				
	Start/end time	Name of the active oper	ation mode			
	00.00 -01.00 01.00 -01.00 02.00 -03.00 03.00 -04.00 04.00 -05.00 05.00 -04.00 05.00 -04.00 05.00 -06.00 05.00 -06.00 05.00 -06.00 09.00 -10.00 10.00 -12.00 12.00 -13.00 14.00 -15.00 15.00 -16.00 17.00 -20.00 21.00 -22.00 22.00 -23.00 23.00 -00.00					
					DM0 (1) 8	300 🖻 sapserver INS 🛛 🎢
🍂 Starl	t 📴 🥌 🔕 »	Marching SAP BASIS ADMIN.doc	🚡 sapmmo	😥 SAP Logon 640	Edit Operation Mode	🗭 🛃 4:08 PM

Page **172** of **214**

How to Create Operational Modes

In SAP command line enter the T-code as **RZ04**

☑ Operation mode Edit G	3oto System Help		
Ø	E 4 🛛 I 😋	3 😪 🗅 ()) ()) () () () () () () () () () () (
CCMS: Maintain	Operation Mo	des and Instances	
Instances/operation m	odes Instances/Pro	les	
Productive operation	modes (normal one	ation)	
Operation mode	Time	Text	
Normalbetrieb		Normalbetrieb	
	1]
			DM0 (1) 800 편 sapserver INS

Click on Create Operational mode.

				г	
Operation mode Edit Goto Sy				Ŀ	SAP
7	4 🔛 😋 🙆 🚷	日間間 約100:	🗈 🕱 🗾 🕜 🖪		
CMS: Maintain Oper	ation Modes	and Instances			
omo: mantan oper	alon modeo				
peration mode					
AP System name DM0					
peration mode					
nort description 🗹					
onitoring properties variant					
					sapserver INS
Start 📴 🏉 🕥 » 👜 SAP	BASIS ADMIN.doc	📸 sapmmc	SAP Logon 640	DM0 (1) 800 [sapserver INS

Page 173 of 214

Give the	Details as be	low & then Save it.			
	Operation mode Edit				
	CCMS: Maintair	■ ◀ 📕 I ۞ ፼ 象 日 崩 陽 総 1 泊 Operatiqsave (Ctrl+s) and Instance			
		Save (Ctrl+S) and instance			
	Operation mode				
	SAP System name Operation mode	DM0 day shift			
	Short description Monitoring properties varia	day shift ant			
				DM0 (1) 8	00 🖻 sapserver INS 🛛 🎢
	🏄 Start 🛛 🚱 🥔 👋	SAP BASIS ADMIN.doc 🏻 📸 sapmme	K SAP Logon 640	CCM5: Maintain Opera	🔝 🛃 4:14 PM
gain Cl	ick on Create	Operational Mode			
ive the	Dotails as ho	low & then Save it.			
	Details as De				
	년 Operation mode _ Edi	t <u>O</u> oto System <u>H</u> elp			
	Croperation mode Ed	ti <u>G</u> oto System Help 直 4 🛄 ⓒ 🙆 🛠 🗎 倘 禄 1 登			
	Croperation mode Ed	t <u>O</u> oto System <u>H</u> elp			SAP
	Croperation mode Ed	ti <u>G</u> oto System Help 直 4 🛄 ⓒ 🙆 🛠 🗎 倘 禄 1 登			
	CCMS: Mainta	ti <u>G</u> oto System Help 直 4 🛄 ⓒ 🙆 🛠 🗎 倘 禄 1 登			
	Croperation mode Ed	ti <u>G</u> oto System Help 直 4 🛄 ⓒ 🙆 🛠 🗎 倘 禄 1 登			
	CCMS: Mainta	t Goto System Help			

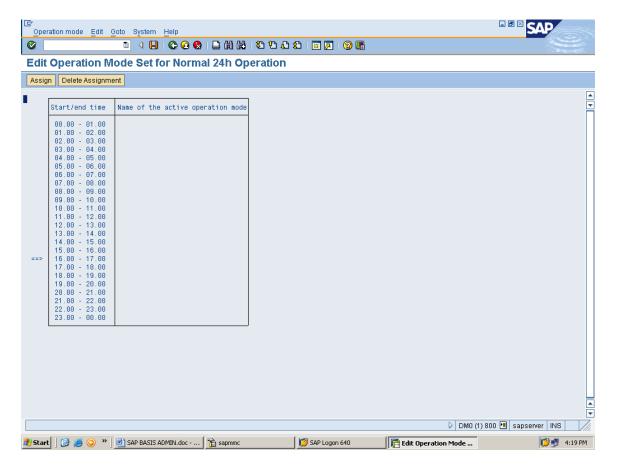
ੇ Operation mode Edit	Goto System Help			- 6	
2 <u></u>		1 B H H H T D D	🕄 🕱 🗾 🔞 🖪		
CCMS: Maintair	n Operatio				
Joino. maintai					
peration mode	[
AP System name	DMO				
peration mode	night shift				
hort description	night shift				
lonitoring properties vari	ant				
				DM0 (1) 800 🖭	sapserver INS
Start 🛛 🚱 🙈 💫 »	SAP BASIS ADMIN.doc	Sapmmc	SAP Logon 640	DM0 (1) 800 🗎	sapserver INS

Page **174** of **214**

Click on Operational Mode & Time Table on Top Header level.

다 Operation mode Edit Goto System Help	
Display/Maintain Operation Mode Set	
Op. mode set ® Normal operation (24 hr) O Exception operation ⊗r Display ⊘r Display	
Change	
change	
	1) 800 🖭 sapserver 🛛 INS 🛛 🦯
🏄 Start 🛛 🚱 🥥 👻 🖳 SAP BASIS ADMIN.doc 👔 sapmmc 🛛 🗱 SAP Logon 640	搅 🛃 4:18 PM

Click on Change.



Page 175 of 214

Now Double Click on Time of Start (Operational Mode). Now Color will be Change to Black Color. Eg: 08:00am to 08:00pm (Day Shift) Click on Assign

Operation mode Edit			l l 🗶 🚿 🗷 🔞 🖷		SAP
Edit Operation M	lode Set for Norma	al 24h Operatio	n		
Assign Delete Assignmi	ent				A
Start/end time 00.00 - 01.00 01.00 - 02.00 02.00 - 02.00 02.00 - 02.00 03.00 - 04.00 04.00 - 05.00 05.00 - 05.00 07.00 - 03.00 09.00 - 10.00 11.00 - 11.00 12.00 - 13.00 13.00 - 14.00 14.00 - 13.00 15.00 - 16.00 16.00 - 17.00 18.00 - 18.00 18.00 - 22.00 21.00 - 23.00 23.00 - 00.00	Name of the active ope	ration mode			
) 800 🖻 sapserver INS
🎦 Start 🛛 🔂 🥔 🎱	🛃 SAP BASIS ADMIN.doc	📸 sapmme	SAP Logon 640	Edit Operation Mode	1000 🔄 Sapseiver IIV3

Assign Operational Mode as selected from browser.

Eg: Day Shift

Page **176** of **214**

년 Operation mode Edit Goto System Help	
Edit Operation Mode Set for Normal 24h Operation	
Assign Delete Assignment	
<pre>start/end time Name of the active operation mode 00.00 - 01.00 01.00 - 02.00 03.00 - 04 ☐ Specify an Operation Mode 04.00 - 05. 05.00 - 06. 05.00 - 07. 07.00 - 08. 09.00 - 10. 10.00 - 11. 11.00 - 12. 12.00 - 13.00 13.00 - 14.00 14.00 - 15.00 16.00 - 17.00 17.00 - 18.00 19.00 - 20.00 20.00 - 21.00 21.00 - 22.00 22.00 - 23.00</pre>	
	▷ DM0 (1) 800 🖻 sapserver INS /
	DMO (1) 800 🖻 sapserver INS VE Logon 640
C Operation mode Edit Goto System Help	DMO (1) 800 🖻 sapserver INS
Coperation mode Edit Goto System Help ②	DM0 (1) 800 🗎 sapserver INS
C Operation mode Edit Goto System Help	DMO (1) 800 🖻 sapserver INS
Coperation mode Edit Coto System Help の していたのでのの には、 の ないの の の の の の の の の の の の の の の の の の	DM0 (1) 800 🗎 sapserver INS P Logon 640
Coperation mode Edit Goto System Help Content of Content Help Content of Content Help Content Operation Mode Set for Normal 24h Operation Assign Delete Assignment	DM0 (1) 800 sapserver INS 4-25 PM P Logon 640 C
Operation mode Edit Ooto System Help Image: Constraint of the system Edit Operation Mode Start/end Image: Constraint of the system Image: Constraint of the system Assign Delete Assignment Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system	DMO (1) 800 🖻 sapserver INS NP Logon 640 Internation Mode V 25 PM NO (2) The Color of the C

Now again Double Click on Time of Start (Operational Mode). Now Color will be Change to Black Color. Eg: 08:00pm to 08:00am (Night Shift)

Click on Assign

Operation mode Edit					
Constant M	🗈 🔄 日 I 😋 😧 😒 lode Set for Norma	🗋 🛗 🛗 約 的 💭	*******		
Assign Delete Assignm					
					▲ ▼
<pre>start/end time 00.00 - 01.00 01.00 - 02.00 02.00 - 03.00 03.00 - 04.00 05.00 - 05.00 05.00 - 06.00 07.00 - 08.00 08.00 - 09.00 09.00 - 10.00 11.00 - 11.00 11.00 - 11.00 11.00 - 14.00 13.00 - 14.00 13.00 - 14.00 14.00 - 15.00 15.00 - 15.00 15.00 - 16.00 15.00 - 17.00 19.00 - 22.00 20.00 - 21.00 21.00 - 22.00 23.00 - 00.00</pre>	Name of the active ope day shift day shift	ration mode			<u>*</u>
				DM0 (1) 8	aoo 🗃 sapserver INS 🗸
🏄 Start 🛛 📴 🥭 🔘 👋	🔄 SAP BASIS ADMIN.doc	🚡 sapmmo	💋 SAP Logon 640	Edit Operation Mode	😥 🛃 4:32 PM

Assign Operational Mode as selected from browser. **Eg:** Night Shift

C Operation mode Edit Goto System Help	
Edit Operation Mode Set for Normal 24h Operation	
Assign Delete Assignment	
Start/end time Name of the active operation mode 00.00 - 01.00 02.00 02.00 - 03.00 00 04.00 - 05 90.00 05.00 - 06 00.00 07.00 - 08 00.00 08.00 - 01 00.00 09.00 - 10 00.00 09.00 - 10 00.00 09.00 - 11 00.00 12.00 - 13.00 day shift 13.00 - 14.00 day shift 14.00 - 15.00 day shift 18.00 - 10.00 day shift 18.00 - 10.00 day shift 18.00 - 22.00 day shift 19.00 - 21.00 day shift 19.00 - 23.00 day shift 23.00 - 00.00 day shift	► DM0 (1) 800 T sapserver INS
🏄 Start 📔 🚱 🥥 义 📓 SAP BASIS ADMIN.doc 👔 🏠 saprımıc 🛛 🞁 SAP Logon 640	Edit Operation Mode 🗊 🔮 4:32 PM

Page **178** of **214**

☞ Operation mode Edit Goto System He ☞ 집 대 및 (aip Cr (Cr (Qr 12 11) 115 12 12 12 12	* * 2 9 5		SAP
Edit Operation Mode Set for	Normal 24h Operation			
Assign Delete Assignment				
00.00 - 01.00 01.00 - 02.00 02.00 - 03.00 03.00 - 04. [⊂ Specify an Operatio 04.00 - 05. 05.00 - 06.	n Mode			
				300 🖻 sapserver INS 🛛 🖊
ಶ Start 🛛 🞯 🧔 🔾 🔌 📑 SAP BASIS ADMI	IN.doc 📸 sapmme	SAP Logon 640	Edit Operation Mode	500 🔄 sapserver INS

Now click on Save & Click on back.

Operation mode Edit	I 4 📙 😋 🚱 🗧	3000-000	81 X 🖉 I 🖗 📑		
	Iode Set for Normal 2	4h Operation			
Assign Delete Assignm 00.00 01.00 01.00 02.00 02.00 03.00 03.00 04.00 04.00 04.00 05.00 06.00 06.00 07.00 08.00 04.00 08.00 04.00 07.00 08.00 08.00 04.00 08.00 04.00 08.00 04.00 08.00 07.00 08.00 08.00 08.00 10.00 1.00 12.00 1.00 12.00 1.00 12.00 1.00 12.00 1.00 12.00 1.00 12.00 1.00 18.00 18.00 18.00 18.00 20.00 22.00 23.00 23.00 23.00	<pre>ent Name of the active operat night shift day shift night shift</pre>	ion mode			
				▷ DM0 (1)) 800 🖪 sapserver INS 🛛 🎢
🏄 Start 🛛 🚱 🥌 🔘 👋	🛃 SAP BASIS ADMIN.doc 🏻 📸	sapmmc	SAP Logon 640	Edit Operation Mode	🗭 🛃 4:34 PM

C Operation mode Edit G	anta Svetam Haln				
		0 C C C C C C C C C C C C C C C C C C C	ድ 🖉 🗖 🔊 🖪		<u> </u>
		des and Instances			
Instances/operation m	odes Instances/Pro	files			
Productive operation	modes (normal oper	ration)			
Operation mode	Time	Text			
Normalbetrieb day shift night shift	08:00 - 20:00 20:00 - 08:00	Normalbetrieb day shift night shift			
	20.00 - 08.00	night shiit			
				DM0 (1) 8	800 🖪 sapserver INS 🛛 🎢
🏄 Start 🛛 📴 🥭 🔕 👋	SAP BASIS ADMIN.d	oc 📸 sapmme	SAP Logon 640	CCMS: Maintain Opera	🗭 🛃 4:34 PM

Click on Instances/Operational Modes. Click on Create New Instance

Instance E	dit Goto Settings	System Help				
				ይ የጋ ፈጋ ፋይ 🕱 🗷 😨 📑		
CMS: N	laintain Opei	ration Modes	and Instan	ices		
Con:	sistency check Pro	file view				
	newinstance (F6) instances and th	air WP distribut	ion			
ost Name	Server Name	Instance				
		OP Mode	Dia BP	BPA Spo Upd Up2 Eng Sum		
d3tdc00	id3tdc00_ID3_5	0 ID3_DVEBM	6S50_ID3TDC00			
		* All operatio	n mode 8 6	- 1 2 1 1 19		
					· · · · · · · · · · · · · · · · · · ·	00 🖻 sapserver INS
tart 🛛 🚱	🥌 🜔 👋 🖳 😂	PBASIS ADMIN.doc	📸 sapmmc	💋 SAP Logon 640	CCM5: Maintain Opera	1:36 PM
eteneo E						
	dit <u>G</u> oto <u>S</u> ettings					
) 巳 尙 尙 \$	84.8		
		4 🔲 😋 🔂 🔇				SAP
CMS: N	aintain Oper	I ■ C C C C R C C C C C C C C C C C C C C				
CMS: N	aintain Oper	I ■ C C C C R C C C C C C C C C C C C C C				
CMS: IV	aintain Oper	a 📙 i 😋 🐼 🗞 ration Modes	and Instan			
CMS: N Con: Create roductive	Initial Oper Sistency check Pro new instance (F6)	a 📙 i 😋 🐼 🗞 ration Modes	and Instan			
CMS: N Con: Create roductive	Aaintain Oper sistency check Pro new instance (F6) instances and th	A I I C A C C C C C C C C C C C C C C C	s and Instan			
CIMS: IV	aintain Oper sistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A A A	ion Profile Dia BP	ices		
CIMS: IV	Aaintain Oper sistency check Pro new instance (F6) instances and th	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ices		
CIMS: IV	aintain Oper sistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CIMS: IV	aintain Oper sistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: IV	aintain Oper sistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: N	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: N	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: N	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: N	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: N	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CIMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CIMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CIMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CIMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CIMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CIMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CMS: N Create oductive ost Name	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		
CIMS: IV	aintain Oper aistency check Pro new instance (F6) instances and th Server Name	A A A A A A A A A A A A A A A A A	ion Profile Dia BP 6550_1D3TDC00	ICES BPA Spo Upd Up2 Eng Sum		

Fill the details as below & Save it.

Instance Edit Goto Settings System Help		8 🕱 🛛 🖗 🖷		
CCMS: Maintain Instang				
Current settings Maintain details a Check profile				
Installation data Host name sapserver SAP system number 01 Start profile Profile name START_DVEBM6S01_SAPSERVER @ & Change Instance profile Profile name DM0_DVEBM6S01_SAPSERVER @ & Display Change	Number of work processe According to InstProf Dialog 4 Background 1 Update 1 Update 1 Enqueue 1 Spool 1 Total 9			
Admin. user for start/stop User name				
Instance details Appl. server name sapser_DM0_00 Instance name D00 Operating sys. type Windows NT Home directory D:\usitsap\DM0\D00\work Start profile D:\usitsap\DM0\SYS\profile\START_DVE Inst. profile D:\usitsap\DM0\SYS\profile\DM0_DVEBM				
) 800 🖻 sapserver INS 🛛 //
SAP BASIS ADMIN.doc	ិតិ sapmmc	💋 SAP Logon 640	DMO (1) 800 🖭 sapserver INS
	- Contraction -	Shi 20gon 840		1.39 FM

Click on Yes

년 Instance Edit Goto Settlings System Help	
◎ <u> </u>	Y.
CCMS: Maintain Instance Data	
Current settings Maintain details 🚰 Check profile	
I CCMS: Maintain Work Process Distribution I of work processes	
ting to InstProf	
Work process distribution	
of Appl. server sapserver_DM0_01	
for Operation Mode ground 1	
ite2 1	
Number of work processes	
Dialog 4	
Background 1	
Class A B Update 1	
Update2 1	
Enqueue 1 Spool 1	
Total 9	
Exit 🔲 Other operation mode	
Sessign work process allocation to an operation mode	DMO (1) 800 🖻 sapserver INS 🛛 🎢
🏄 Start 🛛 🕝 🧶 » 🖉 SAP BASIS ADMI 📸 sapmme 🛛 💭 SAP Logon 640 🛛 🜈 CCMS: Maintain 🕙 error2.xls	ERROR.xls 🛛 🔯 🕏 8:29 PM

Here we can Change the Dialog Work Process & Background Work Process.

Page **182** of **214**

Assign Operational Mode & Save it.

Icr Instance Edit Ooto Settings System Help	
CCMS: Maintain Instance Data	
Current settings Maintain details 🚰 Check profile	
CCMS: Maintain Work Process Distribution	
Image: CCMS: Maintain Work Processes ing to InstProf Viork process distribution g of Appl. server sapserver_DM0_01 g for Operation Mode pight shift g ite 1 ite 1 ite 1 ites 1 ites </td <td></td>	
Exit Other operation mode Save (Ctrl+S) Image: Save (Ctrl+Save	DMD (1) 800 🖻 sapserver INS B ERROR.xls C S S S S S S S S S S S S S S S S S S S
CCMS: Maintain Instance Data	
Current settings Maintain details 🖧 Check profile	
CCMS: Maintain Work Process Distribution	
of Appl. server sansarvar. DMD_01 19 4 CP Create instance data	
for Operation Mode Assign WP distribution to other OP modes?	
Ves No Cancel Dialog 3 Background 2 Class A 0 Update 1 Update2 1 Exit Other operation mode	
	👂 DM0 (1) 800 🖭 sapserver INS 🛛 🏑

What is Spool Administration

It is used to Print the Documents from Output Devices.

Eg: Printers, Fax etc

- In entire System at least 1 Spool Process requires.
- Spool Profile Parameter is, RDISP/WP_NO_SPO=1
- We can Create Spool Request (Print Request) from Dialog Work Process & Background Work Process.
- In OS level Spool Request Stored in Global level & Path is, USR/SAP/SID/SYS/GLOBAL
- Print Request Are Stored in a Location which was determined by a parameter & the Parameter having 2 Values 1) G (Global) 2) DB (Database).
- RSPO/STORE_LOCATION=G 2 Global Directory at OS level. RSPO/STORE_LOCATION=DB 2 Spool Request Stored in DB tables.
- Database Tables are TST01, TST03.
- Spool Request Stored or Referred as TEMSE (Temporary Sequential File).
- Default TEMSE Size is 32000 Requests & also we can Increases the no. of
- Requests up to 2 million. TST01^[2] Having TEMSE Objects TST02^[2] Having TEMSE Protection Rules TST03^[2] Having TEMSE Data
- We can Increases no. of TEMSE Requests by using T-code as SNRO.

Types of Printing are 3,

Local Printing Access² If Spool Server & OS Spooler in the Same System.

Remote Printing Access² If Spool Server & OS Spooler are in

Different System. 2 Front End Printing Access 2 Printing with the SAP GUI.

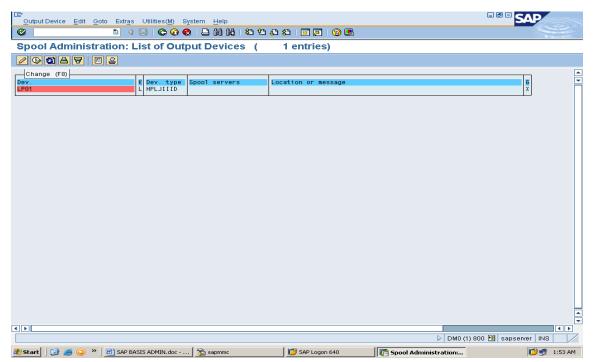
How to Create Spool Requests (Print Request)

In SAP command line enter T-code as **SPAD**

onfiguration Admir	istration Goto Utilities(M) S	Bettings Environment Syster	m Help		SAP
	E 4 📃 I 😋 😧 🔇	1日間間12日の	8 🐹 🗾 🔞 🖪		S.
ool Adminis	tration: Initial Scree	en			
tended admin. Ful	I administration				
Devices / servers	Admin.				
Dutput Devices		Display			
Spool Servers		Display Display	-		
Access Methods		Display			
Destination Host		Display			
				DM0 (1	800 🖻 sapserver INS
art 🛛 🕞 🛋 🕥	》 (편) SAP BASIS ADMIN.doc	්තී seprimic	SAP Logon 640	DM0 (1	1800 🖻 sapserver INS

Click on Display & Click on Change

Fill the Details as below



Click on Create & fill details as below

	Extr <u>a</u> s Utilities(M)				
			ካ ይ \$1 🐺 🗾 🔞 🖪		
ool Administratio		tput Devices (0	Change) (1 ent		
	Create (Shift+F1) K Dev. type L HPLJIIID	Spool servers	Location or message		G X
1	L HPLJIIID				A
					• • •
				DM0 (1)	800 🖭 sapserver INS 🛛 🖊
art 🛛 🕑 🥌 🔘 👋 🖳	SAP BASIS ADMIN doc -	Saparan Saparan	SAP Logon 640	5pool Administration:	🚺 📑 1:54 AM
	SAF BASIS ADMINIDOC -	M saburuc	SAP Logon ono		
utput Device Edit Goto	Extraga Littlitica (M)	System Heln			
input Device Edit Ooto	Extras Ountres(M) :	oloup up b			
			ዮ ድ ድ 💀 🗖 🞯 🖪		
	0 0 🛛 🖉 🙆	8 🗅 🕅 🖓 🏷 1	ካ ይ ይ 🗶 🔣 🕅		
	0 0 🛛 🖉 🙆	8 🗅 🕅 🖓 🏷 1	12 42 42 1 🕱 🖉 🖷		
	0 0 🛛 🖉 🙆	8 🗅 🕅 🖓 🏷 1	9 A X I X A I A B		<u> </u>
	0 0 🛛 🖉 🙆	8 🗅 🕅 🖓 🏷 1	19 A A I 🛪 🗖 I 🖗 🖪		
ool Administratio	0 0 🛛 🖉 🙆	😧 📑 偽 偽 🕸 1 tput Device	Short name hp		
pool Administratic	0 0 🛛 🖉 🙆	😧 📑 偽 偽 🕸 1 tput Device			
put Device hp	0 0 🛛 🖉 🙆	😧 📑 偽 偽 🕸 1 tput Device			
ool Administratic	on: Create Ou	C 日前間になっ tput Device			
ool Administratic	on: Create Ou	😧 📑 偽 偽 🕸 1 tput Device			
put Device hp scription Acces	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp scription Acces	ss Method Output	Attributes Tray Info exJet11160 R4.5+			
ool Administratic	ss Method Output	Attributes Tray Info exJet 1160 R4.5+	Short name hp		
put Device hp scription Acces Device Attributes Acces Device Type Spool Server	ss Method Output	Attributes Tray Info exJet11160 R4.5+	Short name hp		
put Device hp scription DeviceAttributes Access Device Type Bool Server Server Description	ss Method Output	Attributes Tray Info exJet11160 R4.5+	Short name hp		
ool Administratic	ss Method Output	Attributes Tray Info	Short name hp		
ool Administratic	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp scription DeviceAttributes Acces bevice Type spool Server server Description tost	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp scription Access Device Attributes Access Device Type Spool Server Server Description Jost Device Class	ss Method Output	Attributes Tray Info	Short name hp		
ool Administratic	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp scription Access Device Attributes Access Device Type Spool Server Server Description Jost Device Class	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp scription Access DeviceAttributes Access Device Type Server Serve	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp put Device hp scription DeviceAttributes Acces bevice Type spool Server ierver Description source Class withorization Group	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp put Device hp scription DeviceAttributes Acces bevice Type spool Server ierver Description source Class withorization Group	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp pool Administratic put Device hp scription Accession DeviceAttributes Accession Spool Server Server server Description Server Server Class Server uthorization Group Model dodel	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp	ss Method Output	Attributes Tray Info	Short name hp		
put Device hp put Device hp scription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
pool Administratic put Device hp scription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
put Device hp put Device hp scription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
put Device hp put Device hp scription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
put Device hp put Device hp scription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
put Device hp put Device hp scription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
put Device hp put Device hp scription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
ool Administratic put Device hp coription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
ool Administratic put Device hp coription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
ool Administratic put Device hp coription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp		
ool Administratic put Device hp coription	ss Method Output HP1160 : HP Lase sapserver_DM0 B	Attributes Tray Info	Short name hp	DM0 (1)	800 💌 sapserver INS

Click on Access Method tab As per our requirement select Host Spool Access Method from browser & give Host Printer as Default. Then Save it.

Coutput Device Edit Goto Extras Utilities(M) System Help で して して の の の の の の の の の の の の の の の の の	
Output Device hp Short name HP	
Description Generic device on frontend	
DeviceAttributes Access Method Output Attributes Tray Info	
Host Spool Access Method F: Printing on Front End Computer	
Host printer Default	
No Device Selection at Frontend	
No status information available	
DM0 (1) 800 🖼 sapserver INS	7/
🐉 Start 🛛 🚱 🧑 🥥 🔌 🌉 SAP BASIS ADMIN.doc 🏠 sapmme 🛛 💯 SAP Logon 640 🛛 🕞 Spool Administration:	M

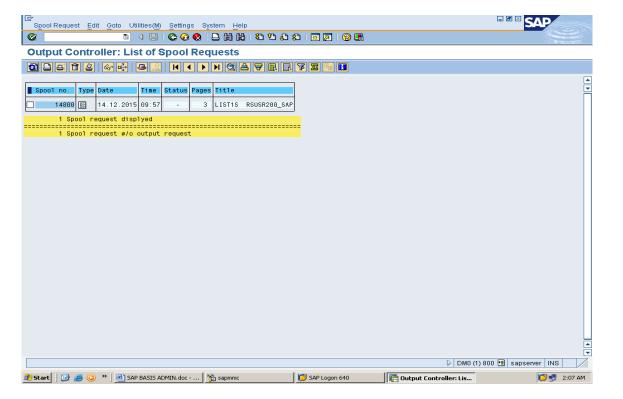
How to Create Spool Request (Print Request) Overview

In SAP command line enter T-code as **SP01**

Page 187 of 214

Selection Edit Goto System	Help				
	- 🖳 😋 🙆 🚷 🗎	H H I S S A S	🗅 🛒 🏹 😰 📑		se l
Output controller: Spo	ol request selec	tion screen			
🕒 🚸 🔜 🗊 🖒 🛛 Further select	ion criteria				
Spool requests Output reque	ests				_
Spool Request Number		\$			
Created By	SAPUSER	\$			
Date created Client	14.12.2015	to 14.12.201	5		
Authorization	000	<u>ት</u>			
Output Device		S			
Title		-			
Recipient Department		<u>भ</u> ि भे भे			
Depanment					
System Name	DMO	\$			
					800 🖻 sapserver INS 🛛 🥢
🏄 Start 📗 🚱 🧔 🔘 👋 📃 SAP B	ASIS ADMIN.doc 📸 sa	pmmc	📁 SAP Logon 640	📑 Output controller: Sp	[🖉 🛃 2:06 AM

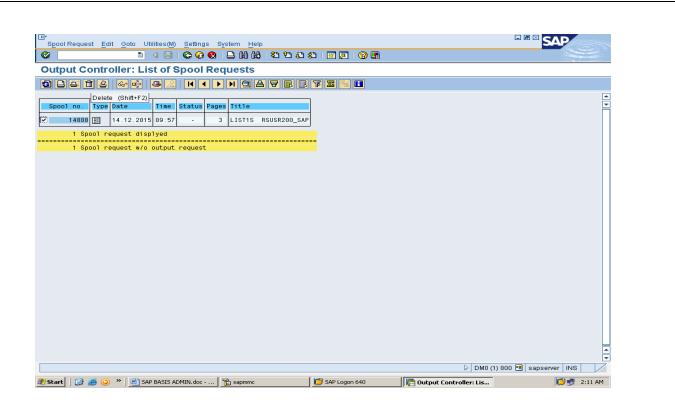
Click on Execute.



How to Delete Old Spool Request (Print Request)

In SAP command line enter T-code as SP01/RSP0041

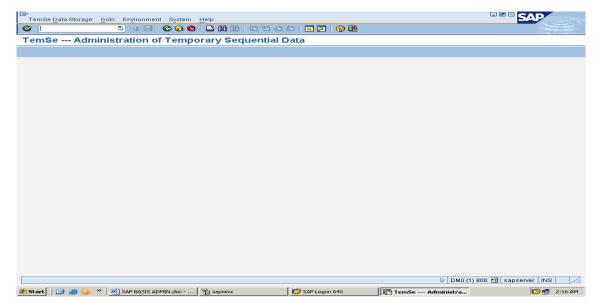
Check the Check box of Spool no & then Click on Delete.



How to Overview of TEMSE Management

It having Administration of Temporary Sequential Data.

In SAP command line enter T-code as **SP12**



Click TEMSE Data Storage, Consistency Check, & then Delete all.

What is ABAP Dumps

It is Run Time Error. Which is always generate whenever a transaction is Terminated to a serious error.

Page 189 of 214

ABAP Runtime Errors
Standard Today 0 Runtime Errors Yesterday 0 Runtime Errors Own selection • • Date 15.12.2015 to • Time 00:00:00 • • Host to • • User SAPUSER to • Client to • • To be stored to • • Program Name to • • Exception to • •
Standard Today 0 Runtime Errors Yesterday 0 Runtime Errors Own selection • • Date 15.12.2015 to • Time 00:00:00 • • Host to • • User SAPUSER to • Client to • • To be stored to • • Program Name to • • Exception to • •
Standard Today 0 Runtime Errors Yesterday 0 Runtime Errors Own selection • • Date 15.12.2015 to • Time 00:00:00 • • Host to • • User SAPUSER to • Client to • • To be stored to • • Program Name to • • Exception to • •
Yesterday 0 Runtime Errors Own selection
Own selection Date 15.12.2015 Time 00:00:00 Host to Work Process Index to User SAPUSER Client to To be stored to Runtime Error to Program Name to Exception to
Own selection Date 15.12.2015 Time 00:00:00 Host to Work Process Index to User SAPUSER Client to To be stored to Runtime Error to Program Name to Exception to
Date 15.12.2015 to Image: Constraint of the state of the st
Date 15.12.2015 to Image: Constraint of the state of the st
Time00:00:00to00:00:00\$Hosttoto\$Work Process Indexto\$UserSAPUSERto\$Clientto\$To be storedto\$Runtime Errorto\$Program Nameto\$Exceptionto\$
Host to Image: Constraint of the state of the st
Work Process IndextoUserSAPUSERClienttoTo be storedtoRuntime ErrortoProgram NametoExceptionto
UserSAPUSERtoImage: Constraint of the second secon
ClienttoImage: ClientTo be storedtoImage: ClientRuntime ErrortoImage: ClientProgram NametoImage: ClientExceptiontoImage: Client
To be stored to Runtime Error to Program Name to Exception to
Runtime Error to Program Name to Exception to
Program Name to Exception to
Exception to 🗭
C Start
These files were investigated for each runtime error:
With Information on Exception/Short Text of Runtime Error
The program affected
Program and associated application components (long runtime)

Here we can see the Today Errors, Yesterday Errors & also we can see the Back Month Errors.

If you click on Particular Error, you will get Explanation of Error.

Eg: TIME_OUT Error, RFC_ATTACH_GUI_FAILED Error, RFC_NO_AUTHORITY Error etc.

What is Memory Management

We Having 6 Types of Memory Management.

Physical Memory:

Memory Configured in System (RAM)

Virtual Memory:

Memory that is configured Physical Memory & Some Part of the Hard disk.

Note:

For SAP Installation we need to assign 3 Times of Physical Memory.

Shared Memory:

Memory that is used by SAP App & OS App

Extended Memory:

Memory that is used by SAP All Work Process.

Local Memory:

Memory that is used by SAP 1 Work Process only.

Heap Memory:

Memory that is Exactly (Totally) used by Private Memory.

Note:

Whenever we find out Work Process in Private (PRIV) Mode no one Can Access SAP.

How to Kill the Long Run Job

Go to MMC²Work Process²Select PRIV Work Process²Right Click² All Task²Kill

How to Check CPU Utilization

In SAP command line enter the T-code as **ST06**

Edit Goto Monitor Sys	stem Help				
©		0,000,000,000,000,000	😂 i 🛒 🛃 i 🔞 📑		J.
Local (sapserver)) / Operating Sy	/stem Monitor: Win	dows NT		
Refresh display Detail an	alysis menu Operating	System collector			
Tue Dec 15 02:51:13 2015	5 interval 10 sec.				▲ ▼
CPU					
io wait % System calls/s Interrupts/s	0 1565 77	15 min Context switches/s	0.00 357		
Memory					
Physical mem avail Kb Pages in/s Pages out/s	0	Physical mem free Kb Kb paged in/s Kb paged out/s	410016 0 0		
Poo1					
Commit charge limit Kb Commit charge free Kb		Maximum swap-space Kb Actual swap-space Kb	8286208 8192000		
Disk with highest respo	onse time				
Name Utilization Avg wait time ms Kb transfered/s	3	Response time ms Queue Avg service time ms Operations/s	3 0 3 7		
Lan (sum)					
Packets in/s Packets out/s Collisions	4 Errors in 4 Errors of 0				
				DM0 (1) 8	00 🖪 sapserver INS 🛛 🖊
🍠 Start 🛛 🚱 🥵 🕥 👋	🔄 SAP BASIS ADMIN.doc -	📸 sapmmc	😥 SAP Logon 640	📑 Local (sapserver) / 0	10 🔊 2:53 AM

Page **191** of **214**

NetWeaver System

SAP NetWeaver is a web-based, open integration, application platform that serves as the foundation for enterprise service-oriented architecture (enterprise SOA) and allows the integration and alignment of people, information, and business processes across business and technology boundaries. It allows the composition, provisioning, and management of SAP and non-SAP applications across a heterogeneous software environment.

The following table defines the Main Use Cases of SAP NetWeaver and its key area

Use Case	Description
Data Warehousing	SAP BW
Building Integration scenarios	SAP Process Integration PI
Mobilizing Business Processes	SAP NetWeaver Mobile
Building Composite Applications	SAP Composition Environment
Integration with SAP Enterprise Portal	SAP Enterprise Portal
Application Development ABAP	ABAP Development on NetWeaver Application Server ABAP

To implement these use cases, SAP has provided mapping between use cases and SAP NetWeaver software components.

Consider the use case of data warehousing, it has multiple product instances and client tools to use NetWeaver for data warehousing.

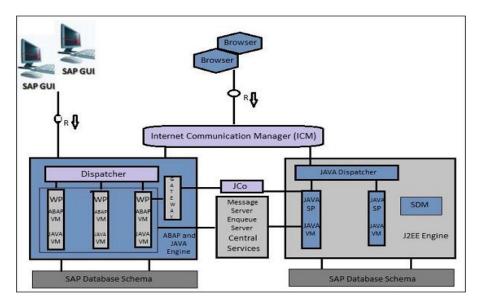
Standalone Engines	Product Instance	Client Tool
Search and Classification (TREX)	 AS ABAP BW ABAP AS Java NW Product Description [optional] AS Java Extensions [optional] BI Java [optional] EP Core – Application Portal [optional] Enterprise Portal 	 SAP GUI with Business Explorer (BI Add-On) SAP BusinessObjects Analysis, Edition for Microsoft Office* [optional] SAP BusinessObjects Crystal Reports [optional] SAP BusinessObjects Dashboards [optional] SAP BusinessObjects Web Intelligence [optional] SAP BusinessObjects Design Studio [optional]

NetWeaver Architecture

SAP NetWeaver is one of the central components of the entire SAP software stack and provides you a platform for other components and JAVA and ABAP applications.

SAP Application server consists of multiple application server instances and also database servers. With use of dialog instance, it also contains message server and an Enqueue server.

The following is a dialog instance executed by a user



These are the different components of the Dialog Instance

Internal Communication Manager – This is used to process both client and server web requests. It supports protocol – HTTP, HTTPS, SMTP.

Dispatcher – This is used to distribute the user request to different work processes. If all the work processes are busy, requests are stored in the dispatcher queue.

Work Processes – These are used to execute Java or ABAP programs.

SAP Gateway – This provides RFC interface between SAP instances.

Message Server – This is used for message communication and also balances the load in SAP system.

Installation Options for SAP NetWeaver

SAP NetWeaver provides the following installation options -

- **ABAP System** This comes with an integrated VM Container. With this installation, you can run ABAP programs and selected SAP Java applications (shown in left box).
- **Java System** The components to the right in the above image constitute the Java System. With the installation of this, you can run J2EE applications but not any ABAP programs.
- **ABAP** + **Java system** All the components shown in the above image constitute the ABAP + Java System.

Page 193 of 214

Application Centre and Instances

The SAP NetWeaver work centre includes the configuration of the following tools -

Adobe Document Services – This allows you to register the Adobe Reader Rights credentials as well as keep track of all unlicensed interactive form designs in your system.

Application Module – This allows you to view the details of the deployed applications and their modules. Here, you can also perform the run-time configuration of the application modules.

Application Resources – This allows you to enable applications to make use of external resources. A NW Administrator can add or delete the application resources.

Authentication and Single Sign-On – This allows you to choose the required authentication mechanism for your applications. You can configure the following authentication and SSO –

- AS Java as a Service Provider
- Kerberos

Certificates and Keys – This allows you to manage the AS Java certificates and keys.

Composite Application Framework Authorization Tool – This allows you to manage business rules and Instance Level Permissions for CAF applications, business object nodes and AS Java instances.

Configuration Wizard – You can make technical settings required for the technical processing of a system or a technical scenario.

Destinations – This can be used to specify the remote service's address and the user authentication information for remote connections.

Development Infrastructure – This is required while developing with Java and you want to manage it with Transport Management System (TMS).

Identity Management – This allows you as an administrator to control applications access by creating users and providing these users with a means of authenticating themselves to an application.

Internationalization – This allows you to manage data from double stack systems and also used for synchronization purpose.

Java HTTP Provider Configuration – You can create new virtual hosts and configure existing ones for all registered systems.

Java Class Loader Viewer – You can monitor the hierarchy and references between the class loaders in the AS Java.

Java System Properties – Using this, you can view current system configuration of Application server JAVA and you can edit the properties that are marked as online modifiable.

Java Connection JCo RFC Provider – You can manage the Java Connector Remote Function Call (JCo RFC) Destinations. This allows you to create, edit and view existing connections.

JMS Server Configuration – This is used to create new JMS resources.

Page **194** of **214**

Licenses – You can request and install new SAP licenses.

Log Configuration – You can view current log configuration, change security or reset it to default.

Message Server – You can monitor message server parameters and settings.

SAP NetWeaver Administrator Tool – SAP NetWeaver Administrator (NWA) is a web-based tool that allows you to perform configuration, advanced administration, and also to monitor, troubleshoot, and diagnose a SAP NetWeaver system.

You can use NWA tool in the following working modes -

- Online
- Local and remote

Managing Java Instances using NWA

Follow these steps to change the status of Java instances at runtime.

Step 1 – Go to SAP NetWeaver Administrator > Operations > Systems > Start & Stop

Step 2 – Now, go to Java Instances tab under NWA.

Step 3 – You can see all available instances with corresponding information about the server processes within the instance.

Step 4 – Select an instance to perform the following functions under NWA –

- Start, stop or restart a Java instance.
- Enable or disable debug mode for AS Java processes.
- View and refresh OS processes.
- Clear the DNS cache for a particular instance.
- Set a number of server processes (nodes).

SAP NW System Landscape

Follow these steps to perform the implementation of SAP NetWeaver system -

Step 1 – Plan the implementation by defining the scope, hardware and software requirements, and release instructions.

Step 2 – Define the system landscape for the use cases.

- **Step 3** Install the components of SAP NetWeaver system.
- **Step 4** Configure SAP NW systems.

System Landscape Management using SAP Solution Manager

SAP recommends the use of the latest version of the SAP Solution Manager to manage your system landscape. You can download the latest version from SAP Support Portal http://support.sap.com/solutionmanager

It is important to correctly define your SAP system landscape in the following versions of SAP Solution Manager to maintain it correctly.

SAP Solution Manager 7.0

You can use the SAP Solution Manager System Landscape transaction code — SMSY for the complete system description.

SAP Solution Manager 7.1 SP01 to SP04

You can use the Landscape Management Database transaction code — LMDB to maintain technical system information. To maintain logical product information, you can use the transaction code — SMSY.

SAP Solution Manager 7.1 SP05 and higher

You can use the Landscape Management Database transaction code — LMDB for the complete system description and in this, transaction code — SMSY is no longer required.

Verifying Landscape with SAP Solution Manager

To verify and correct your system landscape, SAP recommends that you use the verification functions of the following versions of SAP Solution Manager.

SAP Solution Manager 7.0 to 7.1 SP04

Use Landscape Verification 1.0 for SAP Solution Manager. This add-on allows you to identify and correct issues in your SAP Solution Manager landscape (Transaction SMSY) before they cause problems, for example, during a system update. Example for errors are a missing connection to the System Landscape Directory or the incorrect assignment of products to technical systems. For each type of error, a generic description for the solution is provided.

SAP Solution Manager 7.1 SP05 or higher

Use the landscape verification function that is embedded into the product system editor of the Landscape Management Database (LMDB). It replaces the previous Landscape Verification tool.

What is OSS Notes, SAP SNOTE

What is OSS Note

OSS Note is frequently released bug fixes, new program developments or enhancements or other miscellaneous updates by SAP. OSS stands for "Online SAP Support" At times before you begin work, it will be required to check whether a particular note is present in your SAP system To ensure that a particular OSS note is present in your SAP system, execute the following steps:

a) In SAP command prompt, Enter TCode # **SNOTE**

Me	enu <u>E</u> dit	Favorites	Extras	System
0	SNOTE		۵	4 🖾
SA	PEas	Acces	s - I	User n
	•			

b) In the next screen, Click SAP Note Browser

Note Assistant: Worklist	

c) Type in your SAP Note Number in the corresponding text field and click execute

SAP Note Number	1397788	to
Application Component		to
Processing Status		\$
Implementation Status	Undefined Implem	ental 🕏
Processors		\$
Selection		
Software component		4
Release	-	4

d) Next Screen shows status of the SAP note

Note Assistant: Note Browser		(Domestic		
9 6 16 6 AI 8 8 2 A 7	7 0	i		
		-		
	Land I Land		Implementation Stat.	T

For a background, a SAP note could have any of the following seven statuses -

- Can be implemented
- Cannot be implemented
- Completely implemented
- Incompletely implemented
- Obsolete
- Obsolete version implemented
- Undefined Implementation State

SAP Kernel Download & Upgrade

What is a Kernel

- The Kernel is a central program which **acts as an interface between SAP application and operating system**.
- The Kernel consists of the executable programs that reside under the **path** "/**sapmnt**//**exe**" (UNIX) or \usr\sap\SID\SYS\exe\run (Windows)

Page **197** of **214**

- These files help startup the R/3 system, initialize the memory, create buffers and start managing the requests from users and effectively utilizing of hardware resources.
- The kernel is also responsible for starting and stopping all the application services like dispatcher, message server, collector etc

Why Kernel Upgrade

SAP Kernel is the core of the application. Like all other applications, the Kernel contains the executable files (.EXE files for stating various processes in SAP).

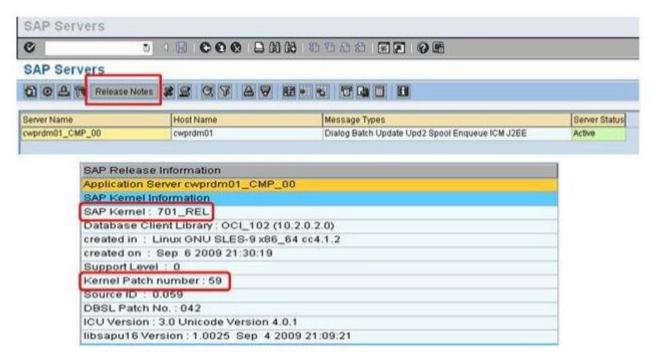
The Kernel is the heart of the operating system. It contains those files which are used to run every event in SAP. E.g.|: starting database, shutdowns of the database, starting sap, shutdown of sap, saposcol, to uncar the sap files etc.

That's the reason why when a Kernel upgrade is done it means new versions of the various EXE files replace the older versions.

How to check Kernel Version

There are many ways to check the Kernel Version

Method 1) Logon to SAP system and go to SM51 à Release Notes



Method 2) Logon to SAP system and go to System tab in the menu bar and select Status

			DP System: Status				
			Usage data				
			Clent	200	and a second second		04.2013 20140123
			User	HERA250171			14:54:31
			Language	10	Sixter Time 2		16:13:50
		_					(ersener
u SR Svote Engl	Splan bit		SAP data				
• 4 8	Organe Sectors		Repository data	11		SAP System data	
	End Seniori	6	Transaction		DITES BASA	Component version	SAP ERP CAN
Easy Access	User Profile	•	Trogram (scree		PLISTD_BAY.		
5 28/ ···	Sancon		Screen number			Instalation number	0038200711
	Children	•	Program (0.6) GUE statue		PLINTR_BAY.	Licence explation Unicode System	31.12.9999 Yes
laiotei	LHC	•	GAR STARLIN			Unicode system	143
SP menu Coffice	Septus for Object	100					
C Dost-Application Components	My genets Own Spool Requests	14	Host data			Database data	
Logistics	Own Xes		Operating syste	en Le	GH C	Database system	OFACSE
Accounting Stamon Resources	Short Message		Mattine type	*1	6_64	Roleans	22.2.0.3.0
	2444-	-	Server name		urgeneral2.	Name	OFA
2 Information: Systems:					0	Host	griserv
Took			Platform ID				
© Information Senteme © Tools © Bindge Specific Transactions	Log off		Rettorn D			Ourier	Tarrece
Took	Log off	n: Karoul in					BAPECC
Took	Log of Cr. Syntae	n: Karnel m				Currer	BAPECC
Took	Lop of Cr System Kornel in	formation	formation		Database in	Ourner Mormation	Tartice
Took	Lop of Gr System Kernel in Kernel in	formation release	formution		Database in DB client	formation Ib, OCI	102
Took	Lop of EP System Kernel In Kernel	formation release ition	formation 6400 Linux GMU SL		Database in DB clent DB release	domation lb, 0C1 es 0R4	
Took	Lop off	formation release ition evel	formation 640 Linear GWU SL 405		Database x DB client DB client DBSL ver	dormation lib. 0C1 es 0E4 lion 640	LIO2 CLE 9.2.0.*.*
Took	Lop of EP System Kernel In Kernel	formation release ition evel	formation 6400 Linux GMU SL		Database in DB clent DB release	dormation lib. 0C1 es 0E4 lion 640	LIO2 CLE 9.2.0.*.*
Took	Lop off	formation release ition evel oad	formation 640 Linear GWU SL 405		Database x DB client DB client DBSL ver	dormation lib. 0C1 es 0E4 lion 640	LIO2 CLE 9.2.0.*.*
Took	Lop off Cr.System Kernel in Kernel Compile Patch L ABAP L	formation release ition evel oad	formation 640 Linux 6WI SL 405 1521		Database x DB client DB client DBSL ver	dormation lib. 0C1 es 0E4 lion 640	LIO2 CLE 9.2.0.*.*
Took	Lop off ExiStration Kormel in Kormel Compile Patch L ABAP L CUA ba	formation release ition evel cad id	640 1.inuec 6WU 51 405 1521 10		Database x DB client DB client DBSL ver	dormation lib. 0c1 es 0E4 ion 640 ch Level 276	LIO2 CLE 9.2.0.*.*
Took	Lop off ExiSystem Kennel in Kennel Compile Patch L ABAP L CUA log Mode	formation release ition evel cad id	640 1.inuec 6WU 51 405 1521 10		Cutabase in DB client DB scient DB scient DB scient DB scient DB scient DB scient DB scient DB scient DB scient	Normation IIb. 0CI es 0BA ion 640 ch Level 276 armation	LIO2 CLE 9.2.0.*.*
Took	Lop off ExiSystem Kennel in Kennel Compile Patch L ABAP L CUA log Mode	formation release ition evel cad id	640 1.inuec 6WU 51 405 1521 10		Database in DB client DB release DBSL ver DBSL ver DBSL ver DBSL Pat	Normation Bb. 0CT es 0BA sion 640 ch Level 276 armation s 10.	_102 _102
Took	Lop off ExiSystem Kennel in Kennel Compile Patch L ABAP L CUA log Mode	formation release ition evel cad id	640 1.inuec 6WU 51 405 1521 10		Database in DB client DB client DB client DBSL ven DBSL ven DBSL ven DBSL Pat	Normation Ib. 001 es 084 alon 640 ann 640 ann 640 ann 640 ann	_102 _102 _222.139.101 , 620, 630, 6
Took	Lop off ExiSystem Kennel in Kennel Compile Patch L ABAP L CUA log Mode	formation release ition evel cad id	640 1.inuec 6WU 51 405 1521 10		Database in DB client DB release DBSL ven DBSL v	dormation lb. 001 es 004 ann 640 ch Level 276 annation s 10, ans 610 s System 11	_102 _102 _222.139.101

Method 3) Logon in operating system, switch to user adm and give the command disp+work You can also give disp+work -version

0

.

qrlserv:qraadm 5 disp+work	
disp+work information	
kernel release	640
kernel make variant	640_EX2
compiled on	AIX 2 5 00029F1AD300 for "rs6000_64"
compiled for	64 BIT
compilation mode	UNICODE
compile time	Jun 3 2012 20:48:23
update level	
patch number	405
source id	0.405
supported environment	
database (SAP, table SVERS)	610
	620
	630
	640
operating system	
AIX 2 5	
AIX 3 5	
AIX 1 6	
AIX 1 7	
qriserv:qraadm 6>	

Page **199** of **214**

Download Kernel from Service Marketplace

- Go to "SAP Service Marketplace." (https://service.sap.com) You will need your OSS ID and password.
- Then go to Downloads à SAP Support Packages -> Entry by Application Group -> SAP Kernel 6.00 64 Bit
 -> Select your OS (LINUX/WINDOWS/SOLARIS/AIX) -> Database Dependent and Database Independent
 Kernel Patch.
- Two SAR files SAPEXE.SAR and SAPEXEDB.SAR are downloaded from Service Marketplace.

Database Independent

Database Dependent: ORACLE

In UNIX, use **disp+work** – version to see information on the current Kernel version.

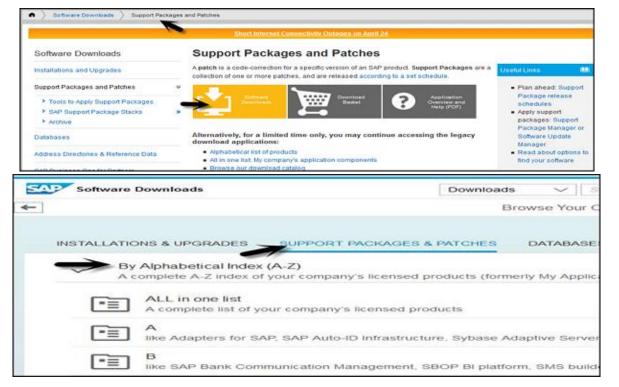
Follow these steps to download Kernel from SAP Market Place -

Step 1 – Open URL — https://service.sap.com and login with SID and password.

Step 2 – Go to SAP Support Portal from dropdown \rightarrow Software Downloads.

	The Best-Ru	ın Businesses Run S	АР				
Г			Prod	ucts		> Early Add	option
	SAP Service	×	Indus	stries & Solutions		> Custome	er Involve
	More portals for c partners	ustomers and	Impre	ovements & Innovations		> Services	& Suppo
				r business applications a aanagement, and SAP No			
		Knowledge Base & Incidents	>	Release, Upgrade & Maintenance	\rightarrow	Software Downloads	•
	Support Portal	Keys, Systems & Installations	>	Support Programs & Services	>	Remote Support	>
		Users & Authorizations	>	Documentation	>	SAP Solution Manager	>

Step 3 – Go to Support Packages and patches under software downloads. Go to Software Downloads.



SAP Software Downloads	Downloads	\sim
←	Brow	se Your
INSTALLATIONS AND UPGRADES - K		
Choose the Next Category (14)		
SAP KERNEL 32-BIT		
SAP KERNEL 32-BIT UNICODE		

All Kernel Versions are available in 64-bit -

S	Soft	ware Downloads	Downloads	~
-			Brow	se Your (
	•=	SAP KERNEL 6.40_EX2 64-BIT		
	•=	SAP KERNEL 7.20 64-BIT		
	•=	SAP KERNEL 7.21 64-BIT		
	•=	SAP KERNEL 7.21 EXT 64-BIT		
	•=	SAP KERNEL 7.41 64-BIT		
	•=	SAP KERNEL 7.42 64-BIT		
	•=	SAP KERNEL 7.45 64-BIT		

Step 4 – Select the Kernel version and download the files as per the Operating System – Windows, Linux, Solaris, AIX, and HP-UX.

	61033191_1 NW 04 SR1 Kernel 6.40_EX2 Linux on x86_64 64bit	ZP	243451 KB	15.11.2007	ta ta
	51033191_3 NW 04 SR1 Kernel 6.40_EX2 Windows Server on IA64 64bit	ZIP	306869 KB	15.11.2007	Ŀ
V	51033191_4 NW 04 SR1 Kernel 6.40_EX2 Windows Server on x64 64bit	ZIP	239552 KB	15.11.2007	e .
	51033192_1 NW 04 SR1 Kernel 6.40_EX2 Solaris on SPARC 64bit	ZIP	310879 KB	15.11.2007	Download Content Info
	61033192_2 NW 04 SR1 Kernel 6.40_EX2 Solaris on x64 64bit	ZIP	214878 KB	15.11.2007	Ŀ

Upgrade Kernel Version

Let us now follow these steps to upgrade the Kernel version -

- **Step 1** Create a directory with enough disk space and enter the name of directory.
- **Step 2** Copy the upgrade files SAPEXEDB.SAR & SAPEXE.SAR files to the new directory at OS level.
- **Step 3** To check directory, use 'pwd' to ensure you are in the same directory.
- **Step 4** Now, uncompressed. SAR files by sapcar exe.

SAPCAR -xvf sapexe.SAR

SAPCAR –xvf sapexedb.SAR



Step 5 – To take backup of existing Kernel, you have to create one more directory with the name "exe_old<ddmmyy>" and take backup of existing Kernel file.

Step 6 – To perform upgrade, stop the SAP application. You don't need to shut down the database for Kernel upgrade but you need to stop the SAP application using this command — stopsap r3.

Step 7 – Copy the files from the new kernel directory exe_new<ddmmyy \rightarrow to the existing kernel directory exe.

Step 8 – Use this command to copy — cp -rp /sapmnt/<SID>/exe_new<ddmmyy>/* /sapmnt/<SID>/exe/

Step 9 – Now if you check the current Kernel version using disp+work, then check the kernel version from OS level by the command **disp+work** – **versions** and new patch version should be displayed.

Step 10 – Login to the operating system as root specific to UNIX. Execute the script in Kernel directory — ./saproot.sh <SID>

You use this to assign correct permissions to all the executable programs in the kernel such as br* file etc.

Step 11 – Start SAP Applications using this command — startsap r3.

Step 12 – If you run Transaction SM52, you can see current kernel version level.

Support Package & Stack Upgrade

What is a Support Package

- When an end user of SAP finds a bug in the SAP product, he reports the same to SAP support. SAP programmers inspect the bug and develop a correction for the bug. **This correction is known as SNOTE (SAP Note).**
- With time, multiple end users, report bugs for which SAP releases SNOTE. SAP collects all these corrections in one place and this collection is called SUPPORT PACKAGE. This support package also includes enhancements to earlier versions of SAP.
- In simple words collection of SAP NOTES is called as SUPPORT PACKAGE.
- Support Packages are implemented in SAP system using Transaction SPAM (Support Package Manager)

What is Support Package Stack (SPS)

The Support Package Stack is a list of ABAP and Java Support Packages for all software components (SC) included in SAP NetWeaver. It is used to bring each Software Component of SAP NetWeaver to a defined Support Pack (SP) level. Support Package Stack, commonly known as STACK bundles all required components

Page 202 of 214

or individual patches that are already tested together and recommended applying as SPS instead of individual patch (until and unless you face some problem which requires certain components to be patched).

Go to http://service.sap.com/sp-stacks/, select your NW version to check the current SPS level and other details.

Support Package Stack (SPS)

A Set of ABAP and Java Support Packages and patches for all software components are called as Support Package Stack. SPS used to bring the installed software to a specific level by implementing bug fixes that are already tested.

Go to <u>http://service.sap.com/sp-stacks/</u>, to check the current Support Package Stack level and more details. Support Package Stack technical name refers as a combination of "SAP" keyword, release number, and Stack number.

Each software component package has a separate sequence of Support Packages. The following list contains the components technical names and the notation for their Support Packages:

- SAP_ABA (Application Basis SP): SAPKA<rel><no>
- SAP_APPL (SAP APPL Support Package): SAPKH<rel><no>
- SAP_BASIS (Basis Support Package): SAPKB<rel><no>
- SAP_BW (BW Support Package): SAPKW<rel><no>
- SAP_CRM (CRM Support Package): SAPKU<rel><no>
- SAP_HR (SAP HR Support Package): SAPKE<rel><no>
- SAP_SCM (SCM Support Package): SAPKY<rel><no>

Pre-requisites for Support Package implementation

- Support packages should be always applied in client 000.
- The user to be used for the support package implementation must have authorizations equivalent to DDIC or SAP*
- Call the transaction SPAM and see if any previous Support Package import is incomplete. You can proceed ahead unless the previous support package import is successful.
- Ensure that there is enough space in the transport directory. The transport directory is located at /usr/sap/trans

Steps to Upgrade the Support Package

Step 1: Download Support Packs Support Packages are available in SAP Support Portal, under **service.sap.com/patches**

SAP Support Portal Homepage Micr He Edt Vew Favorites Tools Help	resett internet i spiorer	Le contra de la co	
	Sauch 👷 tavantes 🚱 😥 - 🥁 🕞 -		-
kdamme and https://websmp109.sup-ag.de/suppo		201 mg -	Links 30
COLUMN 40 Notes (/websine104 sap-ag de/suppo		× 🖸 🕫	LUME (T
SAP SUPPORT PORTAL		Advances	d Search
	my Profile - my Inbox - my Pavorites	Quick Links Stemap Other Portals Glossar	V Help
	& Requests Data Administration Maintenance & Services Application Life-Cycle Management		
SAP Software Distribution Center SAP Installs You are beres	stors & Upgrades SAP Support Packages Duriness Objects Downloads Database Patch SAP NETWEAVER 70	es Download Basket Additional Download I Add To Envolves Fr	of the local division of the local divisiono
Support Packages and Patches	SAP SETWARK 1.5	Man For Average 1	*
Search for Support Packages and Patches	SUPPORT PACKAGES AND PATCHES - ENTRY BY A	PPLICATION GROUP	Ĩ
Support Packages and Patches - Entry by Application Group Applications by Index My Conserve Application Components	Support Pacharans and Potches - Entry by Application Group - SAP NetWroaver - SAP NETWE	aver - Sap detive aver 2.0	
SAP Support Packages in Detail	SAP NETWEAVER 7.0		
SAP Support Package Stacks Archive for Support Packages and	 Unit to SP. Stack Application 		
Patches	 Entry.by.Component 		
Database Patches (from other vendors) Oownload Basket	 BLContent for SAP.NetWeaver. 		
Copyright Privacy Suprint	SAP NW Central Print Management SAP Central Process Scheduling by Redwood		
	PORTAL ADD-ON SAP NW Z.0		1
	Info Page		-
		19	2
	SAP NETWEAVER 7.0 (2004S*)		
	SUPPORT PACKAGE STACK DOWNLOAD		
	This is the download summary for SAP NetWeaver 7.0 (2004s*) Support Package Stacks.		
		A starret	1 3

Step 2: Loading Support Packages

To load support packages, we have two options

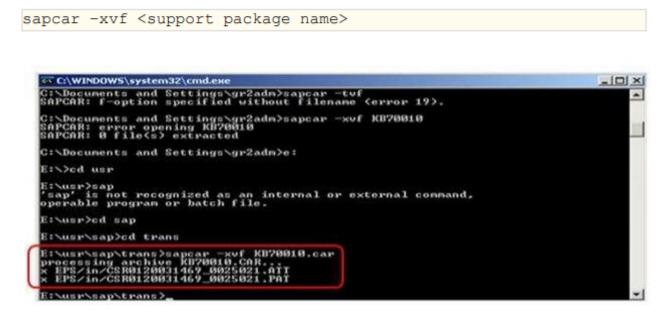
1. From Application Server

2. From Front End

From Application Server

1. Download the support packages from service marketplace and save them at OS level in directory /usr/sap/trans.

2. Uncompress these files using sapcar executable



After uncompressing the support packages at OS level the .PAT and. ATT files are stored in /usr/sap/trans/EPS/in directory.

Next, load the Support Packages into SAP system by choosing Support Package -->Load Package --> From Application Server

-	Load packages	From Front End
S S	Import SPAM/SAINT Update Import gueue Shift+F7	
-	Confirm Shift+F8	
	Exit Shift+F:	
ue	ue 🗌	2 Display/define
	New Support Packages Aborted Support Packages	No queue has been defined
	Imported Support Packages	SPAM status: COD
0	All Support Packages	
0		
01 ©/		چې Package level

Page **204** of **214**

From Front End

Choose Support Package --> Load Packages --> From Front End

C	Load packages				V.	68 63. (😹 🖉 🛛 🔞
S	Import SPAM/SAINT	⊴pdate	From Applie	cation Server			
	Confirm						
	Exit	Shift+F3					
	96		2	Display/de	<u>fine</u>]		
-	ictory		Sta		fine]		
10	ectory New Support Package		Sta	tus			
	ctory New Support Packages Norted Support Packa	ges	Sta	tus queue has bee	en defined		
	ctory New Support Packages Norted Support Packa mported Support Packa	ges	Sta	tus			
	ctory New Support Packages Norted Support Packa	ges	Sta	tus queue has bee	en defined		

Step 3: SPAM/SAINT Update: A SPAM/SAINT Update contains updates and improvements to Support Package Manager (SPAM) and Add-On Installation Tool (SAINT). There is always one SPAM update for each release. SPAM/SAINT update is mandatory before any support package upgrade.

20	Import SPAM/SAIN	T Update		
	Import queue	Shift+F7	er - Version 7.00/0021	
1	Confirm	Shift+F6		
-	Exit	Shift+F3		
		1	Display/define	
tribit	ctory		Otabus /	
	ctory	105	Gtatus	
ÐN	lew Support Packag		Etabus No gueve has been defined	
DA		kages	No queue has been defined	
	lew Support Packag borted Support Pac	kages ickages	No queue has been defined	
	New Support Packag borted Support Pac mported Support Pa	kages ickages	No queue has been defined	
	Vew Support Packag borted Support Pac mported Support Pa II Support Package	kages ickages	No queue has been defined	

Step 4: Defining Queue contains the Support Packages available for the different SAP Components installed in your system. This Queue information is derived from the support pack uploaded in Step 2.

1.On the initial screen in Support Package Manager, choose Display/Define.

2.A list of installed software components (for example, SAP_BASIS, SAP_HR, SAP_BW) is displayed

Page 205 of 214

Queue		2 0	isplay/define				
	In the second	Component S	de tra				
	1974	omponent se	esection			0	
	Cho	ose the softw	aré componen	t for which you want to import Support Pa	ickages		
Directory		0					
New Dupport Packages		CompID	Release	Short Description of Component	Support Package type		
Aborted Support Packages		SAP ABA	700	Cross-Application Component	Appl. Interface SP		
O Imported Support Packages		SAP BASIS	700	SAP Basis Component	Basis Support Pkg.		
All Support Packages		PI BASIS	2006_1_700	Basis Plug-In (PI_BASIS) 2006_1_700	Add-on Support Pkg		
C Ha Support Packages		ST-PI	2005_1_700	SAP Solution Tools Plug-In	Add-on Support Pkg.		
		SAP BW	700	SAP NetWeaver BI 7.0	Add-on Support Pkg.		
Sy Display		LCAPPS	2005_700	LC Applications (LCAPPS) 2005_700	Add-on Support Pkg.		
		SAP AP	700	SAP Application Platform	Add-on Support Pkg.		
	100	SAP APPL	600	Logistics and Accounting	APPL Support Package		
	P(2)	SAP HR	600	Human Resources	HR Support Package		
		EAIPPE	400	SAP IPPE	Add-on Support Pkg.		
		EA-APPL	600	SAP Enterprise Extension PLM, SCM, F	and the second se		
		EA-DEPS	600	SAP Enterprise Extension Defense For			
		EAFINGERO		SAP Enterprise Extension Financial Se			
		EA-OLTRAD	£ 600	SAP Enterprise Extension Global Trade	Add on Support Pkg.	•	
	100	R All Com	ennante 157	2 ×			
		eC var court	pomenta 1110				

3.Once you select the required component, the current queue appears. This queue contains the Support Packages available for the selected component in your system. If you want to define the queue for another software component, choose Other Component. If the displayed queue meets your requirements, you can confirm it by choosing Confirm Queue

DisplayIdefine Define Queue for the Component SAP_HR rel. 600 Choose the highest Support Package you want or confirm the queue Package ID CompID Release Short Description SAPKE60055 SAP_HR 500 SP 55 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 55 for SAP_HR 6.00
Choose the highest Support Package you want or confirm the queue Package ID CompID Release Short Description SAPKE60055 SAP_HR 600 SP 55 for SAP_HR 6.00 SAPKE60056 SAP_HR 600 SP 56 for SAP_HR 6.00 SAPKE60057 SAP_HR 600 SP 57 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 58 for SAP_HR 6.00
Package 10 CompID Release Short Description SAPKE60055 SAP_HR 600 SP 55 for SAP_HR 6.00 SAPKE60056 SAP_HR 600 SP 56 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 57 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 58 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 58 for SAP_HR 6.00
SAPKE60055 SAP_HR 600 SP 55 for SAP_HR 6.00 SAPKE60056 SAP_HR 600 SP 56 for SAP_HR 6.00 SAPKE60057 SAP_HR 600 SP 57 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 57 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 58 for SAP_HR 6.00
SAPKE60055 SAP_HR 600 SP 55 for SAP_HR 6.00 SAPKE60056 SAP_HR 600 SP 56 for SAP_HR 6.00 SAPKE60057 SAP_HR 600 SP 57 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 57 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 58 for SAP_HR 6.00
SAPKE60056 SAP_HR 600 SP 56 for SAP_HR 6.00 SAPKE60057 SAP_HR 600 SP 57 for SAP_HR 6.00 SAPKE60058 SAP_HR 600 SP 58 for SAP_HR 6.00
SAPKE60058 SAP_HR 600 SP 58 for SAP_HR 6.00
Confirm queue (Enter)
of Parkage Edit Goto Edwar Utiliteschi Environment Bystem Help
oort Package Manager - Version 7.00/0020
oort Package Manager - Version 7.00/0020 양교 전 III
oort Package Manager - Version 7.00/0020
oort Package Manager - Version 7.00/0020 양교 전 III
SAPHOR70010 DisplayIdefine
oort Package Manager - Version 7.00/0020 양교 전 III
SAPKB70010 Display/define SAPKB70010 SAPKB70010 September Packages September Packages Set Support Packages Set Set Support Packages Set Set Support Packages Set
SAPKB70010 DisplayIdefine SAPKB70010 SAPKB70010 Saper Packages Output Packages Output Packages Saper Packages S
SAPKB70010 SAPKB7000 SAP
SAPKB70010 Display/define BapkB70010 Display/define Bupport Packages ted Support Packages orded Support Packages orded Support Packages
SAPKB70010 SAPKB7000 SAP
SAPKB70010 SAPKB7000 SAP
SAPKB70010 SAPKB7000 SAP
SAPKB70010 SAPKB7000 SAP
SAPKB70010 SAPKB7000 SAP
SAPKB70010 SAPKB7000 SAP

Page **207** of **214**

Step 5: Importing Queue. Once you a define a Queue (Step 4) while selecting a particular component (for which we want to upgrade support pack), we need to do 'Import queue' to start importing/applying that particular selected support pack (as per the standard SAP process).

Choose Support Package --> Import Queue

PAM Import Queue			
The gueue BAPKB70010 will now Standard	be imported according to	scenario	
To avoid known problems, first Support Packages in GAP NW	read SAP Note 022379 2004s AD ADAP	*Known problems with	
The gueve will now be imported individual modules	with the following start	options for the	
Preparation. Import 1 Import 2: Cite en Up:	Blart in dialog Continue in dialog Continue in dialog Continue in dialog		
Gr Note Its Clark options (2) 3	6		

To become familiar with known problems and issues, always read the note mentioned in above screenshot.

The support package import has been started

	ige Manager - Vers 0	10117.0070020	
utue	BAP1:970010	Displaydeefine	
inectory > New Bupport Packag > Aborted Bupport Pack > Imported Bupport Pack © All Bupport Packages © All Bupport Packages © All Bupport Packages	lages (kages	Blatus Guarue is defined for the Bothware Component BAP_BABIS SPAM status Current action Guarue Import Gar Package level	

Step 6: Confirming Queue:

Confirm that the queue has been imported successfully into your system. This allows you to import Support Packages in the future. You will not be able to import Support Packages further, if you do not confirm the queue.

Page **208** of **214**

Queue imported fo	r the
Software Compone	ent: GRCPINW
SPAM status:	040
Next action:	Confirm queue

Once Queue has been imported, SPAM status becomes YELLOW

Confirm successful import of the Support Packages into your system by choosing Support Package à Confirm.

Status		
No queue has be	en defined	
No quede no ee	ciri deni ledi	

Checking Logs

• **IMPORT LOG:** It displays logs for Support Package Manager Phases that are used by transport control program tp(transport control program). Go to-->Import log-->Queue

0	Status Object list	:	81000	83 👿	0	6	
Support Package I	Import Logs	•	Queue	Shift+F8			
	Action Log S Queue Calculation	Shift+F9	Support Pack SPAM/SAINT	100 million 100			
	Back	F3	to System Lo	0			
Queue	12	Displ	ay/define				
Directory		Displ Status	ay/define				
		Status	as been defined				

Page 209 of 214

• **ACTION LOG:** It contains information about the actions that take place during the individual phases (while importing the current queue).

It also includes information about the point at which a phase was stopped, as well as detailed error information.

• •	Status Object list	8 3 5 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Support Package I	Import Logs	· /0046
9 C 2 2 1	Action Log Shift+P	9
	Back F:	3
Jueue	7	Display/define
Aradini		
Directory New Support Packages Aborted Support Packages Aborted Support Packages All Support Packages	Status No que	

To display the logs for the current queue Go to-->Action log

- While the support packages are being imported, logs are made into the tmp directory (path: usr/sap/trans/tmp)
- Once the import process is completed logs can be viewed from the log directory (path: usr/sap/trans/log)

Import SLL/TLS Certificates

In SAP, there are 2 main PSE where SSL/TLS certificates can be imported to trust an external API connection.

1. SSL Client SSL Client (Standard)

2. SSL Client SSL Client (Anonymous)

Step 1: RUN the T-code STRUST and select the SSL client SSL Client (Standard).

Step 2: Go to Change mode by clicking the Change icon, then scroll down to the bottom of the page and look for the Import Certificate option on the right-hand side, as shown below.

Note: Based on your program and configuration, one of the above PSE will be used. To be on the safer side, we recommend you to follow the below steps for both the above PSE one by one.

Page **210** of **214**

• • • • •	10010 B 0 0 0 0	11 52 05			
Trust Manager: Display					
271					
System PSE Sinc SAPCryptolio Soc. Sarver Standard Soc. clent SSL Clent (Anonymo Soc. clent Arbs Soc. clent Arbs Soc. clent (Standard		ChinAmazon Root CA 1. ChinDigiCet Gobal Root	H11. OU-SAP Web AS. D-S OnArrazon, CellS : CA. Olivework.digitett.com, ot Certificate Authority - G2.	DeDigiCet Inc. Celus	
Colder, CTX, 00 SS, clert BIP C4C SS, clert BIP C4C SS, clert Prancial Services SS, clert WSSE Web Service Se W5 Security Standard W5 Security Standard W5 Security Other System Encry	Verflaston PSE	Parment			
 WS Security WS Security Keys X SMIME Standard 	Subject				-3
- © Ma	Subject (Alt.)				
 SSF Collaboration 3-tegration SSF E-Learning 	Issuer				
SSF GTS Signature Check	Serial Number (Hex.)				
SSF SAP ASS Online Content Ver	Serial Number (Dec.)				
SSF Logon Tiduet	Valid From	- B - B - B	10		
	Algorithm		Key Strength		
	Signature Algorithm				
	Check Sum (HDS)				
	Checksum (SHA1)				

Step 3: Select the file path and then choose F4 to select the certificate from the local system.

🔄 <u>P</u> SE <u>E</u> dit <u>Goto</u> <u>Certificate</u> Engl	ironment System Help
0	10012000000000000000000000000000000000
Trust Manager: Display	
System PSE SNC SAPCryptolib SSL client Standard SSL client SSL Client (Anonymo SSL client Aribe SSL client SSL Client (Standar SSL client SSL Client (Standar SSL client Financial Services SSL client Financial Services SSL client WSSE Web Services SSL c	St. C Import Certificate
	Verification PSE
	Certificate

Step 4: Once the file has been selected, go to the bottom of the page and click the Add to certificate button.

• = EI (001	G (0 (0 1 3	1000	12210*					
rust Manager: Display									
71									
System PSE Sec SAPCryptoib	and a	It' Import Certificate Solert File							
55L server Standard SSL client SSL Client (Anonymo	54	Lookas	SAP GUI		+ 10.				+GAP Trust C
SSL client Arbe SSL client SSL Client (Standar SSL client SSL Client (Standar SSL client SSL Client (Standar SSL client Rinancial Services SSL client WSSE Web Service Se SSL client WSSE Web Service Se W SSL client WSSE Web Service W SSL client WSSE Web Service W SSL client WSSE With Security Standard W SSL client WSSE SSF Collaboration Integration SSF E-Leagen Ticket SSF Logon Ticket		The PC	Name Date modified No items match your warsh.						
			I 43						
	1		Files of type	ALFilm (**)			Cancel		

Step 5: Right-click the SSL client SSL Client (Standard) and choose Distribute from the menu.

• • • • • • • • • •	I TO DISTUTE		
Trust Manager: Change			
17 17			
Bill System PSE Sec SAPCyptoit Sec SAPCyptoit Sec Server Standard Sec Sec Sec Sec Sec Sec Sec Sec Sec	Dytlam PSE Own Certificate Subject		
20. One: 2.6. Caller: (prometrie) 50. Cole: 2.6. Caller: (prometrie) 50. Cole: 2.6. Caller: (prometrie) 60. Caller: 50. Caller: (prometrie) 60. Caller: 50. Caller: 5		CR-ID3, OC-BI120010411, OD-SAY Web AS, O-SAY Trust Community. (See Signed) Insuer Certificates	
Six Clerit Work Core Six Clerit Work Core Dir Six, clerit WOSE Web 5 Dir WS Security Standard Wis Security WS Securit Wis Securit		Cited and estimates	
· O Re	Certificate Lat		
Bit SSP Collaboration Strengton SSP E Learning Dis SSP E Learning SSP SSP Lagent Tubet SSP Legent Tubet	6	Subject Oli-DS2, OLI-DES, Or-mGMP.com Watkalice, C=0E Oli-DS4 Oli-DM9 * Oli-DM9 *	
	Verfication File	& Fassword	
	Centficate		
	Subject Subject (AK.)	ON-Amazon Root CA 1, O-Amazon, C-US	
	Inner	Ole-Amazon Root CA. J., O-Amazon, C+US	

Step 6: On the top, click the Save button, and you'll be able to see the certificates in the Certificate List.

Note: If you have multiple app servers, click on "PSE" from the menu, and then click on "Distribute" in the context menu. This will distribute the SSL/TLS certificate across all nodes.

Q & A

What is an SSL Certificate in SAP?

An SSL (Secure Socket Layer) certificate ensures encrypted communication between SAP servers and other systems. It prevents unauthorized access to sensitive information during data exchanges.

Page **212** of **214**

Why is it Used?

Data Encryption: Encrypts data between clients and servers.

Authentication: Confirms that the entities communicating are legitimate.

Compliance: Ensures the SAP system meets security standards and regulations.

What is PSE (Personal Security Environment)?

The *PSE* is a digital storage in SAP that contains the system's public and private key pairs along with the SSL certificates. It's vital for managing your system's secure communication.

When to Import an SSL Certificate?

- After setting up a secure communication channel.
- When renewing an expired certificate.
- When updating or configuring a new communication partner.

Where to Import SSL Certificates?

You import SSL certificates into hashtag#STRUST (Trust Manager), which manages the PSE. You'll typically import:

- hashtag#Root certificates and hashtag#Intermediate_certificates for trusting external systems.

- *Client certificates* for your SAP system's authentication.

SSL Client (Anonymous) vs. SSL Client (Standard)

- *SSL Client (Anonymous): This type of configuration enables the system to establish an SSL connection **without requiring client authentication*. It is used in scenarios where the server doesn't need to authenticate the client, providing a less secure but functional connection.

SSL Client (Standard): Here, *both client and server authentication* are required. This ensures higher security, as the client must provide a valid certificate during the SSL handshake. Typically, *****SSL Client (Standard)* is used in more secure environments where client identity verification is crucial.

Key SAP Notes (Snotes):

- *SAP Note 510007*: SSL for SAP Web AS ABAP.
- *SAP Note 2040649*: Configuring SSL for Web Dispatcher and ICM.
- *SAP Note 2284059*: SSL certificate troubleshooting.
- * **Q** Important T-Codes: *
- 1. STRUST: Manage PSE and certificates.
- 2. SMICM: Configure the Internet Communication Manager (ICM) for SSL.
- 3. RZ10: Edit and maintain system profile parameters for SSL configurations.

Common Issues & Solutions

1. Expired SSL Certificate

*Solution: Regularly check the certificate expiry in **STRUST* and renew it before expiration.

2. Incorrect SSL Configuration

*Solution: Double-check profile parameters in **RZ10* and follow the steps in *SAP Note 510007*.

Page **213** of **214**

3. SSL Handshake Failure

*Solution: Ensure the cipher suites and SSL versions are aligned between client and server. Troubleshoot with **SMICM*.

4. Certificate Not Trusted

*Solution: Import root and intermediate certificates into **STRUST* PSE. Use *SAP Note 2040649* for guidance.

DB Refresh

Pre Activates

Export TR's list from QAS & PRD make a list of differential TR's.

Take Backup of User and Profiles

Take Backup RFC Connections

Present QAS Backup

Present PRD Backup

Post Activates

User Master Profile will be restored back

RFC Backup will be taken and restored back

Differential TR's Importing: TR's which are there in QAS and not yet imported in to PRD will be reimported in to QAS back

Delete all Jobs in QAS

*Please recheck RFC, SSL

- 1. Stop SAP Application
- 2. Login in to SAP HANA STUDIO and Keep Recover Tenant Database to QAS server.
- 3. Start SAP Application
- 4. Slicense apply SAP license
- 5. Stop Background Jobs.
- 6. Stop SMTP
- 7. Delete Backup Schedule
- 8. STMS Configuration