

SAP notes

Transactions needed in the Favorites folder:

(right click on Favorites → Insert transaction)

(no need to organize them into folders, but it helps)

▼ Favorites
▼ Restart system, licensing
• ★ SM02 - Tools -> Administration -> Administration -> System Messages
• ★ SM04 - Tools -> Administration -> Monitor -> System Monitoring -> User Overview
• ★ SE37 - Tools -> ABAP Workbench -> Development -> Function Builder
• ★ SLICENSE - Tools -> Administration -> Administration -> SAP Licenses
▼ Work Process check, Switching between OMs
• ★ RZ03 - Tools -> CCMS -> Control/Monitoring -> Control Panel
• ★ SM50 - Administration -> Monitor -> System Monitoring -> Process Overview
▼ Operation Mode define and schedule
• ★ RZ04 - Tools -> CCMS -> Configuration -> Operation Modes/Instances
• ★ SM63 - Tools -> CCMS -> Configuration -> Operation Mode Calendar
▼ User creation and maintenance, adding user to group
• ★ SU01 - Tools -> Administration -> User Maintenance -> Users
• ★ SU10 - Tools -> Administration -> User Maintenance -> User Mass Maintenance
▼ View tables
• ★ SE12 - ABAP Dictionary Display
• ★ SE16 - Tools -> ABAP Workbench -> Overview -> Data Browser
▼ User Group creation
• ★ SUGR - Tools -> Administration -> User Maintenance -> User Groups
▼ Authorization role
• ★ PFCG - Organizational Management -> Tools -> Authorizations -> Activity group
▼ Authorization trace
• ★ ST01 - Tools -> Administration -> Monitor -> Traces -> System Trace
▼ Profile parameters (check and change)
• ★ RZ10 - Tools -> CCMS -> Configuration -> System Profile
• ★ RSPFPAR - Display profile parameter
▼ Background jobs
• ★ SM36 - Tools -> CCMS -> Background Processing -> Define Job
• ★ SM37 - CCMS -> Background Processing -> Jobs - Overview and Administration
• ★ RZ01 - Tools -> CCMS -> Background Processing -> Job Scheduling Monitor

(?) Tasks of a System Administrator

- Manages network access and guarantees network support and maintenance
- Manages server
- Provides support for users' desktop PCs
- Manages network and desktop printer
- Manages the technical/physical infrastructure (for example, power supply, air conditioning, etc.)

Daily tasks (some examples):

- Check whether the SAP system is running.
- Check whether the daily backup was executed without errors.
- Check the error log.

Weekly tasks (some examples):

- Check the database for available memory.
- Check that the file system of Operating System has sufficient memory.
- Check the Security Audit log.

Monthly tasks (some examples):

- Defragment the memory.
- Monitor the growth of the database.
- Back up the file server.

Quarterly tasks (some examples):

- Archive quarterly backup of SAP system, database, operating system.
- Check service contracts to see whether they have expired or not.

Yearly tasks (some examples):

- Archive end-of-year backup of SAP system, database, operating system.

(?) Introduce the 3 layer architecture of the SAP system

Presentation layer

- The upper layer, the user interface
- Runs on the PC of the user
- SAP logon is this

Application layer

- The middle layer, where the business logic is

Database layer

- The bottom layer where data is stored and managed
 - Application and Database layer can either share a server or have their own one

(?) Restart (starting/stopping) of the system

Reasons:

- Updates
- Unexpected hardware or software failures
- Hardware or software maintenance
- To change some special profile parameters

(!) Restart documentation:

- Reason of restart (*e.g.: The server needs to be swapped out*)
- Planned date and time, and the interval of it (*e.g.: Planned date and time: 2024.12.14 20:00, interval: 1 hour*)
- Affected departments (*e.g.: No department will be working in that timeframe*)
- Name of the responsible admin (+ their signature) (*e.g.: Jane Doe, System administrator*)

(? + !) Steps of the restart:

1. Documentation
2. System message to all affected users (**SM02**)
3. Checking the users, what transactions they are in (**SM04**)
4. Direct message to active users (**SE37**)
5. [End their sessions (**SM04**)]
6. Check the scheduled and active jobs (**SM37**)

SM02 – System messages:

- [Create] button on the top left corner
 - Give the appropriate System message text
 - Select the server
 - Select the client you want to message
 - Expires on: the message will be displayed to the users until this date
 - Delete on: the message will be deleted from the database after this date

SM04 – User overview:

- See all logged in users and the transactions they are in
- Ending their sessions here (with [Sessions] button)

SE37 – Function builder (Direct message):

- Function Module: TH_POPUP
- [Test/Execute] button
 - Client: 205
 - User: *Username of user you want to message*
 - Message: *Message you want to send*
 - [Execute] button

SM37 – Jobs overview and administration

- Set the user's name whose background jobs you want to check
- Check the "Sched." checkbox
- Set the date and time interval

Software for starting the SAP system + steps of it:

- SAP Management Console (SAPMMC) → Right click on the system ID → Start / Stop

Restart procedure

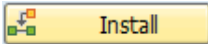
- Documentation
- Sequence (Start: Server → Operating system → Database → SAP system)
- Timeout interval
- Hard/soft reset

(!) License management

SLICENSE

- [New Licenses] button on the top
- You can see the current license:

St...	SID	Hardware Key	Sware Prod	Valid From	Valid To	
○○	NSP	Q1295231473	NetWeaver_ADA	08.09.2024	09.12.2024	P

- For installing a new license select the old license's row from the list, delete it (DON'T DO IT), and click the  button.

(?) What are the Work Processes (WP)?

Def.: these processes are responsible for the actual processing of the tasks that are transferred to our SAP system.

They may include executing:

- user dialog processes
- background processes

Based on the tasks they are reserved for, WPs are divided into groups:

- Dialog WP (execute ABAP dialog programs)
- Batch WP (execute background jobs)
- Update WP (control database changes)
- Enqueue WP (execute lock operations)
- Spool WP (process print data)

(?) Can the total number of Work Processes be changed?

- Yes, but only if the application server is restarted, so the number is relatively static

(!) Check current status of WPs/OM

RZ03 – current OM/WP config

- Click on the server's name (lserver2_NSP_00)
- Upper Menu bar: Monitoring → Status details
 - Upper right corner of the window: Current configuration (distribution) of WPs

SM50 – current load

- “Dialog 9/8” – we only use 1 dialog WP out of the 9, the rest are free to use
- “Update 1/1” – we don't use any update WP

(?) Operation Modes (OM)


Def.: They are the different configurations of the distribution of Dialog and Background (Batch) WPs.

Operation Modes can be scheduled, for example day and night OMs, with different distributions of WPs, if the load is different at different times of the day.

How to set Operation Modes? (1 admin can be in these transactions at once)

1. Plan
 - Analyze the working hours to know the number of OMs needed, and the schedule and distribution of WPs in them
2. Define the OM itself (**RZ04**)
 - Give it a name and short description
3. Define the distribution of WPs (**RZ04**)
4. Schedule (**SM63**)
 - Assign time intervals to the OMs (The whole 0-24 day must be covered with OMs)

(!) RZ04 – Creating Operation Modes

- Upper left [Create Operation Mode] button
 - Operation mode: Name of OM (e.g. Test01)
 - Short description → [Save]
- Upper left [Instances/operation modes] button
 - Double click on “Exam01” (or something like this, any entry in the list is good) in list
 - Click [Other operation mode] at the bottom
 - Set the ‘Operation mode’ name to Test01 with the select button () on the right of the input field
 - Click in the ‘Dialog’ and ‘Background’ process input fields and change their values with the [+] and [-] buttons at the bottom
 - [Save] at the bottom
 - [Save] and exit to main menu

(!) **SM63** – Scheduling Operation Modes

- “Normal operation (24h)” → [Change] button
- Click on the time when you want your Test01 OM to START → F2 button on keyboard
- Click on the time when you want your Test01 OM to END → F2 button on keyboard
- [Assign] button at the top
 - Choose the Test01 Operation mode in the popup window → [✓] button
- [Save] and exit

(!) **Switching between OMs manually**

RZ03

- [Choose operation mode] button at the top
- Click on Test01
- [Choose] button at the top

(?) **User Administration (UA)**

Tasks of the User Administrator:

- Create, change, delete users
- Deactivating users
- Create naming conventions
- Create user templates

User creation

(? + !) **Documentation:**

- User request form
 - Username (*e.g.: dave_smith02*)
 - Personal info (name, address) (*e.g.: Dave Smith; 31411 Washington, Black rd 3.*)
 - Requested authorization (*e.g.: accounting*)
 - Department (position there) (*e.g.: Finance, accounting intern*)
 - + signature of the leader of the department
 - Signature of the user
 - Signature of the admin
 - Date and time of
 - the creation (*e.g.: 2024.12.01*)
 - the validity (*e.g.: 2025.03.30*)

(?) **Special users in the system**

- BCUSER – for development
- SAP* – default user after installing the system

(!) **How can we create a new user?**

1. Create a new user (typically for template) (**SU01**)
2. Copy template or existing user (**SU01**)
3. Mass maintenance (**SU10**)
 - Create and delete in batch (more at a time)
 - Lock/unlock in batch (for a certain area of the system for system maintenances)
 - Change/set user groups
 - Set the defaults
 - Set validity period

1. Create a new user template

Name: *TSUPER##TEST*, given authorization: SAP_ALL

SU01

- User: Enter name of the new template (*TSUPER##TEST*)
- [Create] button at the top
 - Address tab:
 - Last name is needed only
 - Logon data tab:
 - Initial password
 - Profiles tab
 - In the first cell enter SAP_ALL, press Enter
- [Save]

2. Create a new user (*EMP01U##TEST*) by copying a user template (*TSUPER##TEST*)


SU01

- User: Enter name of the new user (*EMP01U##TEST*)
- [Copy] button at the top
 - From *TSUPER##TEST*
 - To *EMP01U##TEST*
 - [Copy] button at the bottom
 - Initial password
- [Save]

3. Mass maintenance/create

Create 3 new users (*EMP02U##TEST*, *EMP03U##TEST*, *EMP04U##TEST*) by copying *TSUPER##TEST* ((This copying doesn't really happen))

SU10

- In the first column enter the new users' names
 - *EMP02U##TEST*
 - *EMP03U##TEST*
 - *EMP04U##TEST*
- [Create] button at the top left corner
 - Profiles tab
 - In the first cell enter SAP_ALL, press Enter
 - [Save], [Yes]
 - Here is a report with the initial passwords of the users
 - Double click on the 'Date and time' line
 - [Export] button () at the bottom middle → Local file
 - Spreadsheet → [✓]
 - Give name and extension to the file (pass.CSV)
 - [Generate] → [Allow]

(?) Content of User Master

- (What we can see about a user in SU01)
- Name, address, logon data, roles, authorizations, groups of the user, etc.


(?) Database tables connected to User Administration

- USR02 – information about users
- AGR_DEFINE – authorization roles + their descriptions + creation dates
- AGR_USERS – authorization roles connected to users
- USGRP – user groups names + their descriptions
- USGRP_USER – user groups connected to users

(!) Lock/Unlock users



One at a time:

SU01

- User: enter user's name you want to Lock/Unlock
 - Click  button

Multiple at a time:

SU10

- User: enter users' name you want to Lock/Unlock
 - Click   buttons

(?) User Groups

Def.: a logical summary of users

- A user can belong to several groups
- A user can only be assigned to a group that was previously created (so you can't create a group in the user maintenance window)

Special user groups:

- TERM: group for terminating users (deleting them)
- SUPER: for administrators (users with full authorizations)
- TEMPLATE: for template users to set up actual users

Ways to assign users to groups:

- When creating a group, you must assign at least one user to it
- Within the user maintenance transaction
- Within the user mass maintenance transaction

(!) Create user group:

Create *TERM##TEST* user group with the 4 already existing users in it (*EMP01U##TEST ... EMP04U##TEST*)

SUGR

- User group: Name of the user group (*TERM##TEST*)
- [Create]
 - Text: Short description
 - Write the users' names in the first column
 - [Save]


(!) Adding a user to a group:

SU01

- User: User's name
- [Change] button
 - Groups tab
 - Enter the User group's name in the first cell
 - [Save]

(!) Checking users of a group:

SUGR

- User group name →  button

(?) Authorization role

- A way to assign authorization profiles to the users
- Up-to-date form for assigning authorization to users

(Role concept: to collect authorizations required for a specific task/position)

(?) Types of authorization roles:

- Single role – collection of required authorization profiles for a particular position
- Composite role – collection of single roles

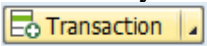



(!) Check roles of a user:

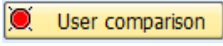
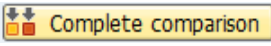
- In *SU01* → Roles tab

(!) Creation of Single role

Role name: *ZUSERMTN##TEST*, authorized transactions: {SU01, SU10, SUGR}, assigned user: *EMP01U##TEST*

PFCG

- Role: Name of the role (*ZUSERMTN##TEST*) → ENTER
- [Single Role] button to the right
 - Description: short description of the role
 - The red star-like symbols (🌟) on the tabs mean they are not finished
 - Menu tab (Click [yes] to save)
 - It is to create the easy access menu to the users with this role
 - Click the  button
 - Enter the transaction names that the user with this role can run
 - SU01, SU10, SUGR → [Assign transactions] button
 - You can also create folders to organize the transactions with the [Create folder] button, and drag the transactions into them one by one
- Authorizations tab
 - Click the  button
 - Click the  Change Authorization Data button, click [yes]
 - Click on the first yellow symbol (🟡) in the list, if there is any
 - Click the [✓]
 - Do this with other(s) yellow symbol(s) as well
 - If done [Save], and click , then go back

- User tab
 - Here you enter the users that need to be assigned to this role
 - Enter *EMP01Z##TEST* in the first cell, press ENTER
 - Click  button,  button, [Yes]
- [Save] and exit

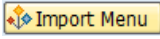
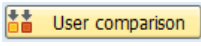
! Create 2 more Single roles:

- *ZMONITORING##TEST* (transactions: {RZ20}, assigned user: *EMP02U##TEST*)
- *ZSYSMTN##TEST* (transactions: {RZ10, RZ11}, assigned user: *EMP03U##TEST*)

(!) Creation of Composite role

Role name: *ZMONANDMTN##TEST*, assigned user: *EMP04U##TEST*, single roles: {*ZMONITORING##TEST*, *ZSYSMTN##TEST*}

PFCG

- Role: Name of the role (*ZMONANDMTN##TEST*) → ENTER
- [Comp. Role] button to the right
 - Description: short description of the role
 - Roles tab (Click [yes] to save)
 - In the first cell: *ZSYSMTN##TEST* → ENTER
 - In the second cell: *ZMONITORING##TEST* → ENTER
- Menu tab
 - Click  button, [yes]
- User tab
 - Enter *EMP04U##TEST* in the first cell, press ENTER
 - Click  button, [yes]
- [Save]

Authorization trace

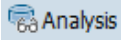
Def.: logfile/report of the successful and unsuccessful transaction executions of a user (based on whether they had the authorization to run something or not)

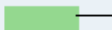
(!) Turn the authorization trace on and off

ST01 → [Trace on] and [Trace off] buttons on the top left

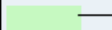
(!) Listing the authorization traces of the users and analyzing them

ST01

- Click the  button
 - User name: the user's name you want to check the traces of (you can try: EMP01U10)
 - 'From' and 'To': time period of the trace check
 - [Start Reporting] button on the top left corner
 - Successful execution of transaction, RC=0, darker green:

hh:mm:ss:ms	Type	Lasts (us)	Object	Text
12:26:43,725	AUTH		S_TCODE RC=0	TCD=SUGR;

- Unsuccessful execution of transaction, RC=4, lighter green:

hh:mm:ss:ms	Type	Lasts (us)	Object	Text
12:26:51,668	AUTH		S_TCODE RC=4	TCD=RZ10;

(?) Profile parameters

What are profile parameters used for?

To control basic technical settings, e.g.:

- Total number of work processes
- Different password requirements
- Allows of multiply logins
- etc.

Types:

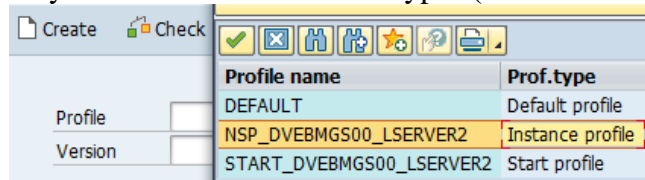
- start profile
 - services that should be started when starting the SAP
- default profile
 - parameters that must be identical for all instances
- instance profile
 - configuration of a particular instance

(?) Steps of changing a profile parameter

1. Creating a backup (**RSPFPAR**)
2. Check the documentation of the profile parameter (which are the allowed values, dependent parameters) (**RZ10**)
3. Set the new value and copy it into the profile parameter (**RZ10**)
4. Activate and save
5. [Restart the system if required]

RZ10 – checking the contents (profile parameters) of the 3 types of profiles

- Profile: you can choose from the 3 types (choose now the ‘Instance profile’)



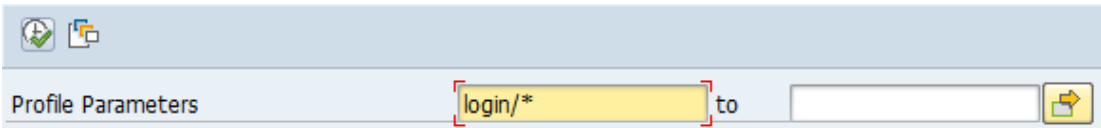
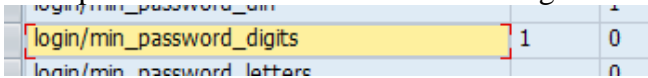

- Choose the “Extended maintenance” radio button
- [Display] button

login/min_login_users	3
login/fails_to_user_lock	1
login/min_password_lowercase	1
login/min_password_uppercase	5
login/min_password_lng	2
login/min_password_digits	
SAPSYSTEMNAME	NSP

- Double click on a row to display the history of how its value was changed by the users

(!) Task: search for a parameter that has to do with a topic (like “login”)

RSPFPAR

- 
- [Execute] on the top left
- ?) What is the parameter that sets the number of digits in a password?
- 
- Double click on the Parameter name
 - You can see the **current value of the parameter** here
 -  button on the bottom right → **documentation of the parameter**
 - Scroll down in the documentation window → Dependent parameters and Valid input of the parameter:

Other Parameters Affected or Dependent:

- login/min_password_lng
- login/min_password_diff
- login/min_password_letters
- login/min_password_specials
- login/min_password_lowercase
- login/min_password_uppercase
- login/disable_password_logon
- login/password_charset
- login/password_downwards_compatibility
- login/password_compliance_to_current_policy

Valid Input, Formats, Areas : 0 - 40
(if login/password_downwards_compatibility = 5 : only 0 - 8)

Change a parameter (not needed for the exam in practice)

Task: change the minimum number of digits in a parameter to 3.

1. Create backup (already have it)
2. Check the parameter's documentation (we did that in the previous task in **RSPFPAR**)
3. In **RZ10**:
 - Choose the 'Instance' profile
 - Choose 'Extended maintenance' radio button
 - [Change] button
 - Double click on 'login/min_password_digits'
 - Set the Parameter value to 3
 - [Copy] button on the top left corner
 - Go back
 - [Copy] button on the top left corner
 - Go back (you need to be on the “Edit profiles” screen)
4. [Save]
 - “Do you want to display incorrect values?” → [No]
 - “Do you want to activate the profile?” → [Yes]
 - [✓] to continue
 - [✓] to continue
 - “Do you want to perform a consistency check?” → Double click on <No>

(?) Background jobs

Def.: reports that are executed without user interaction, whether it is logged in or not.

Advantages:

- Jobs can be executed after work hours
- Execution without locking a user session
- Can be scheduled and automatically repeated
- Jobs that take a lot of time are not canceled as soon as they exceed a certain time limit

Examples:

- Cleanup jobs
- Collecting information (performance, user) for statistics

Documentation of a background job:

- Creator of the background job
- Day and time of execution
- Contact person in case of errors
- Expected duration
- Restart or troubleshooting procedure manual

Remark:

If the user who created and scheduled the background job is locked or deleted, the background job will no longer be executed

- To avoid this use special users as creators
 - Like: BATCH_BC (system jobs)
BATCH_FI (financial accounting)
BATCH_WH (warehouse)

(?) Steps of creating a background job:

1. Create the report(s)/code(s) and its variant(s) of which we want to schedule (in BCUSER - **SE38**)
2. Define the background job (in ADM## - **SM36**)
 - Name
 - Priority (A, B, C (highest to lowest))
 - Steps
 - Start conditions, period (monthly, weekly, daily)
 - Date and time
 - After a certain job/event
 - At the beginning of a certain operation mode
3. Monitoring (in ADM## - **SM37**)

(!) Variant of a report

Def.: predefined setting of the input(s).

Example code (done in BCUSER – **SE38**):

Report which lists the usernames and the lock status of the users, who have been inactive in the past *[input]* days.

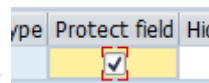
```
TABLES: USR02.
PARAMETERS daysmin TYPE i.

SELECT * FROM USR02.
  IF SY-DATUM - USR02-TRDAT >= daysmin.
    WRITE:/ USR02-BNAME.
    CASE USR02-UFLAG.
      WHEN 0.
        WRITE: '- Not locked'.
      WHEN 32.
        WRITE: '- Locked by central user administration'.
      WHEN 64.
        WRITE: '- Locked by administrator'.
      WHEN 128.
        WRITE: '- Locked by the system'.
    ENDCASE.
  ENDIF.
ENDSELECT.
```

(!) Make variants of this code based on the input value

40 days → moderate time; 100 days → long time; 365 days → very long time

- Save and activate your previously written code
- Execute the code
- Enter the first input you want to save (40)
- [Save as Variant] button
 - Give name and description
- Check in the ‘Protected field’ checkbox:
- [Save]
- Go back to the code
- Start again from the “Execute the code”, and do the same with 100 and 365.




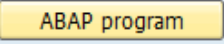

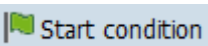
Edit a variant of a code:

SE38

- Enter the code’s name
- Select the ‘Variants’ radio button
- [Change]
 - Select the variant you want to alter
 - [Change]
 - Change the input value
 - [Save]

(!) Creating and scheduling the background job (done in ADM##)

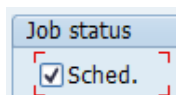
SM36

- Job name: background job's name
- Job class (priority)
- Click  Step button
 - Click  ABAP program button
 - Name: name of the ABAP code where you saved your report and its variants
 - Variant: choose one with the  button
 - Click [Check] button at the bottom → no errors
 - Click [Print specifications] button at the bottom → set the output device to a printer's name in the network (LP01), [✓] button (maybe twice)
 - [Save] at the bottom
 - Go back
- Click  Start condition button
 - Click [Date/Time] button
 - Set the starting (and ending) dates
 - Click [Period values] button at the bottom to set whether the report should run hourly, daily, weekly, etc.
 - Choose one, [Check] and [Save] at the bottom
 - [Check] and [Save] at the bottom
- [Save]

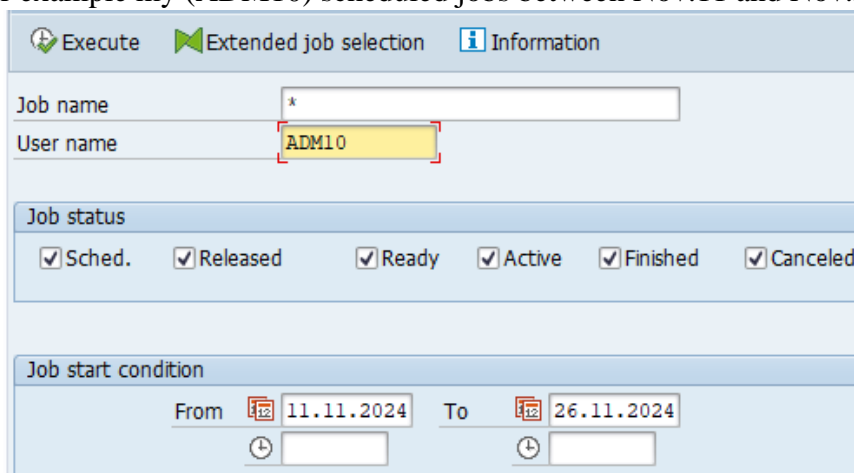
(!) Monitoring the background job (done in ADM##)

SM37


- Here you can set filters for: job name, creator's username, date and time interval, status of the job






- Check this Sched. checkbox:
- For example my (ADM10) scheduled jobs between Nov.11 and Nov.26:

The screenshot shows the SM37 Job Status monitor interface. At the top are three tabs: 'Execute' (selected), 'Extended job selection', and 'Information'. Below the tabs are input fields for 'Job name' (containing an asterisk) and 'User name' (containing 'ADM10'). A 'Job status' section contains several checkboxes: 'Sched.' (checked), 'Released', 'Ready', 'Active', 'Finished', and 'Canceled'. At the bottom, the 'Job start condition' section shows a date range from '11.11.2024' to '26.11.2024' with clock icons for time selection.


- [Execute] button

Job	Spool	Job doc	Job CreatedB	Status	Start date	Start time
<input type="checkbox"/> INACTIVEU10			ADM10	Released		
<input type="checkbox"/> INACTIVEUSERS10			ADM10	Released		
<input type="checkbox"/> INACTIVEUSERS10			ADM10	Canceled	18.11.2024	20:00:17
<input type="checkbox"/> INACTIVEUSERS10			ADM10	Finished	11.11.2024	20:00:40

- The first 2 rows are “Released” background jobs, they haven’t been executed
- The 3rd row was cancelled
- The 4th row was successfully done
- By double clicking on the [] icon in a Finished job’s row we can see the report’s **output**
 - Click on a row
 - Click the  button to see the output of the code
- By clicking on a Canceled/Finished job’s row and pressing the  Job log button we can see the **job log**
- By double clicking the name of a job (like INACTIVEUSERS##) we can see its details, like planned start and frequency, and job class. It DOES matter which line we double click, it will show different dates

Graphical job scheduling monitor

RZ01

- Double click on a green job symbol () for the job’s information

Some coding examples:

"Asks for a rolename input from the user, outputs the role name + creation date, and the users belonging to that role + when did they join that role"

TABLES: agr_define, agr_users. *"check tables in SE12"*

PARAMETERS rolename LIKE agr_define-agr_name. *"input for a role name"*

```
SELECT * FROM agr_define WHERE agr_name = rolename.  
  WRITE:/ agr_define-agr_name, '-', agr_define-create_dat.  
  ULINE.  
  SELECT * FROM agr_users WHERE agr_name = rolename ORDER BY from_dat.  
    WRITE:/ agr_users-uname, ' - ', agr_users-from_dat.  
  ENDSELECT.  
ENDSELECT.
```

```
IF sy-subrc <> 0. "sy-subrc = 0, if previous statement (SELECT listed at least 1 record) was succesful"  
  MESSAGE e004(zmessadm##) WITH rolename. "status bar message if role doesn't exist,  
                                           "or i004() for an info box message"  
ENDIF.
```

#####

TABLES: agr_users, usr02.
PARAMETERS myuser LIKE agr_users-uname.

"What roles does the user have?"

```
SELECT * FROM agr_users WHERE uname = myuser.  
  WRITE: 'Roles of ', myuser, ' :'.  
  WRITE: / agr_users-agr_name.  
ENDSELECT.
```

"Is the user locked?"

```
SELECT * FROM usr02 WHERE bname = myuser.  
  IF usr02-uflag = 0.  
    MESSAGE E003(ZMESSADM##) with myuser. "User not locked "SE91 to change message  
                                           "or double click on message name"  
  ELSEIF usr02-uflag = 64 OR usr02-uflag = 128.  
    MESSAGE E002(ZMESSADM##) with myuser. "User locked"  
  ENDIF.  
ENDSELECT.
```

#####

"What are the parameters with the highest version number (tpfet-versnr)?"

TABLES: tpfet.
DATA max_vn LIKE tpfet-versnr.

```
SELECT MAX( versnr ) FROM tpfet INTO max_vn. "only one returned value, not a loop,  
                                           "no endselect needed"
```

```
WRITE: 'Highest version number: ', max_vn.
```

```
SELECT * FROM tpfet  
  WHERE versnr = max_vn.  
  WRITE:/ tpfet-parname.  
ENDSELECT.
```