

BW Authorizations

- Catalog of roles and authorizations objects used for each BW applications :
- WBP Security Matrix
- How to check user authorization
- How to do authorization trouble shooting
 - How to find all existing rôles
 - How to find role basing on query name
 - How to find the user's rôles
 - Issues Rôle menu
 - Issues Application menu
 - Issues Perimeter menu
- Old documentation - no more used today in actual WBP application
- Display Calculation View node from HANA view

Catalog of roles and authorizations objects used for each BW applications :

Link to the google doc :

Old file managed by SoonAik WEE :

<https://drive.google.com/file/d/1ibLr8rVvsplr8UX49hVH0Rx-m3Ko5YNK9IOQfTJ-F2M/view>

WBP Security Matrix

Link to the matrix :

[Authorizationmatrix.xls](#)

Link for the documentation :

<https://drive.google.com/file/d/15JsFIJ9IGwiDJXjuMplAeJprKyT0Gb4MTVB-cjf7MU/view>

How to check user authorization

First, you need to know:

1. Username of the user
2. The query name that user use
3. Selection criteria that user enter at Prompt

How:

1. Go to Tcode: RSUDO
2. Enter username of the user and click on 'Start Transaction'

Execute as User with Restricted Authorizations

Analysis

Execute as User ☐ With Log

Start Analysis

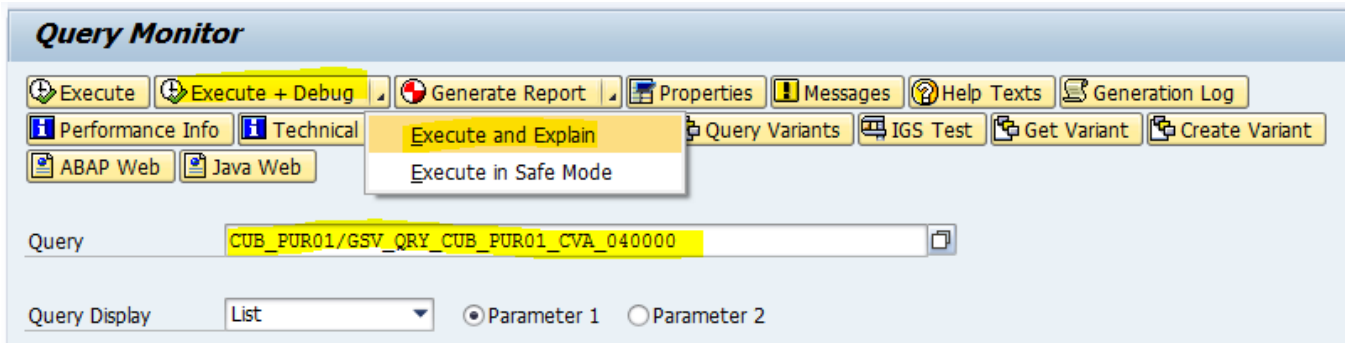
No logs recorded at present

Be careful when using customer exits

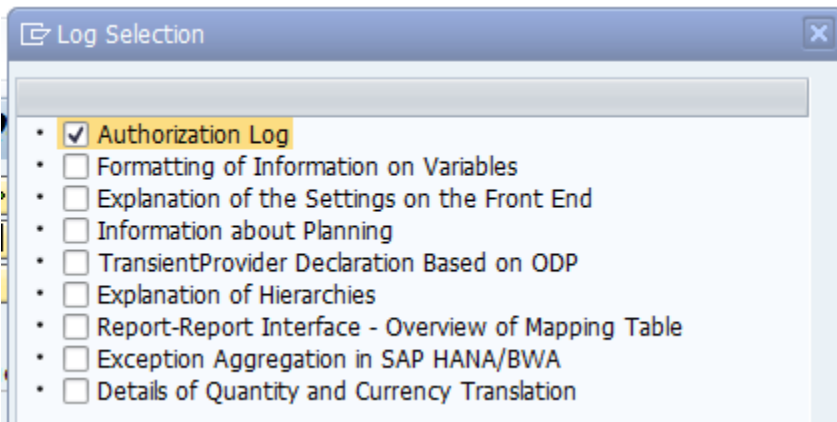
Possible Transactions:

- ☒ RSRT
- ☐ Reporting Agent Monitor
- ☐ Planning Fldrs
- ☐ Planning Workb. BPS0
- ☐ MDX Test
- ☐ RSDRI Debug Program

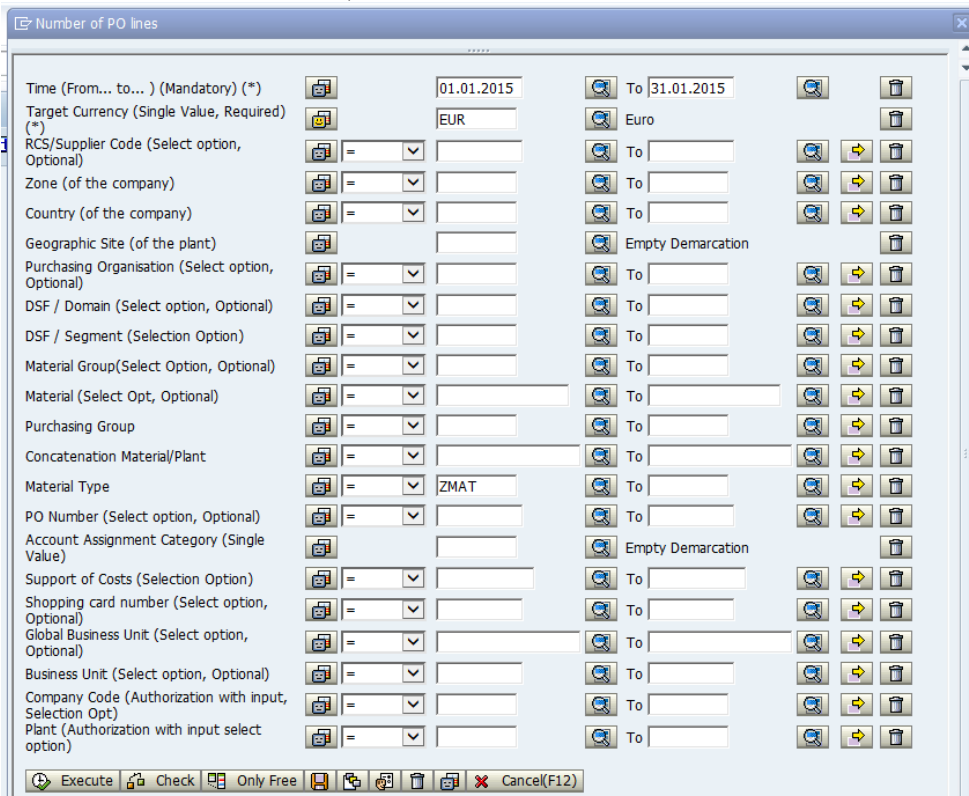
3. Enter query name and click on 'Execute + Debug' by selecting 'Execute and Explain'



4. Mark option 'Authorization Log'



5. Enter selection criteria same as user, Then click on 'Execute'



6. The result will be the same as user. In this case, if there is authorization problem, it will show as below

BW - output test

Relational browse

Key Figure Definition

Key Figure Detail

Menu



BW - output test

Messages:

'No Authorization

Additional information:

Free chars:

InfoObject	Name	Hierarchy Name
C_REPTO	Returns item	
C_VENDOR	Supplier RCS Code	
C_PKS	Supplier KPS	
C_VENDOR_C_CSHN	RCS Supplier Code Product Group	

7. Click back button, the system will explain why this user does not have authorization.

Display Error Log

Print Document

Save Document

Update Display

Presentation Options

Input Help and Variables	Check Components	Optimizations
☐ Attribute Authorizations	☒ Relevant InfoObjects	☐ Buffering of Authorization Data
☐ Value Authorizations	☒ InfoProvider Checks	
☐ Node Authorizations	☒ Authorization Check	

Authorization Check Log

For a general description see the Note [1234567](#)

Date and Execution Time (Local Server)

Execution Date: **29.07.2015**

Execution Time: **16:03:52**

Executed Query: **CUB_PUR01/GSV_QRY_CUB_PUR01_CVA_040000**

Transaction **RSRT (BW - output test)**

Executed by User **GBRUN**

Executed with Analysis Authorizations of Another User **BGERARDI**

Software Component	Release	Level	Support Package
SAP_BASIS	731	0011	SAPKB73111
SAP_ABA	731	0011	SAPKA73111
SAP_BW	731	0011	SAPKW73111

InfoProvider Check

Building the Buffer...

...Building buffer

Are there authorizations for accessing InfoProvider CUB_PUR01 with activity 03?

Authorization exists for general access to InfoProvider CUB_PUR01 with activity 03 ✓

Relevant Characteristics for Detailed Authorization Check
 (Characteristics with Full Authorization Are Not Listed!)
 List of Effective Authorization-Relevant Characteristics for InfoProvider CUB_PUR01:

Characteristic
0COMP_CODE
0TCAACTVT

Authorization Check
 Detail Check for InfoProvider CUB_PUR01

Preprocessing:
 Selection Checked for Consistency, Preprocessed and Supplemented As Needed
 End of Preprocessing

Filling the Buffer...
 ...Buffer Filled
Main Check:

Subselection (Technical SUBNR) 0
 Supplementation of Selection for Aggregated Characteristics
 Check Added for Aggregation Authorization: 0COMP_CODE

Authorizations missing for aggregation (":")

Char.	1
0COMP_CODE	1EQ #,...

Entries marked with red do not have aggregation authorization
 You can find further details about the aggregation authorization check in the Note 1140831

The authorization check stops here as this selection is no longer needed

Message EYE007: You do not have sufficient authorization
 No Sufficient Authorization for This Subselection (SUBNR)
Authorization Check Complete

How to do authorization trouble shooting

After BW upgrading, the authorization way has changed a lot.

The DSO DPBWU01 will not be used any more.

▼	📁 BW Users and Authorizations	0TCA
▼	📁 DSO : Authorization BW access	DPBWU01
▶	📁 RSDS DTS_DPBWU01 PC_FILE -	0GL6YD TVDBR3Q2...
▶	📁 Data Transfer Processes	DPBWU01

Instead, security team will change authorizations directly into roles (for companies, plants, families, etc.) .

🟢	ZR_PLFAP_CA_P01	🌐	31.03.2014	31.12.9999	Analysis company - All ASIA PACIFIC companies
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3 kinds of rôles are used to control authorizations:

- Rôle menus
- Application menus
- Perimeter Menus

How to find all existing rôles

1. Go to TCode PFCG
2. Select rôle "ZR_RCS_ALL_MENU" and click on the glass

Role Maintenance

Transactions

Role **ZR_RCS_ALL_MENU**     Single Role  Comp. Role  

Name

3. In the "Rôles" tab, see all existing rôles

Display Roles

 Other role 

Role

Description

 Description  Roles  Menu  User  Personalization

Role	Name	Target sys	Act
ZR_RCS_CA_M01	PU - Purchasing for plants	user system	☒
ZR_RCS_CA_M02	GSV - Global Spend Visibility	user system	☒
ZR_RCS_CA_M03	IM - Stocks	user system	☒
ZR_RCS_CA_M04	SPRINT	user system	☒
ZR_RCS_CA_M05	FIAR - Account Receivables	user system	☒
ZR_RCS_CA_M05_TEST_B17	Monitoring Overdue customer Invoice	user system	☒
ZR_RCS_CA_M06	FIAP - Account Payables	user system	☒
ZR_RCS_CA_M07	TR - Transportation costs	user system	☒
ZR_RCS_CA_M08	PM - Plant Maintenance	user system	☒
ZR_RCS_CA_M09	PS - Project Costs	user system	☒
ZR_RCS_CA_M10	CATS - Time sheet	user system	☒
ZR_RCS_CA_M11	COPC - Production Costs	user system	☒
ZR_RCS_CA_M12	PL - P&L Reporting	user system	☒
ZR_RCS_CA_M13	Materials list excluding from VS prod.	user system	☒

Or the authorization matrix to know which one is still active (topic BW Catalog of roles and authorizations objects used for each BW applications)

How to find role basing on query name

In case if user already know the query eg. BW_QRY_MVCOPA01_0004 and you want to find a role to access that user, you can
1. SE16 on table /BIC/ADBAUTH0400 (active table of DSO DBAUTH04)

Enter selection

SAP Data Browser: Table /BIC/ADBAUTH0400: S

Number of Entries Cancel

TCTIOBJNM		to	
/BIC/C_SOURQRY		to	
TCTQUERY	BW_QRY_MVCOPA01_0...	to	
/BIC/C_VALAUTH		to	
TCTOBJVERS	A	to	
/BIC/C_LOW2		to	
/BIC/C_HIGH2		to	
TCTROLE	ZBI_RCS_*A*	to	
RECORDMODE			
/BIC/C_IOBJNM4		to	
/BIC/C_VNAM		to	
/BIC/C_IOBJNM3		to	
/BIC/K_NBUSERS		to	
/BIC/C_TYPSOUR		to	
/BIC/C_OBJSTAT		to	
TCTSYSID		to	
/BIC/C_IFAREA		to	
/BIC/C_RSTREAM		to	
/BIC/C_IOBJNM5		to	

Technical query name

Naming convention of application role

You will get

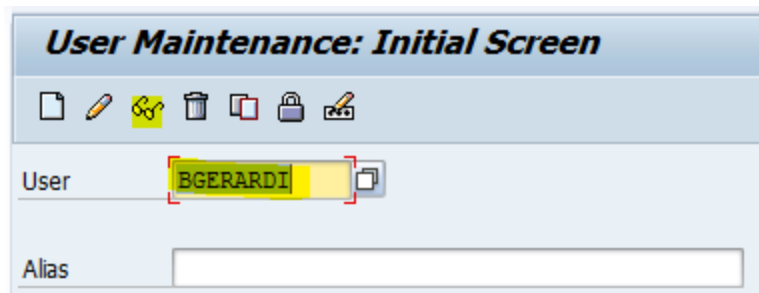
Table: /BIC/ADBAUTH0400

TCTIOBJNM	/BIC/C_SOURQRY	TCTQUERY	/BIC/C_VALAUTH	TCTOBJVERS	/BIC/C_LO...	/BIC/C_HIG...	TCTROLE
☐ 0CO_AREA	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_NETBACK	A	*		ZBI_RCS_FI_A35
☐ 0CO_AREA	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_FI_A33
☐ 0CO_AREA	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_FI_A37
☐ 0CO_AREA	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_ODYSSEY_A01
☐ 0CO_AREA	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU_K	A	*		ZBI_RCS_FI_A34
☐ CPFCTR1_2	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_NETBACK	A			ZBI_RCS_FI_A35
☐ CPFCTR1_2	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_FI_A33
☐ CPFCTR1_2	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_FI_A37
☐ CPFCTR1_2	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_ODYSSEY_A01
☐ CPFCTR1_2	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU_K	A	*		ZBI_RCS_FI_A34
☐ C_COMPCDE	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_NETBACK	A	*		ZBI_RCS_FI_A35
☐ C_COMPCDE	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_FI_A33
☐ C_COMPCDE	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_FI_A37
☐ C_COMPCDE	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A	*		ZBI_RCS_ODYSSEY_A01
☐ C_COMPCDE	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU_K	A	*		ZBI_RCS_FI_A34
☐ C_COMPCDE_...	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_NETBACK	A			ZBI_RCS_FI_A35
☐ C_COMPCDE_...	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A			ZBI_RCS_FI_A33
☐ C_COMPCDE_...	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A			ZBI_RCS_FI_A37
☐ C_COMPCDE_...	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A			ZBI_RCS_ODYSSEY_A01
☐ C_COMPCDE_...	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU_K	A			ZBI_RCS_FI_A34
☐ C_COMPCDE_...	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_NETBACK	A			ZBI_RCS_FI_A35
☐ C_COMPCDE_...	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A			ZBI_RCS_FI_A33
☐ C_COMPCDE_...	MVCOPA01	BW_QRY_MVCOPA01_0004	ZBI_PL_GBU	A			ZBI_RCS_FI_A37

How to find the user's rôles

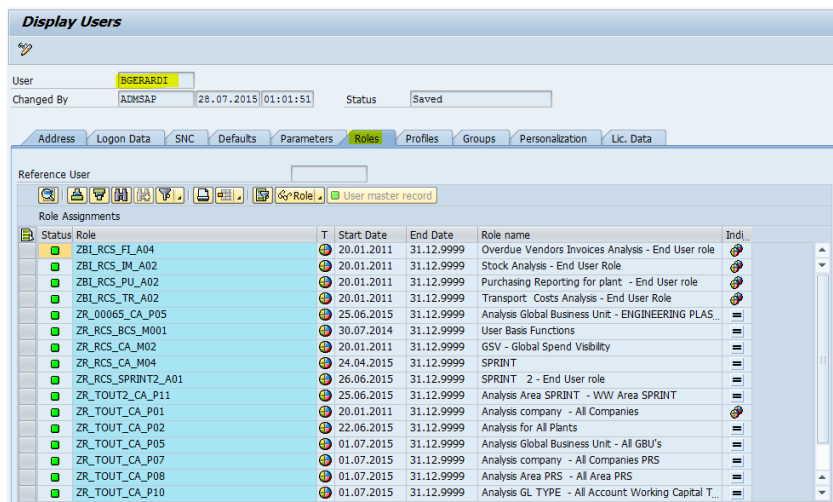
1. Go to TCode SU01

2. Choose the user and click on the glass



The screenshot shows the 'User Maintenance: Initial Screen'. At the top, there is a title bar with the text 'User Maintenance: Initial Screen'. Below the title bar is a toolbar with icons for file operations (new, open, save, delete, print, etc.). The main area has two input fields: 'User' and 'Alias'. The 'User' field contains the text 'BGERARDI' and is highlighted with a yellow background. The 'Alias' field is empty.

3. Go to "Rôles" tab and see the rôles authorized for this user



The screenshot shows the 'Display Users' window with the 'Roles' tab selected. The 'User' field is set to 'BGERARDI'. The 'Changed By' field is 'ADMISAP' and the 'Status' is 'Saved'. The 'Reference User' field is empty. The 'Role Assignments' table is displayed below the tabs.

Status	Role	T	Start Date	End Date	Role name	Indi
	ZBL_RCS_FT_A04		20.01.2011	31.12.9999	Overdue Vendors Invoices Analysis - End User role	
	ZBL_RCS_IM_A02		20.01.2011	31.12.9999	Stock Analysis - End User Role	
	ZBL_RCS_PU_A02		20.01.2011	31.12.9999	Purchasing Reporting for plant - End User role	
	ZBL_RCS_TR_A02		20.01.2011	31.12.9999	Transport Costs Analysis - End User Role	
	ZR_00065_CA_P05		25.06.2015	31.12.9999	Analysis Global Business Unit - ENGINEERING PLAS...	
	ZR_RCS_BCS_M001		30.07.2014	31.12.9999	User Basis Functions	
	ZR_RCS_CA_M04		20.01.2011	31.12.9999	GSV - Global Spend Visibility	
	ZR_RCS_CA_M04		24.04.2015	31.12.9999	SPRINT	
	ZR_RCS_SPRINT2_A01		26.06.2015	31.12.9999	SPRINT 2 - End User role	
	ZR_TOUT2_CA_P11		25.06.2015	31.12.9999	Analysis Area SPRINT - VVV Area SPRINT	
	ZR_TOUT_CA_P01		20.01.2011	31.12.9999	Analysis company - All Companies	
	ZR_TOUT_CA_P02		22.06.2015	31.12.9999	Analysis for All Plants	
	ZR_TOUT_CA_P05		01.07.2015	31.12.9999	Analysis Global Business Unit - All GBU's	
	ZR_TOUT_CA_P07		01.07.2015	31.12.9999	Analysis company - All Companies PRS	
	ZR_TOUT_CA_P08		01.07.2015	31.12.9999	Analysis Area PRS - All Area PRS	
	ZR_TOUT_CA_P10		01.07.2015	31.12.9999	Analysis GL TYPE - All Account Working Capital T...	

Issues Rôle menu

Description :

The user can't see a rôle menu containing queries or workbooks

Solution :

1. Find the menu rôles authorized for this user (ending with Mxx)
2. Compare with the list of all existing menu rôles
3. Find the missing rôle and ask security team to add it to the user's authorizations.

Issues Application menu

Description :

The user can see a query in a rôle, can't execute it.

Solution :

1. Find the application rôles authorized for this user (ending with Axx)
2. Compare with the list of all existing application rôles
3. Find the missing rôle and ask security team to add it to the user's authorizations.

Issues Perimeter menu

Description :

The user can see a query in a rôle, can execute it, but can't access to a defined perimeter (Company, Plant, ...)

Solution :

1. Find the perimeter rôles authorized for this user (not ending with Mxx nor Axx)
2. Compare with the list of all existing perimeter rôles
3. Find the missing rôle and ask security team to add it to the user's authorizations.

Old documentation - no more used today in actual WBP application

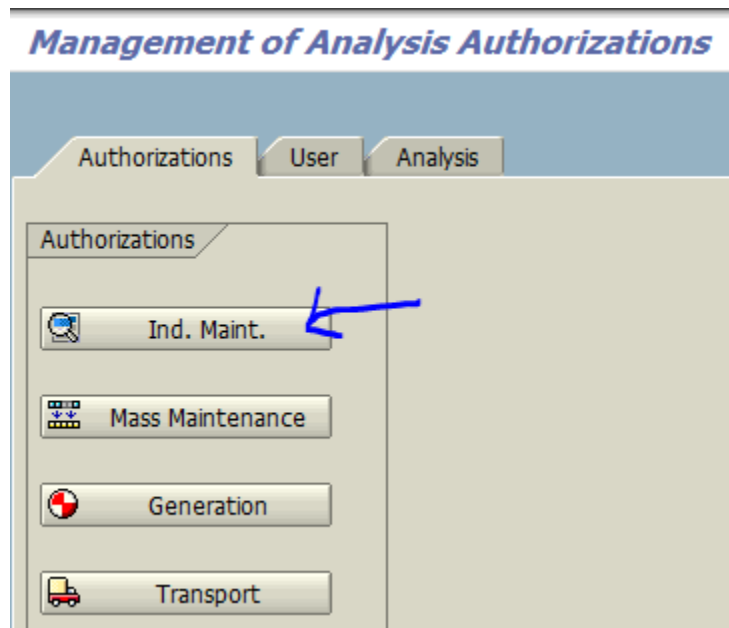
And we can check user's perimeters by checking table /BIC/ADPBWUAU0100 in SE16.



Don't use

The former way of checking authorization object by RSSM is no longer applicable **use RSECADMIN** to check.

2.



Maintain Authorizations: Initial Screen

Display
 Change
 Create
 Activate
 Deactivate

Version: ■ M Active/Modified

Authorizaton: Z_PS

Version Status: _____

Runtime Version: _____

Origin: _____

Maintain Authorizations: Z_PS Display

Change <-> Display
 Activate
 Usage
 Information

Authorization: Z_PS
 Last Changed: GTHEVENE 04.07.2014

Short Text: Project Costs
 Status: Active

Medium Text: Project Costs

Long Text: Project Costs

Details

Auth. Structure			
Charact./Dimensions	Description	Intervals	Node
C_COSTCTR	Cost Center	✖	
C_COSTCTR_C_FUNCT 2	2 Function	✖	
C_FAMIL	Family of WBS element	[]	
C_FAMINPR	Family of investment project	✖	
C_FUNCT 2	2 Function	✖	
C_FUNCT 3	3 Sub-function Grouping	✖	
C_MATPLNT_C_PFCTR1	1 - RCS Global Business Unit	[]	

3. We can also use RSEADMIN to "Execution as" a user's account, and then check logs to troubleshoot.

+Important : before to do it, you have to add some breakpoint on the Class Builder (SE24) to change the actual user because if not the user tested it will be your and not the user entered (execution as)

```

Last update date.
*Description: Auhtorisation project
.....
data :
  l_s_range      type rsr_s_rangesid,
  itb_C_VALAUTH type table of /BIC/OIC_VAL
  v_C_VALAUTH type /BIC/OIC_VALAUTH,
  v_sy_uname type sy-uname.

refresh rt_range.
clear l_s_range.

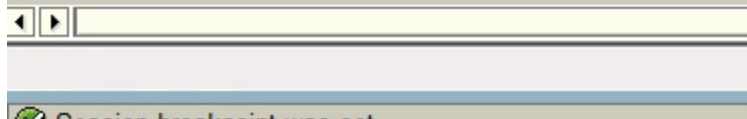
*clean table itb_c_valauth
clear   : itb_c_valauth.
refresh : itb_c_valauth.
free    : itb_c_valauth.

*initialization v_sy-uname
v_sy_uname = sy-uname.

select /BIC/C_VALAUTH
into table itb_C_VALAUTH
from   /BIC/ADPBWU0100
where  TCTUSERNM = v_sy_uname
and    TCTIOBJNM LIKE '%CPFCTR1_2%'
and    TCTOBJVERS = 'A'.

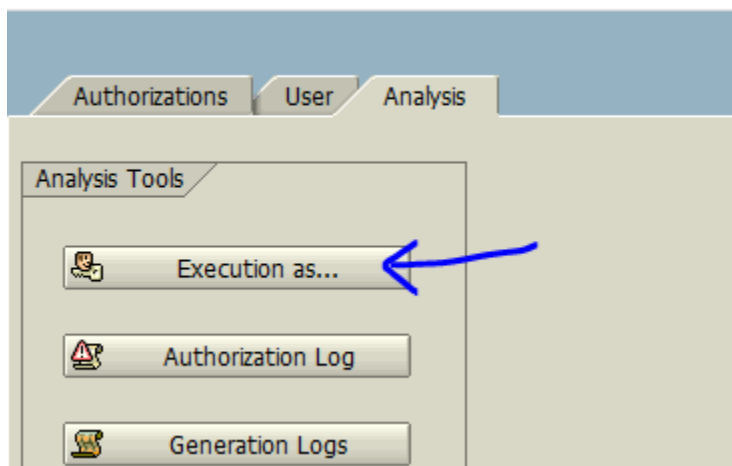
if sy-subrc = 0.

```



After you can use the RSEADMIN

Management of Analysis Authorizations



Execute as User with Restricted Authorizations

Analysis

Execute as User

TH40051

☒ With Log

Start Analysis



Start Transaction

No logs recorded at present



Display Log

Be careful when using customer exits



How does this work?

Possible Transactions:

☒ RSRT
 ☐ Reporting Agent Monitor
 ☐ Planning Fldrs
 ☐ Planning Workb. BPS0
 ☐ MDX Test
 ☐ RSDRI Debug Program

4. For some authorization objects (Z_PS kind of things), sometimes a dimension might be missing. For example, CPFCTR1_2 was missing for PS. Then when we troubleshoot with a user's account, it prompts "No authorization" and in the log, it shows CPFCTR1_2 is empty. Then we add the dimensions in Z_PS and it's ok.

Maintain Authorizations: Z_PS Display

 Change <-> Display
  Activate
  Usage
  Information

Authorization:

Z_PS

Last Changed:

GTHEVENE

04.07.2014

01

Short Text:

Project Costs

Status:

Active

Medium Text:

Project Costs

Long Text:

Project Costs









 Details

Auth. Structure

Charact./Dimensions	Description	Intervals	Node
0TCAVALID	Validity of an Authorization		
0TCTAUTHH	Authorization for hierarchy		
CPFCTR1_2	BFC Global Business Unit		
C_BFCA_4	BFC GBU (FC GBU)		

5. For dimensions with [] as below, if they exist in a query, we need to add filters for them in the Query Designer. The filters can be one of the three kinds:

- User selection filters
- Authorization filters
- Customer exit filters

Maintain Authorizations: Z_PS Display

 Change <-> Display  Activate  Usage  Information

Authorization:

Last Changed:

Short Text:

Status:

Medium Text:

Long Text:

              Details

Auth. Structure

Charact./Dimensions	Description	Intervals	Node
C COSTCTR C FUNCT_2	2 Function		
C FAMIL	Family of WBS element		
C FAMINPR	Family of investment project		
C FUNCT_2	2 Function		
C FUNCT_3	3 Sub-function Grouping		
C MATPLNT C PFCTR1	1 - RCS Global Business Unit		
C MA PR C BFCA_4	BFC GBU (FC GBU)		

Authorization Contacts:

Security Team Contact: sbs-is-appli-sd-secureite@solvay.com