

GPA: Plugin for Users Lock/Users Log-off/Users Unlock

With Solution Manager 7.1

The following set of plugins: **Lock Users**, **Log Users Off**, **Unlock Users** can be used in your own guided procedures. It offers the possibility to control users connection on ABAP managed systems.

- The plugin **Lock Users** offers the possibility to centrally select users to be locked on the ABAP managed systems prior to perform any support operation (backup, patching process, etc...).
- The plugin **Log user off** can be used to view users connected to the managed system and eventually to log them off the system.
- The plugin **Unlock Users** is used at the end of the process in order to unlock users defined within the **Lock Users** plugin.

Technical System	Caption	Client	Number of users selected	Number of support users to remain unlocked	Number of users to be locked	Read RFC	Trusted RFC	Status	Status Text
SD7-ABAP	SD7 on lddbsd7	200	1	1	1	SM_SD7CLINT200_READ	SM_SD7CLINT200_TRUSTED	Initial	Initial

Availability	Solution Manager 7.1 SP12
Document version	Version 1.0 – 2014.07.21

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OVERVIEW

Use case

For some maintenance operations, it is sometime necessary:

- To lock a set of users before executing the necessary maintenance process.
- Check that selected users are disconnected from the system.
- Once the process is complete – all users have to be un-locked.

GPA plugins Users Lock/Users Log-off/Users Unlock are intended to be used together within the same guided procedure or within separated guided procedure.



Please note that Users log-off and Users Unlock plugins cannot be used without the Users Lock plugin.

Here is a description of the 3 plugins:

GPA Plugin Name	Description
Lock Users	This plugin is used to: <ul style="list-style-type: none">• Select on managed system which users should be defined within the lock procedure.• Select on managed system which administrative users have to stay unlocked.• Selection criteria are available for user selection: Group, Role and User name (wildcard '*' can be used).• The list of users can also be uploaded from a flat file.• Trigger a lock users on managed system
Log-off Users	This plugin is used to: <ul style="list-style-type: none">• Check which users (selected in previous step) are still logged into the system• From this plugin you can perform a user log-off.
Unlock Users	This plugin is used to: <ul style="list-style-type: none">• Unlock all users that have been previously locked by Lock Users step.

Required Managed objects

- ABAP Technical System only.

Pre-requisites

Following pre-requisites are necessary to execute GPA Plugins:

- Managed System Setup (read and trusted connection created) should be executed.

DESIGN TIME

Plug-In: Lock Users

At design time you can select some pre-defined value that will be using during runtime to determine user selection.

The screenshot shows a 'Select a Plugin' dialog box. At the top, 'Content:' is set to 'Lock Users' with a dropdown arrow and a link to 'Display Help Documentation'. Below this is a section titled 'Plugin: Select & Lock users'. Underneath, there is a 'Selection Key' section with a 'Name: *' field containing 'DEFAULT' and a 'Global' checkbox. Two columns of options follow: 'Determination of users to be locked by' and 'Determination of support users to remain unlocked by'. Each column has radio buttons for 'File Upload' and 'Selection', with 'Selection' selected in both. Below these are two columns of selection criteria: 'Lock User Selection Criteria' and 'Support User Selection Criteria'. Each column has input fields for 'Group:', 'Role:', and 'User Name:'. The 'Lock User Selection Criteria' fields contain 'TST_TOBE_DE2' and the 'Support User Selection Criteria' fields contain 'PALAZZOLO'.

The view is divided in 2 sections:

- **Selection Key**

The *selection key* will be used at runtime to store the selected users that are locked. In fact, more than one **Lock Users** plugin can be used within the same guided procedure. This option should be considered if you need to lock different set of users within the same guided procedure.

By default the visibility of a set of users saved within a *selection key* is limited to a guided procedure instance. If you need to *Lock Users* within one guided procedure and the *Unlock Users* is located within another guided procedure – the *Global* option should be checked in order to share the selection key between different guided procedure instances.

- **User Selection**

Two different type of users should be selected: Users to be locked and users to remain unlocked (administrative users).

For each kind of users here are the available options:

- **File Upload**

the user selection will be provided at runtime through a file upload. The format of the file is a plain text file containing one column with user id.

```
===== user file example =====  
USER_ID_01  
USER_ID_02  
===== end of user file =====
```

- **Selection**

in this section you can defined pre-defined filters that will be used at runtime to determine users to be locked: *User name, Group, Role*.

Plug-In: Log-Off Users

Log-off Users plugin only contains selection key parameters and global flag.

Select a Plugin	
Content:	<input type="text" value="Log-off Users"/> Display Help Documentation
Plugin: Log-off users	
Selection Key	
Name: *	<input type="text" value="DEFAULT"/> <input type="checkbox"/> Global

Plug-In: Unlock Users

Unlock Users plug-in settings is similar to previous one.

Select a Plugin	
Content:	<input type="text" value="Unlock Users"/> Display Help Documentation
Plugin: Unlock users	
Selection Key	
Name: *	<input type="text" value="DEFAULT"/> <input type="checkbox"/> Global

RUNTIME VIEW

All 3 plug-ins are designed to be multiple scope enable – an entry in the table view will be created for each technical system - only ABAP Technical Systems are accepted.

Plug-In: Lock Users

ABAP Technical System(s)								
Technical System	Caption	Number of users selected	Number of support users to remain unlocked	Number of users to be locked	Read RFC	Trusted RFC	Status	Status Text
SD7-ABAP	SD7 on lddbsd7	1	1	1	SM_SD7CLNT200_READ	SM_SD7CLNT200_TRUSTED	10	Initial

- User Management Plug-ins is working with status level – status level is maintained individually for each technical system - here are different status level:

- **00 – Empty (usually not displayed)**

This status is used when entering the plug-in for the first time – the plug-in is:

- reading the scope
- building the table view
- Getting the destinations (Read and Trusted setup in managed System setup)
- Once the destination is successfully retrieved, the plug-in will get automatically the selected users/support users from managed system if criteria were provided at design time.

If *upload file* option were selected, then an icon is displayed in order to show that a user action is required.

- **10 - Initial**


- After the automatic resolution of users – the status is set to initial (10).
- You may update the users list or upload the users if defined at design time.
- Once all users have been entered - the status is move to Users Read (20).



Regarding user selection: ONLY users that are not locked on managed system are available. It is not possible to select a user that is already locked for administrative reason.

- The column Number of users to be locked gives a view of the users that are going to be locked.

- **20 - User Ready**
 - At this level, the users can still be edited.
 - Only at this point it is possible to perform the **lock** operation.
 - The “**Lock**” operation is triggered for each user defined in the column (users to be locked):
 - If the operation is successful, a log entry is written for each system – and the status level is set to Users Locked (30).
 - If the operation fails even for one user, then status is not updated.
- **30 – User Locked**
 - At this level, all users should be locked on the managed system

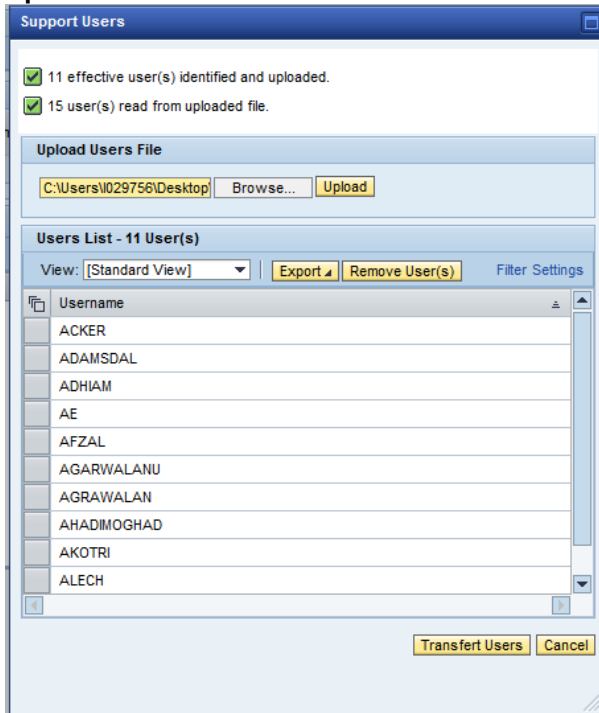
 It is not possible to trigger a new **lock** operation. It is no longer possible to edit user list – in order to prevent from inconsistency or some users left locked.
- **50 – User Unlock**
 - This status is only available within the plug-in Unlock Users where it is possible to unlock the users

Select Users/Display Users

Same view is used for selecting users and displaying users, however depending on the edit/view mode, some UI components may be hidden (file upload, selection criteria, etc...).

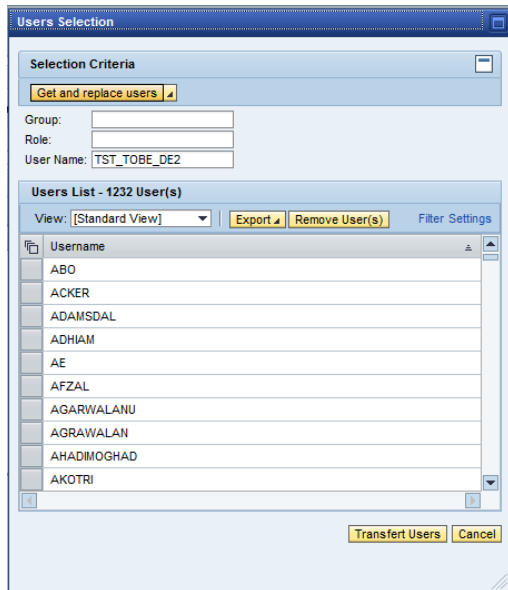
In Edit mode, a connection to the managed system is performed in order to validate selected users.

Upload File mode



- In **Upload File** mode, it is possible to load users from flat file.
- Once uploaded: the message area displays:
 - Number of users available in the file is displayed in the message area.
 - Number of users found on managed system (not locked) and matching the uploaded file.
- Users can be removed from the list using the 'Remove User(s)' action button.
- When selection is correct, users can be effectively transferred to main view – or if necessary selection action can be cancelled.

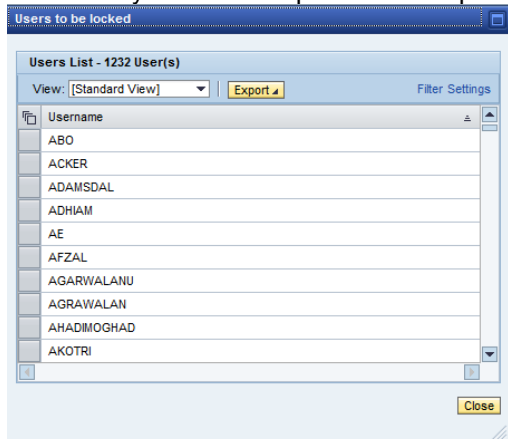
- **Free Selection Mode**



- In **Free Selection Mode**, it is possible to use any of 3 selection criteria (Group, Role or User Name).
- Wildcard '*' can be used.
- 2 action buttons are available:
 - **Get and replace users:** replace existing users with users fetched from managed system.
 - **Get and append users:** fetch users from managed system and append to existing users.

- **View only mode**

in view only mode – it is possible to export users list.



Save function

- Within the **Lock Users** plug-in, it is possible to save the current selected users and status.
- Snapshot is saved per technical system within the Generic Storage.
- In case the plug-in gets refresh, the data is loaded from the Generic Storage – if no data available, then the technical system is initialized (auto discovery of users based on the filters, etc...).
- See section *Technical details – Generic Storage* for more information.

Plug-In: Log-Off Users

Plug-in Log-Off Users, is similar to the previous plug-in. It uses data saved during the lock process.

Test UM Personalize
 Create Support Message

Technical System SD7~ABAP User Name PALAZZOLO

1 Lock Users 2 Log-Off users 3 Unlock Users

Read Only Previous Next Save Reset

Log-off users for selection key : DEFAULT

Log-off all users Refresh

ABAP Technical System(s)							
Technical System	Caption	Number of users locked	Number of users currently logged on to the system	Read RFC	Trusted RFC	Status	Status Text
SD7-ABAP	SD7 on lddbsd7	1	0	SM_SD7CLNT200_READ	SM_SD7CLNT200_TRUSTED	🔒	Users Locked

Log with 2 Messages for Activity Custom Activity

Export Refresh Add Comment Filter Settings

Type	Message	Date	Time	Technical Sy...	User	Long Text	Details	URL
🟢	1 user(s) have been logged off successfully.	20.02.2014	19:15:51	SD7-ABAP	PALAZZOLO			
🟡	No users logged on the system.		19:12:41	SD7-ABAP	PALAZZOLO			

This view is displaying:

- One additional column is displaying the users currently logged on the system.
- Clicking on it, display the list of logged users.
- The “**Log-off all users**” action can be triggered in order to kick user out of the system - “**log-off users**” is performed for all technical system in scope
- Log is written for:
 - Successfully log-off action
 - Information if no user need to be logged-off
 - Error in case of operation failure.

Plug-In: Unlock Users

Test UM Personalize
 Create Support Message

Technical System SD7~ABAP User Name PALAZZOLO

1 Lock Users 2 Log-Off users 3 Unlock Users

Read Only Previous Next Save Reset

Unlock users for selection key : DEFAULT

Unlock all users Refresh

ABAP Technical System(s)							
Technical System	Caption	Number of users to unlock	Read RFC	Trusted RFC	Status	Status Text	
SD7-ABAP	SD7 on lddbsd7	1	SM_SD7CLNT200_READ	SM_SD7CLNT200_TRUSTED	🔒	Users Locked	

Log with 3 Messages for Step Unlock Users

Export Refresh Add Comment Filter Settings

Type	Message	Date	Time	Technical Sy...	User	Long Text	Details	URL
🟢	1 user(s) have been unlocked successfully.	20.02.2014	19:16:50	SD7-ABAP	PALAZZOLO			

- Plug-in **Unlock Users** is similar to previous plug-in. It uses data saved during the lock process.
- The “**Unlock all users**” action can be triggered in order to unlock all users previously locked.
- Log is written for:
 - Successfully unlock action
 - Error in case of operation failure.
- Status is changed back to “Users Unlock” (30).

TECHNICAL DETAILS

Used function modules

Here are some technical details related to each action performed during the lock/log-off/unlock operations.

Operation	Description
Get Read RFC	The function module to retrieve READ rfc is SMSY_RFC_STRG_GET_ALL_FOR_SYS: <ul style="list-style-type: none">• Input is the technical system• Retrieve RFC is one ending with the suffix _READ
Get Trusted RFC	The function module to retrieve TRUSTED rfc is SMSY_RFC_STRG_GET_ALL_FOR_SYS: <ul style="list-style-type: none">• Input is the technical system• Retrieve RFC is one ending with the suffix _TRUSTED
Get Users	The remote BAPI used to retrieve users is: BAPI_USER_GETLIST . Used filters are: <ul style="list-style-type: none">• User name: USERNAME (no field)• User Group: LOGONDATA (field: CLASS)• User Role: ACTIVITYGROUPS (field: AGR_NAME) Pre-requisite: Read RFC needed.
Get Logged users	The remote function module used is: TH_USER_LIST Pre-requisite: Trusted RFC needed
Lock Users	The remote BAPI used is: BAPI_USER_LOCK Pre-requisite: Trusted RFC needed
Unlock Users	The remote BAPI used is: BAPI_USER_UNLOCK Pre-requisite: Trusted RFC needed

Generic storage

- Saved data can be accessed through **solman_setup_admin** → **Generic Storage Admin** application:

Help

Save Display Refresh

Configuration id: GPCR_USER_MGMT-GPCR_USER_MGMT Search Filter Delete Filter

Generic Storage Entries

Configuration id list per extra key

View: [Standard View] Export Filter Settings

Configuration ID	Extra key combination
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1ED3-A6C1-4A3627B6A5F2 ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1ED3-A6C3-4993F5E54793 ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1ED3-A6C6-5361662C8A12 ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1ED3-A6C8-A52422604A6B ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1EE3-A69A-A128866D08E5 ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1EE3-A69B-1B1D848E8C32 ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1EE3-A6A6-A75058FE93F7 ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1EE3-A6A6-F20D898C5429 ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1EE3-A6B1-D1C55D639BD8 ; KEY = DEFAULT
GPCR_USER_MGMT	DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1EE3-A6B1-D47814F7DBDA ; KEY = DEFAULT

Configuration details for: DIAGLS_ID = SD7-ABAP ; GP_ID = 00505694-393A-1ED3-A6C1-4A3627B6A5F2 ; KEY = DEFAULT

Configuration as a list of key/value

View: [Standard View] Export Add new entry Change secure storage value Remove Entries Undo Remove Refresh View as XML Filter Settings

Parameter name	Parameter value	Is secure storage?
LAST_UPDATE	120142	<input type="checkbox"/>
LOCK_USERS_SNAPSHOT	<?xml version="1.0" encoding="utf-16"?><asx:abap xmlns:asx="http://www.sap.com/abapxml" >	<input type="checkbox"/>

- Configuration id is **GPCR_USER_MGMT**
- Extra Key is:
 - **For Global Selection Key:** DIAGLS_ID (system ID) – Key name
 - **For Instance Selection Key:** DIAGLS_ID (system ID) – Key name – GP_ID (GP Instance Id).
- Save data:
 - **LAST_UPDATE:** last update data (used to perform cleanup)
 - **LOCK_USERS_SNAPSHOT:** serialized snapshot for the technical system (contains: selected users, support users, users to lock, filters, status...)