HPSA Extension Pack

Solution Container - User Reference

Release v.5.1

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Support

Support for the HP Service Activator Extended Pack product is available on the following mailing list:

hpsa-support@hp.com

In This Guide

This guide explains how to use the Solution Container and the user administration GUI provided with it.

Audience

The audience for this guide is the Solutions Integrator (SI). The SI has a combination of some or all of the following capabilities:

Understands and has a solid working knowledge of:

- UNIX® commands
- Windows® system administration

Understands networking concepts and language

Is able to program in Java™ and XML

Understands security issues

Understands the customer's problem domain

References

HPSA Extension Pack – Solution Container – Developer Reference.

HP Service Activator – Inventory Subsystem.

Manual Organization

This guide contains the following chapters:

Chapter 1, "Introduction", provides a brief explanation about the purpose, the scope and the definitions involved in this document.

Chapter 2, "General description", provides a wide description of the tool this document is focused on.

Chapter 3, "User management", describes the administration GUI provided with the SC for the user management.

Chapter 4, "Permission management", describes the administration GUI provided with the SC for the assignment of permissions for the different users to access the different applications under the SC.

Chapter 5, "Inventory management", describes the administration GUI provided with the SC for the Inventory tool.

Chapter 6, "User RMI management", describes the way to manage the SC users from an external system through RMI.

Conventions

The following typographical conventions are used in this guide.

Font	What the Font Represents	Example
Italic	Book or manual titles, and man page names	Refer to the *HP Service Activator — Workflows and the Workflow Manager* and the *Javadocs* man page for more information.
	Provides emphasis	You *must* follow these steps.
	Specifies a variable that you must supply when entering a command	Run the command: `InventoryBuilder` *<sourceFiles>*
	Parameters to a method	The *assigned_criteria* parameter returns an ACSE response.
Bold	New terms	The **distinguishing attribute** of this class...
`Computer`	Text and items on the computer screen	The system replies: `Press Enter`
	Command names	Use the `InventoryBuilder` command ...
	Method names	The `get_all_replies()` method does the following...
	File and directory names	Edit the file `$ACTIVATOR_ETC/config/mwfm.xml`
	Process names	Check to see if `mwfm` is running.
	Window/dialog box names	In the `Test and Track` dialog...
	XML tag references	Use the `<DBTable>` tag to...
`Computer Bold`	Text that you must type	At the prompt, type: **`ls -l`**
Keycap	Keyboard keys	Press **Return**.
[Button]	Buttons on the user interface	Click `[Delete]`. Click the `[Apply]` button.
Menu Items	A menu name followed by a colon (:) means that you select the menu, then the item. When the item is followed by an arrow (->), a cascading menu follows	Select Locate:Objects->by Comment.

Install Location Descriptors

The following names are used throughout this guide to define install locations.

Descriptor	What the Descriptor Represents
$ACTIVATOR_OPT	The install base location of Service Activator. The UNIX location is /opt/OV/ServiceActivator The Windows location is <drive>:\HP\OpenView\ServiceActivator\
$ACTIVATOR_ETC	The install location of specific Service Activator configuration files. The UNIX location is /etc/opt/OV/ServiceActivator The Windows location is <drive>:\HP\OpenView\ServiceActivator\etc\
$ACTIVATOR_VAR	The install location of specific Service Activator logging files. The UNIX location is /var/opt/OV/ServiceActivator The Windows location is <drive>:\HP\OpenView\ServiceActivator\var\
$ACTIVATOR_BIN	The install location of specific Service Activator binary files. The UNIX location is /opt/OV/ServiceActivator/bin The Windows location is <drive>:\HP\OpenView\ServiceActivator\bin\
$ACTIVATOR_THIRD_PARTY	The location for new Java components such as workflow nodes and modules. Third-party libraries can also be placed in this directory. The UNIX location is /opt/OV/ServiceActivator/3rd-party The Windows location is <drive>:\HP\OpenView\ServiceActivator\3rd-party\ Customized inventory files are stored in the following locations: UNIX: $ACTIVATOR_THIRD_PARTY/inventory Windows: $ACTIVATOR_THIRD_PARTY\inventory
$JBOSS_HOME	HOME The install location for JBoss. The UNIX location is /opt/HP/jboss The Windows location is <drive>:\HP\jboss
$JBOSS_DEPLOY	The install location of the Service Activator J2EE components. The UNIX location is /opt/HP/jboss/server/default/deploy

	The Windows location is `<drive>:\HP\jboss\server\default\deploy`
`$ACTIVATOR_DB_USER`	The database user name you define. Suggestion: `ovactivator`
`$ACTIVATOR_SSH_USER`	The Secure Shell user name you define. Suggestion: `ovactusr`
`$SOSA_HOME`	The install base location of SOSA. The default UNIX location is `/opt/OV/Sosa` The default Windows location is <drive>:\HP\OpenView\Sosa\
`$SOSA_BIN`	The install location of specific SOSA binary files. The default UNIX location is `/opt/OV/Sosa/bin` The default Windows location is `<drive>:\HP\OpenView\Sosa\bin\`
`$SOSA_ETC`	The install location of specific SOSA configuration files. The default UNIX location is `/opt/OV/Sosa/config` The default Windows location is <drive>:\HP\OpenView\Sosa\config\
`$ECP_HOME`	The install base location of Equipment Connections Pool. The default UNIX location is `/opt/OV/ECP` The default Windows location is <drive>:\HP\OpenView\ECP\
`$ECP_BIN`	The install location of specific Equipment Connections Pool binary files. The default UNIX location is `/opt/OV/ECP/bin` The default Windows location is <drive>:\HP\OpenView\ECP\bin\
`$ECP_ETC`	The install location of specific Equipment Connections Pool configuration files. The default UNIX location is `/opt/OV/ECP/conf` The default Windows location is <drive>:\HP\OpenView\ECP\conf\

1 Introduction

1.1 Purpose

This document is a manual for the users of the Solution Container. It explains every feature of the Solution Container and the administration tool provided with it.

1.2 Document Scope

This document is oriented for the users of the Solution Container. It is focused on the main featured provided with the EP around the Solution Container.

1.3 Definitions

1.3.1 Acronims

MWFM: Micro Work Flow Manager

HPSA: HP Service Activator

EP: Extension Pack

SC: Solution Container

UAG: User Administration GUI

2 General Description

2.1 Solution Container

The SC is an application framework for the development and deployment of user applications. Integrated into the HPSA, it provides mechanisms to integrate the applications into the activation system.

Its objectives are:

- To establish a common interface for all the user applications.
- To establish a main design which provides a clear separation between logical and presentation layers.
- To provide APIs and designing regulations for a lively and effective development of the user applications.
- To personalize the applications for each user accessing the tool.

The EP provides the SC with several tools and applications whose documentation is deployed with the installation of the EP itself.

This tool provides a common visual interface in which developers can deploy new user applications. The figure below shows an example this interface.

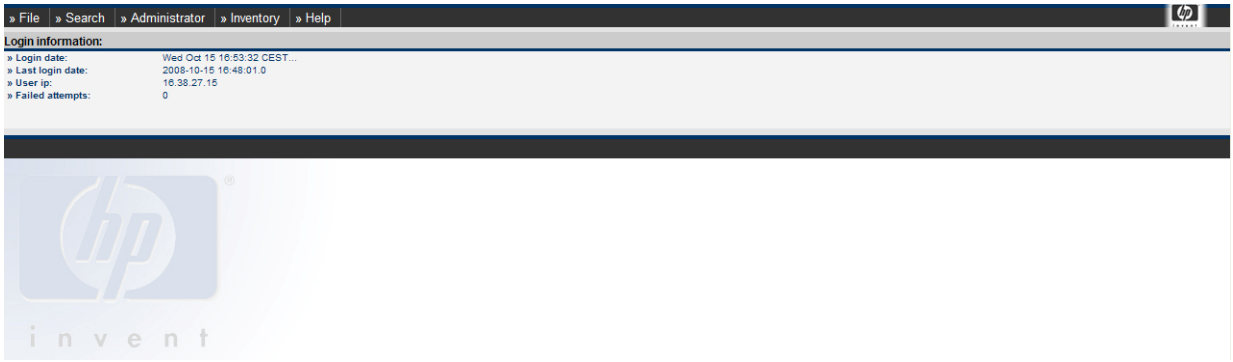


Fig. 1: Solution Container

SC provides several APIs for developing and a designing guide which makes it easy developing and deploying new user applications. Integrated in the SC, all the applications possess the same look and feel based on configured menus.

Apart from a common interface, the user applications developed for the SC share the same designing criteria.

2.1.1 Inventory

The Inventory is a general purpose environment which allows storing the information of the physical and logical elements, and the services associated to each element:

- Provides an open data model which allows to store the desired elements and attributes and to particularize it for the needs of each client.
- The definition of the data model, relationships and operations over each Inventory element is performed declaratively through XML files and is object oriented.

For further information, see the document HP Service Activator – Inventory Subsystem.

2.1.2 User management

The UAG, given with the SC, provides all the necessary features that allow an easy, graphical management of either any configurable element or the permissions applied on them.

Every element managed through this GUI is explained in detail in further sections. Some of these elements reference the SC, and the other reference the Inventory application.

A brief description of the elements involved in the SC management can be seen below:

- *Users*: the ones logging on the SC.
- *Roles*: grouping of common permissions for their associated users.
- *Teams*: user groups with the same (or at least very similar) privileges.
- *User sessions*: the logged on users information.
- *Account profiles*: logging on features of each user.
- *Applications*: the available user applications.

Elements involved in the Inventory application are:

- *Inventory views*: tree representations of the data stored in the database.
- *Branches*: the branches of the different inventory views.
- *Stored searches*: advanced searches on the beans stored in the database for further reference.
- *Filters*: personal restrictions applied over inventory trees.

Depending on the kind of user (super users, team administrators or normal users) there will be more or less operations allowed.

Users can also be managed remotely thanks to the User RMI Manager. The URM will publish some methods which can be used from other applications to manage the user configuration. Those methods will be explained in detail later.

2.1.3 Integration with HPSA

SC provides several mechanisms for the integration with HPSA, establishing an easy manner to access the HPSA and invoking activation tasks over the system.

There are also predefined applications integrated with HPSA that can be deployed into the SC, offering this way a high amount of solutions based on this tool.

3 Solution Container

Every user application is deployed into the SC.

In this section there will be reviewed the main concepts involved in the SC development.

3.1 Single entrance point

There is only a single entrance point to access the SC where the user must enter a valid username and password and, in base of his account, there will be loaded the menus which of his available applications.

The URL to access the SC is:

http://localhost:8089/activator/jsp/future-gui/hpac.jsp

where *localhost* may be substituted by the server's IP.

The figure below shows the web page which is always shown to log on the SC.

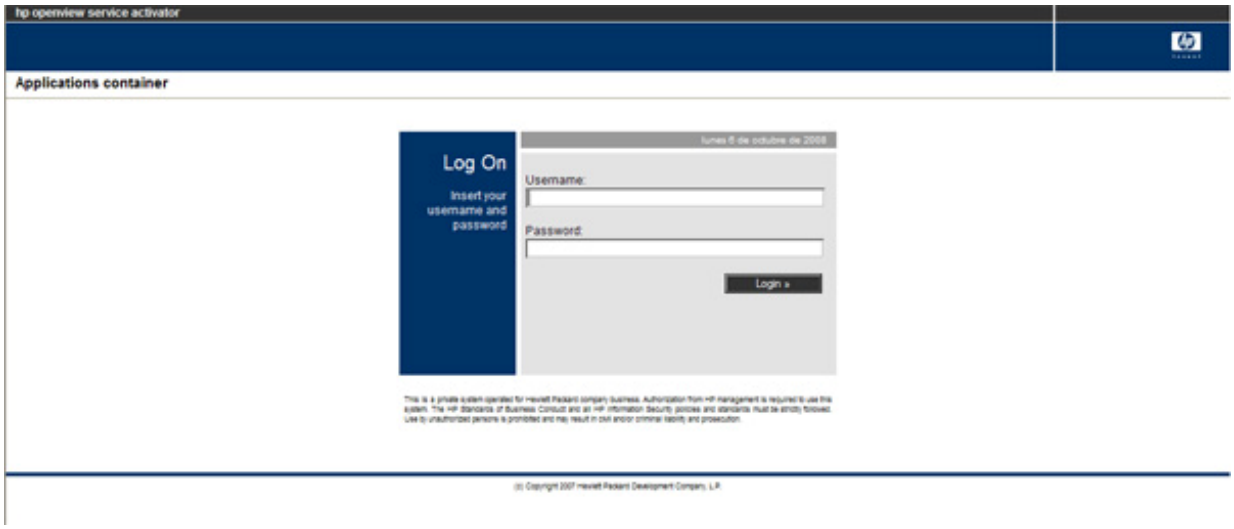


Fig. 2: Log on

3.2 Solution Container Structure

The SC has a well defined visual structure which divides the screen in several modules, each of them with a specific functionality.

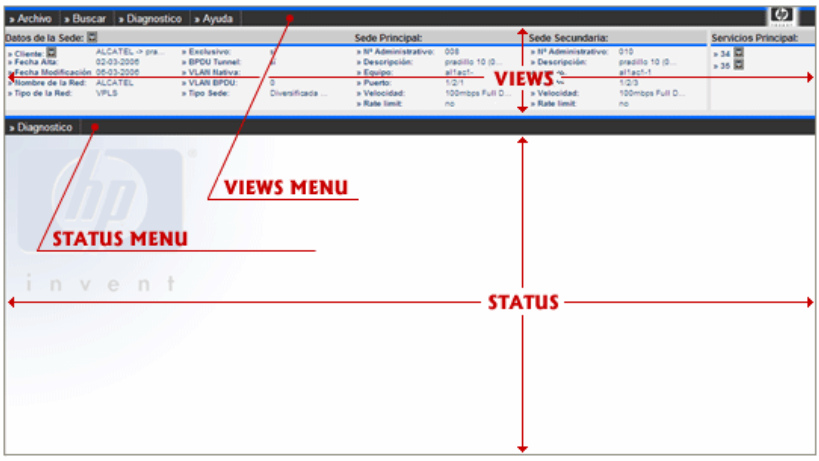


Fig. 3: SC screen structure

The following sections describe the main characteristics of these modules.

3.3 The view menu

Provides access to the different user applications. It is loaded the first time the user enters the SC (just before the log on) and remains without changes while the user session lasts. Each user application includes one or more menus in the views menu bar.

Fig. 4: Views menu

As it can be seen in the example above, the user may access to the UAG (menus Search and Administrator) and the Inventory application (menu Inventory). The other menus (File and Help) belong to the SC.

3.4 The views

Once an application has been selected in the views menu this view frame can contain:

Fig. 5: View example

- Component information: it is the one shown in the previous figure. It presents the available data of the selected component. SC provides APIs and design guides for the quick development of these kind of views.

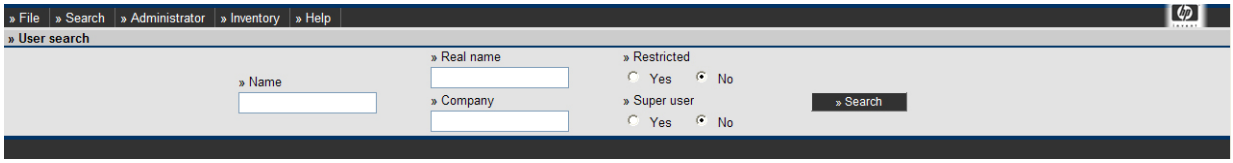


Fig. 6: Search example

- Component search: it presents a form through which a component can be located. The form submitted becomes a query to get a list of components. Once the component has been selected the SC loads its information view. The SC provides the needed functionality to automate this task.

The data load in this frame will be referred from now on this document as “actual view”.

3.5 The status menu

The status menu is associated to the actual view and contains the operations that can be executed over the selected component which data is being showed.

They are showed just below the view space and remains there while the user is working on the same component.

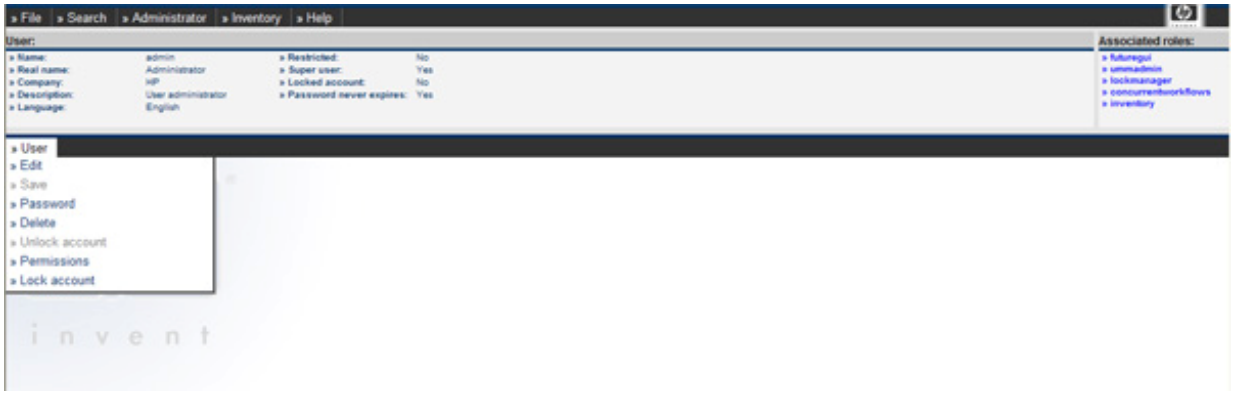


Fig. 7: Status menu

3.6 The status space

This space is placed below the status menu. Each time a task performed over a selected component is fired, the result will be shown here.

In this space there will be launched the operations over a component and the user interaction can be carried on.

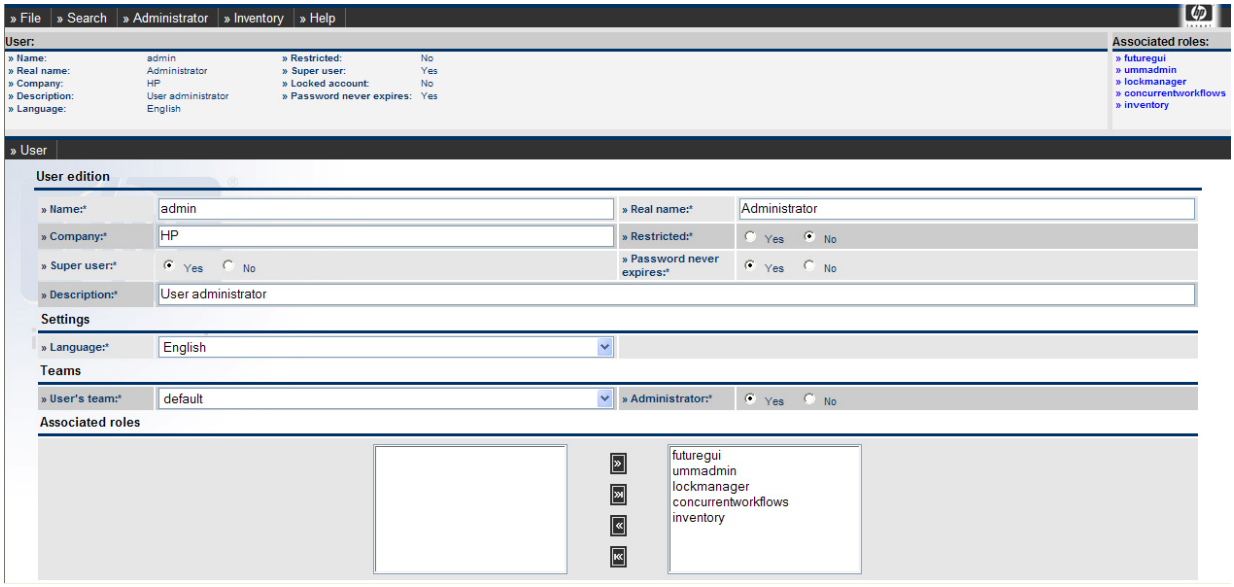


Fig. 8: Status example

Each time the user interacts with a component the status is being modified. Checking this status the SC enables or disables the available component menus.

Imagine for instance an application performed for text file edition. The Save file option will only be enabled when the text file has been modified. Modifying the file means a change in the status, which results in the enabling of the menu Save file. This principle is the same followed by the SC, which allows defining status that enable or disable certain menu options. SC provides the needed functionality for defining and managing the status changes.

4 User Management

4.1 User Structure

The figure below shows the UML representation of the elements involved in the user management.

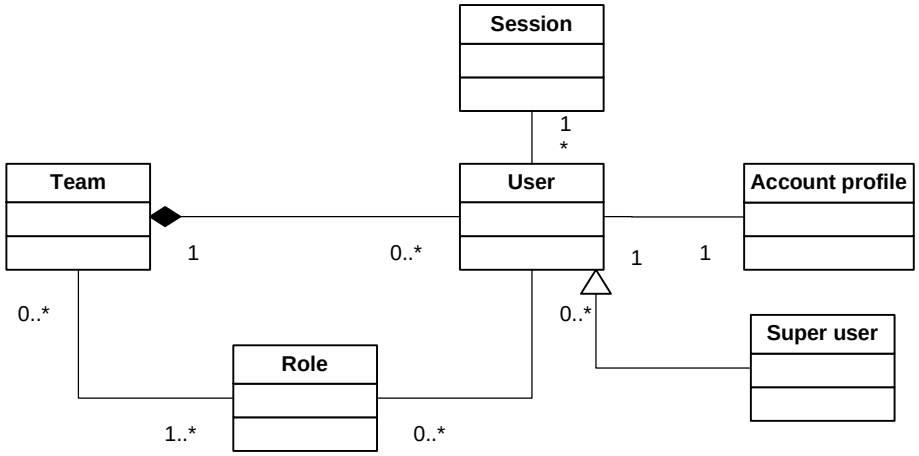


Fig. 9: Elements involved in the user management

Users are the ones who can access the SC. There are three possible kinds of users:

- Super users, who have no restrictions at all. They have access over any element and are allowed to manage every kind of permissions.
- Team administrators, who are allowed to manage permissions only over the elements associated to their team.
- And normal users, who have no managing permissions, only those given by super users or team administrators.

Each defined user must have its own account profile, where there are set the logging on features, such as the password expiration period or the number of wrong logging on attempts before the user becomes blocked, for instance.

Each user must belong to a team, and only to one. Teams define groups of users with similar privileges. These privileges can only differ on the accessible roles available for each user.

Each team can have an administrator. There is no limitation on the number of administrator users over a single team.

Roles define a set of available applications and application menus. Every user associated to a role will have access to both the applications and the applications menus attached to that role.

A role can belong to one or more teams and there is no limitation on the number of teams associated to each role. Since roles belong to teams, a user will only be able to access those roles. It is not allowed for a user to access roles which are not associated to the user's team.

4.2 User Administration

The user administration allows the creation of new users and search already defined ones. Once a user has been selected, there are several operations which can be performed over him which will be available

depending on the kind of user who is trying to perform the operation. Since there are operations only allowed for super users or team administrators, if another user tries to access any of those the next message will be displayed. The next sections will provide a wide explanation of them.

4.2.1 User Creation

To create a new user it is necessary to reach the menu "Administrator" → "Users" → "New", as it is showed in the image below.

This operation is available only for super users and team administrators.

Fig. 10: Accessing the user creation

By clicking on the "New" menu it should be displayed the page showed on the image below, where several information is required for the user creation.

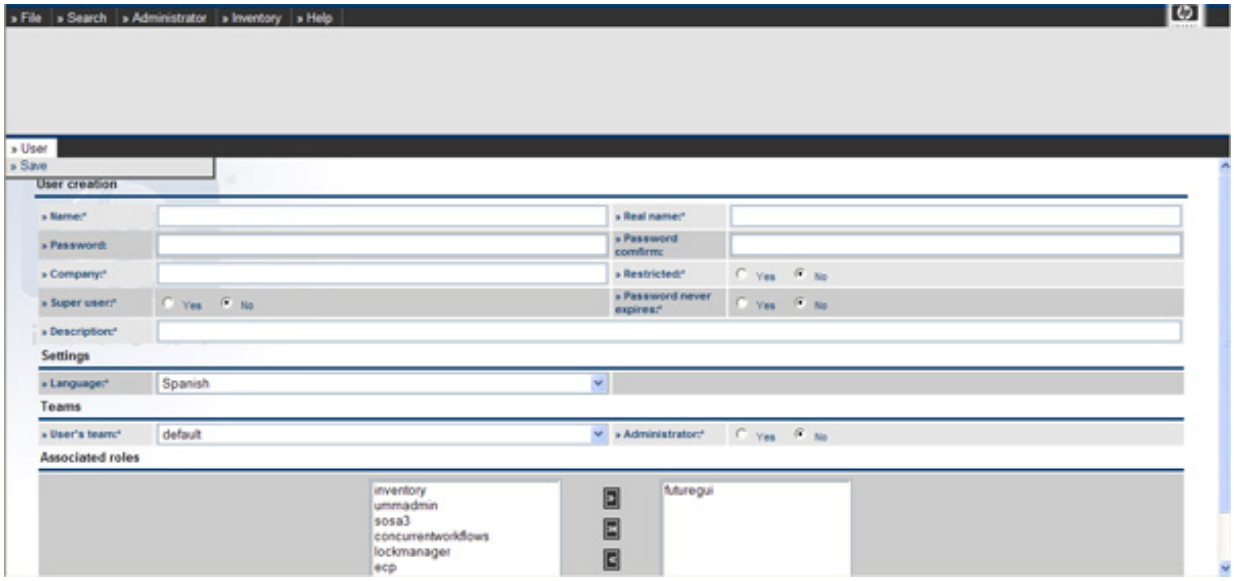


Fig. 11: Creating a new user

The requested fields are:

- *Name*: the username.
- *Real name*: the user real name.
- *Password*: the user password.
- *Password confirm*: confirmation for user password.

- *Company*: the user company.
- *Restricted*: indicates whether the user has any kind of restriction or not. There is no need of knowing the restriction applied for the user at this point, that will depend on each application.
- *Super user*: indicates if the user must be set as super user or not.
- *Password never expires*: indicates if the user password should expire after the period set in his account profile or not. If this value is set to *Yes*, the user will be asked to change his password the first time he is logged on the SC.
- *Description*: the user brief description.
- *Language*: the language in which the SC will be displayed for the user. It is selected from a list with the available languages.
- *User team*: the team this user will belong to. It is selected from a list with the available teams. When the one creating the user is a team administrator, this field will be fixed with the administrator's team name.
- *Administrator*: indicates if the user will be administrator of the selected team or not.
- *Associated roles*: this box shows the roles marked as associated to the user. The list with the available roles is obtained automatically and depends on the previously selected team.

4.2.2 User listing

All the already existing users can be listed by accessing the menu "Administrator" → "Users" → "List", as it can be seen in the image below.

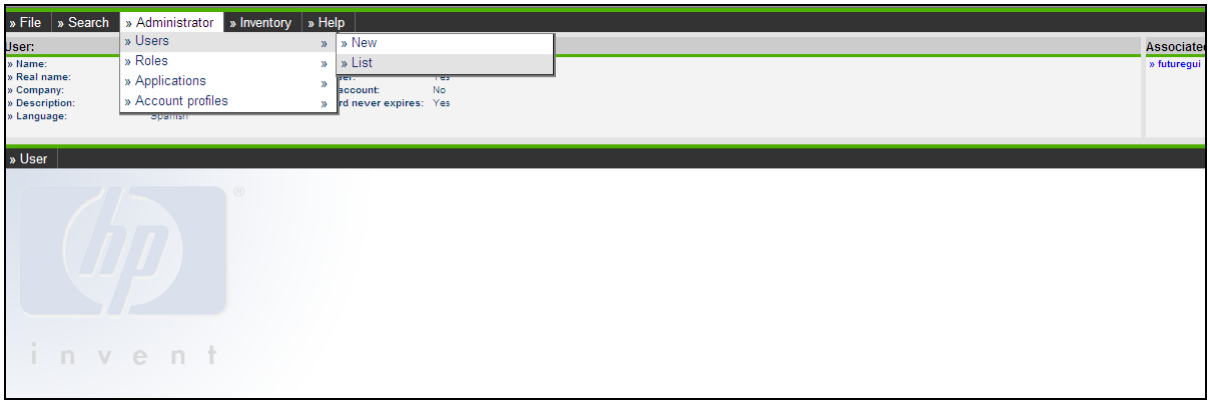


Fig. 12: Accessing user list

The result will be similar as the one showed on *Fig. 13: User list*~~*Fig. 12: User list*~~, where a list with all the found users is displayed. Results are listed from ten to ten users, so it is possible to navigate over the next and previous results. It is also possible to sort results by either of the displayed columns.

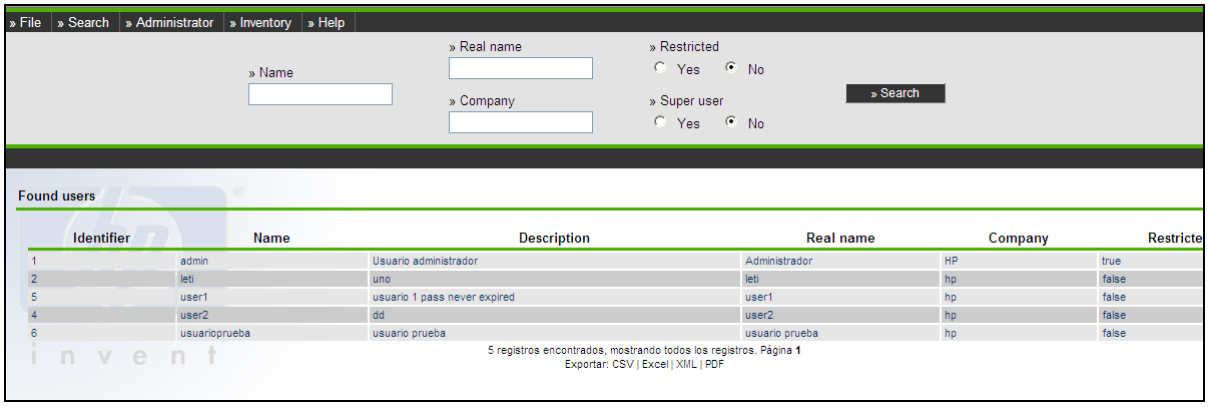


Fig. 13: User list

Clicking on a result will display the selected user information on the screen, as it is shown on Fig. 16: User information~~Fig. 8: Showing user information~~.

4.2.3 User Search

User search is a similar process than listing them.

To access the user search select one of the two available options below the menu “Search” → “Users”, which allow to find users "by name" or to perform an "Advanced" search.

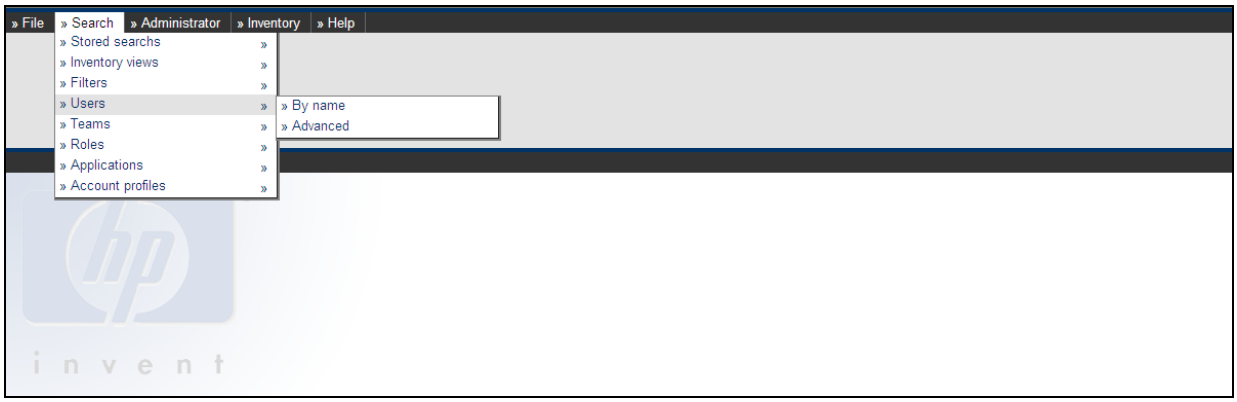


Fig. 14: Searching users

If the desired option has been to search users by name, it is requested to enter the user name. This searching option will not return a list of results but a single user if it has the same username or an error if no result is found at all.

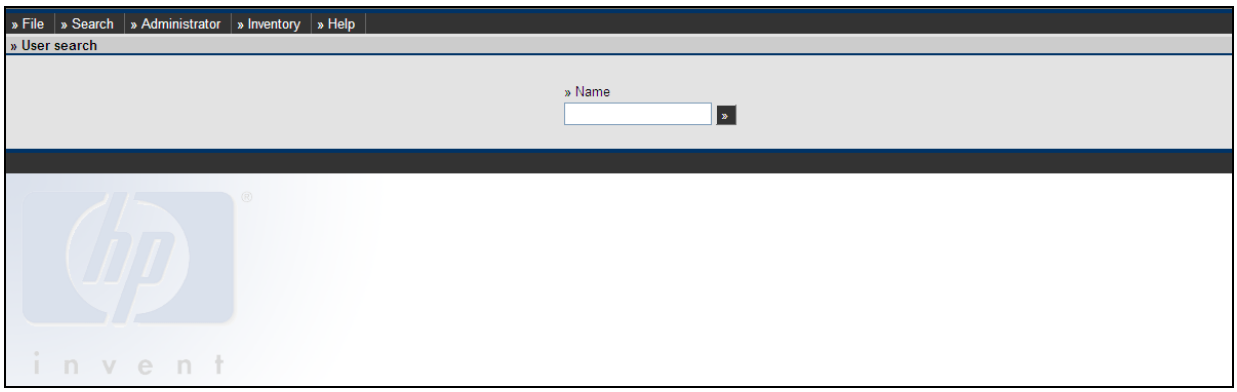


Fig. 15: Searching users by name

For example, let's perform a user search by name using the username *admin*. Since that user is found among the existing users, his information is displayed. At this point, operations over this user, explained in the next sections, can be performed.

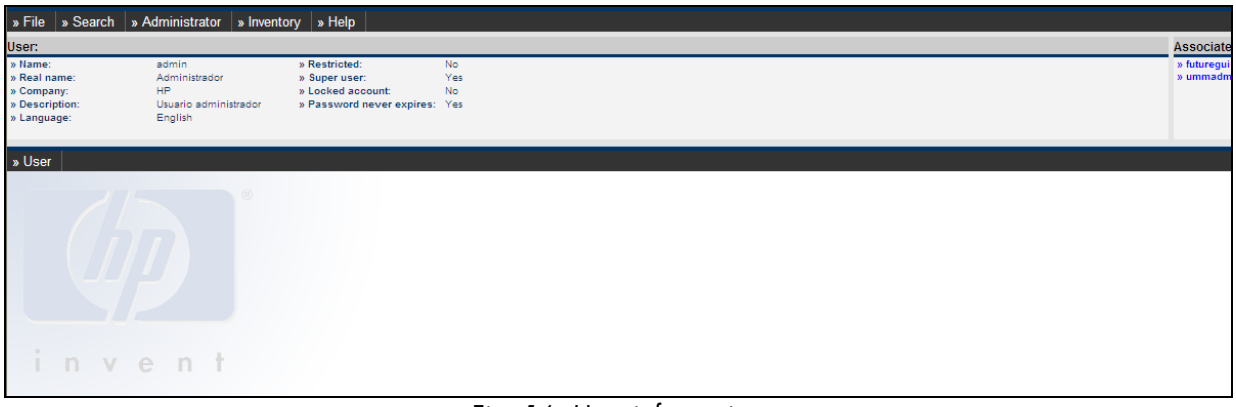


Fig. 16: User information

If the desired option has been to perform an advanced user search, then the page in the image below will be displayed.

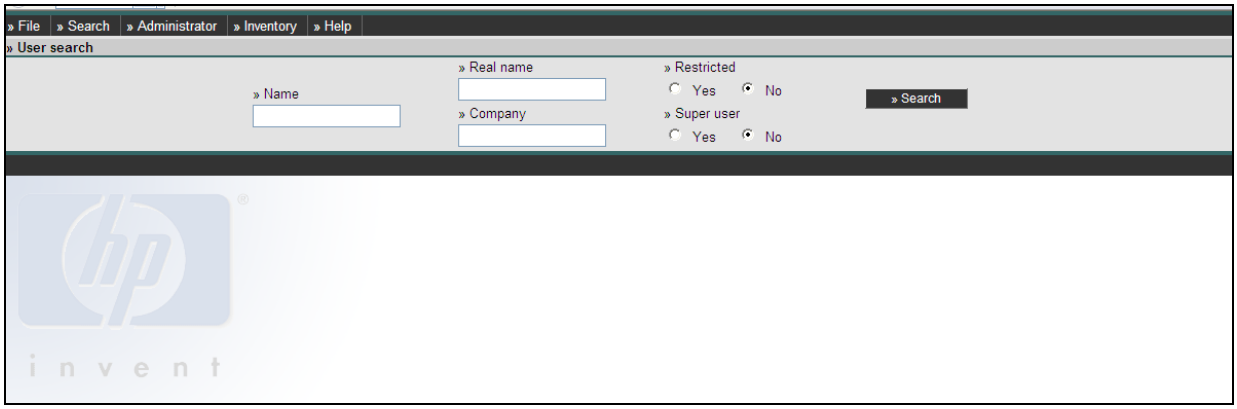


Fig. 17: Advanced user search

As the fields become filled (it is not necessary to fill all of them), advanced searches can be performed by clicking on the *Search* button at the right side. The image below shows an example of an advanced search.

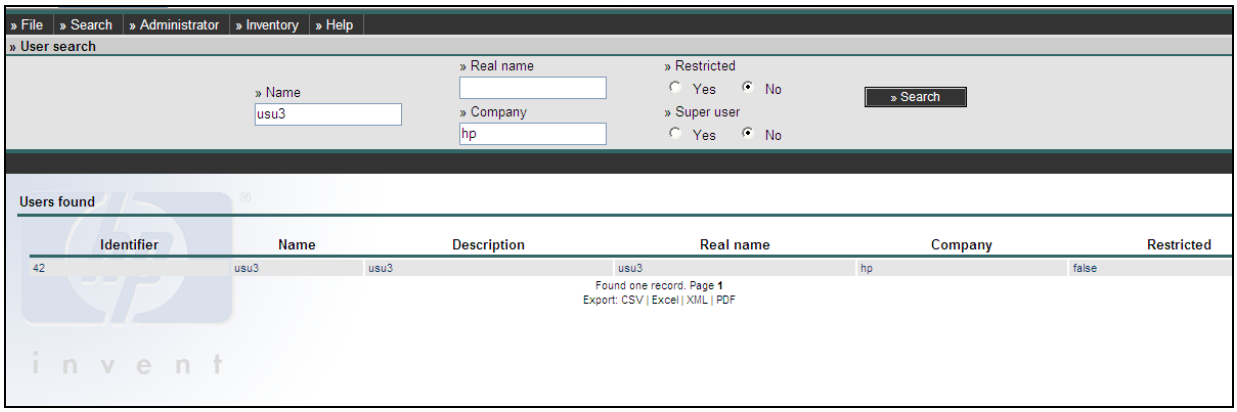


Fig. 18: Advanced user search results

4.2.4 Operations over a user

The next sections explain the operations which can be performed over a selected user. This selected user can be reached by any of the previous steps, such as user creation, user listing or a user search.

4.2.4.1 User edition

Once a user has been selected, the first available operation which can be performed over it is the one which allows editing the user information.

To edit the stored information it is necessary to access the menu "User" → "Edit" as it is shown in the image below.

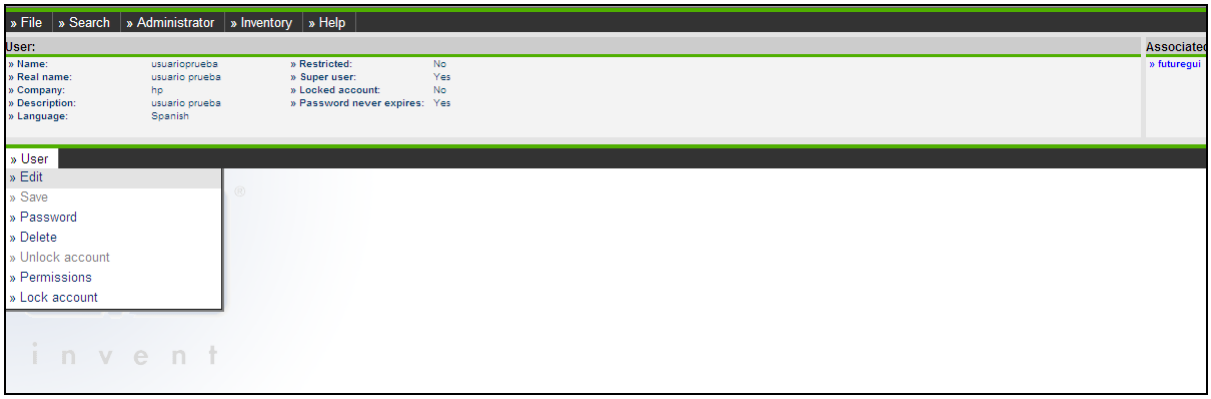


Fig. 19: Accessing the user edition

The user information is displayed at the status space in editable fields. Once these values are updated properly, changes are stored by clicking the "User" → "Save" menu.

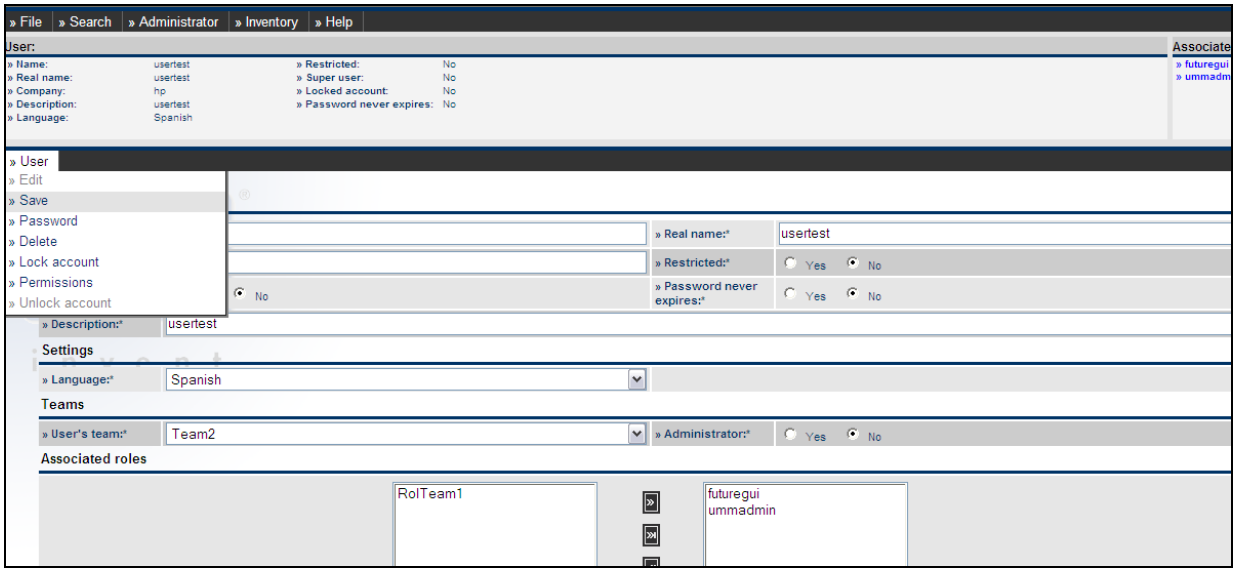


Fig. 20: User edition

The fields on the screen above are the same as the ones needed for the user creation. See the section dedicated to the **Error! Reference source not found.**User creation for further information. Note that the user name cannot be modified.

4.2.4.2 User deletion

For a selected user it is possible to delete it by selecting the menu "User" → "Delete".

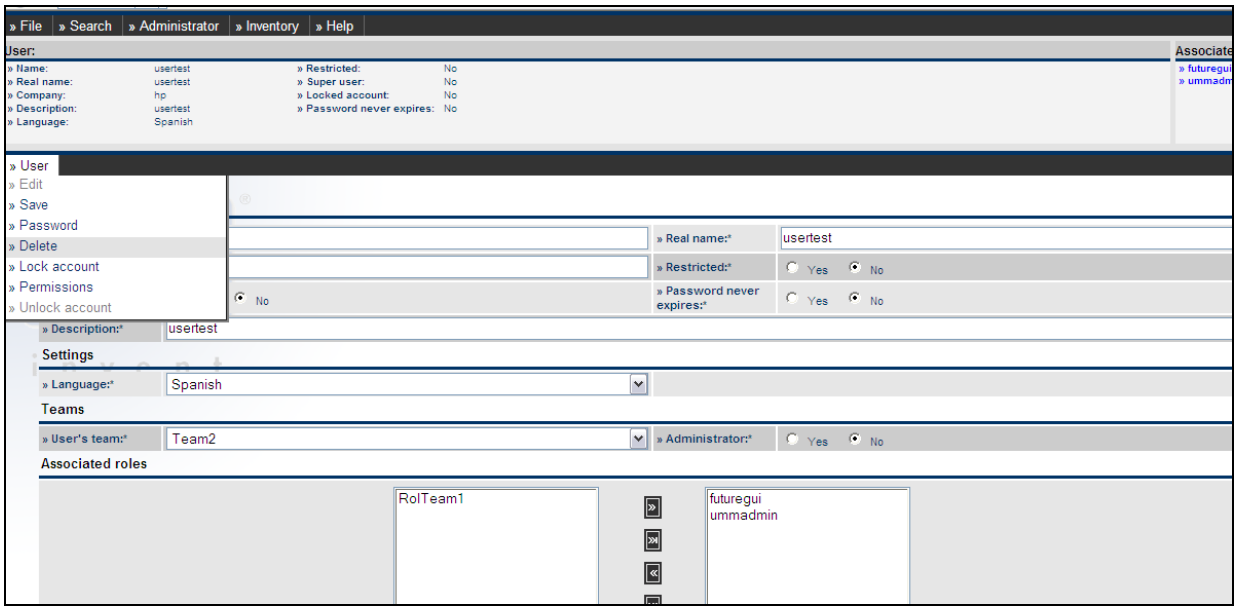


Fig. 21: User deletion

Before a user is deleted a confirmation message is displayed. Accepting will result on the user deletion. Cancelling will cancel the operation.

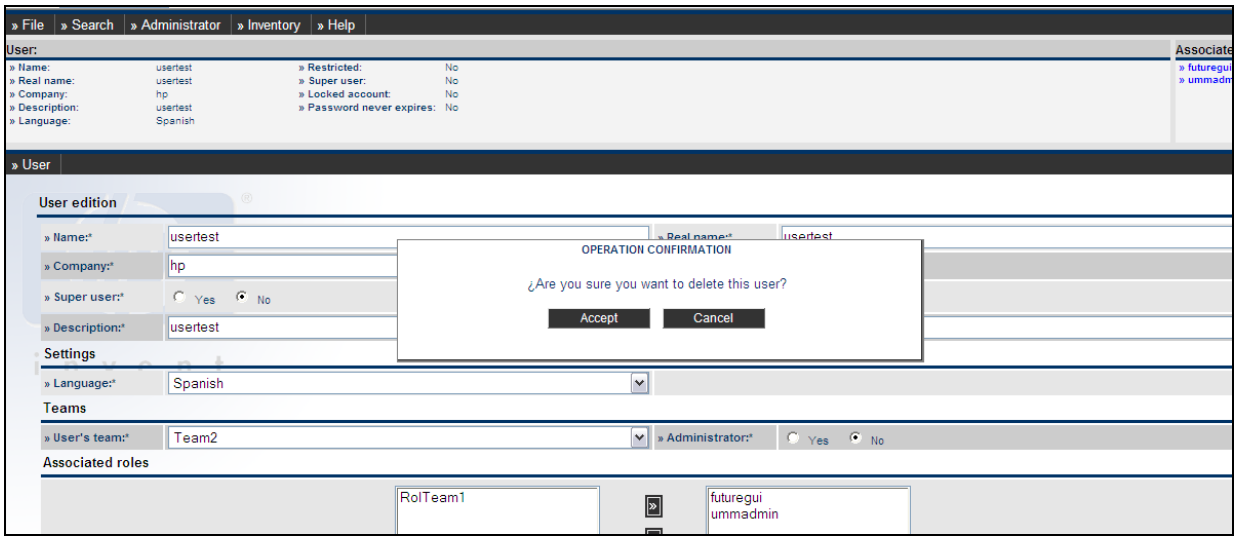


Fig. 22: Confirmation for user deletion

4.2.4.3 User permissions

User permissions can be seen for a selected user by clicking the "User" → "Permissions" menu. This is only an information section, there is nothing configurable here.

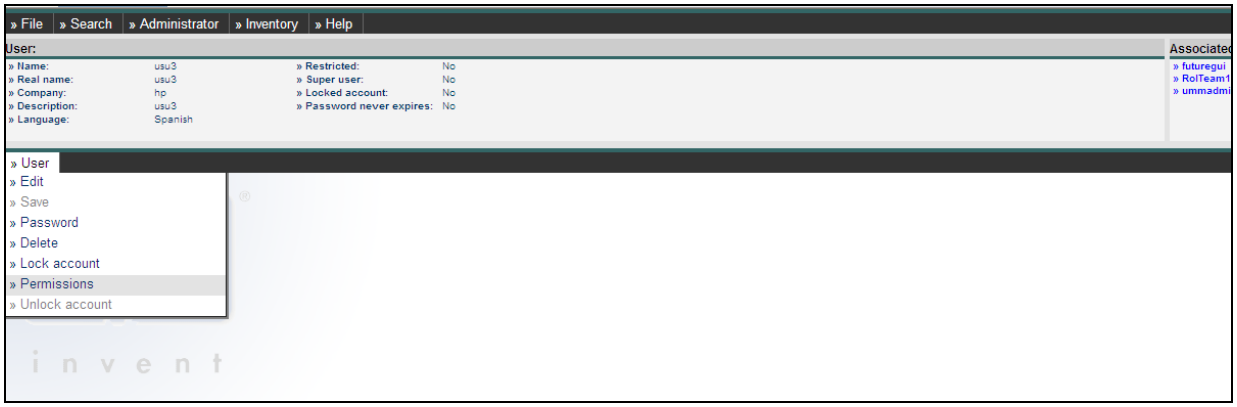


Fig. 23: Accessing user permissions

The next screen shows a list of user applications and menus, and inventory views and operations, for which user has permissions.

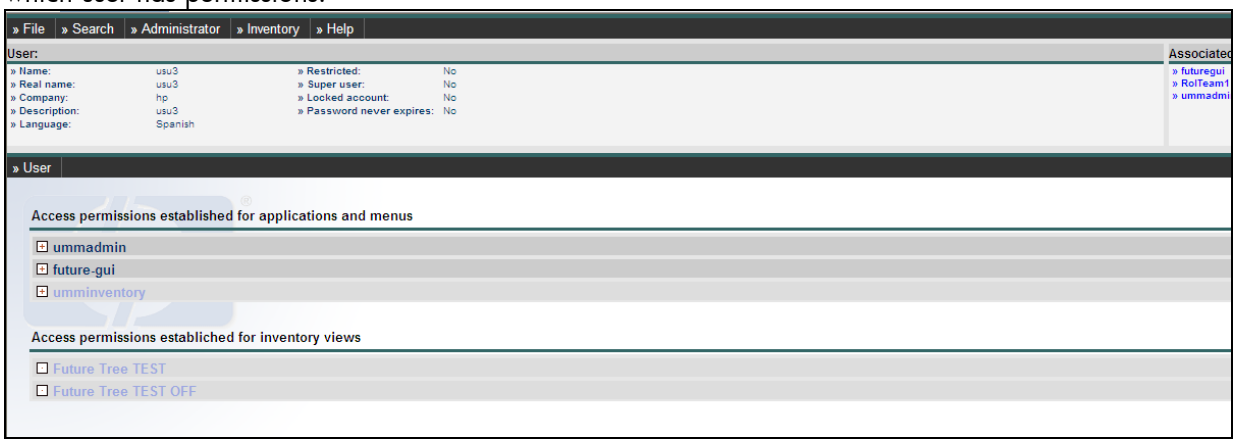


Fig. 24: User permissions

The upper list in the screen above shows the available user applications (in dark blue color) and the not accessible ones (faded). Accessible menus for each application can be seen by clicking on their associated "+" icon.

The list at the bottom shows the inventory views accessible for the user. As it happens with the applications, operations can be seen by clicking on their associated "+" icon.

When either a user application or an inventory view has no children, that is, menus or operations, the "+" icon is replaced by a dot icon.

4.2.4.4 User Lock/Unlock

Users can be locked to assure they will never ever be able to log on the SC while they are not unlocked. To lock a user, click the "User" → "Lock" menu and press the *Accept* button on the confirmation message that will be displayed before the operation is completed.

When a user is locked, the "User" → "Lock" menu is replaced by the "User" → "Unlock" menu, which allows unlocking a locked user the same way it was explained for locking it.

This operation is only available for super users and team administrators.

4.2.4.5 Password Update

a. Own user password update

Any user can change its own password by clicking on the "File" → "Change password" menu, as it can be seen in the image below.

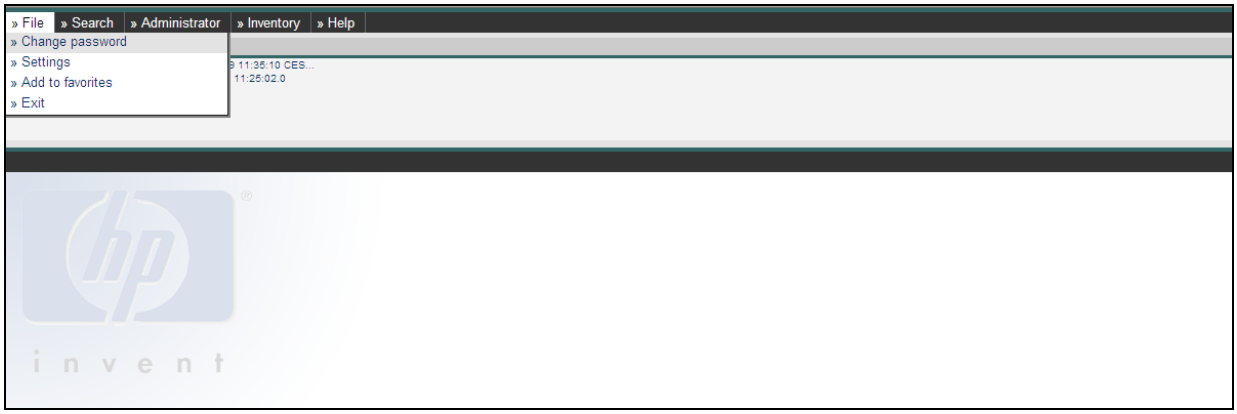


Fig. 25: Accessing the own user password update

A new screen is displayed (see the figure below) which asks for the old and new passwords.

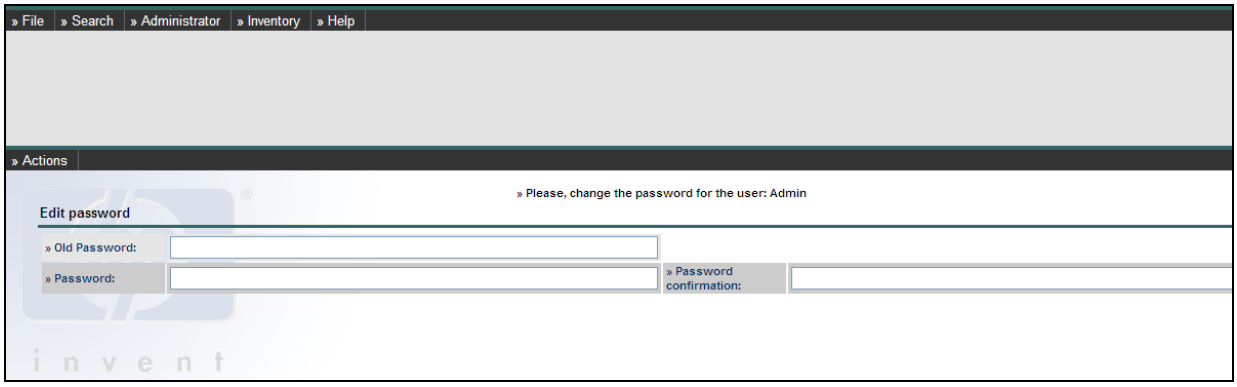


Fig. 26: Own user password update

The asked field information is:

- *Old password*: the old password is required to assure that anyone but the own user is allowed to update his password.
- *Password*: the new password, which must fulfill the security policies.
- *Password confirmation*: the user is asked to retype his new password just to assure that there are no errors in the new one.

To save the new password, click the "Actions" → "Save" menu on the status menu bar. If no security policy has been violated, a message will confirm that the operation has been successfully performed. Otherwise, an error message will be displayed, the password update will not be performed and the user will be asked to set another new password.

b. Updating another user's password

This option is only available for super users and team administrators and forces the password change for the selected user. Thus, super users and team administrators can reset the passwords of the other users.

Changing any user password from the "User" → "Change password" menu stores a new password for that selected user. Since this option is only available for super users and team administrators, the entered password must not fulfill the security policies. The owner of the reset password will be asked to change it again the next time he is logged in.

c. User password expiration

User passwords are valid along a period of time, as it is set by the active account profile (see the section about Account Profiles for further information). This will never happen to users whose passwords are marked as *never expire*.

When a user whose password is near to expire gets logged on the SC, an advertisement like the one in the figure below will be displayed before granting him access to the SC. Thus, he will be able to update his password as it was explained in the previous sections.

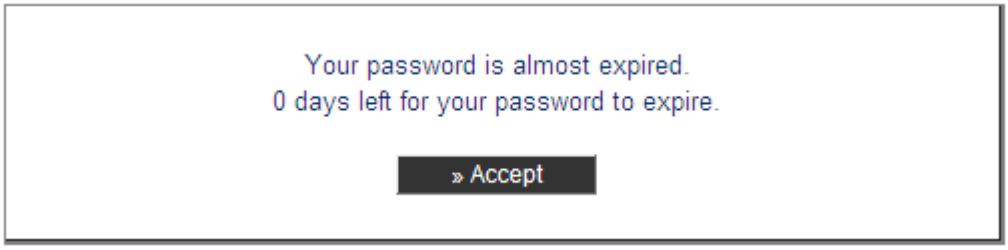


Fig. 27: Password almost expired

4.2.4.6 User settings

Actually there are no other settings for each user but the desired language in which the SC should be displayed.

Any user can set the language in which the SC should be shown before he gets logged on.

To change the user settings it is necessary to click on the "File" → "Settings" menu from the view menu bar. Then the user must select the desired language from the list with the available ones and press the button on the right. This will warn the user with an advertisement in which it is noticed that he will be asked to log in again. At this point, if the user clicks on the *Accept* button he will be redirected to the log on page. Otherwise no action will be performed.

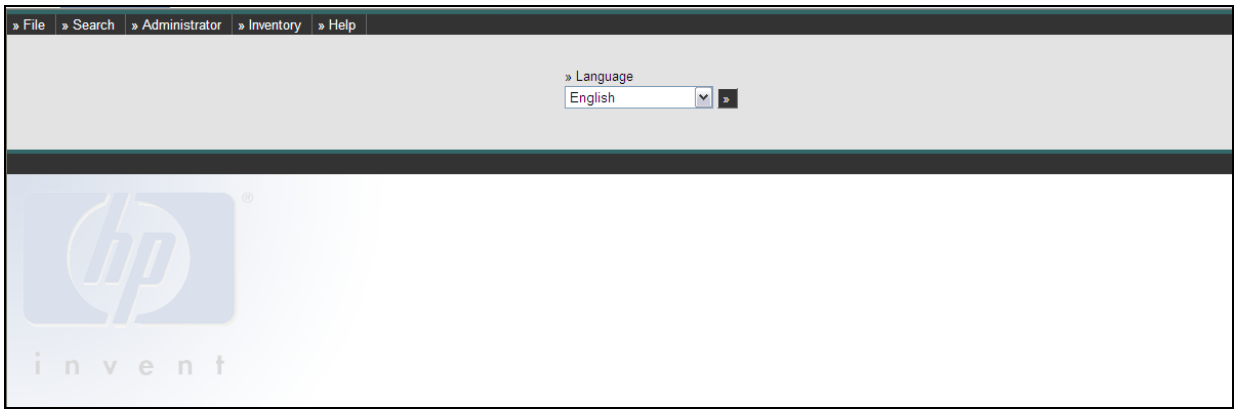


Fig. 28: User settings

4.3 User session administration

User sessions can be managed through the administration GUI by clicking *Administrator* → *Sessions*.

Fig. 29: Accessing the user session administration

It gives information about the different users connected, the number of sessions created for each user, their IP, and their log on date.

It also allows forcing the logging off of the found users.

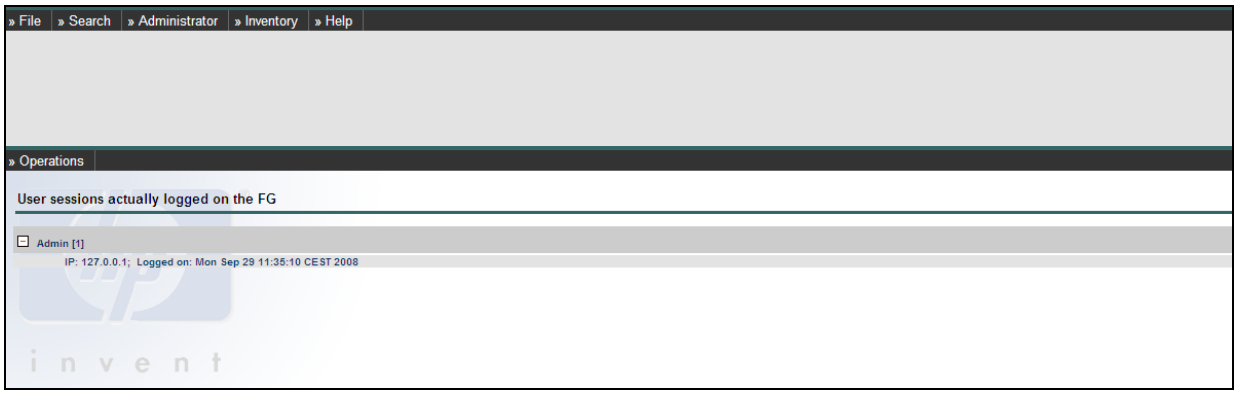


Fig. 30: User session administration

The connected users will be shown as follows:

```
+userName [N]
+userName [N]
         IP:172.1.1.1; Time Access: Tue Jun 24 14:54:32 CEST 2008
         IP:172.1.1.2; Time Access: Tue Jun 24 14:54:32 CEST 2008
+userName [N]
         IP:172.1.1.3; Time Access: Tue Jun 24 14:54:32 CEST 2008
```

N is the maximum number of sessions which can be logged on with the same username.

4.3.1 User forced log off

At this point users can be forced to log off. To do so, the user session must be selected (clicking on the row representing it) and then clicking on the "Operations" → "Log off" menu.

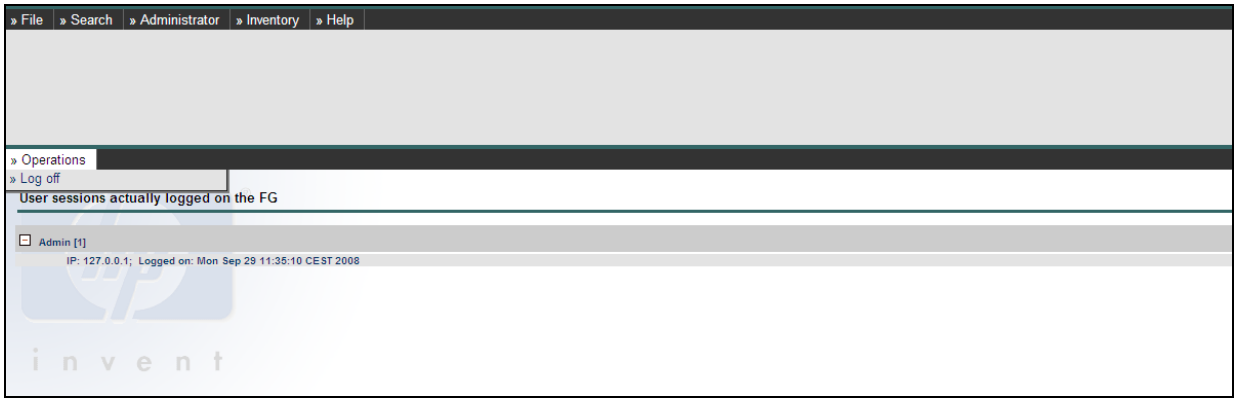


Fig. 31: Forced log off

4.4 Team administration

The next sections explain the available operations which can be performed for team administration.

Since in HPAS 5.1 teams are optional, the operations described below and every other reference to teams in any other section about the user management will be disabled when teams are not enabled.

4.4.1 Team creation

This operation is only available for super users.

A new team may be created by clicking on the "Administrator" → "Teams" → "New" menu.

The screen accessed then (see the figure below) allows the super user to define a new team.

There are several fields which must be filled:

- *Name*: the team name.
- *Description*: the team description.
- *Usernames per session*: the number of users with the same username which can be logged on the SC at the same time. A value of zero (0) in this field indicates that there is no limitation on this feature.
- *Associated users*: the users belonging to this team. If the selected users were previously associated to any other team that association will be removed to assure that there are no users belonging to more than one team.
- *Team administrators*: indicates which of the associated users are set as team administrators. There is no limitation on the number of administrators a team can have.
- *Associated roles*: the roles associated to this team. Since a role can be associated to more than one team, the selected roles will not be removed from any other team.

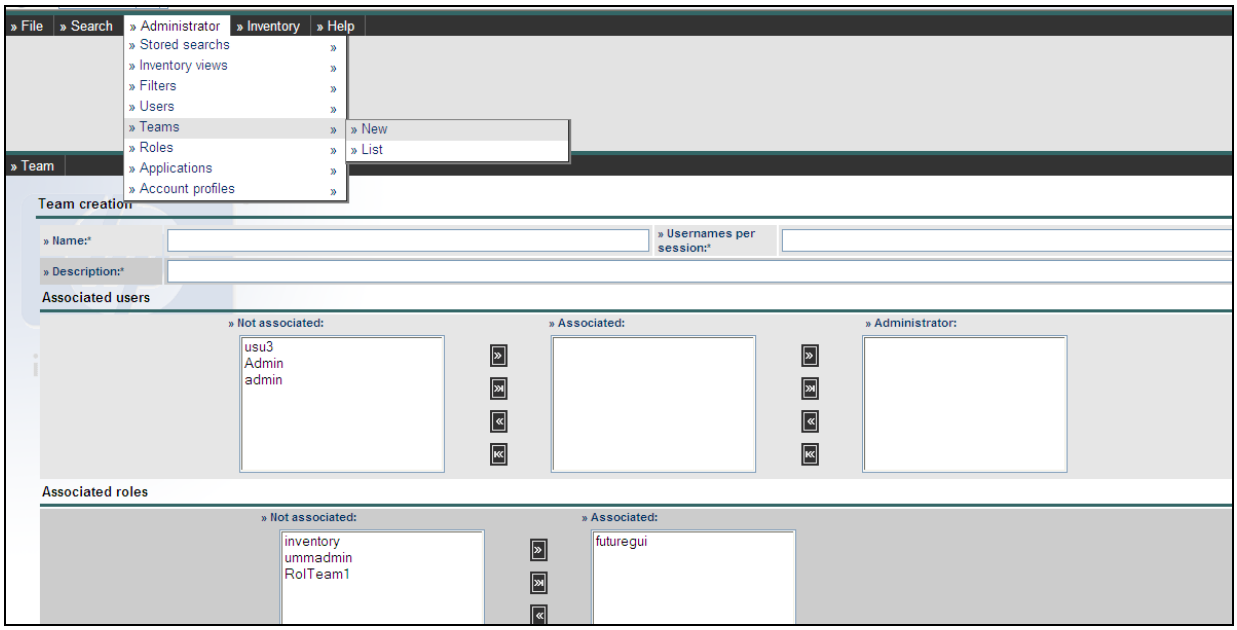


Fig. 32: Team creation

4.4.2 Team Listing

This operation is only available for super users and team administrators.

The already defined teams may be listed by clicking on the "Administrator" → "Team" → "List" menu, as it is shown below.

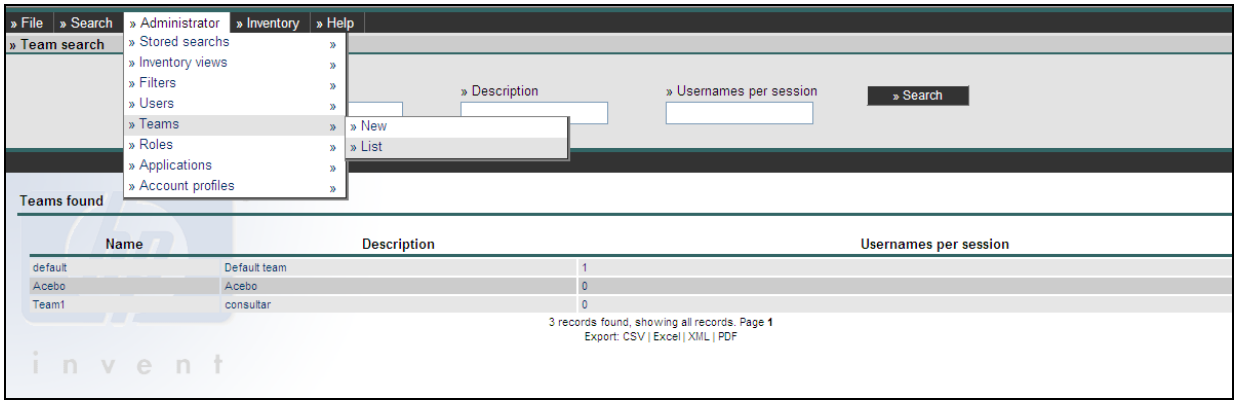


Fig. 33: Team listing

A list with all the already defined teams is displayed below. Teams are shown from ten to ten, so if there are more than ten teams it will be necessary to move over the next or previous ones. It is also possible to sort the results by any of the displayed columns.

Clicking on one of the showed results will display the team information on the view space.

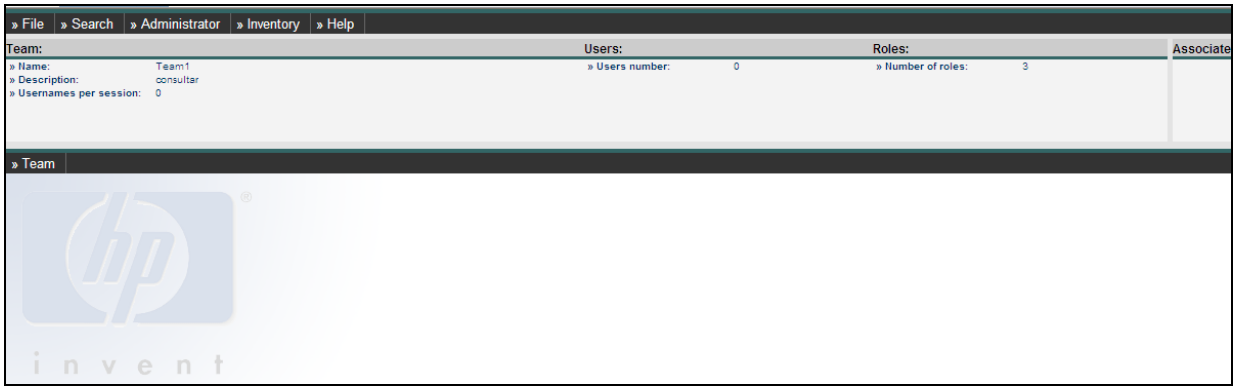


Fig. 34: Team information

4.4.3 Team search

Team search is a similar process than listing them.

To access the team search select one of the two available options below the menu “Search” → “Teams”, which allow to find teams "by name", or to perform an "Advanced" search, or find “my team”, that is, the team the user belongs to.

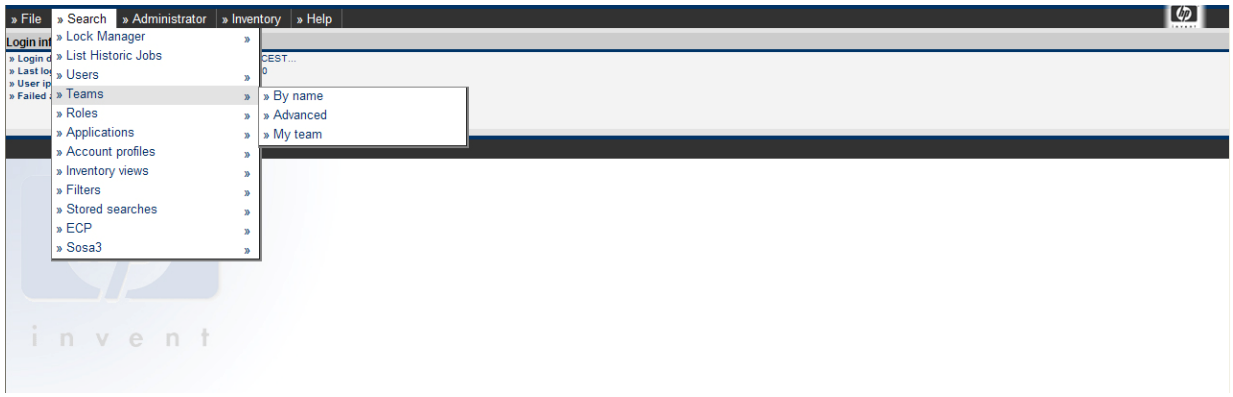


Fig. 35: Team search

If the desired option has been to search teams by name, it is requested to enter the team name. This searching option will not return a list of results but a single team if it has the same name or an error if no result is found at all.

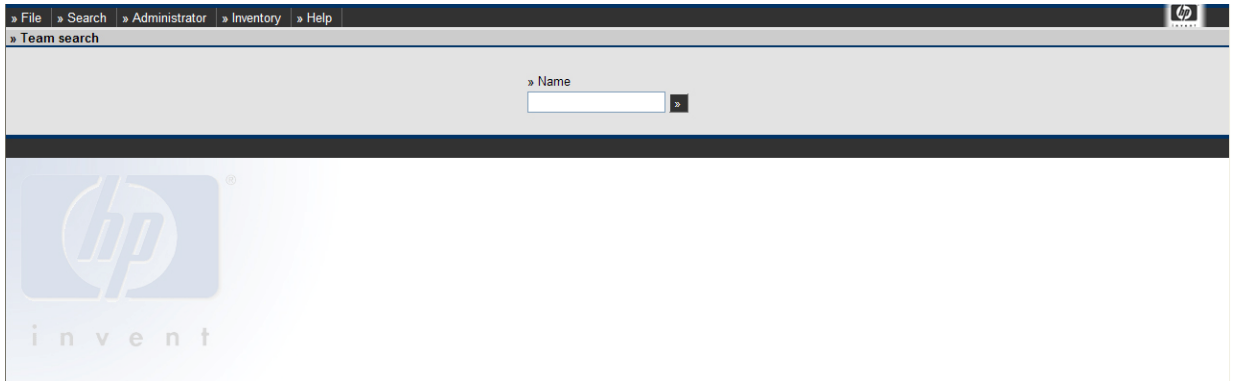


Fig. 36: Team search by name

For example, let's perform a team search by name using the name *default*. Since that team is found among the existing teams, its information is displayed. At this point, operations over this team, explained in the next sections, can be performed.

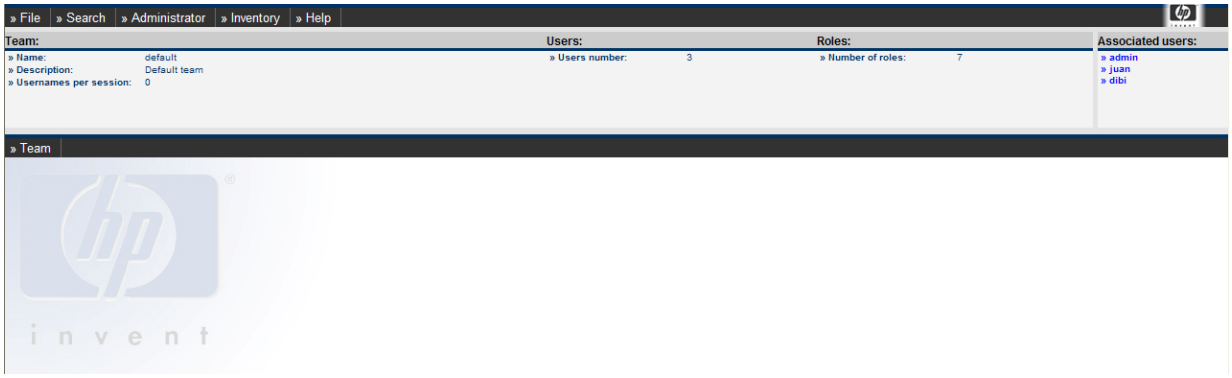


Fig. 37: Showing team information

If the desired option has been to perform an advanced team search, then the page in the image below will be displayed.

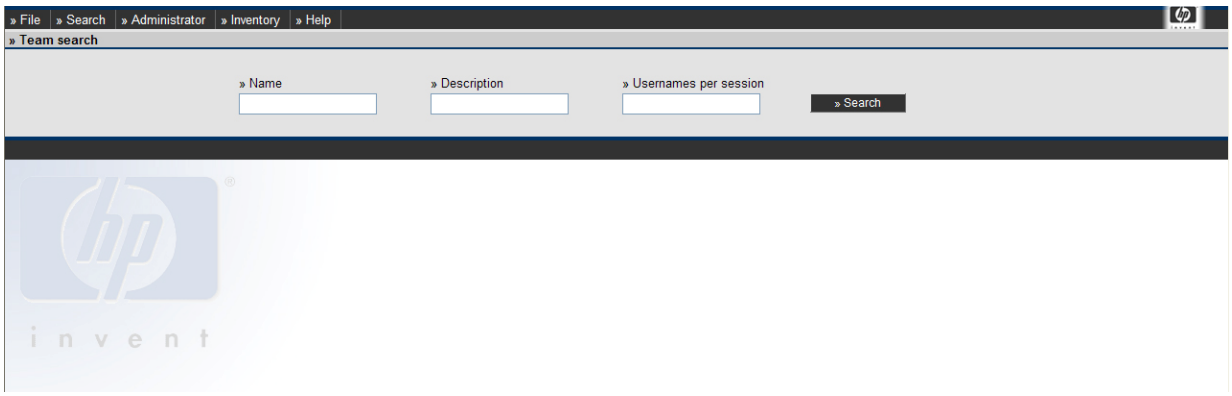


Fig. 38: Advanced team search

As the fields become filled (it is not necessary to fill all of them), advanced searches can be performed by clicking on the *Search* button at the right side. The image below shows an example of an advanced search.

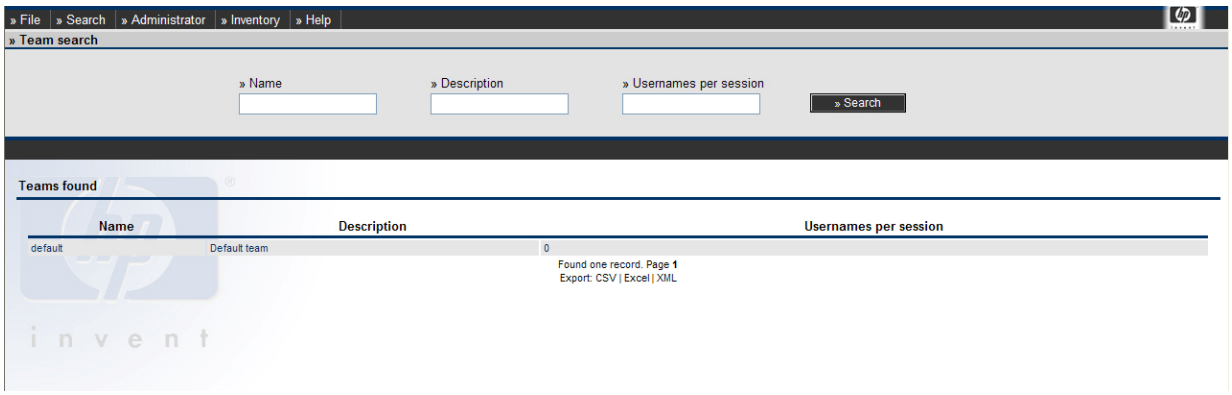


Fig. 39: Advanced team search results

4.4.4 Operations over a team

The operations which can be performed over a selected team (edition and deletion) which information is being displayed in the view space are explained in the next sections.

4.4.4.1 Team edition

A team can be edited by clicking on the "Team" → "Edit" menu. It is only accessible for super users and team administrators. A team administrator can only edit its own team.

The editable fields for a team are the same as it was explained in the section **Error! Reference source not found.**Team creation.

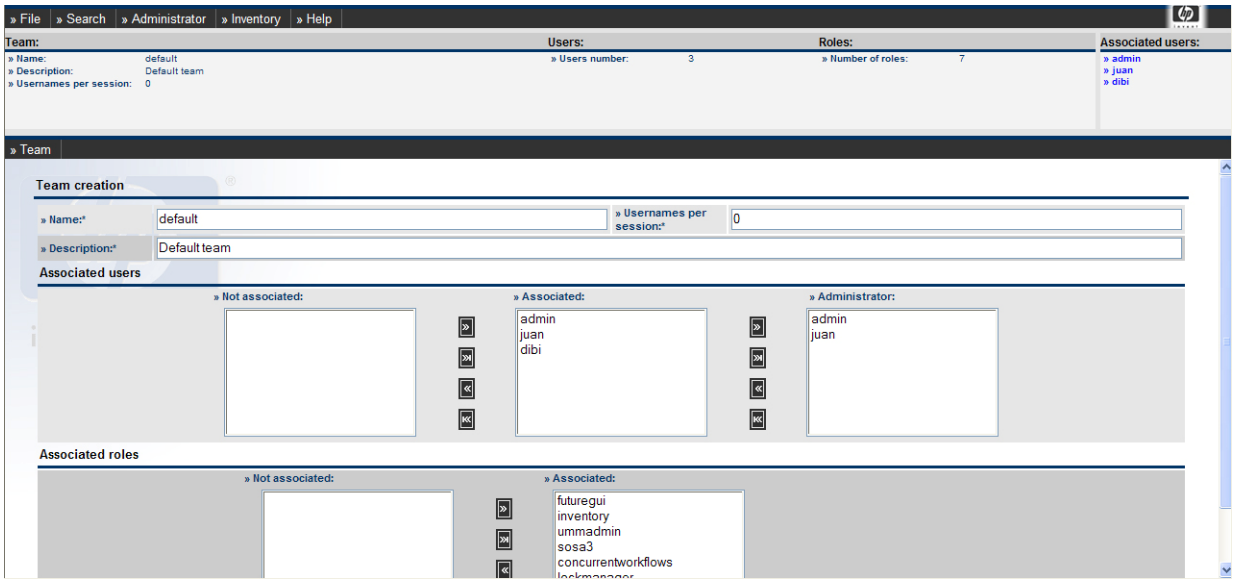


Fig. 40: Team Edition

To save the updated fields, click on the "Team" → "Save" option.

4.4.4.2 Team deletion

A selected team can be deleted by clicking on the "Team" → "Delete" menu. The only team which cannot be deleted is the default team.

This operation is only available for super users.

~~4.5 Account profile administration~~

~~Operations over account profiles are only available for super users when the authentication module is configured to work with the *DatabaseAdvancedAuthModule* class. Please, see the SC documentation for further information.~~

~~4.5.1 Account profile creation~~

~~In order to create a new account profile, it is needed to click on the "Administrator" → "Account profiles" → "New" menu, as it is shown in the figure below.~~

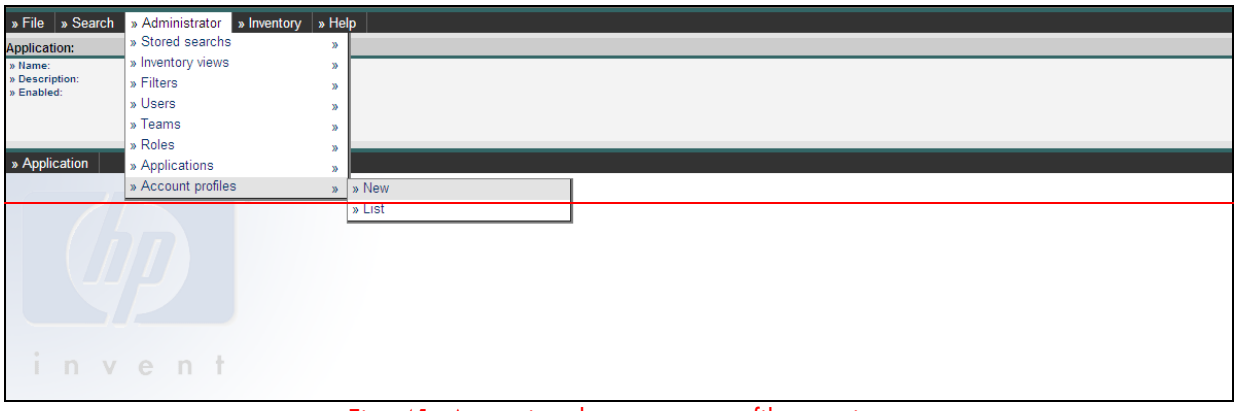


Fig. 41: Accessing the account profile creation

The next figure shows the requested fields for the account profile creation.

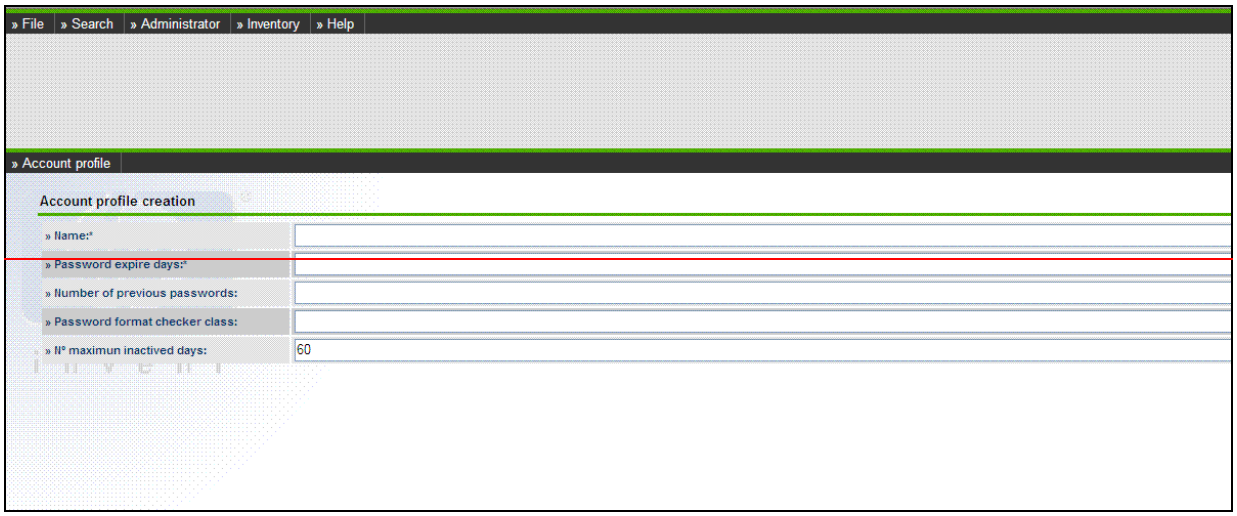


Fig. 42: Account profile creation

- *Name*: the account profile name.
- *Passwords expire days*: the number of days that any password will remain valid. A value of zero (0) means that passwords will never expired.
- *Number of previous passwords*: the number of stored old passwords needed to warrant the security policies every time a password is updated.
- *Password format checker class*: the class name where the security policy is performed.
- *Nº maximum inactive days*: the number of days any user can remain without logging on the SC. The default value is 60 days. Any user who does not log on the SC for 60 days or more will become locked. To unlock a user, see the section User lock/unlock, explained before.

Once the fields have been filled properly, the account profile can be stored by clicking on the "Account profile" → "Save" menu.

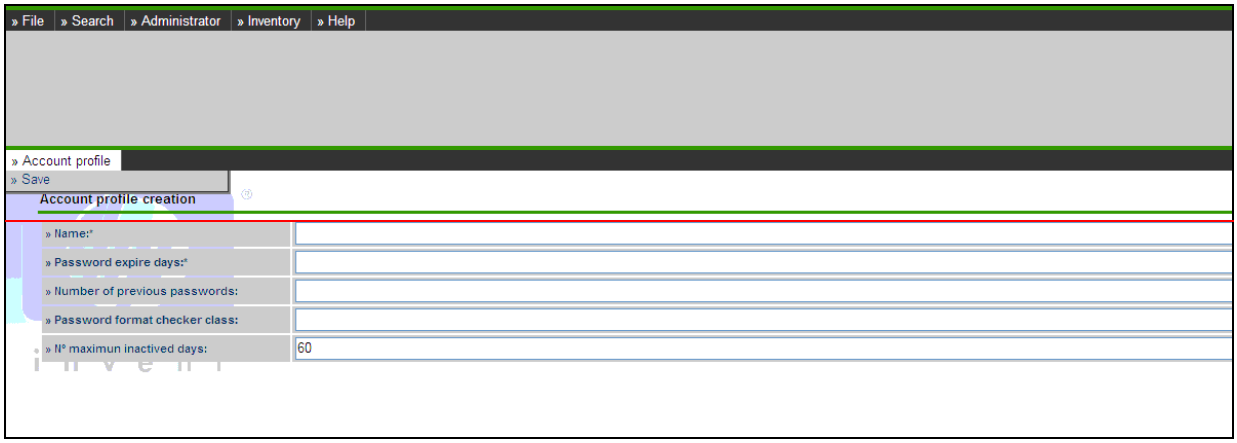


Fig. 43: saving new account profile

4.5.2 - Account profile listing

In order to list the available account profiles it is needed to click on the "Administrator" →"Account profiles" →"List" menu.

The results will be presented as it is showed in the image below. They can be sorted by columns. As it is always made, results are displayed from ten to ten.

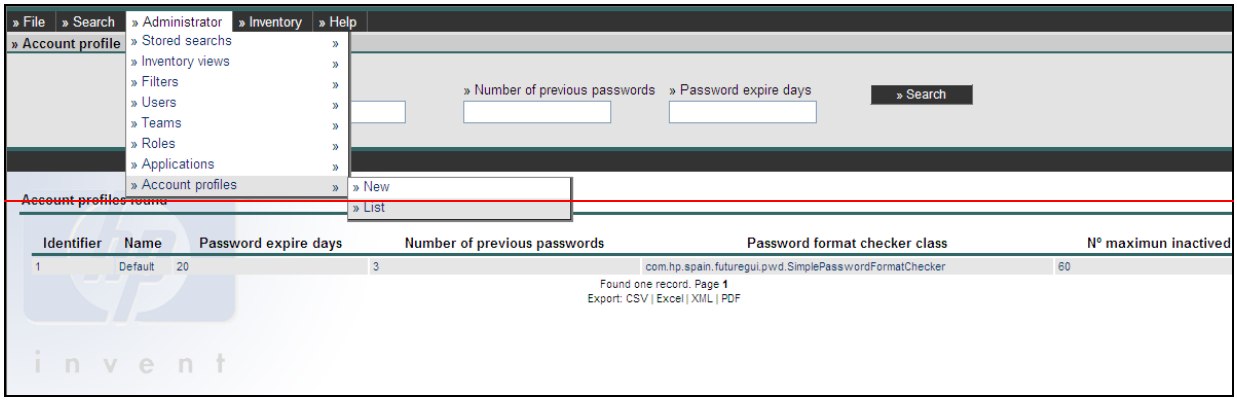


Fig. 44: Account profiles listing

By clicking on one of the listed account profiles its information will be presented in the view space, and at this point there will be possible to perform several operations over the selected account profile.

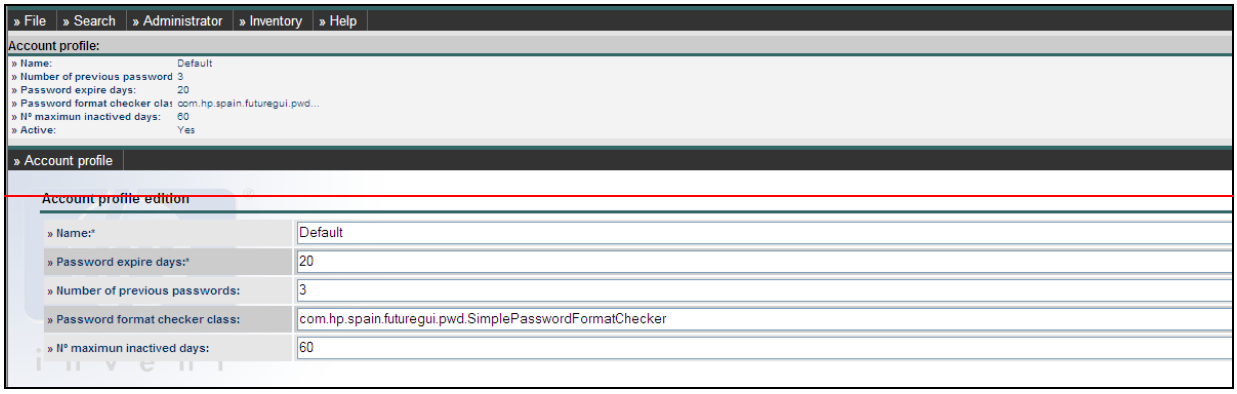


Fig. 45: editing account profile

4.5.3 Account profile search

Account profile search is a similar process than listing them.

To access the account profile search select one of the two available options below the menu "Search" → "Teams", which allow to find account profiles "by name", or to perform an "Advanced" search.

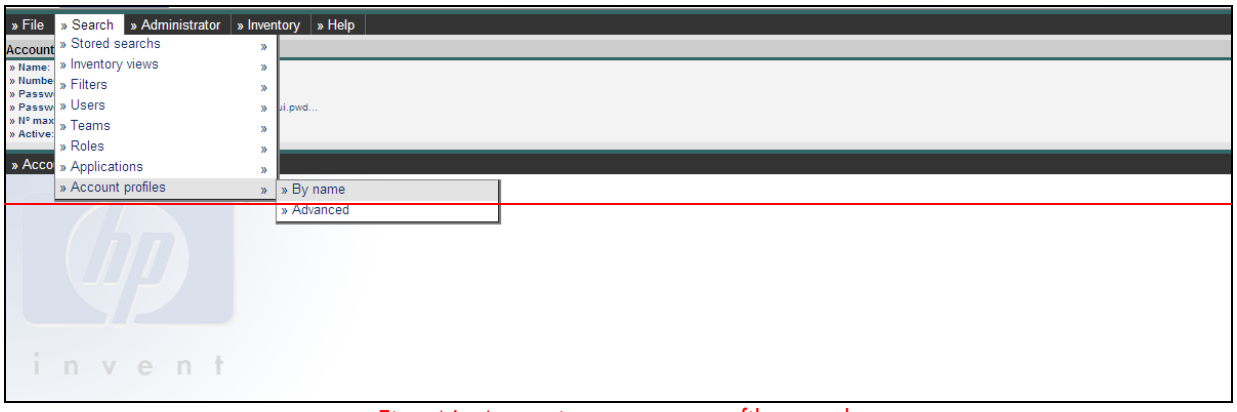


Fig. 46: Accessing account profile search

If the user is performing a search by name, in the view space there will be displayed a field where the desired account profile name can be entered.

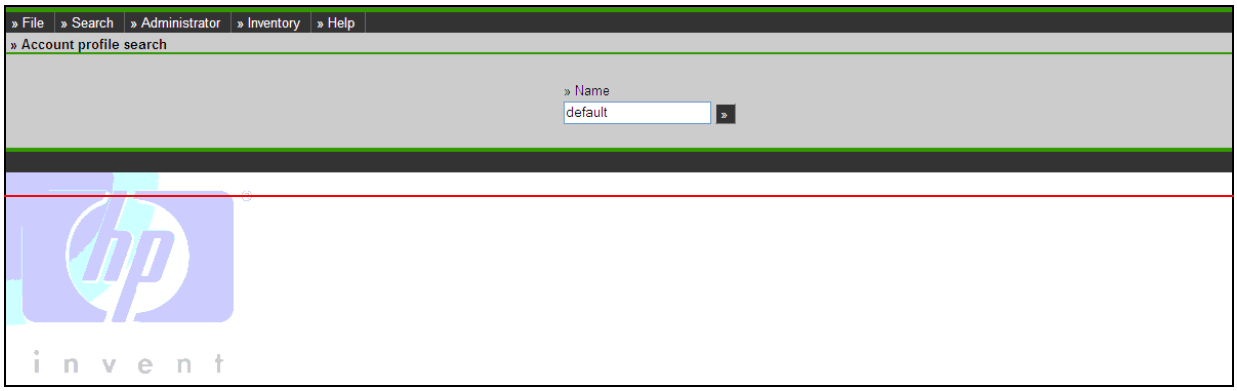


Fig. 47: Account profile search by name

If the selected search is an advanced one, the user must click on the "Search" → "Account profile" → "Advanced" menu.

This will show several fields which allow to perform different searches. Results will be listed on the status space as it was explained in the *Account profile listing* section.

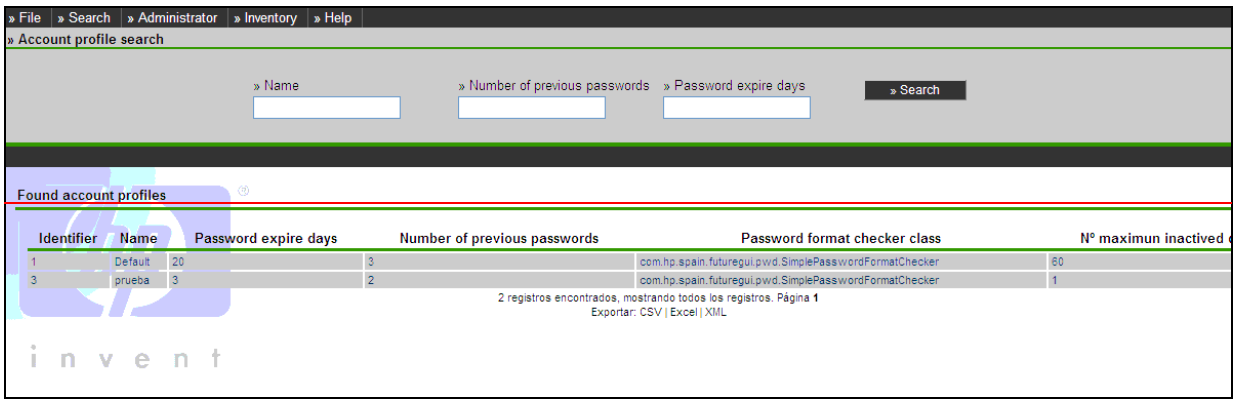


Fig. 48: Advanced account profile search

4.5.4 Operations over an account profile

The operations explained in the next sections can only be performed by super users. All of them will be accessible once an account profile has been selected.

4.5.4.1 Account profile edition

Once an account profile has been selected and its information is displayed in the view space, it can be edited by clicking on the "Account Profile" → "Edit" menu, accessible through the status menu bar.

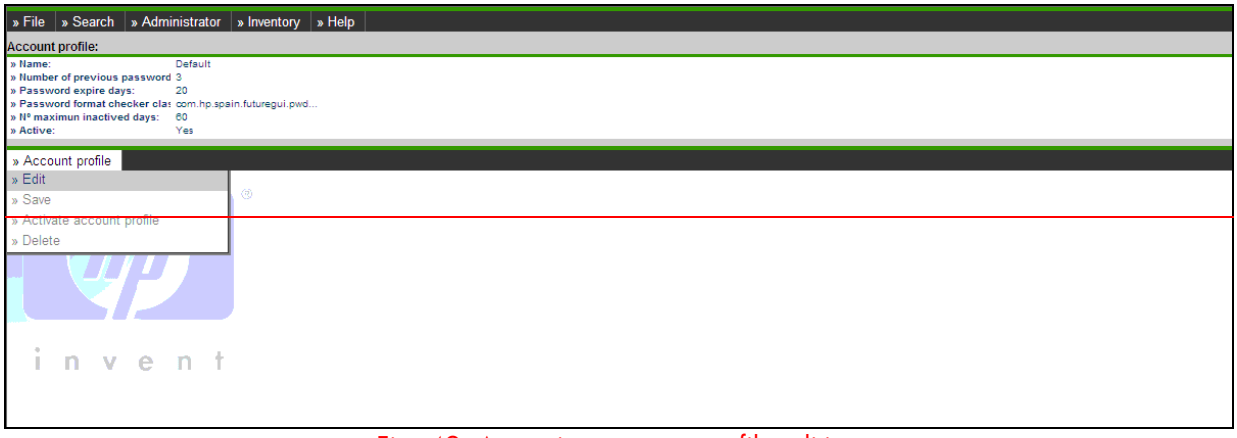


Fig. 49: Accessing account profile edition

When the edition page is displayed, several fields are filled with the account profile information. The user can modify them and then click on the "Account profile" → "Save" menu to store the changes.

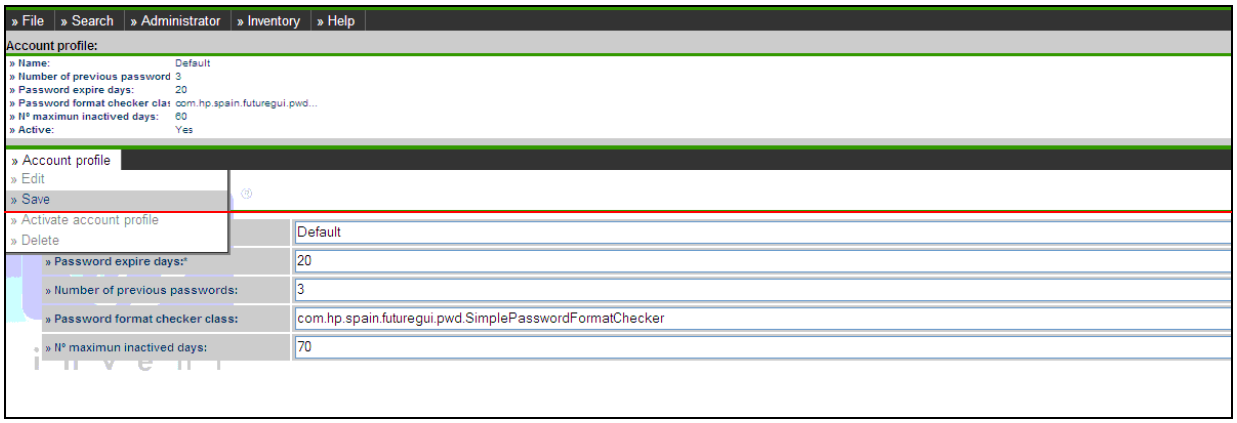


Fig. 50: Account profile edition

The editable fields for an account profile are the same as it was explained in the *Account profile creation* section.

4.5.4.2 Account profile deletion

A super user can delete a selected account profile by clicking on the "Account profile" → "Delete" menu. The active account profile cannot be removed.

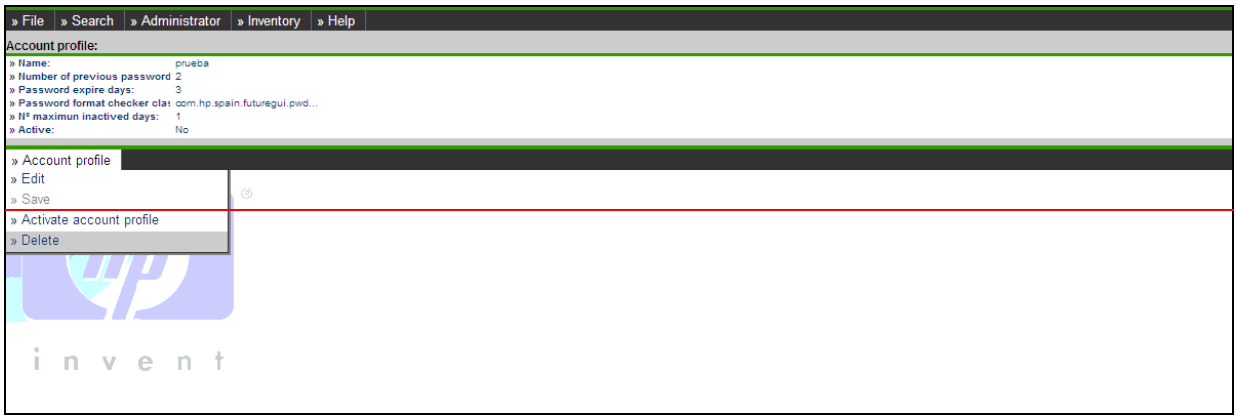


Fig. 51: deleting account profile

Before the operation is performed, a confirmation message like the one below will be displayed.

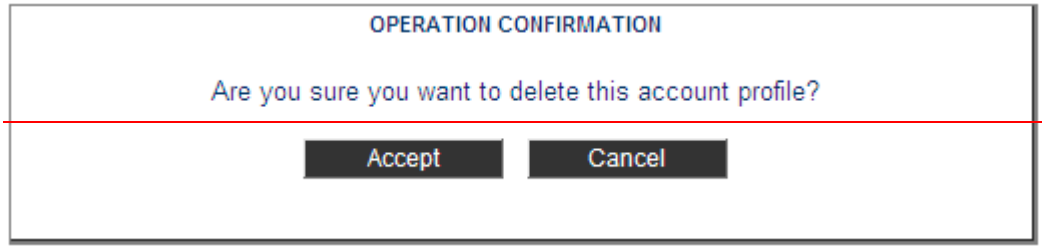


Fig. 52: Account profile deletion confirmation

4.5.5 Account profile activation

Among the available account profiles there can be only one marked as active. That account profile will be the one whose characteristics will be used.

To activate an account profile it is necessary to click on the "Account profile" → "Activate account profile" menu. That will set active the selected account profile and deactivate any other.

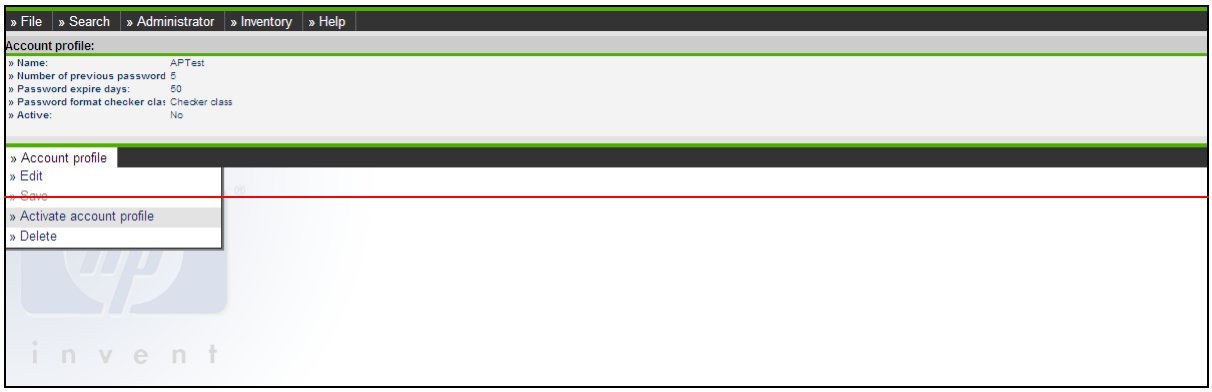


Fig. 53: Account profile activation

5 Permission management

5.1 Permissions structure

User permissions are established through roles.

There are two main permissions which can be managed: user applications and menus in one hand, and inventory views and operations in the other.

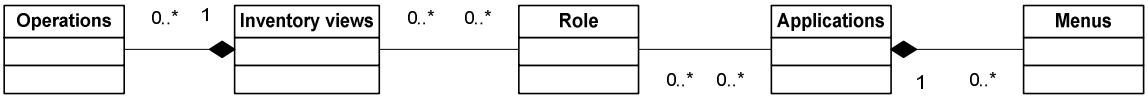


Fig. 4154: Permissions structure

A role can have access to *n* applications, and each menu belongs to a single application. To access the application menus it is necessary to specifically set permissions between each role and each application menu.

The situation with the inventory views is very similar. A role can have access to *n* inventory views, and each inventory operation must be associated to a single inventory view. To access either an inventory view or its operations it is necessary to set permissions for both of them.

5.2 Role administration

Role administration can only be performed by super user.

5.2.1 Role creation

This operation can only be performed by a super user.

A new role can be created by clicking on the "Administrator" → "Roles" → "New" menu.

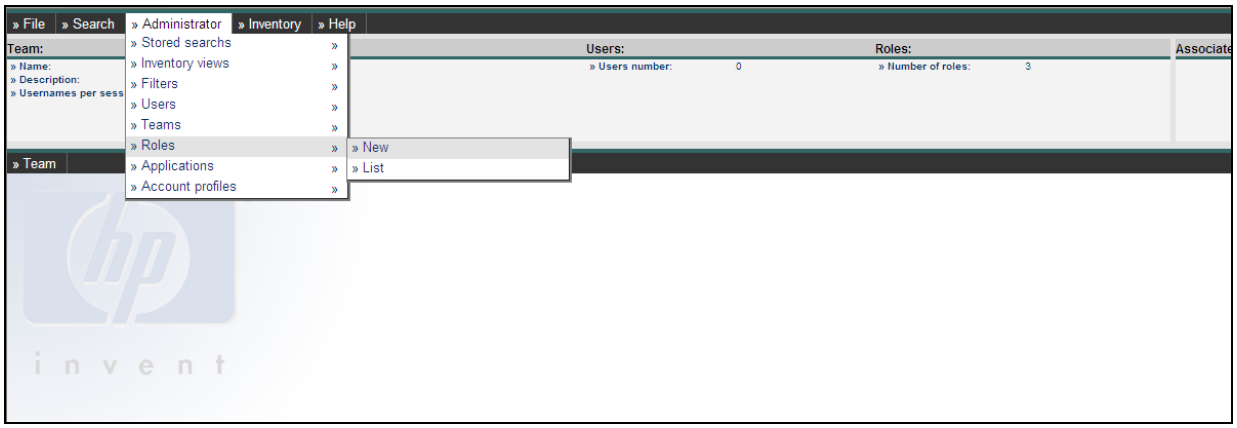


Fig. 4255: Accessing role creation

Then, the screen in the figure below is displayed.

As it can be seen, several fields must be filled before the role is created.

- *Name*: the role name. It cannot contain space characters.
- *Description*: the role brief description.

- *Not associated teams*: available teams to associate to role
- *Associated teams*: teams associated to the role. As they become associated to the role, they are removed from the *Not associated teams* box.
- *Associated users*: users associated to the role. The available users are refreshed as the role is associated to different teams.

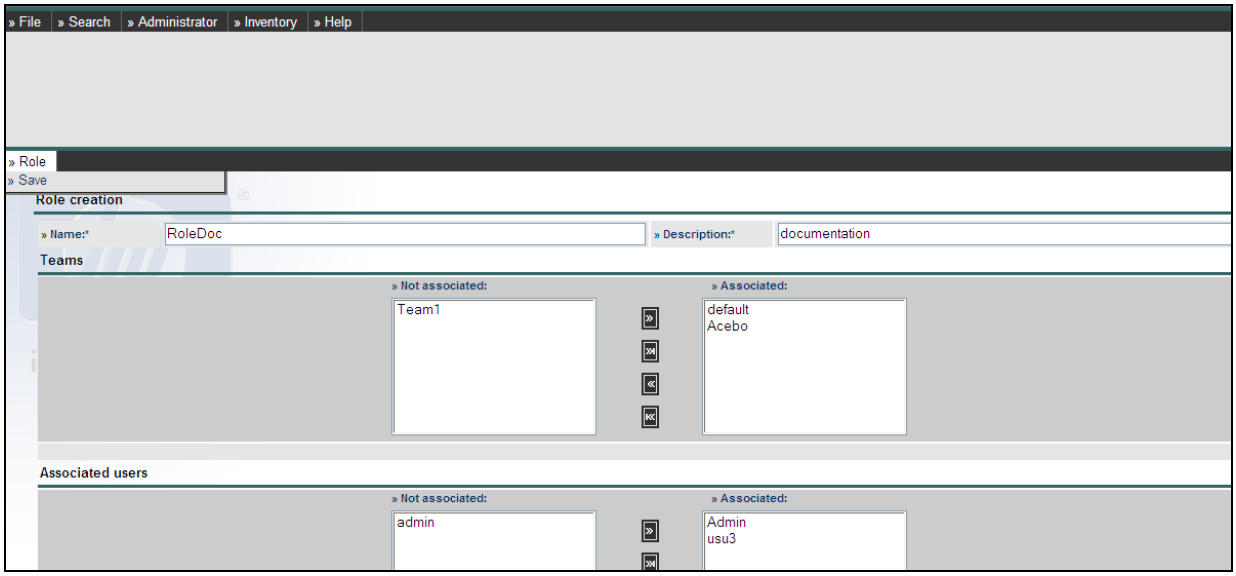


Fig. 4356: Role creation

After filling the fields it is necessary to click on the menu “Role” → “Save” to store the new role.

5.2.2 Role listing

All the already defined roles can be listed by clicking on the "Administrator" → "Roles" → "List" menu. This will display an ordered list where results are shown from ten to ten, and they can be sorted by columns.

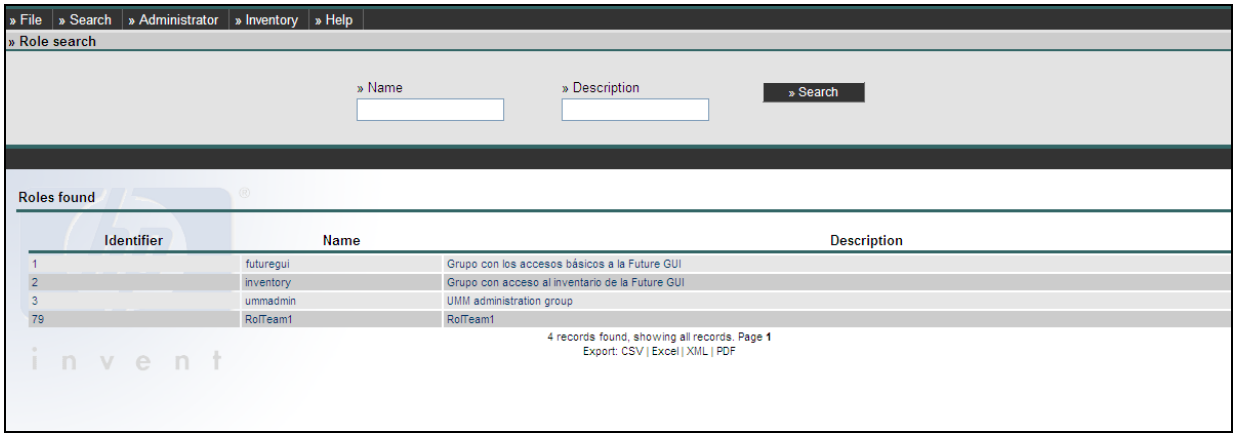


Fig. 4457: Role listing

Clicking over one of the printed results will display the selected role information, as it is shown in the image below. At this point operations over the selected role can be performed. These operations will be explained in the next sections.

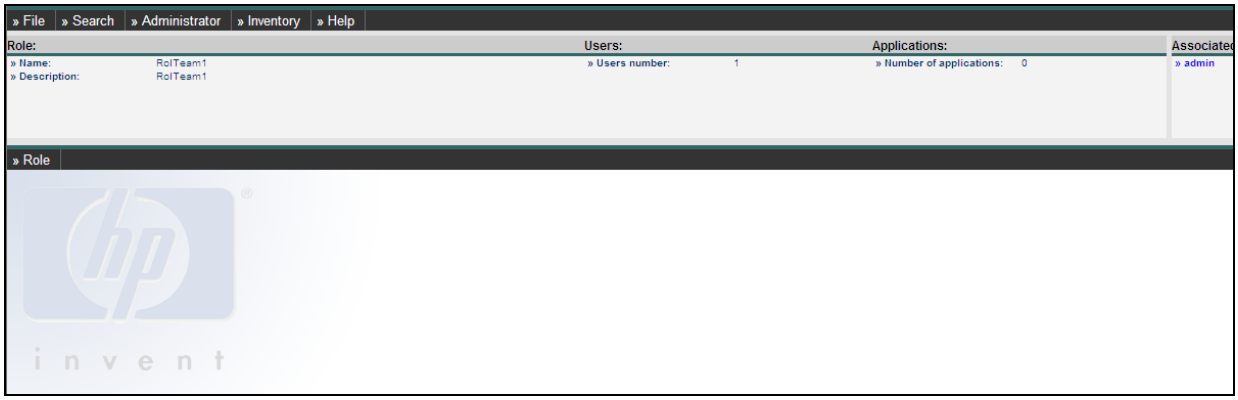


Fig. 4558: Role information

5.2.3 Role search

Role search is a similar process than listing them.

To access the role search select one of the two available options below the menu “Search” → “Roles”, which allow to find roles "by name" or to perform an "Advanced" search.

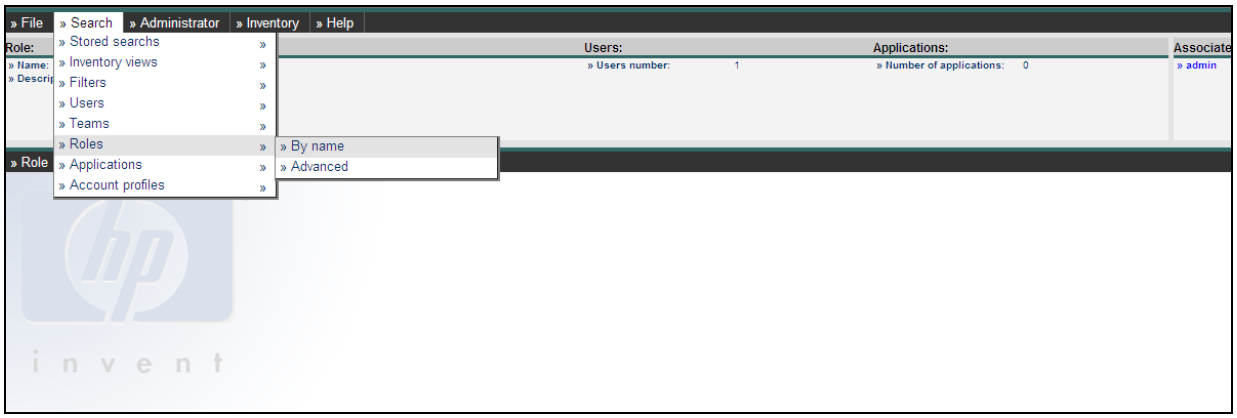


Fig. 4659: Accessing role search

If the desired option has been to search roles by name, it is requested to enter the role name. This searching option will not return a list of results but a single role if it has the same role name or an error if no result is found at all.

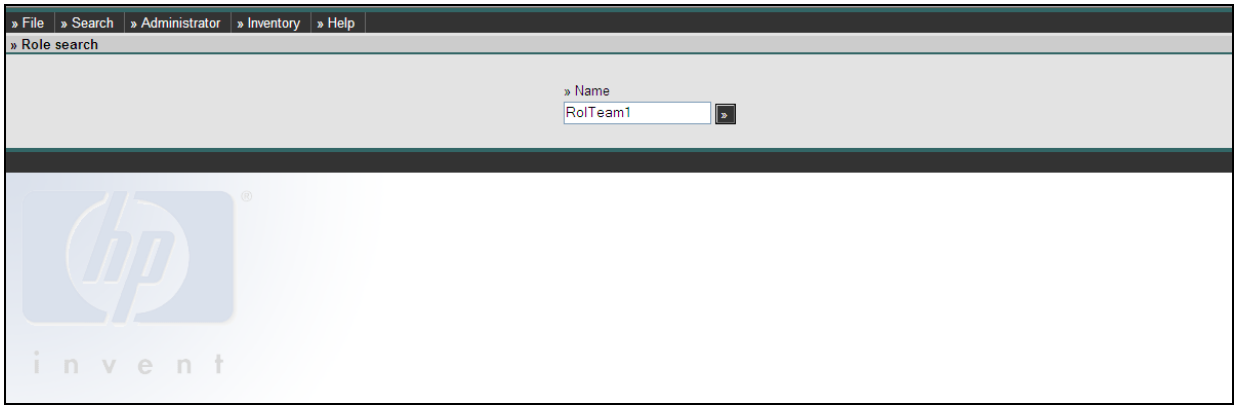


Fig. 4760: Role search by name

For example, let's perform a role search by name using the name *RolTeam1*. Since that role is found among the existing roles, its information is displayed. At this point, operations over this role, explained in the next sections, can be performed.

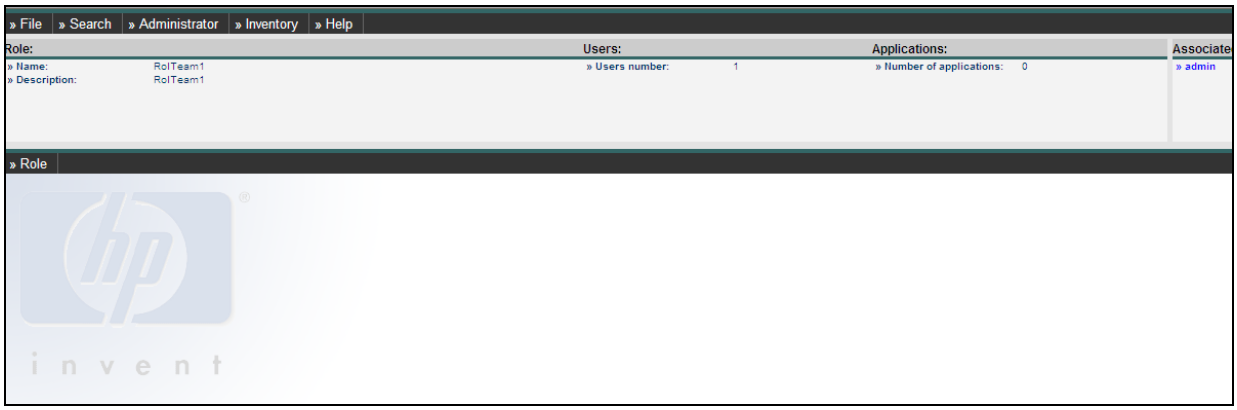


Fig. 4861: Role information

If the desired option has been to perform an advanced role search, then the page in the image below will be displayed.

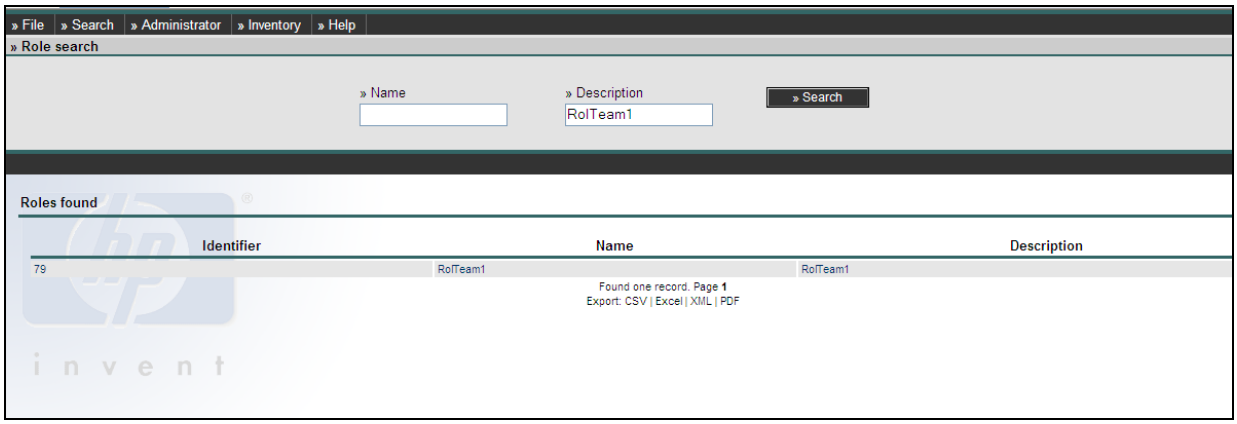


Fig. 4962: Advanced role search

As the fields become filled (it is not necessary to fill all of them), advanced searches can be performed by clicking on the *Search* button at the right side. The image above shows an example of an advanced search.

5.2.4 Operations over a role

The next operations can be performed by a super user once a role has been selected and its information is displayed in the view space.

5.2.4.1 Role edition

The role edition can be performed by clicking on the "Role" → "Edit" menu, available on the status menu bar. The status space will display some editable fields with the role information.

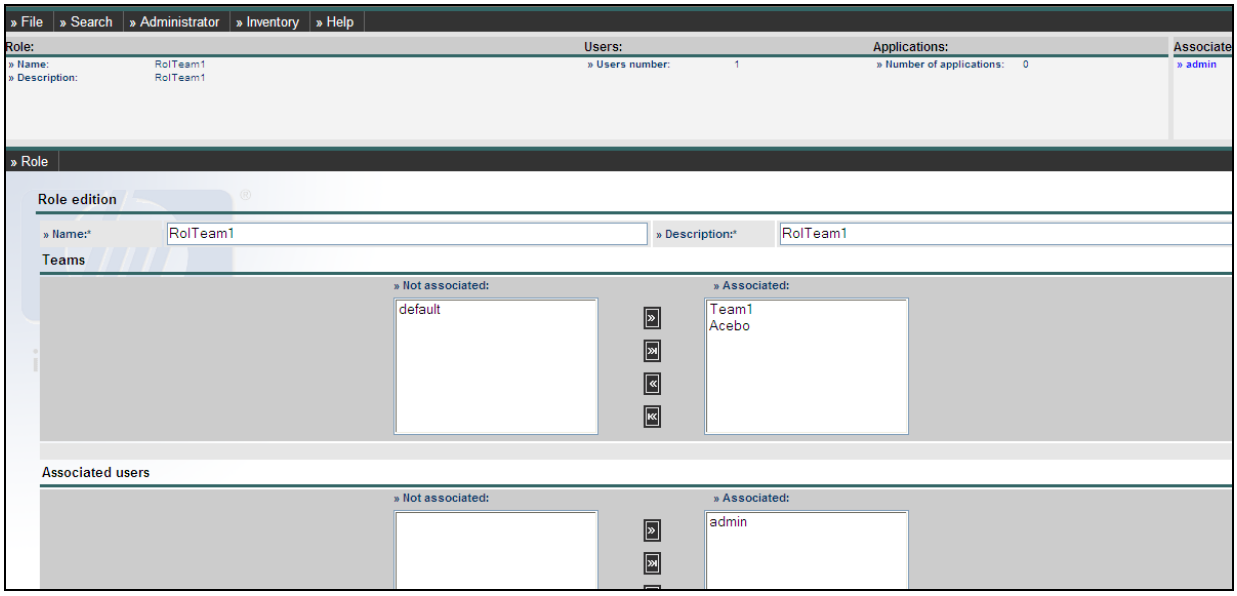


Fig. 5063: editing role (II)

These fields are just the same as it was explained for the role creation. See the Role creation section for further information.

To store the changes performed for the role, click the "Role" → "Save" menu option on the status menu bar.

5.2.4.2 Deleting roles

Once the role information has been displayed in the view space, that role can be deleted by clicking on the "Role" → "Delete".

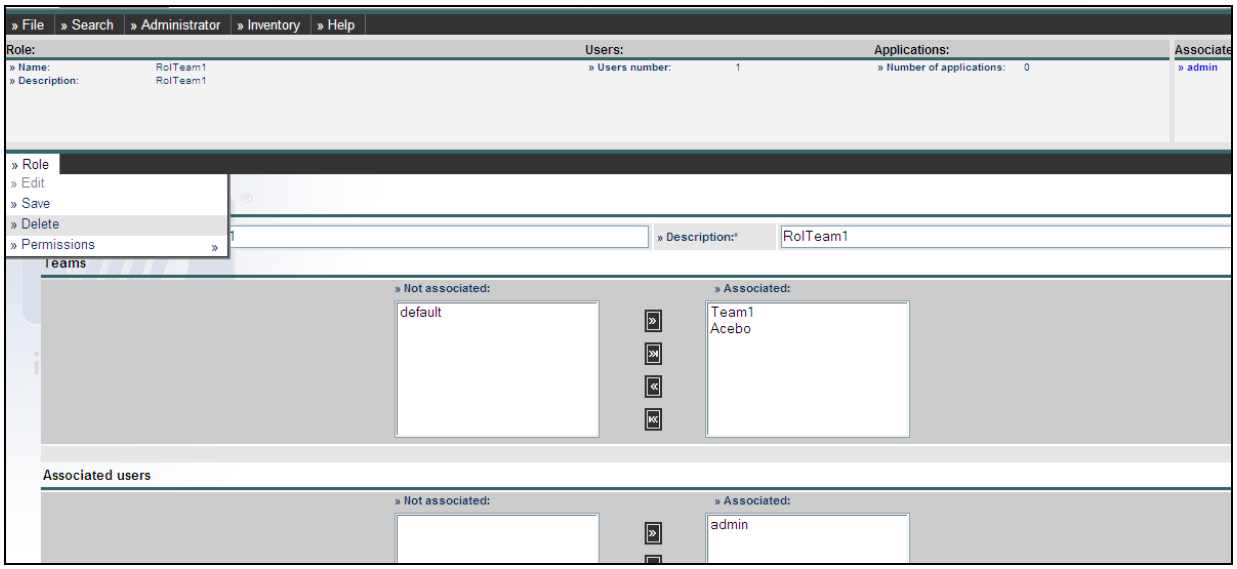


Fig. 5164: deleting role

Before the role is deleted, the super user will be asked for confirmation.

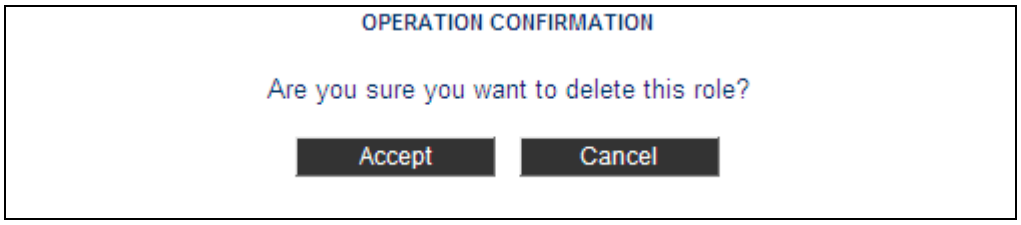


Fig. 5265: deleting role confirmation

5.2.4.3 Role permissions

Permissions through roles can be assigned below the "Roles" → "Permissions" menu, and there are two available options:

- Applications and menus permissions.
- Inventory views and operations permissions.

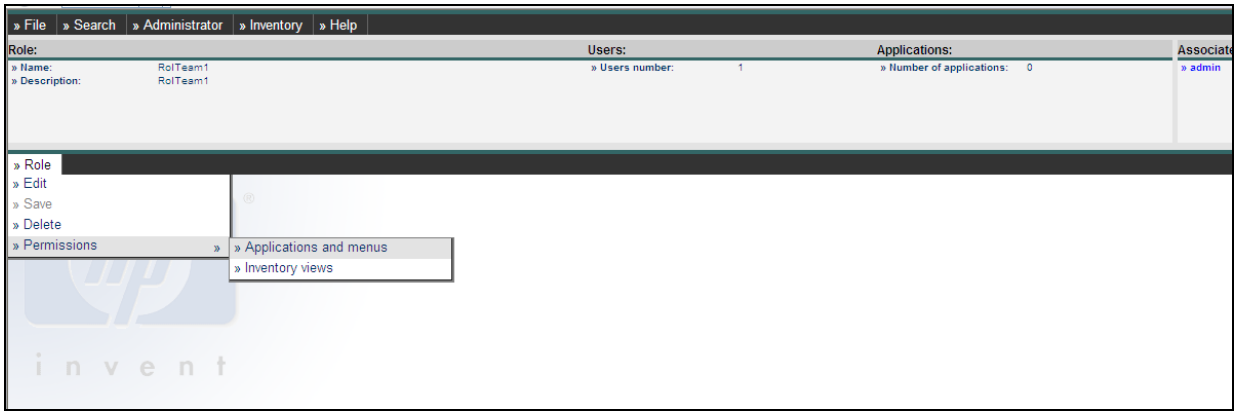


Fig. 5366: Accessing role permissions

Permissions over applications and menus show every application defined for the SC. The ones in dark blue colour are associated to the role, and the faded ones are not associated. There is a checkbox at the right side which allows changing this association.

There is also possible to display the available menus for each application by clicking on the "+" icon. Each application menu has another checkbox on the right side which allows associating the given menu to the selected role.

When all permissions over application and menus have been set, it is necessary to click on the "Role" → "Save" menu to store the changes.

The next figure shows an example of applications and menus permissions.

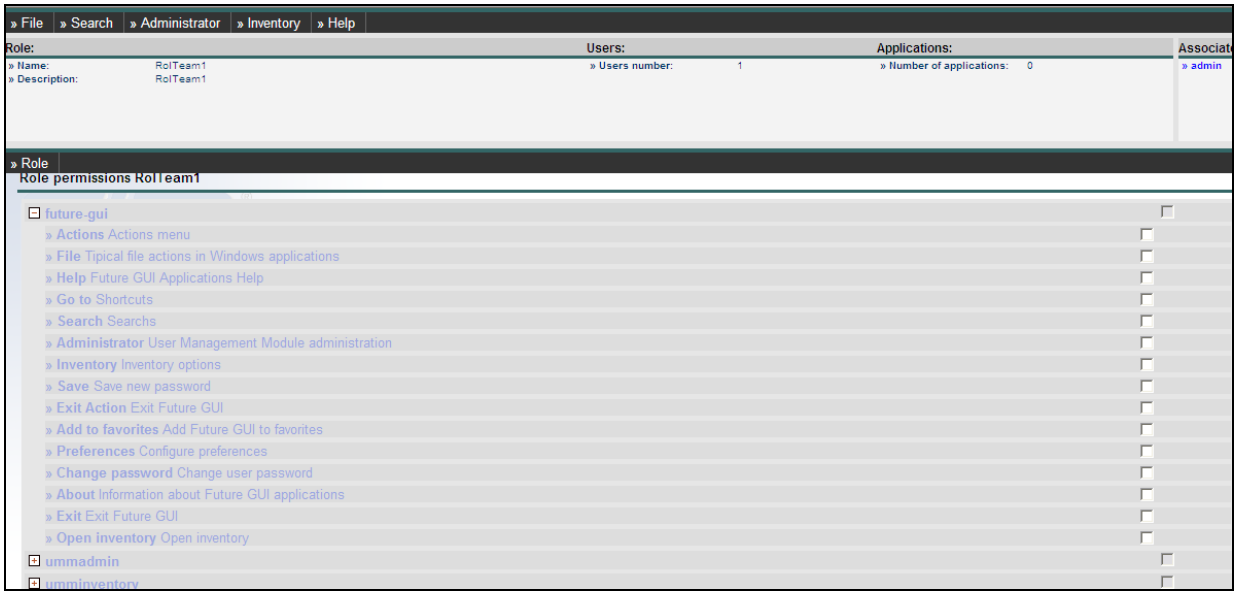


Fig. 5467: Application and menu permissions

Permissions over inventory views and their operations are managed as it was explained for applications and menus.

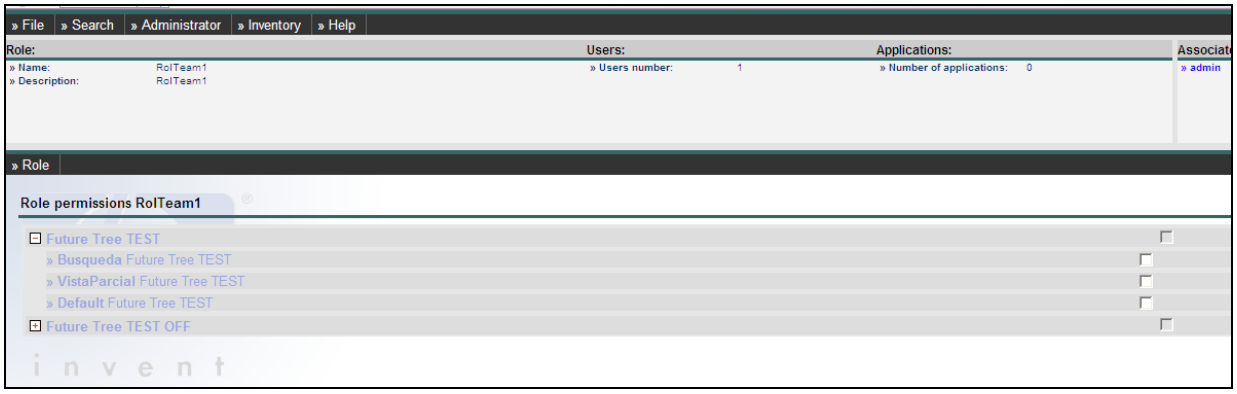


Fig. 5568: Inventory view and operation permissions

As it was told with the application and menu permissions, when all permissions over inventory views and operations have been set, it is necessary to click on the "Role" → "Save" menu to store the changes.

5.3 Application administration

Application administration can only be performed by super users. An application can only be created by developers, so there is no way through the administration GUI to create or delete them.

5.3.1 Application listing

The available applications can be listed by clicking on the "Administrator" → "Application" → "List" menu in the view menu bar.

Fig. 56~~69~~: Accessing application listing

Results are listed from ten to ten applications, so it is possible to navigate over the next and previous results. It is also possible to sort results by each displayed column.

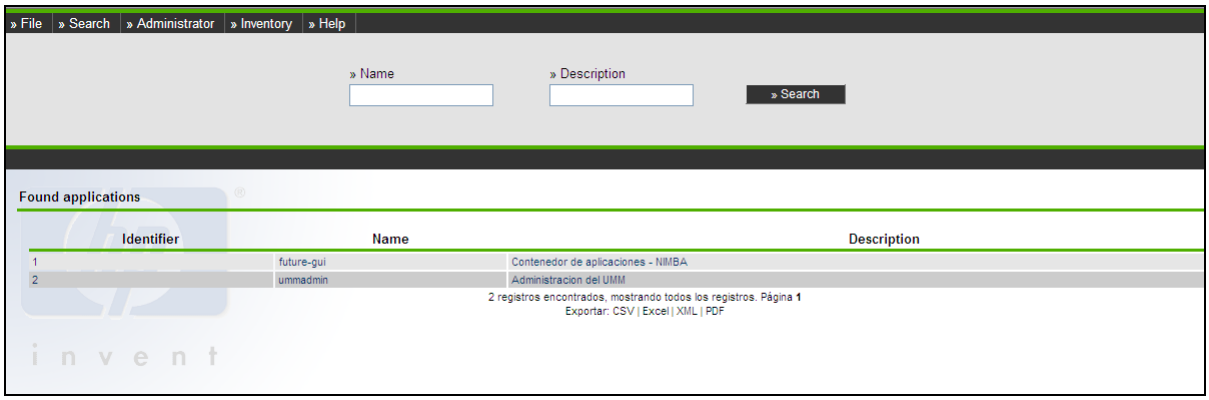


Fig. 57~~70~~: Application listing

5.3.2 Application search

Application search is a similar process than listing them.

To access the application search select one of the two available options below the menu “Search” → “Applications”, which allow to find applications "by name" or to perform an "Advanced" search.

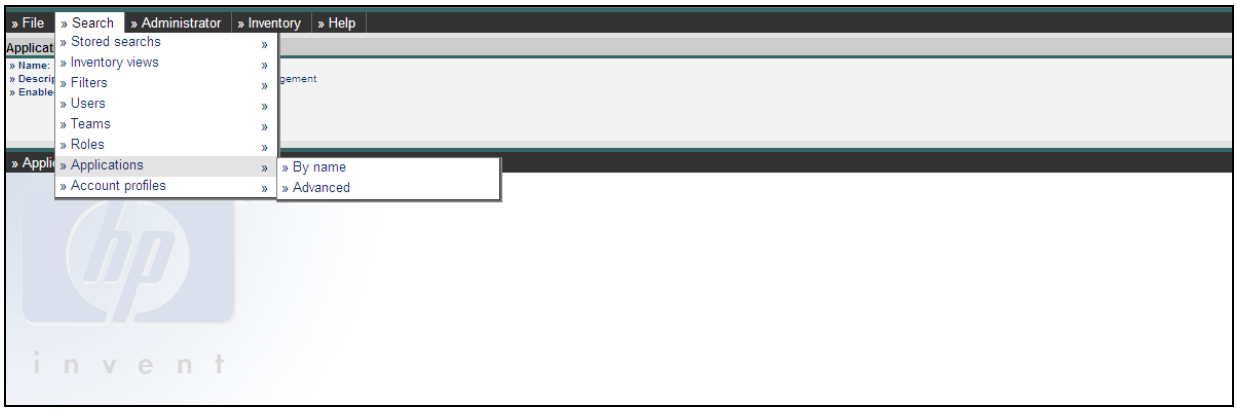


Fig. 58~~71~~: Application search

If the desired option has been to search applications by name, it is requested to enter the user name. This searching option will not return a list of results but a single application if it has the same username or an error if no result is found at all.

If the desired option has been to perform an advanced application search, then the page in the image below will be displayed. As the fields become filled (it is not necessary to fill all of them), advanced searches can be performed by clicking on the *Search* button at the right side.

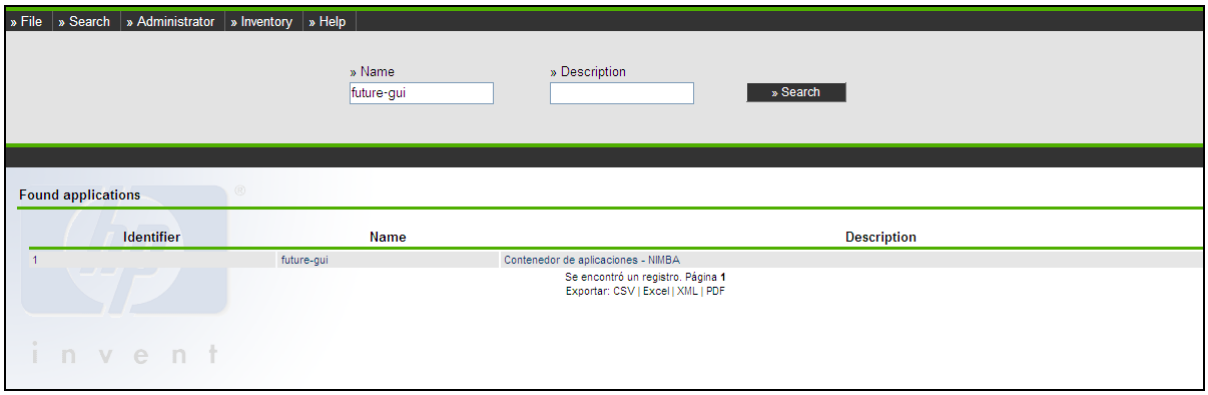


Fig. 5972: Advanced applications search

5.3.3 Operations over an application

The next operations can be performed once an application can be selected.

5.3.3.1 Application permissions

Application permissions are used to establish the roles which will be associated to the selected application.

To select this operation it is needed to click on the "Applications" →"Permission" → "Roles" menu, as it can be seen in the image below.

Fig. 6073: Accessing application permissions

The screen below shows the roles that have access to an application. There is a checkbox associated to each role, which in case of being checked will set the role associated to the selected application.

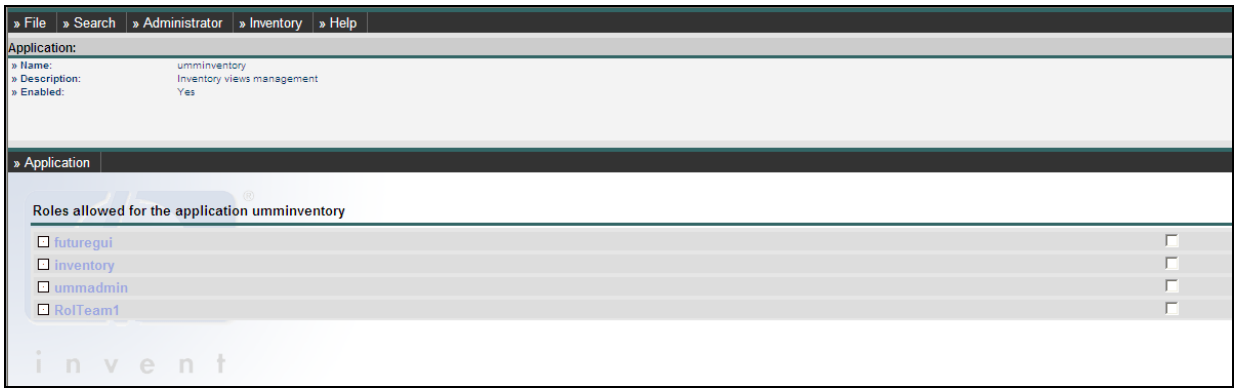


Fig. 6174: Applications permissions

To store the performed changes it is necessary to click on the "Application" →"Save" menu.

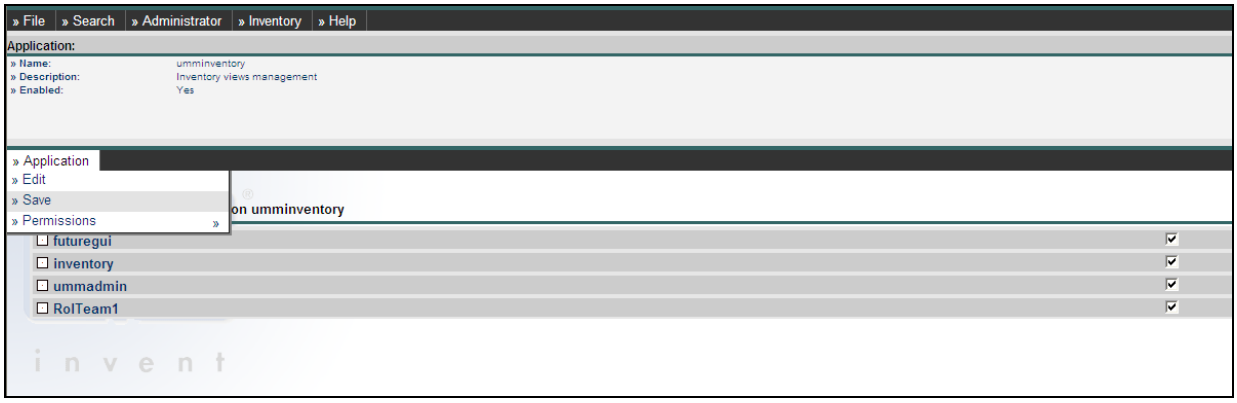


Fig. 6275: Saving application permissions

5.3.3.2 Application edition

This feature allows enabling or disabling applications. Disabled ones will never be accessible, not even for super users.

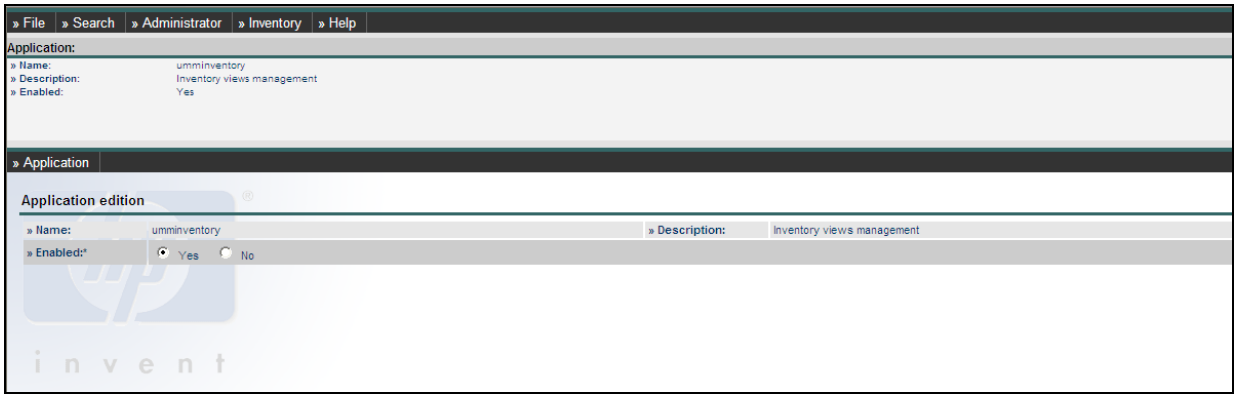


Fig. 6376: Application edition

Click on the “Application” → “Save” menu in the status menu bar to store the changes.

6 Inventory management

The next sections explain how to manage the inventory elements, such as inventory views and their operations, personalized filters and stored advanced searches.

6.1 Inventory view administration

Inventory views can only be managed by super users.

6.1.1 Inventory view listing

All the already existing inventory views can be listed by accessing the menu "Administrator" → "Inventory Views" → "List", as it can be seen in the image below.

Fig. 6477: listing inventory views

A list with all the found inventory views will be displayed. Results are listed from ten to ten inventory views, so it is possible to navigate over the next and previous results. It is also possible to sort results by either of the displayed columns.

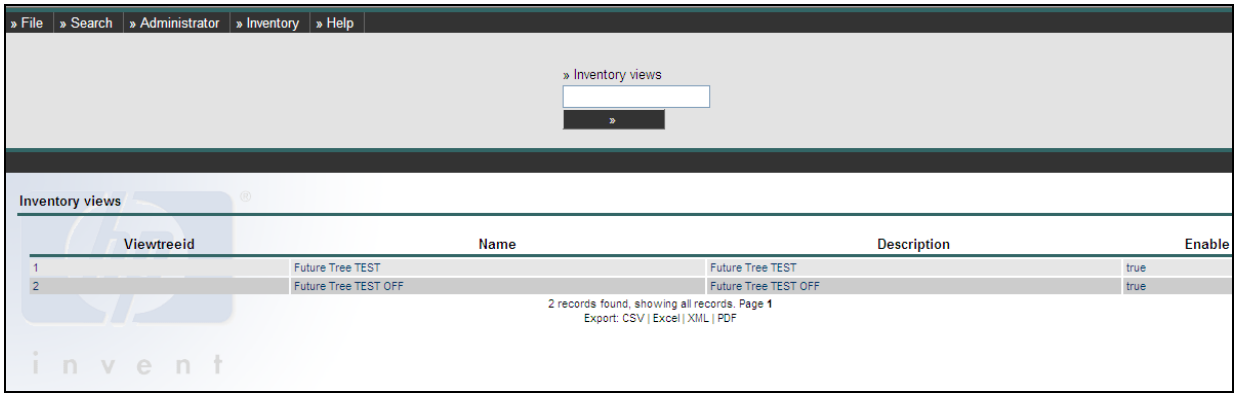


Fig. 6578: inventory status list

Clicking on a result will display the selected inventory view information on the screen.

6.1.2 Inventory view search

The only search which can be performed over inventory views is the search by name, accessible by clicking on the "Search" → "Inventory views" → "By name" menu.

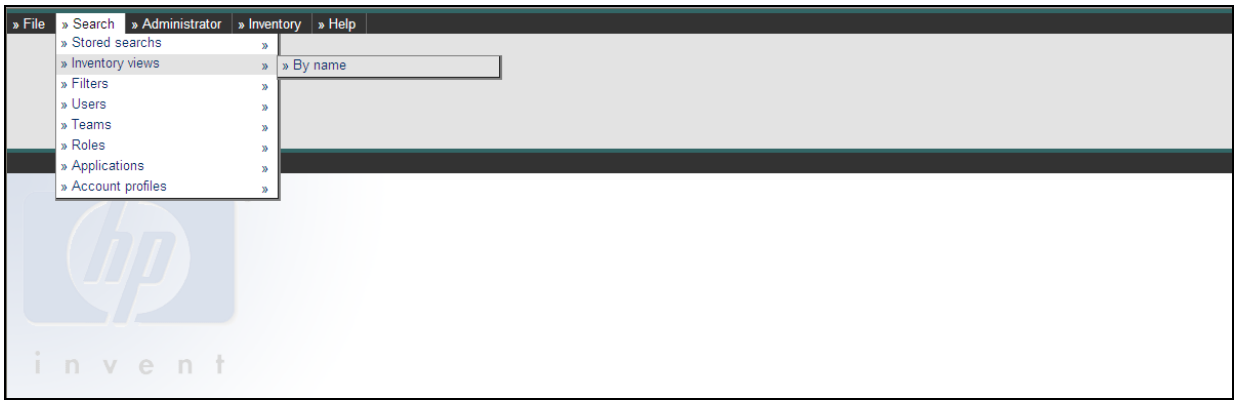


Fig. 6679: Inventory view search

To perform the search it is requested to enter the desired inventory view name. This searching option will not return a list of results but a single inventory view if it has the same name, or an error if no result is found at all.

6.1.3 Operations over an inventory view

These operations can be performed once an inventory view has been selected and its information is being shown in the view space.

6.1.3.1 Inventory view permissions

This feature allows establishing the roles which will be associated to the selected inventory view, its branches and its operations.

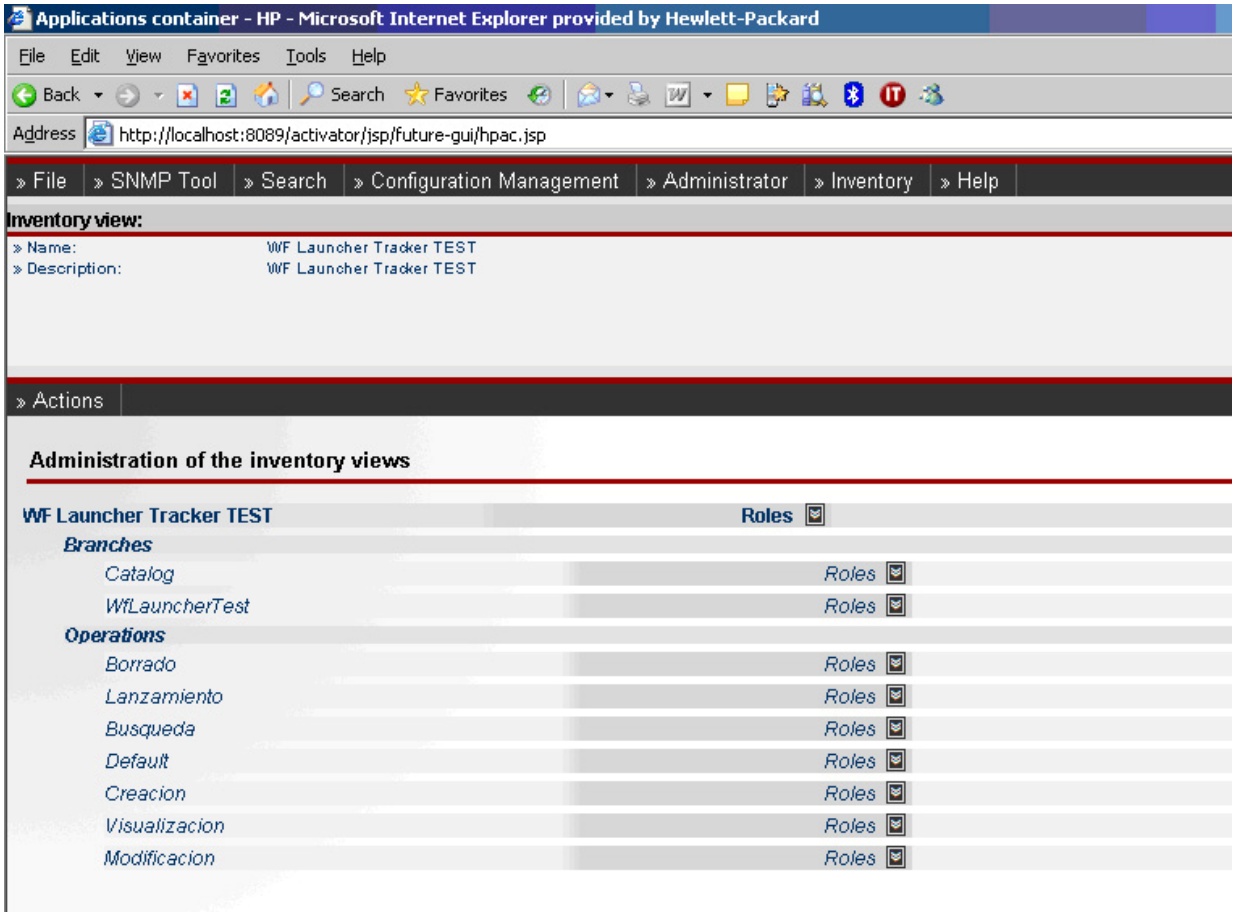


Fig. 6780: inventory view permissions [I]

It is possible to change the roles assigned to it or to its branches and operations just by selecting them from the emergent menu which spreads when you click on the "Roles" button:

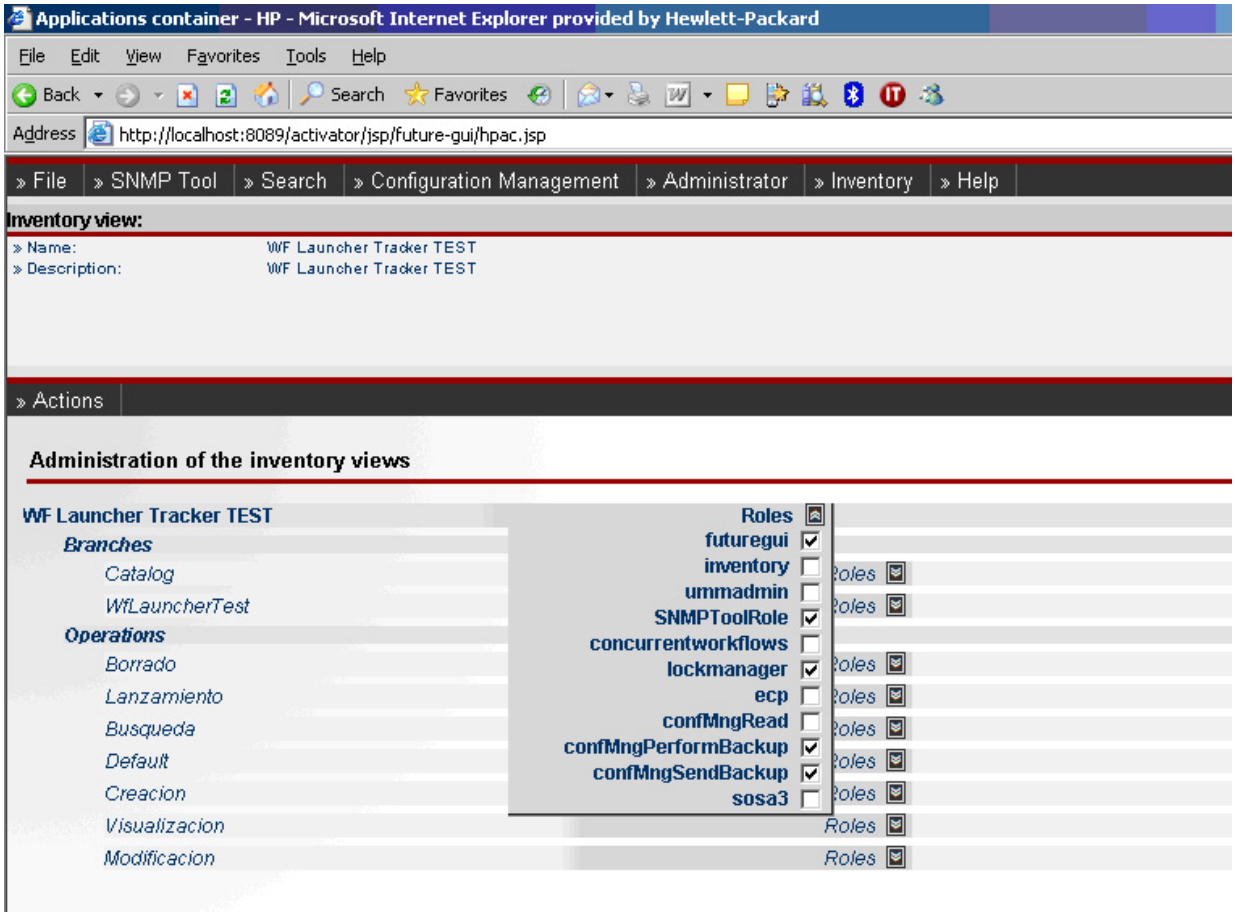


Fig. 6881: inventory view permissions [II]

To store the selected changes over the selected inventory view it is needed to click on the "Actions" → "Save" menu.

6.2 Stored searches administration

The stored search administration only includes the following operations: search, list and delete. For information regarding how to save search operations, please refer to the documentation on the Inventory ('HP Service Activator – Inventory Subsystem.').

6.2.1 Stored search structure

The stored search structure in the SC application is:

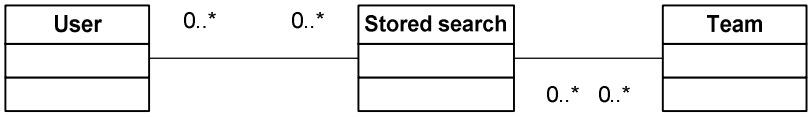


Fig. 6982: Stored search structure

N teams and *n* users can be associated to a stored search. This means that many users can be related to many stored searches which in turn are related to any number of teams.

The administration of searches includes the ability to search for particular searches or list all the stored searches. Each stored search selected can be assigned to particular users and/or teams, can be deleted, or last of all can be executed all over again, to retrieve the data produced by the search.

6.2.2 Search for stored searches

In order to search for stored searches, you have at your disposal several options.

You can search for stored searches by:

- By my stored searches (only the ones assigned to my user will appear).
- By user (only the ones assigned to that particular user will appear).
- By team (only the ones assigned to that particular team will appear).

If you choose search by my stored searches, you must click on "Search" → "Stored searches" → "Search my stored searches".

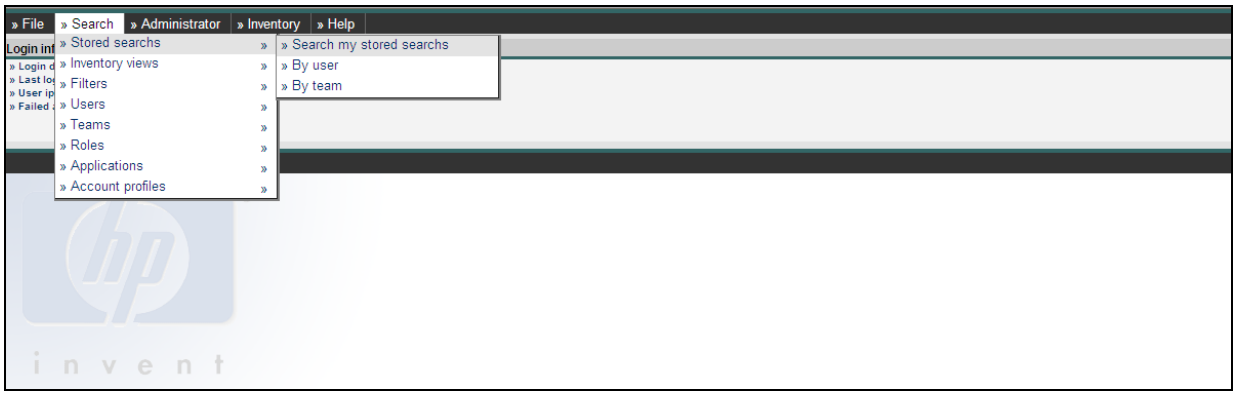


Fig. 7083: Search for my stored searches

In the search form, you can search by any of the fields on the screen (by name, associated view and description).

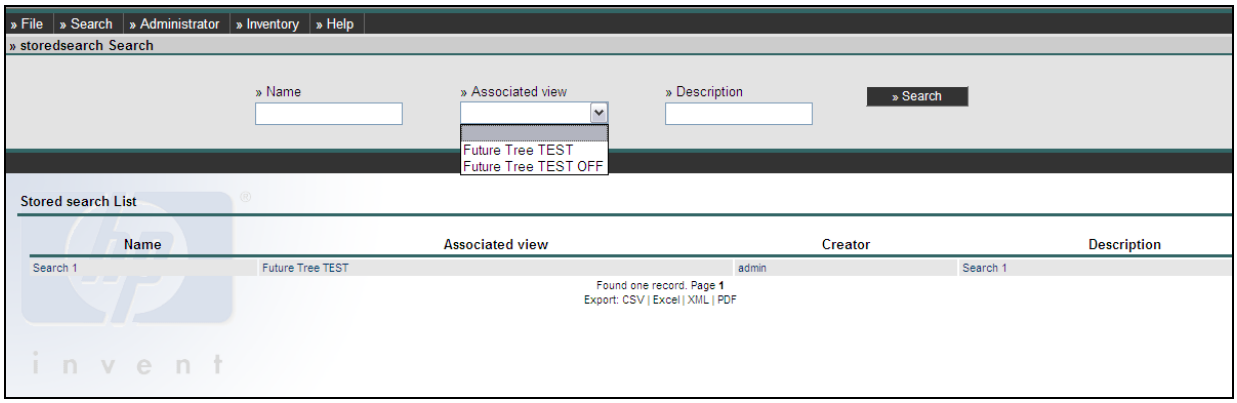


Fig. 7184: Search my stored associated view

If you don't enter values for any of the searchable fields, the results show you all the stored searches that the current user has associated.

The form asks for:

- *Name*: name of the search, this is the name with which the search was saved in the Inventory.

The next field depends on the type of search that was selected.

If the search was on my stored searches, the next field to be entered will be:

- *Associated view*: name of the view the search belongs to.

If the current user is a super user all views will appear in the list.

If the current user is an Admin, the views will be limited to those that are associated with the roles it has in its team.

For the rest of the users, the views shown will be limited to those which are associated with the roles the user has.

If the search was done by user, a different searchable field's data appears:

- *Associated user*: name of the user.

If current user is a super user all users will be listed.

If current user is team administrator the users shown will be those associated to his team.

The rest of the users are not allowed this kind of search.

Last of all if you chose a search by team, a different field appears:

- *Associated team*: name of the team.

Only a super user has the privileges to perform this action, and he will see all teams.

- *Description*: description of search.

6.2.3 Stored searches listing

You can list stored searches by selecting the "Administrator" → "Stored searches" → "List".

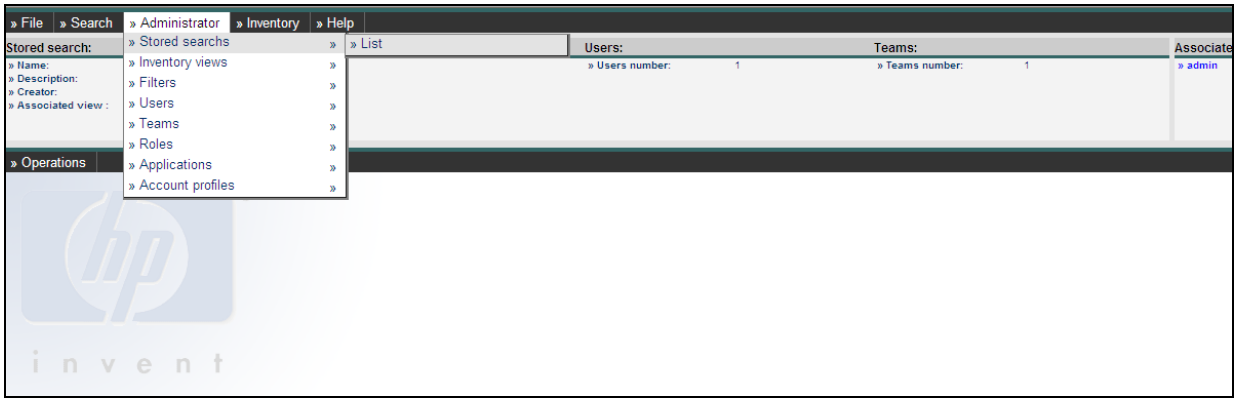


Fig. 7285: Accessing stored searches listing

You will see the next screen

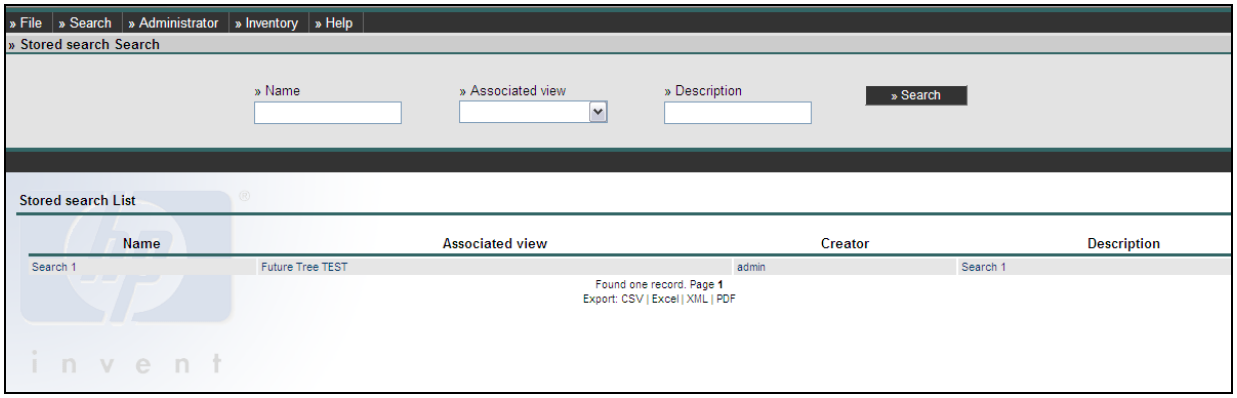


Fig. 7386: Stored searches listing

6.2.4 Operations on stored searches

If you click on one stored search from a list, you will see an operation menu. It lets you delete, assign or show the stored search's data.

6.2.4.1 Assignation of stored searches

The stored search can be assigned to a team by selecting the "Operation" → "Assign" → "To teams" menu.

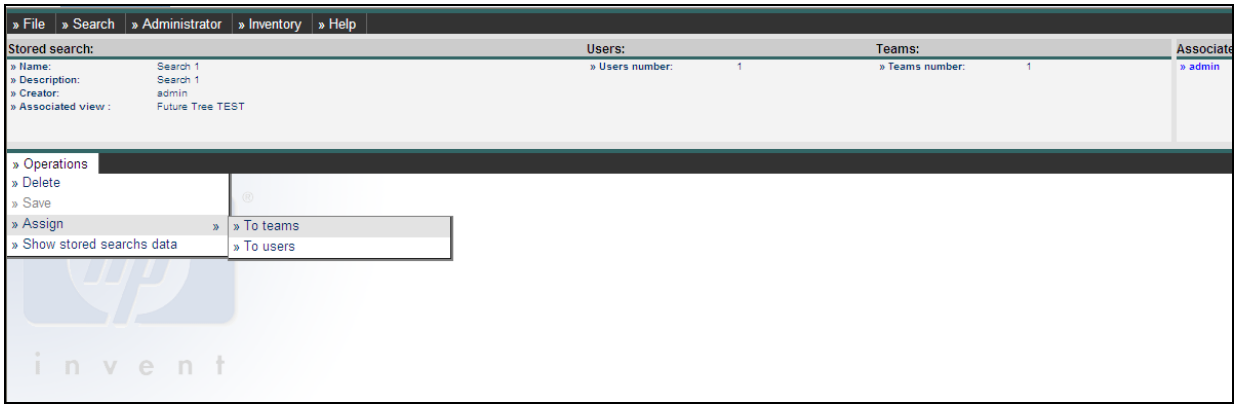


Fig. 7487: Assign to teams

This operation can only be executed by a super user.

It can also be assigned to a particular user by clicking on the "Operation" → "Assign" → "A user" menu:

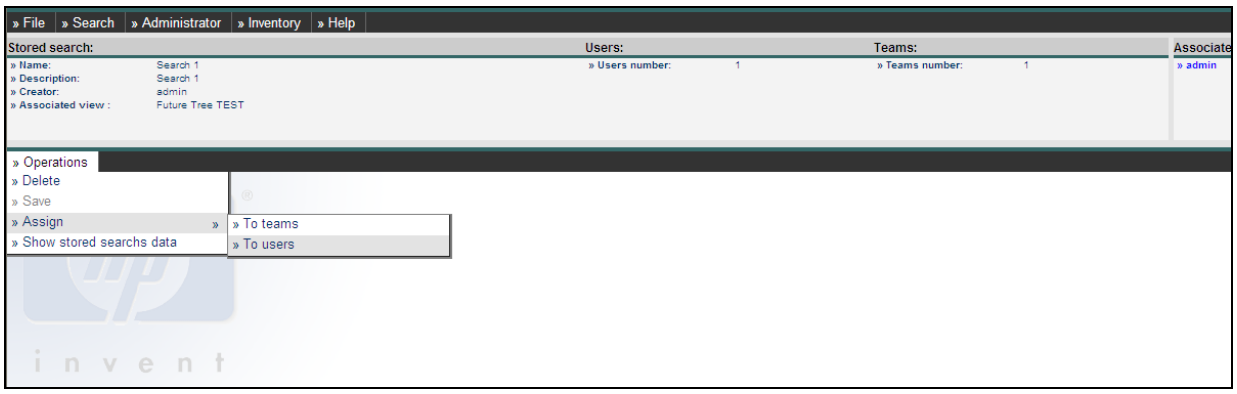


Fig. 7588: Assign a user

This operation can be executed by both a super user and a team administrator.

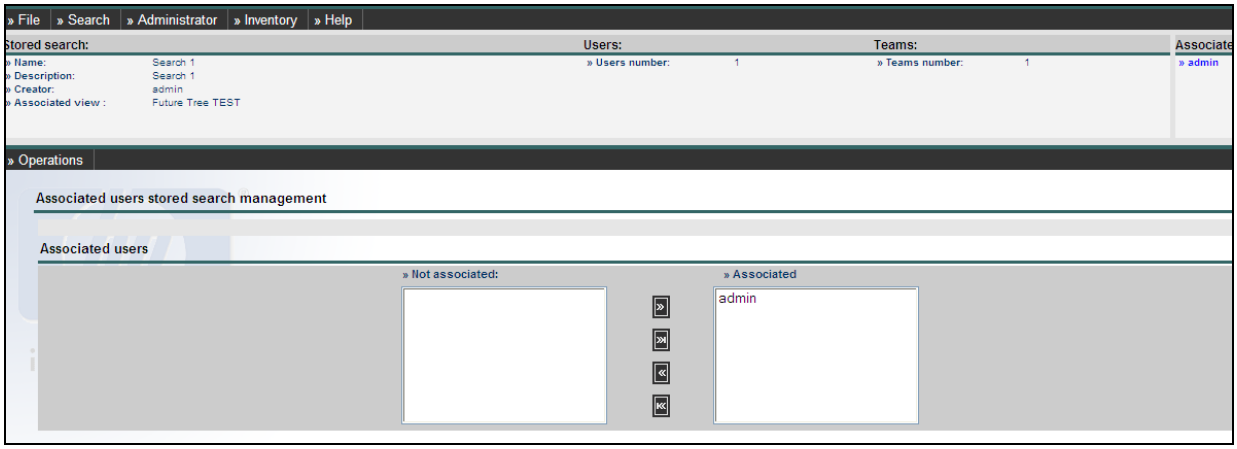


Fig. 7689: Assigning available user

6.2.4.2 Stored searches deletion

Deleting stored searches is done selecting the "Operation" → "Delete" menu.

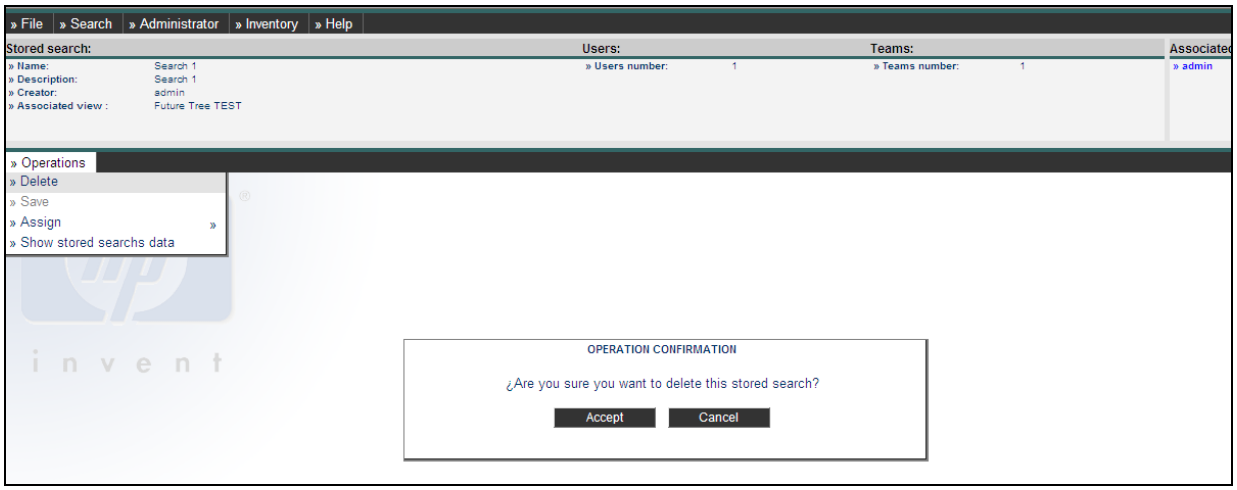


Fig. 7790: Stored searches deletion

A message will be shown to confirm this operation was successful.

6.3 Filters administration

Filter administration includes the search and listing of filters. The operations that can be executed on them are assigning them to users and teams, to show filter's data and finally to delete filters from the system.

6.3.1 Filters structure

A filter can be associated to an unlimited number of teams and users.

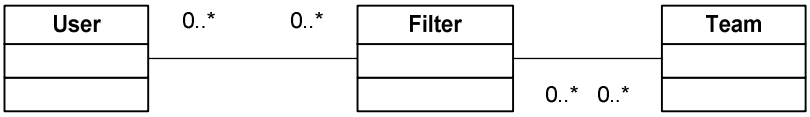


Fig. 7891: filters structure

N users and team can be associated to a particular filter.

6.3.2 Search for filters

In order to search for filters, you have at your disposal several options.

You can search filters by my filters, by team and by user.

To search for my filters, you must click on "Search" → "Filters" → "Search my filters":

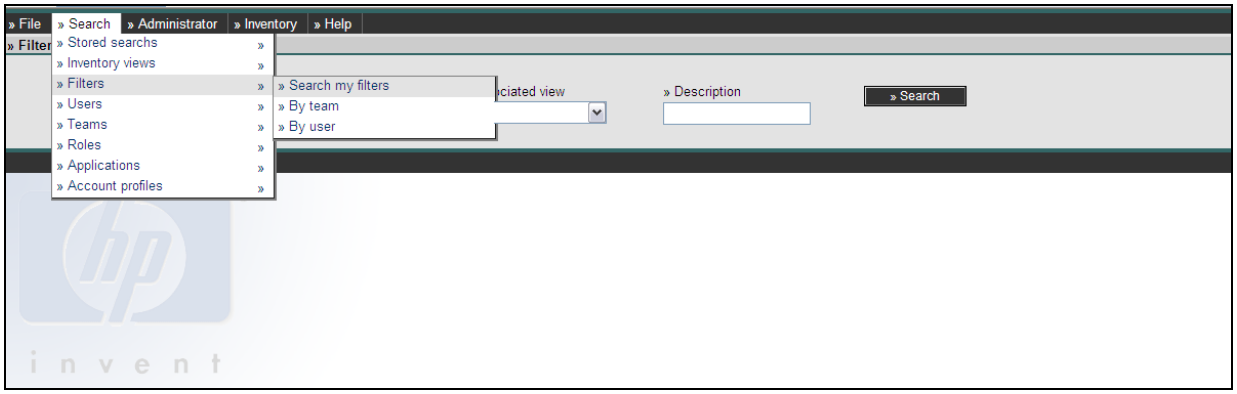


Fig. 7992: search for my filters

You can search by any of the fields on the screen (name, associated view and description).

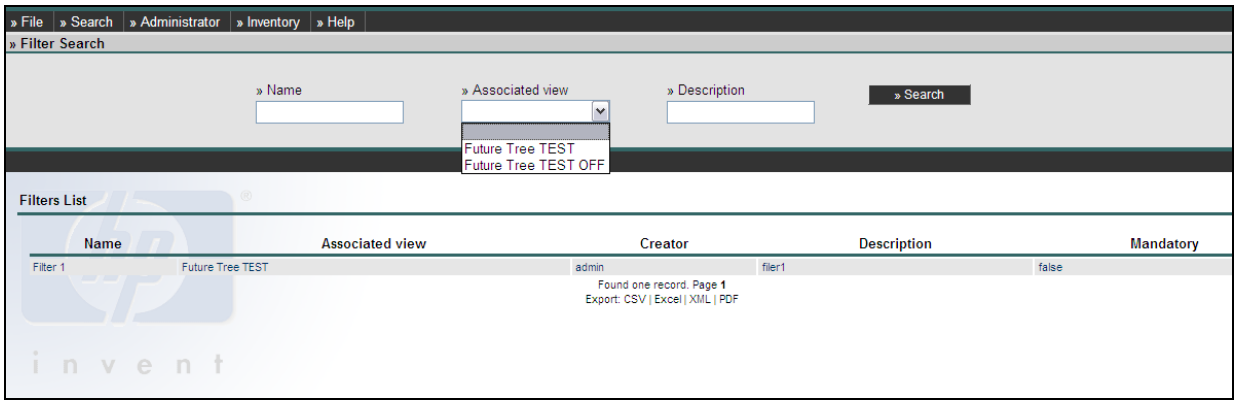


Fig. 8093: search filters associated view

If you don't enter any field in the form, the results shows you all filters that the current user has associated.

The searchable fields to be entered are:

- *Name* : filter's name with which it was saved in the Inventory application.

The next field is dependent on the type of search selected previously. If the user selected to search his filters, the field to set will be:

- *Associated view*: name of the view.

If the current user is a super user all views will be listed.

If the current user is an Admin, the views listed will include all that are associated with the roles it has in its team.

For the rest of users, the views listed will be those who are associated with its roles.

Else if the search was done by user, the field to be entered would be:

- *Associated user*: name of the user.

If current user is a super user all users will be listed.

If current user is team administrator, the users will include all those associated to his team.

The rest of users cannot perform this action.

Finally if the search was done by team, the field will be:

- *Associated team*: name of the team.

Only a super user can perform this action, and he will see all teams

The last field to be set is:

- *Description*: the filter description.

6.3.3 Filter listing

The filter listing can be shown by selecting: Administrator→Filters →List

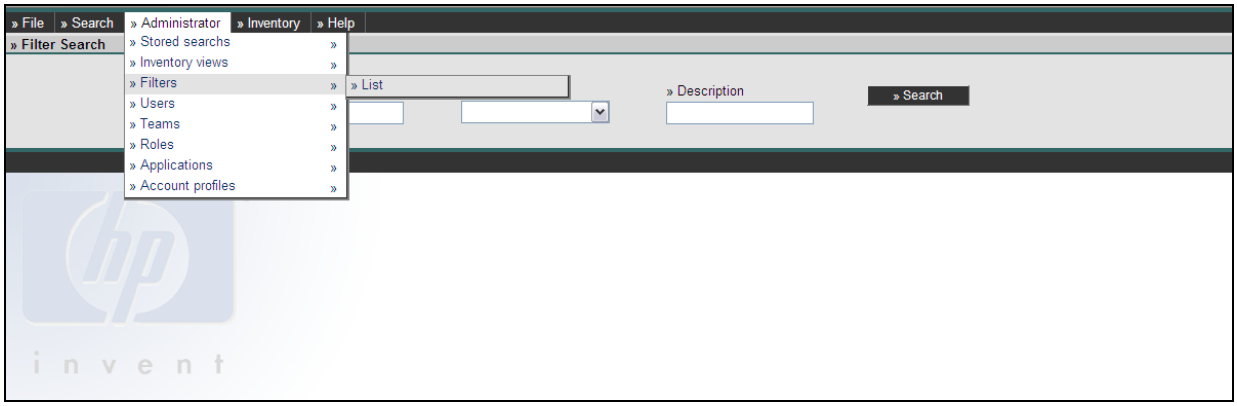


Fig. 8194: Accessing filter listing

You will see the following screen:

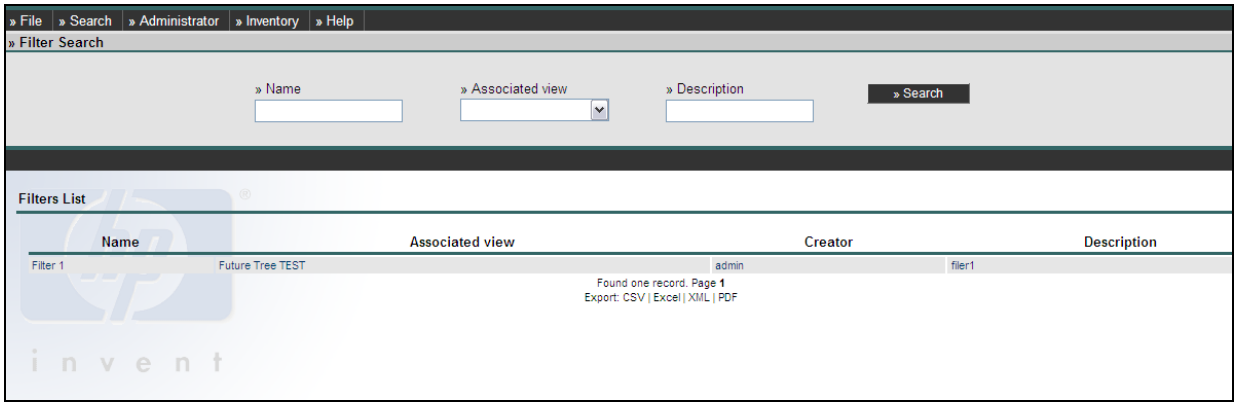


Fig. 8295: Filter listing

6.3.4 Operations on filters

If you click on one of the filters listed, you will see the Operations menu. It lets you to delete a filter, to modify its assignation settings and to view the filter's data.

6.3.4.1 Filter assignation

The assignation of filters to teams is done by clicking on the "Operation" → "Assign" → "To teams" menus.

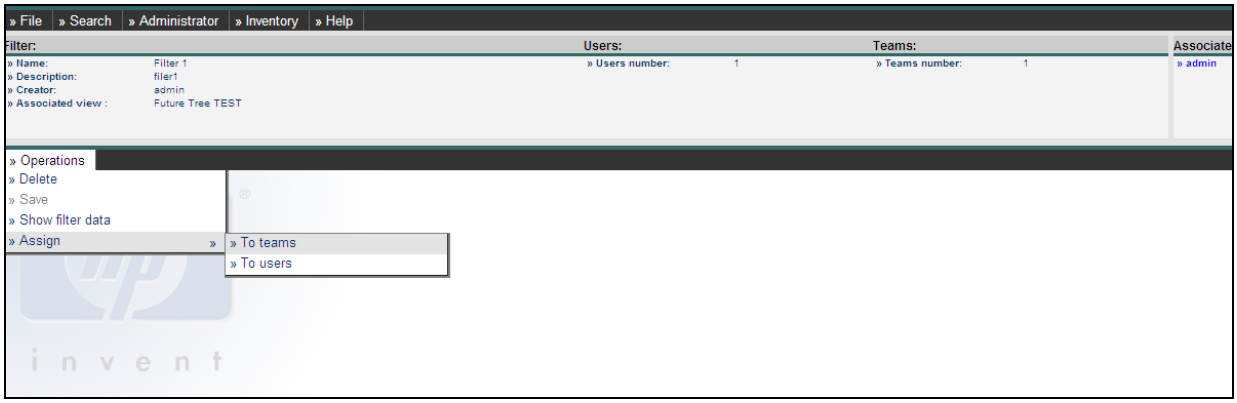


Fig. 8396: Assign to teams

This operation can only be performed by a super user.

The assignation of filters to users is achieved by selecting the "Operation" → "Assign" → "A user" menu.

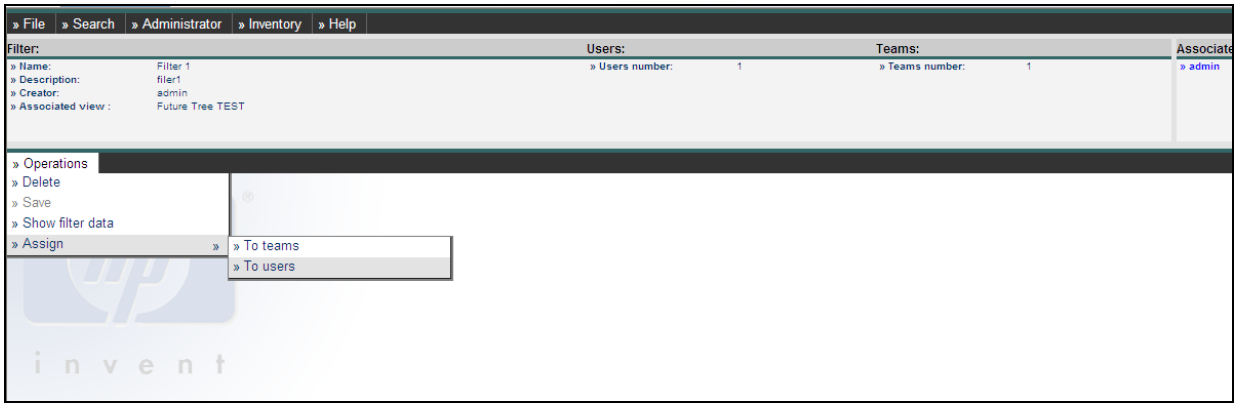


Fig. 8497: assign to user

This operation can be executed by both a super user and a team administrator.

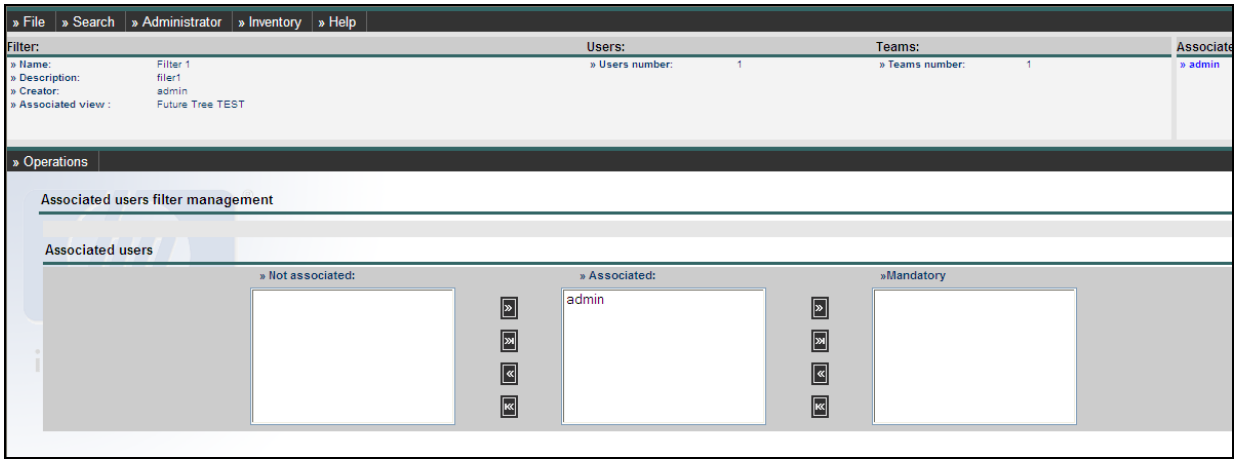


Fig. 8598: Associated user

When you associate a filter to a user you can make this filter mandatory.

6.3.4.2 Filter deletion

Filters can be deleted by clicking on “Operation” → “Delete”.

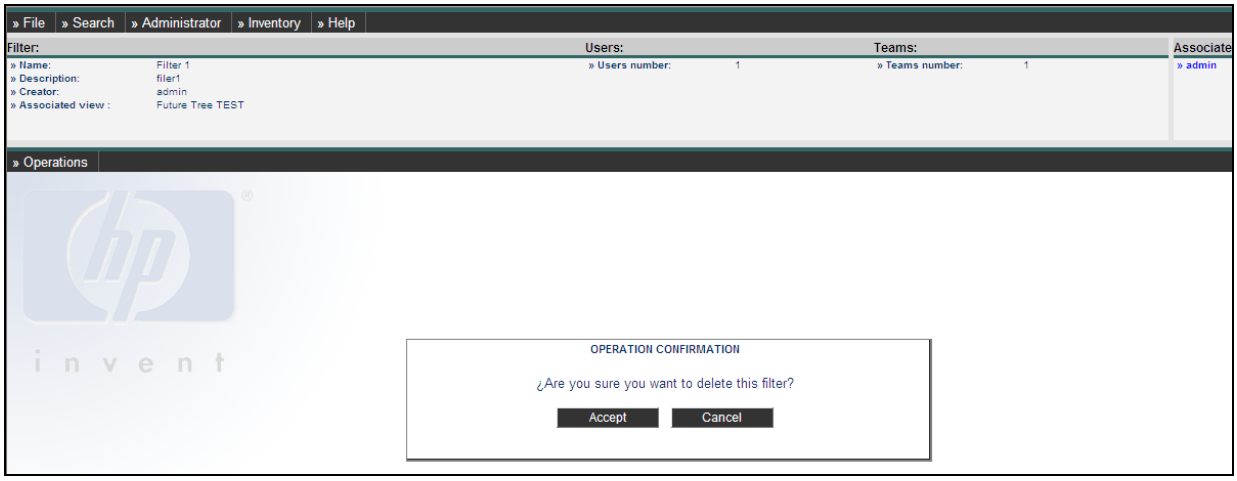


Fig. 8699: Delete filters

A message will be shown to confirm this operation.

7 User RMI Manager

7.1 Description

The User RMI Manager allows the remote management of the users defined in the system. The manager will publish some methods which can be invoked from other applications through a RMI connection to the configured URL.

The RMI provided with the SC contains a small number of methods with functionality that is exclusive of the SC and not used in the HPSA. HPSA provides a RMI with a great number of methods which can be invoked in order to manage users and permissions. See the HPSA documentation related to the authentication module and the UMM for further information.

7.2 Configuration

The URL of the RMI connection can be configured. For further details about how and where configure this URL read the document *HPSA Extension Pack – Solution Container - Developer Reference.doc*.

7.3 User Management through RMI

These are the methods which are accessible using the User RMI Manager and its parameters:

- auditAction: logs an action in DB. Refer to *HPSA Extension Pack – Solution Container – Developer Reference* for more information about the Audit Action Module. Parameters needed:
    1. messageType: the message type (i.e. error, info, etc.)
    2. username: the name of the user who performs the action.
    3. *workId*: Identifier of the work.
    4. *sourceComponent*: component upon which the action is referred.
    5. *actionPerformed*: the name of the action performed.
    6. *description*: a brief description of the action performed.
- *getUserRestriction*: Gets the restriction (identified by its name) of a given user. Parameters:
    1. *username*: the name of the user.
    2. *restriction*: the restriction name.
- *getUserRestrictions*: Gets all the restrictions for a given user. Parameters:
    1. *username*: the name of the user.
- *isUserRestricted*: checks whether a user has restrictions or not. Parameters:
    1. *username*: the name of the user.
    2. *umm*: reference to the HPSA UMM RMI.
- *setUserRestriction*: adds a restriction to a given user. Parameters:
    1. *loggedUsername*: name of the logged on user.
    2. *loggedUserPassword*: password in clear text of the logged on user.
    3. *umm*: reference to the HPSA UMM RMI.
    4. *username*: the name of the user.
    5. *restrictions*: a *HashMap* with the information about the restrictions as they are needed in the restriction driver.

7.4 Example

The steps that must be executed in order to access to the User RMI Manager and check whether the user *admin* has restrictions or not will be showed in the next example:

```
import java.rmi.Naming;
import java.rmi.RemoteException;
import com.hp.spain.futuregui.login.LoginConstants;
import com.hp.spain.futuregui.users.rmi.def.SPIUserManagementRMIDef;
import com.hp.ov.activator.mwfm.UserManagementManager;

SPIUserManagementRMIDef userManager = (SPIUserManagementRMIDef)
Naming.lookup (“//localhost:2000/userrmi”);
UserManagementManager umm =
   (UserManagementManager)
   request.getSession().getAttribute(LoginConstants.UMM);

userManager.isUserRestricted(“admin”);
```

The first step is to get the RMI object which has been published in the URL “//localhost:2000/userrmi”. This URL is configurable and the value specified here is only for the purposes of the example. Details about how configure a specific URL for the User RMI Manager are provided in the document “HPSA Extension Pack – Solution Container - Developer Reference.doc”. The kind of the object published in that URL is com.hp.spain.futuregui.users.rmi.def.SPIUserManagementRMIDef.

Once we have access to the User Manager Object the user can invoke the different methods explained before in the section 6.3.

8 Audited Actions Management

Every audited action inside the SC may be managed through its administration GUI. There are two main operations available for the audited actions: searching and listing. Both of them provide a listing of audited actions which can be removed if necessary.

8.1 Listing audited actions

Every audited action may be listed by clicking on Administrator → Audited Actions → List. The figure below shows the result of this operation.

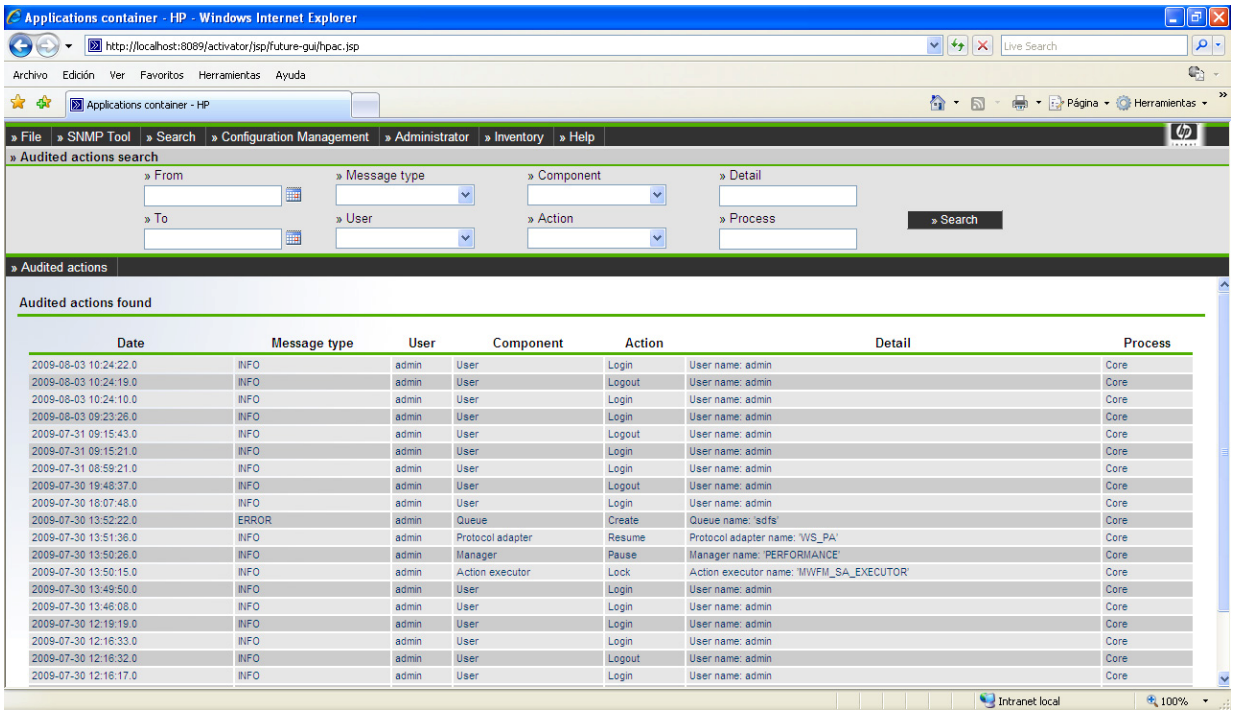


Fig. 87~~00~~: Audited actions listing

8.2 Searching audited actions

Instead of listing every audited action, an advanced search can be defined in order to obtain a lesser number of results. The figure above shows in the view area the different fields available for the search.

8.3 Removing audited actions

Once a list of audited actions has been obtained they can be selected by clicking on the different rows. When selected, they can be removed by clicking on Audited Actions → Delete.

It can be seen in the figure below, where three audited actions have been selected:

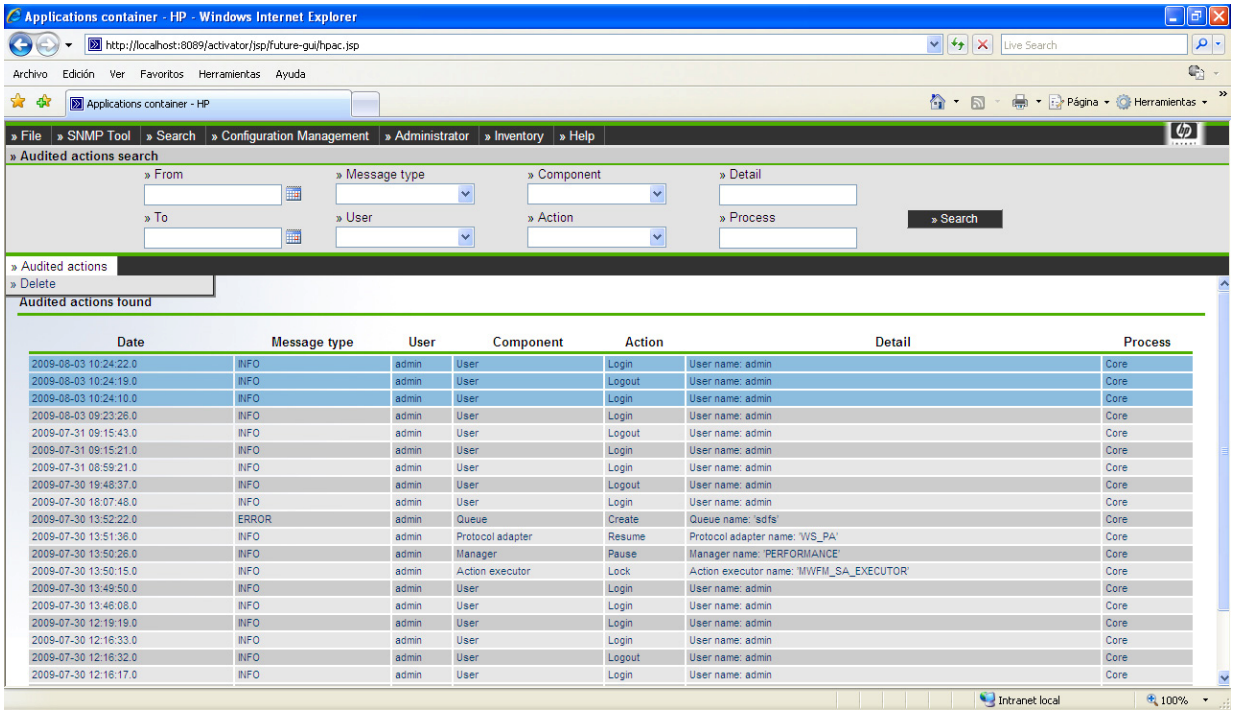


Fig. 88~~101~~: Removing audited actions

9 ECP Console

The ECP Console is a web application that allows establishing connections with remote equipments through the ECP, using several available protocols such as telnet or SSH, for example.

The ECP Console application can analyze execution permissions on any typed command for every user and thus, the operations that can be performed on remote equipments are strictly controlled.

Also, the ECP Console application allows defining command scripts for each user and remote equipment.

This console can be managed through the ECP console administration GUI, letting the users save scripts, hosts and command filters in the database.

9.1 ECP Console Components

9.1.1 Hosts

A host determines a specific kind of equipment depending on several parameters:

- Manufacturer: the host manufacturer. Ex. Riverstone
- Model: The host model. Ex. RS
- Version: The host version. Ex. 3000
- Command Template: The template which will be used to send commands to this host.

Each host has a specific Command Template that must be defined by the user. These templates are explained in detail in the document "HPSA Extension Pack - ECP - Developer Reference.pdf".

To illustrate the use of command templates we will show an example:

```
[TEMPLATE:Do]
[TEMPLATE:Section 0]
${command}
[TEMPLATE:EndStrPattern "host[^\n]*[#>]"]
[TEMPLATE:Undo]
[TEMPLATE:Section 0]
```

The templates used in the host definitions have two differences with the templates described in the ECP Developers reference. The first one is that these templates can have only one section since they will execute only one command. The other particularity is that in the host templates the specific command must not be included, instead of it the string "${command}" must be added in the section. This string will be replaced by the desired command by the console.

It's important to notice that the `EndStrPattern` section must be able to match all the possible strings with which any command can finish its execution.

9.1.2 Scripts

Command scripts are predefined command sequences which are executed using a different ECP template than typed commands do. For further information about how to define a template check the document "HPSA Extension Pack - ECP - Developer Reference.pdf"

The command scripts permit a high degree of complexity, allowing the users to define loops and create variables. Using them it is possible to store complex structures in the database and execute them with a single click from the console.

The access to the scripts through the ECP console can be restricted to the desired teams and users. That can be specified in the creation process of the scrip through the administration GUI, and can be modified later by editing the script (see section 5.2 for further detail about creation and edition of command scripts).

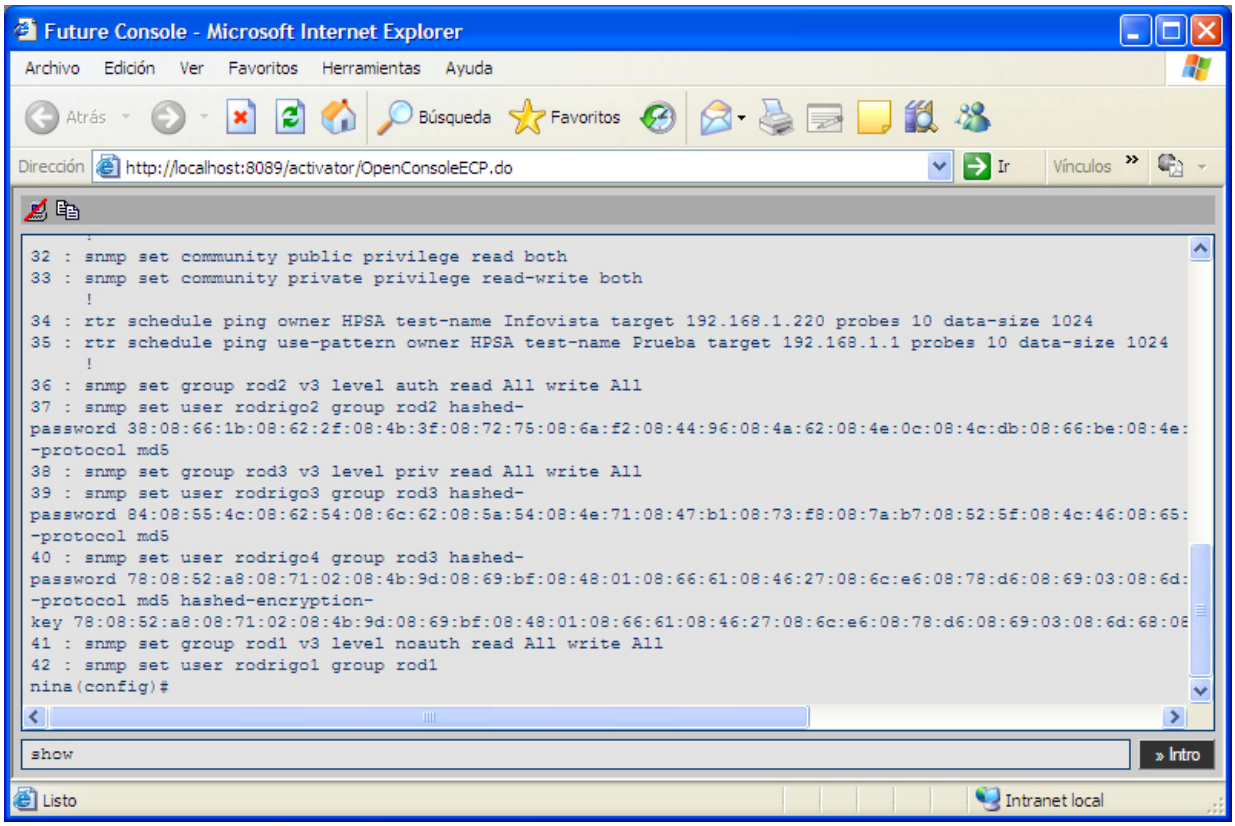
9.1.3 Command filters

A command filter is a regular expression which matches every typed command. Only those commands that match a regular expression will be accepted. The other ones will become forbidden and an error message will be displayed for the user.

Command filters are associated to users. Any typed command is matched with every user's command filter and, if it matches one of them then it is accepted and executed.

9.2 ECP Console usage

The ECP Console is a web console which allows opening connections to remote hosts using several given protocols, typically telnet or SSH, sending them commands and printing the obtained command output as it is made in any traditional console.



The upper bar of the ECP Console provides a button which allows connecting and disconnecting to the remote equipment, and a second one which shows the available command scripts, if any.

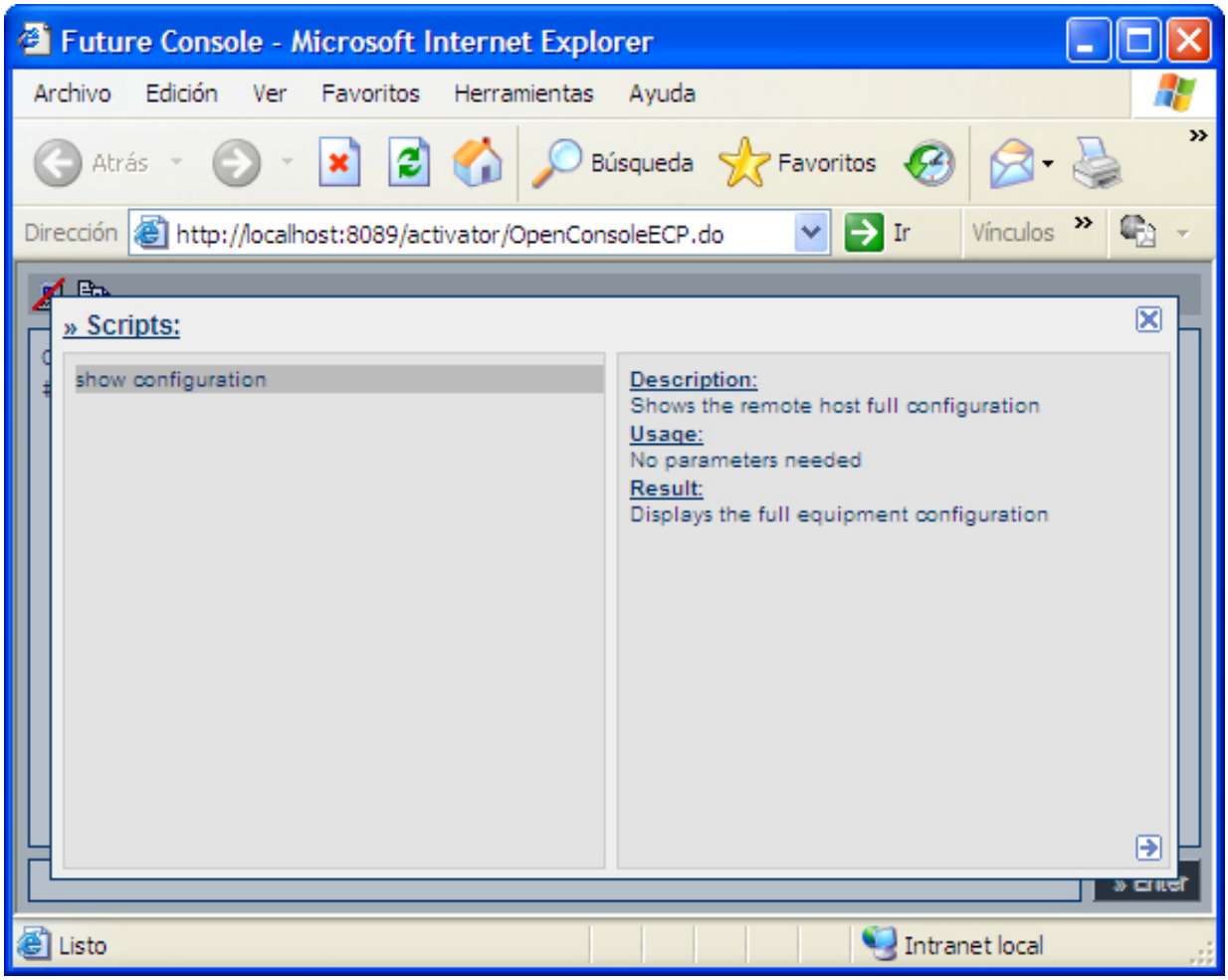
The main space is dedicated to the console output.

At the bottom there is a space for the command typing and a button for their execution.

To send a command, just type it in the commands text field and press enter or click the *Enter* button on the right. If you are allowed to execute the typed command on the remote host you will see the output on the console. Otherwise an error notification will be displayed.

9.2.1 Command Scripts

When there are available command scripts, clicking on the scripts button will display a screen like the one below, where the command scripts are listed and can be selected for their execution.



There are two ways to execute a command script.

The first one consists on typing on the command text field the string *script:* and the command script name:

```
script:show configuration [enter]
```

The second one consists on clicking on the scripts button and double clicking the desired script on the list. Then press the *Enter* button to execute it.

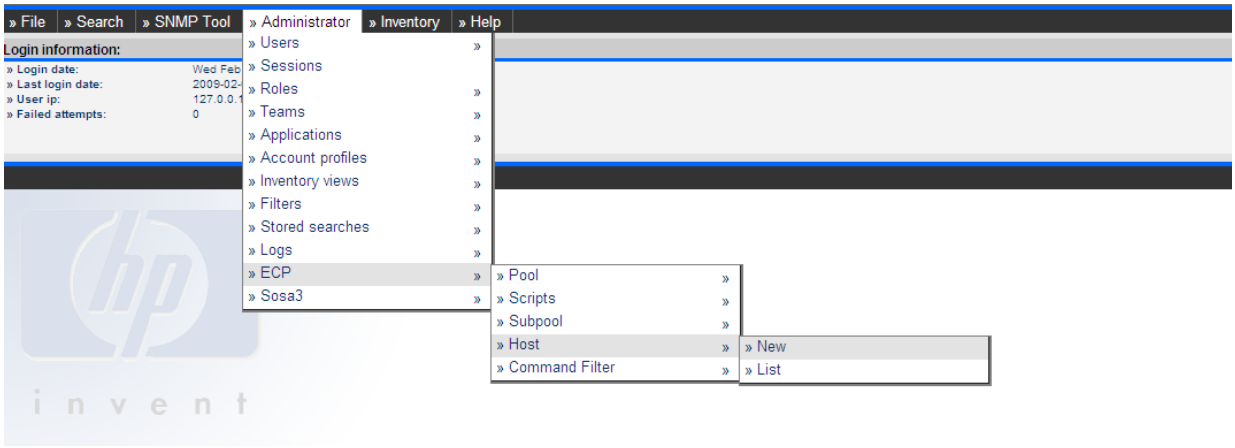
There is an arrow button at the bottom right corner of the command script window which directly executes the selected script without writing it on the command text field. It is a quicker way for executing command scripts.

9.3 ECP Console management

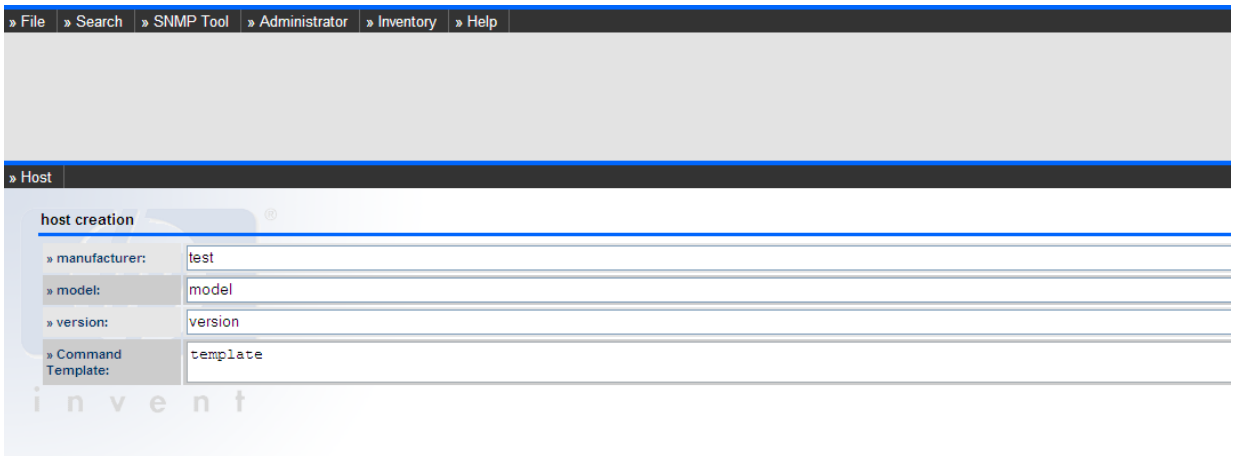
9.3.1 Host management

9.3.1.1 Creating a new Host

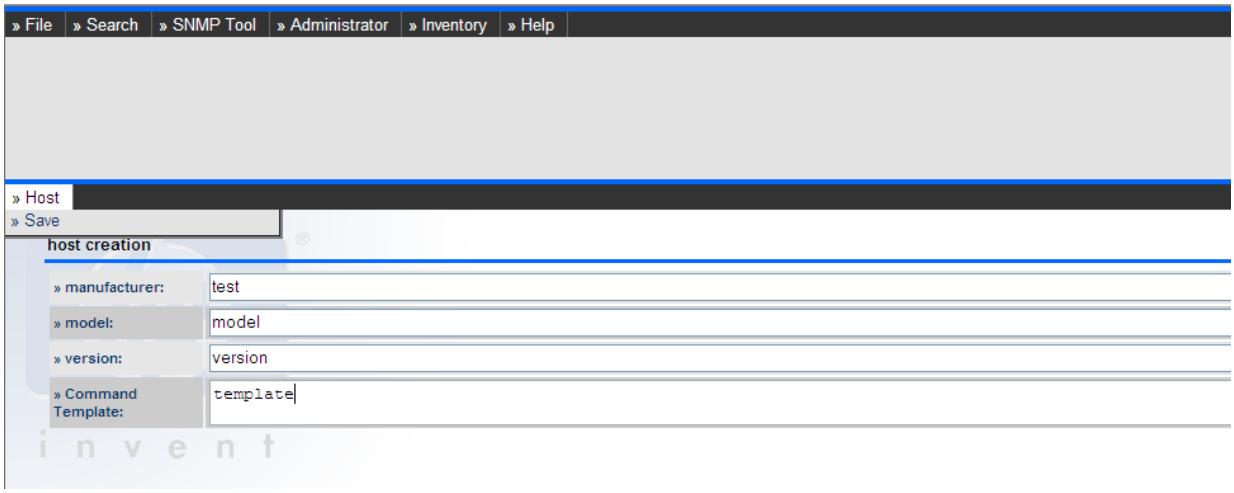
In order to create a new host the user must click in the menu “Administration –> ECP -> Hosts -> New”



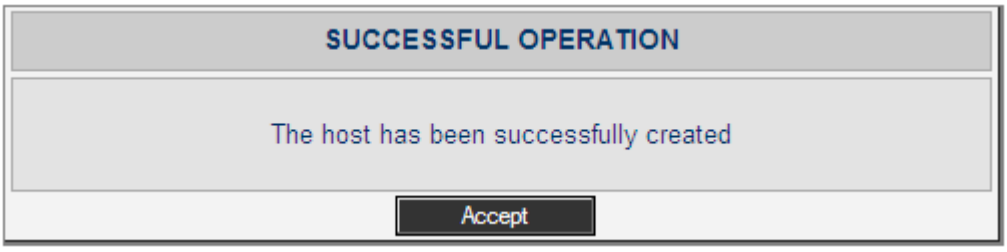
The next menu to be shown will allow the user to specify the parameters for the host:



And save the changes:

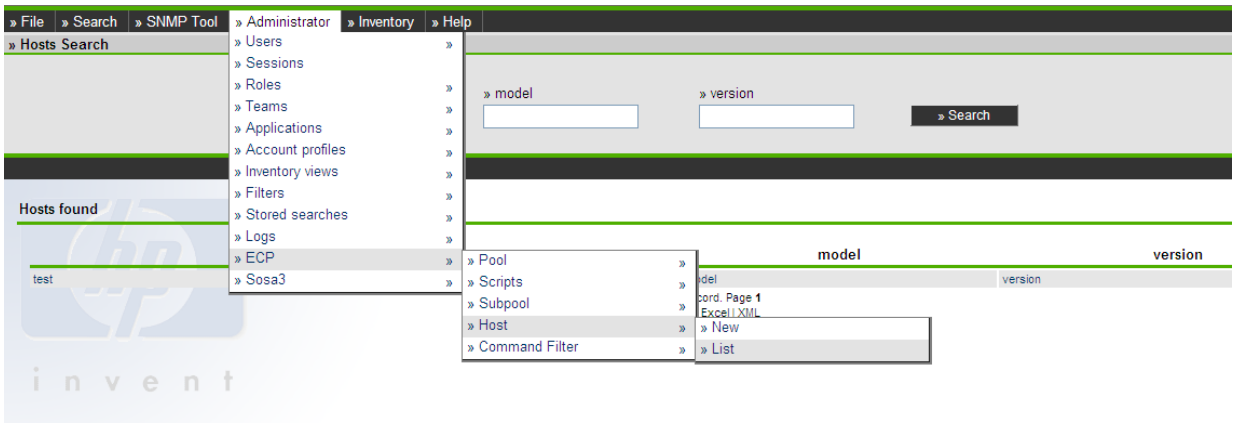


A message confirming that the host has been successfully created will appear:

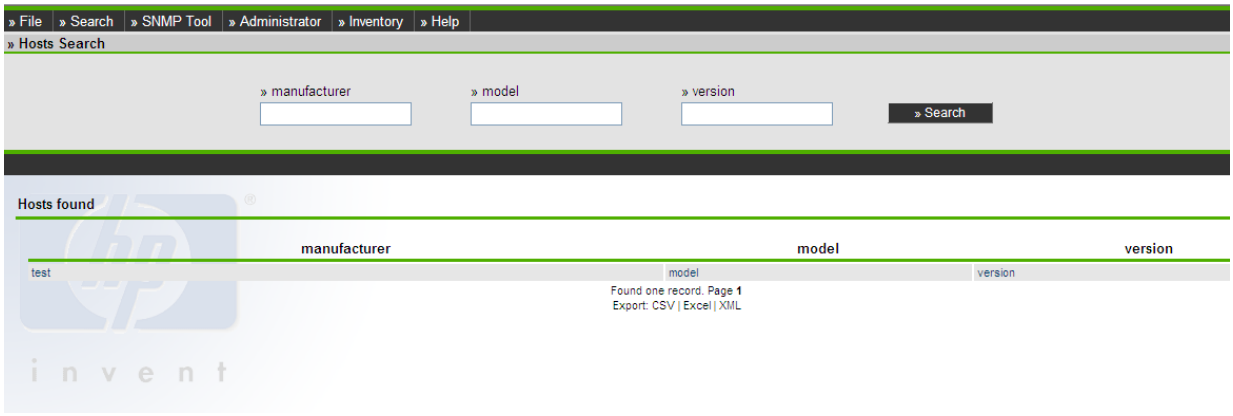


9.3.1.2 Listing hosts

The administrator user can list all the hosts that have been defined in the system by clicking in the menu "Administrator->ECP->Hosts->List"



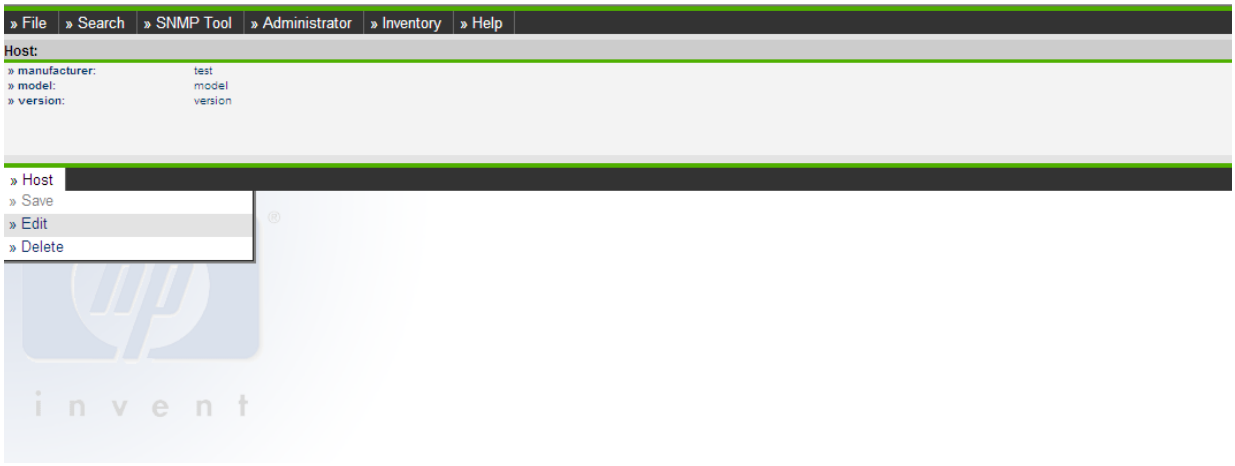
The screen will show a list containing all the defined hosts specifying its manufacturer, model and version:



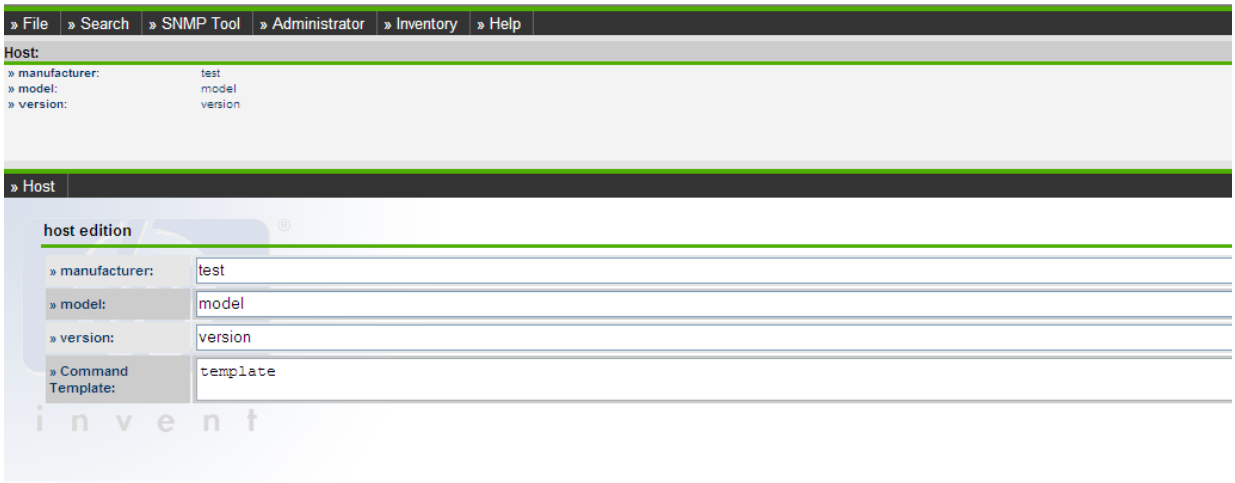
In the upper side of the screen the search parameters will be shown. The users can fill this parameters and search for the hosts which satisfy the specified values.

9.3.1.3 Editing a host

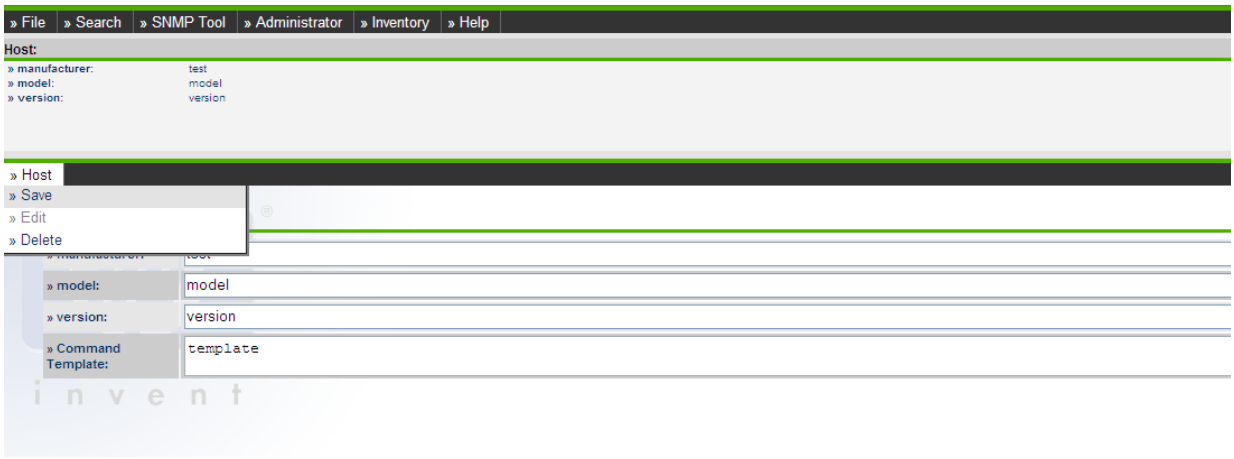
In order to edit a host this must be previously selected from the list of hosts obtained through the "list" menu or by searching for it using the "search" menu. Once the host is being shown in the screen the user must select the "Host->Edit" menu:



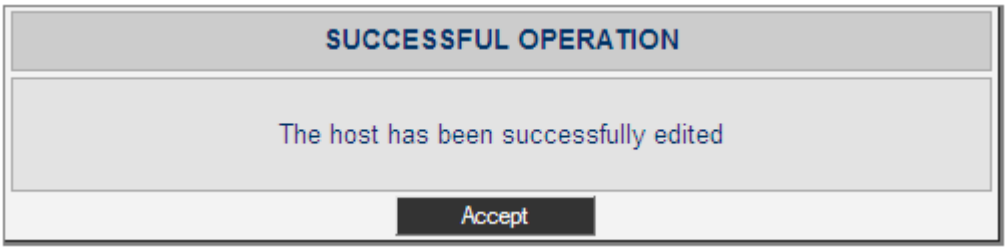
The edit window will appear in the screen showing all the configurable fields which are contained by a host. These fields can be edited by the user.



The changed parameters can be stored in the database clicking in the "Host->Save" menu:

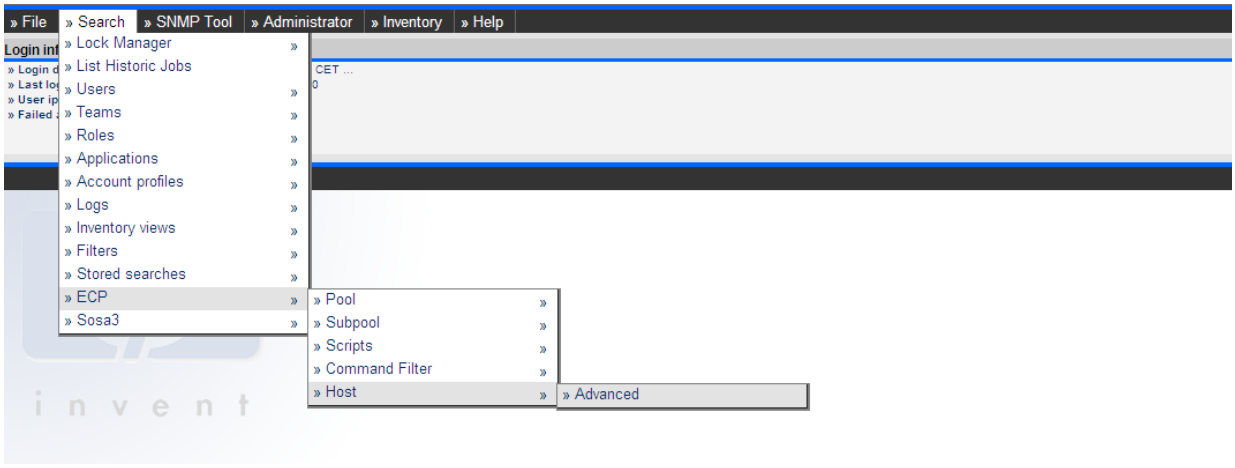


Once the host has been edited a message will appear confirming that the changes were applied successfully:

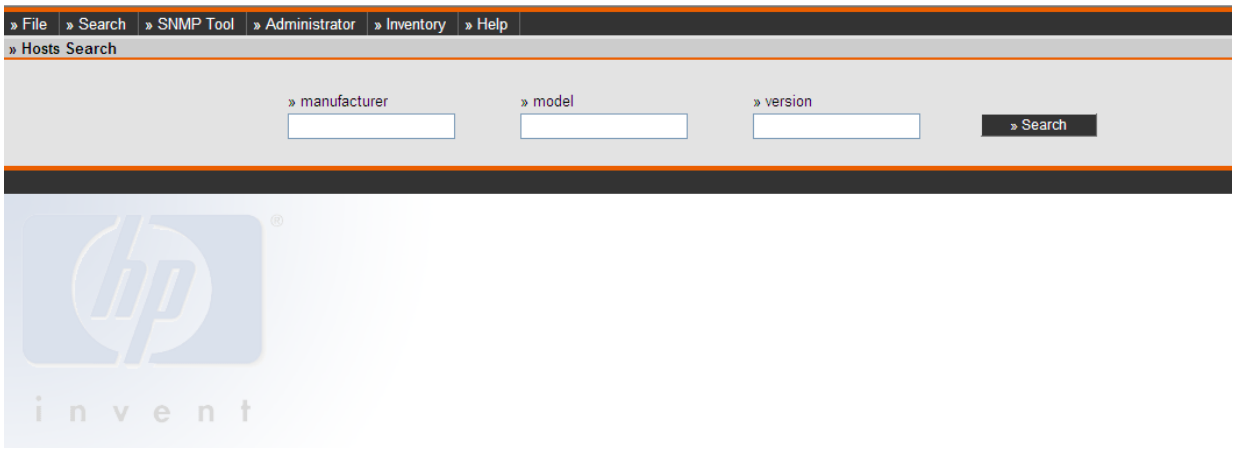


9.3.1.4 Searching for a host

The user can search for hosts by clicking in the menu "Search->ECP->Host->Advanced".

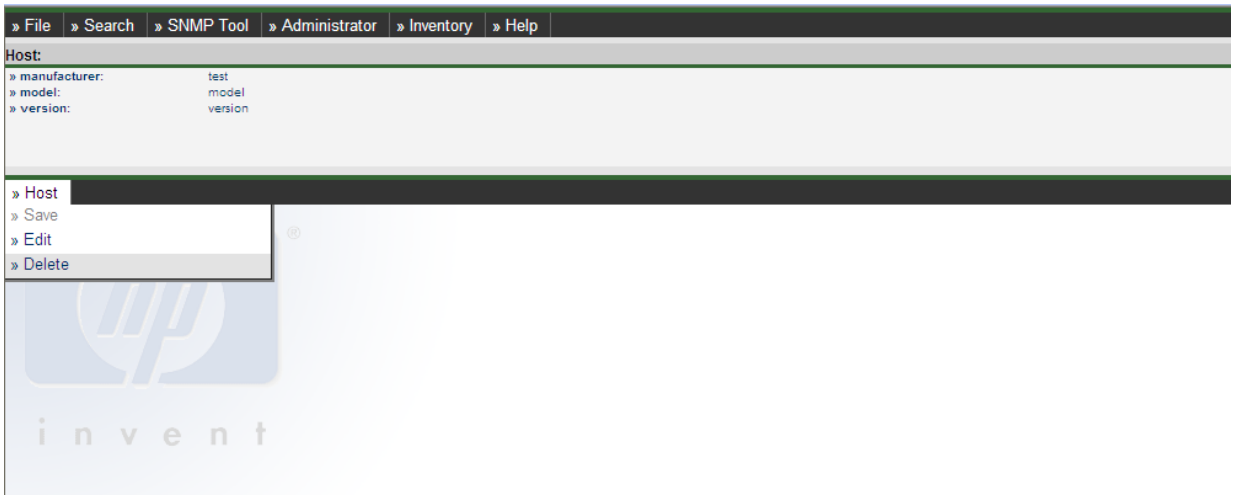


The next window will be shown containing all the editable fields which can be used to perform the search:

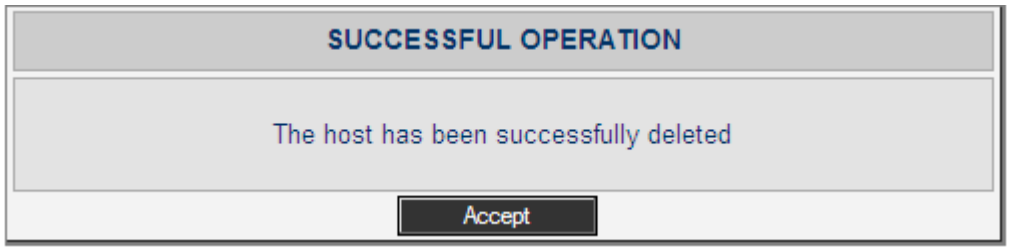


9.3.1.5 Deleting a host

The administrator user can delete a host from the detailed view window of that host by clicking in the "Host->Delete" menu:



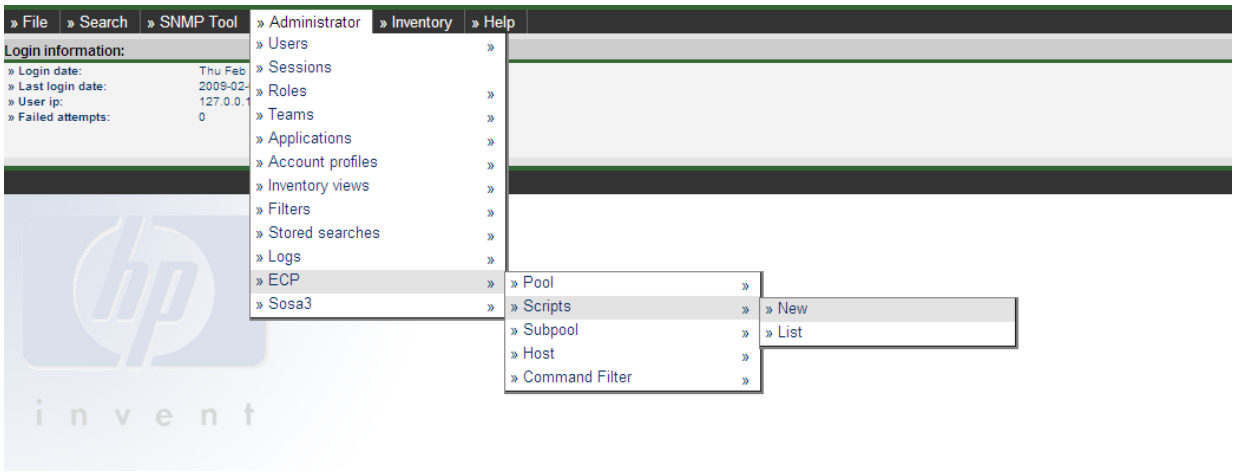
Once the host has been deleted a message will appear confirming that the changes were applied successfully:



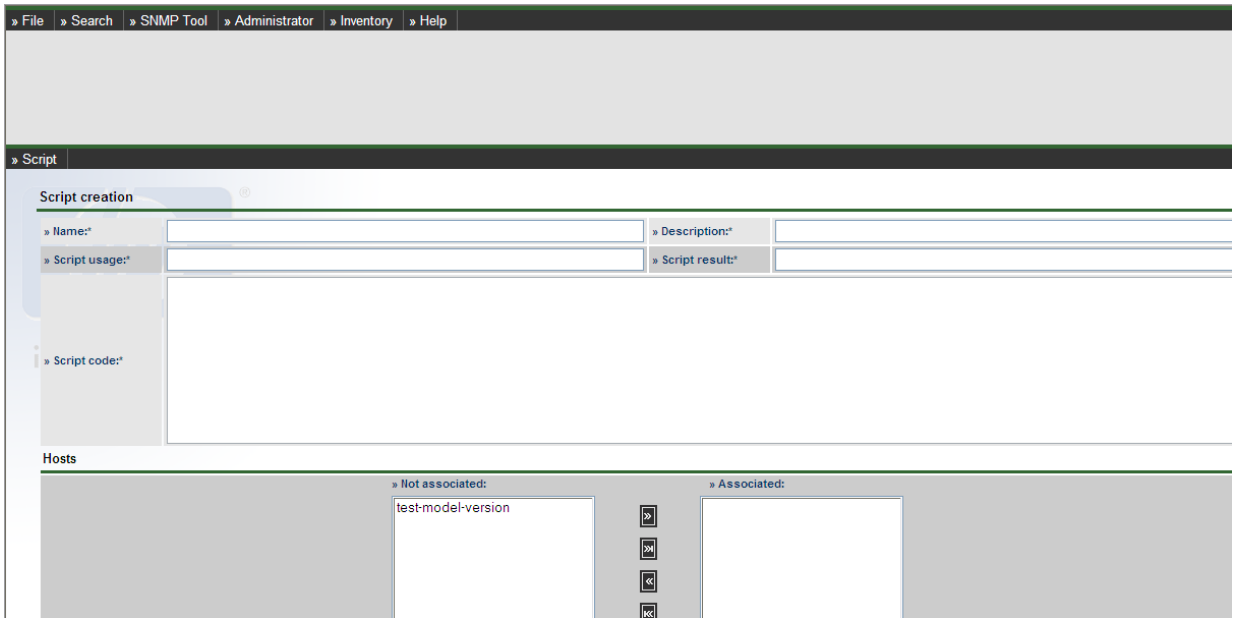
9.3.2 ECP Command Scripts Management

9.3.2.1 Creating a new Script

In order to create a new Script the menu "Administrator->ECP->Scripts->New" must be clicked:



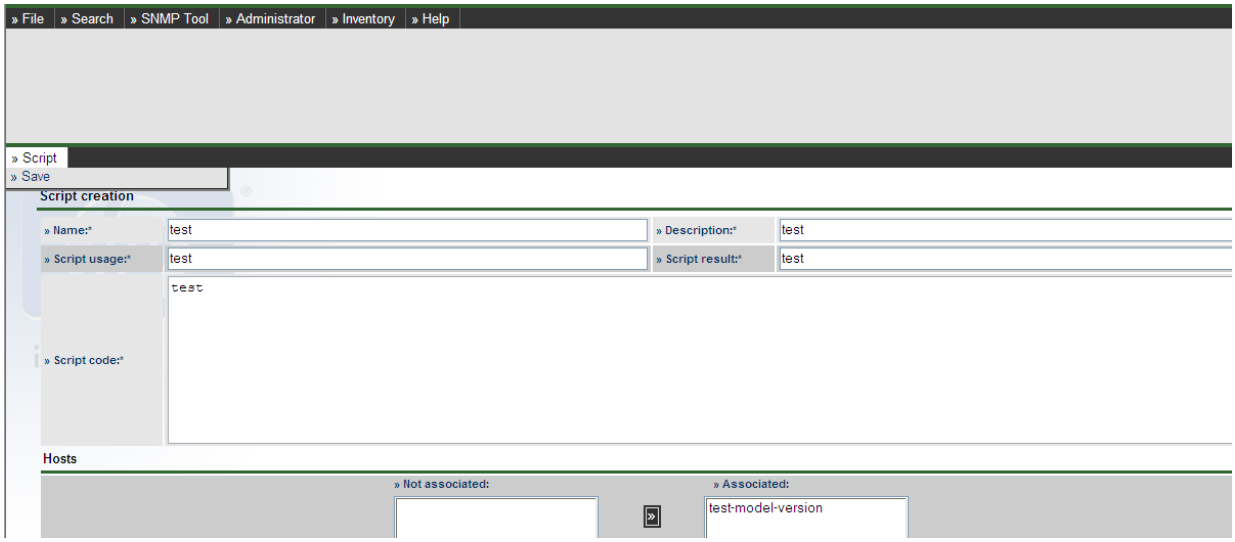
The screen will show all the configurable parameters which can be filled by the user:



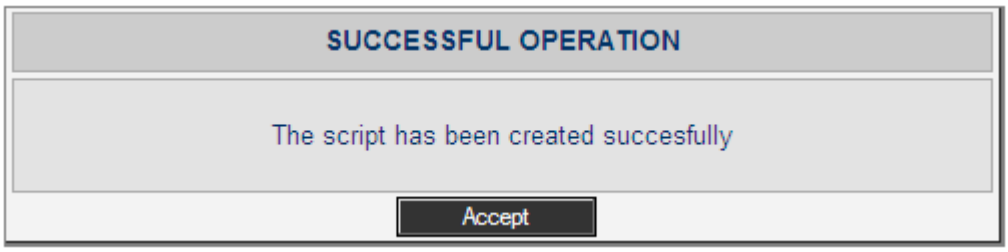
The fields are:

- *Name: The name of the script*
- *Script Usage: A description of how to use the script*
- *Description: A brief text describing the script's functionality*
- *Script result: The expected result of this script*
- *Script code: The template associated to this script*
- *Hosts: The hosts in which this script can be used*
- *Teams: The team associated to this script*
- *Users: The users who can use this script*

In order to save the Script, the menu "Script->Save" must be clicked:

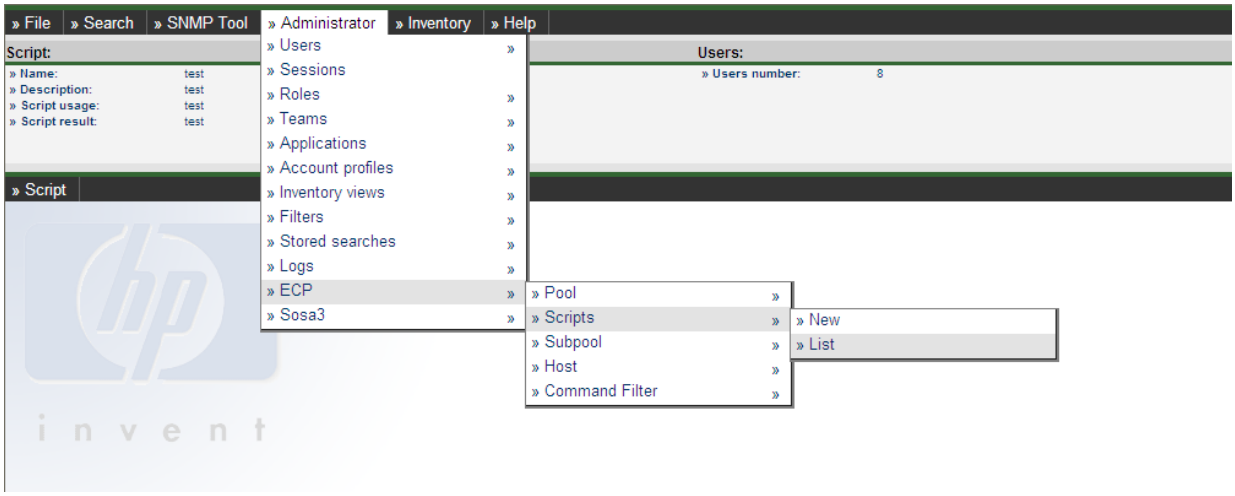


Once the script has been saved a message will appear confirming that the changes were applied successfully:

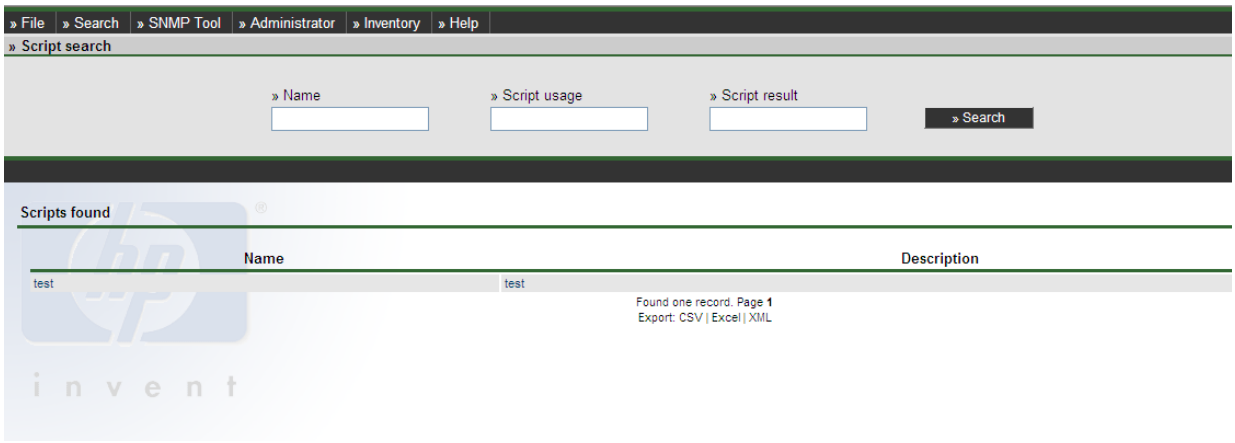


9.3.2.2 Listing scripts

The administrator user can list all the scripts that have been defined in the system by clicking in the menu "Administrator->ECP->Scripts->List"



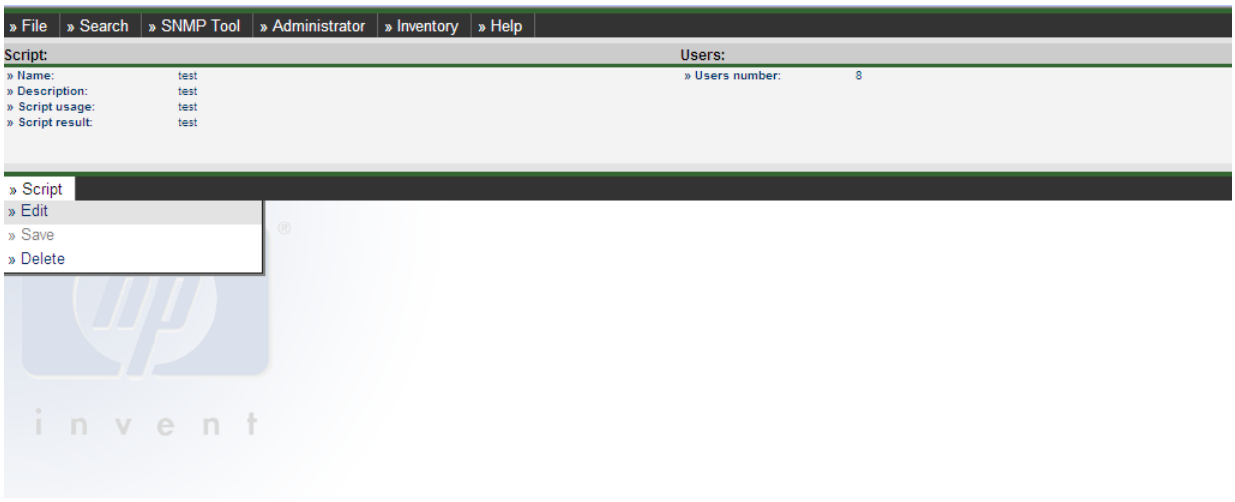
The screen will show a list containing all the defined scripts specifying its fields:



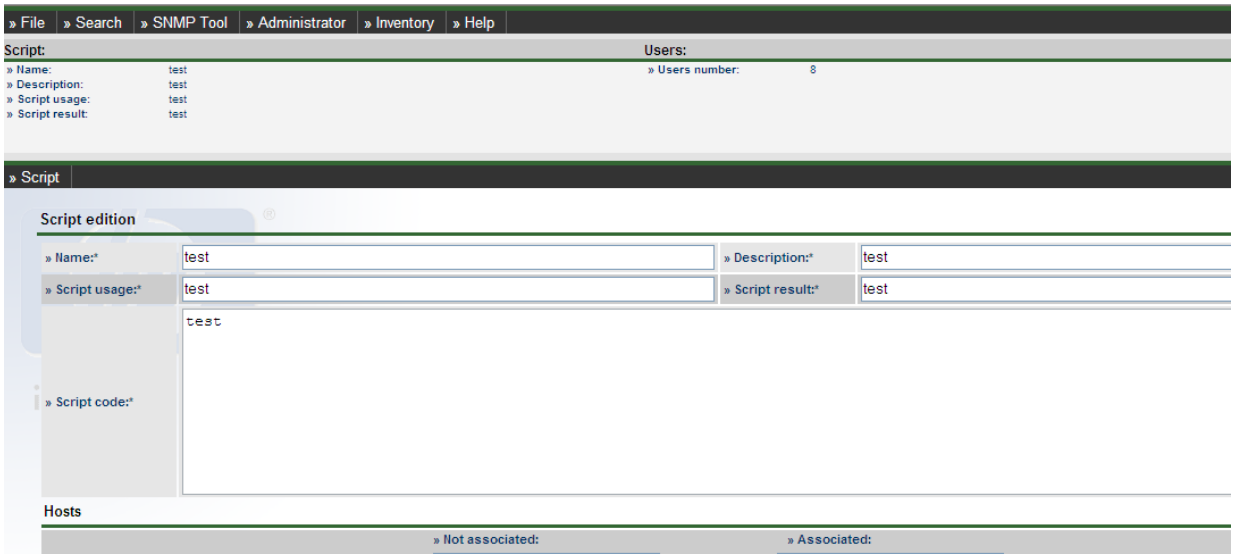
In the upper side of the screen the search parameters will be shown. The users can fill this parameters and search for the scripts which satisfy the specified values.

9.3.2.3 Editing a script

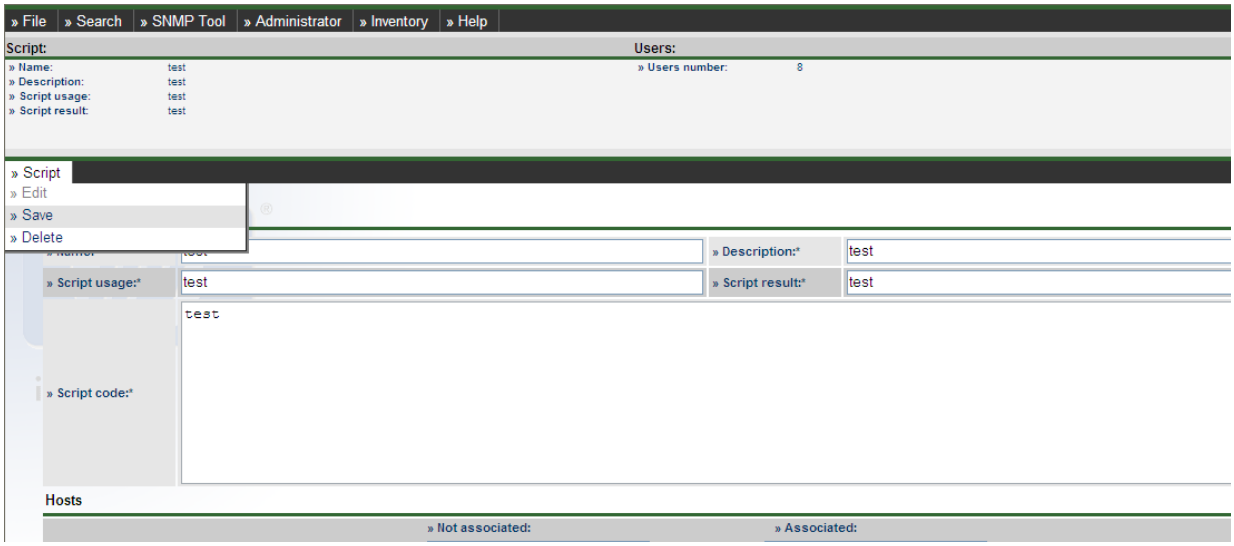
In order to edit a Script this must be previously selected from the list of scripts obtained through the "list" menu or by searching for it using the "search" menu. Once the host is being shown in the screen the user must select the "Script->Edit" menu:



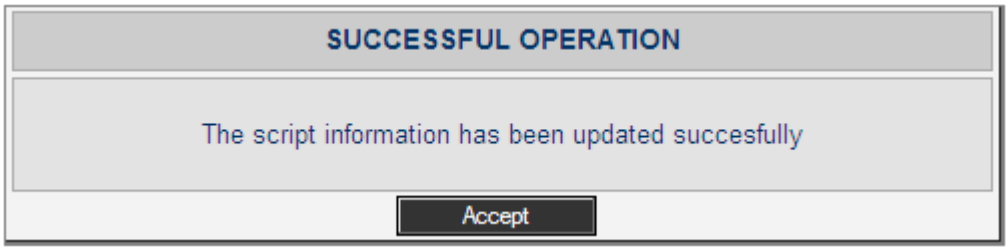
The edit window will appear in the screen showing all the configurable fields which are contained by a script. These fields can be edited by the user.



The changed parameters can be stored in the database clicking in the "Script->Save" menu:

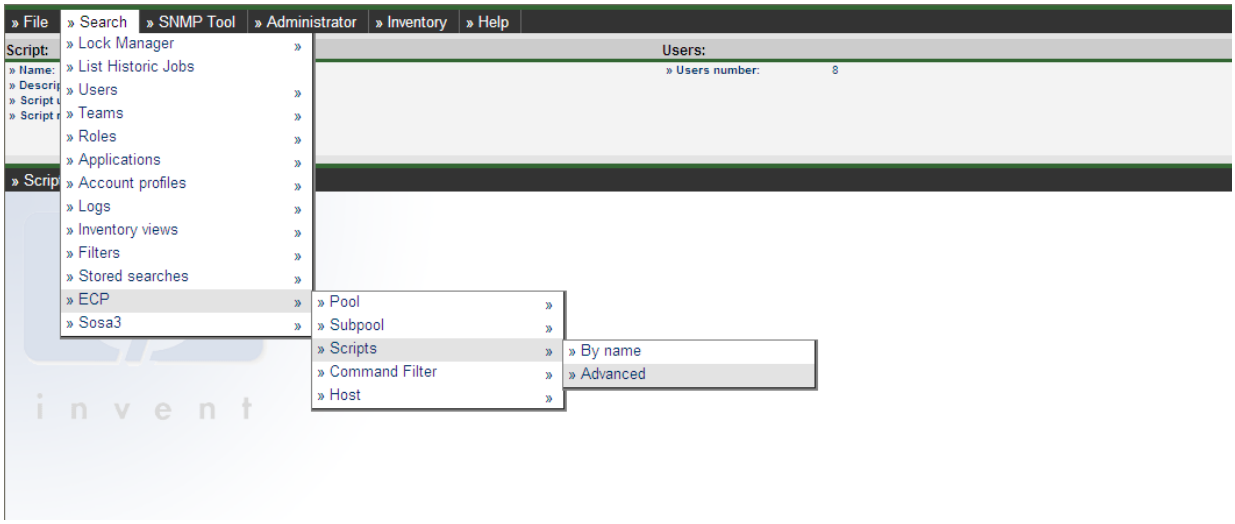


Once the Script has been edited a message will appear confirming that the changes were applied successfully:

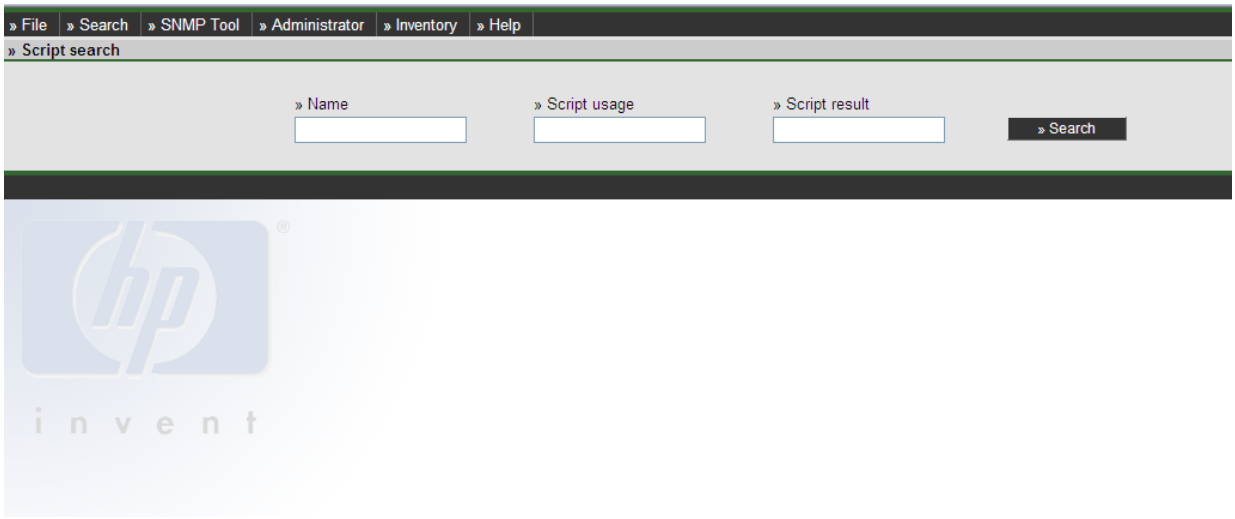


9.3.2.4 Searching for a Script: Advanced search

The user can search for scripts by clicking in the menu "Search->ECP->Scripts->Advanced".

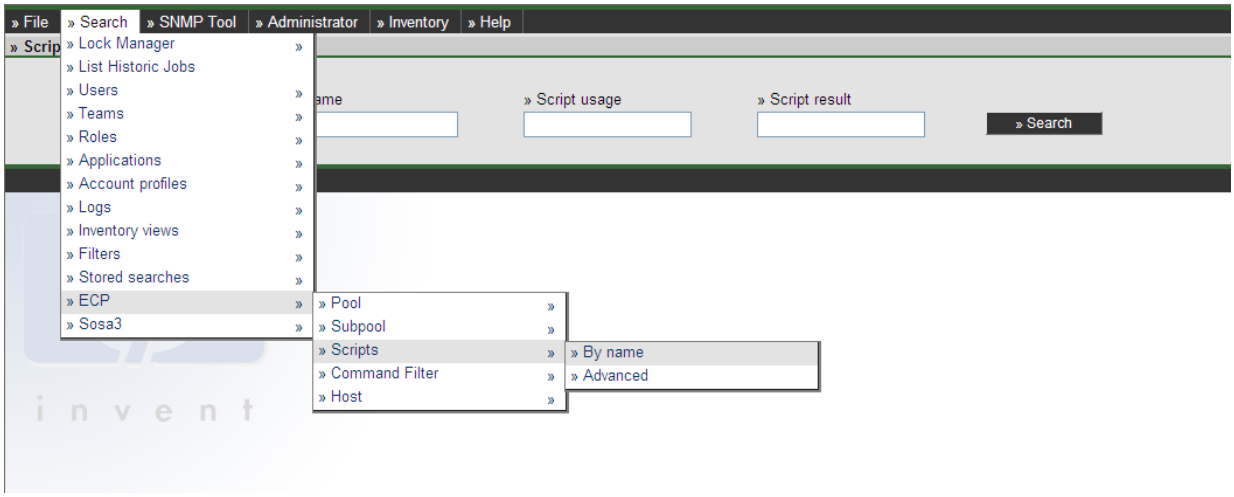


The next window will be shown containing all the editable fields which can be used to perform the search:

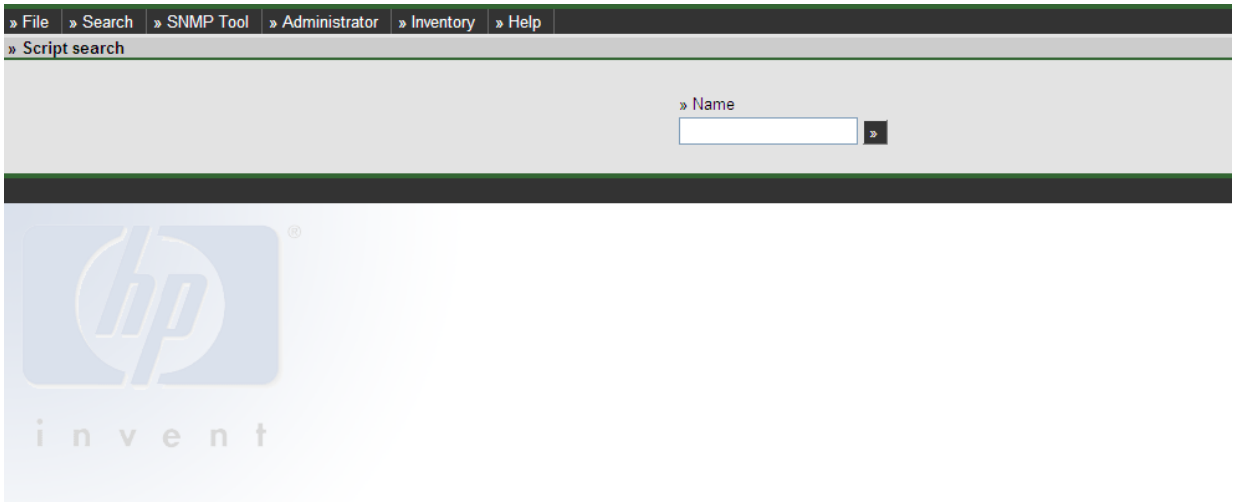


9.3.2.5 Searching for a Script: Search by name

The user can search for scripts by name by clicking in the menu “Search->ECP->Scripts->By Name”.

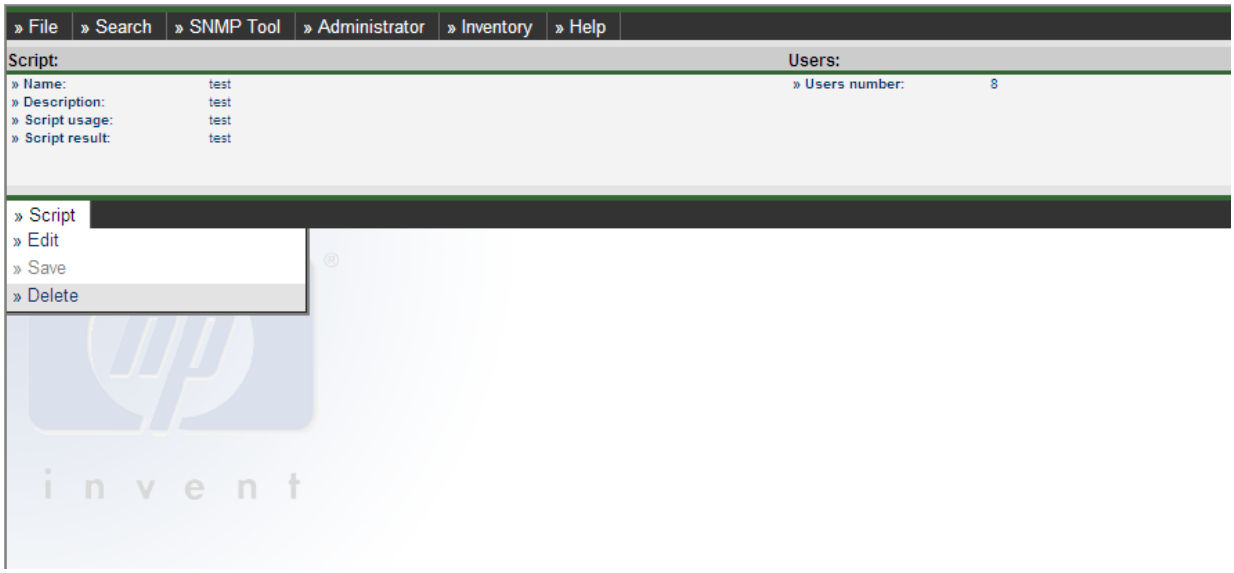


The next window will be shown containing the field “Name” which can be used to perform the search:

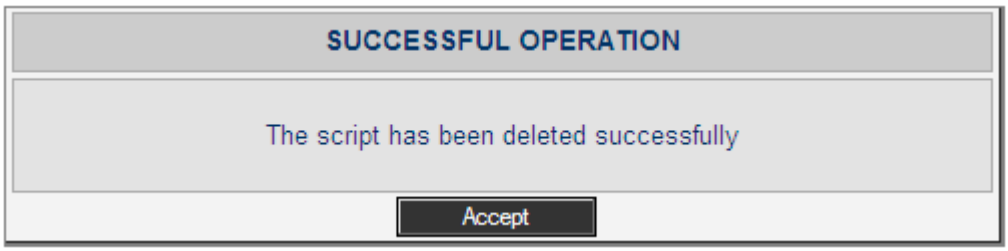


9.3.2.6 Deleting a script

The administrator user can delete a script from the detailed view window of that script by clicking in the "Script->Delete" menu:



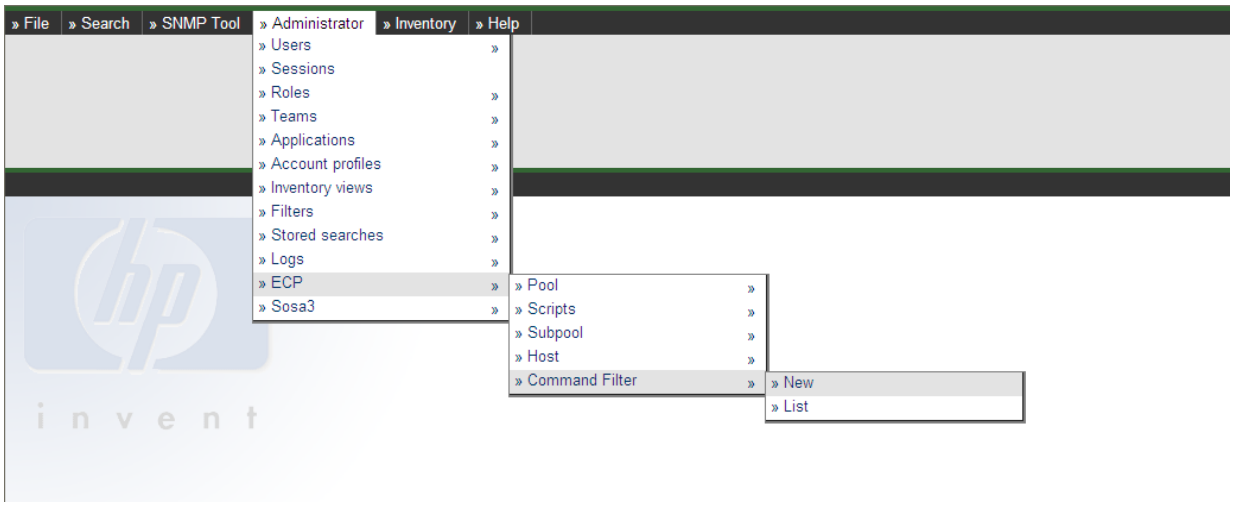
Once the script has been deleted a message will appear confirming that the changes were applied successfully:



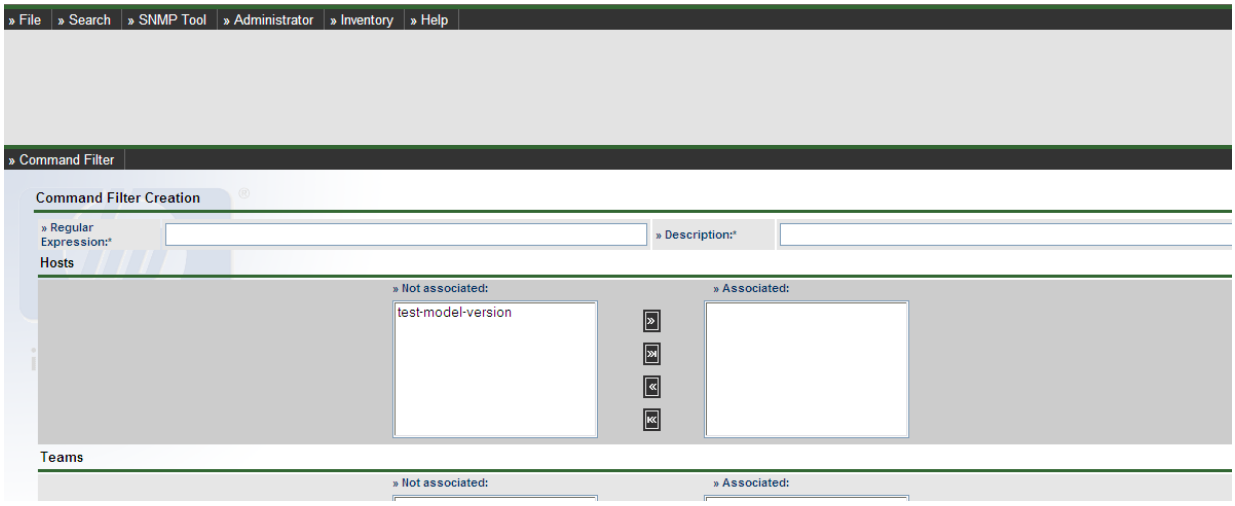
9.3.3 Command filter management

9.3.3.1 Creating a new Command Filter

In order to create a new command filter the user must click in the menu "Administration –> ECP -> Command Filter -> New"



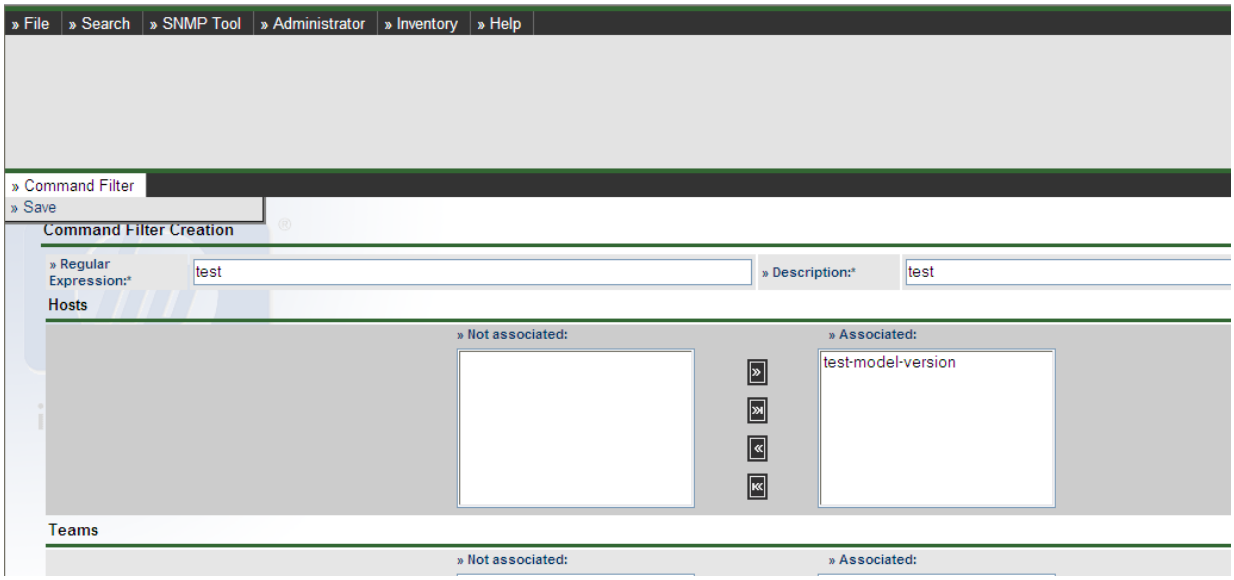
The next menu to be shown will allow the user to specify the parameters for the new command filter:



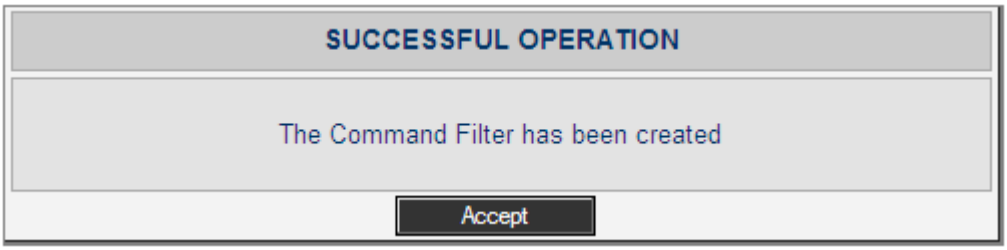
These parameters are:

- *Regular Expression: The regular expression which must be satisfied by the command.*
- *Description: A brief description of the filter.*
- *Hosts: The hosts in which the filter will be used.*
- *Teams: The teams associated to the filter.*
- *Users: The users associated to the filter.*

And save the changes:

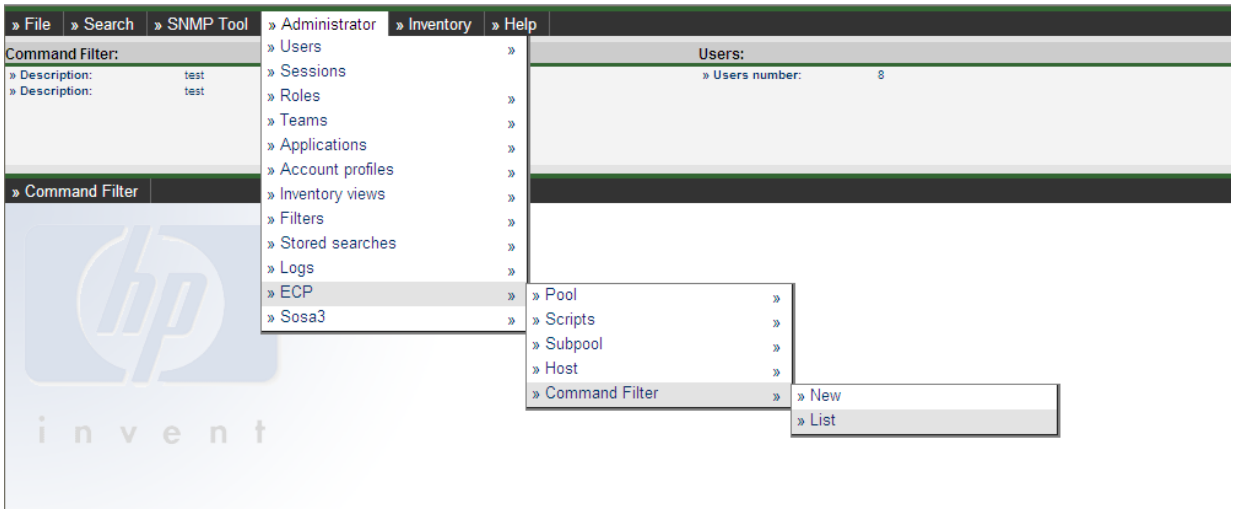


A message confirming that the command filter has been successfully created will appear:

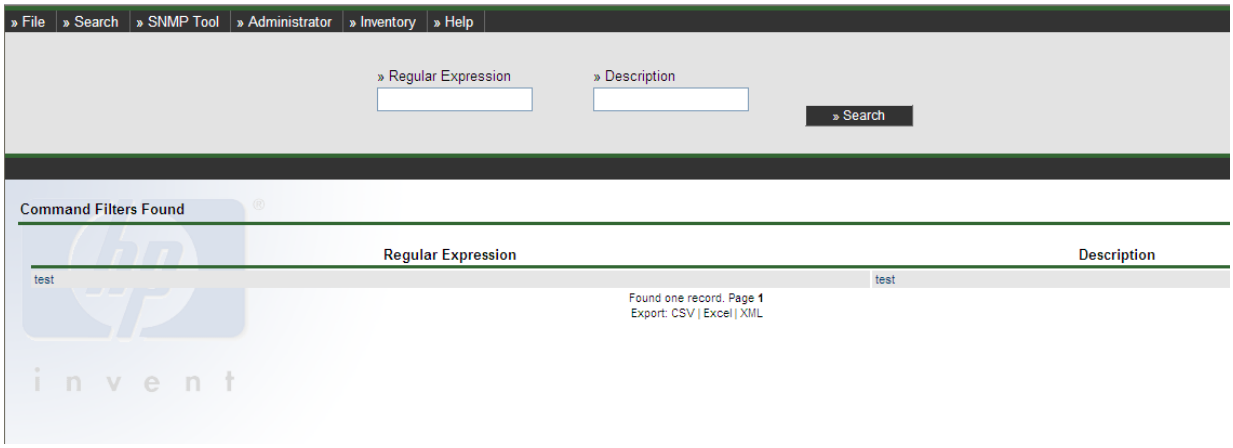


9.3.3.2 Listing command filters

The administrator user can list all the command filters that have been defined in the system by clicking in the menu "Administrator->ECP->Command Filter->List"



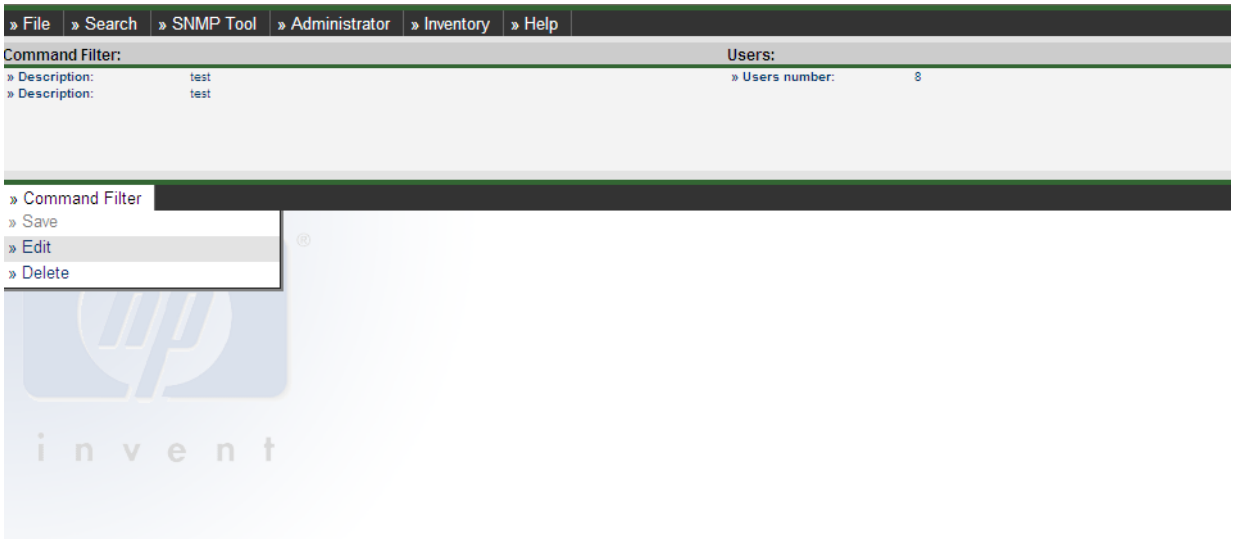
The screen will show a list containing all the defined command filters specifying its parameters:



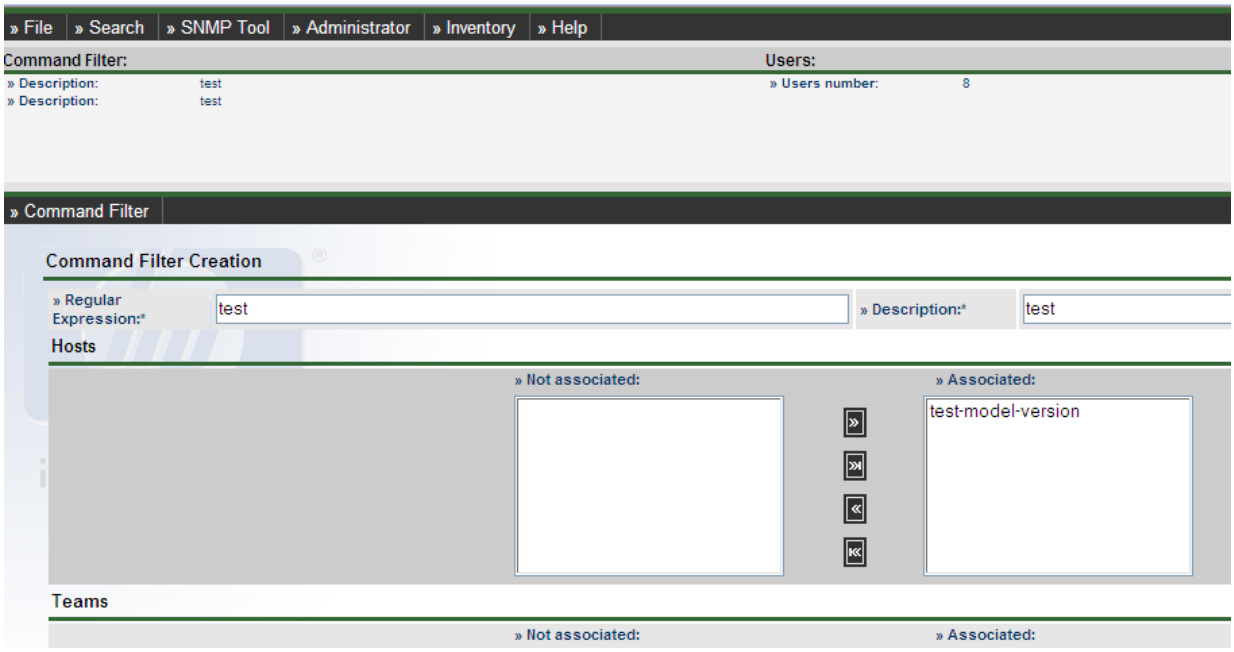
In the upper side of the screen the search parameters will be shown. The users can fill this parameters and search for the command filters which satisfy the specified values.

9.3.3.3 Editing a Command Filter

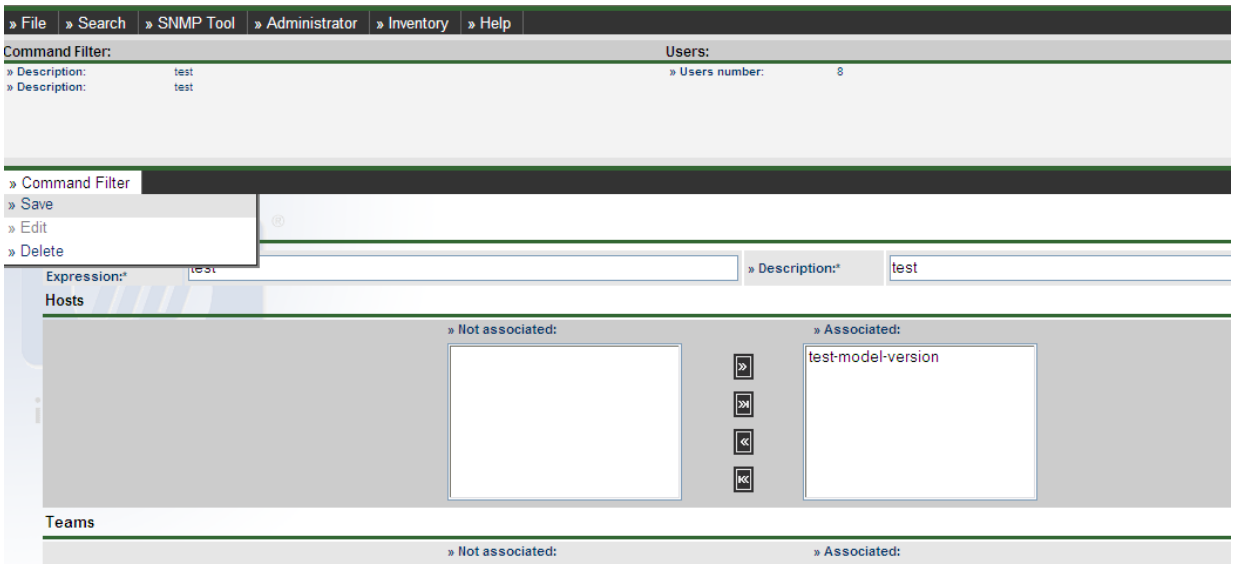
In order to edit a command filter this must be previously selected from the list of command filters obtained through the "list" menu or by searching for it using the "search" menu. Once the command filter is being shown in the screen the user must select the "Command Filter->Edit" menu:



The edit window will appear in the screen showing all the configurable fields which are contained by a command filter. These fields can be edited by the user.



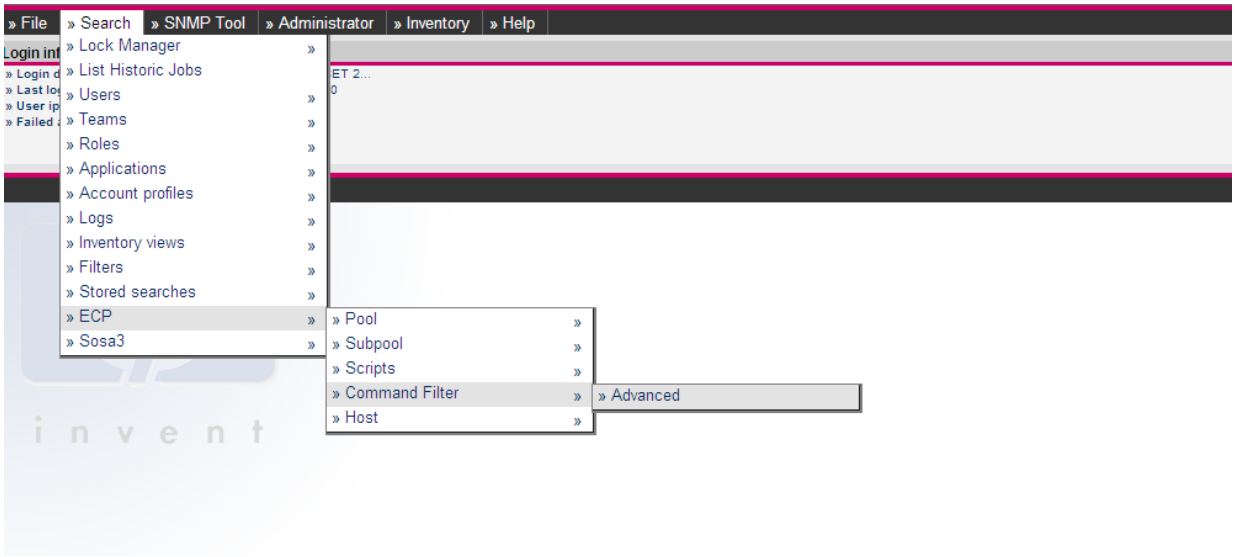
The changed parameters can be stored in the database clicking in the "Command Filter->Save" menu:



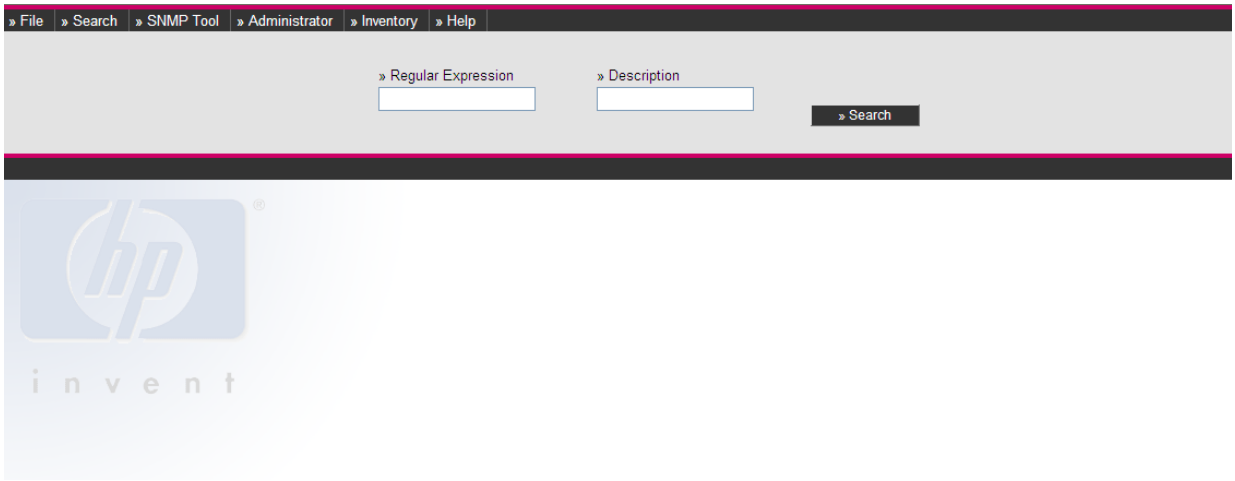
Once the command filter has been edited a message will appear confirming that the changes were applied successfully:

9.3.3.4 Searching for a Commad Filter

The user can search for command filter by clicking in the menu "Search->ECP->Command Filter->Advanced".

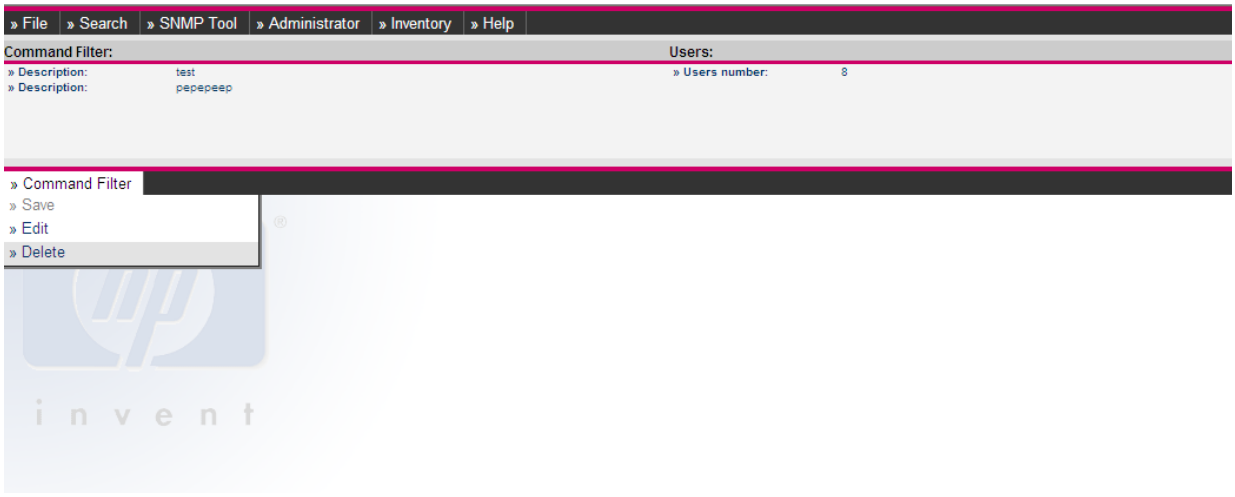
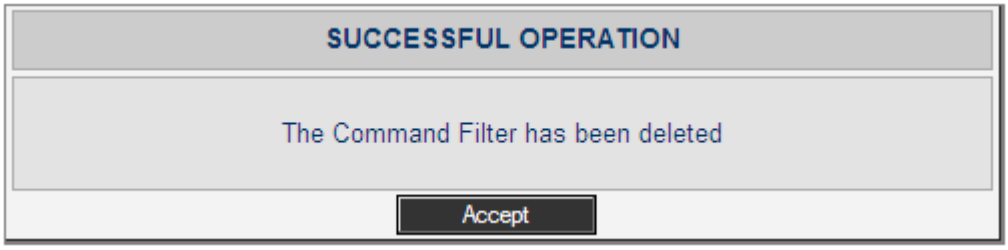


The next window will be shown containing all the editable fields which can be used to perform the search:



9.3.3.5 Deleting a Command Filter

The administrator user can delete a command filter from the detailed view window of that command filter by clicking in the “Command filter->Delete” menu:



Once the command filter has been deleted a message will appear confirming that the changes were applied successfully: