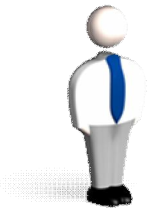
SAP Roles (Part I)



Contents:

- Overview on SAP Roles concept of SAP All-In-One
- Overview on Object Based Navigation
- Creating new SAP Roles in backend system
- Enhancing SAP Roles based on newly available features

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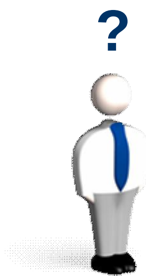
- In this chapter you will learn more about the concept of the pre-defined roles delivered by SAP with SAP All-In-One.
- You will also be introduced to the Object Based Navigation and learn how to create or change Roles in the backend system.
- Moreover you will get to know which functional enhancements have occurred in the backend system to support the SAP NetWeaver Business Client.

SAP Roles (Part I): Unit Objectives

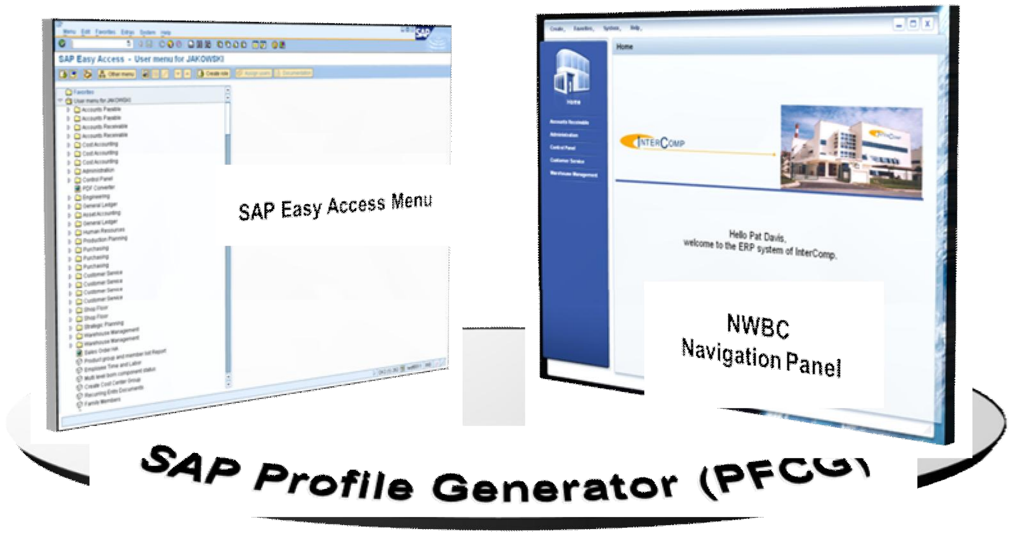


At the conclusion of this unit, you will be able to:

- Explain the concept of SAP Roles within SAP All-In-One
- Connect the SAP Roles concept with the new Object Based Navigation (OBN) features
- Create SAP Roles within a SAP All-In-One system and to enhance them with newly available features

- At the end of this chapter you will be able to explain the concept of Roles which are pre-defined in the backend system of SAP All-In-One as well as the idea of the Object Based Navigation
- In addition you will be put in the situation to create new Roles or to tailor existing roles.

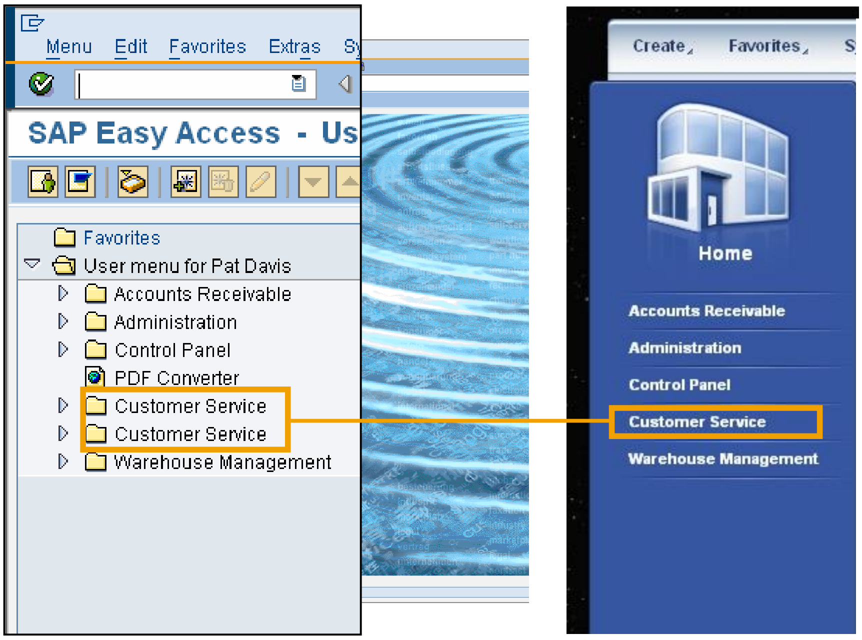
How Roles Become Visible



Look & feel is changing from SAPGUI to SAP NetWeaver Business Client. Nevertheless, the content to feed the navigation tree is still served by the same source: The Profile Generator of the backend system

- The maintenance of the Roles occurs with the SAP Profile Generator (transaction PFCG), which is a powerful and mature tool of the backend system and was already used before to serve the SAPGUI client.
- This way the existing SAP GUI can adapt to the Roles pre-defined and delivered by SAP. Visualized by the SAP Easy Access Menu, SAPGUI can show the navigation folders as defined by the Roles.
- The SAP NetWeaver Business Client selects the same Roles as it is based on the PFCG as well. So at first, it would be expected that the navigation structure looks the same as in the SAP Easy Access Menu.

There is a Difference in Detail



- **Folders with equal names are merged into one**
- **Sub-Folders get merged as well if names are equal**
- **Some of the items might be set to "invisible" in the role. These items are not shown in NWBC**

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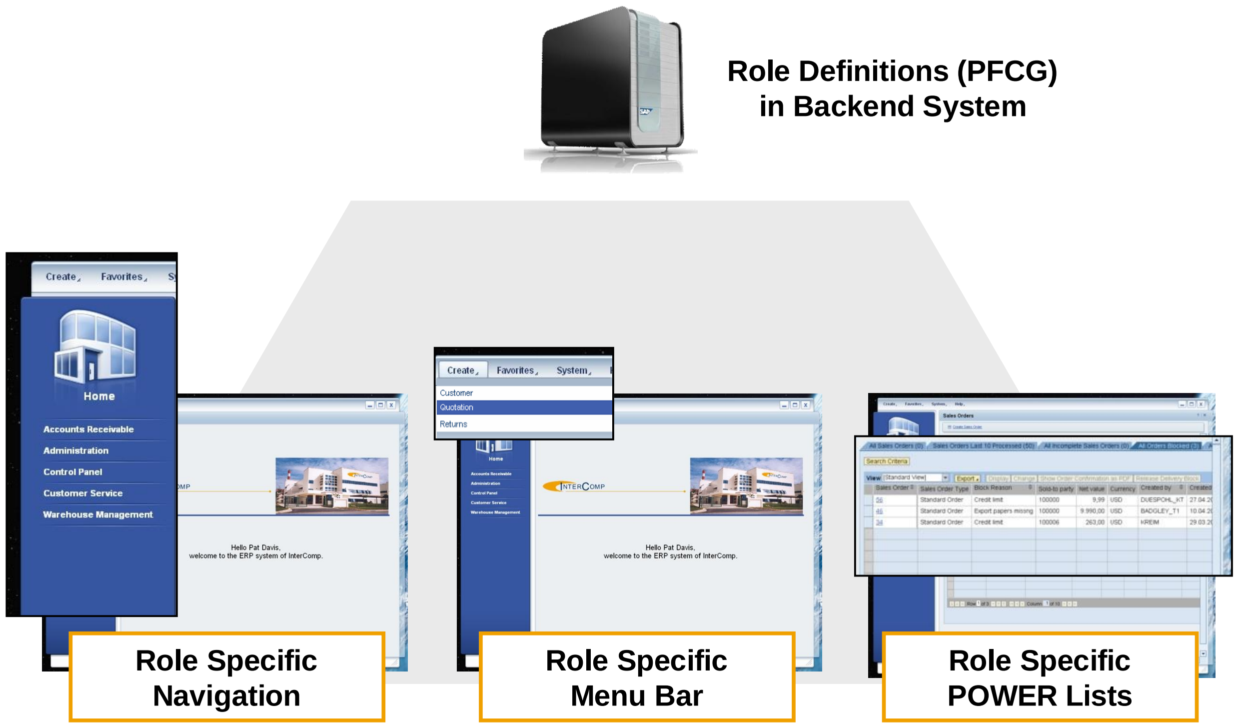
- Yet there is a difference between the display in SAP GUI and the display in the SAP NetWeaver Business Client.
- If we have a closer look at the menu, we can see that in the SAP GUI there are more entries listed than in the SAP NetWeaver Business Client which is founded through some new features of the Profile Generator.
- As result of one of these features, the SAP NetWeaver Business Client can merge identical folders. This ability of the client comes from an enhancement of the Profile Generator which can not be analyzed by SAPGUI. While the SAP NetWeaver Business Client shows the navigation panel as designed, SAPGUI shows the structure without any merging or filtering effect.
- The feature of merging becomes very valuable if the Roles in the backend system are organized by composite Roles. Composite Roles act as containers collecting standard single roles. SAP delivers its pre-defined Roles collected in such composite Roles. Due to this fact, a partner can enhance the customers environment by putting additional single Roles into the composites. In cases where the naming of the folder structures is equal, it will be merged in the SAP NetWeaver Business Client. The result becomes pretty lean and organized.
- Besides the merging, you will see other elements appearing in SAPGUI but not in the SAP NetWeaver Business Client. This is another feature, which allows to hide elements in the navigation of the SAP NetWeaver Business Client. Advantage of this will become more clear in the next chapter, when we will talk about the POWER Lists, a central element of the enhanced user experience.

Roles in Backend serve different UI Elements in NWBC

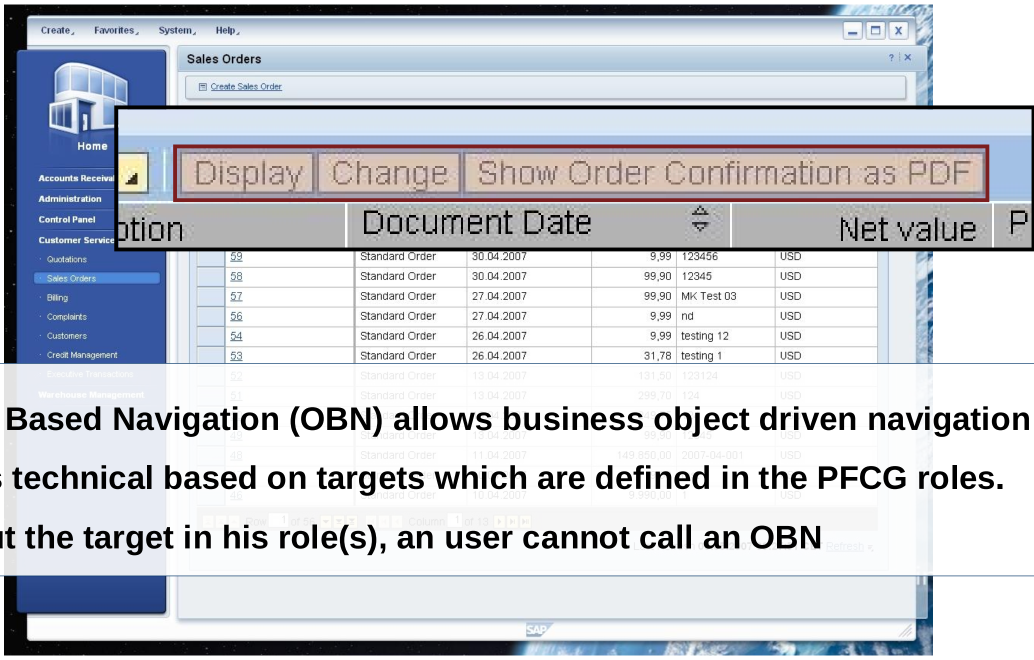


- The Role definitions in the backend system which are maintained with the Profile Generator constitute the basis for three different functionalities in the SAP NetWeaver Business Client:
- The Role specific navigation, which has to show up only these elements where the user has authorization for.
- Secondly, the functionality behind the “Create“ button is carried out by the Roles. Here, transactions which allow quick creation of business objects are flagged in the Role. SAP NetWeaver Business Clients reads this flag which results in the list shown by pressing the “Create“ button.
- The third topic which is based on the Roles is the connection to the POWER Lists. This means if a user navigates to a folder like “Customer Services” and further to its sub-folder “Sales Orders” a POWER List will appear on the right side listing sales orders (business objects) as expected. This relationship is defined in the Role. Again, we will come back to the POWER Lists in the next chapter.

NWBC Introduces Object Based Navigation

Specific business object

(e.g. display, change, delete specific object)



- **Object Based Navigation (OBN) allows business object driven navigation**
- **OBN is technical based on targets which are defined in the PFCG roles.**
- **Without the target in his role(s), an user cannot call an OBN**

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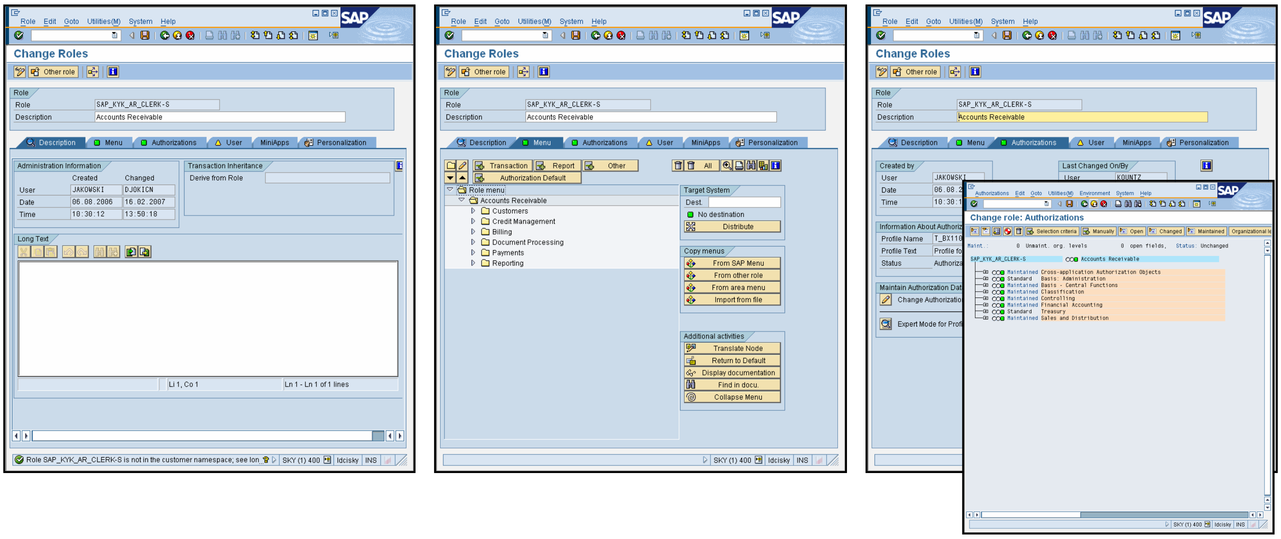
- The Object Based Navigation refers to the business object. A business object is for example a sales order or a billing document. The client enables for example at several points the call of transactions with specific parameters of a certain business object.
- To support OBN technically, each transaction which could be started through interaction elements like buttons, is indicated as a target in the Role. Each target is a uniquely named within the Role and can be called by the client.

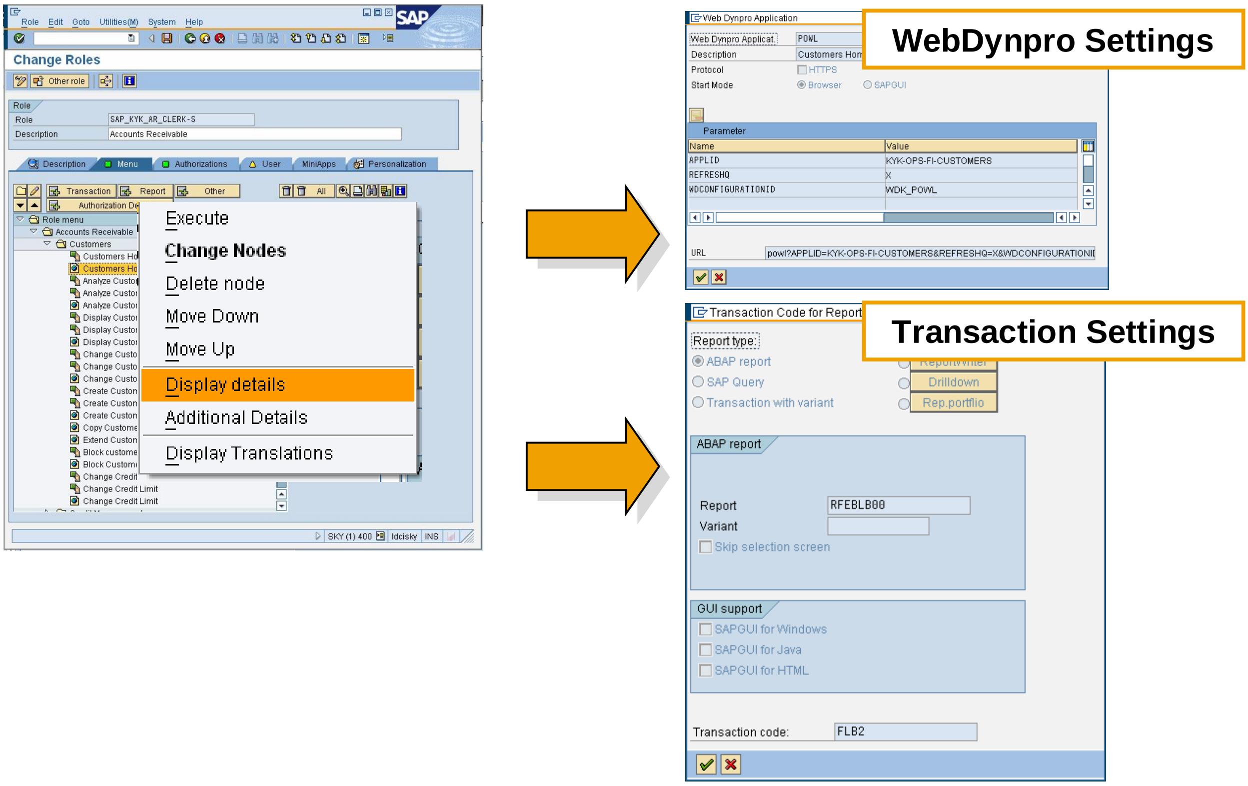
Generating Roles with SAP Profile Generator

Maintain Description → **Define Role Menu & Transactions** → **Specify Authorizations**



- Roles are maintained by the SAP Profile Generator following a sequence of three essential steps.
- The first step is to create the Role and define a description for it. This consists of a name and a free text where you could for example insert a documentation.
- The second step is the maintenance of the relevant Role menu and its transactions. This menu is exactly the same navigation structure as in visualized by the SAP NetWeaver Business Client later.
- The third step is now the maintenance of the respective authorization. Adding transactions in the second step resulted in entry fields in the authorizations tab which need to be maintained now. Assumed a transaction was entered in step two which is used to create sales orders. Then in step three the question would appear which kind of sales orders would be allowed to create, in which sales organization the user could create etcetera.

Define Role Menu – Details to Maintain



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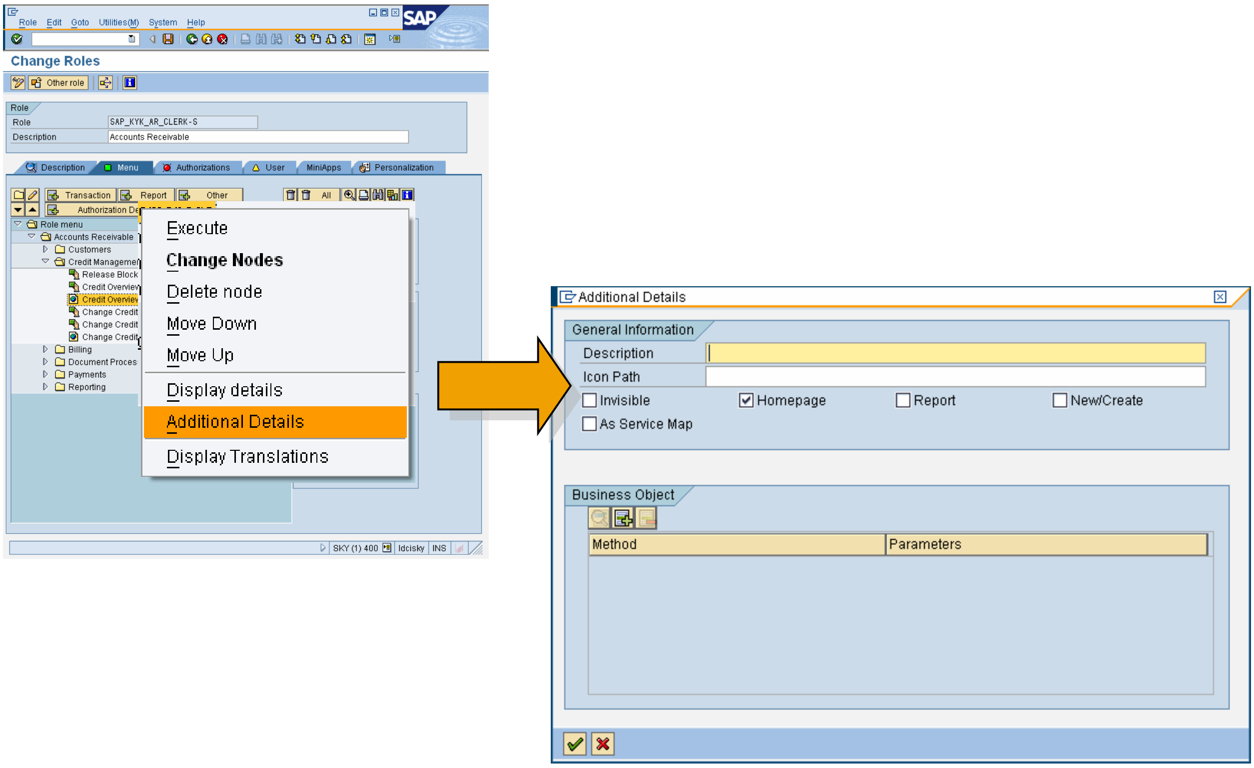
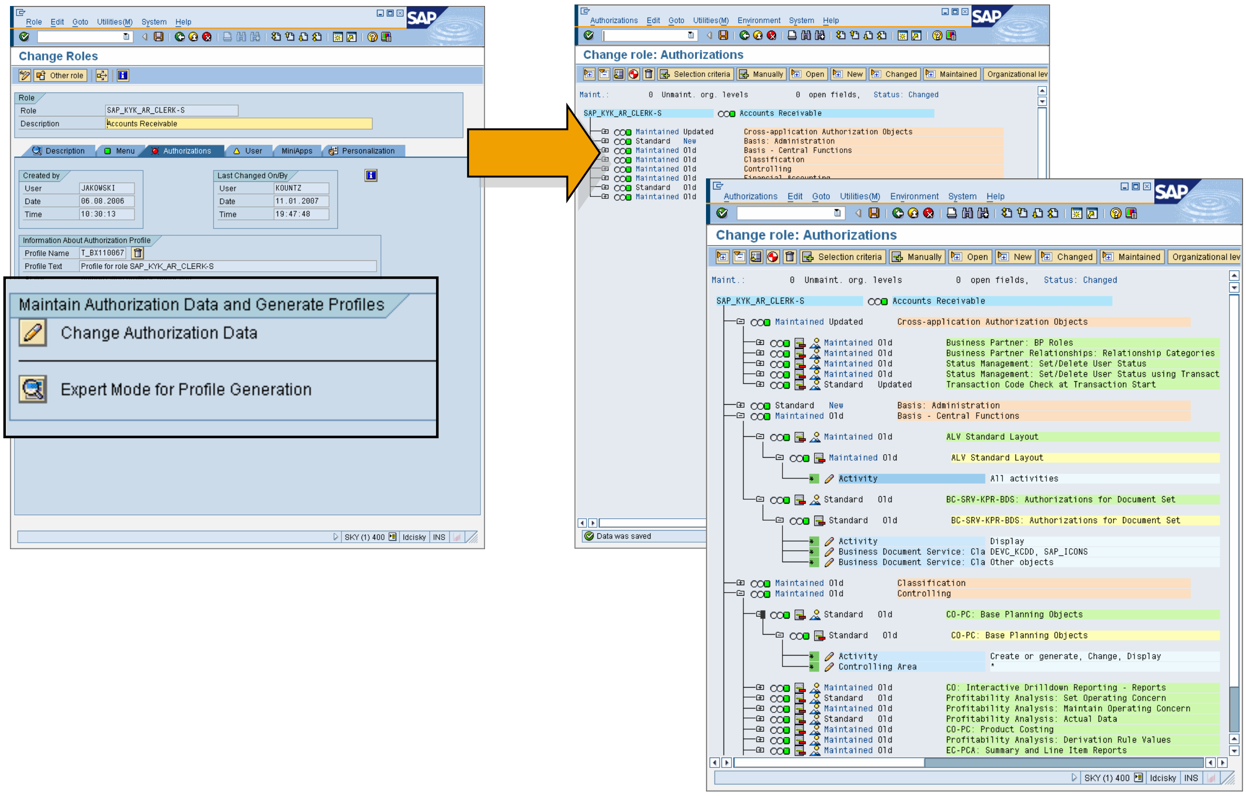
- As mentioned in the previous slide, step two defines the menu which is displayed in the navigation panel of the SAP NetWeaver Business Client. Here of course not only the structure of the Folders but also the transactions a user can call. The callable transactions can be standard SAP GUI transactions, ABAP reports, URL addresses and many more. Another variant would be the addition of Web Dynpro transactions. This all can be set via the menu buttons “Transactions” or “other”.
- Once you defined the targets you can display these via right mouse click and “Display details”.

New Attributes in PFCG - Flags



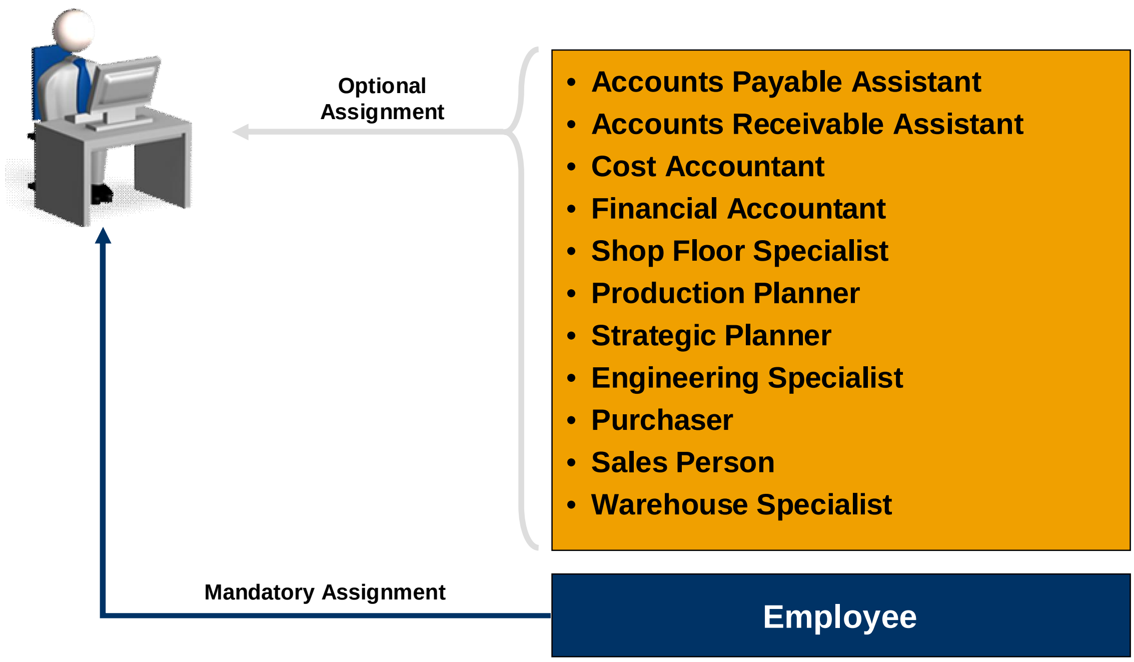
- The profile generator was enhanced with several functions for support new features of the SAP NetWeaver Business Client. These functions are available in the menu maintenance, via the „Additional Details“ option which can be reached through right mouse-click. The screenshot in this slides shows the individual attributes which can be flagged in the profile generator. In detail these flags are:
- **Invisible**: This flag is used to make items within the menu structure invisible. As the Object Based Navigation is using the maintained items as targets, it might be an valuable option to have transactions or reports available as targets in the role without having them visually available in the menu.
- **Homepage**: Homepage is a flag which is set to specify the individual item as homepage. A homepage is always rendered in the canvas area while the navigation keeps available on the left hand. This feature is normally used for the POWER Lists as these are designed to improve the interaction with the system and to show up business objects while navigating through the menu.
  Note: Please notice that in one folder only one item should be flagged as homepage. In case you have more than one item flagged, the homepage will be chosen randomly.
- **Report:** Setting the Flag “Report“ indicates an item to be a report. This results in a report specific icon in the session bar if the items gets launched. Furthermore, also in the transaction launch pad a specific icon indicates the item to be a report instead of a transaction.
- **New/Create**: “New/Create” indicates an item to be a transaction which creates new business objects. This means an item flagged as such will be made visible not only through the navigation but also via the “create” button in the SAP NetWeaver Business Client to immediately connect the user to the right transaction.
- **As Service Map**: Another function which is realized by the Flag “As Service Map“ is the option to display a summary of all subfolders as homepage.. Example: The user navigates to „Customer Services“. There is no corresponding POWER List to this folder as the various POWER Lists are connected as homepages to the sub-folders. Yet you don‘t want to leave a blank page here on the right side but to store information on this page. This could then be the Service Map which lists all subfolders and items flagged with “As Service Map”.

Specify Authorizations



- We already learned in step three about the allocation “Authorizations“. Once you added transactions to the menu maintenance, the traffic lights of the Authorizations change to yellow or red indicating that new authorization objects are available and require maintenance.
- You can access these authorizations by clicking the authorization tab and then press the button “Change Authorization Data”. There you will find an overview about the individual authorizations that are either maintained or need to be maintained. The authorizations which need to be maintained are marked with yellow or red traffic lights.
- After maintaining the authorizations you need to save the data via the save button. By leaving the transaction you are asked to create a profile. By confirming this you have defined the Role and created its Role profile.

The Predefined Roles of SAP All-In-One



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- SAP All-In-One delivers pre-defined Roles. Altogether they are 12 Roles which display different functional areas of the Application.
- One distinctive Role is the Role “Employee“. This Role grants specific – mandatory - standard authorization to each user. This is for example definition for printing, using POWER Lists in general, using functions like display of own background jobs.

Roles and Their Attributes

Professional User

- Daily work with application

Power User

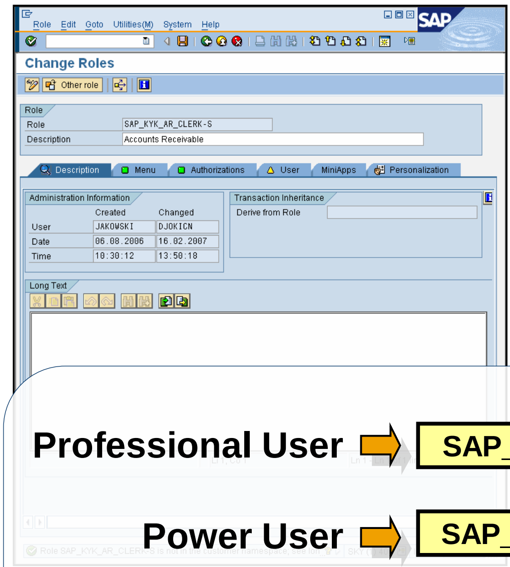
- Maintenance of master data
- Application management
- Ongoing Customizing
- Support of professional users

Manager

- Approvals
- Management reporting

- All pre-defined Roles delivered by SAP in SAP All-In-One follow a concept which implies three user types:
- The Professional User who gets authorizations / transactions to carry out his daily work.
- A Power User who, besides the standard work of the Professional User, carries out additional activities like the „Maintenance of master data“ or “Ongoing Customizing“.
- The third user type is the Manager who has the additional authorization for “Approvals“ and “Management reporting“.
- You have to notice that the Roles only include the relevant authorization for the relevant type. This means that a Power User would need the Professional User as well as the Power User Role to be added to the user account. Accordingly, the Manager user requires the Manager and the Professional User role added to the user account.
- The pre-defined Roles from SAP are classified according to a specific scope that so far had been part of Manufacturing.

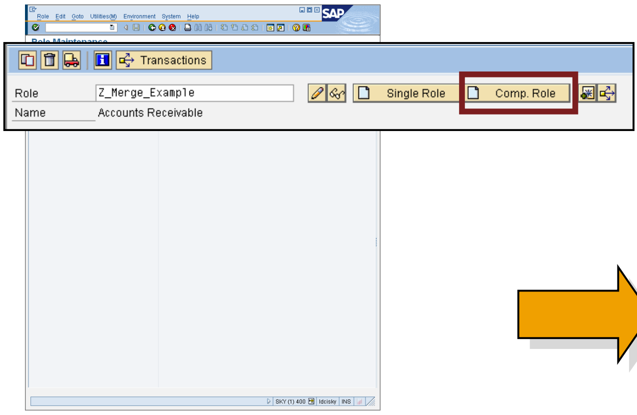
Containers and Technical Roles



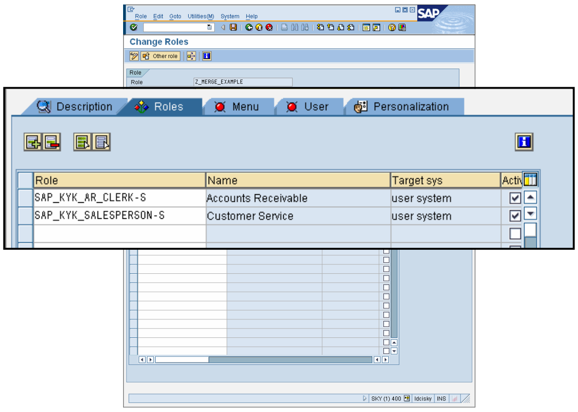
User type	Composite Role	Single Role
Professional User	SAP_KYK_PURCHASER_S	SAP_KYK_PURCHASER-S
Power User	SAP_KYK_PURCHASER_K	SAP_KYK_PURCHASER-K
Manager	SAP_KYK_PURCHASER_E	SAP_KYK_PURCHASER-E

- If we look at the technical aspect of the three user types, we see a specific naming convention taking place to reflect this user type concept.
- The user types are indicated by the suffix in the Role name. “-S“ stands for standard, the Professional User, “-K“ for key functionality, which is the Power User and “-E“ stands for executive and therefore for the Manager. Additionally, the minus in the suffix indicates that it is a single Role.
- Single Roles are used to define the menu structure and the authorization as explained in the previous slides.
- Besides the single Roles, there are also composite Roles available. The composite Role can be seen as container where single Roles, can be collected. The composite Roles end with a a suffix including an underline. The last character has the same indication as described already for the single Roles.
- The advantage of using containers is, that this concept can be easily enhanced by adding more roles to the containers.

Special: Merge Existing Roles into Composites



1 **Create new composite roles in customer namespace**



2 **Add pre-delivered single roles**

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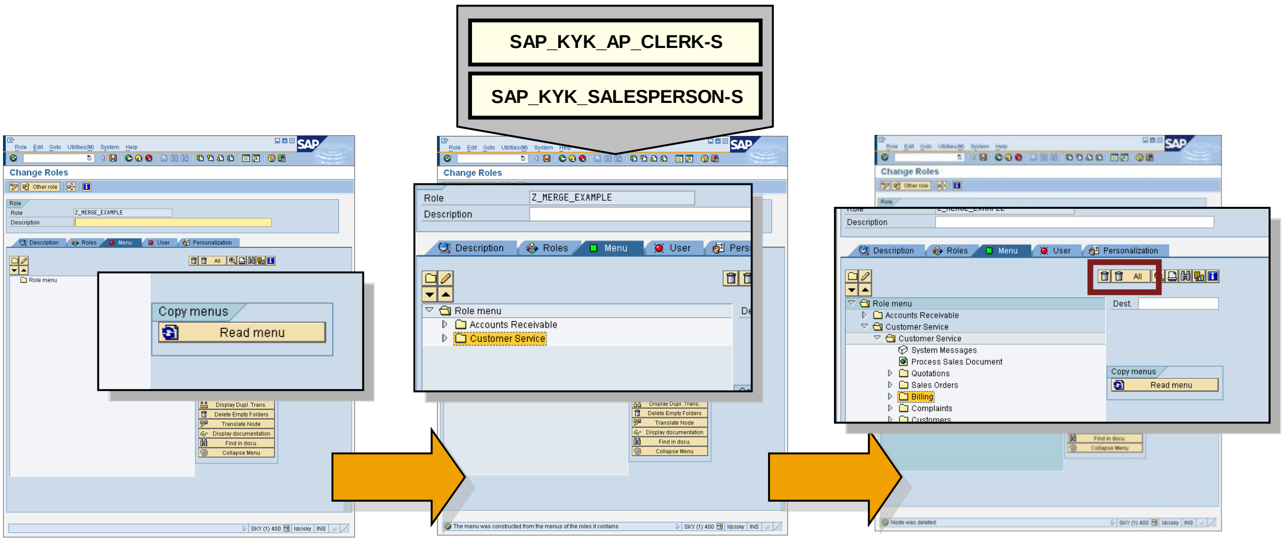
- On top of the strategy to us composite roles, the following idea can be used to enhance the pre-delivered roles.
- As partner or customer you can - instead of creating new Roles - create new composite Roles insert existing SAP Roles into these containers and compose a new menu structure based on the underlying menu delivered by the single roles. This is a very convenient way of offering new menu structures easily.
- If the SAP NetWeaver Business Client receives menu entries in the composite Role, it will not render the menu information of the single roles. With this, you can keep single roles as they are while changing there visualization through the composite role.
- Note: This idea doesn’t change anything on the authorizations applied through the single roles. In case you want to recompose the authorization you have to create new single roles or change the existing roles.
- This and the next slide show the sequence you need to follow, to create a new composite Role (Step 1), put single Roles into it (Step 2) and to compose the menu.

Special: Merge Existing Roles into Composites



3 **Read menu of pre-defined single roles**

4 **Review elements delivered by pre-defined roles**

5 **Re-arrange and / or remove menu items**

- By pressing the “read menu” button (Step 3) on the menu tab of the composite Role, the Profile Generator reads the menu information of the single roles and displays it in the menu of the composite role.
- As next step (4) you can now review the menu structure and can change (step 5) it by moving items to other places or fully remove them.
- Note: Replacing or removing items in the menu of the composite Role doesn’t change anything on the single Roles. The single Roles remain as they are.

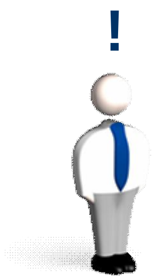
SAP Roles (Part I): Exercise

As practice, please perform the following exercises:

- Create a new SAP Role
  - Create a single role for a sales person (professional user), following the SAP Roles concept
  - Add a subfolder “Sales Orders” to this role and add several transactions including VA01, VA02 and VA03
  - Add a homepage to a folder within your role
  - Create a professional user composite role and attach the new single role to it
  - Create a new composite role and merge two pre-defined roles
- Add your new SAP Role to a user
  - Assign your new SAP Roles to your user
- Test your new SAP Role
  - Start SAPGUI and login to your system with the user holding your new SAP Role
  - Start your SAP NetWeaver Business Client and login to your system with the user holding your new SAP Role
  - Within SAP NetWeaver Business Client, navigate to the folder and launch the transactions

- To do some practice, you should perform these exercises now.
- If you have questions please ask you instructor for assistance.

SAP Roles (Part I): Unit Summary



You are now able to:

- Explain how the SAP Roles are used in SAP All-In-One and how the Object Based Navigation can help you improving the user experience
- Create or chance SAP Roles and set up OBN the way it is required by customers needs

- With this, we have ended this chapter.