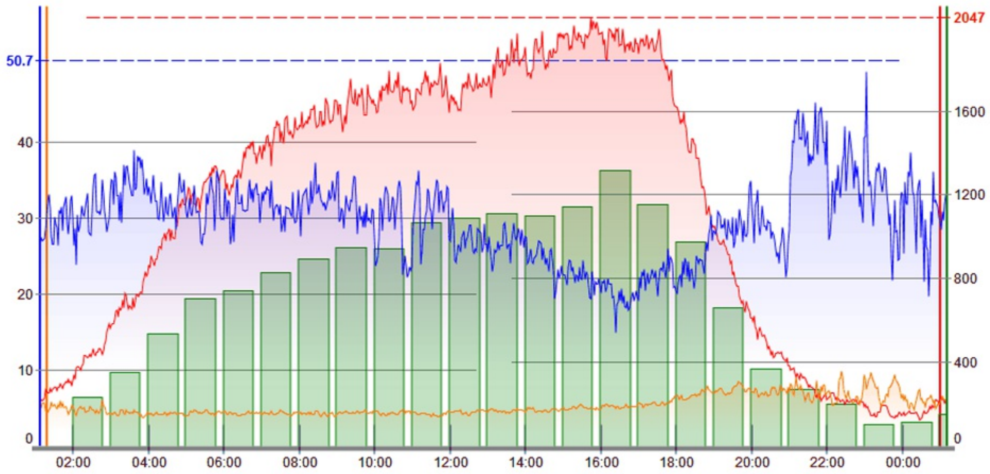
User interface



User manual

Product version: 2.3

www.5gFuture.com

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1. Introduction

5gVision is a suite of next-generation monitoring, alerting, packet sniffing, rate management, routing, and billing solutions that share a common web interface: quick, intuitive, and flexible.

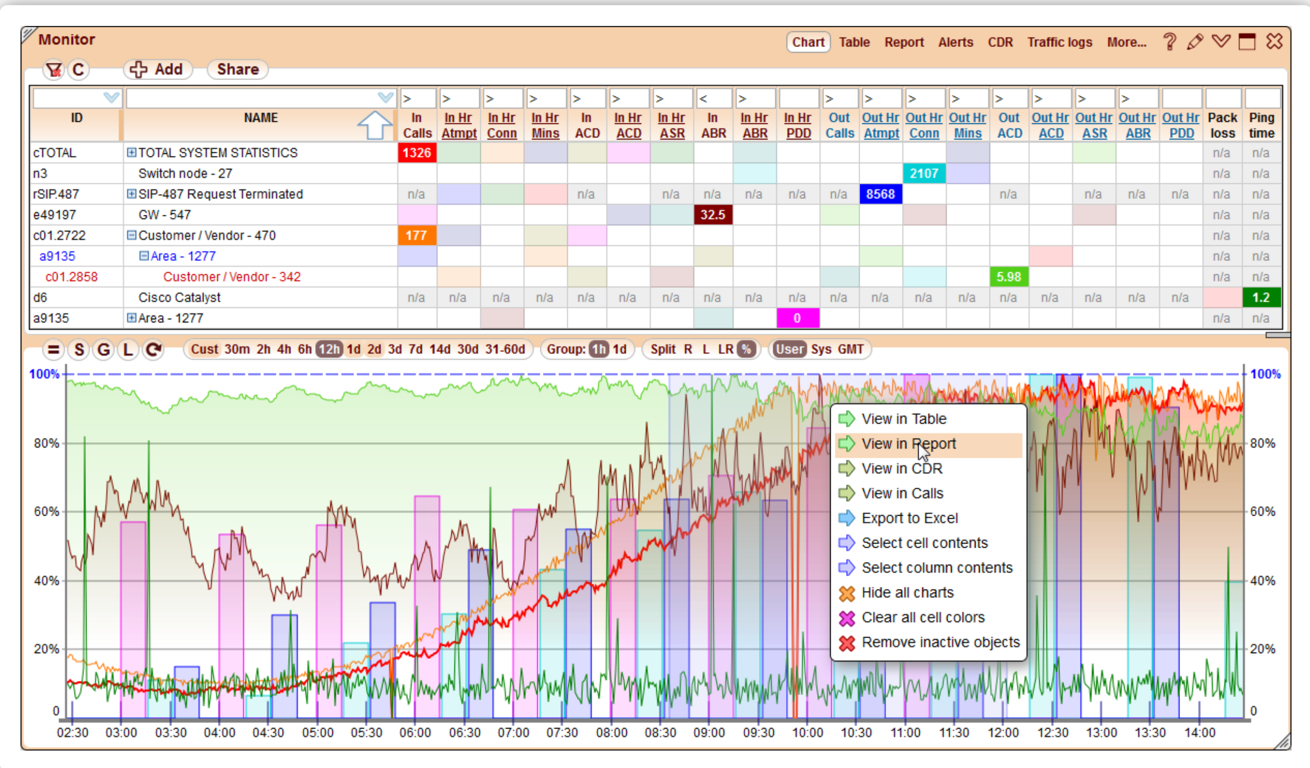
1.1. Overview

The interface of **5gVision** gives you complete control over your environment, allowing you to build your own screen menus, create any screen configurations, apply different color styles, auto-save sorts, filters, intervals and lots of other parameters.

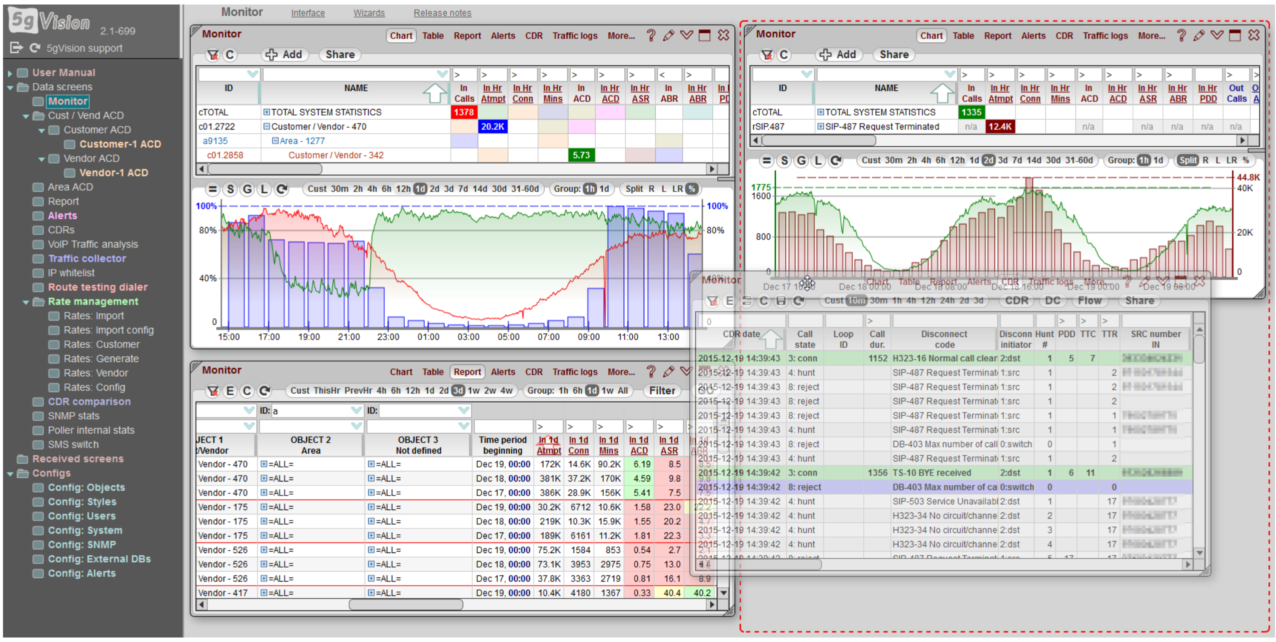
The layout you come up with is individual to your monitoring needs and is independent of other users.

Each screen you create may contain from 1 to 16 information Blocks, for example:

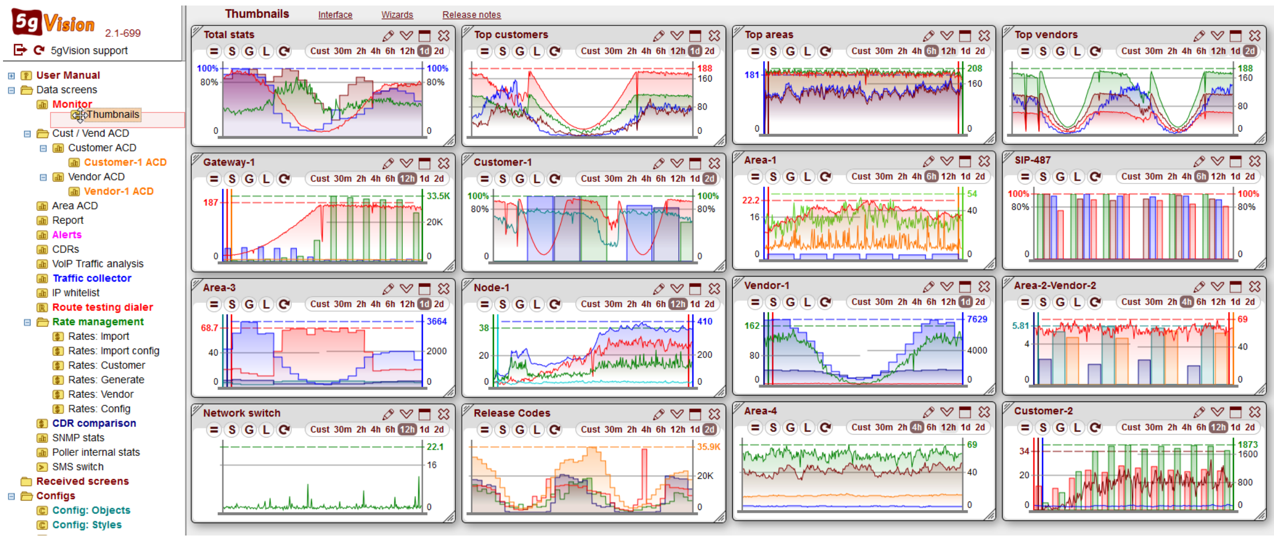
- you may monitor everything on just one chart canvas,



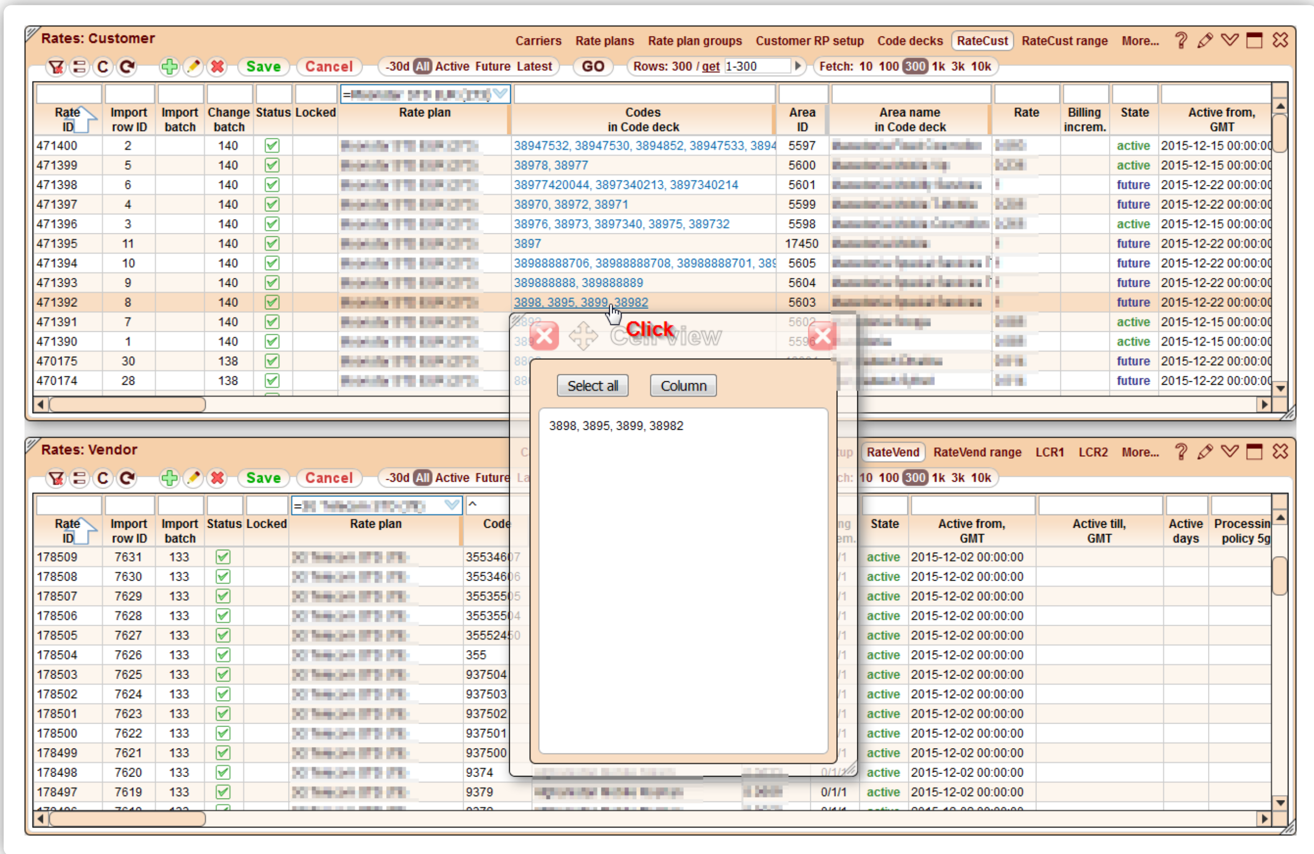
- or have 2 Charts, one Report, and one CDR table per screen,



- or 16 smaller blocks with 4 charts in each to monitor all your parameters at the same time,



- or customer and vendor rates on the same screen in parallel,



- or any other combinations.

5gVision is an umbrella term for several products, each of them sharing the same interface, user management and access control principles described in this manual.

You may read about the specific functionality of each of the products in their respective manuals (the links below only work if you are viewing an online interactive manual right in the product interface):

- Monitoring and Alerting.
- Traffic collector.
- Route testing dialer.
- CDR comparison.
- Rate management.

You may also download PDF versions of the manuals:

Monitoring and Alerting

Traffic collector

Route testing dialer

CDR comparison

Rate management

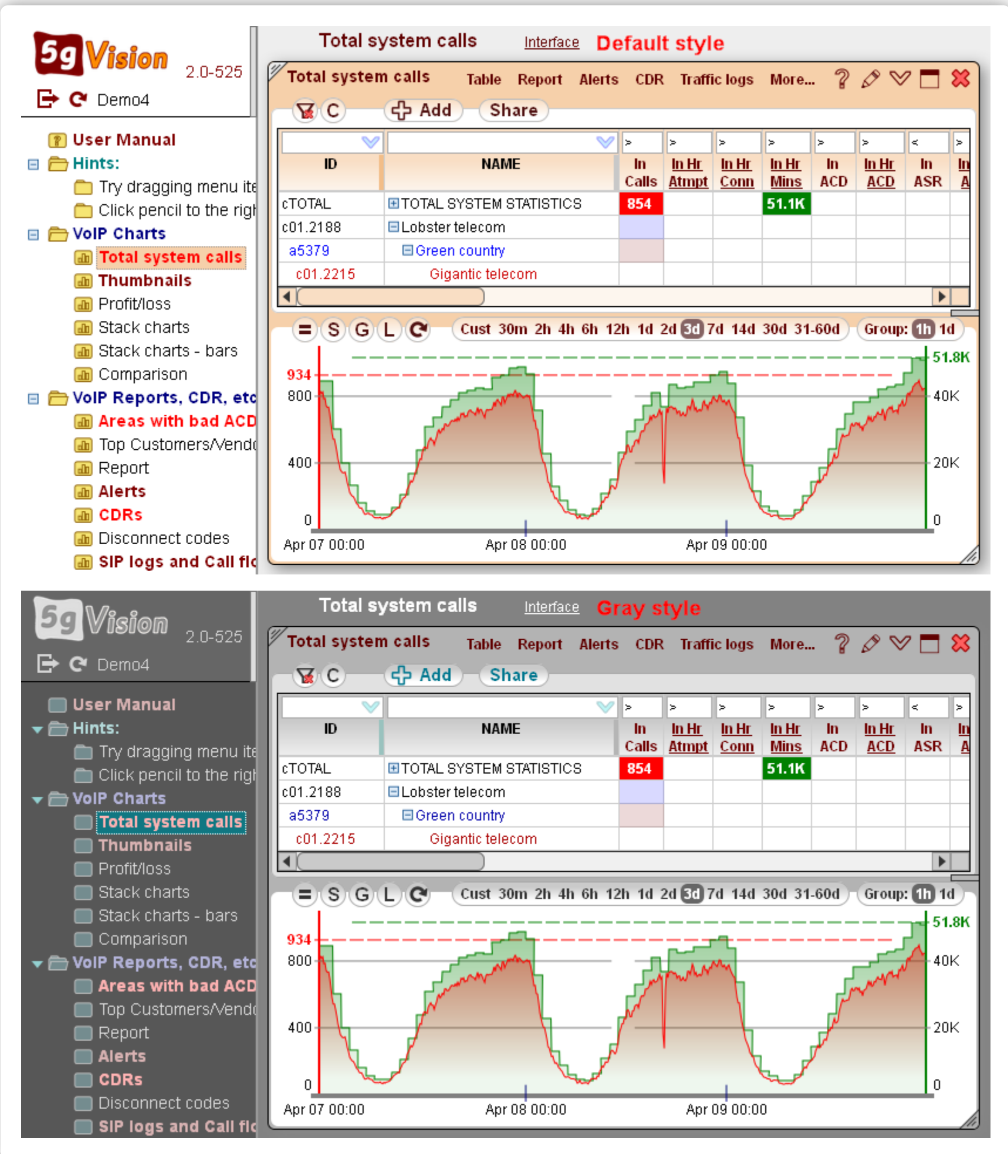
1.2. Interface concepts

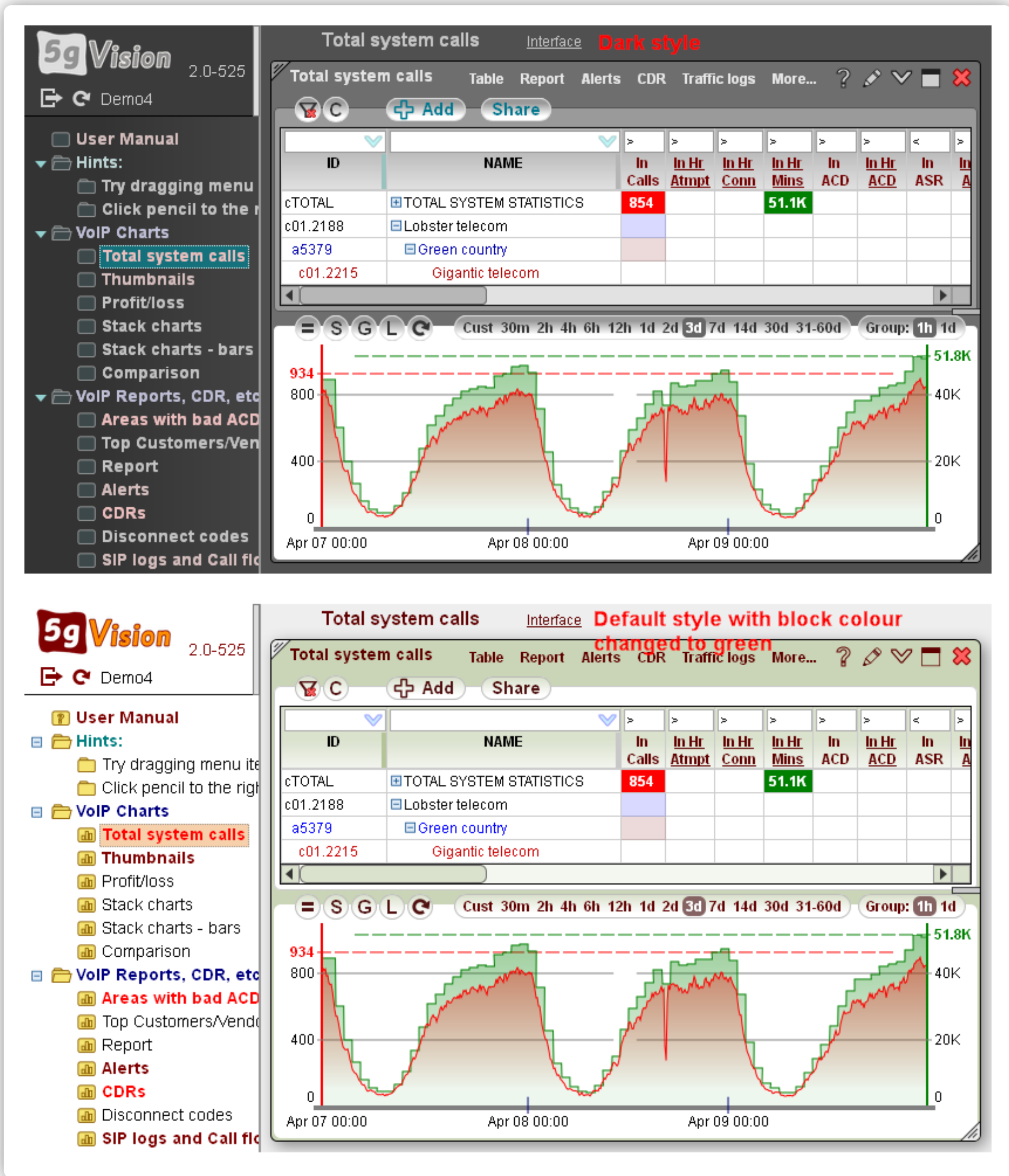
5gVision web interface is extremely flexible and allows full customization through the following features:

- Interface layout, filters, styles, etc. are saved individually per each user.
- The Menu tree that is a collection of each user's screens is drag-and-droppable, allowing to add new screens and move them around.
- The Main screen layout consists of re-sizable functional blocks that can be dragged and dropped to change their position.
- A possibility to clone screens or a whole environment among users (see Managing users).
- Restricting users from seeing certain screens, objects, parameters, or from performing certian actions (see User access rules).

- Very flexible filters and quick sorts in tables, even with thousands of records (Filtering).
- Convenient table editing tools with group edit/delete.
- Several default interface styles, as well as a possibility for users to create new styles.

Interface styles allow you to create an environment pleasing to your eyes. Here are some examples of different styles:





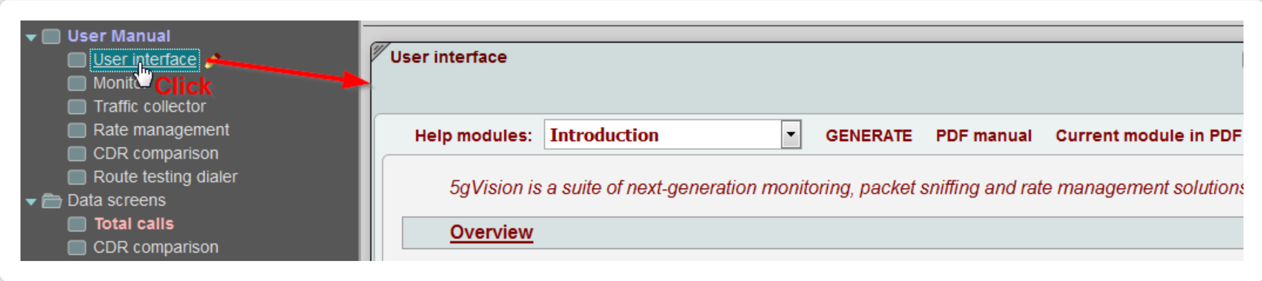
You may also try changing the style of this page on the fly (only works in an online manual, not in a .pdf version):

Please note that throughout this and other manuals the screenshots may be displayed in different styles to remind you that you may adjust the interface to lots of different color themes.

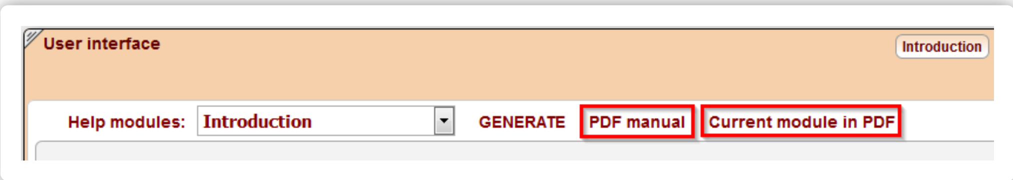
1.3. Ways to get help

The Manual can be viewed in several different ways:

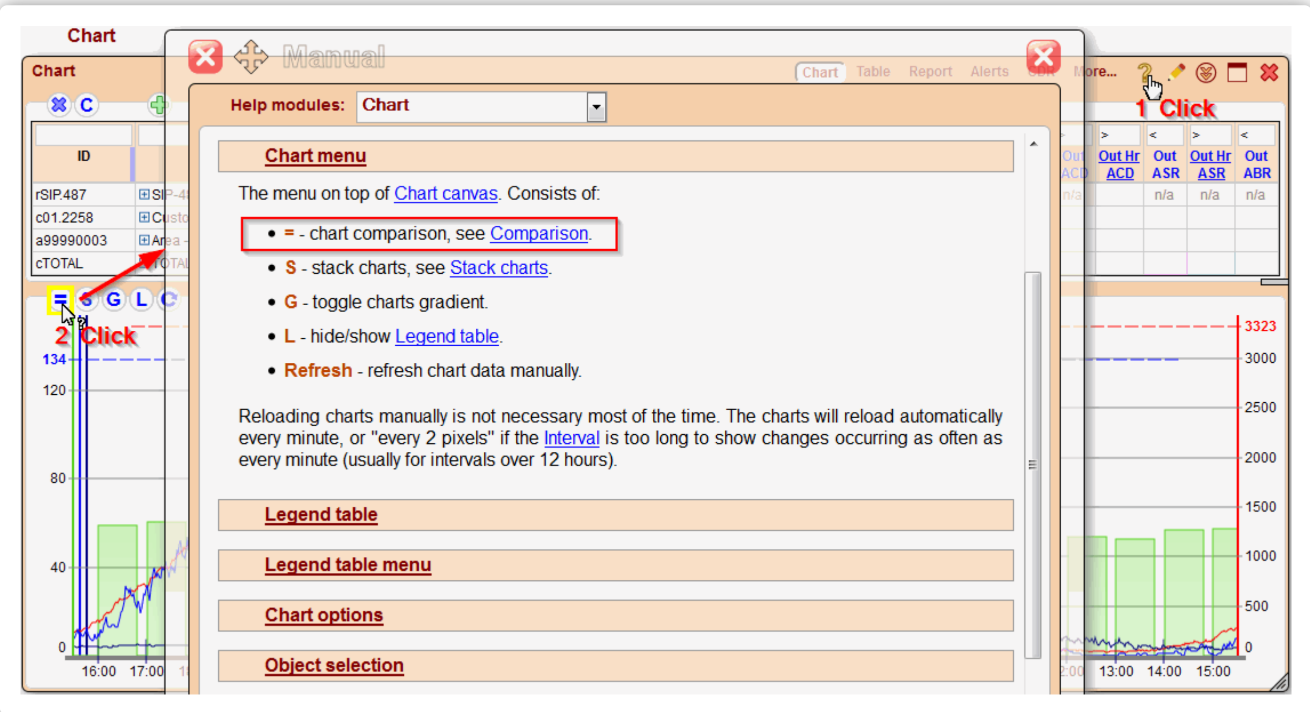
- By opening the **User Manual** item in the Menu tree on the left. This item is at the top of the Menu tree when you first login, but you can move it in any place you wish. There are manuals for each major product inside this folder. This is a **recommended way** to work with the manual, as all the cross-links to other manuals will be working, allowing to easily jump to the referenced material.



- By downloading a PDF manual via a **PDF manual** link in each of the manual pages. You can also get only the section you are viewing if you press the **Current module in PDF** link.

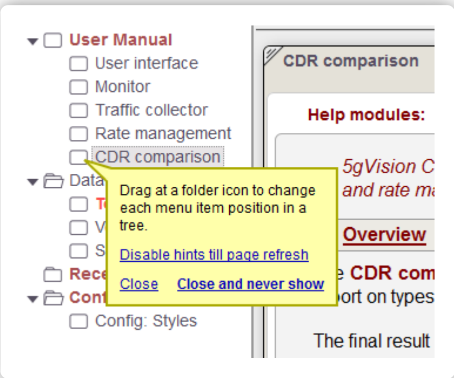


- By activating the Help mode through clicking on the **?** icon in the right-top coner of any block Top menu. Each part of the interface that has help information associated with it will then be highlighted in yellow. Clicking on the highlighted item will bring a help page about it.



- The blue links inside manual pages make it really easy to open other sections of the current manual for a quick reference without interrupting your main reading.

Together with this, each user, upon refresh, is shown a series of **Hints** about system features, some of which are not so easy to discover.



Once a user viewed all the hints and pressed **Close and never show**, they wont popup any more. A user with Admin rights may also disable hints altogether in the **User** table, see Managing users.

1.4. Initial setup

For most products of the **5gVision** suite an initial setup involves the following steps, that can only be performed only by users with the **admin** roles (see Managing users):

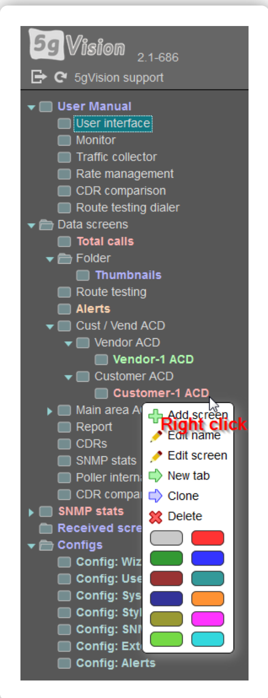
- Change the default password provided for an **Admin** account. Passwords are generated randomly for every installation, but you may still change them to something more convenient for you.
- Add more accounts with **admin** or **user** roles for all people in your company that will be using 5gVision. It is important that every person has his/her own login, as various interface configs are individual per each user.
- If you wish to set up templates to copy pre-defined screen layouts to new users - you may create a new user whose menu/screen layouts will be used as a template, configure the menus and screens, and then clone the screens of this template user to some other users, see Managing users.

2. Menu tree

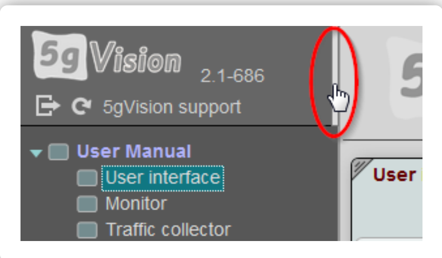
Easy to use and intuitive interface is a key to mordern productivity. With drag and drop, customizable menus items one can build as complex or as simple a solution that one needs.

2.1. Overview

Menu tree on the left of a web interface is a collection of folders or items with links to Main screens on the right pane of the web interface.



Menu tree can be hidden or shown again by pressing on the grey handle at top of the dividing line between the two parts of the interface, or resized by dragging this line.



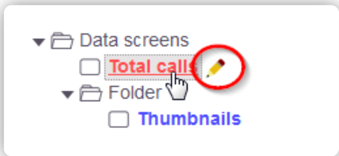
The menu structure can be rearranged in almost any way you like by dragging menu items around at their folder icons or clicking on a pop up Pencil symbol to the right of the menu item and choosing Add/Delete (the alternative way is right-clicking on any item). See Tree items menu.

The area on top of the menu tree consists of:

- Logo - click on the logo opens a 5gVision web site.
- Product release and build.
- Log out button.
- Refresh button to refresh the whole page dropping the web browser cache and updating object names. This is equivalent to pressing F5 or a refresh button in your browser.
- Name of the currently logged in user.

2.2. Pencil

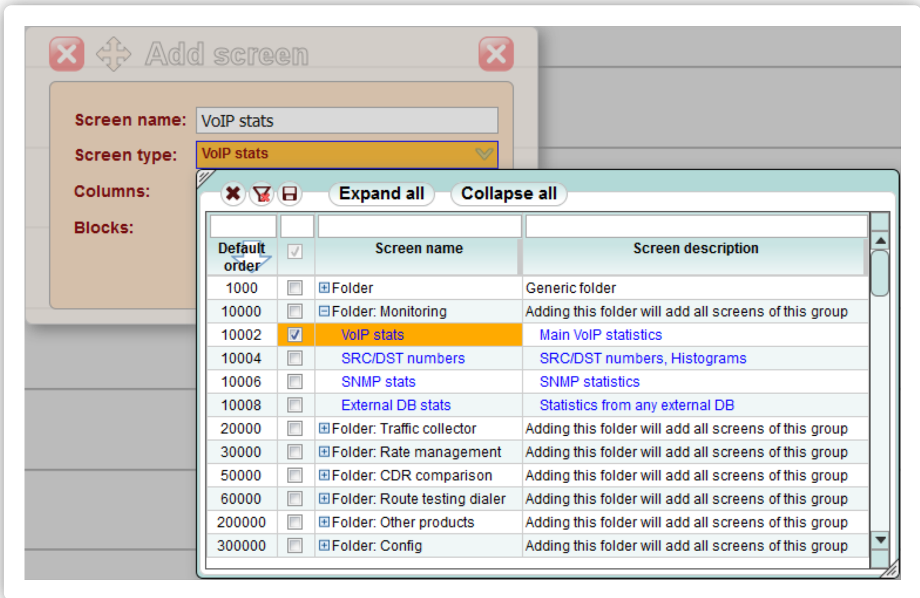
When a mouse is over any menu item in the Menu tree on the left of the screen, a small **pencil** sign will appear to the right of the item.



Clicking on it will activate the Tree items menu where you may Add/Delete/Edit tree items.

2.3. Screen types

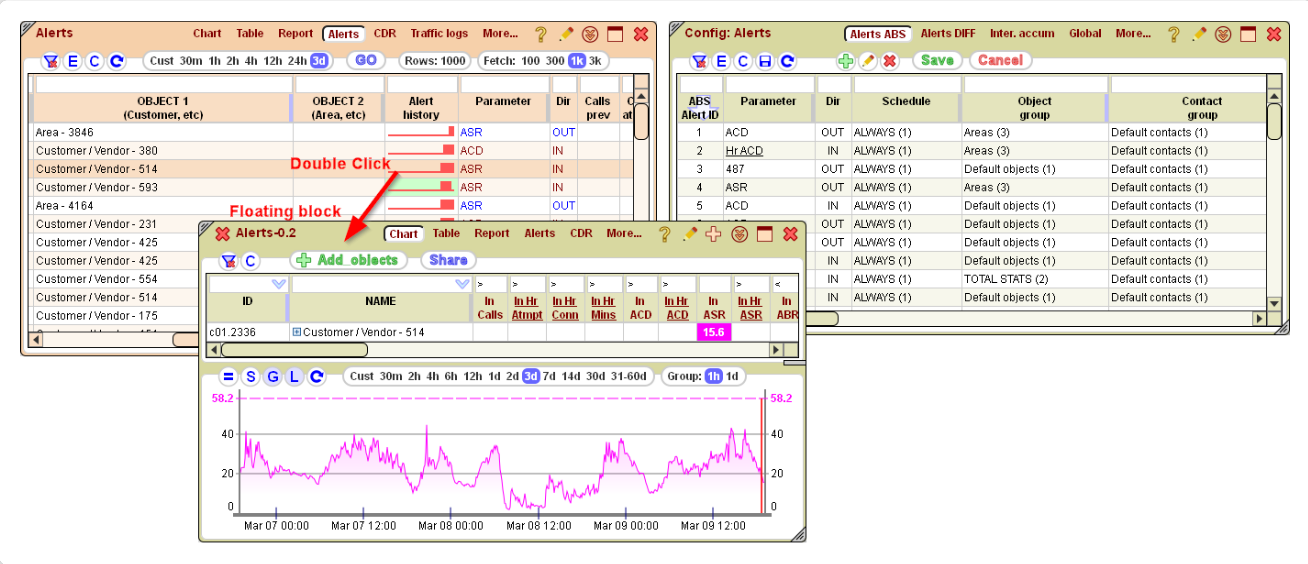
There are lots of different screen types in **5gVision** depending on the exact product you are using. Each screen will contain specific Modules needed to perform all or most of the tasks pertinent to the described functional purpose of the screen. When you create or edit a screen via Add/edit menu there is a corresponding drop-down table available that allows you to choose a screen type in convenient way.



All the screen types are grouped in compliance with products and can be chosen as a whole folder of screens or as a separate screen. The most commonly used screens include:

- Folder
- VoIP statistics
- SRC/DST numbers
- SNMP statistics
- Traffic collector
- IP whitelist
- Rate management screens
- CDR comparison
- Route testing dialer
- Various config screens

After adding a screen with multiple blocks in it, you may change the type of each block individually through the **Pencil** icon in the Top menu. You may, thus, create a screen with 2 blocks, and have an Alert log in one block, and a Config-Alerts block in the other, being able to see the configs and the resulting alerts at the same time.



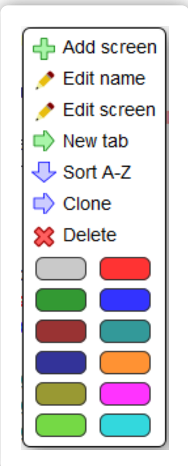
All screens may also act like folders and contain other screens.

Config screens are only accessible for users with admin rights.

There is also a special folder **Received screens** that will contain all screens that were cloned to you by other users. Once the screen is cloned - it becomes an independent screen and any changes to it are not propagated to the original screen.

2.4. Tree items menu

When the mouse is over one of the items in the Menu tree, a Pencil icon will appear to the right of this item. Clicking on it or right-clicking on any item in the Menu tree activates the Tree items menu:

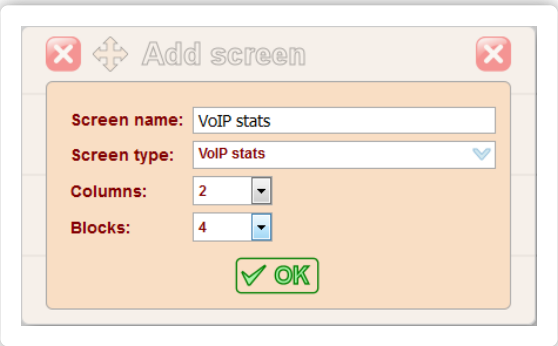


- **Add screen** - add a new screen via Add/edit menu.
- **Edit name** - edit the screen name.
- **Edit screen** - edit the screen column/block layout via Add/edit menu.
- **New tab** - open the screen in a new browser tab (or Ctrl-click the tree item).
- **Sort A-Z** - sort underlying screens alphabetically.
- **Clone** - clone the screen to other users or to yourself. The new screen will be totally independent of the cloned screen and will be added to the "Received screens" folder under another folder with the name of the cloning user.
- **Share** - share the screen with other users. All users will see the same copy of just one screen. If the screen is shared as view-only, any changes a receiving user is making to it will be lost after a screen or page refresh. If the screen is shared as editable, all users will be able to modify it. Changes by other users are not synchronized with your shared screen automatically, you need to refresh the screen to upload them.
- **Delete** - delete a screen or a folder with all underlying screens.
- **Color palette** - change the item font color.

Some tree items may have limited options. For instance, you cannot modify the **Manual** or **Config** pages.

2.5. Add/edit menu

This menu pops up when either **Add screen** or **Edit screen** was chosen from the Tree items menu.



You may set the following options for a new or edited screen or folder:

- **Screen name.**
- **Screen type** - this will define which functional blocks a screen will have. If you choose a folder with underlying screens (for instance, a **Rate management** folder) - the very folder and all the screens will be added.
- **Columns** - number of columns in the Main screen. Columns will contain Blocks. If you do not plan to have blocks arranged into several columns, you may just leave one column.
- **Blocks** - number of blocks in the Main screen. While multi-block environment allows you to view different types of data at the same time, one block may be OK for most situations.

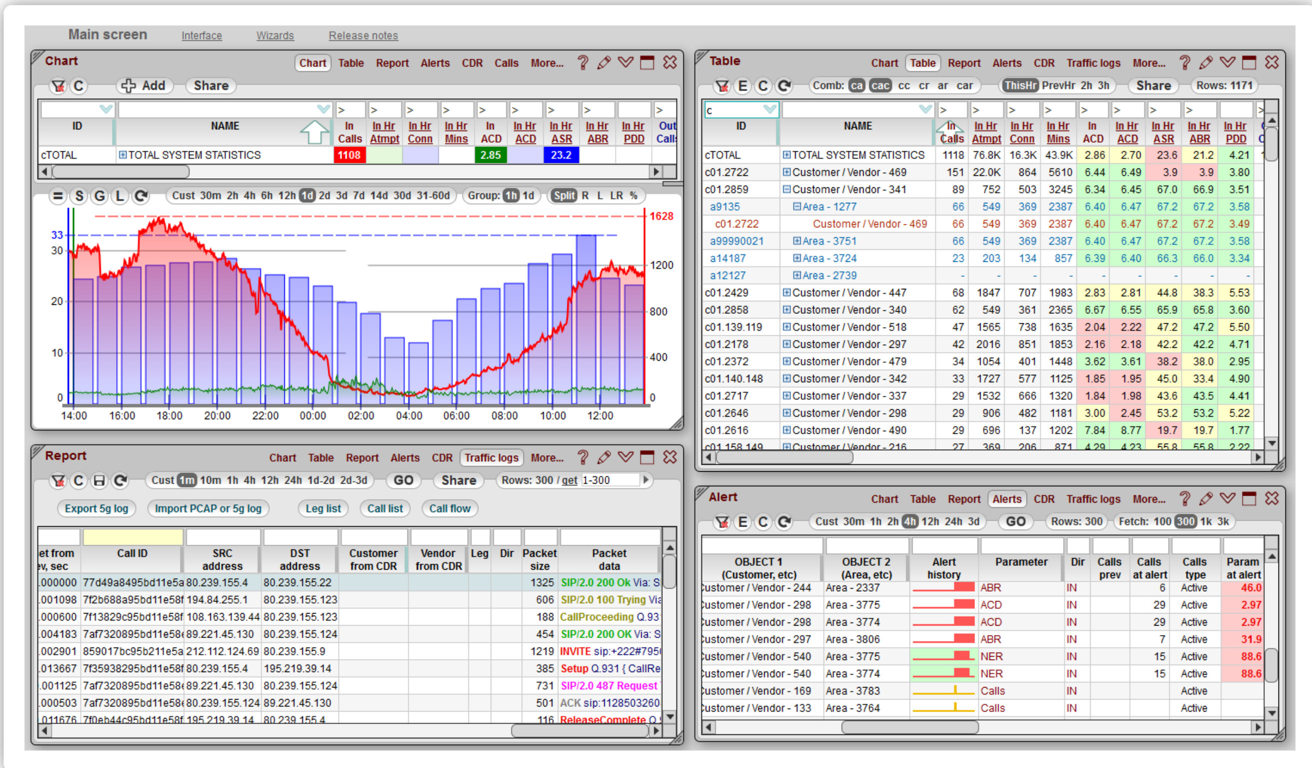
If you would like to have blocks of different types on the same screen (for instance, one block for **Customer rates**, and another one for **Vendor rates**), you may choose a **Customer rates** screen with 2 blocks, and then edit the second block additionally changing its type to **Vendor rates**, see Block edit window.

3. Main screen

The main screen may have from 1 to 16 functional blocks to make it easier for you to arrange for the very working environment you need.

3.1. Overview

Part of the web interface to the right of the Menu tree is the **Main screen**. It consists of blocks that can be rearranged by dragging the top bar, or resized by the bottom-right handle. Each Block may have several modules, like Chart, Report, Signaling collector, etc.



Combining blocks with different modules on the same screen will allow you to create flexible patterns. You may have a chart, a table, a report, an alert notification, and your customer/vendor rates all on one screen.

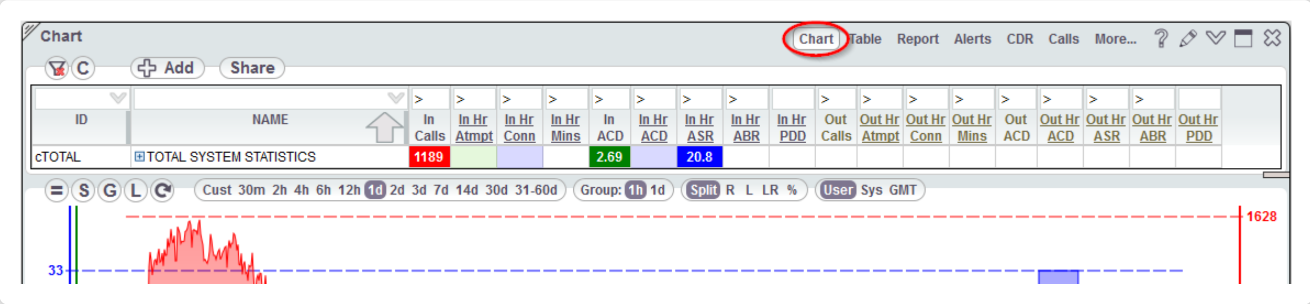
3.2. Block

The Main screen consists of one or more blocks arranged in columns. Blocks are good if you want to work with different kinds of information on the same screen. However, you may stick to just one block per screen as well.

Blocks can be deleted with the cross icon at the top right corner, or added/edited through the Menu tree by clicking on the Pencil and choosing "Edit screen". See also Floating block.

3.3. Module

Each Block on the screen will usually have several **Modules**, but only one will be shown at a time.

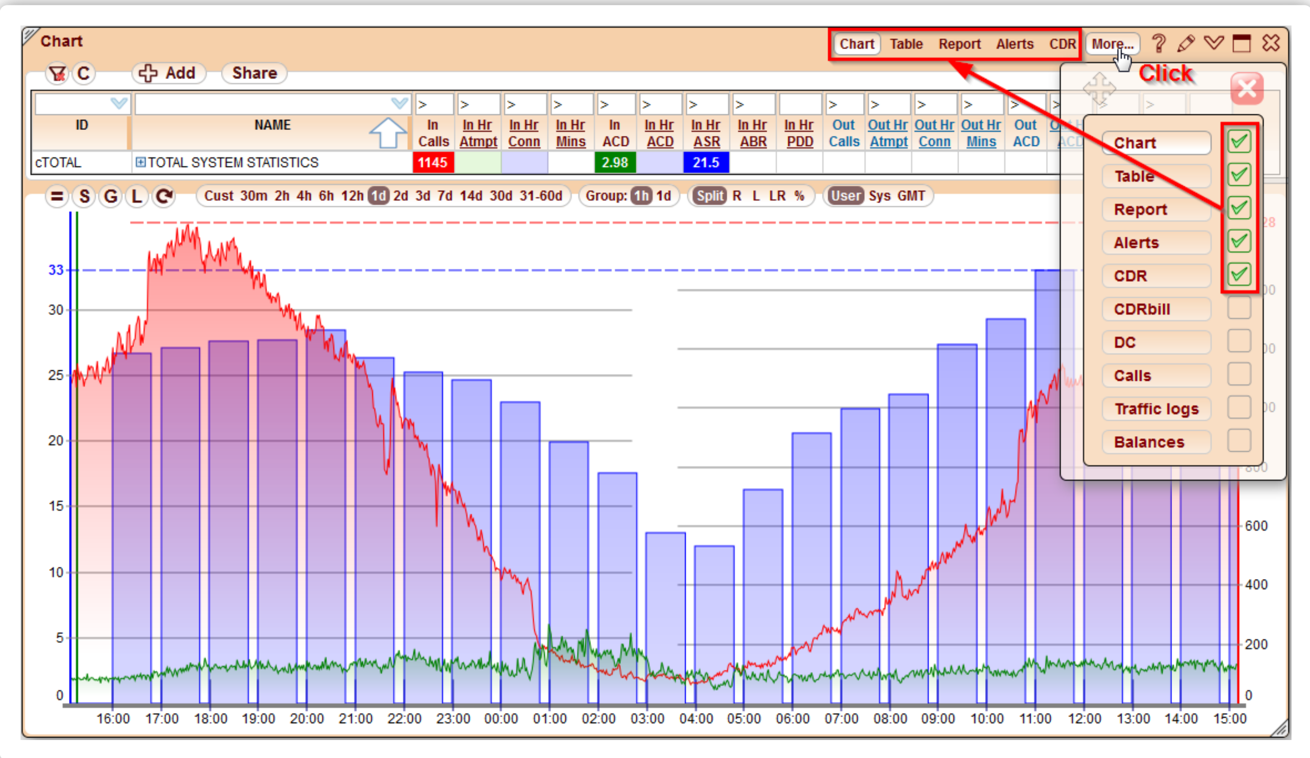


The Modules will depend on the product and on the screen type. For example, VoIP statistics screens of the Monitoring and alerting have the following modules:

- Chart
- Table
- Report
- Alerts
- CDR
- DC (Disconnect codes)
- Calls

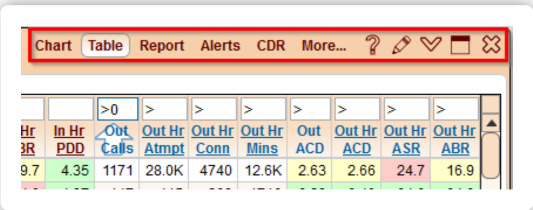
In order to change the Module in a block, one needs to click on a desired Module name in the Top menu of the block (icons at the top-right corner of the block).

If the Module needed is not currently visible, clicking on **More...** button will bring up the **Module selection window** where you may see all the modules, including the hidden ones.



Green check-marks will control which modules will stay in the Top menu when they are not active.

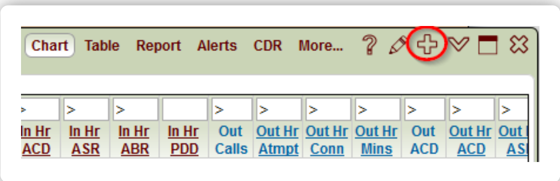
3.4. Top menu



The **Top menu** on top of each Block consists of the following items:

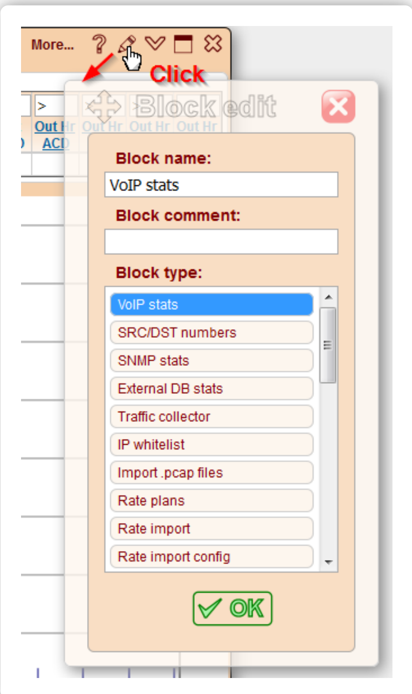
- The list of the modules.
- **Module selection** strip with the **More...** button to view complete list of modules.
- **Help** question mark to activate the Help mode, see more in Ways to get help.
- **Pencil** opens Block edit window to edit block name, type, and enabled parameters.
- **Open/close** button to show or hide the block contents.
- **Maximize** button to maximize the block for full-screen view, or get it back to normal view. Same effect can be achieved by double-clicking the top drag strip of the Block.
- **Delete** button deletes the block from the screen, unless it is the only one left.

Floating blocks will also have an additional **Add** icon to add (pin) the floating block to the main screen in case you wish to save the changes made in the block.



3.5. Block edit window

The **Pencil** sign in the Top menu of the Block brings up a window to edit block parameters:



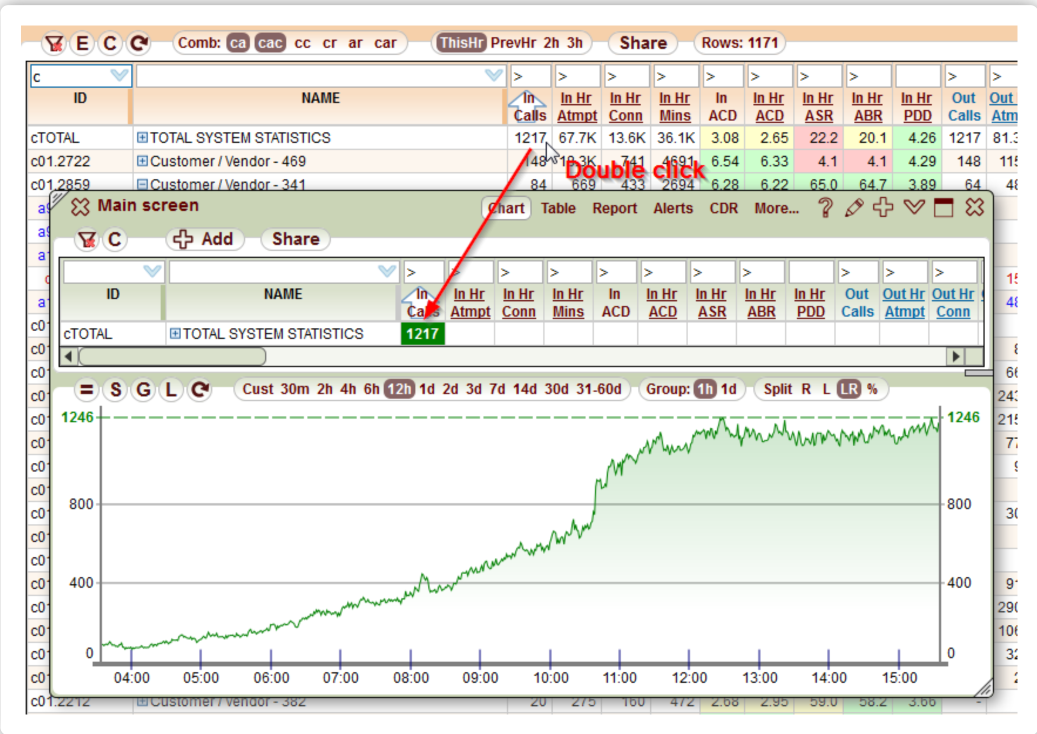
- **Block name** - shown in the top left corner of the block.
- **Block comment** - shown when a mouse is over the block name.
- **Block type** - contains the list of block types identical to the Screen types which can be chosen in the Add/edit menu of the Menu tree. Each block type has a specific functional purpose (Monitoring, Rate management, etc.) and may have different default filters and column

layouts so that only the infomation relevant to the block function is visible.

3.6. Floating block

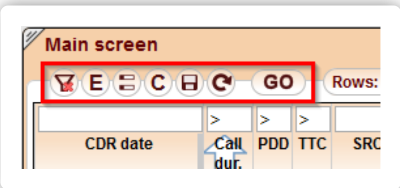
Floating blocks are opened on request on top of the main fixed blocks of the screen and provide a convenient way to quickly look up certain data, for instance, a chart with a parameter history of the object, rates of a Rate plan, or signaling packets of a call in CDRs.

Floating blocks are usually called via the In-cell menu (options like **View in Chart**), by double-clicking cells in certain tables, or by clicking the Action buttons.



Floating blocks will be discarded once the web page is reloaded, and all the changes will be lost. If you wish to keep the changes - please pin the block to the Main screen through the plus sign on the Top menu of the block.

3.7. Table menu



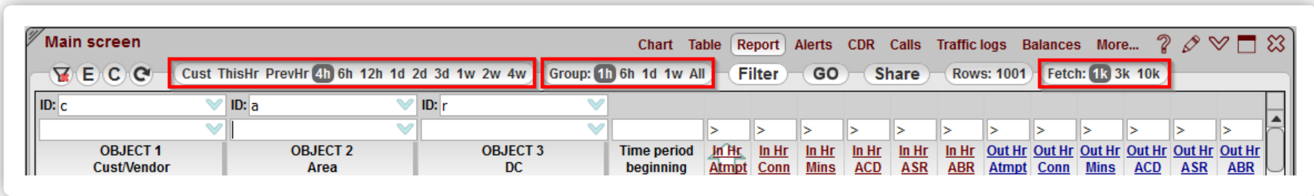
The menu on top of each table will vary depending on the product and the screen type, the most complete menu usually having:

- **Filter sign with red X** - clears all Filter fields over column names.
- **E** - Export table data.
- **Horizontal scroll** - toggle Horizontal scroll bar up and down.
- **C** - open Column selection window where one can choose which columns (parameters) to have in the table. Columns can be added/hidden or rearranged by dragging them up or down in the Column selection window.
- **Save** - save the current filter to keep it after you reload the page.
- **Refresh** - refresh table data.
- **GO** - start a request.
- **Share** - creates a shared web link to the information displayed at the current screen to send to your partners, see Shared links.

Out of all the tables in the interface, only the Chart and Alert tables of the VoIP Monitor product are refreshed automatically, for any other tables it is necessary to press the **Refresh** button if you belive the data in the DB has changed (either automatically by stats poller, logger, rate import, etc. or by other users).

3.8. Parameter strips

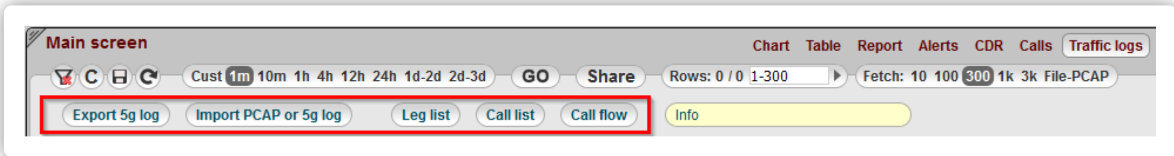
Oftentimes it is convenient to filter or modify data in a table by preset criteria like interval, number of fetches rows, timezone, objects shown, grouping of parameters, etc. This purpose is served by various prameter strips.



You may see an example in Interval strip or Row limit strip.

3.9. Action buttons

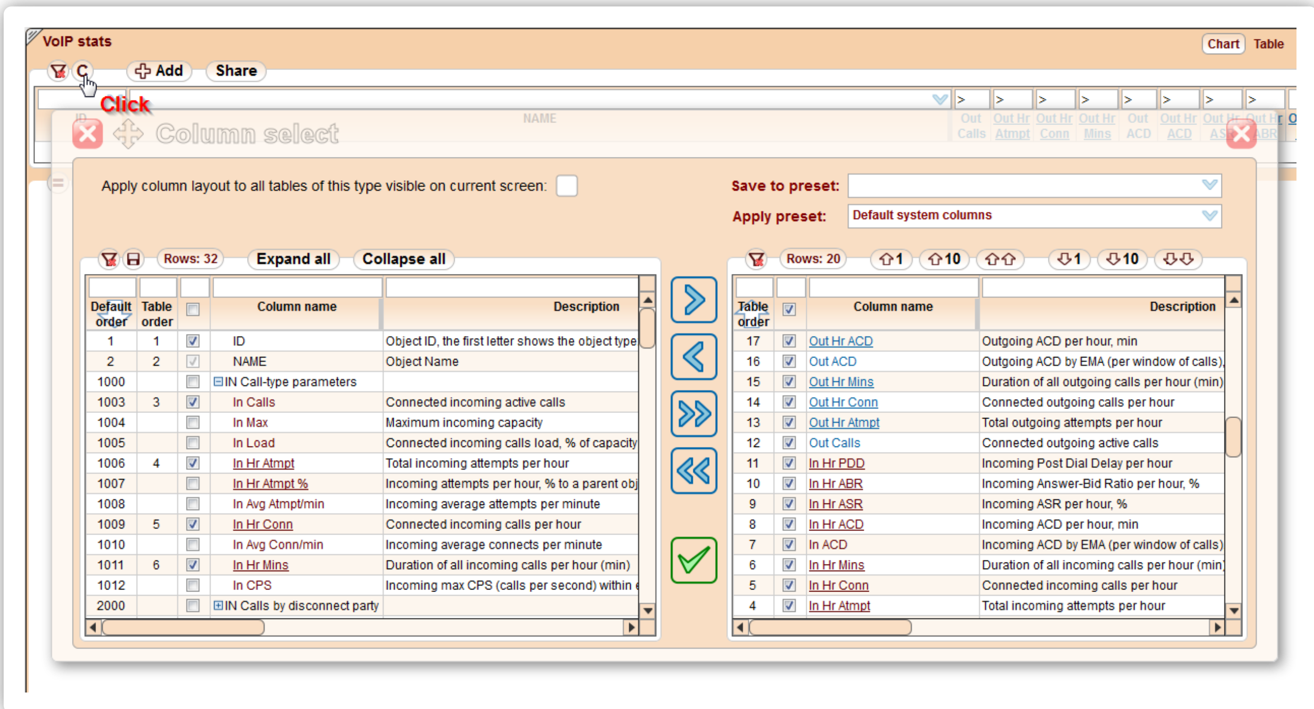
Some tables will have the second row of buttons to perform specific functions related to the table.



Quite often these buttons will open an **Options window** where you would need to set some parameters before you perform an action. The parameters entered are saved per each user once the **OK** button is pressed.

3.10. Column selection

Column layout of any table may be changed by pressing the **C** button in any Table menu or by Right-clicking any table header.



The **Column selection** window that opens consists of the left and right panes that allow you to add/remove/rearrange columns in the edited table. The left table contains all columns available for this Module. Some tables with a lot of columns (Reports, CDRs) may have them organized in groups by column types and an **IN**/**OUT** direction for monitored parameters.

The right table holds currently chosen columns that will be displayed in the edited table header if you click the green OK button. You may move a separate column or a group of columnsit from the left table to the right one and vice versa by clicking the check box or double-clicking a row.

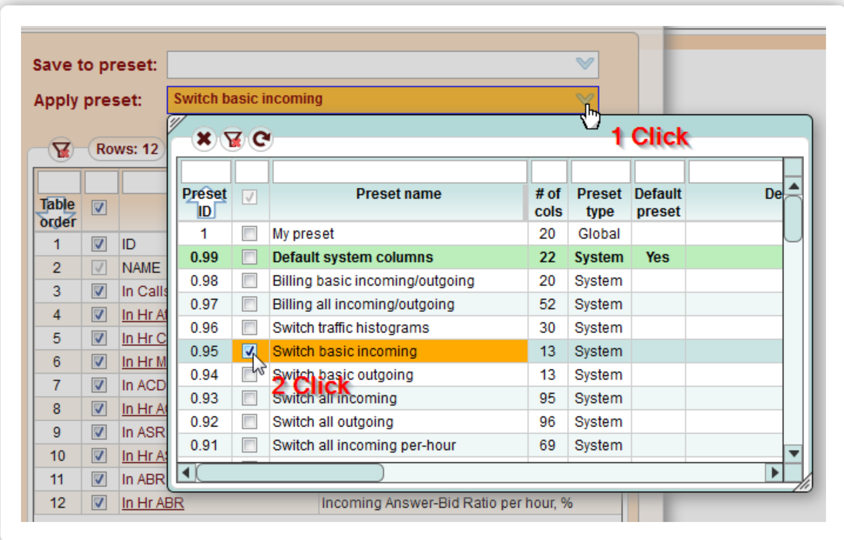
You can also choose several rows by Ctrl-clicking or dragging the mouse over them, and then move the records between the tables by the large left-right move buttons or by Right-clicking anywhere within the table and choosing **Move left/right** from a context menu.

The double arrows move ALL buttons will either add all columns to a table, or remove all of them, except for the fixed columns. The same effect is obtained if you click the top checkbox in the table headers.

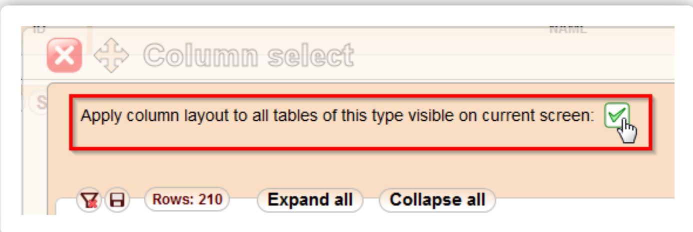
The standard sorting and filtering mechanism is working in both tables and makes it very easy to find a column you need in a long list of columns.

There are six **Up**/**Down** buttons available on top of the right table that will allow you to manage the order of chosen columns in the edited table by moving columns up or down.

Each Module or configuration table has a different default set of columns that will be shown. You may quickly choose the columns that match your needs using the **Apply preset** Drop-down table on top of the **Column selection** window, and then refine your choice by adding/removing some extra columns, and rearranging them.

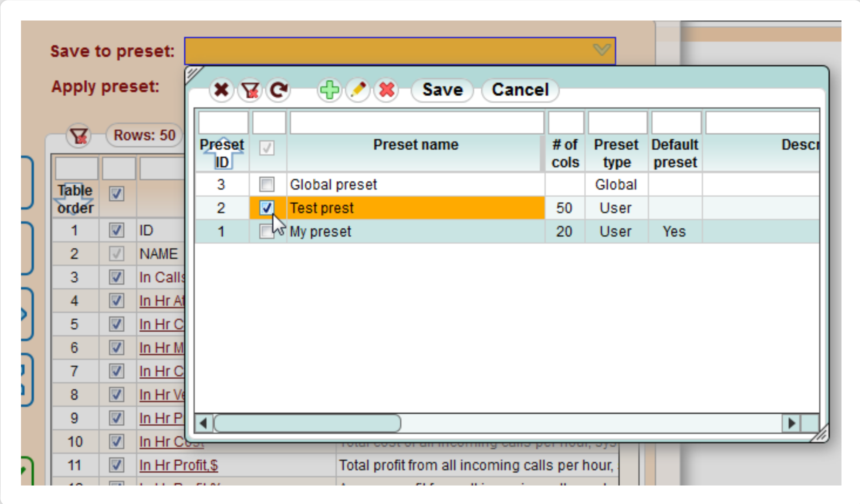


Once you created the new layout, you may press the green **OK** button to save your changes, or close the window by the top red cross to cancel them. The new column layout will be applied to the edited table only, unless an optional flag **Apply column layout to all tables of this type visible on current screen** is set.



With this flag on, the layout will be saved for all **visible** tables if they are of the same type, as the edited table. This is especially convenient when working with lots of small chart blocks in the Thumbnail mode.

You may create and save your own column presets through the **Save to preset** drop-down table.

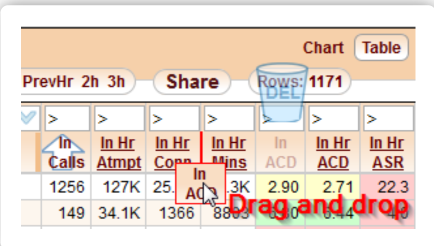


First, you may need to add a new preset and save its name in the same manner as you edit other config tables (see Config menu). After a new preset is created, you may choose it by cliking its checkbox, and the current column layout from the right table will be saved to this preset. You will then be able to apply this preset to other tables of this type in other Blocks.

Once a custom preset contains a column layout, this preset can be set as default for this table type. All such tables in all newly added screens will have these column in this order. Also, any existing tables that had the previous default preset will change to the new default preset. However, if a table had its layout edited and saved before, it will keep it. To see the effect of this change, one needs to reload the screen to pick up the new defaults.

Users with admin rights can create **Global presets** that are visible to all other users. This is a great way of sharing a convenient environment tailored to your business needs with others. For instance, you may want all users to have specific columns in a specific order in CDRs, and you may create a global preset and ask each user to apply it.

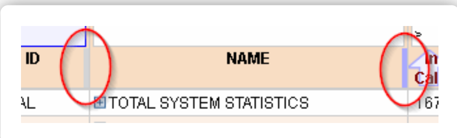
Table columns can also be re-positioned or removed by dragging and dropping them right in the header of the edited table:



However, the **Up**/**Down** buttons described above give you a convenience of moving several selected columns at once.

3.11. Column resizing

Columns can be of a fixed width (when the information shown in them has fixed width as well) or can be resized by dragging at the gray/blue bar to the left of the column border.



If re-sizable columns have never been user-resized, the bar will be gray, indicating that the column will be changing its size automatically as the whole Block is resized. Once the user resized the column manually, the bar will change to blue and the size of this column becomes fixed. The colors can differ depending on the chosen interface style. To get back to auto-resize column, one should **Ctrl**-click on the bar and drag it a bit.

3.12. Horizontal scroll

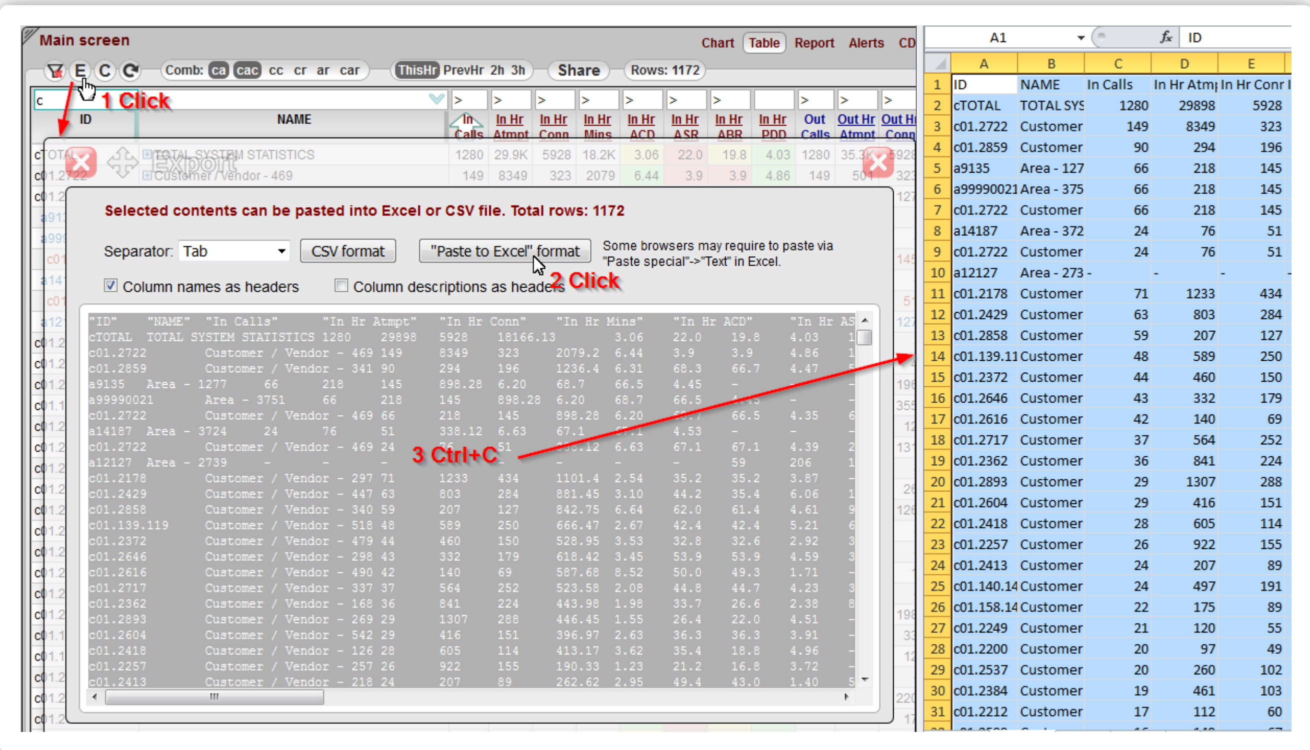
To facilitate your interaction with tables, the system allows you to use the mouse scroll wheel for horizontal scroll (normally it scrolls vertically) in the following cases:

- If a table is short and has no vertical scroll bar at all.

- If your mouse is positioned over the table header or horizontal scroll bar while scrolling by wheel.
- If **Shift** is pressed while scrolling.

3.13. Export

Export window is activated by pressing the **E** button in the Table menu or the corresponding item of the In-cell menu.



This feature will allow you to analyze data or build reports in external applications like Excel. You may pre-filter data on screen according to your needs before doing the export. Since data is already in the browser memory, and it is not desirable to request it from the DB again (especially in case of CDR queries over a long period of time) - the export is provided through copy-paste, as it is not possible to save a file from the browser once the data has arrived.

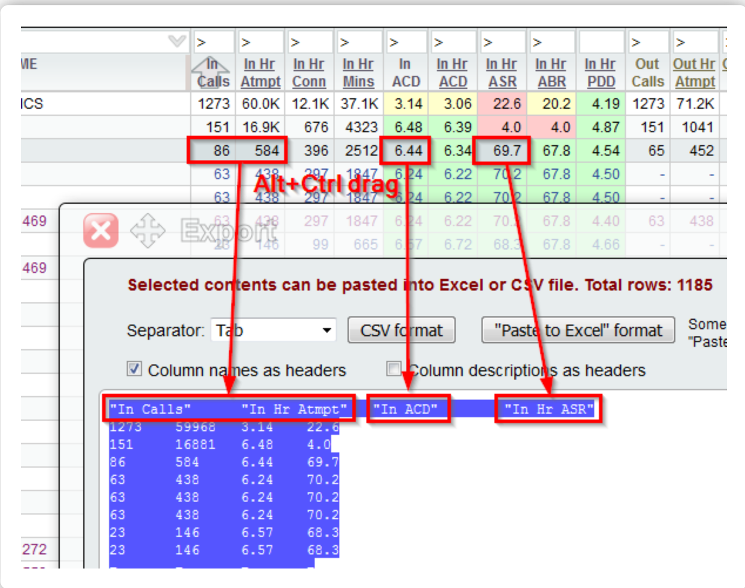
You may choose the field separators with which the data will be presented, then copy the pre-selected data, and simply paste it into Excel, or a text editor to create a .csv file. These buttons control the output:

- **CSV format** - chooses **Comma** as the field separator.
- **"Paste to Excel" format** - chooses **Tab** as the field separator, and adds **=""** to long numbers and dates to preserve the way they would be displayed in Excel.

Two additional check boxes are available:

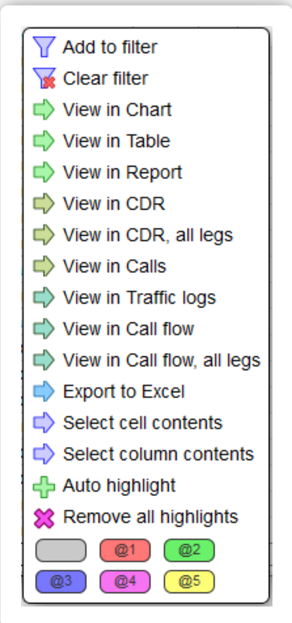
- **Column names as headers** - adds the column names on top of the contents.
- **Column descriptions as headers** - adds the column descriptions on top of the contents.

It is possible to use **Alt**-drag in tables to choose only the columns that you want to export. **Alt-Ctrl**-drag allows to choose non-adjacent columns.



3.14. In-cell menu

When one right-clicks a table cell, the **In-cell menu** will appear.



Its contents will vary by the module and even the table column, the most complete menu being in the CDR-like modules of the VoIP Monitoring and Alerting product:

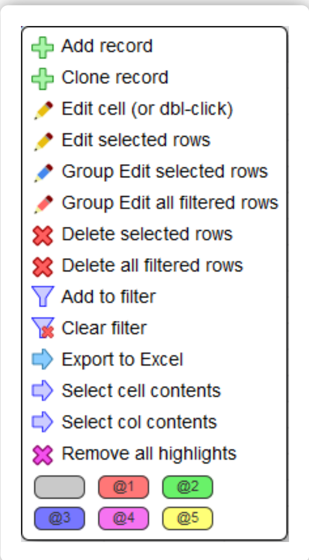
- **Add to filter** - allows to add the cell value to the filter of the column.
- **Clear filter** - clears the filter of the column.
- **Show/hide children** - the same action as clicking on the plus sign of an object in the Table and Report modules.
- **View in Chart** - opens a Floating block with a Chart module with corresponding filters enabled. The same can be achieved by means of double clicking on the cell.
- **View in Table** - opens a Floating block with a Table module with corresponding filters enabled.
- **View in Report** - opens a Floating block with a Report module with corresponding filters enabled.
- **View in CDRs** - opens a Floating block with a CDR module with corresponding filters enabled.
- **View in CDRs, all legs** - opens a Floating block with a CDR module with all legs of a call filtered out, including all hunt attempts. This feature only works for the switches that have a field like "Conference ID" to tie different legs of one call together.
- **View in CDRbill** - opens a Floating block with a CDRbill module with corresponding filters enabled.
- **View in Calls** opens a Floating block with a Calls module with corresponding filters enabled.

- **View in Traffic logs** - opens a Floating block with a Signaling logs module with corresponding filters enabled.
- **View in Call flow** - opens 2 Floating blocks: with a Signaling logs module and with a corresponding Call flow.
- **View in Call flow, all legs** - opens 2 Floating blocks: with a Signaling logs module with all legs of the call displayed and with a corresponding Call flow. Up to 20 legs can be shown on the same Call flow.
- **Export to Excel** - calls an Export window similar to pressing the **E** button in Table menu.
- **Select cell contents** - allows to select the cell contents for further copying. The same can be done by the mouse dragging.
- **Select col contents** - opens a new window with the contents of the column for further copying.
- **Auto highlight** - works in CDRs to color connected calls in green, and calls with SIP codes 487 or H.323 16 without duration in red (such codes are critical for most carriers as they indicate that the customer waited for too long for a call to be connected, or heard an announcement and ended the call).
- **Remove all highlights**
- Highlight color palette

Config and rate management tables have a different in-cell menu. Please refer to In-cell edit menu.

3.15. In-cell edit menu

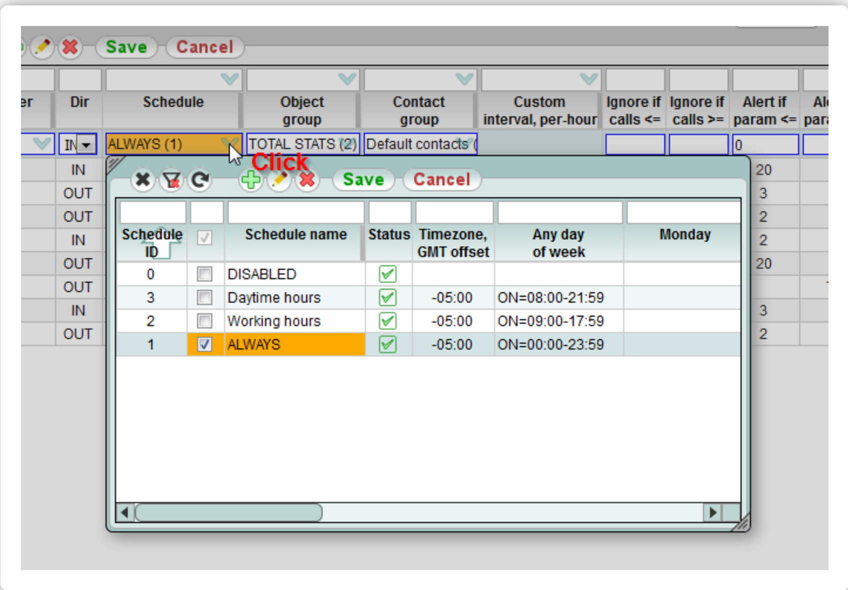
Config, rate management, and some other tables have an **In-cell edit menu**, invoked by right-click, that provides the following editing features:



- **Add record**
- **Clone record**
- **Edit cell** - to edit just the current cell the click was on.
- **Edit selected rows** - to edit all rows that were selected by mouse dragging before this menu was called.
- **Group Edit selected rows** - opens a current column in all selected rows for group editing, when you may replace the values in all cells at once.
- **Group Edit all filtered rows** - allows you to replace all entries in the DB filtered by the current filters. Please be careful, you may not see all records you are changing on screen.
- **Delete selected rows** - deleted all rows selected before this menu was called.
- **Delete all filtered rows** - allows you to delete all entries in the DB filtered by the current filters. Please be careful, you may not see all records you are deleting on screen.
- **Add to filter** - allows to add the cell value to the filter of the column.
- **Clear filter** - clears the filter of the column.
- **Export to Excel** - calls an Export window similar to pressing the **E** button in Table menu.
- **Select cell contents** - allows to select the cell contents for further copying. The same can be done by the mouse dragging.
- **Select col contents** - opens a new window with the contents of the column for further copying.
- **Remove highlight**
- Highlight color palette

3.16. Drop-down table

The drop-down table is a handy way to quickly jump to a child table containing various data used in the parent table. The advantage over a simple dropbox is that you may filter the items to quickly find the very item you need for the parent table, and see other options for the items (for instance, a description).



To select a value for the parent table, simply click a checkbox next to the required record. If the parent table can contain only one value, the window will be closed and the required entity will be entered into the field from which the window was evoked. If the parent table allows several values, the drop-down table is multichoice and you will need to close it manually after you chose all the values by clicking outside of it.

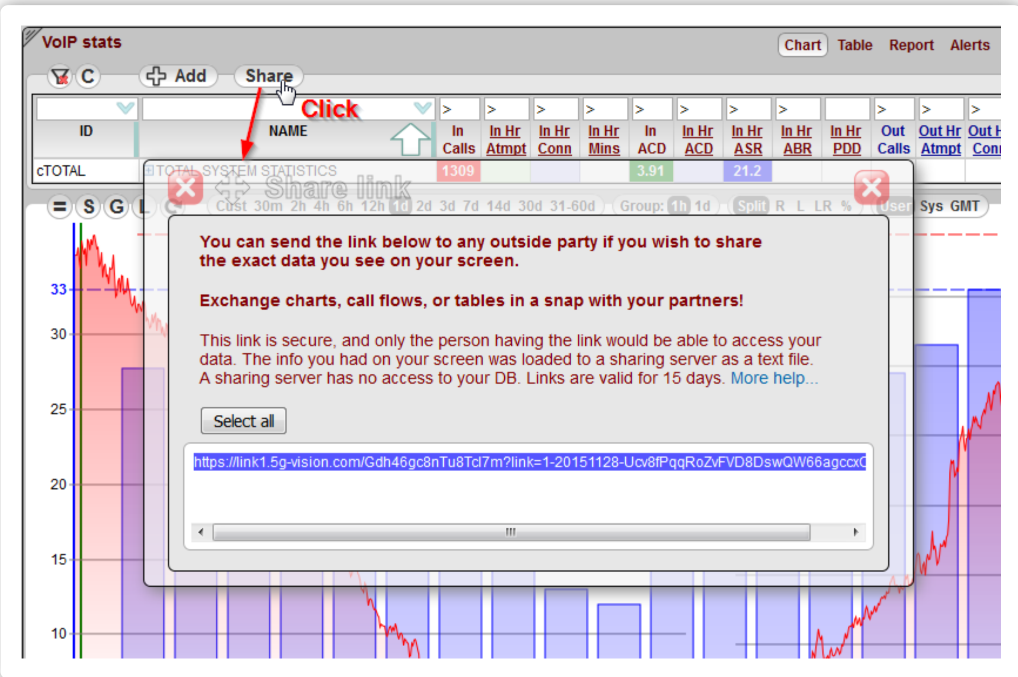
3.17. Shared links

Shared Links are an advanced, yet easy-to-use method of sharing information from the 5gVision with your partners. This feature allows you to take a snapshot of the currently displayed charts, tables, reports, CDRs or traffic logs and share it with any outside party, even if they do not have 5gVision installed.

This option provides a number of exclusive benefits:

- **Interactivity** - the most common way people share data they see on their screens is by taking screenshots. Still screenshots, however, can give only a "frozen" copy of information while a shared link will direct your partners to a screen with all 5gVision capabilities available to you. A shared link allows your partners to control the amount of data they would like to see at any given time. They may zoom the charts in and out, hide some parameters or objects, scroll charts, tables and logs, and revert any changes they made back. Sharing traffic logs lets your partners view Call flows, inspect individual packets, and export a log in whole or in part.
- **Security** - the data you share gets uploaded to the shared link server in the form of a text file. Your partner has no access to the actual DB with pertinent information and is limited to the values and parameters you have made available to them. The link address is randomly generated and thus can not be guessed at by simply searching through the variants. Additional security is achieved by using HTTPS connection to the link server.
- **Always a correct time** - if you have ever struggled to understand when exactly a call connected if you are in GMT-6, you partner is in GMT+3 and your switch is on GMT+0, then shared links are a solution for you. Powered by the same features as 5gVision itself, the shared link will present all data in your partner's timezone by default, further allowing to change timezones or zoom to a specific period - the time will always stay correct. Moreover, unlike a fixed screenshot, your partners will see the chart you shared in a correct time scale. If you shared a chart today, and your partners open a link tomorrow, they will see the chart correctly placed on the time line, ending at exactly the time you created the link.
- **Persisting highlights** - highlighting the desired data for your partners is a built-in feature with shared links. Color-mark the required rows and this marking will be present in the shared link. Now you may simply say "I highlighted all the problem records in red" to your partners.

Using links is easy and uncomplicated. On the desired screen, simply click the **Share** button and the system will provide you with a link to the displayed module in a pop-up window. Copy this link and communicate it to your partner. Your partner will see exactly the same information you saw at the moment of sharing.



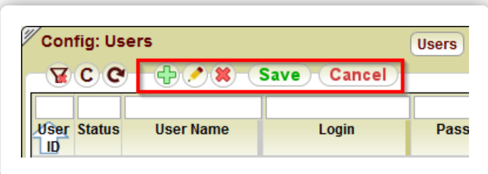
When your partner opens a link, the system displays a screen very similar to the original module but limited only to the information you decided to share. You partner may perform all the viewing operations in the link (like zooming in, changing scale and interval, comparing to previous periods, inspecting all log packets, etc.) but adding new Objects, parameters, intervals, or any other info to the screen is not possible.

If the Shared Link screen content has been altered and the rollback to the original view is required, please click the **Refresh** button.

Links are valid for 15 days.

3.18. Config menu

Working with tables in config screens is much like working with other tables in the interface. But there is a significant difference: these tables are editable and have an additional table menu:



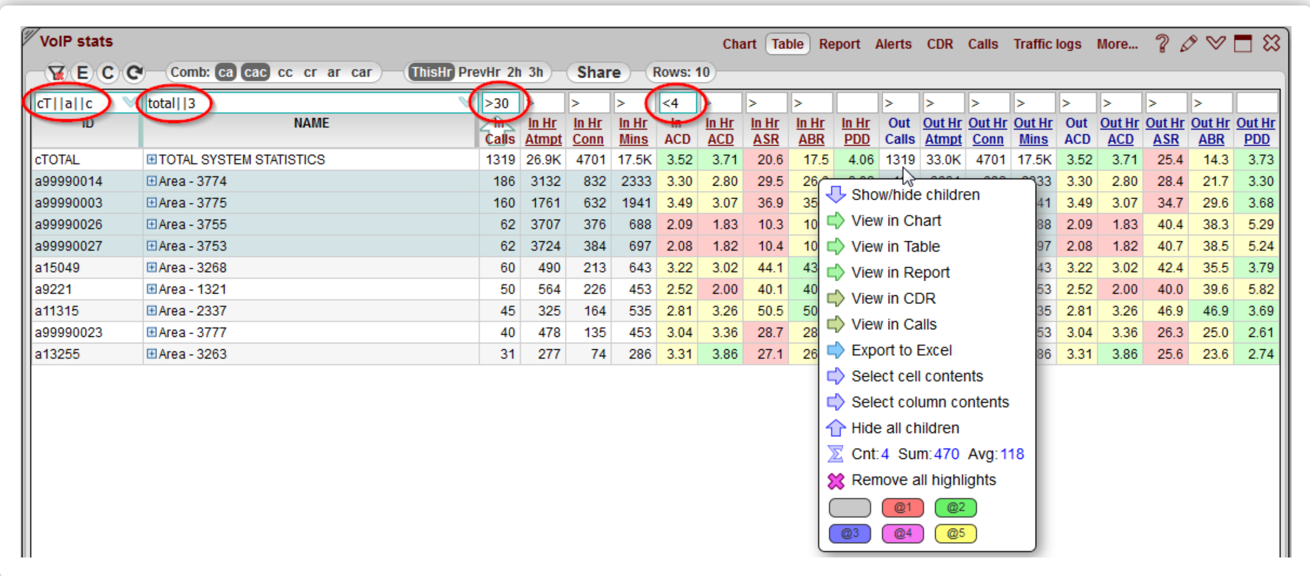
- **Add** icon will add new rows to the table.
- **Edit** icon will activate the whole row for editing. You can select several rows by dragging a mouse or Ctrl-clicking rows and edit them at the same time. To exit the edit mode please press **Cancel** or **Save**. To edit a cell you may simply double click it. The small icons over the edited cell will help you to **Save** or **Cancel** the changes without excess mouse movement.
- **Delete** icon will delete selected rows from the table. To select rows - simply drag the mouse, or Ctrl-click for multiple selections. It is also possible to delete rows one by one by the red **delete** icon appearing at the leftmost ID column.
- Green **Save** button will save changes to the table.
- Red **Cancel** button will discard the changes.

Please remember that the standard Table menu blue **Save icon** is saving table filters, not contents. You need to use the green **Save button** for contents.

4. Filtering

Flexible, on the fly filtering and sorting of table data are one of the best and most convenient features of 5gVision. You may create any monitoring patterns you like using these powerful options.

4.1. Overview

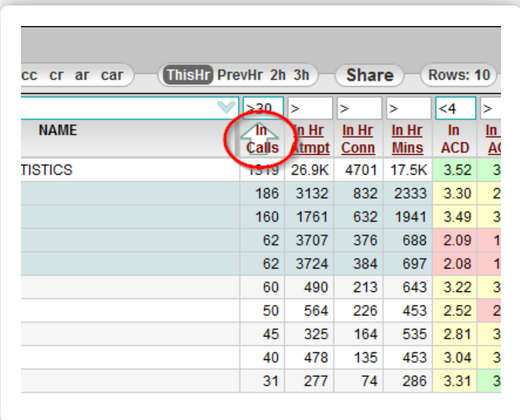


Filters are applied by entering filter patterns into Filter fields above column names. Filters are **case-insensitive**, and for most data it is enough to enter any part of the string to match this string. Entering several filtering patterns separated by the space will make the system search for strings containing both patterns. (It is enough to enter just **mob oran** to match **France MOBILE Orange**).

Filters are automatically saved with each key press in the most statistical and config modules. But they are not auto-saved in the modules like CDR or Traffic collector that deal with a lot of data. The presence of the very **Save filter** botton is an indication that the filters for this table are not auto-saved.

This is done in order to exclude cases when previously entered heavy filters can lead to long wait times after reloading the page and cause unnecessary load to the DB.

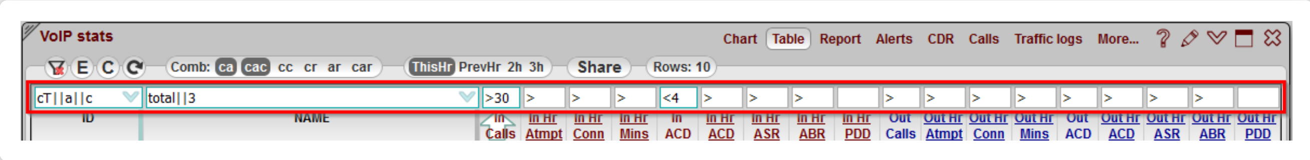
Sorting is done by pressing the column name in the table header. An arrow will show up indicating the sort direction.



Null values are always sorted out to the bottom. Only one column can be sorted in a table, multiple sorts are currently not fully supported, however, in most cases applying sort to one column, and then to another one should result in a 2-column sort.

4.2. Filter fields

The text entry fields above column names are used to filter data in each corresponding column. If the field contains a valid filter, it will be highlighted. Some symbols, like **=**, **<**, **>=**, **space** are not considered filters in themselves, but only in combination with the values that follow.



To quickly clear all filters one may press the **Filter sign with red X** button in the menu on top of each table. See example of the menu in Table menu. To clean just one field when the cursor is in it one may also press the **Escape** key.

Be default, all filter fields will be joined together for a table-wide filter pattern by the **AND** logical operator. In order for some filters to be joined by **OR**, one needs to precede the pattern with the || combination. Having || in just one field will have no effect, as this cell will not have any other cells to be joined with by **OR**.

Let's say you have 3 filters with the implied **AND** operator (no || symbols in front of the filter strings), and 4 filters with the **OR** operator (|| in front). First, the 4 **OR** patterns will be joined by OR, then this combined pattern will be joined with other 3 patters by **AND**.

4.3. Filtering strings

Convenient string filtering saves a lot of time and effort when working with tables containing a large amount of data. There are several special symbols or signs used in front of filter patterns to determine their behavior.

The main rule is that if there is nothing at all, no sign in front of the filter pattern, it will work as if preceded by a **like** operator, meaning that the strings will not be matched strictly against the pattern. Moreover, entering several filtering patterns separated by the space will search for strings containing all patterns in succession. For example:

- **MOB Oran** will match **France Mobile Orange**
- **mex mob movi** will match **Mexico Mobile Movistar**
- **mex movi mob** though, won't match the above Area, as the filter parts are not entered in succession
- **521 521** will match **5217000000521**, but wont **5217000000555**
- **16** will match **H323 | 16 | Normal call clearing**
- **%** has the same meaning as **space** when connecting pattern parts, so **mex%mob%movi** will match **Mexico Mobile Movistar** as well

One may also use the following signs in front of filter pattern to change their behavior;

- **!** - not like, acts like **like** (no sign), but will hide the matched strings
- **=** - equal strictly, **=mexico mobile** will match **mexico mobile**, **meXIco MobilE**, etc., but not **mexico mobile telcel**
- **!=** - not equal, acts like **=**, but will hide the matched strings
- **>**, **<**, **>=**. **<=** - see Filtering numbers
- || - the logical OR operator, see Filter fields
- **space** or **%** at the beginning of patterns are just ignored

To limit matches to only beginning or end of string, **^** or **$** should be used:

- **^telecom** will NOT match **France Telecom**, but will match **TELECOM Italia**
- **com Italia$** will match **Telecom Italia** and not **Telecom Italia partner**
- **^telecom Italia$** will give the exact match, much the same way as using just **=**, like **=telecom Italia**
- **=** with nothing after it will match NULLs (no data in cell)

To join filter patters within one field operators || (OR) and **&&** (AND) may be used with no spaces around them:

- **france||italia** will match both **France telecom** and **Telecom Italia**
- **mex&&mob&&movi** will match **Mexico Mobile Movistar** in the same way as **mex mob movi**, however:
- the pattern **movi mob mex** won't match the above string, while **movi&&mob&&mex** will
- **Mobile&&!Mexico** will match all mobile Areas, except for ones in Mexico
- || and **&&** may be used in long patterns combining multiple strings: mex||spain||italy&&monterr||madrid||rome&&mobile
- matching several numbers in CDRs: 14161234567||12125556677||18889990000

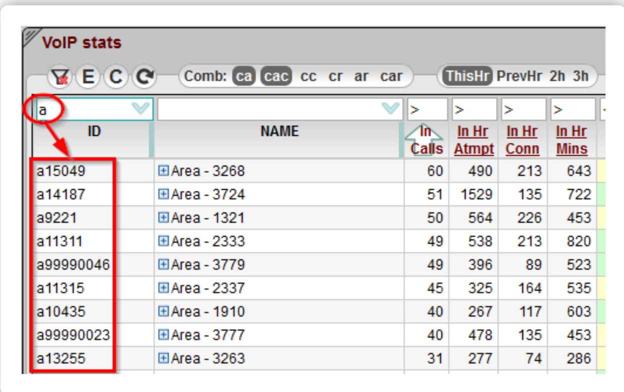
4.4. Filtering objects

Objects have IDs and names, reflecting the ones in your VoIP switch configuration. In general, when filtering IDs and names, same rules as in Filtering strings apply, however, there are some specific features.

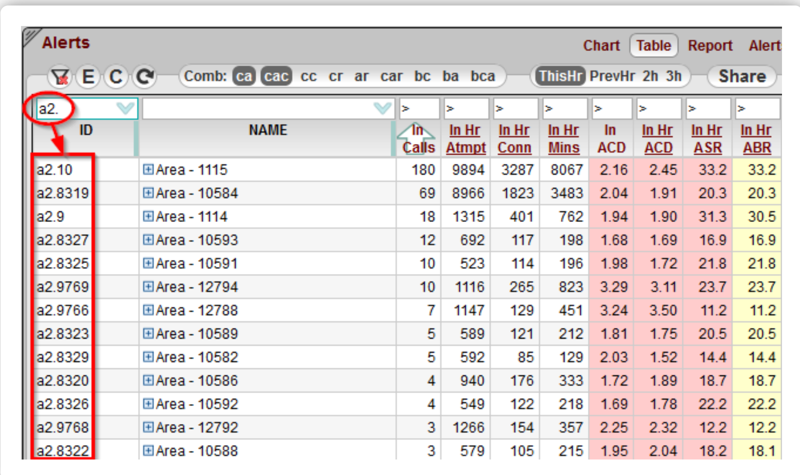
All IDs have an object-specific prefix to easily distinguish objects of different types, for instance:

- **c** - for Customers or Vendors
- **a** - for destination Areas
- **b** - for source Areas
- **e** - for Equipment
- **g** - for Equipment Groups
- **n** - for switch Nodes
- **r** - for Disconnect Codes (Reasons)
- **f** - for Flex combinations
- **d** - for SNMP Devices, see Config-SNMP
- **p** - for Poller internal stats

To filter objects, you may either enter all or part of the name (case-insensitive) in the name fields, or enter a whole or partial object ID in the ID fields. For instance, entering just **a** in the ID field will filter out all Areas.



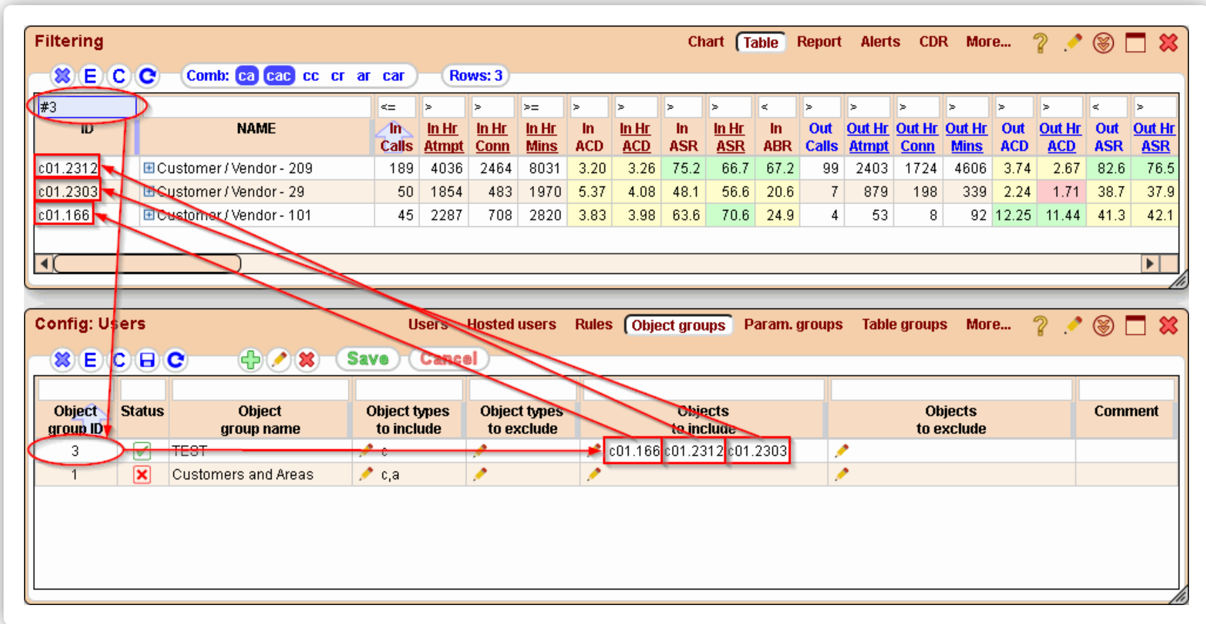
The system allows to add the second and third set of destination areas. Please refer to Config-Objects. In order to distinguish area IDs of the second or third set from the default set, they have **a2.** or **a3.** prefixes in their IDs. Entering **a2.** in the ID field will filter out all **DST 2 areas**.



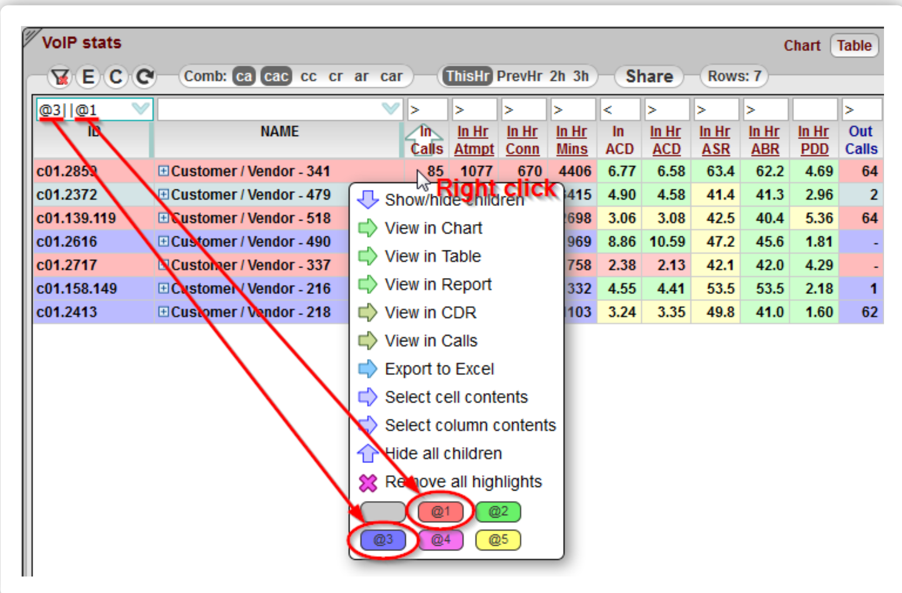
Filters on object IDs are **case-sensitive**, this is the only exception, all other filters are not. This is done in order to exclude system objects like **cTOTAL**, or disconnect code IDs (**rSIP-486**) when you are filtering by the initial lower-case letter. For instance, a filter like **a||p** would not show you the cTOTAL or any SIP codes.

There are also 2 useful features to filter by the ID field of the Table and Report modules, as well as all config tables:

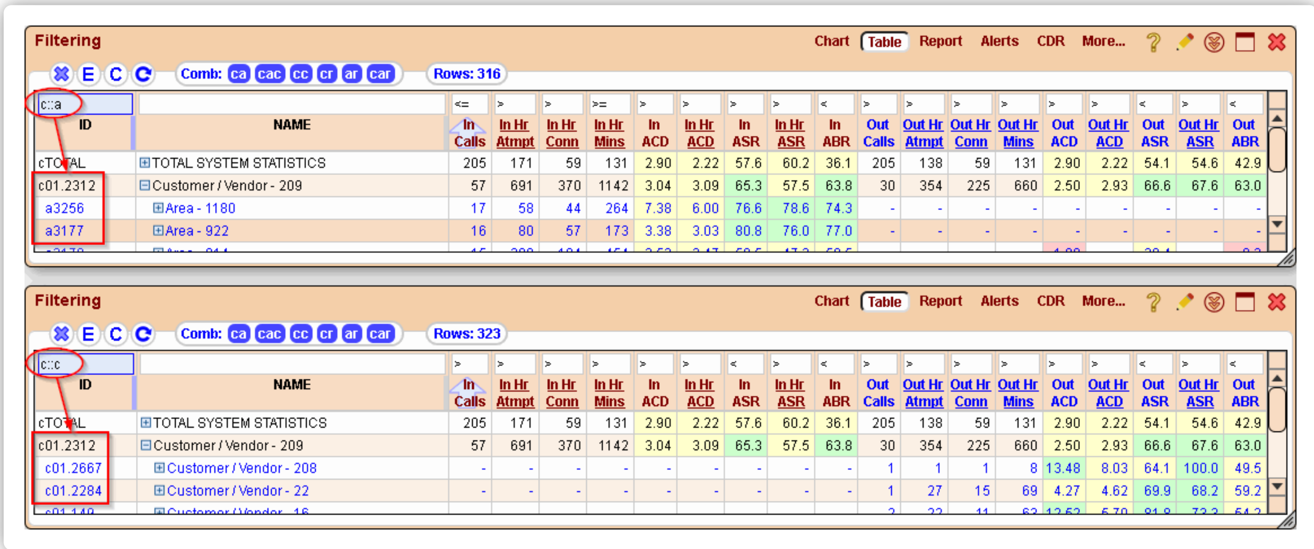
- **#1**, **#2**, etc. will filter for all objects, contained in the Object groups of the User rules module (Config: User -> Object groups). Format: **#** + **object group ID**. This allows you to create filters of any complexity. For instance, if you only want to see certain 15 areas on a screen and nothing else.



- **@1**, **@2**, etc. will filter for color highlight. **1** is red, **2** - green, **3** - blue, **4** - magenta and **5** - yellow, as listed in the right-click table menu. Additionally, it is possible to filter CDR tables in the CDR ID columns. You may, for instance, choose 5 CDRs you want to closely examine by highlighting them in yellow, and then quickly sort out only these 5 CDRs.

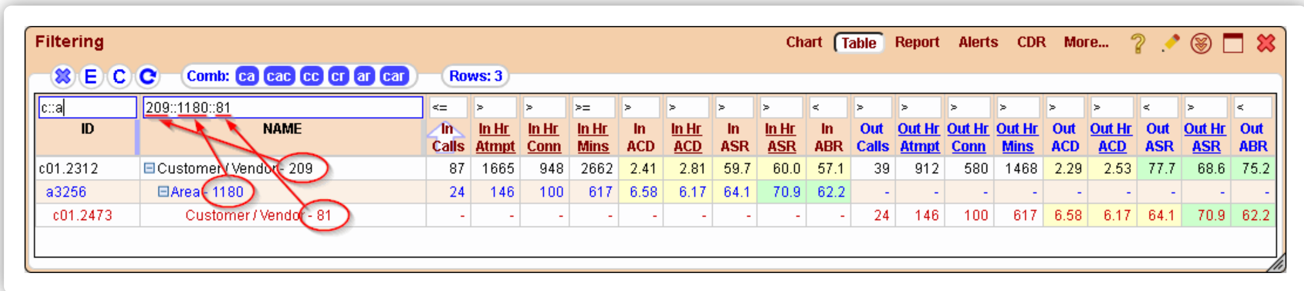


Objects are organized in a hierarchy of up to 3 levels deep for VoIP stats (the deepest being Customers->Areas->Vendors, see Objects), or even deeper for External DB stats. In order to filter child objects a **"::"** separator sign is used, so filtering by **c::a** in the ID field will bring all Customers->Areas combinations, but will hide Customers->Vendors or Customers->Disconnect codes.



You may also quickly hide or show specific object combinations in a Table via the Combinations strip.

Likewise, the pattern **arbinet::mobile::telmex** will only bring successive parent-child related objects like Arbinet->Mexico Mobile Movistar->Telmex.



4.5. Filtering numbers

Just entering a number in a filter field will match any data having such digit combinations in it. Effectively, this is just the string matching, as described in Filtering strings above:

- **25** will match **25**, **1255**, **5.625**
- **=25** will only match **25**
- **!25** will match anything not containing **25**
- **!=25** will match everything, but **25**

To make it real number filtering you should use the following operators: **>**, **<**, **>=**. **<=**:

- **>=25** will match **25**, **255**, but not **-25**

Some values are too big and long to be shown gracefully in the limited table cells, so they may be shown with the appended **K** for thousands or **M** for millions. You may also use same letters to quickly filter for large numbers:

- **>=0.8k** will match **800**, **2K**, **0.125M**
- **<1M** will match anything below 1 million

Combining conditions via **||** or **&&** is also possible:

- **>=100&&<1K** is matching **100**, **900**, **0.9k**
- **22||<10** is matching **22**, **1221**, **9**

4.6. Filtering dates

Most of the time, entering specific filters for the date fields in the CDR, Alerts and Traffic collector modules is not needed, as rows are automatically filtered by **CDR date**, **Raised at** and **Capture time** accordingly via the Intervals you choose for the fetches.

If you still need more control over which rows will be shown, you may filter dates in CDR, Calls, Alerts and Traffic collector tables. Filtering dates have slightly different rules from filtering common strings. Please refer to Filtering strings for a basic description. The differences are:

1. Since **space** is an integral part of the date/time string, spaces are not treated as joining elements for 2 separate parts of the string, so when you enter **2011-09-25 10:00:00** the filter will not bring up all strings containing both **2011-09-25** and **10:00:00**, it will look for the exact pattern of **2011-09-25 10:00:00**. Same is true of all call IDs fields that may have spaces.

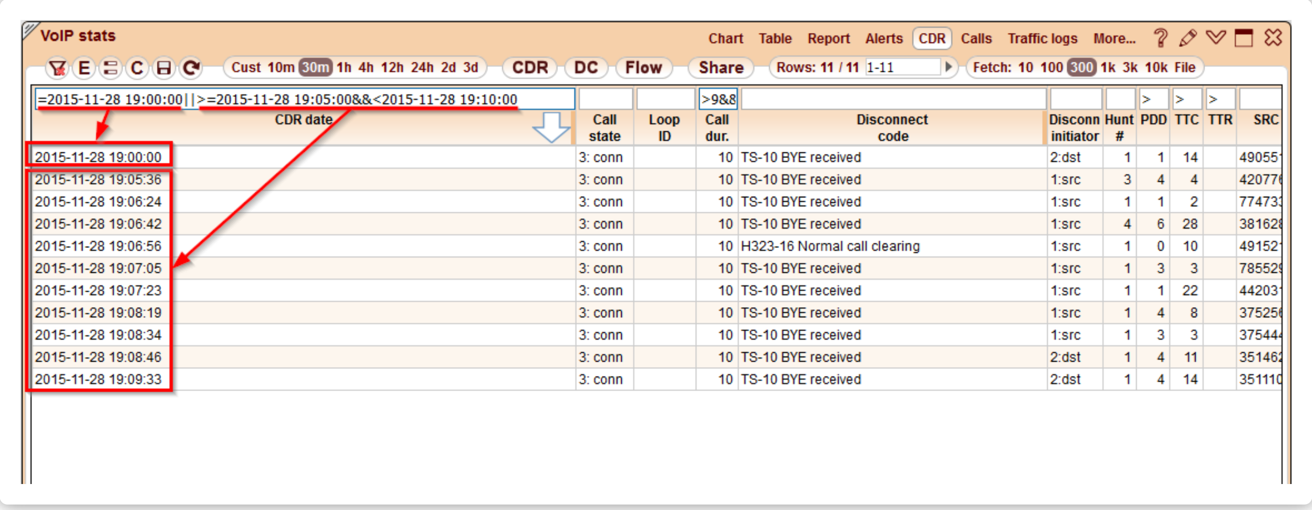
It is possible to enter only part of the date string to filter a specific date range, for instance, **2011-09-25 10** will filter all CDRs happened in the hour of 10am, or even simpler: **09-25 10**, as there will be no CDRs of other years that you would be able to access through the web interface.

2. Numeric comparison operators like **">"** work well with dates (while with arbitrary strings the behavior may be unpredictable).

Here are some examples:

- Getting the exact date: **=2011-09-25 10:00:00** or just **2011-09-25 10:00:00**
- Getting the date range: **>=2011-09-25 10:00:00&&<2011-09-25 12:00:00** (no spaces are allowed before and after **&&**)
- Getting the date range for the whole day: **2011-09-25**
- Getting all date/times except for a specific hour: **!2011-09-25 15:**

Tip: if you don't have enough length of the Filter fields to enter your patterns, you may always expand it by dragging the gray bar at the column border.

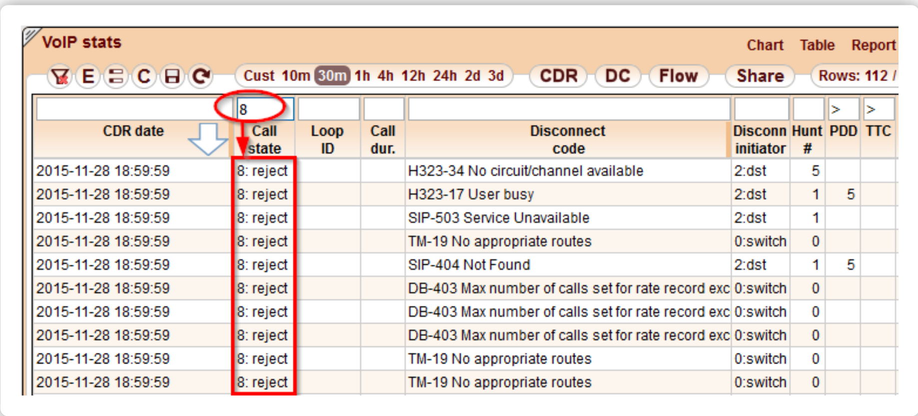


4.7. Filtering names in CDRs

When bringing CDRs from the VoIP switch or internal DB (when replication is working), **5gVision** is not requesting the Objects names every time, but keeps them in cache to provide higher performance. Thus, when you are filtering names of Disconnect codes, Area, Customers, Customer GWs, Vendors, or Vendor GWs, you actually are filtering the cached table with the names first, and when the object IDs are determined, they are sent to the DB for query.

Working with object names in CDRs is much like working with common strings, and most of the time you will see no difference, unless you enter a filter that will bring no objects at all. In such cases the system will warn you and ask to change filters, rather than sending a query to the CDR DB that will eventually return nothing.

There is one other specific case of "names" for fields like **Call state** or **Disconnect initiator** (Disc. init.). These fields have both the numeric values stored in the DB and the description, separated by **:**, like **8: reject** for a call state.



VoIP stats

Chart Table Report

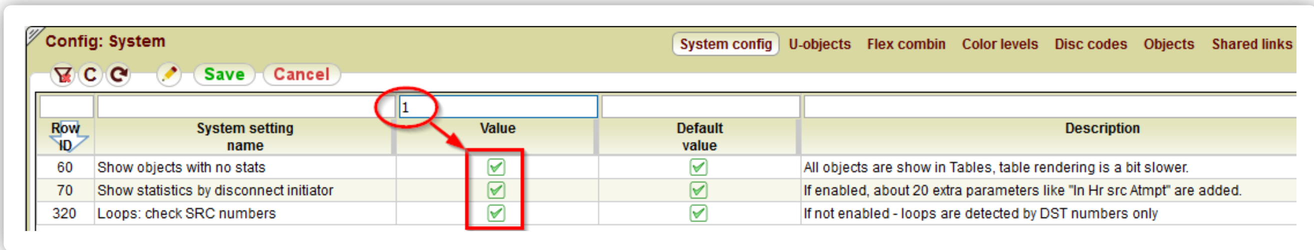
Cust 10m 30m 1h 4h 12h 24h 2d 3d CDR DC Flow Share Rows: 112 /

CDR date	Call state	Loop ID	Call dur.	Disconnect code	Disconn initiator	Hunt #	PDD	TTC
	8						>	>
2015-11-28 18:59:59	8: reject			H323-34 No circuit/channel available	2:dst	5		
2015-11-28 18:59:59	8: reject			H323-17 User busy	2:dst	1	5	
2015-11-28 18:59:59	8: reject			SIP-503 Service Unavailable	2:dst	1		
2015-11-28 18:59:59	8: reject			TM-19 No appropriate routes	0:switch	0		
2015-11-28 18:59:59	8: reject			SIP-404 Not Found	2:dst	1	5	
2015-11-28 18:59:59	8: reject			DB-403 Max number of calls set for rate record exc	0:switch	0		
2015-11-28 18:59:59	8: reject			DB-403 Max number of calls set for rate record exc	0:switch	0		
2015-11-28 18:59:59	8: reject			DB-403 Max number of calls set for rate record exc	0:switch	0		
2015-11-28 18:59:59	8: reject			TM-19 No appropriate routes	0:switch	0		
2015-11-28 18:59:59	8: reject			TM-19 No appropriate routes	0:switch	0		

The filter sent to the DB only works for the numeric part, not the description. So to filter by **Call state** connected calls you need to enter: **3**, and this will bring **3: conn**, and to filter by **Disconnect initiator** - enter: **2**, and this will bring **2: dst**.

4.8. Filtering enabled/disabled icons

Most of config tables have a **Status** field, represented by an icon, to enable or disable a record. You may filter for only enabled records by applying filter "1" or only disabled by applying "0".



Config: System

System config U-objects Flex combin Color levels Disc codes Objects Shared links

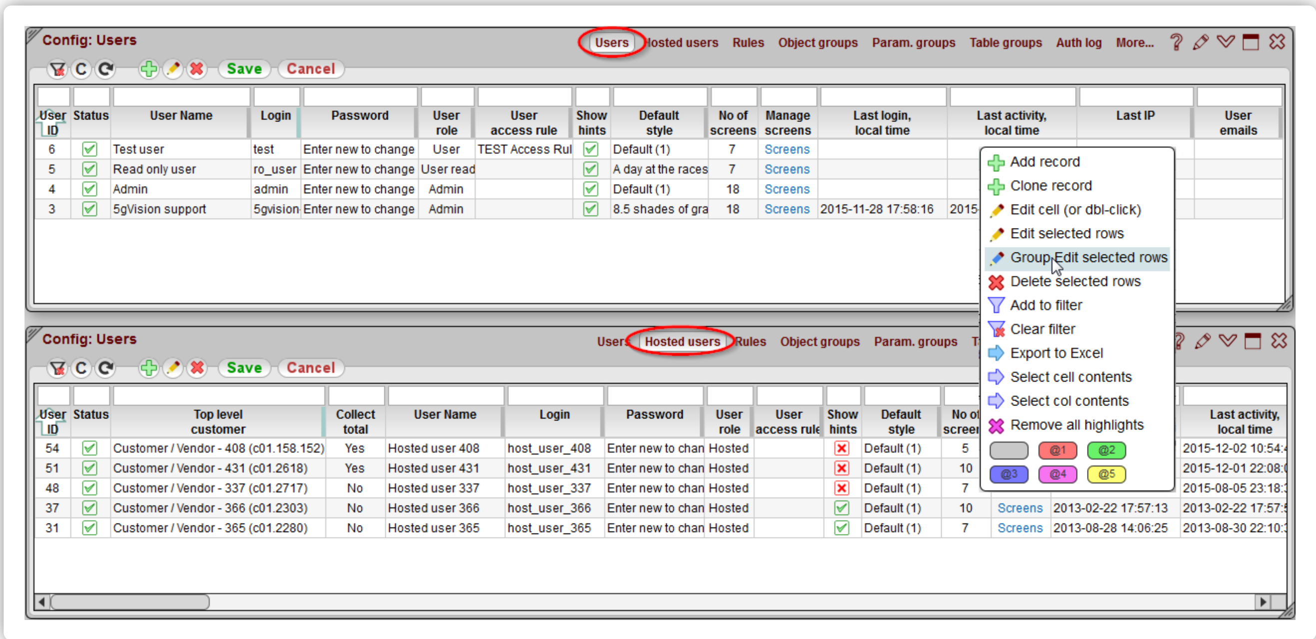
Save Cancel

Row ID	System setting name	Value	Default value	Description
		1		
60	Show objects with no stats	✓	✓	All objects are show in Tables, table rendering is a bit slower.
70	Show statistics by disconnect initiator	✓	✓	If enabled, about 20 extra parameters like "In Hr src Atmpt" are added.
320	Loops: check SRC numbers	✓	✓	If not enabled - loops are detected by DST numbers only

5. Config-Users

5gVision core principle is that each user has his/her own independent environment with a unique menu and screen layout constructed by the user. Users can clone screens they created to each other, and system admins can clone the whole menu/screen structure from one user to another.

5.1. Overview



There are several types of users that can have access to the system:

- **Admin** users with unrestricted access.
- **User** users that cant access global configs.
- **User read-only** users that cant save any changes to the menu and screen layouts.
- **Hosted** users that have access only to the object hierarchy they are assigned to.
- **Hosted read-only** users that have access only to the object hierarchy they are assigned to and cant save any changes to the menu and screen layouts.
- Any of the above users that have an **User access rule** assigned, which will additionally restrict access to some objects, parameters, or tables.

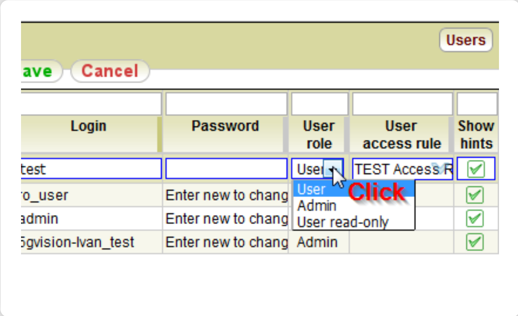
Please see further sections below for more information.

5.2. Editing config tables

Please refer to descriptions of the Config menu and the In-cell edit menu for information on how to edit configuration tables.

5.3. Managing users

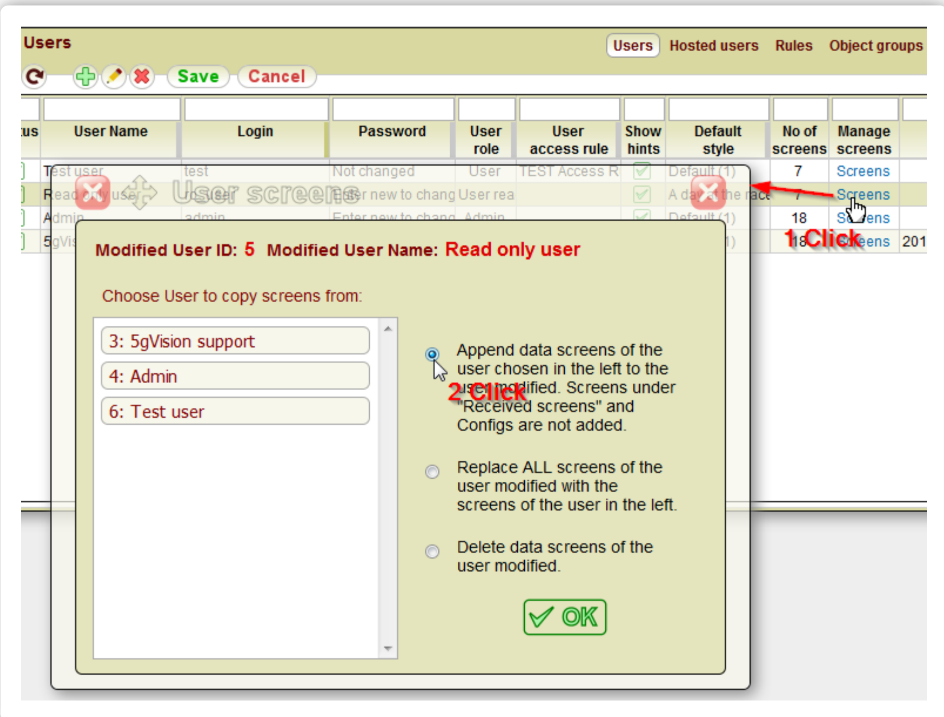
There are three types of user roles in this table:



- An **Admin** role, that will grant access to all screens, including the **Config** screen with system-wide config tables.
- A **User** role, that will allow access only to statistical screens and the **Manual**.
- A **User read-only** role, that will additionally prevent users from saving any changes they make to their environment.

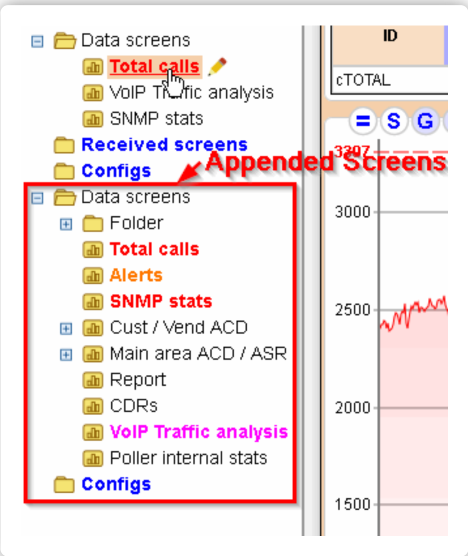
User read-only users will always have the same screen after refresh or re-login. Also, there is no limit to number of such users that can connect with the same credentials at the same time. These accounts might be useful if you want to give access to lots of people in the company that need to see only some limited info you pre-arranged for them.

When a new user is created, it will be based on one of the two default system templates, depending on whether the user has an **Admin** or **User** role. You may, however, create a separate user environment that you will further use as a template to clone its screens to newly created users. If you press the blue **Screens** link in the **Users** table, you will have the following options for the user, which link was pressed ("the user modified"):



- Append data screens of the user chosen in the box on the left to the user modified. Screens under the "Received screens" folder are not added.
- Replace ALL screens of the user modified with the screens of the user in the box on the left.
- Delete data screens of the user modified. Systems screens/folders like "Manual", "Received screens", "Configs" are never deleted.

Please note, that even though the **Replace** action looks like a combination of the **Delete** and then the **Append**, the results are not quite the same. When screens are replaced - the exact replica is created, preserving the screen order and the "Received screens". When screens are appended - they end up at the bottom of any existing screens of the user, and the "Received screens" (the folder and anything under it) are not copied.

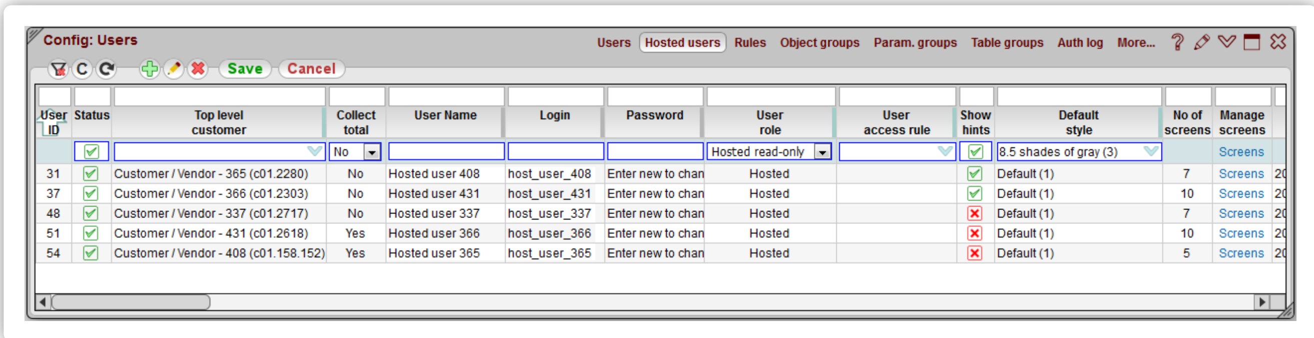


User names, logins, and passwords have restrictions on their lengths, if the restrictions are not met, the system will warn you and ask for corrections.

5.4. Hosted users

This table currently may only be used by customers with the MVTS II switch from Aloe, as it has a built-in hosted mechanism. If you wish to limit users with restrictions as to which objects or parameters they may see, you may use the User access rules described below.

For MVTS II switches, **Hosted users** table is intended for the users that are associated with a certain customer/vendor in a switch config, thus allowing these users to only view objects belonging to this customer/vendor in a hierarchical tree.



User ID	Status	Top level customer	Collect total	User Name	Login	Password	User role	User access rule	Show hints	Default style	No of screens	Manage screens
			No				Hosted read-only			8.5 shades of gray (3)		Screens
31		Customer / Vendor - 365 (c01.2280)	No	Hosted user 408	host_user_408	Enter new to chan	Hosted			Default (1)	7	Screens
37		Customer / Vendor - 366 (c01.2303)	No	Hosted user 431	host_user_431	Enter new to chan	Hosted			Default (1)	10	Screens
48		Customer / Vendor - 337 (c01.2717)	No	Hosted user 337	host_user_337	Enter new to chan	Hosted			Default (1)	7	Screens
51		Customer / Vendor - 431 (c01.2618)	Yes	Hosted user 366	host_user_366	Enter new to chan	Hosted			Default (1)	10	Screens
54		Customer / Vendor - 408 (c01.158.152)	Yes	Hosted user 365	host_user_365	Enter new to chan	Hosted			Default (1)	5	Screens

You may additionally choose to collect subtotal statistics for the top object of the hosted user. For instance, if there is a customer with ID "01.08" and name "Supercom" in MVTS II, enabling the **Collect total** option will create a new artificial object with ID "01.08.TOTAL" and name "Supercom TOTAL" that will keep the total stats for this top customer, summing up underlying children customers, vendors, equipment, etc.

5.5. User access rules

Each user may be assigned an access rule, that will determine which objects, parameters or tables this user can see and which action buttons or floating window options are allowed/blocked for him/her. Access rules bind together the 5 access groups described below:

- Object groups
- Parameter groups
- Table groups
- Table edit groups
- Option edit groups

Please have a look at the following presentation explaining the main concepts of the access rules:

5gVision Access rules

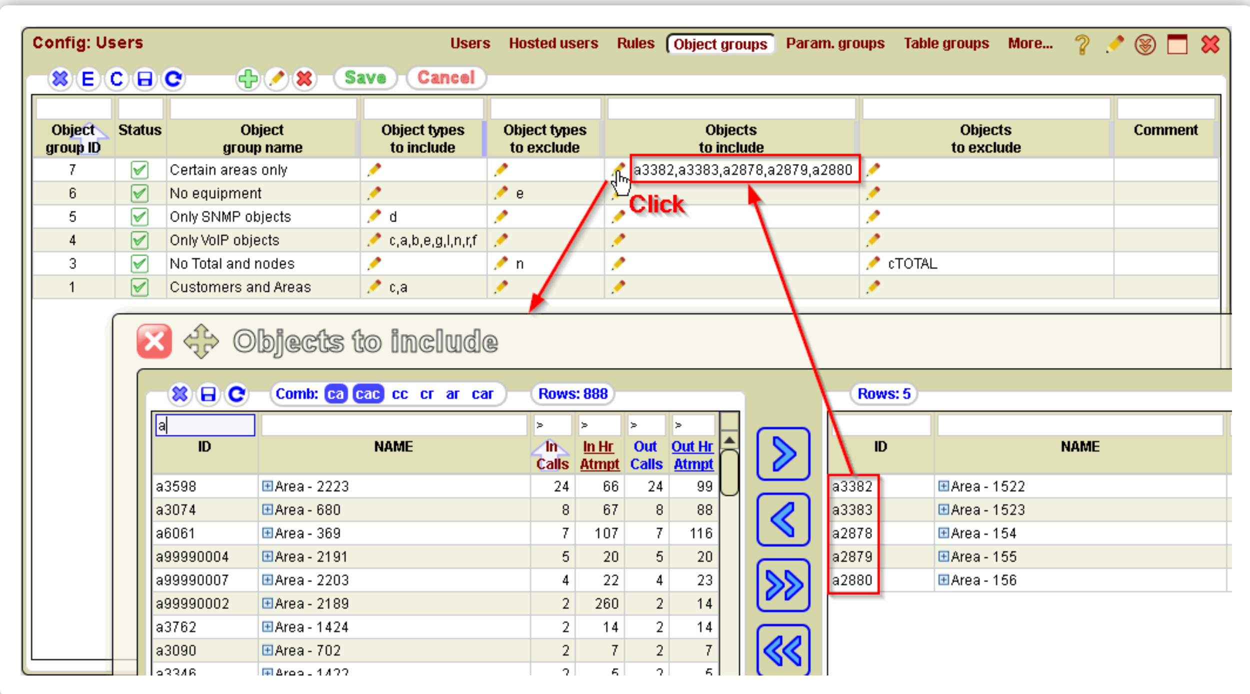
Every time you change an access rule, assigned to a user, this user is getting a warning that his/her screen will be refreshed, and then it is refreshed in order to prevent a user from continuing to access the system with the old credentials that have already been changed.

5.6. Object groups

Objects that each user will see in the interface can be restricted individually or by types. There are several types of objects in 5gVision, please refer to Objects.

When you **include** certain object types - **ONLY** the types included will be visible. For instance, if you included **c** and **a**, the user with this rule assigned will see Customers/Vendors and Areas, nothing else.

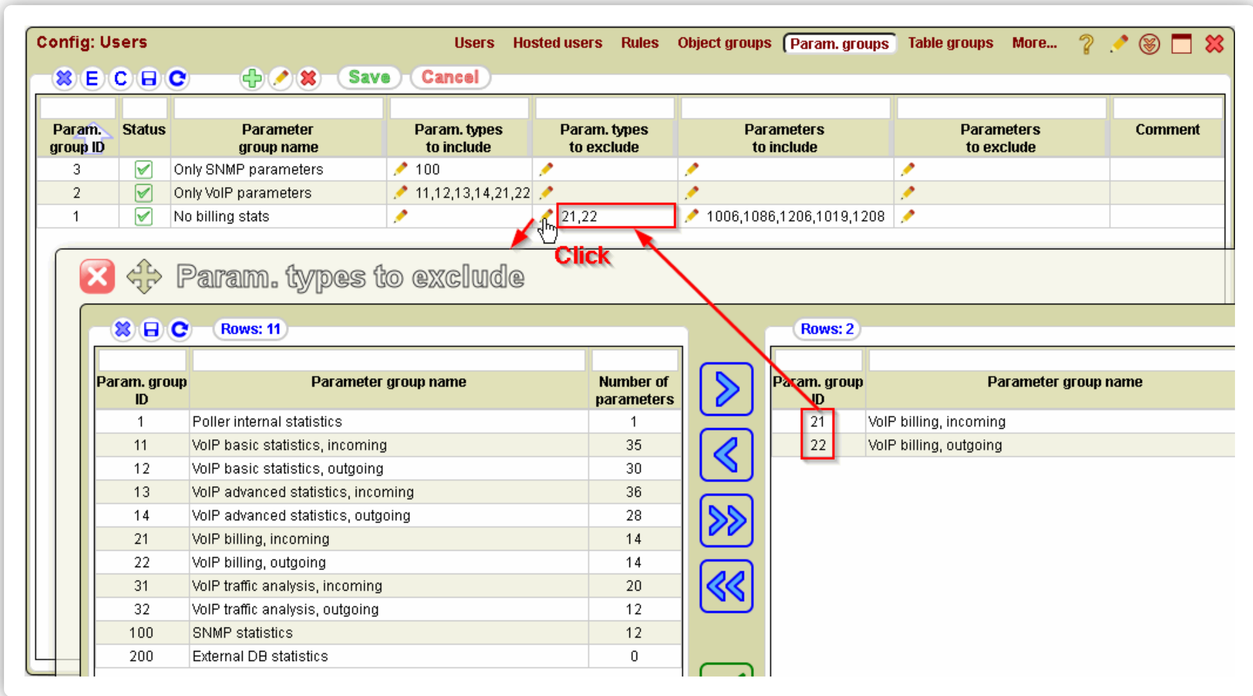
However, when you **include** objects individually, a different principle works: any object type that has included objects will show only these objects. All other types will show **ALL** objects with no restrictions. For instance, if you included objects **c125** and **c126**, the user with this rule will see only these two Customers/Vendors, but will still see all the Areas, Equipment, Nodes, SNMP devices, etc.



When you **exclude** an object type or an object, all objects will be visible, except for the excluded. Exclude prevails over include. If an object, parameter or table is both included and excluded - it will not be visible.

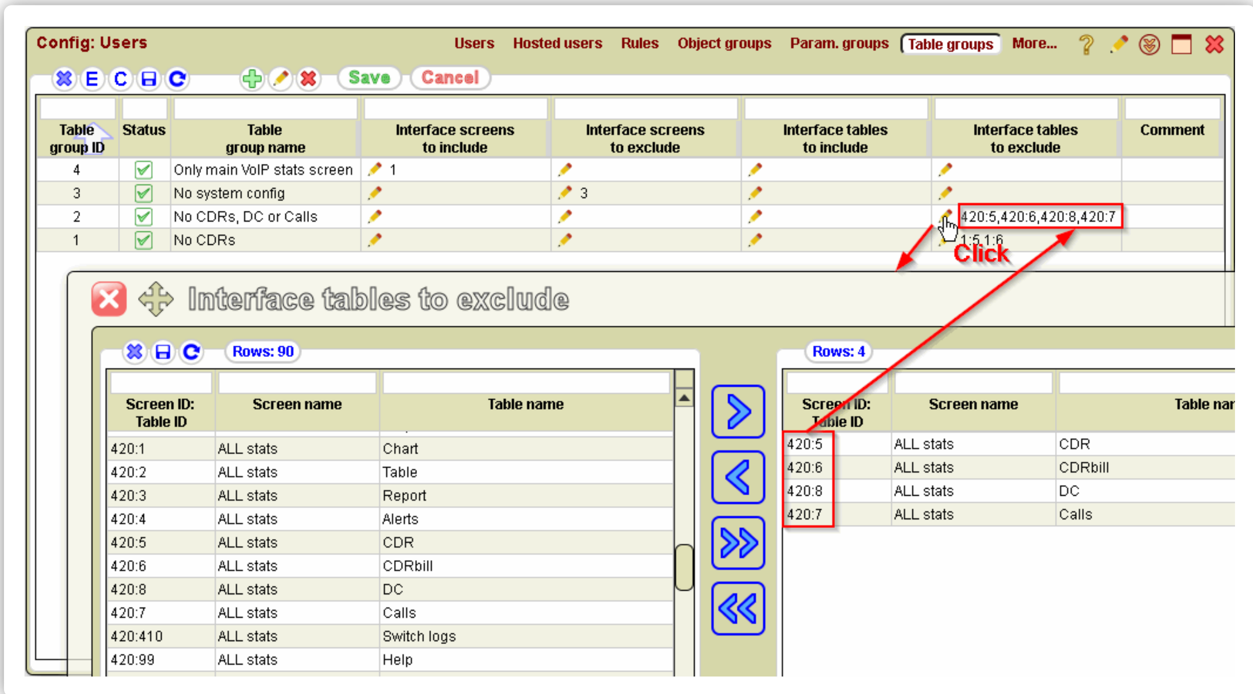
5.7. Parameter groups

Parameters can be restricted individually or by types in a fashion similar to the objects described above. Using this mechanism you may, for example, close all the billing parameters to the NOC people.



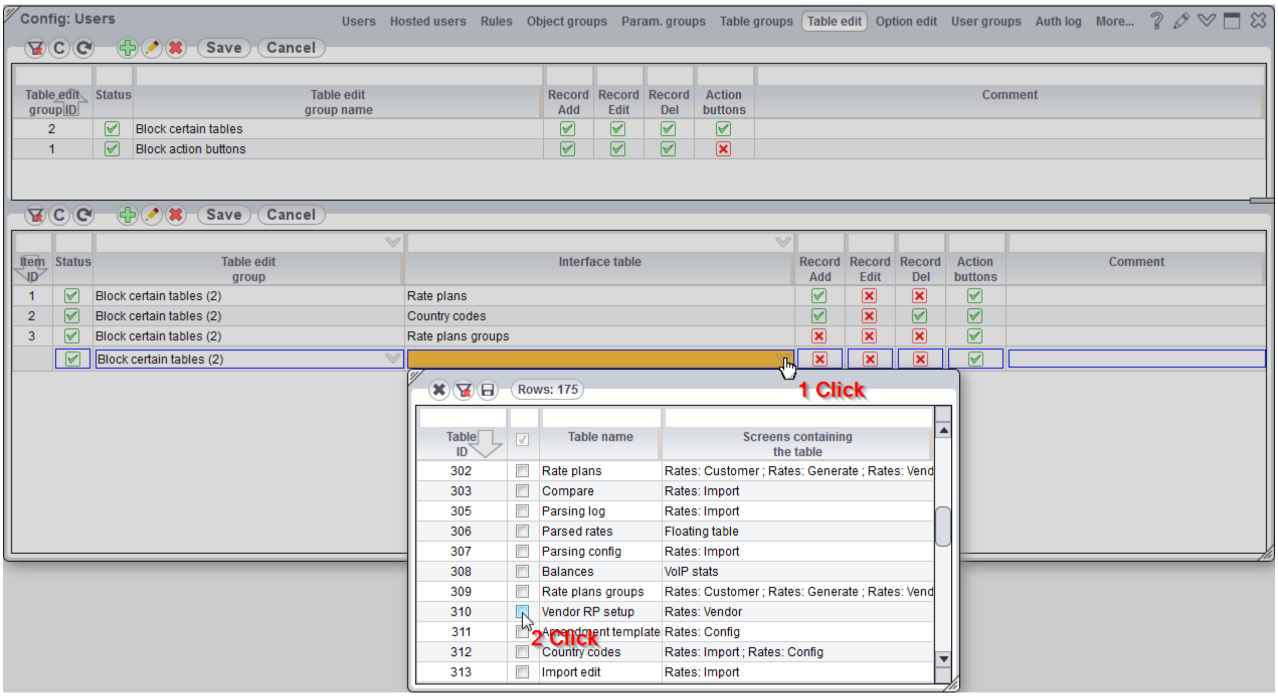
5.8. Table groups

Web interface tables can be restricted individually or via blocking access to the whole screens. You may, for instance, choose to completely block access to CDRs to some users, so that they may not accidentally create a very high load to the switch DB.



5.9. Table edit groups

Sometimes it is not enough to restrict user access to certain tables. We may need a user to see the table, but not edit anything in it, or edit only certain parts. This can be controlled in **Table edit**.

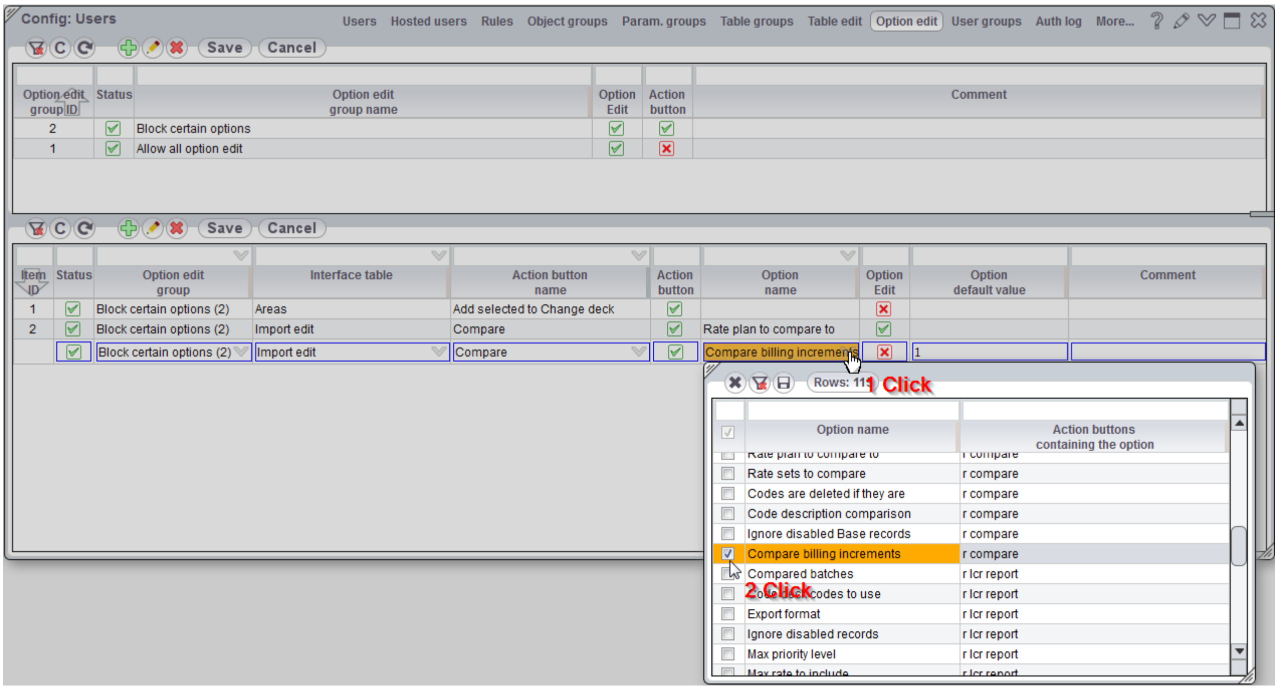


Add/**Edit**/**Del** operations in config tables are available by default to all users. Action buttons are located on the second menu row of a table and allow you to perform certain actions (for example the **Import rate file** button in the Rate management).

You can allow/block operations for a whole group of tables (upper config table) or for an individual interface table (lower config table) by means of checking/unchecking required flags.

5.10. Option edit groups

Option edit expands Table edit capabilities and allows you to control not only **Action buttons** but also editing **Options** on the floating window which was called by this button.



There is a very flexible approach in configuration of restrictions. As in the previous case options can be allowed/blocked globally for a whole group of tables or for an individual interface table. Furthermore one row in the lower config table can allow/block a certain option for all interface tables, for all action buttons of one table or for an individual action button depending on your needs.

For example, if there is an option that exists in several different interface tables, and you want to block it for all these tables, then you shouldn't create a rule for each table but choose only the **Option name** from the drop-down menu and leave the **Interface table** and the **Action button name** empty.

Option default value allows you to set a default value for an option that can't be changed if the option editing is blocked.

5.11. User groups

5gVision allows you to restrict ordinary users from seeing not only certain tables, objects or parameters, but also specific lines in configuration or log tables.

Each user may be assigned a **User group**. At the moment, user groups define visibility of all the tables in the Config-Alerts screen, except for the **Global** config table, accessible only by Admins. Normally, seeing and editing alert configuration is a privilege of an administrator. With the help of a user group, you may change this. Four access options are available:

- **NO** - unable to access the Config-Alerts table (default state).
- **View** - able to view the Config-Alerts table.
- **Edit** - able to edit the existing Object groups, ABS and DIFF alerts, etc. in the Config-Alerts table, but not delete them or add new ones.
- **Add/Del/Edit** - full access to the Config-Alerts table, able to add, edit and delete records in it.

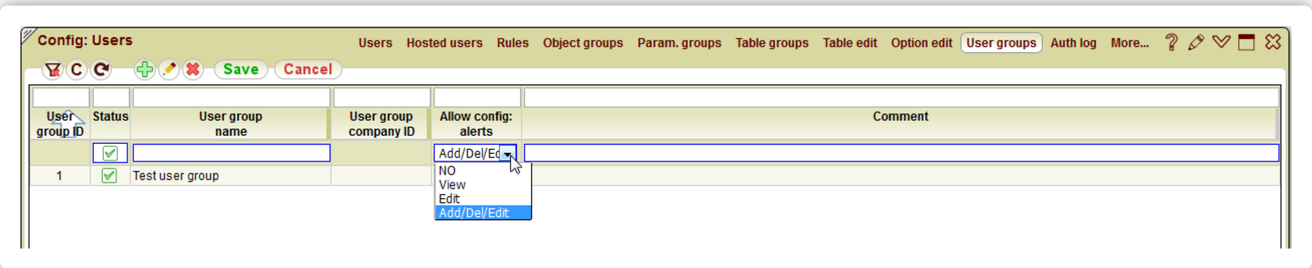
Please note that an ordinary user normally does not have a Config-Alerts screen in the list of pre-made screens and should create one before being able to access the alerts configuration.

Each record in the Config-Alerts table contains an indication of the user group that was in force when the record was created. Two general rules apply:

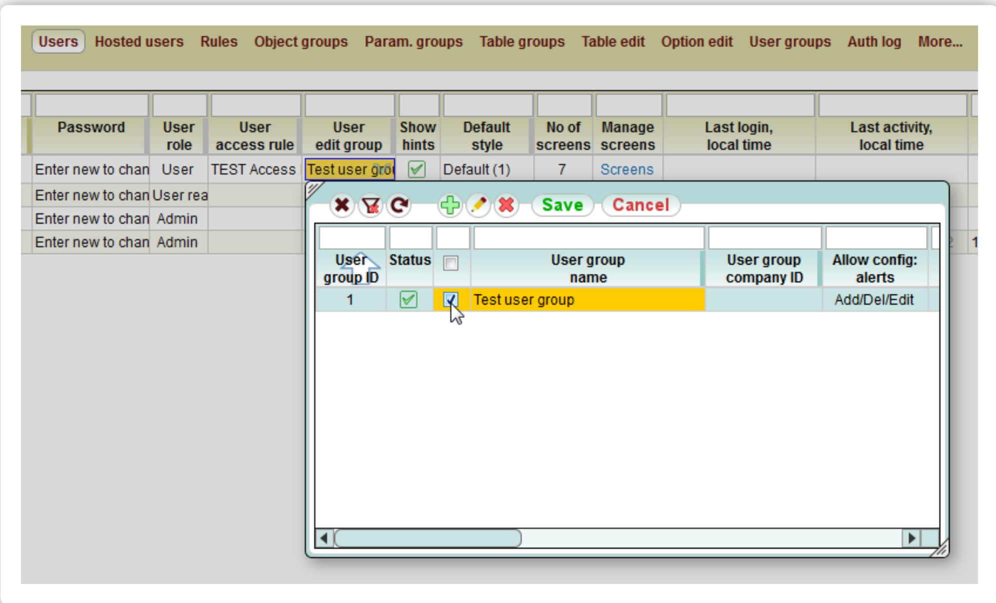
- An **admin user** with no user group is able to view any records, while a user group restricts the admin to the records created with this user group.
- An **ordinary user** is unable to see anything until assigned a user group, then the user will be able to access the records created within this user group.

These access restrictions apply not only to the Config-Alerts table, but consequentially to the Alerts table as well - a user may see the raised alerts only created by himself or other users within his/her user group.

You may add a user group in the **User edit group** section of the Config-Users table which is hidden by default.



Specify the desired access options for the group and assign it to the required users.



Please note that when non-admin users with a user group define an **Alert Object group** in the Config-Alerts->**Obj groups** table, they should always fill the **IDs included** field, otherwise the alerts created with this object group will be ignored by the system. This is necessary as lack of specific IDs means that the alert should be triggered for all objects and the system is unable to determine the scope of "all" in the context of user group visibility.

5.12. Auth log

Auth log allows you to check the history of user logins to the system. It contains login time, IP address, user name and other authentication information.

6. Config-Styles

5gVision lets you customize its interface to whatever pleases your eyes.

6.1. Overview

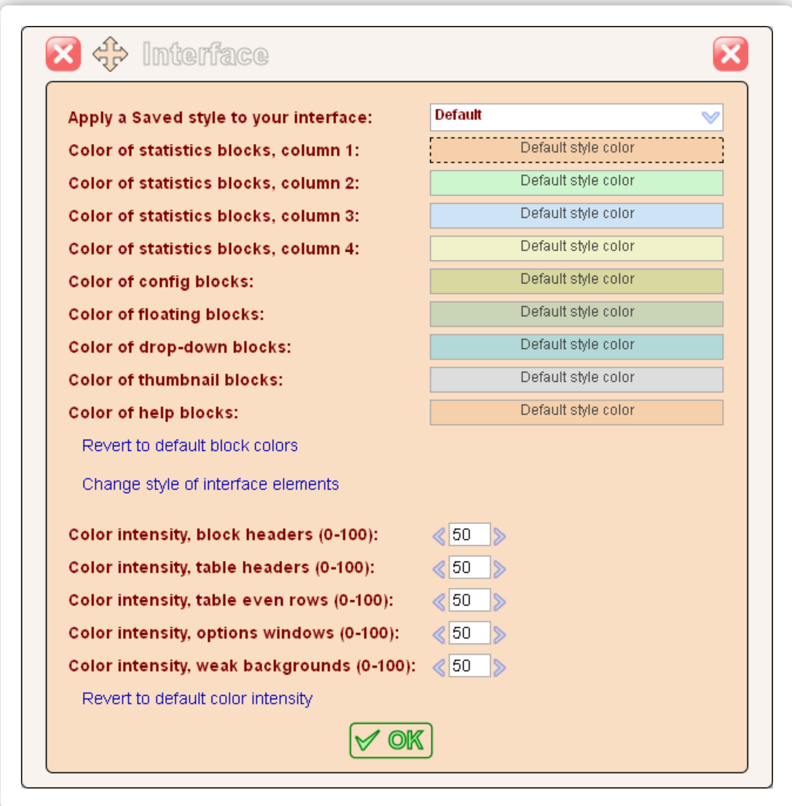
Every person has a different concept of a nice interface in mind, 5gVision is thus shipped with a number of **interface styles** for you to choose from. You may also change individual elements of the interface and create and share your own styles.

There are two ways to apply, modify, and save the styles:

- **Simple** and straightforward. If you click the **Interface** link on the very top of your page, you will see a **Style menu** that will allow you to do basic modifications to your styles and color schemes, please see more in Modifying Default styles.
- **Advanced**. Complete overhaul and customizations of a **5gVision** interface requires understanding of basic principles and semantics of **CSS** (Cascading Style Sheets). 5gVision interface configs mostly consist of plain CSS declarations, except when we need to change a logo, an icon, or color intensity based on another color, in which case we use proprietory attributes that are processed in a special way and not addeded to CSS sheets. See Edit User style.

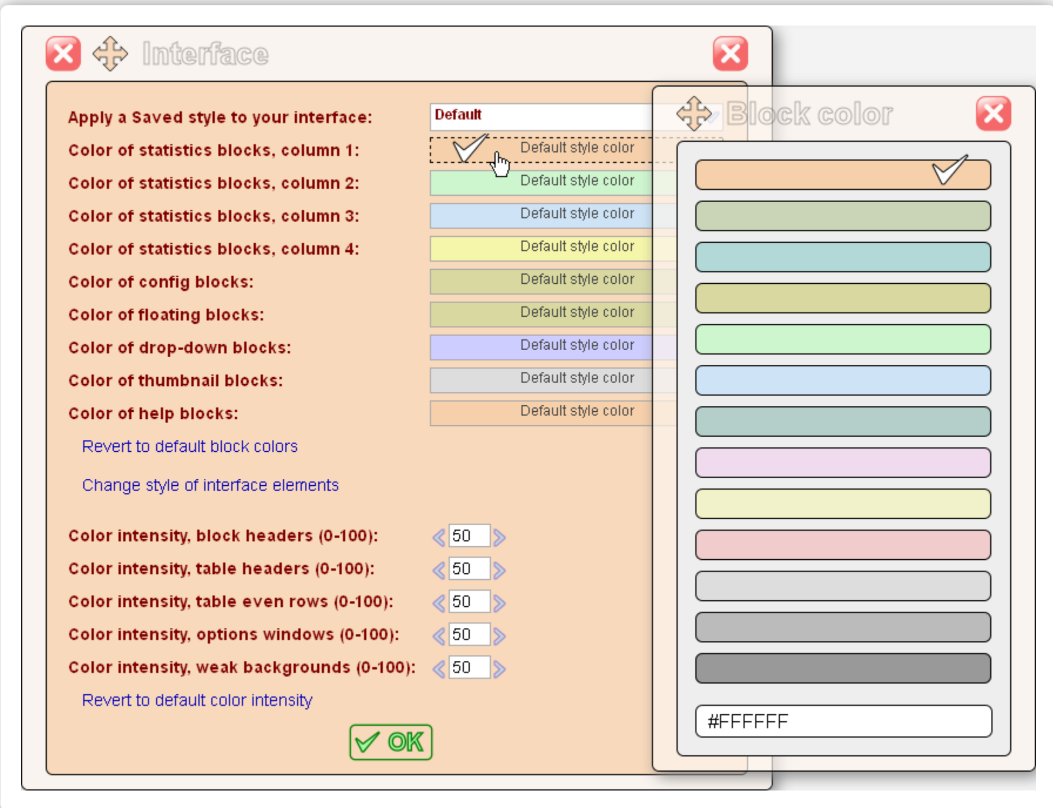
6.2. Modifying Default styles

Changing interface style is done with the help of the **Interface** link at the top of the screen.



You may choose the style to apply in the **Apply a Saved style to your interface** combobox.

If you want to quickly change the color scheme, choose the color of specific interface blocks in the same window. This color overwrites the default color of a chosen style and gives you an additional flexibility is setting up a pleasing environment.



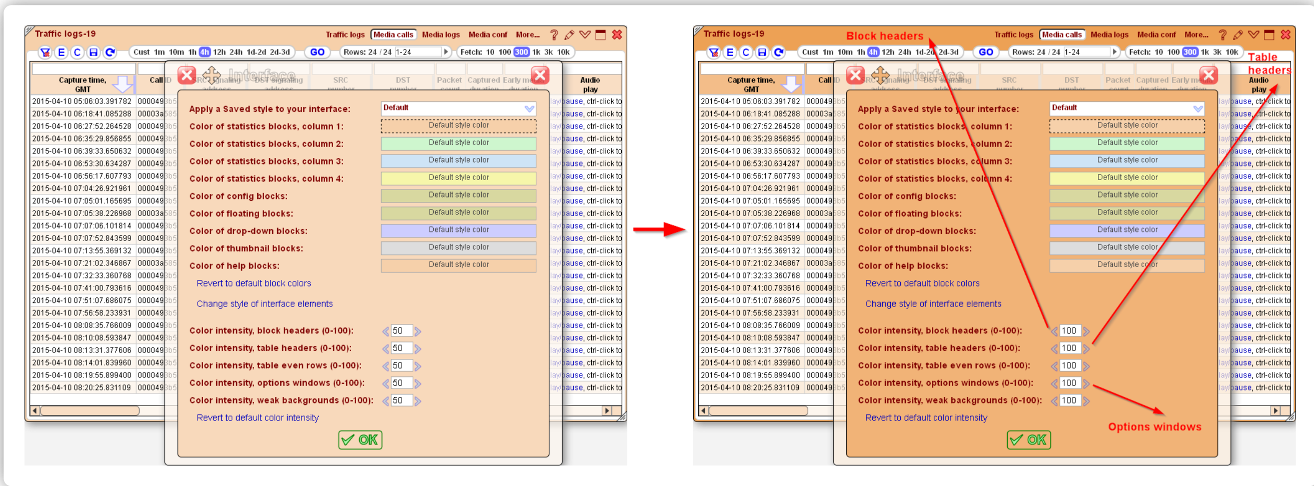
- Color of **statistics blocks, column N** - background color of Blocks with statistical information. As blocks may be distributed among 4 columns, you may choose the background colors per each column.
- Color of **config blocks** - background color for configuration blocks (like Config-Users or Config-Alerts blocks).
- Color of **floating blocks** - background color of Floating blocks evoked by double-click or cross-links (View in CDRs, etc.).
- Color of **drop-down blocks** - background color of drop-down windows evoked by clicking on a table cell that has a drop-down table linked to it.
- Color of **thumbnail blocks** - background color of blocks in the Thumbnail mode, with lots of small charts per one screen.
- Color of **help blocks** - background color of the User manual blocks.

You may always revert to the default colors of the selected style by clicking the **Revert to default block colors** link.

You may also adjust the interface color intensity for several main elements. Apart from giving additional flexibility in styling your interface, it may happen that certain elements are not presented correctly on your very monitor, for instance, the odd-even row highlight in tables may seem too strong, or, on the contrary, unnoticeable.

In the **Interface** window, specify the following parameters (0 - no color, 100 - maximum saturation):

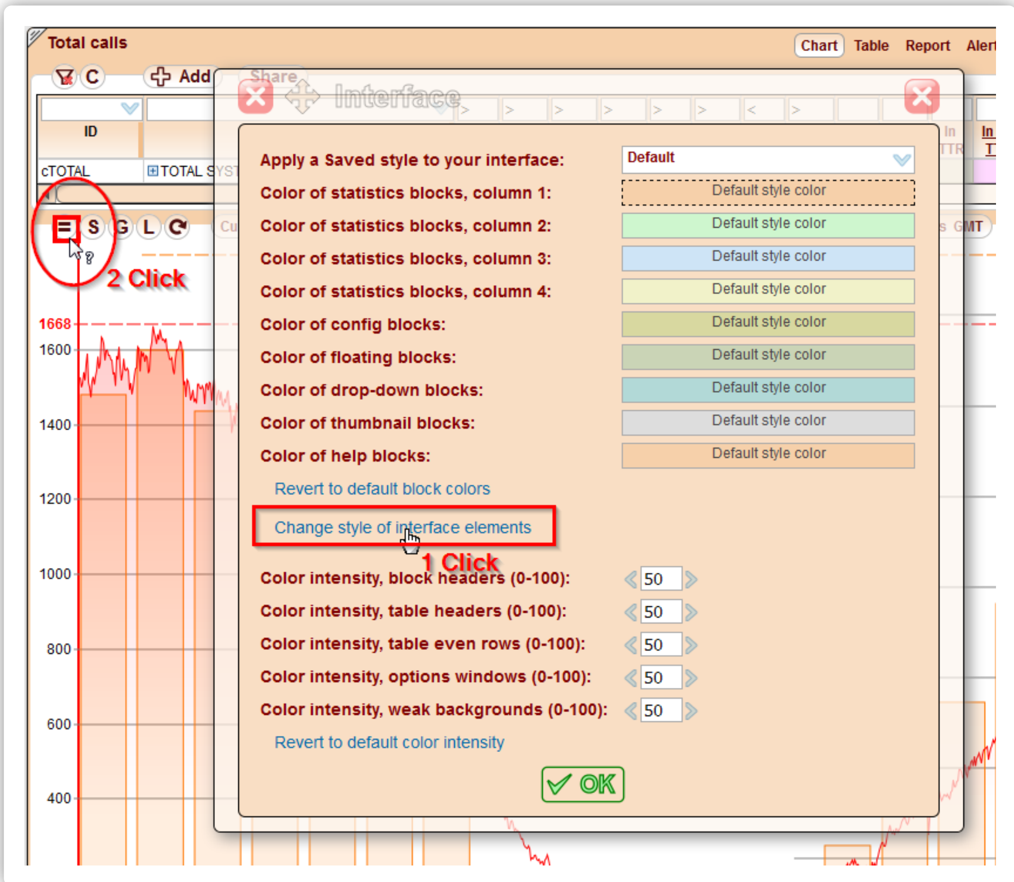
- Color intensity, **block headers** (0-100) - intensity of the band on top of each block.
- Color intensity, **table headers** (0-100) - intensity of table headers with filter fields and column names.
- Color intensity, **table even rows** (0-100) - intensity of highlight of table odd-even rows.
- Color intensity, **options windows** (0-100) - intensity of all floating options windows, like this very one.
- Color intensity, **weak backgrounds** (0-100) - intensity of options windows transparent frames, and some other elements.



To restore the default settings, click **Revert to default color intensity**.

Any changes you make are not saved untill you press the **OK** button, you may play with your interface, and then simply refresh your page with the **F5** button on your keyboard, or via a browser **refresh** button to get back to your previous interface.

If you want to change different elements of the interface, not just the backgrounds, you may click the **Change style of interface elements** and choose the very element you need with the help of the red outline appearing around elements with custom styles assigned. See more in Edit User style.



Once you start creating your own style, the system will suggest you to load any of the default **Saved styles** as a base for your changes. You may also add a new screen **Config-Styles** to conveniently get back to the style configuration whenever need.

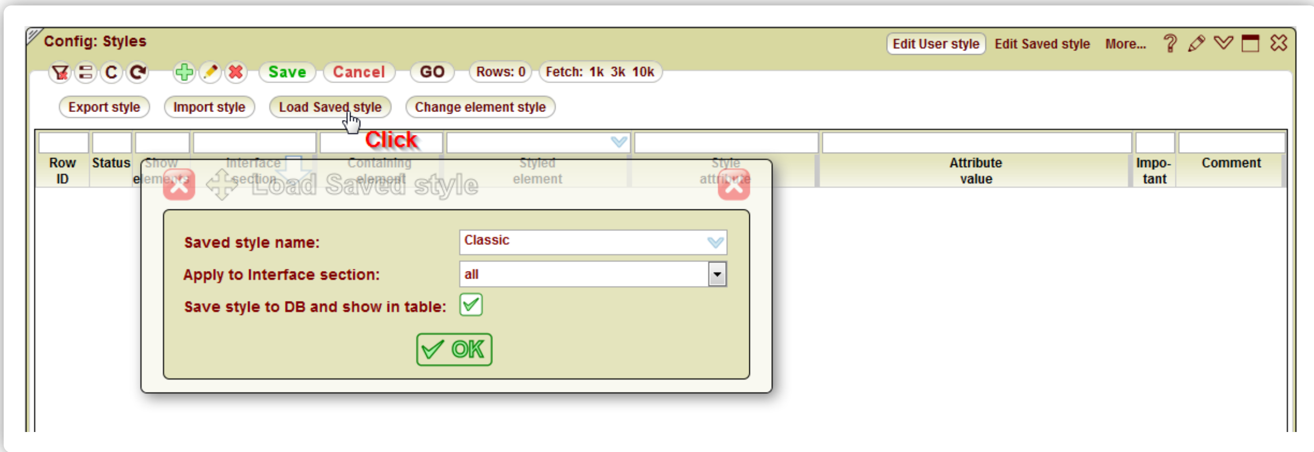
6.3. Edit User style

You would need a screen **Config-Styles** present in your environment in order to modify style properties.

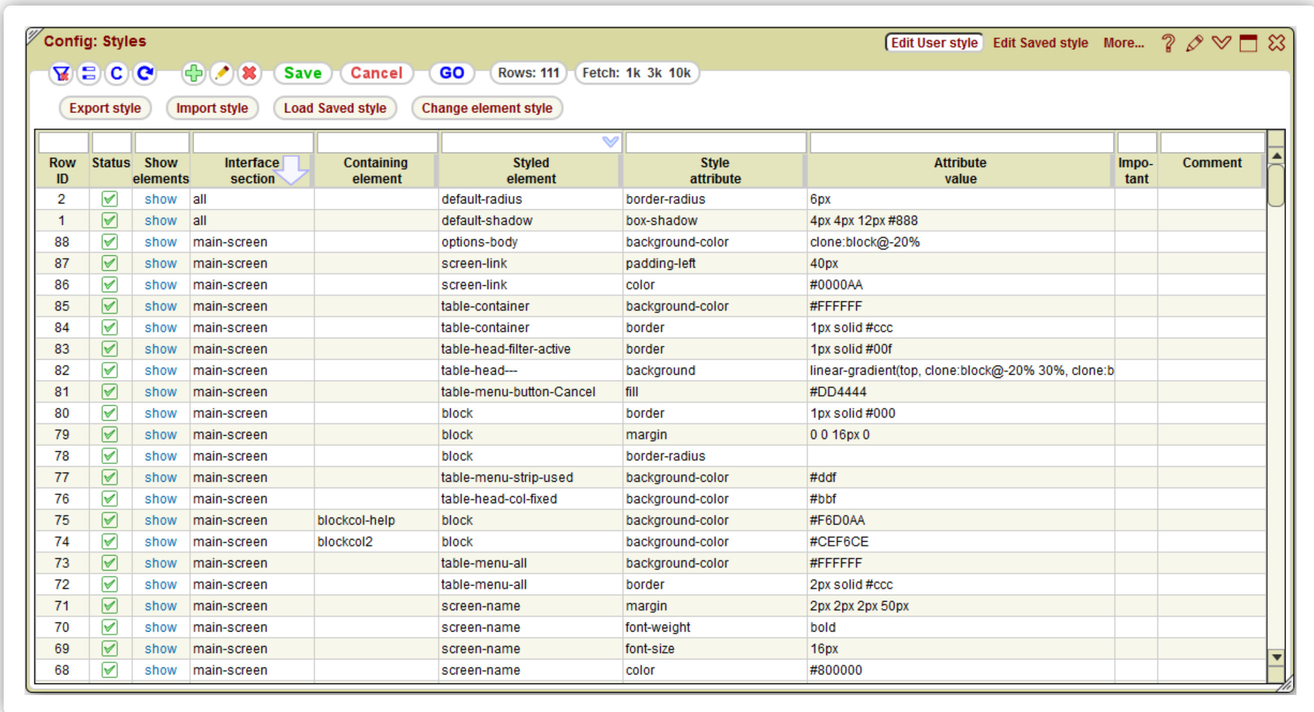
An **Edit User style** table allows you to edit your own individual style that is applied to your interface. Please notice that users need to add a

Config: Styles screen to the menu tree.

Once you open the **Config: Styles** screen, the system will suggest you to load any of the default **Saved styles** as a base for your changes. You may do this via the **Load Saved style** button or dragging a previously saved style file to the **Import style** button.



In the floating window you can choose one of the **Saved styles**, which will be loaded to the current interface, and the **Interface section**, that allows you to apply the loaded style to the whole interface or only to a certain part of it. If the **Save style to DB and show in table** is not set, you have to click the **GO** button in order to load element settings of the chosen saved style to the table for editing.



Row ID	Status	Show elements	Interface section	Containing element	Styled element	Style attribute	Attribute value	Impo-tant	Comment
2		show	all		default-radius	border-radius	6px		
1		show	all		default-shadow	box-shadow	4px 4px 12px #888		
88		show	main-screen		options-body	background-color	clone:block@-20%		
87		show	main-screen		screen-link	padding-left	40px		
86		show	main-screen		screen-link	color	#0000AA		
85		show	main-screen		table-container	background-color	#FFFFFF		
84		show	main-screen		table-container	border	1px solid #ccc		
83		show	main-screen		table-head-filter-active	border	1px solid #00f		
82		show	main-screen		table-head---	background	linear-gradient(top, clone:block@-20% 30%, clone:b		
81		show	main-screen		table-menu-button-Cancel	fill	#DD4444		
80		show	main-screen		block	border	1px solid #000		
79		show	main-screen		block	margin	0 0 16px 0		
78		show	main-screen		block	border-radius			
77		show	main-screen		table-menu-strip-used	background-color	#ddf		
76		show	main-screen		table-head-col-fixed	background-color	#bbf		
75		show	main-screen	blockcol-help	block	background-color	#F6D0AA		
74		show	main-screen	blockcol2	block	background-color	#CEF6CE		
73		show	main-screen		table-menu-all	background-color	#FFFFFF		
72		show	main-screen		table-menu-all	border	2px solid #ccc		
71		show	main-screen		screen-name	margin	2px 2px 2px 50px		
70		show	main-screen		screen-name	font-weight	bold		
69		show	main-screen		screen-name	font-size	16px		
68		show	main-screen		screen-name	color	#800000		

Now you can change certain interface elements as you wish and observe the performed changes right in the current screen. Once the configuration is finished you should save it by means of the **Save** button or the **Save editing** icon near the cell. Furthermore, with the button **Change element style** you can easily choose the element you need to edit with the help of the red outline appearing around elements when you move your mouse.

You may share any style you created by exporting it as a text file (button **Export style**), and sending to other users that may import it via an **Import style** button.

6.4. Edit Saved style

System admins can also create and save global styles that will be available to all users in the company in addition to the **default Saved styles**. This is configured in the **Edit Saved style** table.

The same action buttons as in the Edit User style are available plus the **Clone style to Saved** that allows to clone a style in the current table to an existing or a new **Saved style**.

You may add a new style in the **Saved style names** table.