



APM Usage Monitor User Manual

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Introduction

The *APM Usage Monitor*, in the following called APM-UM, is an add-on module for SAP customers faced with the challenging task of maintaining the integrity of their SAP authorization concepts and license administration.

The APM-UM is composed of two components. The first is an ABAP add-on that is installed on all SAP systems where the APM-UM is to be used. The second is a web application that is installed on a separate web server. The SAP GUI is used for all access to the APM-UM, as the ABAP add-on package on the SAP system manages the interaction between the SAP GUI and the web server.

The present user documentation will take you through the following topics:

System landscape: Understanding the system landscape of the APM-UM.

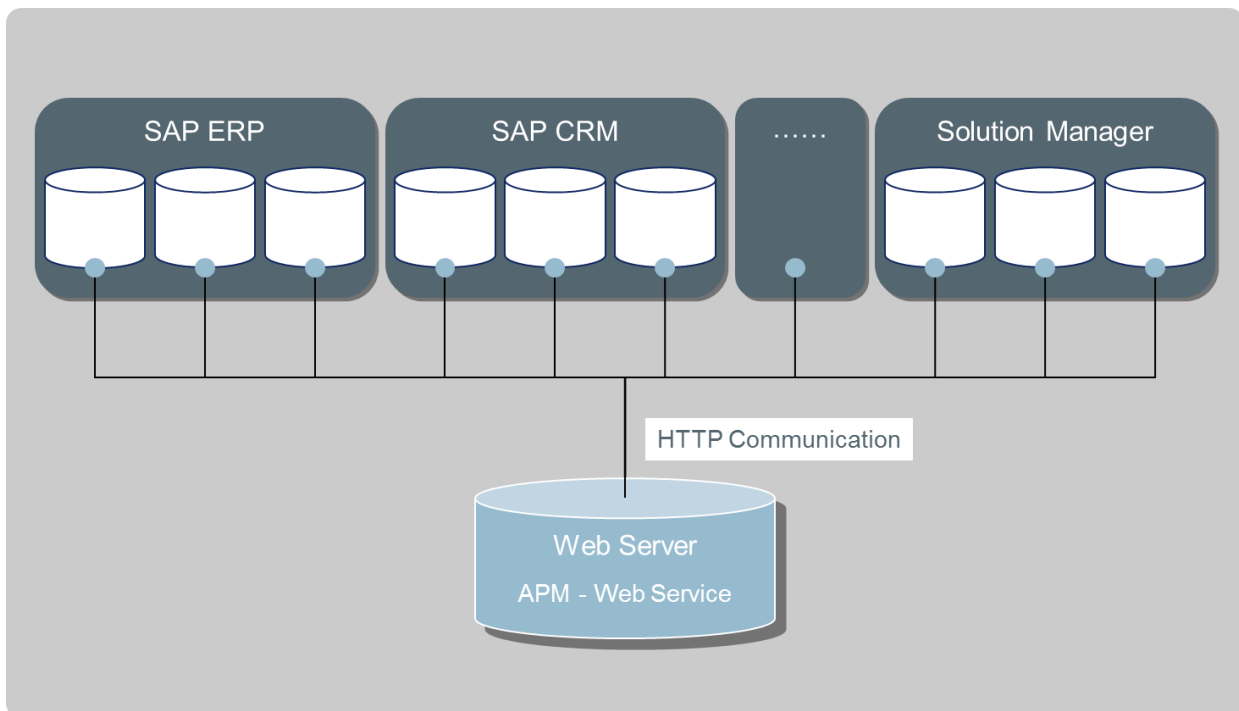
User guide: A user guide giving detailed information about the functionality and usage of the APM-UM.

Any comments or questions Mail: sas@applicon.dk or call: +45 52195118

System landscape

The APM-UM consists of two components:

- An ABAP add-on package (blue dot on drawing) is installed on the SAP systems relevant for using the APM-UM.
- A MySQL/PHP web application containing the majority of the APM-UM solution. The web application is installed on a web server.



The SAP systems communicate with the web server via HTTP using a standard RFC destination.

The APM-UM is called from any of the SAP systems with the following Tcode:

- /N/APPLISOL/APMUM APM-UM

User guide for APM-UM

We created APM-UM hand-in-hand with our Authorization Process Manager customers, who asked us to solve another pain point: the year-to-year accumulation of obsolete roles. Authorization Process Manager customers were also overspending on licenses due to poor visibility into roles and access levels. APM-UM solves these issues.

APM-UM is a sister product to the Authorization Process Manager delivered in the same software package but with individual license keys.

APM-UM provides continuous monitoring of users' role usage in support of processes such as yearly access review, role redesign, removal of critical access rights, adjustment of users to their correct license category, and more. APM-UM enables you to know the impact of changes before they are implemented, rather than relying on unproven assumptions and handling unforeseen consequences after changes are made.

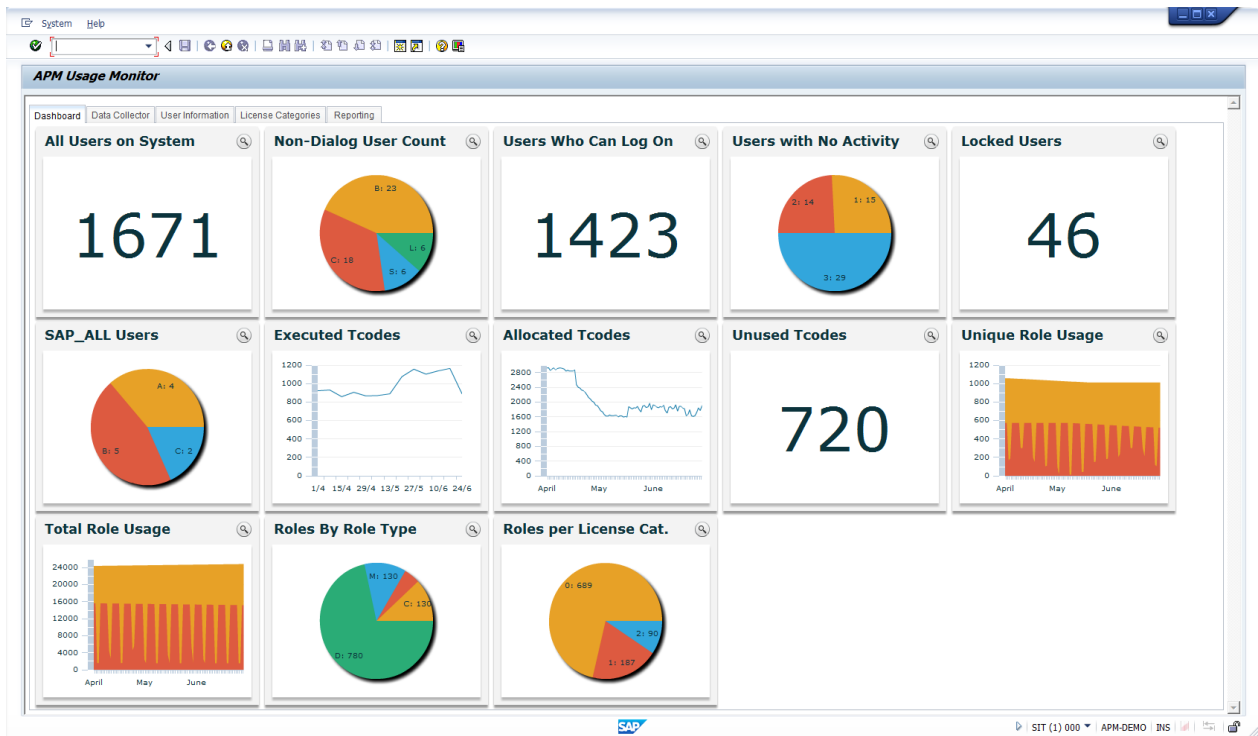
The APM-UM contains four different tabs. These are the following

- Dashboard
- Data Collector
- User Information
- License Categories
- Reporting

In the following, the content of each tab in APM-UM will be described.

Dashboard

With the unique combination of data made available in APM-UM, the APM-UM delivers a graphical dashboard showing instant information about the authorization concept - both as-is information and seen in a historical perspective.



The dashboard contains the following views


- All Users on system
- Non-Dialog User Count
- Users Who Can Log On
- Users with no activity
- Locked users
- SAP_ALL users
- Executed Tcodes
- Allocated Tcodes
- Unused Tcodes
- Unique Role Usage
- Total Role Usage
- Roles By Role Type
- Roles per License Cat.

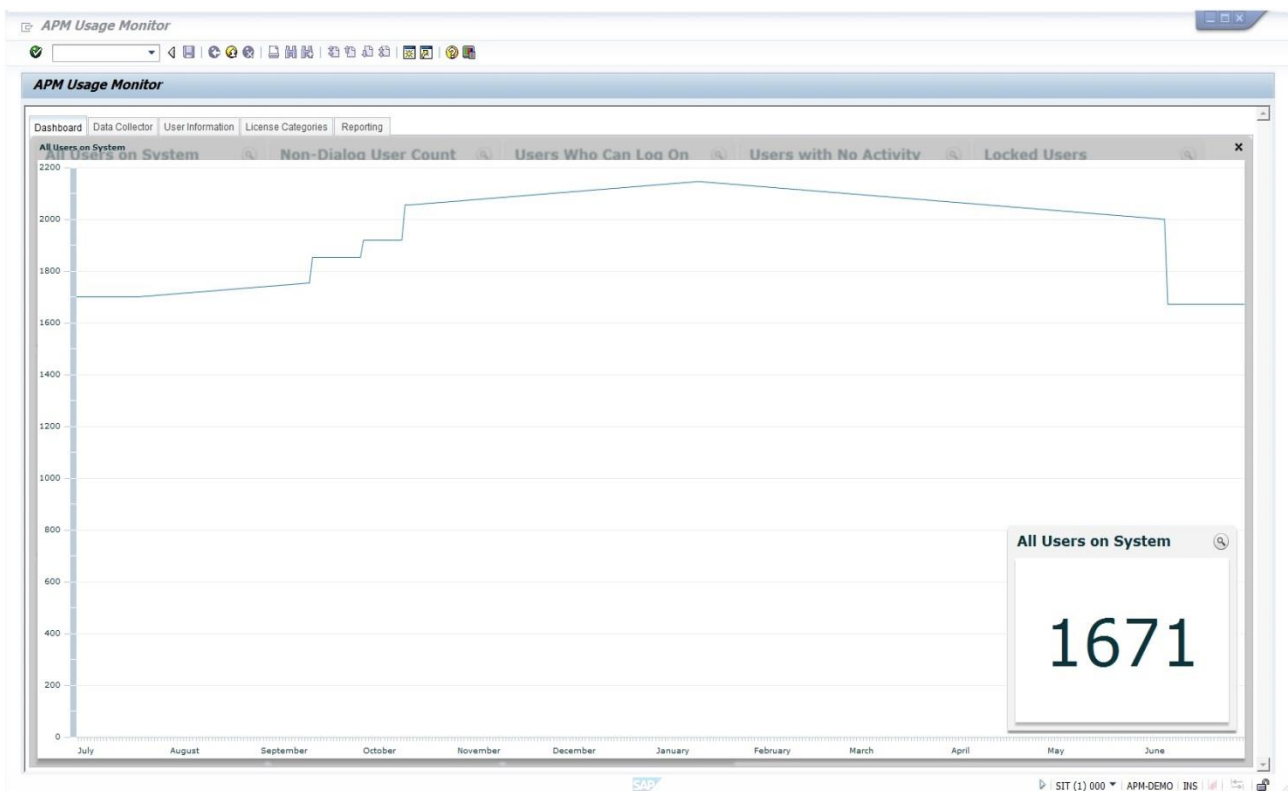
1.1. All Users on systems

Dashboard view

Total number of users on the system. The number takes account for locked and not valid users on the system.

Show details

Clicking the  icon will show a historical graph of the total number of users on the system.



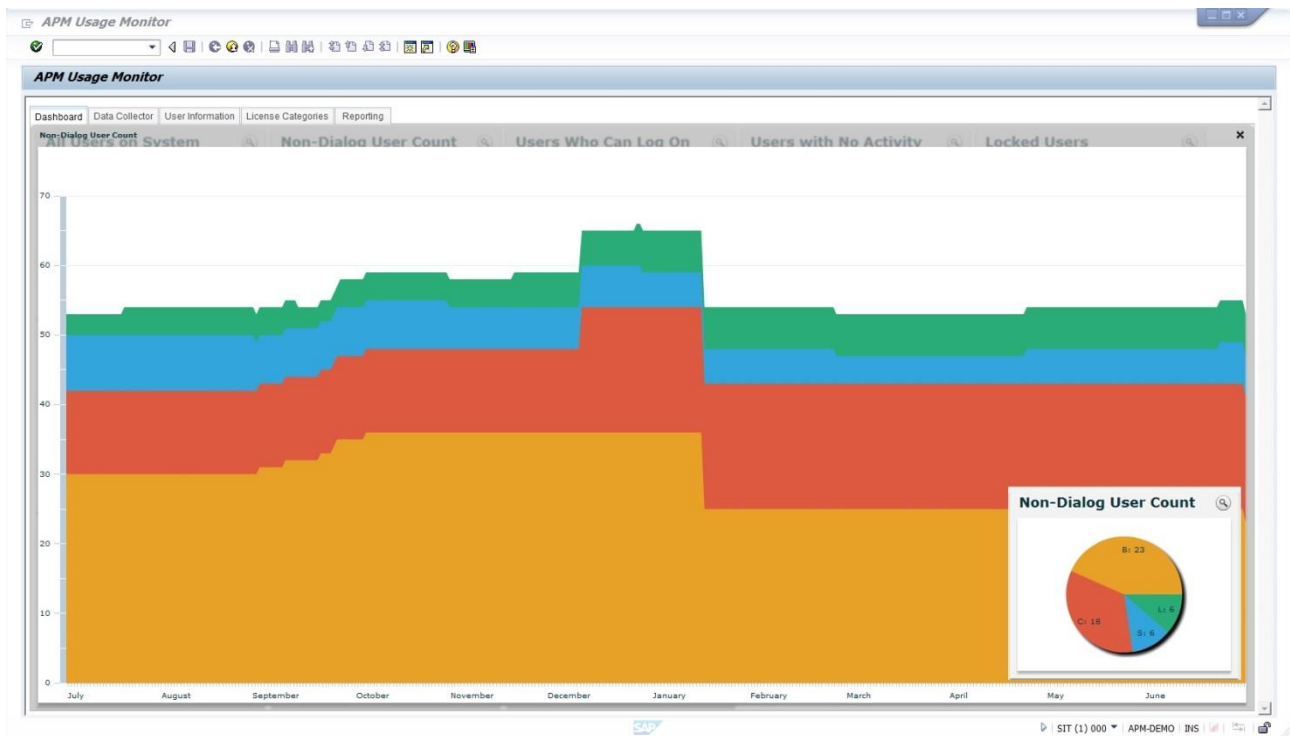
1.2. Non-Dialog User Count

Dashboard view

A pie chart on the total number of non-dialog users. The non-dialog users in APM-UM are system, communication, service and reference users.

Show details

Shows historical graphs on the number of non-dialog users on the system.



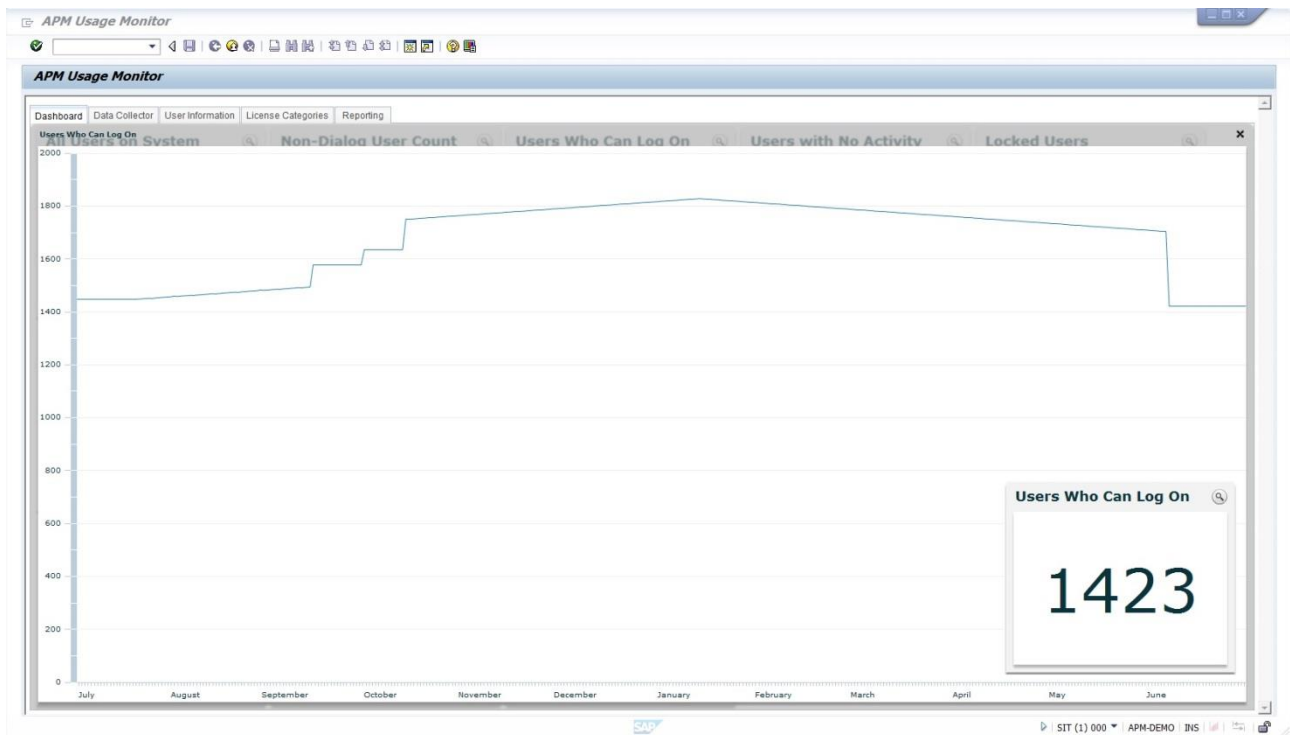
1.3. Users Who Can Log On

Dashboard view

Total number of users on the system that can log on. This means that this number doesn't count the locked users or user that or not valid on the system.

Show details

Shows a historical graph on the number of users who can log on the system.



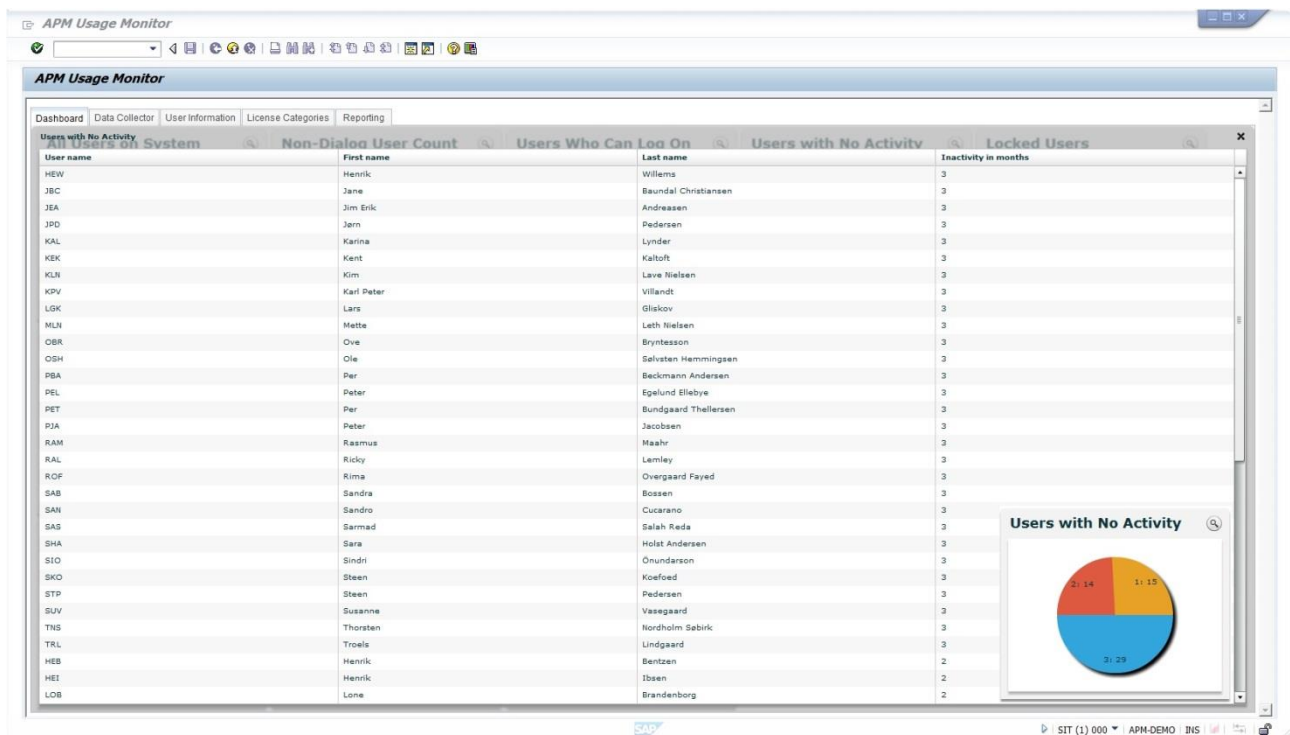
1.4. Users with no activity

Dashboard view

A pie chart with total number of users with no activity in 3 months or more, 2 months, and 1 month.

Show details

Shows a table with user name, first name and last name of a user that has been inactive in 1, 2 and 3 months. The table will only show 100 user names in total. The users with three months inactivity show up first in the table. Go to the reporting module of APM-UM to get a full list of users with no activity.



1.5. Locked Users

Dashboard view

The total number of locked users in the system.

Show details

Shows a table with user name, first name and last name of locked users. The table shows only the first 100 users which are locked in the system. Go to the reporting module of APM-UM to get a full list of locked users.

APM Usage Monitor

Dashboard | Data Collector | User Information | License Categories | Reporting

Locked Users

User name	First name	Last name
ABH	Asger	Brandt-Madsen
AGO	Anders	Gormsen
AMJ	Anna Marie	Jacobsen
BBJ	Birger	Bjork
BJB	Bjarke	Brandt
CAS	Carsten	Sørensen
CER	Claus	Eriksen
DCK	David	Kargo
DNI	Dennis	Nielsen
DOP	Dorthe	Offersen Galland
ERH	Erling	Hansen
HEI	Henrik	Ibsen
HEQ	Henrik	Qvarnstrøm
HEW	Henrik	Willems
HMC	Henri	Christiansen
JBC	Jane	Baundel Christiansen
JEA	Jim Erik	Andreasen
JPD	Jørn	Pedersen
KAL	Karina	Lynder
LHE	Lars	Hentzen
LSN	Lars	Schack Nielsen
MAP	Magnus	Friden
MAP	Martin	Plambeck
MAT	Maria	Tunyogi
MBM	Mikael Bo	Madsen
MMN	Michael	Mølgaard Nielsen
MNV	Morten Nicolai	Witbrock
MOL	Mona	Olsen
MTH	Michael	Thøgersen
MZA	Michael	Zabinski
OBR	Ove	Bryntesson
PBA	Per	Beckmann Andersen

Locked Users

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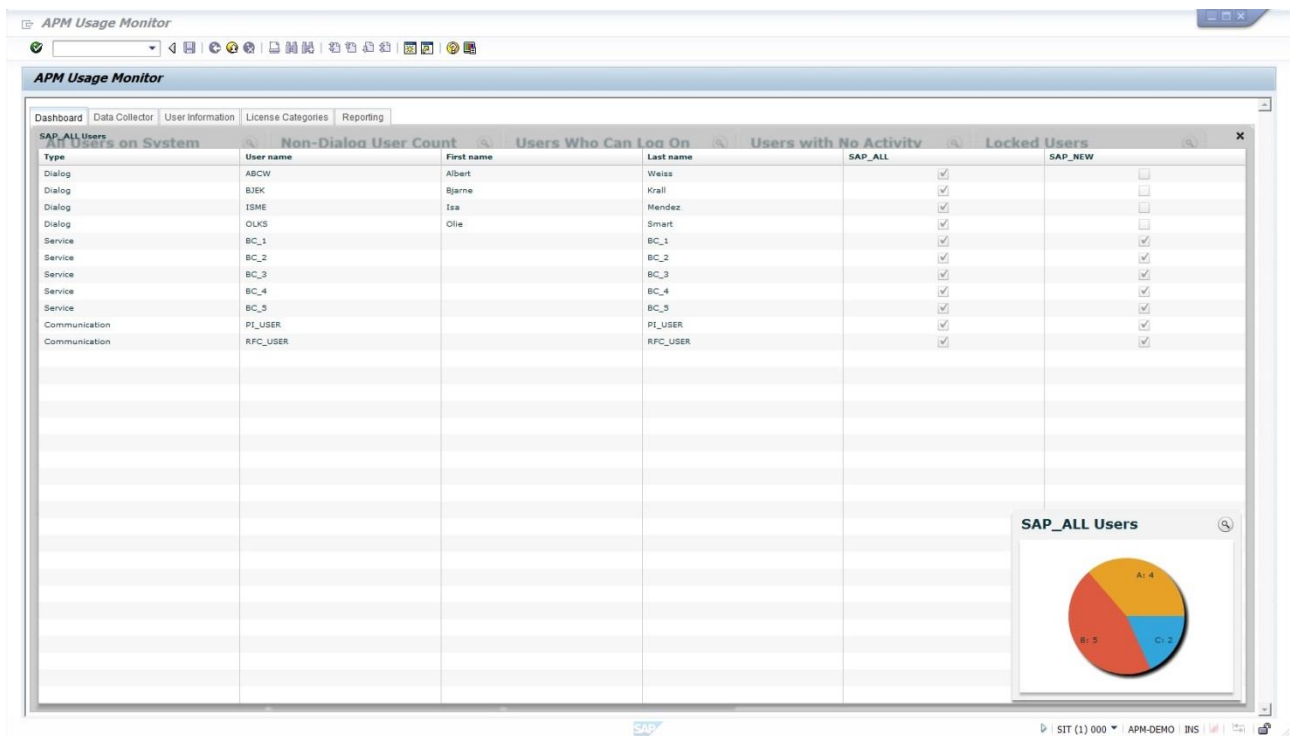
1.6. SAP_ALL users

Dashboard view

The total number of users with a SAP_ALL and/or SAP_NEW profile assignment on the system.

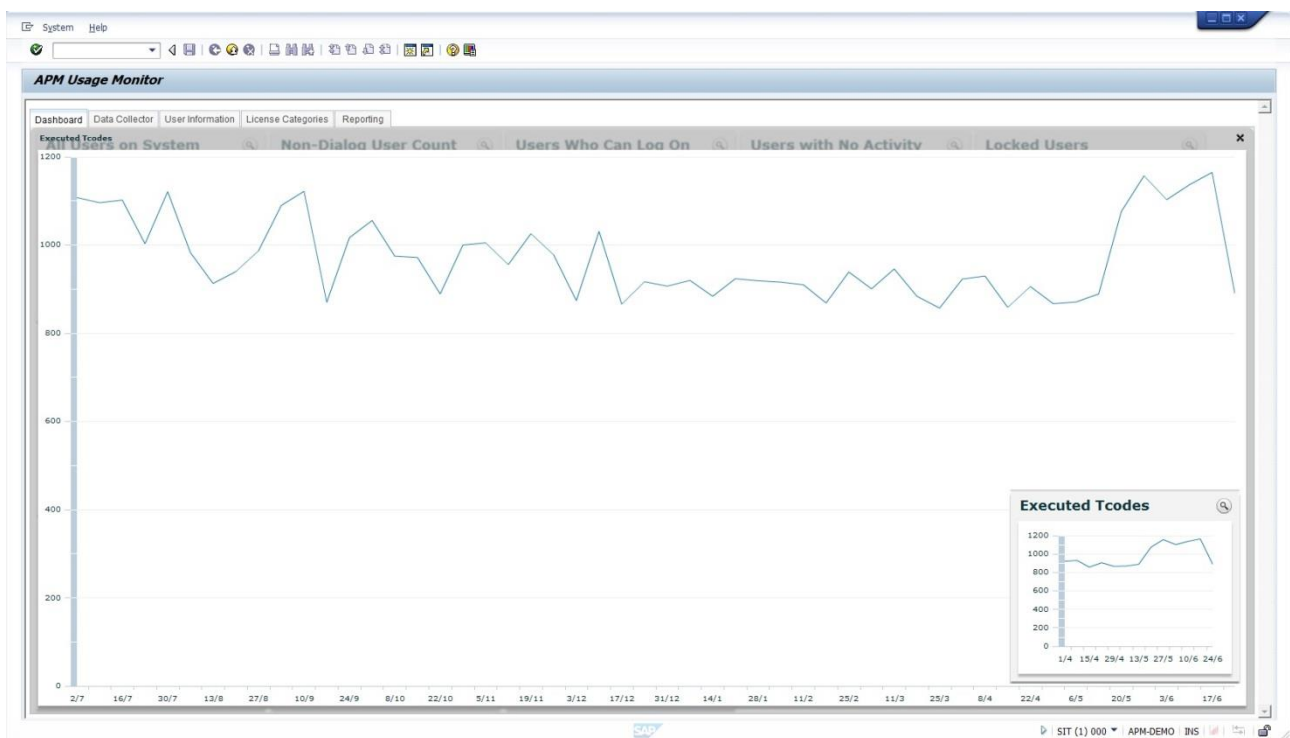
Show details

Shows a table with 100 users (if that many) and whether they are assigned SAP_ALL and/or SAP_NEW. Furthermore, the table shows the user type, which gives the option to decide on whether it is a critical dialog user or a system, service, communication or reference users the profiles are assigned to.



1.7. Executed tcodes

Dashboard view	Shows a historical graph on the number of tcodes executed on the system for the last three months.
Show details	Shows a historical graph on the number of tcodes executed on the system for the last year.



1.8. Allocated tcodes

Dashboard table

The total number of tcodes contained in allocated roles for the last three months. In other words, the dashboard shows the size of the authorization concept in regard to the tcodes contained in roles assigned to the users on the system.

Show details

Shows a graph on historical trend on allocated tcodes for the last year.



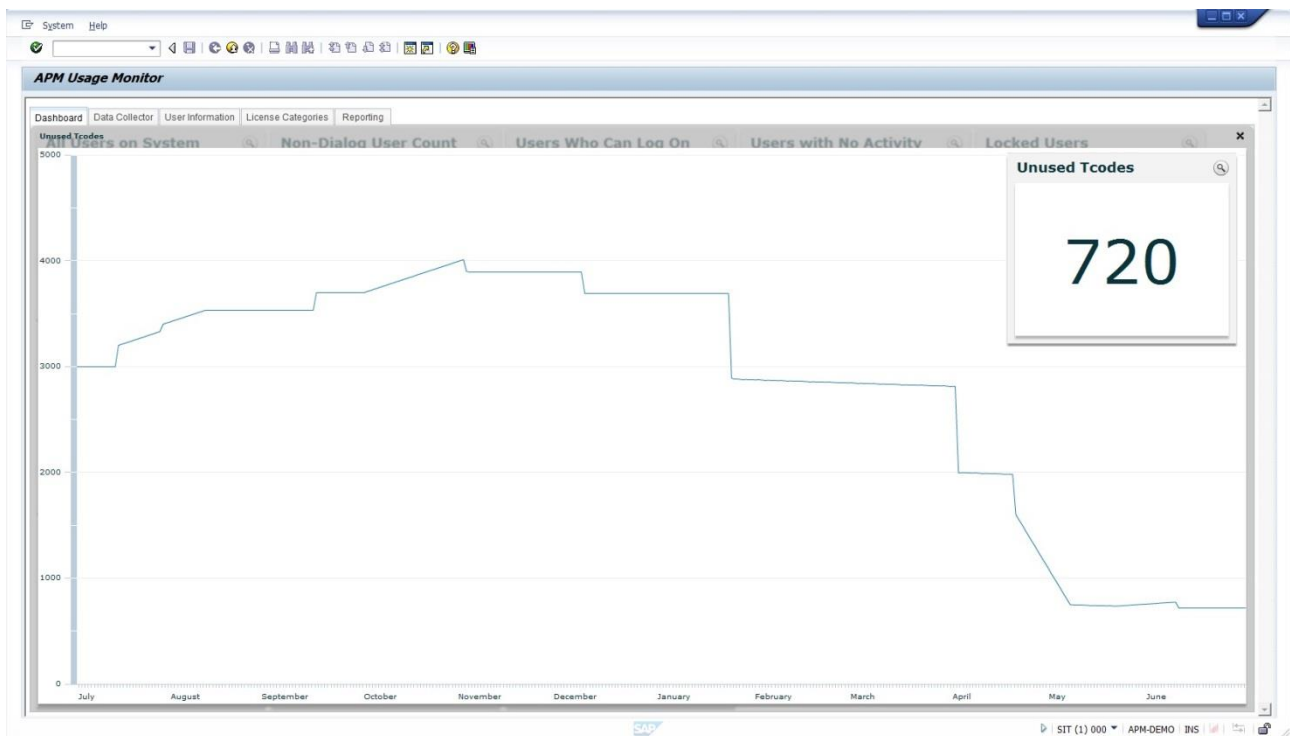
1.9. Unused tcodes

Dashboard table

The number of the tcodes (contained in roles allocated users) which have not been executed during the last year.

Show details

Shows a historical graph on the number of unused tcodes allocated in roles on the system. The trend can be displayed for the last year and gives the overview of the authorization concept and to which level the concept can be downsized to.




1.10. Unique Role Usage

Dashboard table

Unique number of roles assigned to the users on the system and the unique number of roles that are used by the users on the system for the last three months. In other words, the unique number of roles shows the size of the authorization concept and how many of the roles in the concept are being used.

Show details

Clicking the  icon will show the same graph over a longer time period.




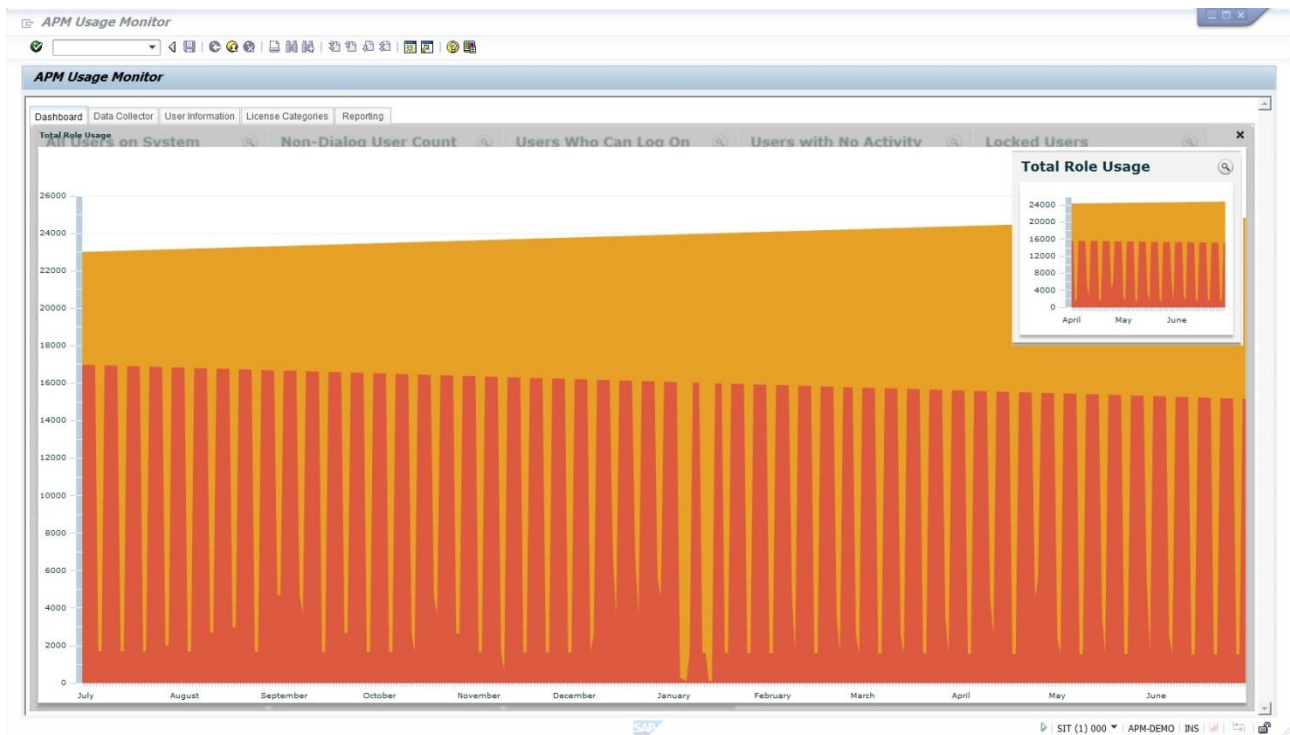
1.11. Total Role Usage

Dashboard view

Total number of roles assigned to users on the system and the number of roles that are used by the users on the system for the last three months.

Show details

Clicking the  icon will show the same graph over a longer time period.



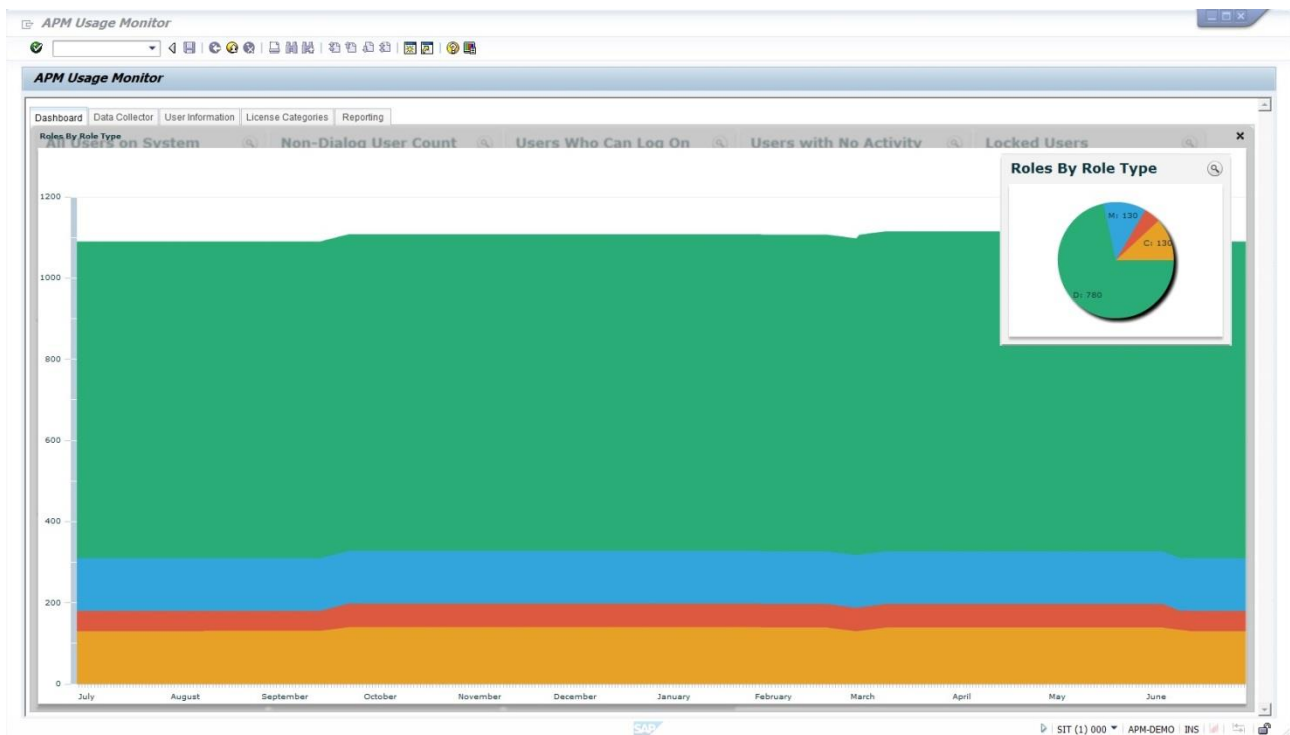
1.12. Roles by Role Type

Dashboard table

A pie chart with the number of unique roles divided into four role types. These are: composite, single, master and derived roles.

Show details

Shows a historical graph of the number of unique roles divided into these four role types.



1.13. Roles per License Cat.

Dashboard table

A pie chart with total number of unique roles based on the various license categories created and managed in the APM-UM license category tab.

Show details

Shows a historical graph of the number of unique roles divided into the number of license category.



Data Collector

In the Data Collector tab, information on statistical data collection is displayed. Data collection is performed by a scheduled batch job, which normally runs once a day. For recommendations and technical setup of the batch job, please refer to the installation guide.

Date: The date the last time statistical data was collected

Transfers: The total number of data transfers performed

Σ Records: How many records were selected in the single data collection

Σ ms: The total time used by the data collector in milliseconds

Date	Transfers	Σ Records	Σ ms
2012-02-24	13	5845	34183
2012-02-23	97	136469	185917
2012-02-22	97	167138	201849
2012-02-21	96	152077	201191
2012-02-20	97	163695	206882
2012-02-19	76	18841	55458
2012-02-18	79	23623	41330
2012-02-17	94	106309	152441
2012-02-16	96	138068	192008
2012-02-15	97	151787	197841
2012-02-14	97	147182	206655
2012-02-13	96	162439	219292
2012-02-12	76	19509	61371
2012-02-11	75	20616	44395
2012-02-10	94	127686	193103
2012-02-09	97	152385	229148

Please note: If the last data collection date do not match the time and the date of the scheduled batch job, please ensure that the batch job runs correct.

User Information

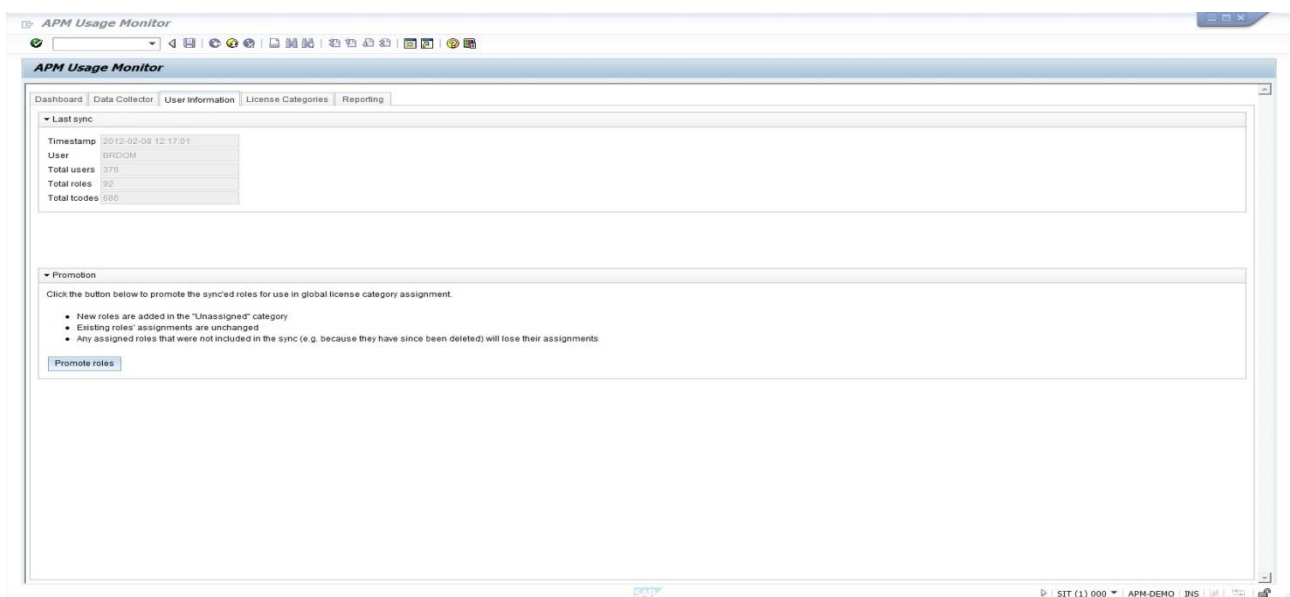
In the User Information tab, the information on the synchronization of the authorization concept is displayed. The authorization concept data that are synchronized here are users, the roles assigned to these users and the transaction codes contained in the assigned roles.

The table in the upper part of the User Information screen contains the following information.

Timestamp:	The date and time last synchronization was executed
User:	The user that initiated the synchronization
Total user:	The total number of users that have been imported into the APM-UM in the last synchronization
Total roles:	The total number of roles that have been imported into the APM-UM in the last synchronization
Total tcodes:	The total number of transactions code that have been imported into the APM-UM in the last synchronization

Please note: Synchronization of the authorization concept is performed by a scheduled batch job, which normally runs once a day. For recommendations and technical setup of the batch job, please refer to the installation guide.

In the lower part of the User Information screen, it is possible to add the latest synchronized roles into the license categories tab. This is done by clicking on the **Promote roles** button. The roles are handled as described on the screen.



License Categories

The License Categories tab is divided into two parts. In the left side of the License Categories screen, the various license categories are created and maintained. The roles assigned to the various license categories are displayed on the right hand side of the screen.

The Maintain license categories part contains the following information.

Id:	A unique number assigned by APM-UM for identification of the license category
Category:	The name of the SAP license category as maintained in APM-UM
Roles:	The number of roles contained in the license category

Click on the **Add category** button to create a new category. This new row will appear

10	new category	0
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A new license category can be added to the Category row by double clicking the **new category** cell and inserting a new license category name. The APM-UM pre-defined categories are the following

Any:	All the roles that are synchronized with APM-UM
Unassigned:	The roles that are not assigned to a category appear here

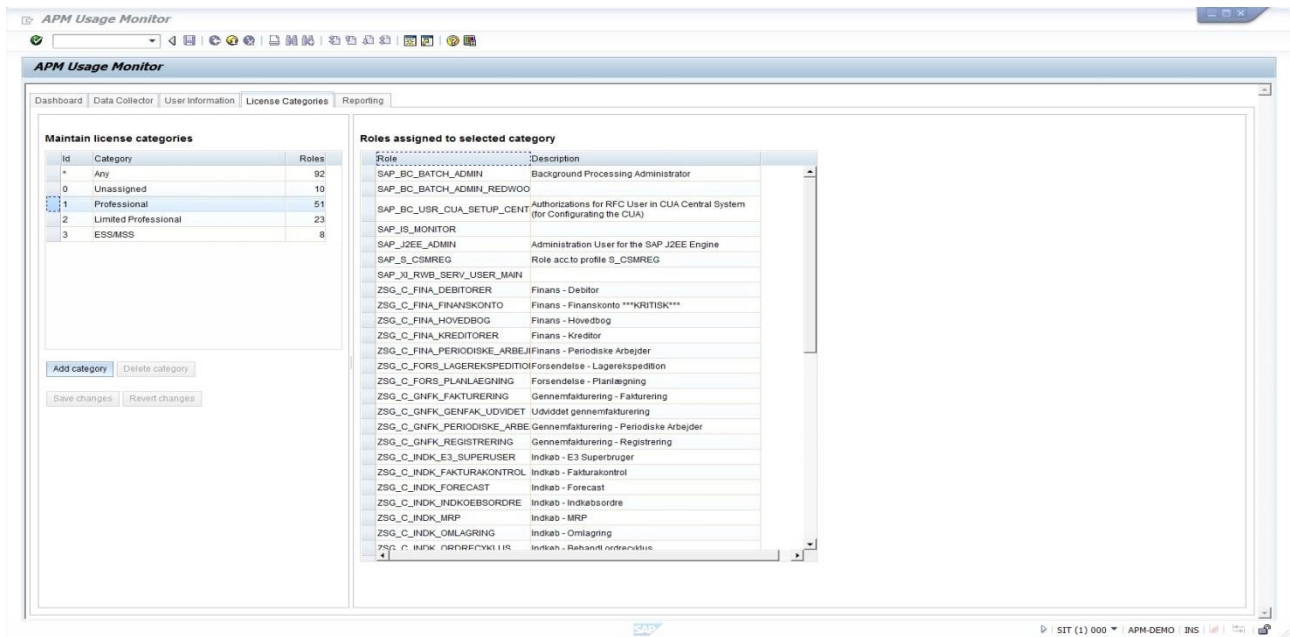
When a category is created the roles are assigned to a license category by highlighting the role/roles. Now click on the highlighted role and drag and drop the role into the right category.

To delete a license category, it is required that the category doesn't contain any roles. To delete a category, highlight the category and click on the **Delete category** button.

The **Save changes** and **Revert changes** buttons can be used when moving the roles between the license categories.

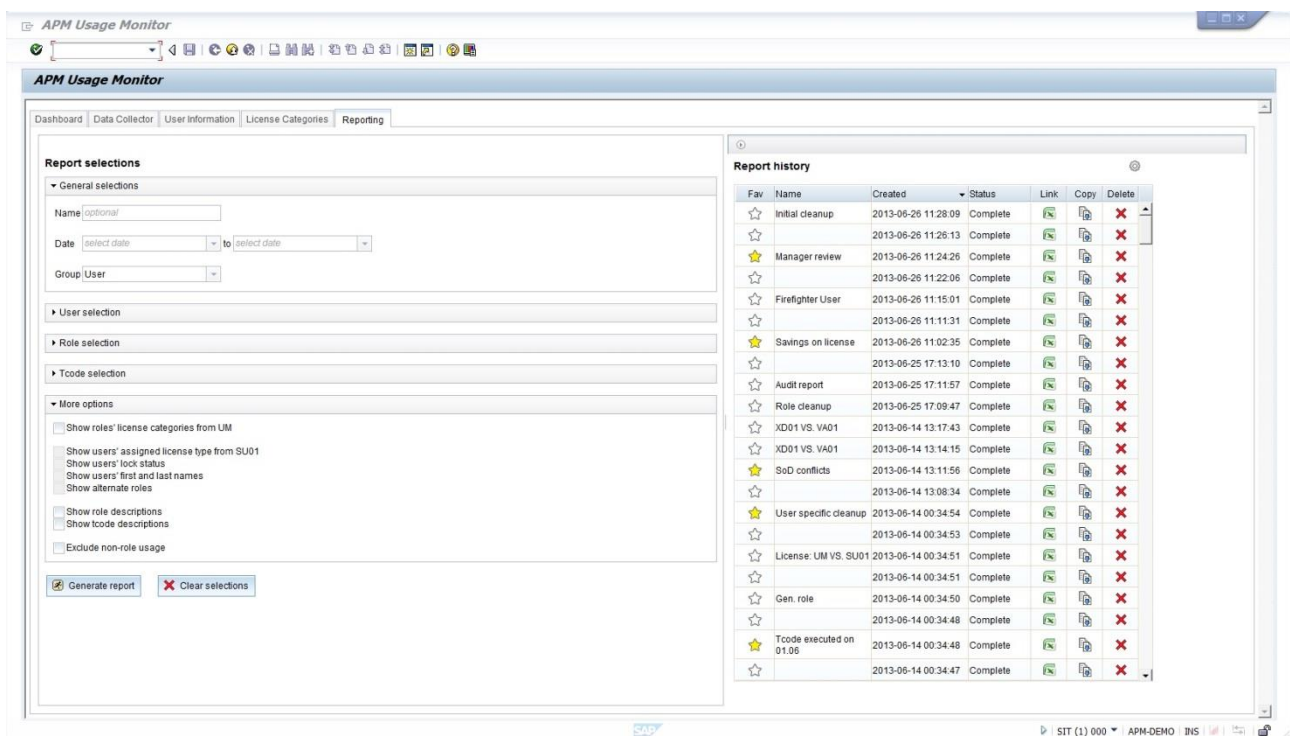
The Roles assigned to a license category are shown as a list.

Role:	The name of the roles that are contained in the highlighted license category
Description:	The description of the roles that are contained in the highlighted license category



Reporting

Different reports are available in order to make use of the data generated in the APM-UM. By choosing the Reporting tab, you can either create new APM-UM reports or download existing reports. The reporting screen is divided into two parts. In the Report selections part, you choose the data you want to create your report on. In the Report history part, the generated reports are listed.



The Report selections part contains the following:

- General selection
- User, role or Tcode selection
- More options

In the following, the different selections' options will be described.

General selection

General selection gives the following selection options:

Name:	Add a name to your reports
Date:	The start date when the report should start from
To:	The end date
Group:	Choose grouping from the drop down list <ul style="list-style-type: none">• None• User• Tcode• Both user and tcode

When choosing to group on User or Tcode your excel report will have a summarizing column on users or Tcode. i.e. when grouping on tcode, instead of having the name of the tcodes contained in the roles, the number of total tcodes contained in a specific role will show up in the report

User, Role and Tcode selection


There are different selection options for selecting on User, Role and Tcode.

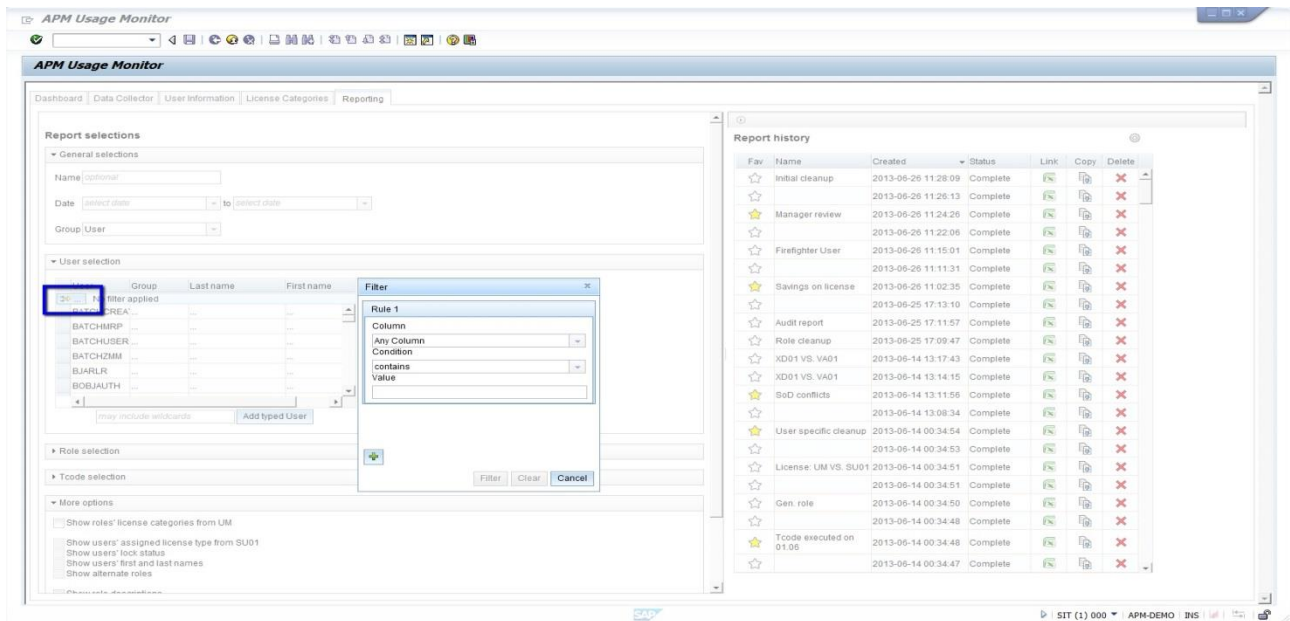
1. Define Filter
2. Select by selecting the rows
3. Type a name. A * here, means all
4. Pasting from the clipboard

Please note: These selections options are the same for selecting on User and Tcode. For role selection there is an option to choose between reporting solely on composite or single roles or both composite and single roles.

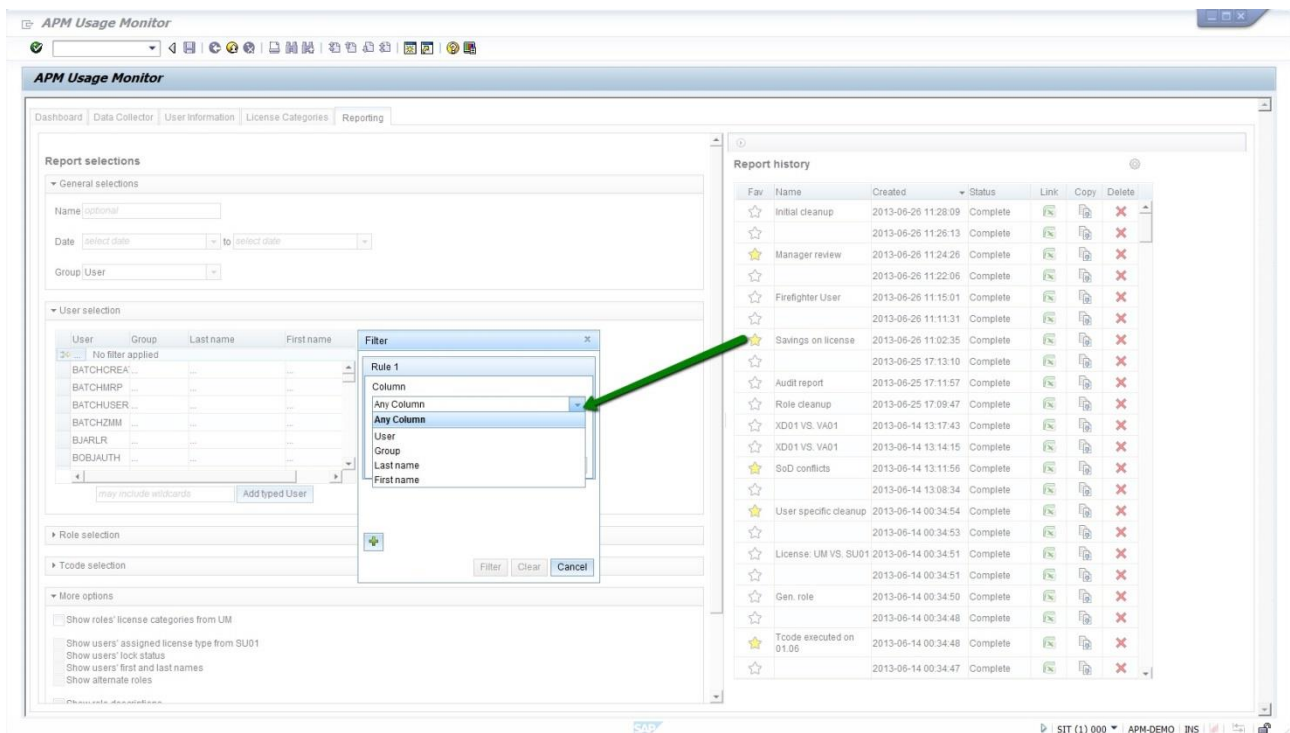
In the following, the four different selection options for user selection will be described.

Define Filter

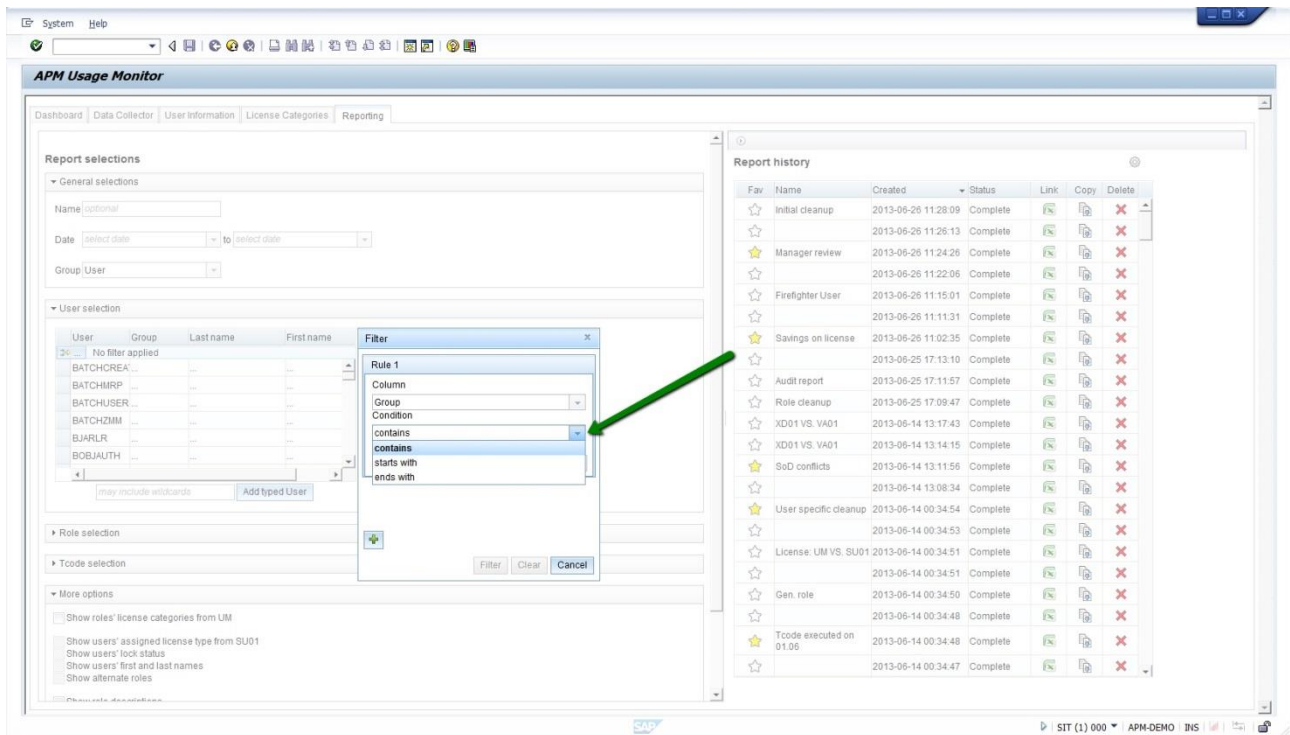
For defining a filter on users click on .



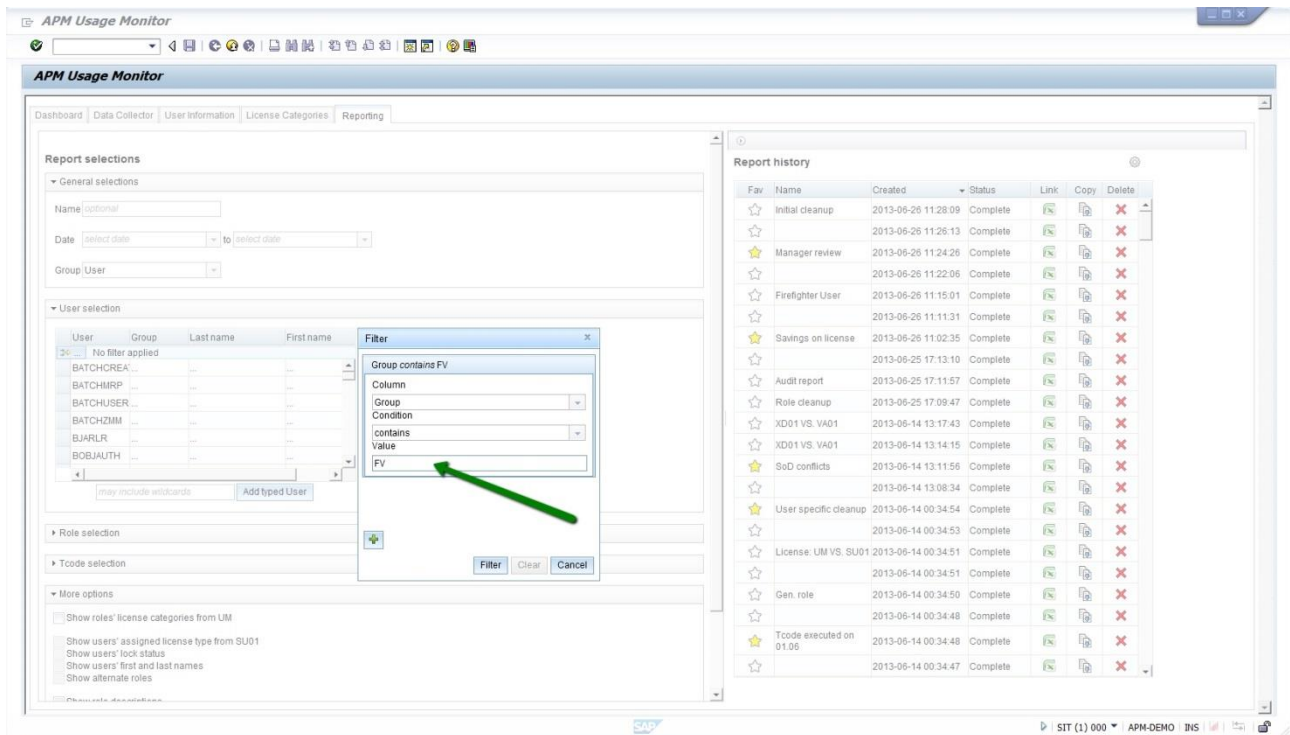
Select a column that the filter should apply on from the drop down list




Choose between different conditions from dropdown list



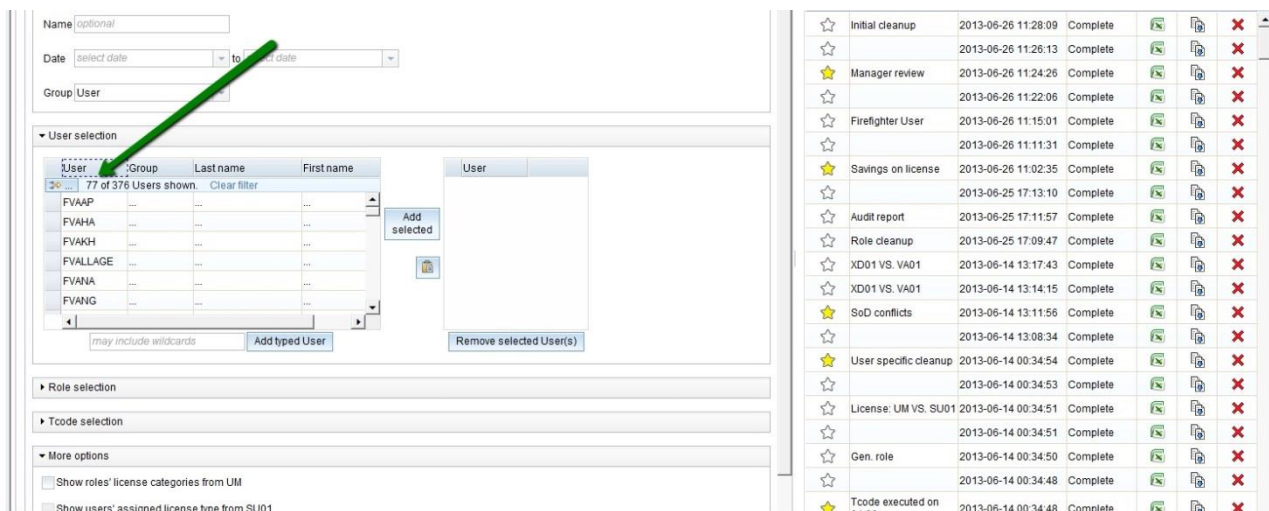
Add the selection Value, which is case sensitive.

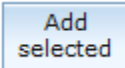
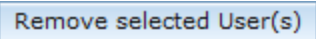


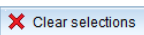
For adding more filters on the same selection, click on .

For applying the filter click on .

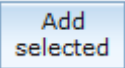
The result of the filter will now show up on the search table.




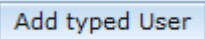
The users can be added to the selection criteria by highlighting the users and clicking on . The selected users, roles and tcodes can be removed by highlighting the selected users and clicking on .

Please note: When creating a new report, it is necessary to ensure that the old selections are removed from the selected tables in the different selection options. To ensure that all of the previous selections are cleared, click on .


Select by selecting the rows

All of the users, roles and tcodes that are synchronized on APM-UM will be available on the search table. These users can be added as a selection criteria by highlighting the desired values and clicking on .

Type a name

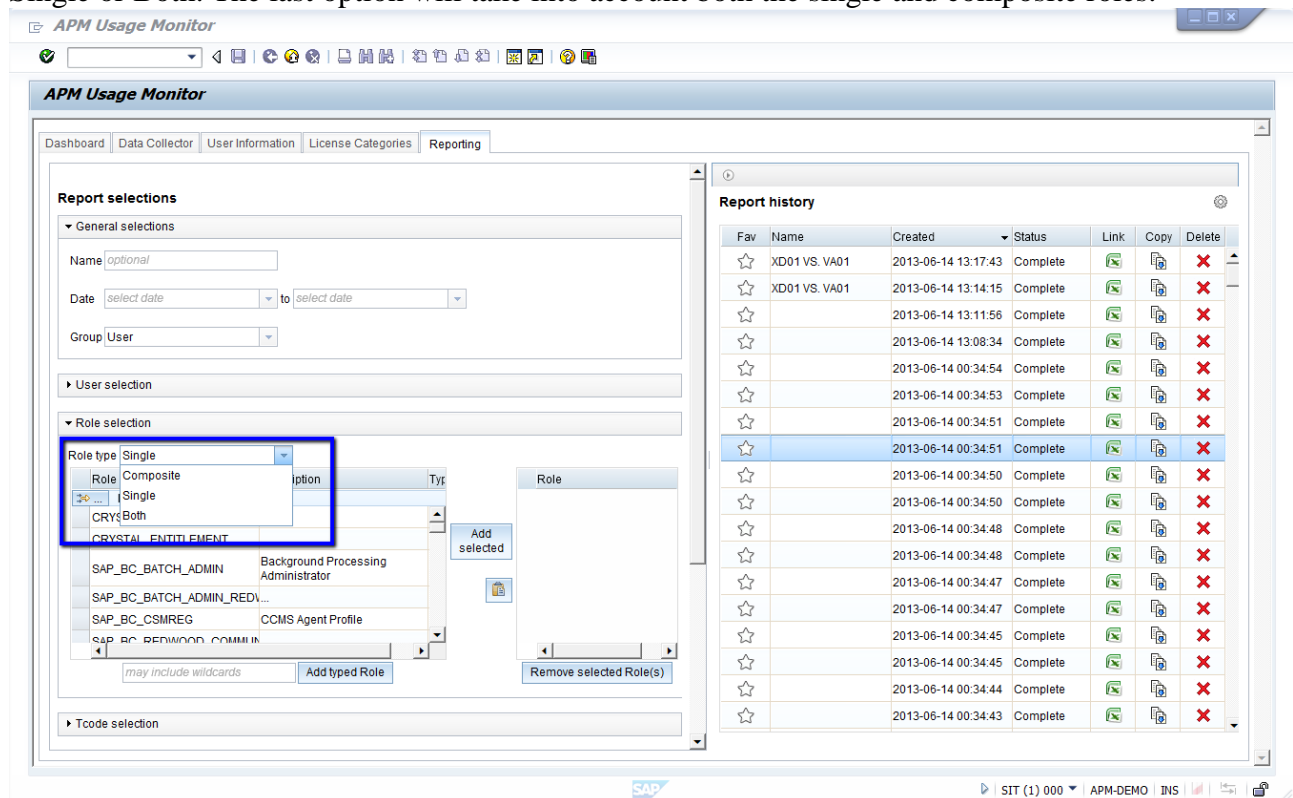
If you have the user, role or tcode name, the easiest way to add the user in the cell  and click on .

Pasting from the clipboard

If you have an external list of values that you have copied into the clipboard, these can be pasted as selection criteria by clicking .

Filtering on composite or single roles

A report in APM-UM can be based on the type of the roles that are being analyzed. In the role selection part from the dropdown list three different types can be selected. Options are Composite, Single or Both. The last option will take into account both the single and composite roles.



More options

By More options it's possible to add new columns on your reports. You can choose from the following options

Show roles' license categories from UM:

Adds a column to the reports with the license categories created and managed in the License Categories tab

Show users' assigned license type from SU01:

Adds a column to the report with the license type assigned to the users in standard SAP SU01

Show Users' lock status:

A column will be added to the reports with the user's lock status on the system

Show users' first and last name:

Shows the user's first and last names

Show alternate roles:

Adds a column with a role name, if the same tcode executed by a user is contained in two different roles

Show role description:

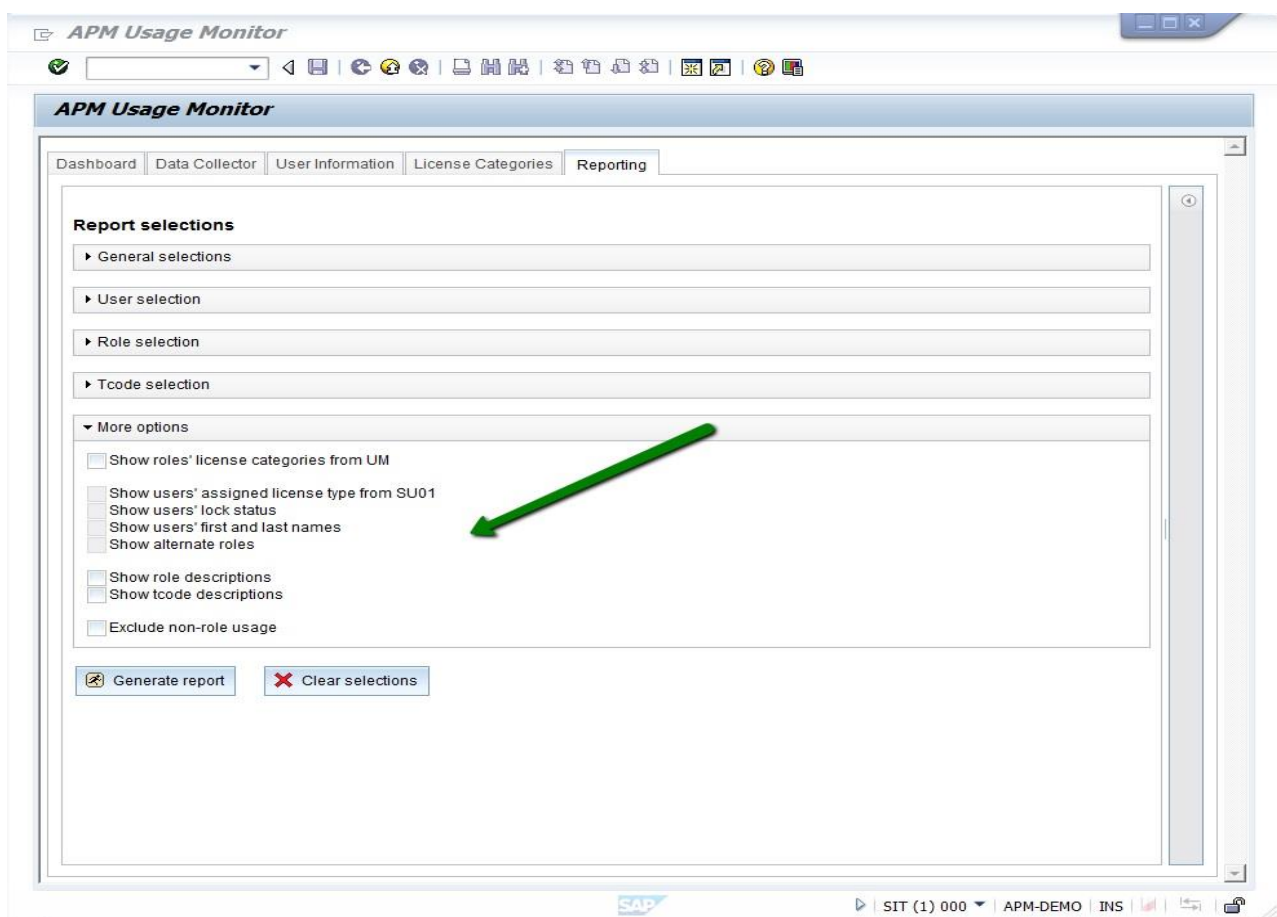
It shows a column with the description of the roles from the standard SAP tcode PFCG


Show tcode description:

It shows a column with the description of the tcodes

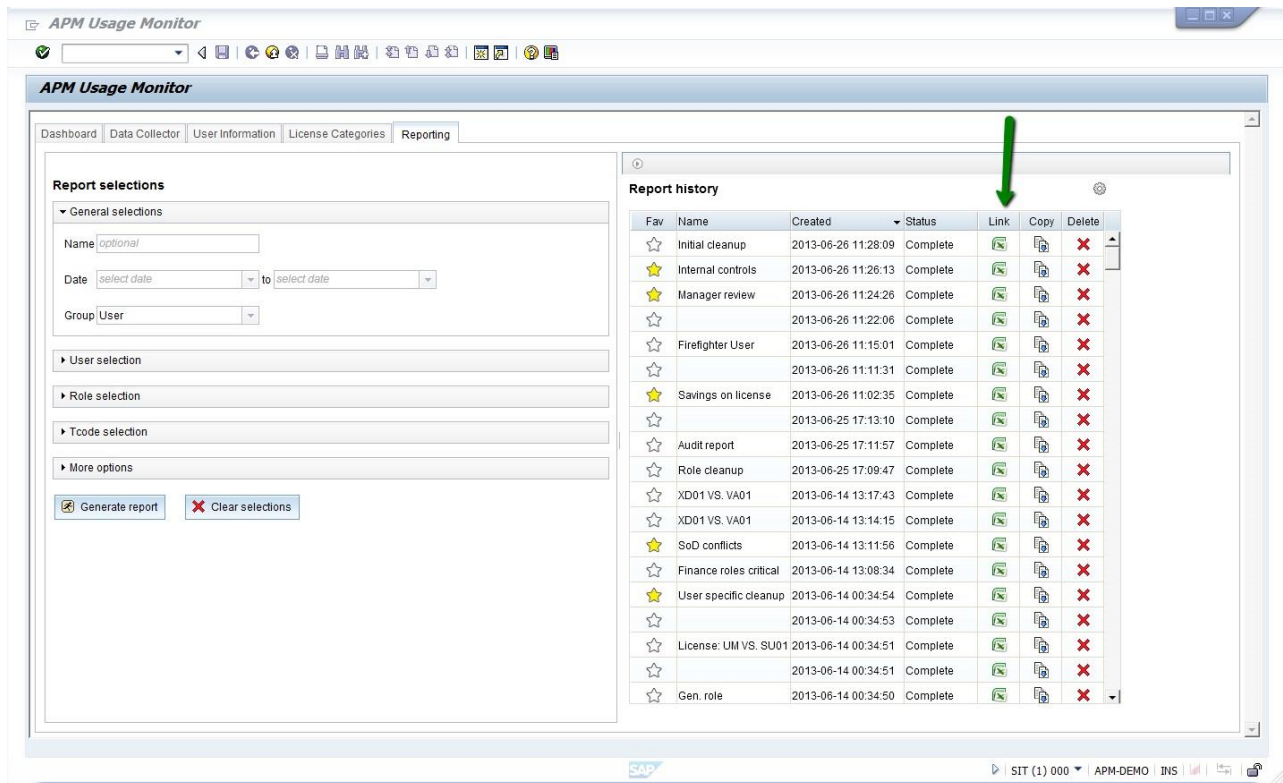
Exclude non-role usage:

Shows only the tcode usage, if the tcode is assigned to a role. This means that report will not show if the tcode executed by a user is assigned to the user via a profile



After making the desired selections click on  **Generate report** button to start generating the report.

When the report is created, it shows up in the Report history list. It normally takes some time for the system to generate a report. A report is available when an Excel icon appears in the link column.



The Report history part contains the following information.

Favorite: Mark a report as a favorite by clicking ☆

Name: Add or change a report name by double clicking on the name field

Created: The time when creation of the report was initiated









Status: Can take the following values:

- Queued: queued behind one or several other reports
- Initializing: the report is initialized
- Preparing selection tables: the report prepares the selection done in the selection part
- Calculating the size: the report size in excel is been calculated
- Generating X rows: The X indicates the size of the finished report
- Generating X rows - report will be truncated: As excel has a size limitation depending on the excel version, this status will indicated in an early stage of the report generation that the report in excel will not shows all of the data that was selected for.


- Creating file: The data is been retrieved the report is ready to be created
- Complete: the report is ready to be downloaded
- Partial: the report generator could not save all rows in the report
- Failed: the report has failed
- Killed: the unfinished report is been manually stopped by the user

Link:


Can display the following icons:

- When the report is created it shows up with the  icon
- The  icon shows up, when the report is finished, but the report generator ran out of RAM and could not save all rows in the report, The report is downloadable by clicking the  icon
- The  icon shows up, when the report is no longer available
- The  icon shows up, when the report generator is stopped before the report is generated, start the generator by clicking the  icon
- The  icon shows up, when the report has failed and will not be automatically restarted, can be forced to reboot by clicking the  icon

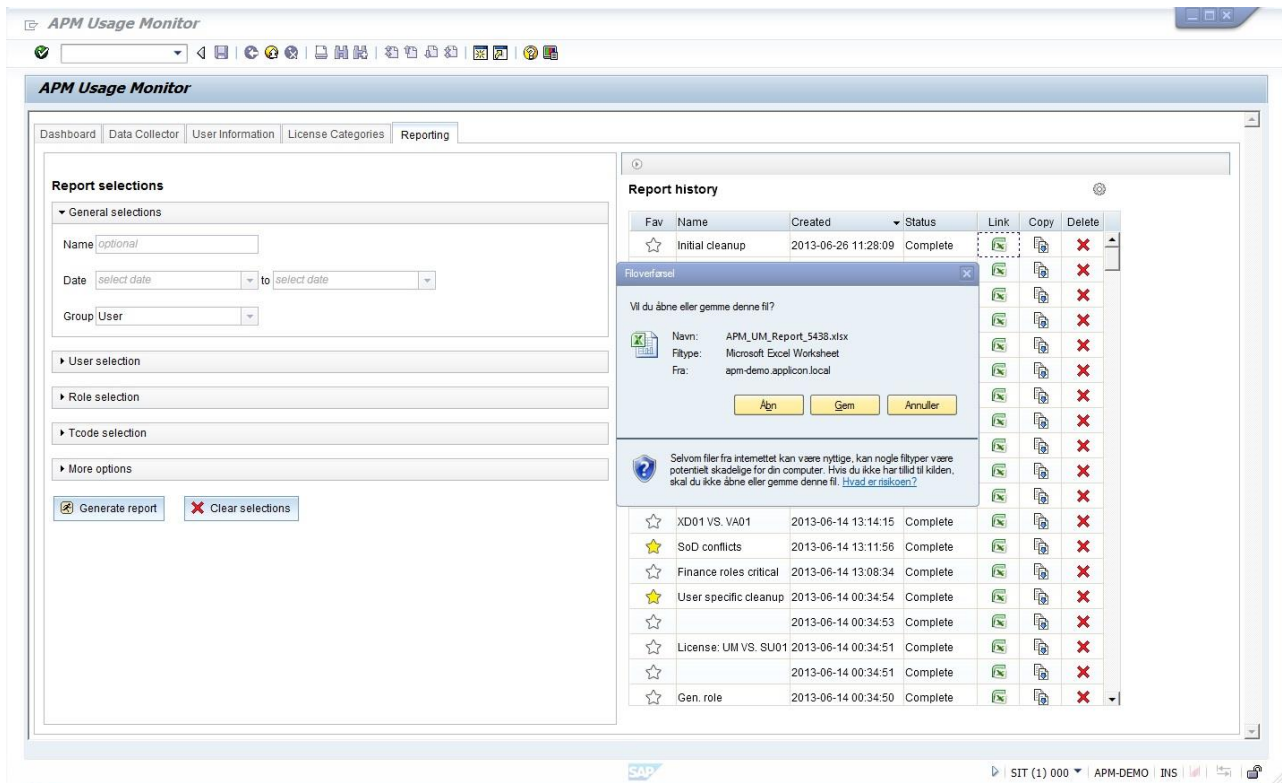
Copy

The selection criteria of an already generated report can be copied to the Report selection part by clicking 

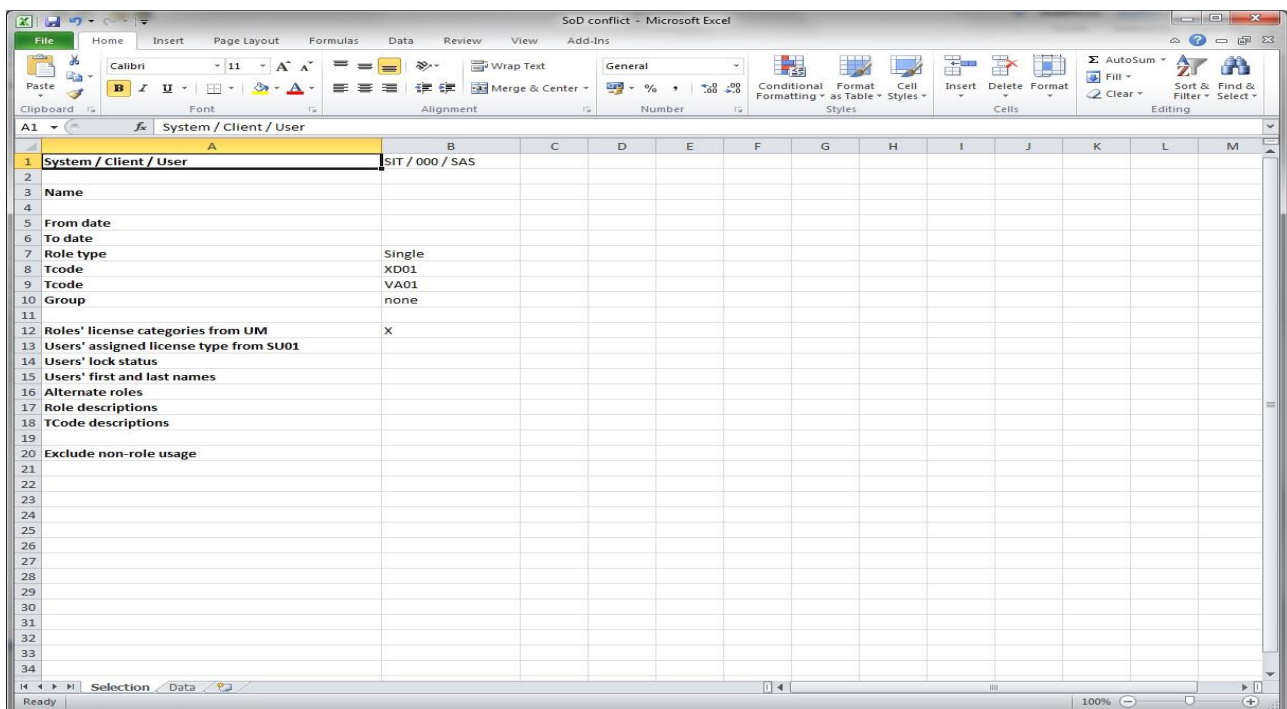
Delete

Delete a generated report by clicking 

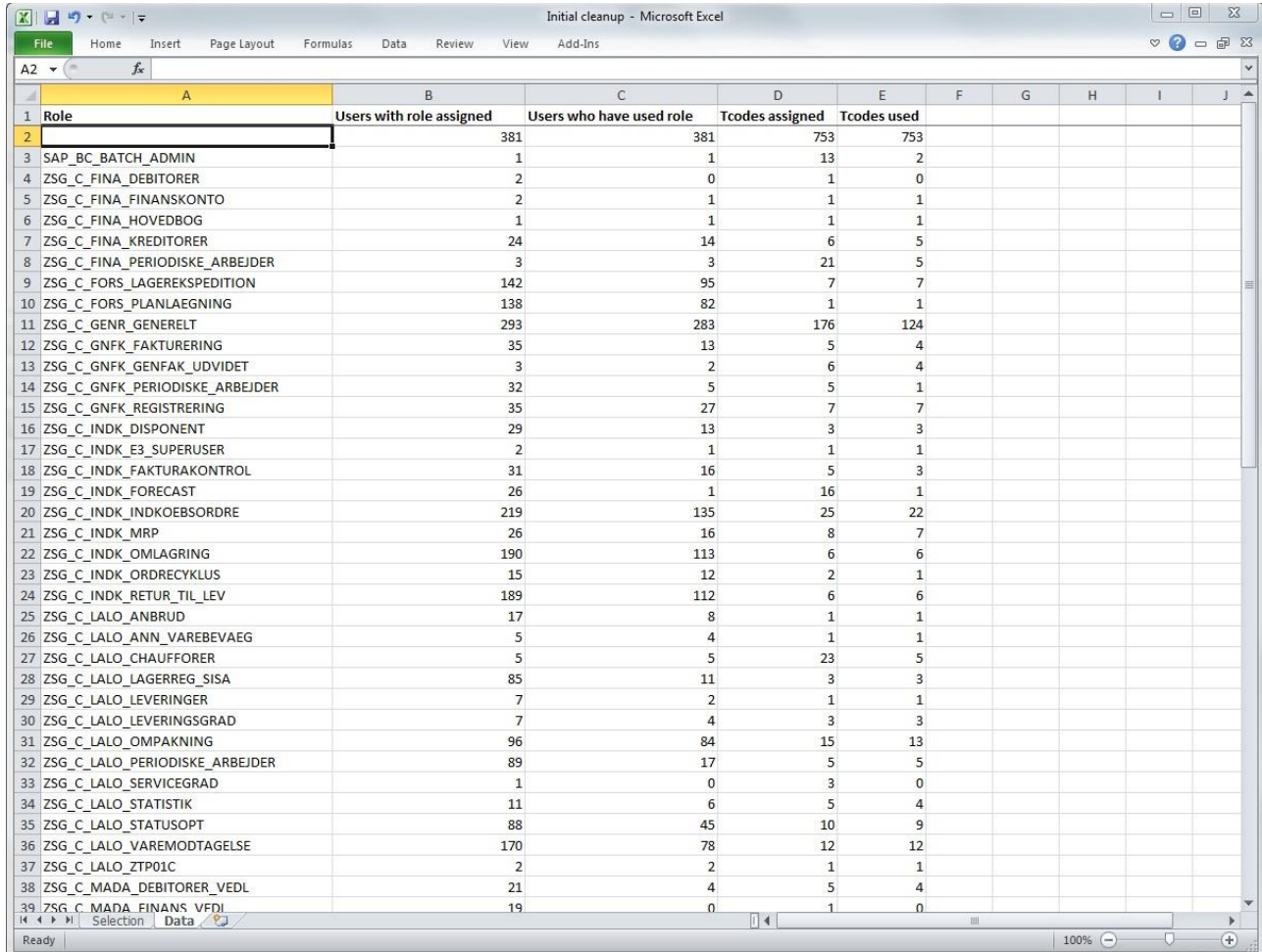
Opening the report is done by clicking on the  icon. The process from here is the normal process for saving and further work with an excel file.




The standard APM-UM report contains two sheets. The sheet called selection describes your report data selections and the system, client and the user name that created the report.



The second sheet called Data contains the report data. The number of columns in the report depends on selection criteria. The following data manipulation in excel, will not be saved in reports that exist in APM_UM.



Role	Users with role assigned	Users who have used role	Tcodes assigned	Tcodes used
SAP_BC_BATCH_ADMIN	1	1	13	2
ZSG_C_FINA_DEBITORER	2	0	1	0
ZSG_C_FINA_FINANSKONTO	2	1	1	1
ZSG_C_FINA_HOVEDBOG	1	1	1	1
ZSG_C_FINA_KREDITORER	24	14	6	5
ZSG_C_FINA_PERIODISKE_ARBEJDER	3	3	21	5
ZSG_C_FORSLAGEREKSPEKTION	142	95	7	7
ZSG_C_FORSLAGPLANLAGNING	138	82	1	1
ZSG_C_GENR_GENERELT	293	283	176	124
ZSG_C_GNFK_FAKTURERING	35	13	5	4
ZSG_C_GNFK_GENFAK_UDVIDET	3	2	6	4
ZSG_C_GNFK_PERIODISKE_ARBEJDER	32	5	5	1
ZSG_C_GNFK_REGISTRERING	35	27	7	7
ZSG_C_INDK_DISPONENT	29	13	3	3
ZSG_C_INDK_E3_SUPERUSER	2	1	1	1
ZSG_C_INDK_FAKTURAKONTROL	31	16	5	3
ZSG_C_INDK_FORECAST	26	1	16	1
ZSG_C_INDK_INDKOESBORDRE	219	135	25	22
ZSG_C_INDK_MRP	26	16	8	7
ZSG_C_INDK_OMLAGNING	190	113	6	6
ZSG_C_INDK_ORDRECYKLUS	15	12	2	1
ZSG_C_INDK_RETUR_TIL_LEV	189	112	6	6
ZSG_C_LALO_ANBRUD	17	8	1	1
ZSG_C_LALO_ANV_VAREBEVAEG	5	4	1	1
ZSG_C_LALO_CHAUFFORER	5	5	23	5
ZSG_C_LALO_LAGERREG_SISA	85	11	3	3
ZSG_C_LALO_LEVERINGER	7	2	1	1
ZSG_C_LALO_LEVERINGSGRAD	7	4	3	3
ZSG_C_LALO_OMPAKNING	96	84	15	13
ZSG_C_LALO_PERIODISKE_ARBEJDER	89	17	5	5
ZSG_C_LALO_SERVICEGRAD	1	0	3	0
ZSG_C_LALO_STATISTIK	11	6	5	4
ZSG_C_LALO_STATUSOPT	88	45	10	9
ZSG_C_LALO_VAREMODTAGELSE	170	78	12	12
ZSG_C_LALO_ZTP01C	2	2	1	1
ZSG_C_MADA_DEBITORER_VEDL	21	4	5	4
ZSG_C_MADA_FINANS_VFDI	19	0	1	0

Recommendations: Time for creating a report depends on the size of the data set being analyzed base on the report selections. Therefore, running a full report on Users, Roles and/or Tcodes, will take a long time to generate the report especially if you have a large system landscape. Furthermore a report with “show alternate roles” filtering will take long time to generate. There is the option to cancel an unfinished report. This is done by clicking on the  sign in the top right hand side of the report history part.

APM Usage Monitor

Dashboard | Data Collector | User Information | License Categories | Reporting

Report selections

General selections

Name:

Date: to

Group:

User selection

Role selection

Tcode selection

More options

Report history

Fav	Name	Created	Status	Link	Copy	Delete
		2013-06-30 13:45:59	Generating 80 rows			
		2013-06-30 13:45:16	Complete			
		2013-06-30 13:39:04	Complete			
		2013-06-26 11:28:09	Complete			
		2013-06-26 11:26:13	Complete			
		2013-06-26 11:24:26	Complete			
		2013-06-26 11:22:06	Complete			
		2013-06-26 11:15:01	Complete			
		2013-06-26 11:11:31	Complete			
		2013-06-26 11:02:35	Complete			
		2013-06-25 17:13:10	Complete			
	Audit report	2013-06-25 17:11:57	Complete			
	Role cleanup	2013-06-25 17:09:47	Complete			
	XD01 VS. VA01	2013-06-14 13:17:43	Complete			
	XD01 VS. VA01	2013-06-14 13:14:15	Complete			
	SoD conflicts	2013-06-14 13:11:56	Complete			
	Finance roles critical	2013-06-14 13:08:34	Complete			
	User specific cleanup	2013-06-14 00:34:54	Complete			

Background processing status

Status: Running. 0 queued.

Id: 5518

Type: Report

System / Client: SIT / 000

User: SAS

Created: 2013-06-30 13:45:59

Started: 2013-06-30 13:46:01

Duration: 2 secs.

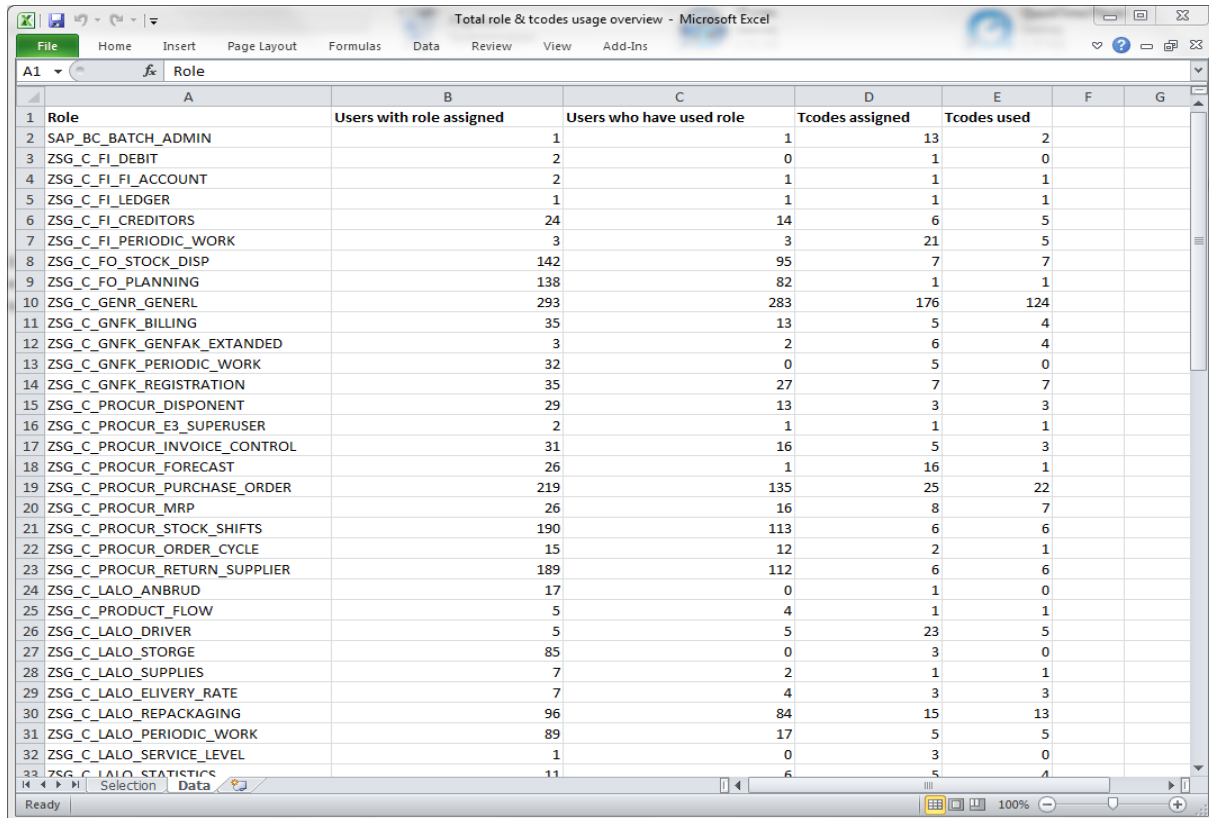
Report example

In the following, a few reports will be explained.

1.1. Example 1: Initial authorization concept overview

Selection:

Group: Both user and tcode



Role	Users with role assigned	Users who have used role	Tcodes assigned	Tcodes used
SAP_BC_BATCH_ADMIN	1	1	13	2
ZSG_C_FI_DEBIT	2	0	1	0
ZSG_C_FI_FI_ACCOUNT	2	1	1	1
ZSG_C_FI_LEDGER	1	1	1	1
ZSG_C_FI_CREDITORS	24	14	6	5
ZSG_C_FI_PERIODIC_WORK	3	3	21	5
ZSG_C_FO_STOCK_DISP	142	95	7	7
ZSG_C_FO_PLANNING	138	82	1	1
ZSG_C_GENR_GENERAL	293	283	176	124
ZSG_C_GNFK_BILLING	35	13	5	4
ZSG_C_GNFK_GENFAK_EXTENDED	3	2	6	4
ZSG_C_GNFK_PERIODIC_WORK	32	0	5	0
ZSG_C_GNFK_REGISTRATION	35	27	7	7
ZSG_C_PROCUR_DISPONENT	29	13	3	3
ZSG_C_PROCUR_E3_SUPERUSER	2	1	1	1
ZSG_C_PROCUR_INVOICE_CONTROL	31	16	5	3
ZSG_C_PROCUR_FORECAST	26	1	16	1
ZSG_C_PROCUR_PURCHASE_ORDER	219	135	25	22
ZSG_C_PROCUR_MRP	26	16	8	7
ZSG_C_PROCUR_STOCK_SHIFTS	190	113	6	6
ZSG_C_PROCUR_ORDER_CYCLE	15	12	2	1
ZSG_C_PROCUR_RETURN_SUPPLIER	189	112	6	6
ZSG_C_LALO_ANBRUD	17	0	1	0
ZSG_C_PRODUCT_FLOW	5	4	1	1
ZSG_C_LALO_DRIVER	5	5	23	5
ZSG_C_LALO_STORGE	85	0	3	0
ZSG_C_LALO_SUPPLIES	7	2	1	1
ZSG_C_LALO_DELIVERY_RATE	7	4	3	3
ZSG_C_LALO_REPACKAGING	96	84	15	13
ZSG_C_LALO_PERIODIC_WORK	89	17	5	5
ZSG_C_LALO_SERVICE_LEVEL	1	0	3	0
ZSG_C_LALO_STATISTICS	11	6	5	4

This report shows the following columns

Role:	The name of the roles that are added to a user on the system. An empty role name indicates a profile, such as SAP_ALL, SAP_NEW etc.
Users with role assigned:	The number of users assigned to the role.
Users how have used role:	The number of users executed a tcode in the specific role.
tcodes assigned:	The number of tcodes contained in the specific role.
tcodes used:	The number of tcodes that are executed and used in the specific role.
Benefits of report information	The report shows a total overview of the allocated roles in the system. By this report an initial cleanup can be initialized. The report is a good way of getting the full picture of roles and tcodes and to what extent they are actually used by the end-users. Use the report to spot a trend and copy for instance the role name of the roles that need the further analysis into the selection screen. In this way, further analysis of other role or tcode usage is possible.

1.2. Example 2: Individual role and tcode usage

Selection:

Group: Tcode

Role type: Single

Role: ZSG_C_INDK_MRP

More options: Roles' license categories from UM and Users lock status

User	Role	Tcodes assigned	Tcodes used	License category	Assigned license
BRVKJ	ZSG_C_INDK_MRP	8	0	Professional	
FVAKH	ZSG_C_INDK_MRP	8	2	Professional	
FVANA	ZSG_C_INDK_MRP	8	2	Professional	
FVANG	ZSG_C_INDK_MRP	8	2	Professional	
FVANI	ZSG_C_INDK_MRP	8	0	Professional	
FVCHN	ZSG_C_INDK_MRP	8	0	Professional	
FVEFB	ZSG_C_INDK_MRP	8	0	Professional	
FVIMJ	ZSG_C_INDK_MRP	8	1	Professional	
FVJAH	ZSG_C_INDK_MRP	8	4	Professional	
FVJJO	ZSG_C_INDK_MRP	8	0	Professional	
FVKII	ZSG_C_INDK_MRP	8	0	Professional	
FVKRO	ZSG_C_INDK_MRP	8	1	Professional	
FVMAB	ZSG_C_INDK_MRP	8	1	Professional	
FVMAM	ZSG_C_INDK_MRP	8	2	Professional	
FVMES	ZSG_C_INDK_MRP	8	0	Professional	
FVPLA	ZSG_C_INDK_MRP	8	1	Professional	
FVSHO	ZSG_C_INDK_MRP	8	2	Professional	
INHBP	ZSG_C_INDK_MRP	8	2	Professional	
JENKNU	ZSG_C_INDK_MRP	8	1	Professional	
KHCEJ	ZSG_C_INDK_MRP	8	1	Professional	
KHEBN	ZSG_C_INDK_MRP	8	0	Professional	
KHIFR	ZSG_C_INDK_MRP	8	2	Professional	
KHSRA	ZSG_C_INDK_MRP	8	2	Professional	
LIZNIE	ZSG_C_INDK_MRP	8	0	Professional	
RIMBL	ZSG_C_INDK_MRP	8	0	Professional	
RIUCH	ZSG_C_INDK_MRP	8	2	Professional	

This report shows the following columns:

User: User name of the users assigned to the selected role.

Role: The selected role.

tcodes assigned: The number of tcodes contained in the selected role.

tcodes used: The number of tcodes executed and used in the selected role.

License category: The license category assigned to the role.

Assigned license: The license category that are assigned the user in SU01.

Benefits of report information: The report shows which users are assigned to the selected role and how many of the tcodes contained in the selected role are used by the users. i.e. during a clean-up the roles not used can be identified and removed accordingly.

1.3. Example 3: Cleanup of tcodes in individual roles

Selection:

Group: none

Role type: Single

Role: ZSG_C_INDK_MRP

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	User	Role	Tcode	Days used										
54	FVANI	ZSG_C_PROCUR_FORECAS	MC81	0										
55	FVANI	ZSG_C_PROCUR_FORECAS	MC8E	0										
56	FVANI	ZSG_C_PROCUR_FORECAS	MC8G	0										
57	FVANI	ZSG_C_PROCUR_FORECAS	MC8J	0										
58	FVANI	ZSG_C_PROCUR_FORECAS	MC90	0										
59	FVANI	ZSG_C_PROCUR_FORECAS	MC94	0										
60	FVANI	ZSG_C_PROCUR_FORECAS	MC9A	0										
61	FVANI	ZSG_C_PROCUR_FORECAS	MCSY	0										
62	FVANI	ZSG_C_PROCUR_FORECAS	MD74	0										
63	FVANI	ZSG_C_PROCUR_FORECAS	MD75	0										
64	FVANI	ZSG_C_PROCUR_FORECAS	ZMAT_HIST	0										
65	FVANI	ZSG_C_PROCUR_FORECAS	ZUP_HIST	0										
66	FVCHF	ZSG_C_PROCUR_FORECAS	MC59	0										
67	FVCHF	ZSG_C_PROCUR_FORECAS	MC62	0										
68	FVCHF	ZSG_C_PROCUR_FORECAS	MC64	0										
69	FVCHF	ZSG_C_PROCUR_FORECAS	MC65	0										
70	FVCHF	ZSG_C_PROCUR_FORECAS	MC81	0										
71	FVCHF	ZSG_C_PROCUR_FORECAS	MC8E	0										
72	FVCHF	ZSG_C_PROCUR_FORECAS	MC8G	0										
73	FVCHF	ZSG_C_PROCUR_FORECAS	MC8J	0										
74	FVCHF	ZSG_C_PROCUR_FORECAS	MC90	0										
75	FVCHF	ZSG_C_PROCUR_FORECAS	MC94	2										
76	FVCHF	ZSG_C_PROCUR_FORECAS	MC9A	0										
77	FVCHF	ZSG_C_PROCUR_FORECAS	MCSY	0										
78	FVCHF	ZSG_C_PROCUR_FORECAS	MD74	0										
79	FVCHF	ZSG_C_PROCUR_FORECAS	MD75	0										
80	FVCHF	ZSG_C_PROCUR_FORECAS	ZMAT_HIST	0										
81	FVCHF	ZSG_C_PROCUR_FORECAS	ZUP_HIST	0										
82	FVCHN	ZSG_C_PROCUR_FORECAS	MC59	0										
83	FVCHN	ZSG_C_PROCUR_FORECAS	MC62	0										
84	FVCHN	ZSG_C_PROCUR_FORECAS	MC64	0										
85	FVCHN	ZSG_C_PROCUR_FORECAS	MC65	0										

This report shows the following columns:

User: User name of the users who are assigned to the selected role.

Role: The name of the selected role.

tcode: The tcodes contained in the selected role.

Days used: The numbers of days the tcodes have been used by the users assigned to the role.

Benefits of report information: The report shows which transactions in the selected role have been used by which users or the opposite. In other words, the report shows you which transactions to keep and which could be left out in cleanup phase.

1.4. Example 4: Cleanup of unused roles allocated to a list of users

Selection:

Group: tcode

Users: FV*

User	Role	Tcodes assigned	Tcodes used
FVAAP		3	3
FVAAP	ZSG_C_FOR_LAGEREKSPEDITION	7	5
FVAAP	ZSG_C_FOR_PLANLAEGNING	1	1
FVAAP	ZSG_C_GENR_GENERELT	176	8
FVAAP	ZSG_C_INDK_INDKOEBSORDRE	25	0
FVAAP	ZSG_C_INDK_OMLAGRING	6	0
FVAAP	ZSG_C_INDK_RETUR_TIL_LEV	6	0
FVAAP	ZSG_C_LALO_LAGERREG_SISA	3	0
FVAAP	ZSG_C_LALO_OMPAKNING	15	2
FVAAP	ZSG_C_LALO_PERIODISKE_ARBEJDER	5	0
FVAAP	ZSG_C_LALO_STATUSOPT	10	5
FVAAP	ZSG_C_LALO_VAREMODTAGELSE	12	0
FVAAP	ZSG_C_SALG_DISTR_EMBALLAGE	8	5
FVAAP	ZSG_C_SALG_FAKTURERING	5	1
FVAAP	ZSG_C_SALG_ORDRER	17	4
FVAAP	ZSG_C_SALG_PERIODISKE_ARBEJDER	9	0
FVAAP	ZSG_C_SALG_REKLAMATIONER	12	4
FVAAP	ZSG_C_TEKN_ZSD_EMBALLAGE	1	0
FVAHA		3	3
FVAHA	ZSG_C_FOR_LAGEREKSPEDITION	7	6
FVAHA	ZSG_C_FOR_PLANLAEGNING	1	1
FVAHA	ZSG_C_GENR_GENERELT	176	13
FVAHA	ZSG_C_INDK_INDKOEBSORDRE	25	0
FVAHA	ZSG_C_INDK_OMLAGRING	6	0
FVAHA	ZSG_C_INDK_RETUR_TIL_LEV	6	0
FVAHA	ZSG_C_LALO_LAGERREG_SISA	3	0
FVAHA	ZSG_C_LALO_OMPAKNING	15	2
FVAHA	ZSG_C_LALO_PERIODISKE_ARBEJDER	5	1
FVAHA	ZSG_C_LALO_STATUSOPT	10	7
FVAHA	ZSG_C_LALO_VAREMODTAGELSE	12	1
FVAHA	ZSG_C_SALG_DISTR_EMBALLAGE	8	6
FVAHA	ZSG_C_SALG_FAKTURERING	5	3

This report shows the following columns:

User: User name of the users assigned to the selected role.

Role: The name of the role allocated to users.

Tcodes assigned: The number of tcodes contained in the role assigned to the users in search for.

Tcodes used: The numbers of days the tcodes have been used by the users assigned to the role.

Benefits of report information: The report gives an overview of which roles have been used by which users. By filtering on the column "tcodes used" you can deliver a list with either the roles used or roles not used. In a cleanup the unused roles information makes a quick win and for the process/business analysis the used roles gives input about who is doing what.

1.5. Example 5: Role Usage and license analysis

Selection:

Group: tcode

Users: KH*

More options: Roles' license categories from UM and Users lock status

	A	B	C	D	E
1	User	Role	Tcodes assigned	Tcodes used	License category
342	KHHOL	ZSG_C_LALO_PERIODISKE_ARBEJDER	5	0	Semi-Professional
343	KHHOL	ZSG_C_LALO_STATUSOPT	10	0	Semi-Professional
344	KHHOL	ZSG_C_LALO_ITEM_RECEPTION	12	0	Professional
345	KHHOL	ZSG_C_SALES_INVOICE	5	0	Professional
346	KHHOL	ZSG_C_SALES_CLAIMS	12	2	Professional
347	KHHTP		1	1	
348	KHHTP	ZSG_C_FORSTOCK_DISPATCH	7	0	Unassigned
349	KHHTP	ZSG_C_FORSTOCK_PLANNING	1	0	TEST
350	KHHTP	ZSG_C_GENERAL	176	4	ESS/MSS
351	KHHTP	ZSG_C_PURCHASE_ORDER	25	0	Professional
352	KHHTP	ZSG_C_SHIFTS	6	0	Professional
353	KHHTP	ZSG_C_PURCHASE_RETURN_SUPPLIER	6	0	Professional
354	KHHTP	ZSG_C_LALO_ANBRUD	1	0	Professional
355	KHHTP	ZSG_C_LALO_STOCK_REG_SISA	3	0	Semi-Professional
356	KHHTP	ZSG_C_LALO_REPACKING	15	1	Semi-Professional
357	KHHTP	ZSG_C_LALO_REGULAR_WORK	5	0	Semi-Professional
358	KHHTP	ZSG_C_LALO_STATUS_COUNTING	10	0	Semi-Professional
359	KHHTP	ZSG_C_LALO_ITEM_RECEPTION	12	0	Professional
360	KHHTP	ZSG_C_SALGBILLING	5	0	Professional
361	KHHTP	ZSG_C_SALE_REGULAR_WORK	9	0	Professional
362	KHHTP	ZSG_C_SALE_CLAIMS	12	0	Professional
363	KHHTP	ZSG_C_TEKN_ZSD_PACKAGING	1	0	Professional
364	KHIFR		4	4	
365	KHIFR	ZSG_C_GENERAL	176	30	ESS/MSS
366	KHIFR	ZSG_C_PURCHASE_FORWARD	3	2	Professional
367	KHIFR	ZSG_C_PUR_E3_SUPERUSER	1	1	Professional
368	KHIFR	ZSG_C_PUR_FORECAST	16	0	Professional
369	KHIFR	ZSG_C_PURCHASE_PUR_ORDER	25	11	Professional
370	KHIFR	ZSG_C_PUR_MRP	8	2	Professional
371	KHIFR	ZSG_C_INDK_OMLAGRING	6	4	Professional
372	KHIFR	ZSG_C_INDK_ORDRECYKLUS	2	1	Professional
373	KHIFR	ZSG_C_INDK_RETUR_TIL_LEV	6	4	Professional

This report shows the following columns:

User: User name of the users how are assigned to the selected role.

Role: The name of the role allocated to users.

Tcodes assigned: The number of tcodes contained in the role assigned to the users searched for.

Tcodes used: The numbers of days the tcodes have been used by the users assigned to the role.

Benefits of report information

The report delivers an overview of selected users and the role usage. The UM maintained license category is switched on giving the information on the license category of the individual roles.

The combination of role usage data and license category supports an individual evaluation of the users if a lower license categorization is possible.

In the example the user in the highlighted area can be moved from professional to semi-professional by removing the unused roles.

1.6. Example 6: False positive SoD conflicts

Selection: Group: none
Tcode: XD01 and VA01

When the report is generated save the report to a folder of your own choice. Otherwise Excel doesn't allow you to make a Pivot table, which is perfect for the analysis.

Now choose the Insert menu in Excel and the PivotTable option.

Now drag the "User" to the "Row Labels" area, "Tcode" to the "Column Labels" area and "Days used" into "Values" area. The report will look like this.

	VA01	XD01	Grand Total
BATCHUSER	141	56	197
BJARLR	0	0	0
BRAFE	0	0	0
BRAHN	0	0	0
BRAJE	0	0	0
BRAKH	6	6	12
BRALB	0	0	0
BRANI	11	11	22
BRBOS	0	0	0
BRBRI	0	0	0
BRBVE	8	8	16
BRCHE	2	2	4
BRCPM	0	0	0
BRCSJ	0	0	0
BRCSV	0	0	0
BRCWA	1	1	2
BRDAC	0	0	0
BRDBE	0	0	0
BRDJZ	72	72	144
BRDOM	14	1	15
BREGA	0	0	0
BREIS	9	9	18

This report shows the following interesting columns

Row Labels: User name of the users who have the SoD conflicts or authorization to one of the tcode.

Column Labels: The tcode selected and the numbers of days the tcodes have been used by the users. What you see in these columns is that if there is a value in both columns the users have the SoD conflict combination and if the value is zero then we know that the tcode have not been used by the users. If there is no value in of the columns, it means that the user do is not authorized to the tcode.

Benefits of report information You can identify your false positives SoD conflicts. Now you can begin cleaning and removing tcodes that causes SoD conflicts, but not been used (false positives). Furthermore, the report gives you the overview of all users mitigated and you will have a full overview of which users are actually using the tcodes that causes the SoD conflicts and which users are actually not using the tcodes causing the SoD conflicts.