Apparo

Setting up security and security-based features

for

Apparo Standalone

Version 3.3

1 Basics

Apparo is using the security system that is defined in the Apparo Configuration Manager.
It can be LDAP or Active Directory or usage of a Apache variable for SAML.

Apparo is using **security groups for organizing security rules** only.

If you want to enter more than one security group, you need to **separate the groups by comma**.
Example: Group_A, Group_B, Group_C.

You can use placeholders as * and & too:
controlling* is the same like controllingAfrica, controllingEurope

The most security settings are white list based, which means if you enter one or several security groups then the access is restricted to those groups. If you leave it empty, then all users have full access.

Hint: Security group names are case-sensitive

2 Security user types

There are two different user types:

- designer users - creating Business Cases
- field users - using Business Cases

2.1 Designer user security

The security settings for designer users are restricted to the access and edit rights within the Apparo designer.

2.2 Field user security

The security settings for field users are mainly focused on the question:

Who is allowed to see, change or insert data, which means security groups are used to filter data, restrict the access or control features and the behaviour of widgets.

3 Designer user security

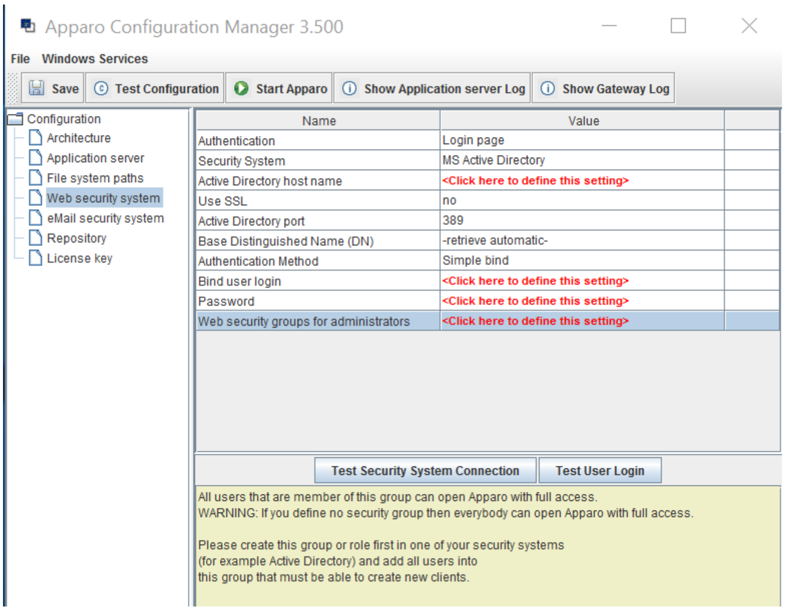
3.1 Security hierarchy

The security is hierarchically organized.

From top to bottom:

- Security settings of the Apparo Configuration Manager
- Security settings on client level
- Security settings on folder level
- Security settings on database connection level

3.2 Security settings of the Apparo Configuration Manager



Name	Value
Authentication	Login page
Security System	MS Active Directory
Active Directory host name	<Click here to define this setting>
Use SSL	no
Active Directory port	389
Base Distinguished Name (DN)	-retrieve automatic-
Authentication Method	Simple bind
Bind user login	<Click here to define this setting>
Password	<Click here to define this setting>
Web security groups for administrators	<Click here to define this setting>

All users that are member of this group can open Apparo with full access.
WARNING: If you define no security group then everybody can open Apparo with full access.

Please create this group or role first in one of your security systems
(for example Active Directory) and add all users into
this group that must be able to create new clients.

Members of the entered security groups **have full access rights to the Apparo Designer** and can create, alter and delete clients.

They have system wide no limitations.

These users can run all Business Cases of all clients without limitations.

Hint: If left empty all users accessing the designer have full rights, even in case the following security levels deny this.

3.3 Security on client level

Defines restrictions for accessing secured parts of Apparo designer of a client.

Only members of the listed security groups will be able to access the particular functions.

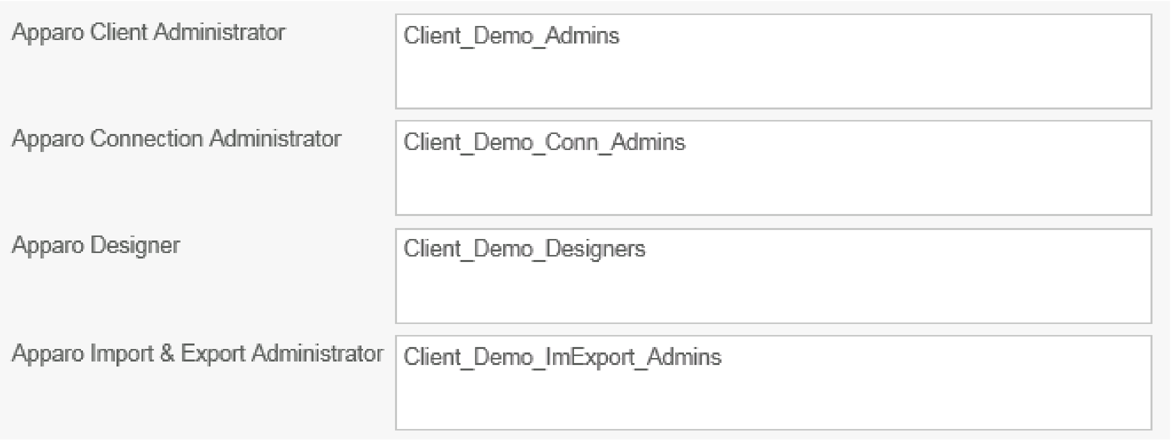
If no access rights are defined, the access to function is unrestricted for all designer users.

Apparo Client Administrator: Has unrestricted access to all features of this client

Apparo Connection Administrator: Can create, edit and delete database and email server connections

Apparo Designer: Manages Business Cases - can create, delete and edit Business Cases and folders

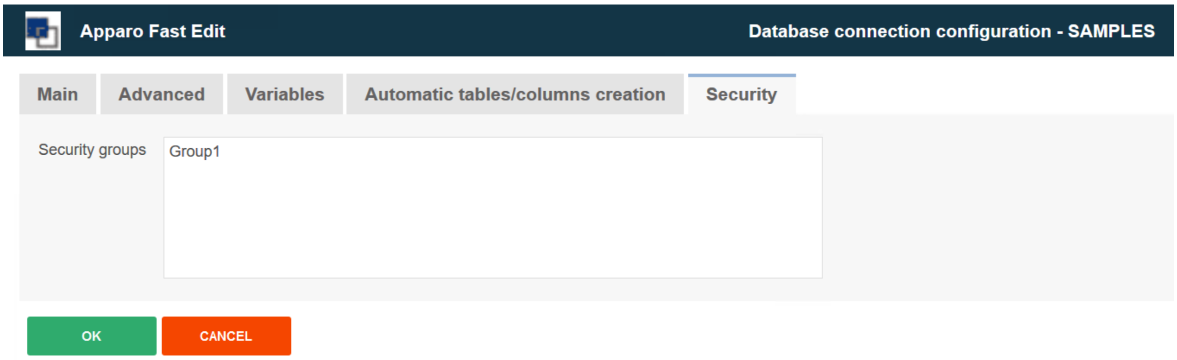
Apparo Import & Export Administrator: Can import and export Business Cases and connections



Apparo Client Administrator	Client_Demo_Admins
Apparo Connection Administrator	Client_Demo_Conn_Admins
Apparo Designer	Client_Demo_Designers
Apparo Import & Export Administrator	Client_Demo_ImExport_Admins

3.4 Security on database connection level

White list of designer users who are allowed to use this database connection.

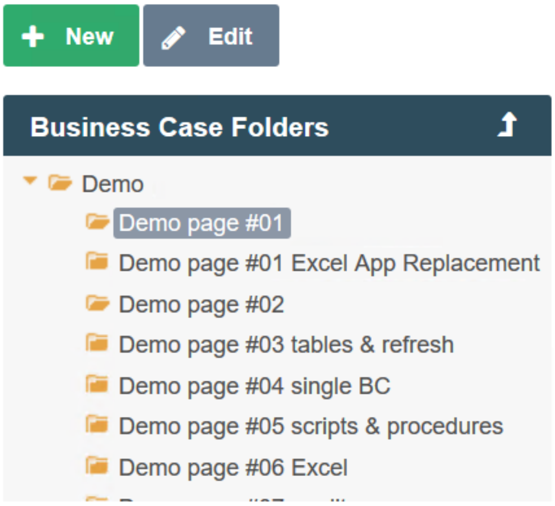

Apparo Fast Edit
Database connection configuration - SAMPLES
Main
Advanced
Variables
Automatic tables/columns creation
Security
OK
CANCEL

Security groups: Group1

If remaining empty then every Designer user can use this database connection.

3.5 Folder security

Select the folder and click ‘Edit’ to open the folder properties:



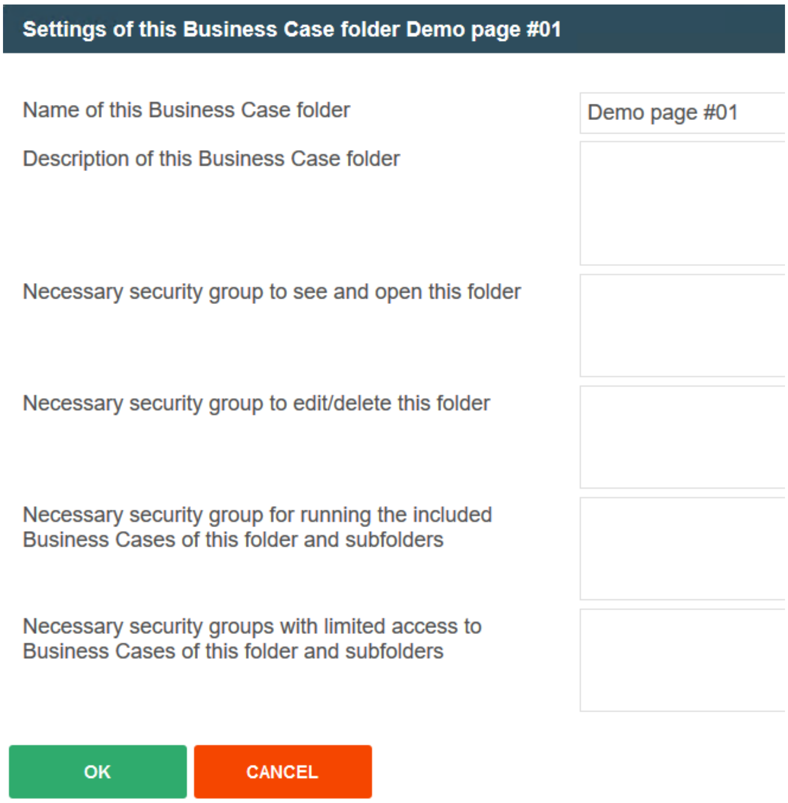
Business Case Folders

- Demo
  - Demo page #01
  - Demo page #01 Excel App Replacement
  - Demo page #02
  - Demo page #03 tables & refresh
  - Demo page #04 single BC
  - Demo page #05 scripts & procedures
  - Demo page #06 Excel

Depending on the given rights, the user can:

- Create new folders and subfolders
- Delete folder and its contents (subfolders, business cases)
- Change the properties of the folder

Folder properties:



Settings of this Business Case folder Demo page #01

Name of this Business Case folder	Demo page #01
Description of this Business Case folder	
Necessary security group to see and open this folder	
Necessary security group to edit/delete this folder	
Necessary security group for running the included Business Cases of this folder and subfolders	
Necessary security groups with limited access to Business Cases of this folder and subfolders	

4 Business user security

4.1 Security hierarchy

The security is hierarchically organized.

From top to bottom:

- Security setting on Configuration Manager level (= System Administrator)
- Security settings on client level
- Security settings on folder level
- Security settings on Business Case level
- Security settings on feature level
- Security settings on Widget level

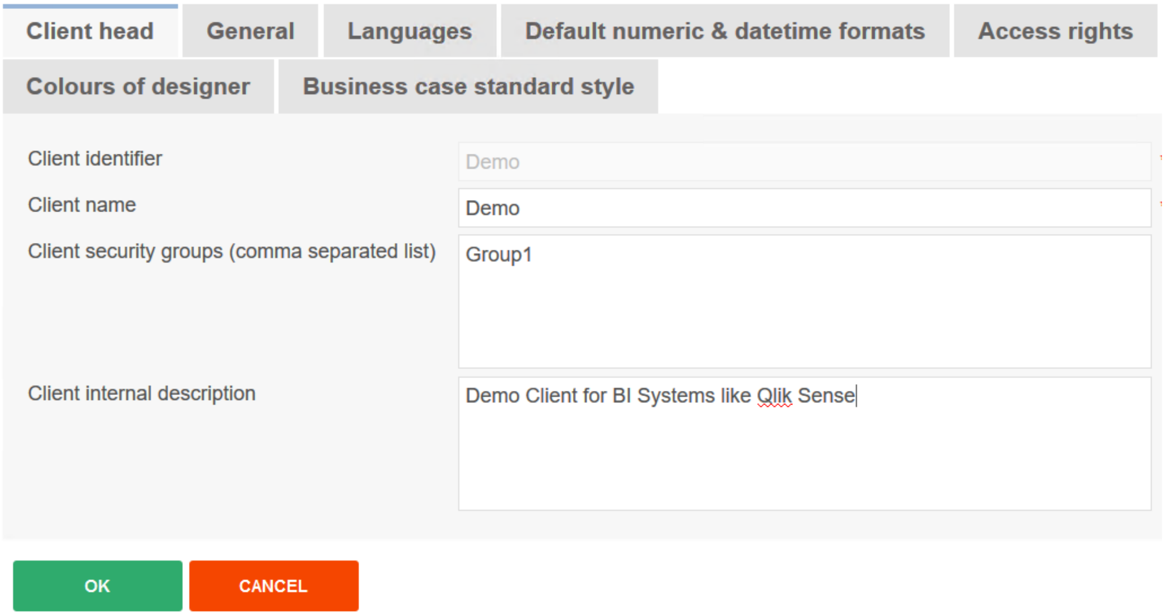
4.2 Security settings on client level

The security groups here are used to assign users and to check the authorization.

Authorization:
Apart from administrators are only users who are member of the entered security groups, entitled to run the Business Cases of this client.

Assignment:
When you open a Business Case without client ID, e.g. from a BI report or an e-mail, the security group of clients will be used to assign the appropriate Business Case.

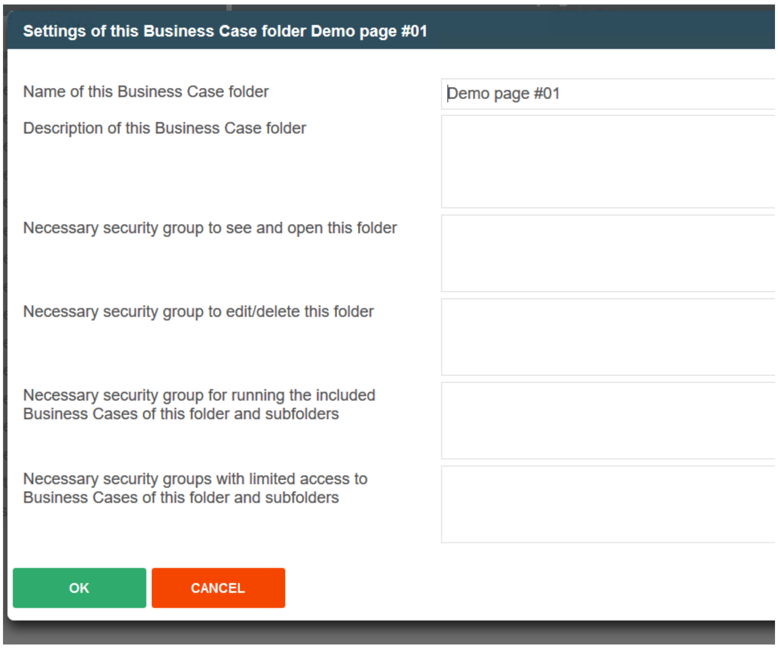
Without security group or if the user is member of more than on client, the allocation of Business Cases with the same ID, existing in different clients, is based on the order of the clients in the list from top to bottom.



Client identifier	Demo
Client name	Demo
Client security groups (comma separated list)	Group1
Client internal description	Demo Client for BI Systems like Qlik Sense

Contains a list of assigned user groups

4.3 Security settings on folder level



Settings of this Business Case folder Demo page #01

Name of this Business Case folder: Demo page #01

Description of this Business Case folder

Necessary security group to see and open this folder

Necessary security group to edit/delete this folder

Necessary security group for running the included Business Cases of this folder and subfolders

Necessary security groups with limited access to Business Cases of this folder and subfolders

The following security properties are mapped to **business users** security settings:

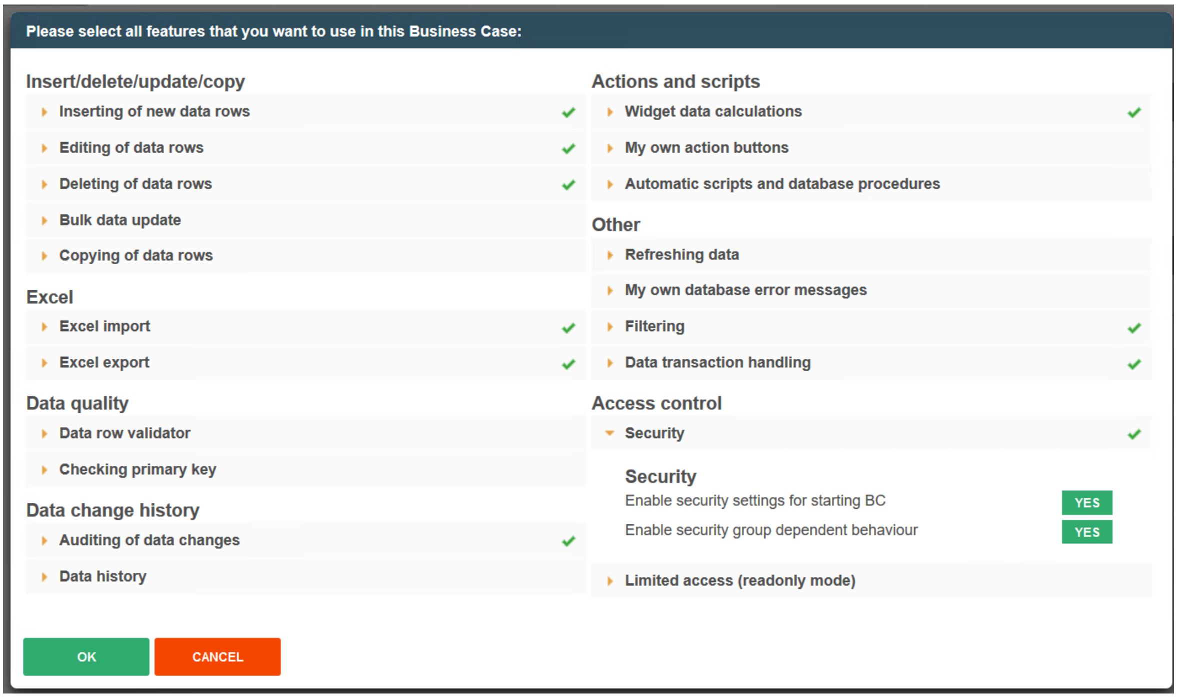
- The necessary security group for running included Business Cases of this folder & subfolders
- The necessary security with limited access to Business Cases of this folder & subfolder

Limited access means, for members of the entered user groups the Business Case starts in Read-only mode. Data changing, entering, import, auto scripts and data changing buttons are disabled.

4.4 Security settings on Business Case level

The security on Business Case level must be enabled first.

Click the ‘**Features’** button in the top right corner of the Business Case edit view.
The security settings can be enabled in the chapter ‘Access Control’ in the tab ‘Security’



Please select all features that you want to use in this Business Case:

Insert/delete/update/copy
- Inserting of new data rows ✓
- Editing of data rows ✓
- Deleting of data rows ✓
- Bulk data update
- Copying of data rows

Excel
- Excel import ✓
- Excel export ✓

Data quality
- Data row validator
- Checking primary key

Data change history
- Auditing of data changes ✓
- Data history

Actions and scripts
- Widget data calculations ✓
- My own action buttons
- Automatic scripts and database procedures

Other
- Refreshing data
- My own database error messages
- Filtering ✓
- Data transaction handling ✓

Access control
- Security ✓

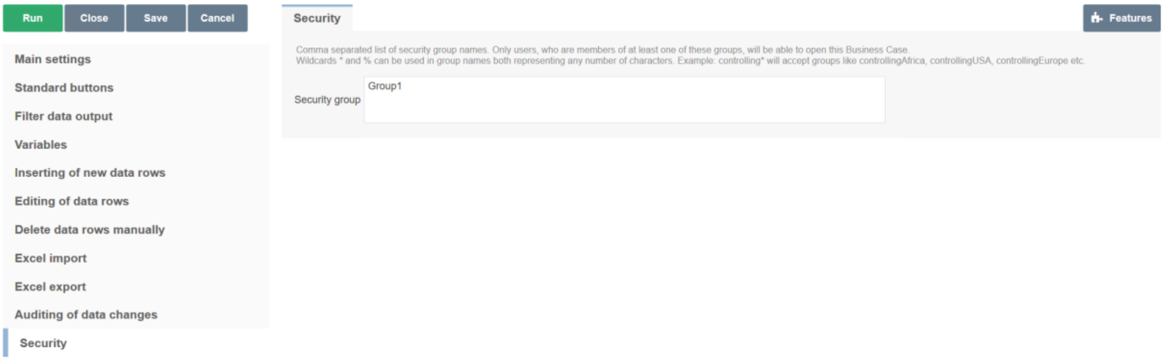
Security
Enable security settings for starting BC YES
Enable security group dependent behaviour YES

- Limited access (readonly mode)

Enabling security settings **for starting BC** will add the ‘Security’ to the left menu, while enabling security group dependent behavior will enable all security settings on widget and feature level.

4.4.1 Menu ‘Security’

Allows to enter security groups separated by commas. It limits the general access to the business case (whitelist).



Comma separated list of security group names. Only users, who are members of at least one of these groups, will be able to open this Business Case.
Wildcards * and % can be used in group names both representing any number of characters. Example: controlling* will accept groups like controllingAfrica, controllingUSA, controllingEurope etc.

Security group: Group1

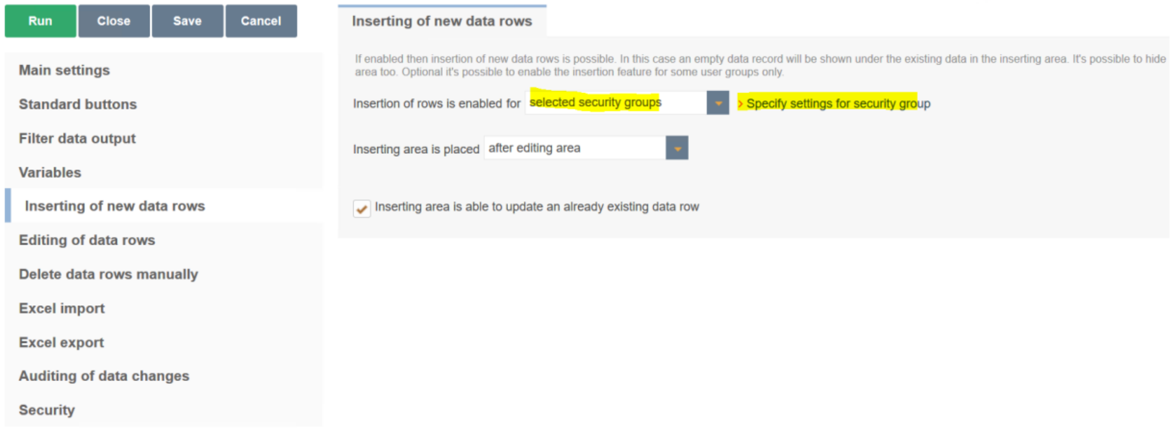
4.5 Security settings on feature level

These settings belog to security group dependent behavior settings and need to be enabled in ‘Features’ first.

Many features can be enabled for entered security groups only:

- Inserting, Editing, Deleting of data rows
- Excel export
- Automatic scripts and db procedures
- Filter

In the most cases you need to specify the security groups that are allowed to use the feature in a separate window.



Inserting of new data rows

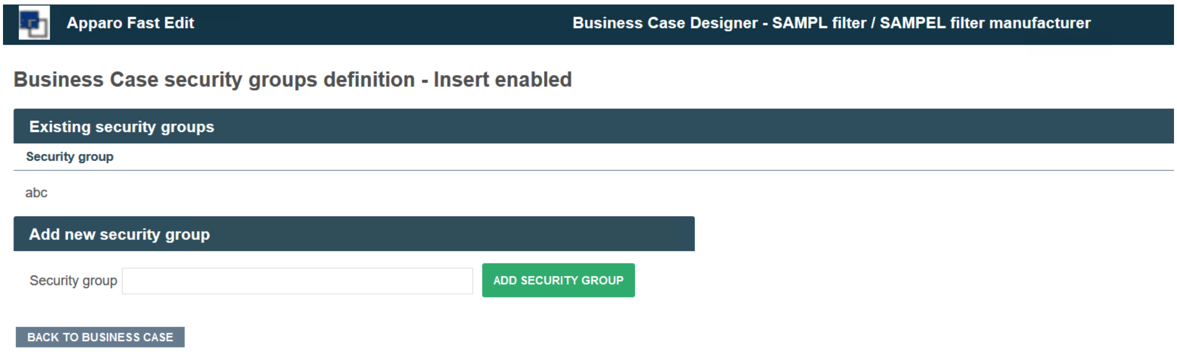
If enabled then insertion of new data rows is possible. In this case an empty data record will be shown under the existing data in the inserting area. It's possible to hide area too. Optional it's possible to enable the insertion feature for some user groups only.

Insertion of rows is enabled for: selected security groups › Specify settings for security group

Inserting area is placed: after editing area

☑ Inserting area is able to update an already existing data row

When clicking the link the following window appears:


Apparo Fast Edit
Business Case Designer - SAMPL filter / SAMPEL filter manufacturer
ADD SECURITY GROUP
BACK TO BUSINESS CASE

Business Case security groups definition - Insert enabled

Existing security groups

Security group
abc

Add new security group

Security group:

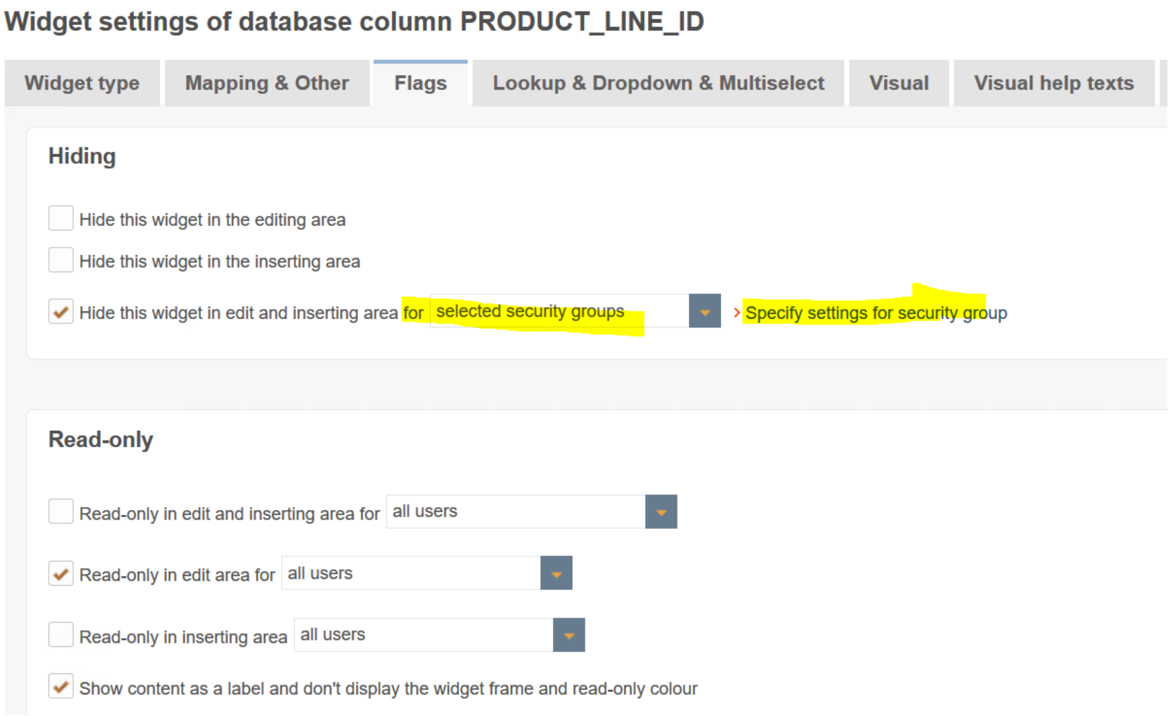
Here you can add the security groups that are allowed to use this feature.

The filter security settings are different and will be explained in the chapter:
Different settings for different security groups

4.6 Security settings on Widget level

Security settings on Widget level are mainly:

- Settings for hiding or making a Widget read-only
- Default or constant values for different security groups
- Filters on Widget level (when using Lookup or Multiselect Widgets)



Widget settings of database column PRODUCT_LINE_ID

Hiding

□ Hide this widget in the editing area

□ Hide this widget in the inserting area

☑ Hide this widget in edit and inserting area for selected security groups › Specify settings for security group

Read-only

□ Read-only in edit and inserting area for all users

☑ Read-only in edit area for all users

□ Read-only in inserting area all users

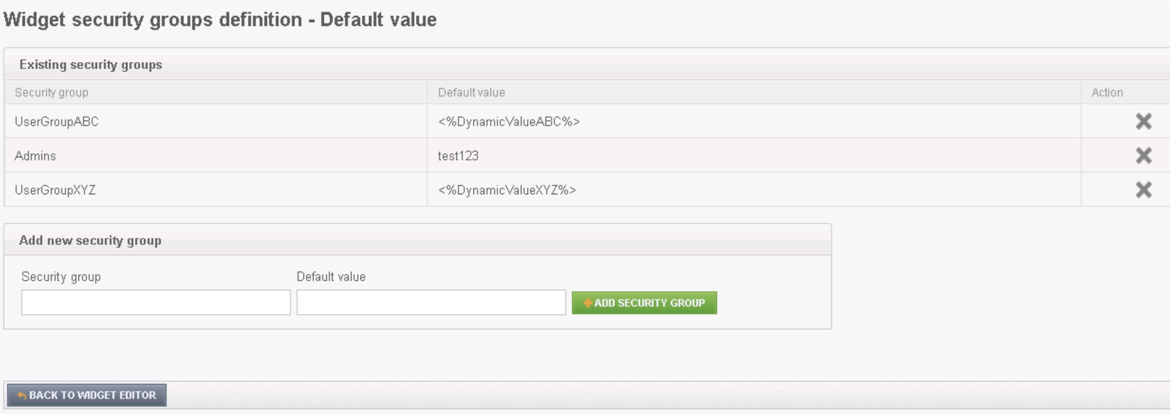
☑ Show content as a label and don't display the widget frame and read-only colour

4.7 Different settings for different security groups

Some settings allow to enter different values for different user groups:

- Filters
- Default and constant values

4.7.1 Default and constant values



Widget security groups definition - Default value

Existing security groups

Security group	Default value	Action
UserGroupABC	<%DynamicValueABC%>	✕
Admins	test123	✕
UserGroupXYZ	<%DynamicValueXYZ%>	✕

Add new security group

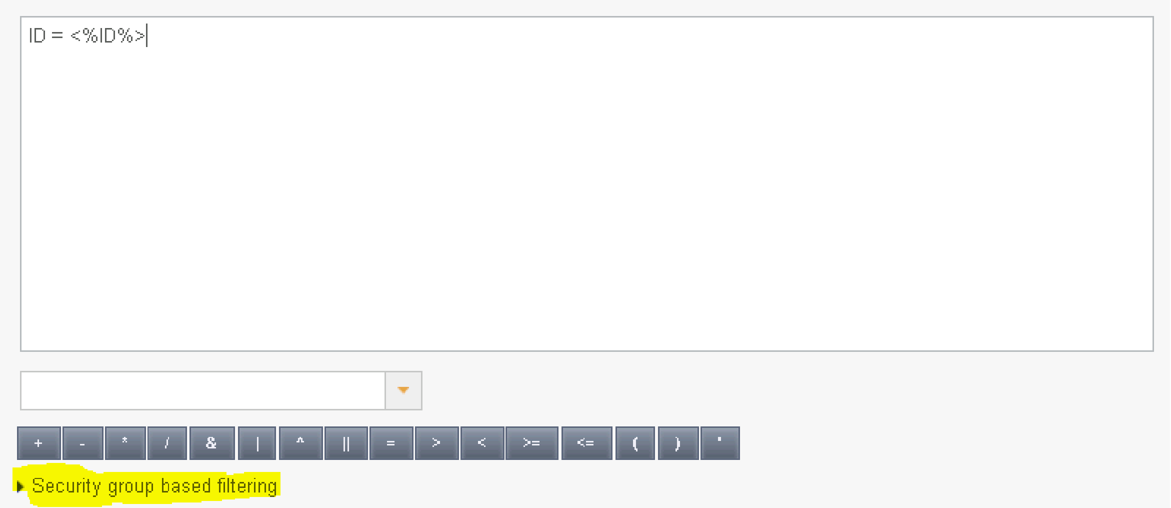
Security group

Default value

You can enter different value for each used security group, variables are allowed.

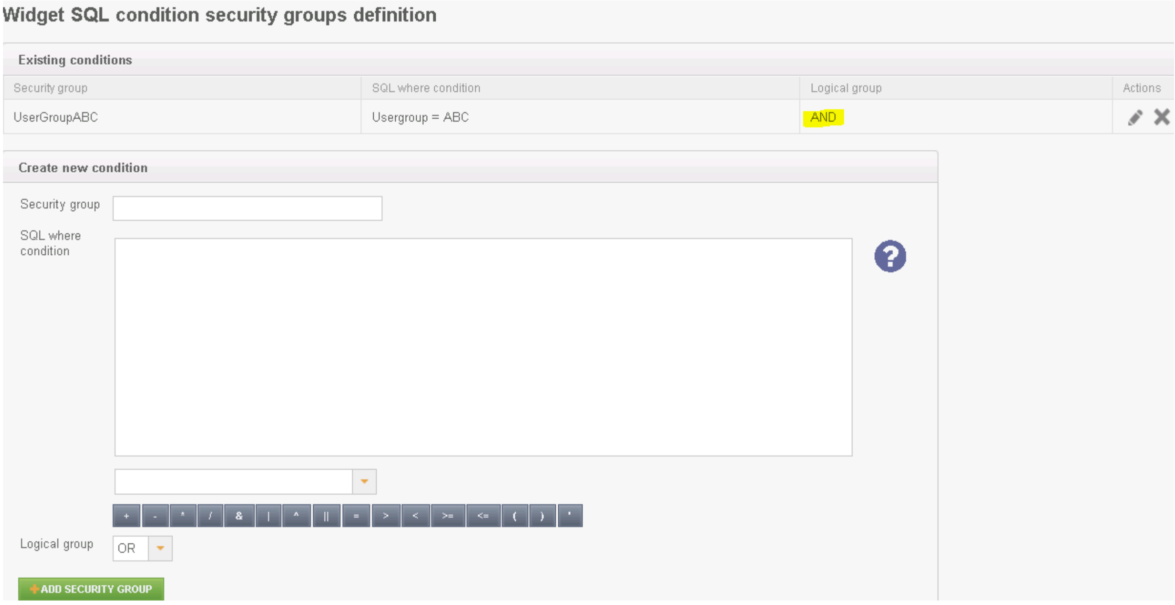
4.7.2 Filters

You can enter different filters for each security group.



```
ID = <%ID%>
```

Entered filters for security groups will not replace but extend the main filter. This can be controlled by the Logical group (AND or OR).



Widget SQL condition security groups definition

Existing conditions

Security group	SQL where condition	Logical group	Actions
UserGroupABC	Usergroup = ABC	AND	✎ ✖

Create new condition

Security group:

SQL where condition:

Logical group: OR

In this example the filter will be ID=<%ID%> AND Usergroup = ABC for the group ‘UserGroupABC’ and just ID=<%ID%> for all others.

4.8 Retrieving the current users security groups in a variable

For debug and other purposes, it can be useful to know all user groups of the current user.
The variable can be output, for example in the header, or further processed for other purposes, e.g. in variables or in filters.

Query the security groups in a Script variable:

```
var groups = afe.getGroupsByRegex('.*');
var result = 'Security groups of the current user: ';
for(var i = 0; i < groups.length; i++) {
  var group = groups[i];
  result = result + group + ', ';
}
// returning the calculated result from script
result;
```

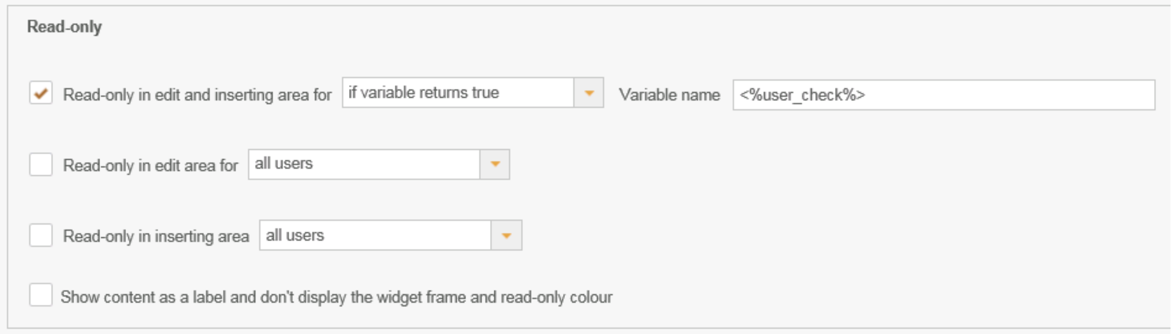
4.9 User based security without groups

To maintain a user based security without groups you will need a user rights table and SQL- & Script variables.

The user rights table contains the user login, the Business Case ID and the rights (read, write, …)

Example:

We set a widget to read-only for all users if a variable returns 'true'.



Read-only

☑ Read-only in edit and inserting area for: if variable returns true — Variable name: <%user_check%>

☐ Read-only in edit area for: all users

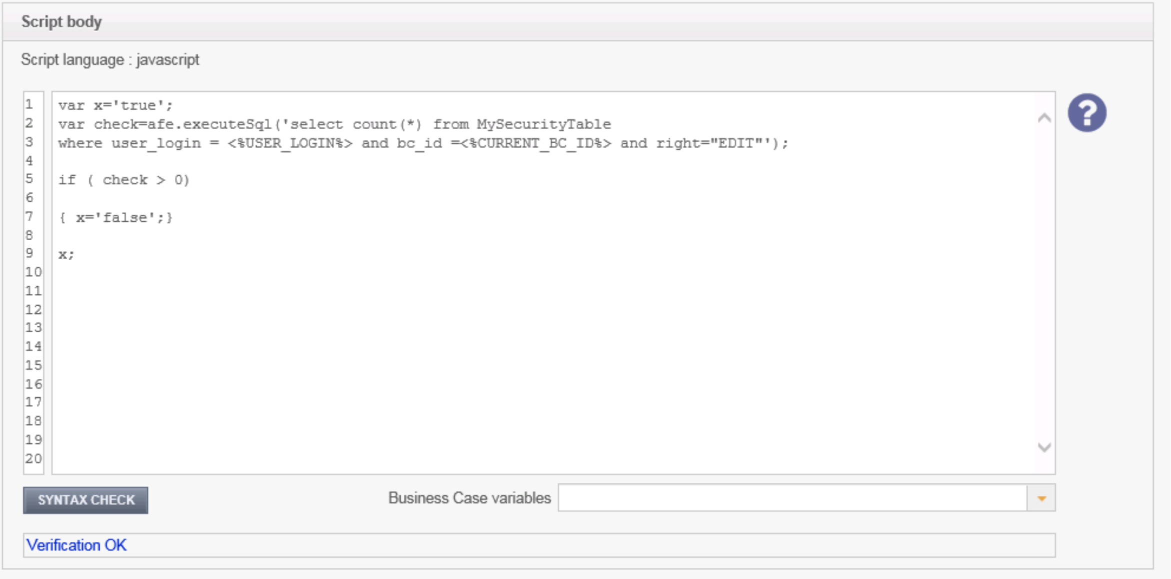
☐ Read-only in inserting area: all users

☐ Show content as a label and don't display the widget frame and read-only colour

Now we need a script variable that returns always true, except for those who have edit rights.

Script body:

```
var x='true';
var check=afe.executeSql('select count(*) from MySecurityTable
where user_login = <%USER_LOGIN%> and bc_id =<%CURRENT_BC_ID%> and right="EDIT"');
if ( check > 0)
{ x='false';}
x;
```



Script language : javascript

```
var x='true';
var check=afe.executeSql('select count(*) from MySecurityTable
where user_login = <%USER_LOGIN%> and bc_id =<%CURRENT_BC_ID%> and right="EDIT"');

if ( check > 0)

{ x='false';}

x;
```

Verification OK

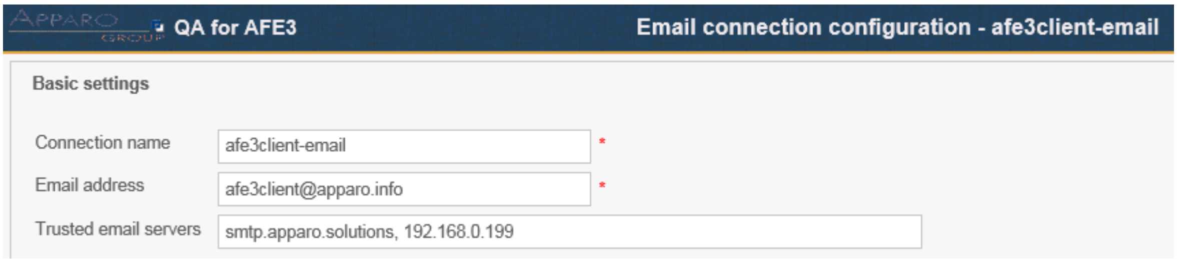
The used SQL statement returns a number > 0 and the used script variable is not longer ‘true’ and becomes editable.

5 E-Mail import security (EIBC)

The import of e-mail attachments is using the same security system like for web login.

5.1 Security settings of e-mail connections

When setting up the e-mail address that receives the e-mails for the import of attachments, you can enter here a comma separated white list of trusted e-mail servers.



QA for AFE3

Email connection configuration - afe3client-email

Basic settings

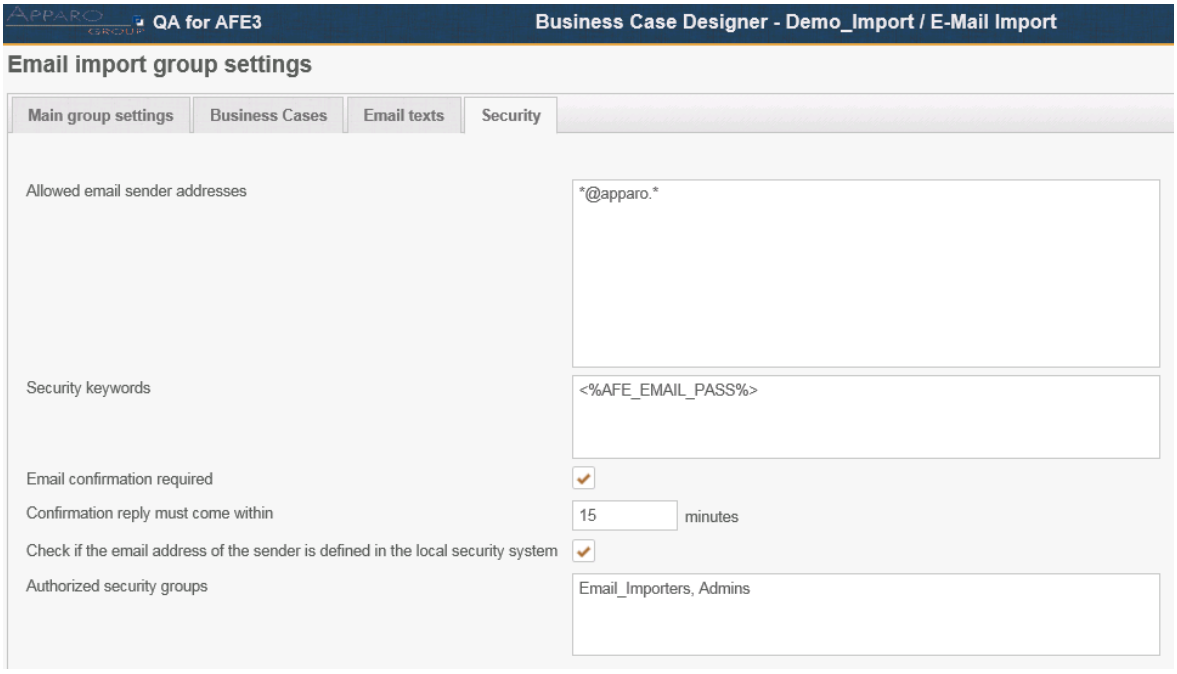
Connection name	afe3client-email *
Email address	afe3client@apparo.info *
Trusted email servers	smtp.apparo.solutions, 192.168.0.199

E-Mails received from others sources will be ignored. If left empty, all e-mails are trusted.

5.2 Email import group security settings

E-Mail import Business Cases are containing all settings for the import of email attachments, each can have different email import groups.

Each group contains the settings to import one or several attachements.



Email import group settings

Allowed email sender addresses: *@apparo.*

Security keywords: <%AFE_EMAIL_PASS%>

Email confirmation required ☑

Confirmation reply must come within 15 minutes

Check if the email address of the sender is defined in the local security system ☑

Authorized security groups: Email_Importers, Admins

Allowed email sender addresses

Comma separated white list of allowed sender addresses. Placeholders (*,?) are allowed.
@apparo. means all senders from apparo.AnyTopLevelDomain is accepted.

Security keywords

A list of comma-separated words that every email has to contain in the subject or body. If any of them is missing, the email will be rejected. Leave it empty if you don't want to use this feature.
Variablesare not allowed

Email confirmation required

Sends a confirmation e-mail to the sender of an e-mail to ensure the origin.

Confirmation reply must come within minutes

Timeframe within the confirmation e-mail must be replied, otherwise the import will be rejected.

Check if the email address of the sender is defined in the local security system

Rejects the email if the sender is not defined

Authorized security groups

Contains a list of security groups that are allowed to use this import group