



**Trending & Aggregation
ADMINISTRATOR MANUAL
October 2015**

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1. GENERAL INTRODUCTION

This document will guide you through the Trending&Aggregation administrator interfaces. It explains all the available interfaces in the menus.

You will be able to parameterize T&A in a way to manage the content available for administrators.

This document is a complement to the training provided by Astellia.

Feel free to give Astellia your comments on this document in order to improve it.

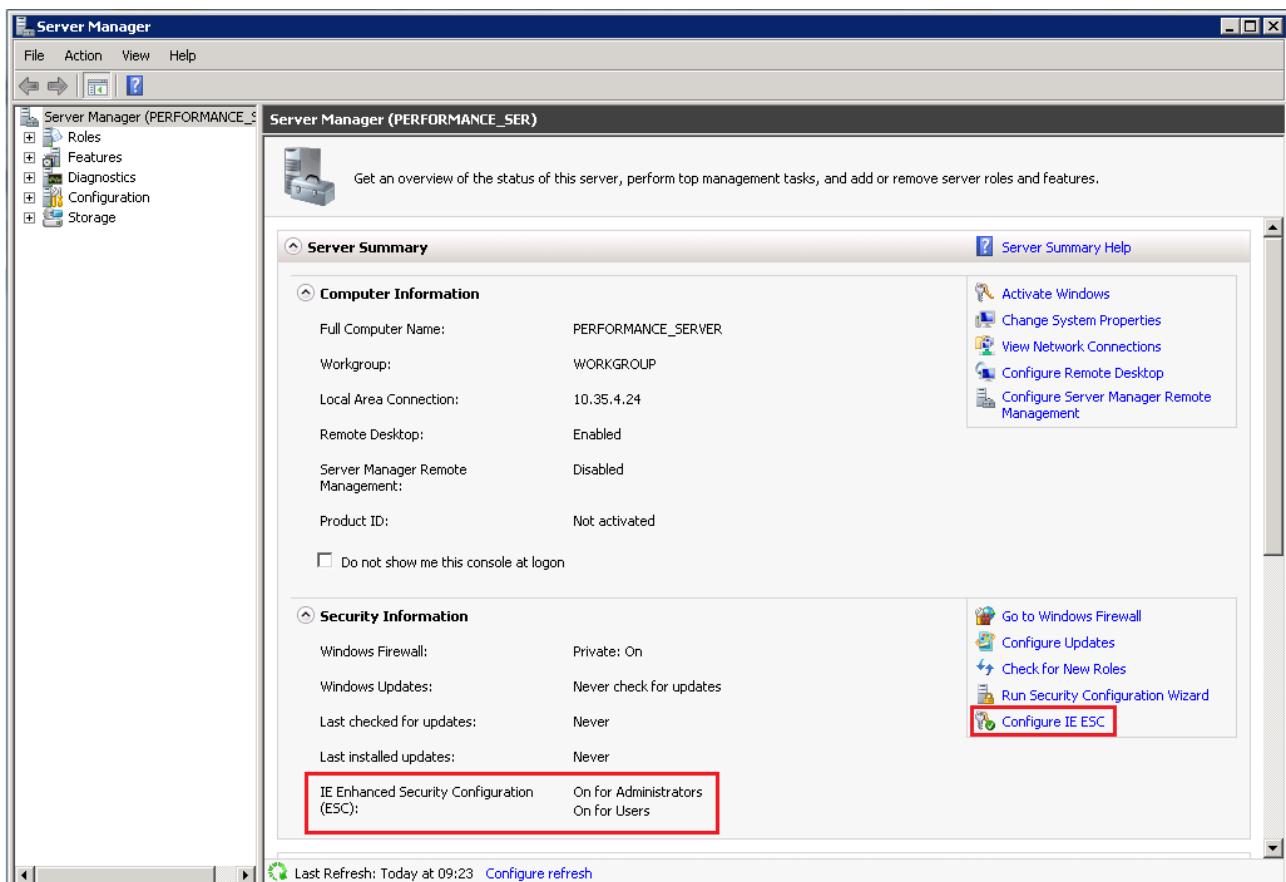
2. SOFTWARE CONFIGURATION

T&A application runs in your browser. To have the best possible user experience, we recommend using Firefox browser (<http://www.mozilla.org>). However T&A also runs under Internet Explorer. In order to have all options running properly, you need to ensure that you are using some specific settings:

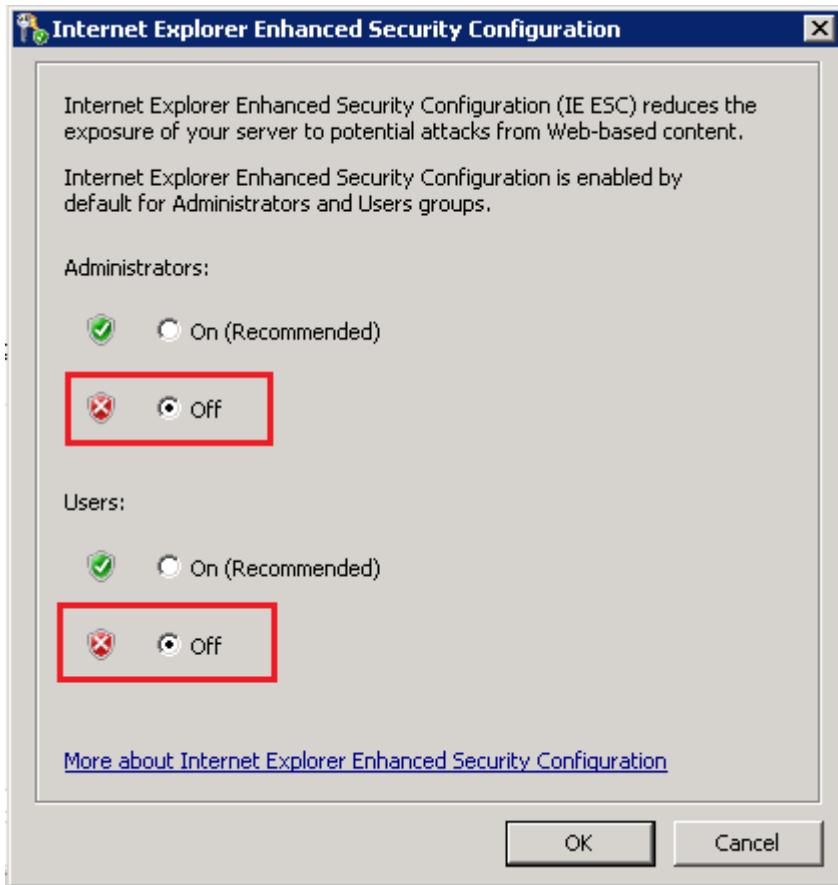
2.1. INTERNET EXPLORER

2.1.1. SYSTEM PREREQUISITES

For Windows 2008 Server, you have to disable the IE Enhanced Security Configuration feature (IE ESC). To access to the Server Manager panel, go to Control Panel > Administrative Tools.



Go to the Configure IE ESC dialog box, switch both radio buttons to off and validate.



2.1.2. VERSION

Go to the “**help**” menu and select “**About Internet Explorer**”. A popup window will appear and display the version number. If the version is 7, 8, 9 or 10 you will be able to use Trending & Aggregation system. If the version you are using is 6 or lower, contact the IT service of your company for an upgrade of your web browser.



2.1.3. VIEW CONFIGURATION

Go to the “**View**” menu.

Select “**Text Size**” and choose “**Medium**”.

Select “**Encoding**” and make sure you are not using “**Unicode**”. We advise to use the encoding “**Western European (ISO)**”.

2.1.4. OPTIONS

Go to the “Tools” menu and select “Internet Options...”



In the popup window, you can see 6 sections entitled “General”, “Security”, “Content”, “Connections”, “Programs” and “Advanced”.

In the “**Security**” section, choose “local intranet” and then “custom level”. You will be shown the window of “**security settings**”:



Choose “enable” or “prompt” for the following 2 settings:

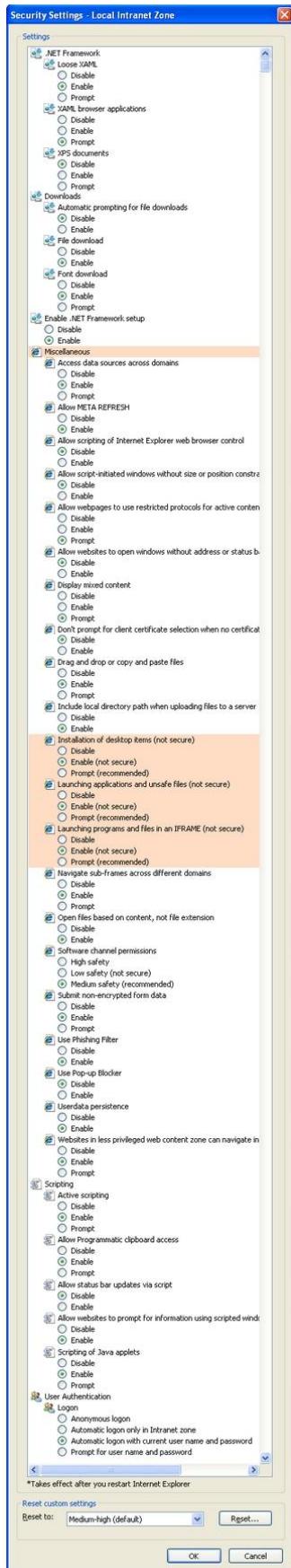
Initialize and script ActiveX controls not marked as safe

Run ActiveX controls and plug-ins

They are required for exporting pages to PDF format.

In the “**Privacy**” section, choose “**Advanced**” and verify that “**Override automatic cookie handling**” is not checked. Indeed cookies are required for the application to know which user you are and then allow you to see the pages.





Enable cookies because these cookies are required for the application to know which user you are and then allow you to see the pages.

Enable font download in case your computer doesn't have all the types of characters to display properly the information, as it was specified by the application.

Enable drag and drop.

Enable “launching programs and files in an IFRAME” because Trending & Aggregation takes widely advantage of IFRAMES.

Enable “submit non-encrypted form data” because Trending & Aggregation uses at least one form on almost every page.

Enable “active scripting”.

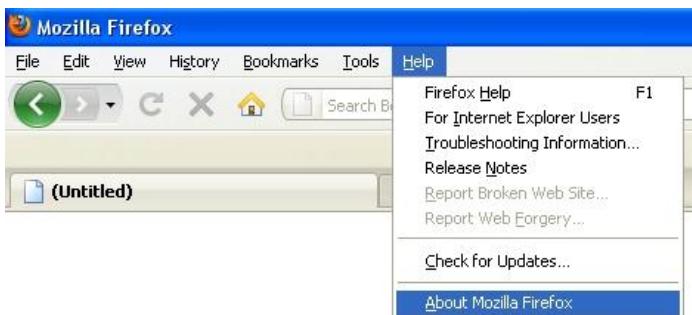
In the “**Security**” section, choose “**Trusted sites**” and click on “Sites” button. You will then be able to add T&A server URL (<http://X.X.X.X>) to you trusted sites.

Then, choose “**custom level**” and activate all controls.

2.2. MOZILLA FIREFOX

2.2.1. VERSION

Go to the “**help**” menu and select “**About Mozilla Firefox**”. A popup window will appear and display the version number. If the version is at least 3.6, you will be able to use Trending & Aggregation system. If the version you are using is lower, contact the IT service of your company for an upgrade of your web browser.



2.2.2. CONTENT CONFIGURATION

Go to the “**Tools**” menu and select “**Options...**”. In the opening popup window, select the “**Content**” tab.



Verify that “**Load images automatically**” is enabled.

Verify also that “**Enable JavaScript**” is selected and in the corresponding advanced

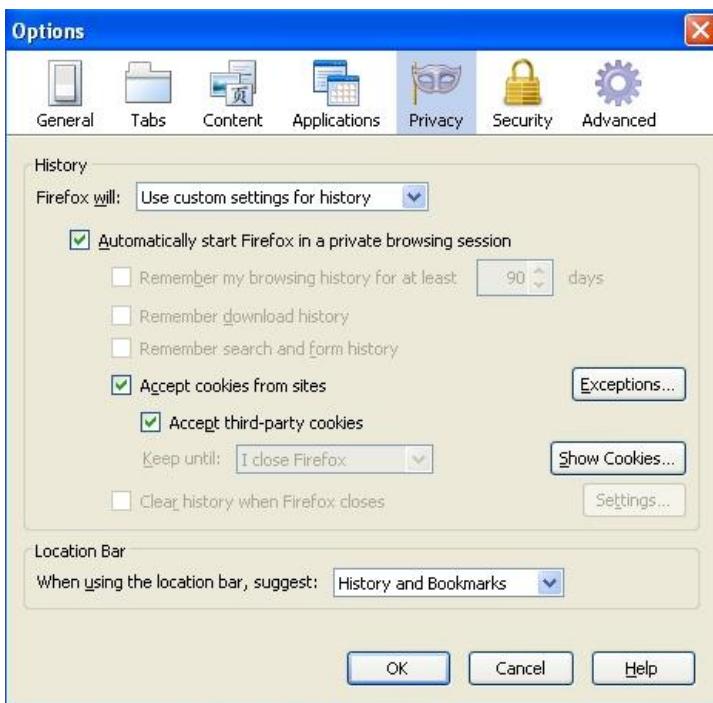
settings window, the “**Move or resize existing windows**” and “**Disable or replace context menus**” options are also enabled.



Click the “**Fonts & Colors**” Advanced button and make sure the “**Default Character Encoding**” is not set to “**Unicode**”. Astellia advises to use the encoding “**Western (ISO-8859-1)**”.

2.2.3. PRIVACY CONFIGURATION

In the Option Menu, select the “**Privacy**” tab.



Verify that “**Accept third-party cookies**” is enabled.

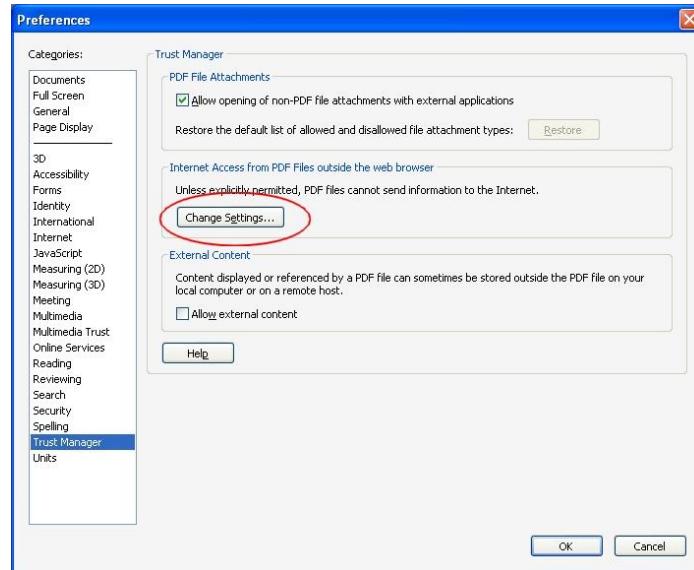
2.3. ADOBE ACROBAT READER 8.0 CONFIGURATION

In order to allow web browser opening from a PDF document please follow the instructions below:

Edit menu / Preferences

Select “Trust manager”

Click on the “Change Settings” button



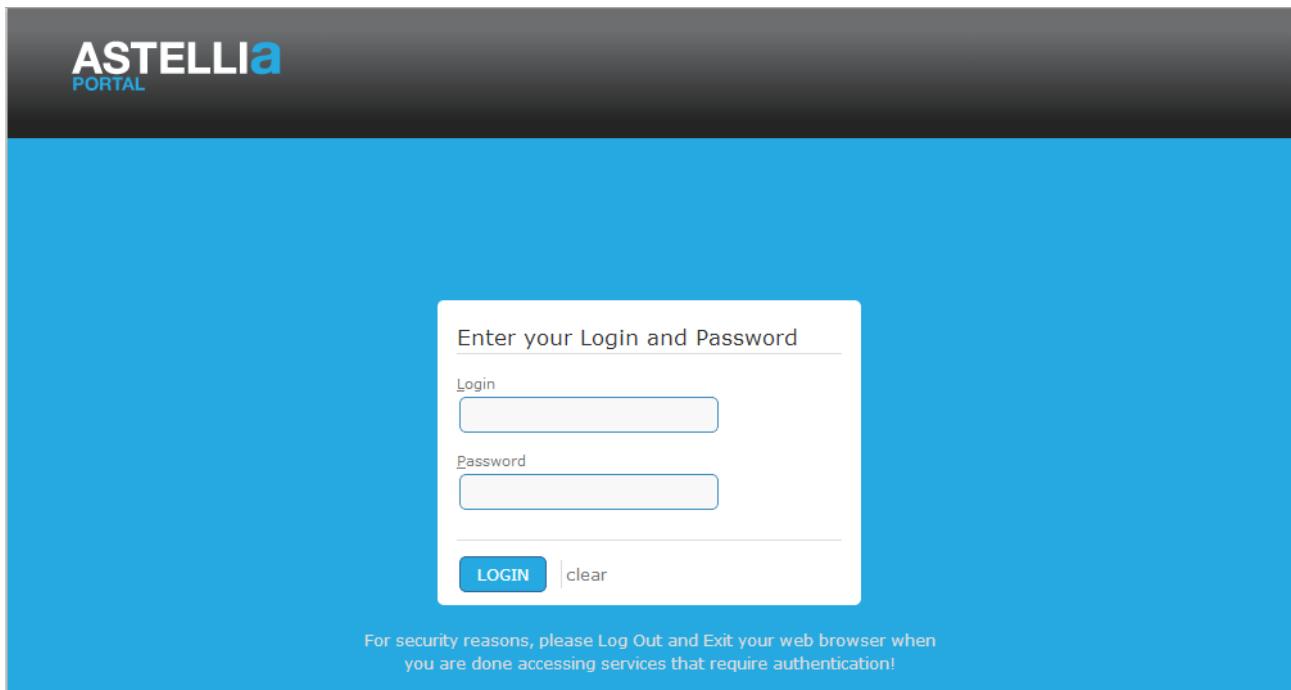
Check “Allow all websites” or “Let me specify a list of allowed and blocked websites”. If the “Let me specify a list of allowed and blocked websites” option is checked, enter the domain on which T&A is installed and click on “Allow”.



3. GENERAL FEATURES

3.1. LOG IN T&A APPLICATION

Enter “<http://<T&A server IP address>/<T&A application name>>” URL in your browser to launch T&A application log in interface:



In case another user is already connected with the same user account, the following message appears:



By clicking “Enter”, this will end the session of the connected user.

When user is disconnected by another person using the same user account, he comes back to the log in page.

In case the application key is not anymore valid, user is warned by the following message:



A screenshot of a web-based application interface. At the top, there is a navigation bar with several icons. Below the navigation bar, a large red banner displays the text "Evaluation valid until : --. - Master - Topology master". Underneath the banner, there is a message box with a light gray background and a thin black border. Inside the message box, the text "Product key is not valid" is centered in a small, dark font. At the bottom of the message box is a button labeled "Logout". Below the message box, the main content area shows a table with two rows. The first row contains the text "Product key :" followed by a text input field containing a blurred key value. The second row contains two buttons: "Update" and "About". Both the "Update" button and the "About" button have a red circular badge with the number "2" on them, indicating they are the second item in their respective lists.

① Write the key in the text field.

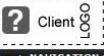
② Click on the “Update” to update the key.

Note that application key can also be updated through « [About](#) » interface (see “[Top Banner](#) » paragraph).

Application key is valid for a limited number of network aggregation equipments. Only data related to this network aggregation in topology will be integrated to T&A application.

3.2. TOP BANNER

When entering user interface, the top page will always contain a banner which displays some general information.

 Client LOGO	TRENDING & AGGREGATION	Astellia Administrator / astellia_admin	ASTELLIA
Home > NAVIGATION > Switch to another profile	SER SETUP MAPPING TASK SCHEDULER OBJECT BUILDER PROCESS TOPOLOGY ALARM NAVIGATION	30-11-2012 12:11 / W48-2012	
 Astellia Administrator / astellia_admin	 30-11-2012 12:11 / W48-2012	 1	NAVIGATION
 Client LOGO	 Astellia Administrator / astellia_admin	 30-11-2012 12:11 / W48-2012	TRENDING & AGGREGATION
 1	Current date (including both current day and current week).		
 2	Current user profile / current user name.		
Icons:			
 3	Icon to open the About page.		
	 Icon to access the Source Availability.		
	Allows returning to the homepage.		
	Allows the user to switch to another profile he owns on this application.		
 4	The menus to access the modules.		
 5	Your company logo.		
 6	Current selected path.		

3.3. SOURCE AVAILABILITY

	This icon in the banner allows the visualization of source file availability.
--	-------------------------------------------------------------------------------

Source Availability displays history of file collection per connection. It allows the visualization of percentage of collection files missing over time, over month or day.

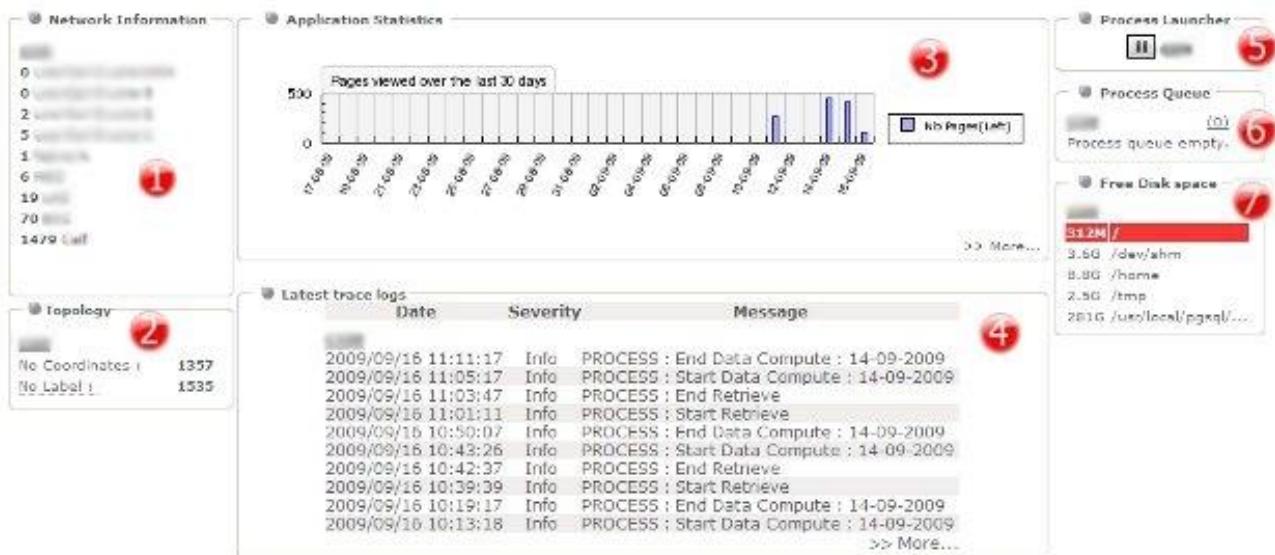
The Source Availability is configured through the Administrator ‘Setup Connection’ and ‘Setup Data Files’ Menus.



	Selection of the period for Source Availability history display, month or day depending on the current view mode (daily or hourly)
	Filtering options “Show errors only” if selected, displays only connections with reported missing files during the selected period, ordered by severity “Show errors first” if selected, orders connections list by severity.
	Source Availability rates per connections over days of the month or hours of the day. Daily mode can be drilled down to hourly mode for a selected day. The Overview row summarizes source availability over all connections. Point the mouse over the colored cells to get the exact percentage of available files in a tooltip.
	Export Displayed Source Availability data into Excel file.

3.4. ADMINISTRATOR HOMEPAGE

The administrator Homepage is an information summary and also a shortcut to stop/start process or alarm calculation.

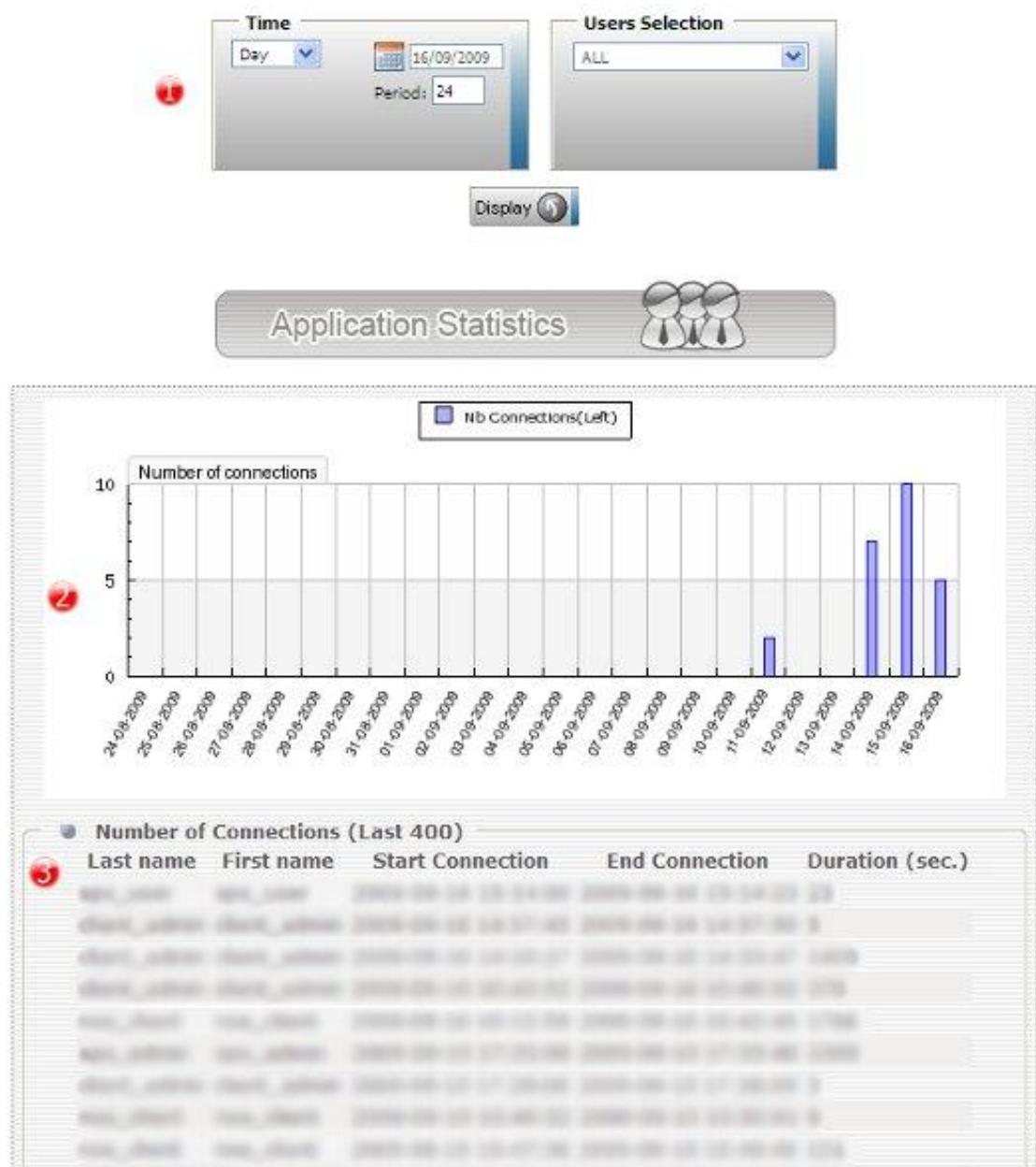


① Network Information	Display information on the number of elements by network level.
② Topology	Count the total number of elements that do not have: <ul style="list-style-type: none"> longitude or latitude value, Network aggregation label value.
③ Application statistics	<ul style="list-style-type: none"> Depending on the selected option: Graph statistics on the number of connections over the last 24 hours. A connection is a user session that has been ended. By clicking on the “>> More...” link, it is possible to view detailed information on users for selected “time aggregation” (hour, day, week, month). Graph statistics on the pages viewed over the last 30 days. By clicking on the “>> More...” link, it is possible to select a time for the 30 days and 6 months period and view the number of pages viewed per user on a specific day.
④ Trace Log	Display the last log messages. By clicking on the “>> More...” link, it is possible to view the last 1000 messages of the log and configure filters (see Trace Log paragraph).
⑤ Process START/STOP	By clicking on the process icon, the system will stop all the running processes and inhibit the launch of any new process (Process Stop). In case the processes are already stopped, the click will activate the launch of new process.
⑥ Process Queue	This will list all the hour/day that are in process to be computed.
⑦ Disk Space	Display information on the used/available Disk space.

3.5. APPLICATION STATISTICS

- User Activity

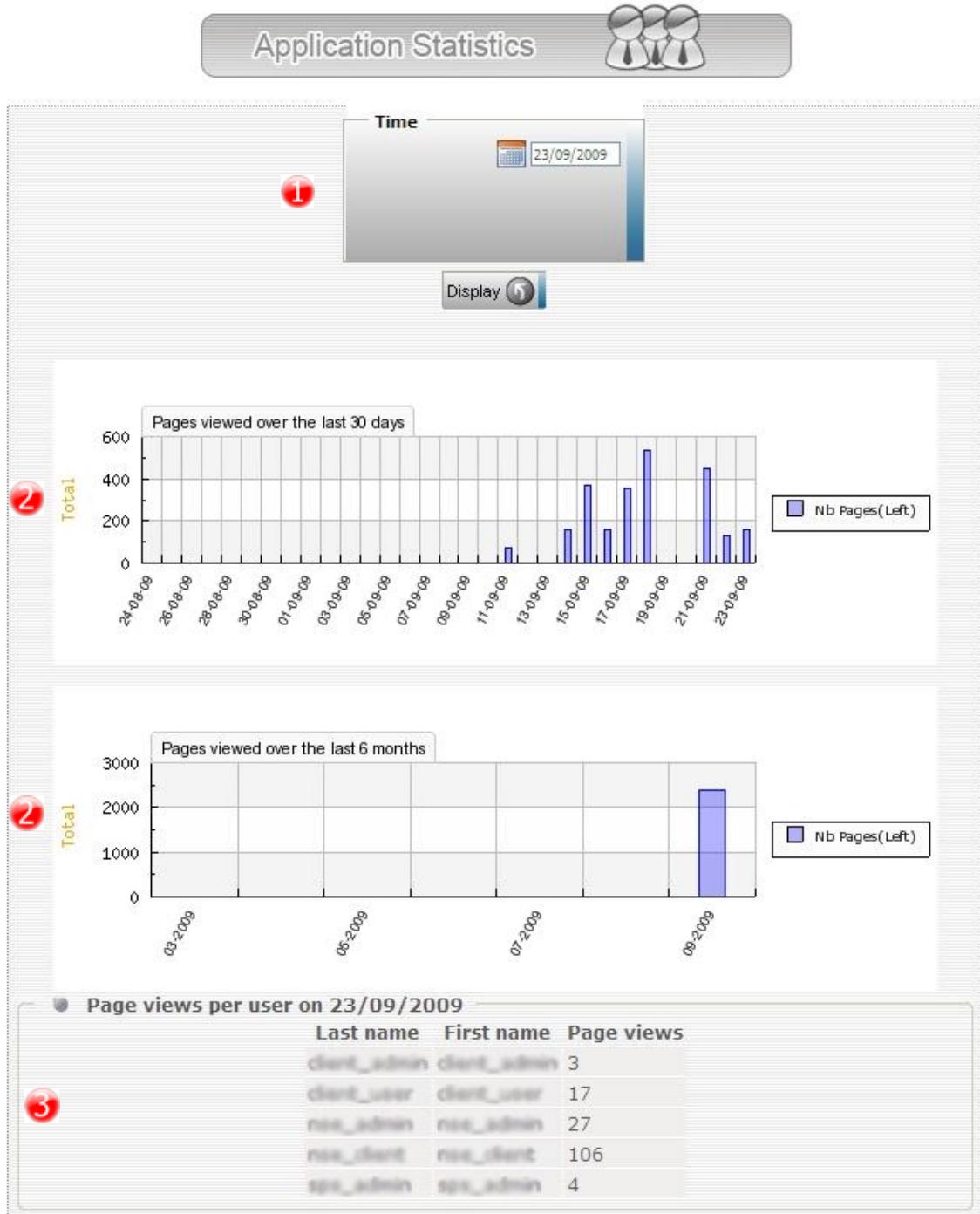
The user activity interface will display detailed information on the connections to the application. A connection means a connection start and a connection end.



	<u>Filter</u>
1	Select the time aggregation used to display the graph (🕒). Select the user whose you wish to see the activity (if “All” is selected, activity for all users will be displayed).
2	<u>Graph Result</u> Graph that displays the result according to the filter parameters.
3	<u>Log</u> Log that displays the last 400 connections and information about each connection.

- Page Activity

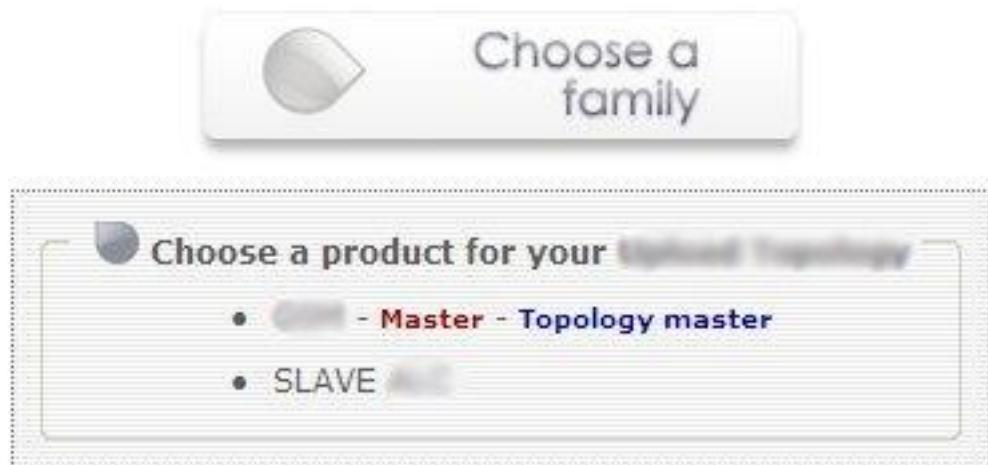
The page activity interface will display detailed information on number of viewed pages in the application.



①	Filter Select the last day used to display the graphs (②).
②	Graph Result Graphs that display the pages viewed during the 30 last days and the 6 last months, according to the filter parameter.
③	Pages viewed per user Table of the number of pages viewed per user at the selected date.

3.6. CHOOSE A PRODUCT

In some interfaces, it is needed to select the product on which apply a configuration. It will figure in this document with a formula like “for each product”. Click on the name of the product to select it and move forward to the menu that has been selected (or to the family choose).

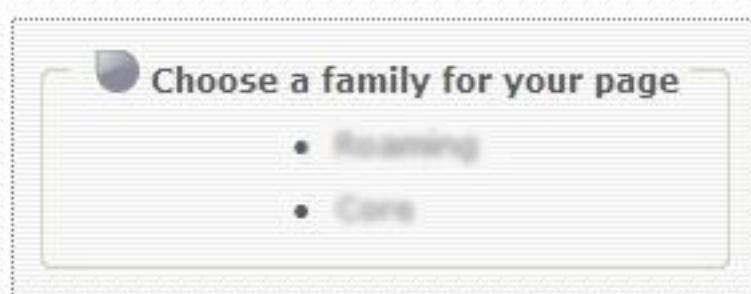
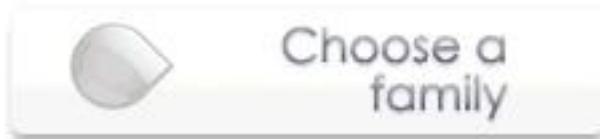


In the concerned interfaces, the link below indicates the current product used and permits you to change it.



3.7. CHOOSE A FAMILY

In some interfaces, it is needed to select the family on which will apply a configuration. It will figure in this document with a formula like “for each family”. Click on the name of the family to select it and move forward to the menu that has been selected.



In the concerned interfaces, the link below indicates the current family used and permits you to change it.



4. USER

4.1. USER MANAGEMENT



The user management interface will let you create users and give them access rights.

The creation of the user will initialize information such as login, password. When connecting, user will then be able to change his/her own information by using the "My Profile" menu.

- User management main interface:

The screenshot shows the "User management" interface. At the top, there is a message: "Use Astellia Portal to create, modify or delete users." Below it is a button labeled "Synchronize from PAA". The main area is a table listing users with columns: Login, Name, Email, and Phone number. Each row has a red numbered callout pointing to specific elements: (1) points to the "Synchronize from PAA" button, (2) points to the "Login" column header, and (3) points to the "Phone number" column header. The table data is as follows:

Login	Name	Email	Phone number
admin	Administrator	support@astellia.com	
astellia_admin	Astellia Administrator	support@astellia.com	
astellia_user	astellia_user	astellia_user@astellia.com	
new	No name	newname@astellia.com	
new_name	New Name	new_name@astellia.com	
new_number	New Number	new_Number@astellia.com	
user	User	support@astellia.com	

	Button to synchronize users' list. Clicking on this button will update local users list from users defined on Portal.
	General information on the "users".
	Button to test SMS sending to user's phone number.

- How to create a user?

Users are managed in Portal. You cannot create a new one, modify or delete an existing one from T&A. You can only synchronize local users list with Portal users and test SMS sending to phone number.

If the Portal, your T&A, is connected with is in a version lower than 2.3.0, you can edit users phone numbers.

4.2. GROUP MANAGEMENT



The “Group Management” interface will let you create group of users that will be used to send automatic emails for reports and alarms.

- “Group management” main interface:



1	Button to create a new “group”.
2	General information on the “group”.
3	Button to delete a “group”. The system will ask a confirmation before the deletion.
4	Button to get detailed information on the “group”.

- How to create a new group?

Step 1: Click on the “New group” button. A window will open to select the user(s) who will belong to the group.

The screenshot shows the "Group Setup Interface" window. At the top, it says "Interface to configure Groups" with a small icon of three people. Below that, there's a field labeled "Group name*" with a red asterisk, followed by an empty input box. Under "Members of the group", there's a section titled "Non subscribed users" containing a list of user names (e.g., User1, User2, User3, etc.) and a "User selector" checkbox. To the right, there's a section titled "Subscribed users" which is currently empty. Between the two sections are two buttons: a blue "→" button above a blue "<←" button. At the bottom of the window is a "Save" button.

Step 2: Enter the group's name and choose the user(s) who will be part of the group. All the fields with a “*” are mandatory. Move from left (non-subscribed users) to right (Subscribed users) the users to be part of the group (using the “->” button). Remove the users from the group by using the “<-” button.

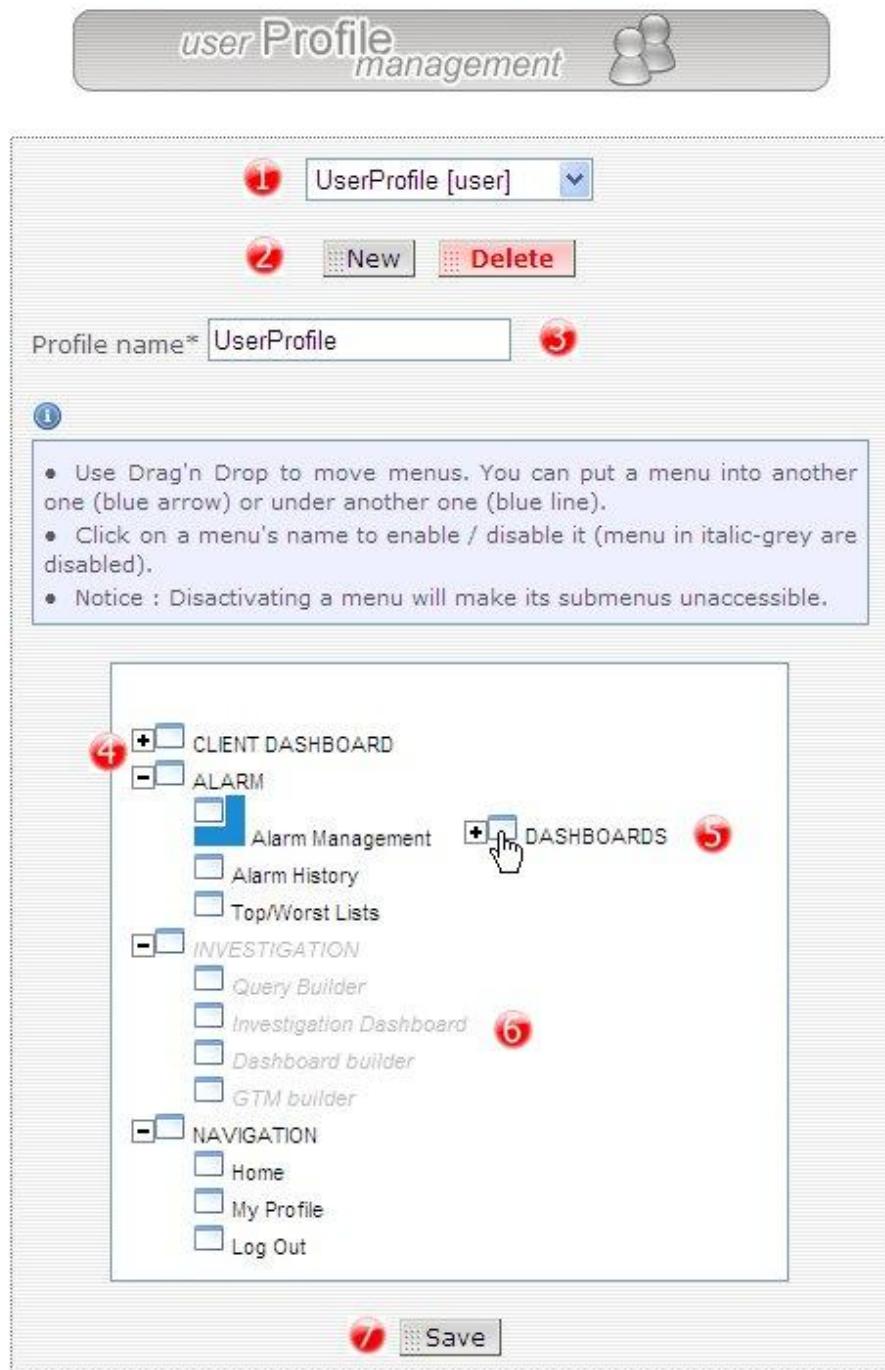
Step 3: Click on the “Save” button to save the group parameters.

4.3. PROFILE MANAGEMENT



The “Profile management” interface will let you create and organize user and administrator profiles.

- “Profile management” Main interface:



1	List of existing user's profiles.
2	Click on the "New" button to enter a new profile. Click on the "Delete" button to delete the current profile.
3	Use this field to change the name of the current profile.
	Use the "+" / "-" button to show / hide submenus.
5	Use Drag'n Drop to change menu's position. You can put it as submenu (blue arrow, as shown above) or under another one (blue line).
6	Click on a menu's name, to enable / disable it. Menus in italic-grey are disabled.
7	Click on the "Save" button to save changes.

- How to create a new profile?

Step 1: Click on the “New” button to make appear the interface below.



Step 2: Select a type for the profile you want to create and click on the “Ok” button. Choosing “Admin” will enable you to create a profile for users who will access to an administrator interface. Choosing “User” leads you to create a profile for user interface.

Step 3: Fill in the “Profile management main interface” form described upper.

Step 4: Log out from the application and connect again if using a portal.

- How to delete a profile?

Step 1: Select the profile you want to delete. Its details are then shown.



Step 2: Click on “Delete” button.



The deletion of a profile is aborted if the profile is already assigned to users.

Step 3: Log out from the application and connect again if using a portal.

- Rules on "Profile":

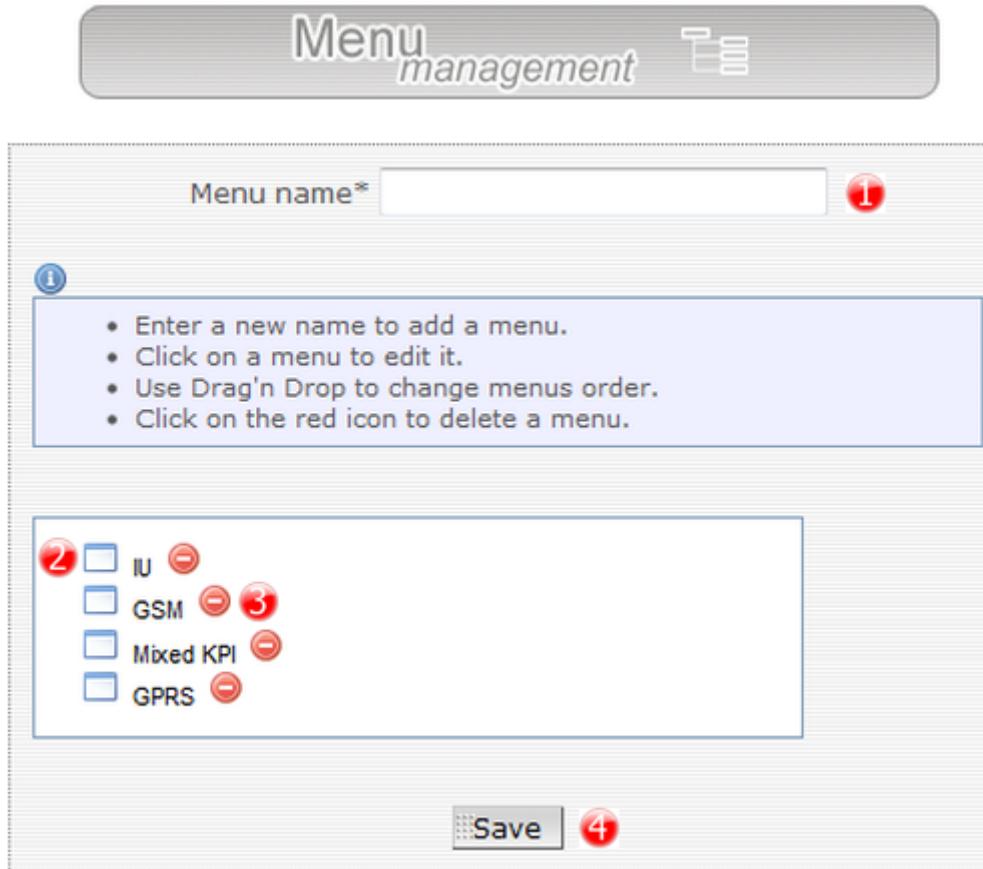
The “Navigation” menu is mandatory in every profile created.

4.4. MENU MANAGEMENT



The “Menu management” interface will let you create and organize user menu.

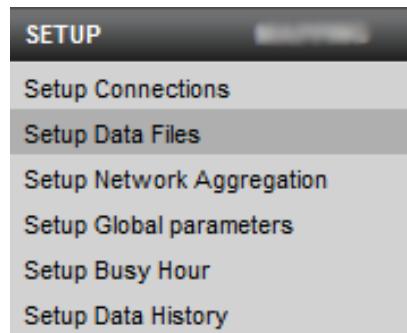
- “Profile management” Main interface:



①	Enter a new menu name to add a menu.
②	Use Drag'n Drop to change menus order. Click on menu label to change it.
③	Use the no-entry sign to remove a menu
④	Click on the “Save” button to save changes.

5. SETUP

5.1. SETUP DATA FILES



The “Setup Data Files” interface enables the configuration of the collections data files and the generation of automatic system alert on a missing file event.

The Source Availability window displays missing source files rate by connection over time.

Source files availability can be configured specifically for each connection in the [Setup Connection](#) menu.

Setup Data Files configuration can be done (for each product) through the following interface:

Setup Data Files

5 Current Product : mmt_iu_503 C

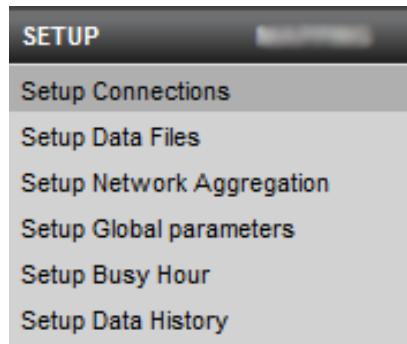
Data file name	Source Availability			System Alerts		
	Data Granularity	Data Collection Frequency	Data Chunks	Period type	System Alarms Delay	Alarm Exclusions ⓘ
Astellia-IU-ZIP	Hour ↗	Hour ↗	24	Hour ↗	6 hour (s)	10-15
Astellia-IUSVR	Day ↗	Hour ↗	24	Day ↗	2 day (s)	
Astellia-IURNC	Hour ↗	15mn ↗	96	Day ↗	1 day (s)	
Astellia-IU69	Hour ↗	Hour ↗	24	Hour ↗	6 hour (s)	7;9;12-14
Astellia-IU68	Day ↗	Hour ↗	24	Hour ↗	6 hour (s)	
Astellia-IU66	Hour ↗	15mn ↗	96	Hour ↗	6 hour (s)	
Astellia-IU65	Hour ↗	Hour ↗	24	Hour ↗	6 hour (s)	
Astellia-IU64	Hour ↗	Hour ↗	24	Hour ↗	6 hour (s)	
Astellia-IU63	Hour ↗	Hour ↗	24	Hour ↗	6 hour (s)	
Astellia-IU60	Hour ↗	Hour ↗	24	Hour ↗	6 hour (s)	
Astellia-IUR04	Hour ↗	Hour ↗	24	Hour ↗	6 hour (s)	

Activate Alarms ⓘ 3 4

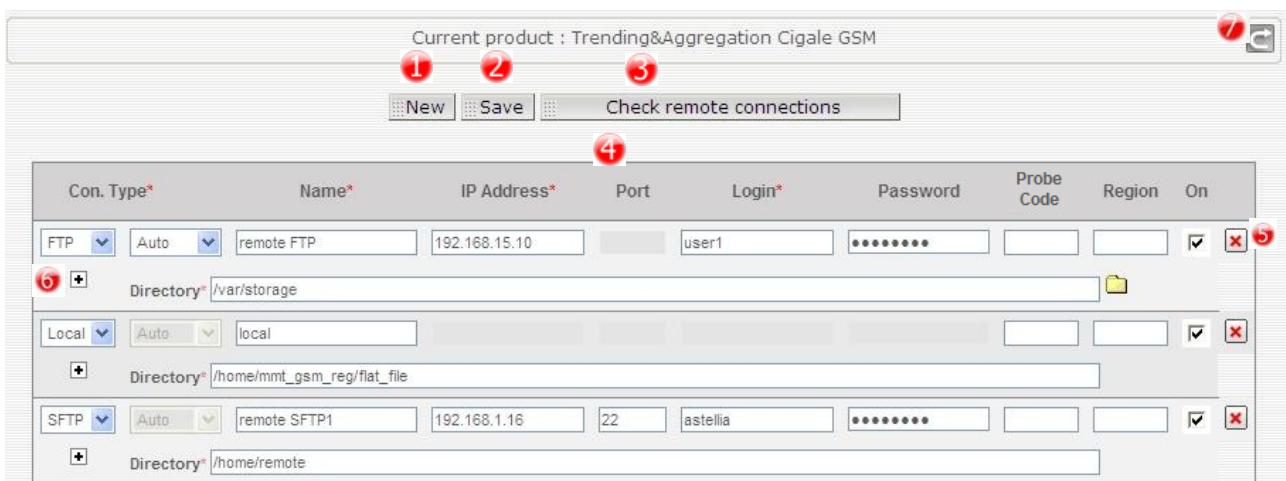
2

1	Data File Setup Table	
Data File name	Name of collected data file	
Data Granularity	Hourly or Daily data	
Data Collection Frequency	Engine Data Collection Frequency choices are Day, Hour or 15 min	
Data Chunks	Number of file chunks per day, maximum value determined by selected granularity and collection frequency.	
Period Type	System Alarm generation period daily or hourly	
System Alarms Delay	Alarm generation delay after missing file reported, in hours or days.	
Alarm Exclusions	Exclusion period for alarm generation in hours of the day.	
2	Activate/deactivate configured alarm generation for missing data files	
3	Reset Data files configuration form to default.	
4	Save current Data files configuration.	
5	Change the current product	

5.2. SETUP CONNECTION



The “Setup connection” interface aims at managing the parameterization of new connections in order to collect data from various data sources. The connections are configured for each product.



①	Click on the “New” button to create a new connection.	
②	Click on the “Save” button to save all the connection parameters.	
③	Click on this button to test the FTP and SFTP connections.	
④	In order to create / modify a connection, the following information must be filled in. The information with a “*” are mandatory.	
	Con. Type	Enter the connection type: <ul style="list-style-type: none"> ➤ “FTP”: for collecting data via a FTP connection ➤ “SFTP”: for collecting data via a SFTP connection ➤ “Local”: for collecting data in T&A server local directory
	FTP mode	If you set the connection type as FTP, you must choose the relative mode. Available settings are: <ul style="list-style-type: none"> ➤ “Active”: Force the FTP connection to be in active mode ➤ “Passive”: Force the FTP connection to be in passive mode ➤ “Auto”: Ask the system to automatically detect and set the best mode during the next collect task.

Name	Enter a name for the connection (for example the probe name)
IP Address	In case of remote connection to the probe, enter the probe IP address.
Port	In case of SFTP connection to the probe, enter the probe port.
Login	In case of remote connection to the probe, enter the login to access the probe.
Password	In case of remote connection to the probe, enter the password to access the probe
Probe Code	Enter the probe code (internal application field - 3 characters text type)
Region	Enter the region identifier which identifies the region server (e.g. EGY for the server located in Egypt). <u>This parameter is used only on a Corporate server.</u>
Directory	<p>Enter the directory where source files are stored with complete path:</p> <ul style="list-style-type: none"> ➤ directory on the corresponding remote or local connection target (path in Unix mode (with "/") from the directory defined in Remote server configuration. e.g. /SourceFiles/)
On	Check / Uncheck this flag if the connection is to be enabled / disabled.
5	Click on this button to delete a connection. The system will ask for confirmation before its deletion.
6	Click on (+) to parameterize system alerts. This functionality is only available if system alerts are activated in Setup System Alerts. Specific errors message can indicate you if configuration is completely set under Directory.

Send system alerts	File expected for Source Availability	Data file name	Data granularity	Data collection frequency	Data chunks
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Astellia 0000	Hour	Hour	24
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Astellia 0002	Hour	Hour	24
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Astellia 0004	Hour	Hour	24
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Astellia 0005	Hour	Hour	24
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Astellia 0006	Hour	15min	24
<input type="checkbox"/>	<input type="checkbox"/>		Day	Hour	24

Select / Unselect all Select / Unselect all

Available users
client_user client_user

Subscribed users
client_admin client_admin

	5 Data File Source Availability configuration. The selected connection can have a specific data file setup; default configuration is defined by the Data File Setup. Refer to Setup Data File for details.
	6 Check particular user/admin to receive alerts on a list of file types.
7	In case of multiproduct installation, you can select another product by clicking on this button.

For DataTrends products, remote connections to OMC(s) are used and two global parameters must be configured as followed:

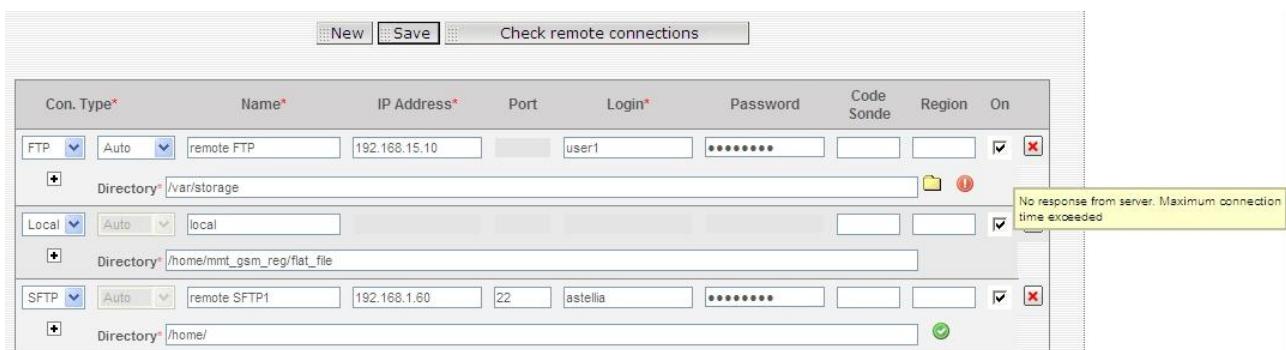
- “Search data files into sub-directories” = 1
- “Delete data files during retrieve process” = 0

During retrieve process, all directories and files in “Directory” **2** will be analyzed. When a file is collected, its properties (connection, directory, name, date modification ...) are stored in database so that next time the retrieve occurs, application knows if it is needed to collect it. This analysis of OMC directories might be long if there are a large number of OMC files. So be careful to regularly purge OMC directories.

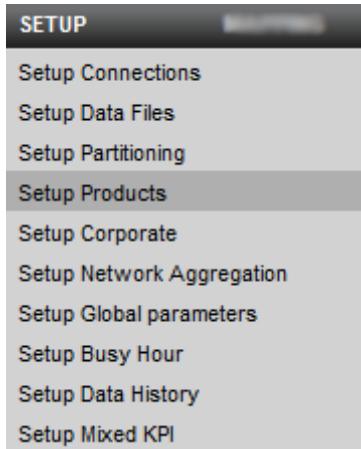
When remote connection is configured, it is possible to directly test the connection to the remote server with “Check remote connection” button **3**. A new icon is shown to help you with the configuration:

!, connection parameters are wrong: look at the tooltip for more information (ex: No response to server, identification failed, can't find directory...).

✓, connection parameters are good.



5.3. SETUP PRODUCTS



With the “Setup products” interface you can look at your products characteristics and modify your products labels.

1	Label of the product.
2	Indicates that this product is the master product. You can connect only to this product. The others are the slaves.
3	Indicates that this product is defined as the master topology. It can be different from the master product.
4	Various information about the product such as IP address, database used, versions of the components.
5	Click on this button to edit the information of the product.

By clicking on the “Edit” button, you will get the window below.

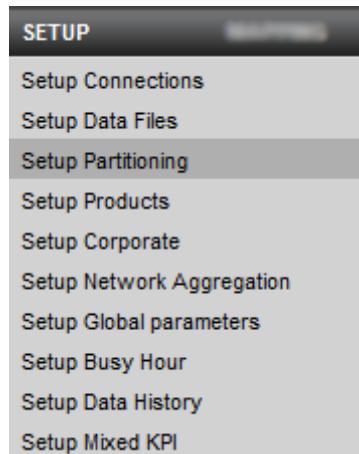
The screenshot shows the 'Edit' configuration window for a product. At the top left is a yellow star icon and the text 'Base Component v5.0.4.16 v5.0.2.08'. At the top right is an 'Edit' button. The main area contains several sections:

- General:** Includes fields for 'Trigram' (with a note 'Must be 3 letters'), 'Label' (with a note 'Limited to 35 chars'), 'IP address', and 'Directory'.
- Database:** Includes fields for 'Database Name', 'Database Port', 'Database Login', and 'Database Password'.
- SSH:** Includes fields for 'SSH User', 'SSH Password' (showing masked input), and 'SSH Port'.
- Protocol:** Contains radio buttons for 'Use HTTP in external links' and 'Use HTTPS in external links' (which is selected). It also includes a 'HTTPS port:' field.
- Status:** Shows the message 'Component is currently ON' and a note 'A master product cannot be disabled'.

At the bottom center is a 'Save' button with a red circle containing the number 5.

①	General products parameters. You can modify only the “Trigram” and “Label” fields. Trigram is only used for Mixed KPI product .
②	Database parameters. You can test the connection to the database by clicking on the “Test DB connection” link.
③	SSH parameters. You can test the connection to the server by clicking on the “Test SSH connection” link.
④	Product activation. You cannot deactivate an activated product.
⑤	Click on this button to save the change on the products label.
⑥	Protocol configuration. You can test the connection to the server by clicking on the “Test protocol connection” link.

5.4. SETUP PARTITIONING



“Partitioning” an application means optimizing database for managing a bigger amount of data. Partitioning an application will split all its data tables in smaller ones in order to be able to handle huge amount of data.

This GUI allows enabling “Partitioning” on the current application and all its slaves.

The screenshot shows a table with five columns: T&A Application, CB, Postgresql, Partitioning, and Information. The first row contains: TA Cigale lu, 5.1.4.05, 8.2, Not Partitioned, and two warning icons. A note below the table states: "Tick the checkboxes for the T&A applications you would like to partition. It might not be possible to partition all T&A applications because of versionning or configuration issues. Please have a look at the info popup for more information." At the bottom right is a 'Partition' button with a red border and number 6.

①	Application Name. Hover it to get Database configuration. For each product that can be partitioned, a checkbox will be displayed to choose what product to partition.
②	Base component version. Partitioning available since version 5.1.4.00
③	Postgresql version. Partitioning available since version 9.1
④	Partitioning status. “Partitioned” or “Not Partitioned”
⑤	Information (hover icon to get more information) : ✓ : partitioning available ❗ : partitioning not available ⚠ : partitioning available with limitations
⑥	Partition button that launches partitioning operation will be available only if partitioning can be processed for at least one product.

If partitioning is available and “Partition” button is pressed, a window will appear to ask whether a confirmation email must be sent after process or not.



Checking the checkbox before clicking on “Partition” will send an email to the address entered at the end of partitioning process.

During the whole activation process, the multiproduct will be locked but a page will display the activation status:



The following products are being partitioned:
- gsm_cb51 (7 %)

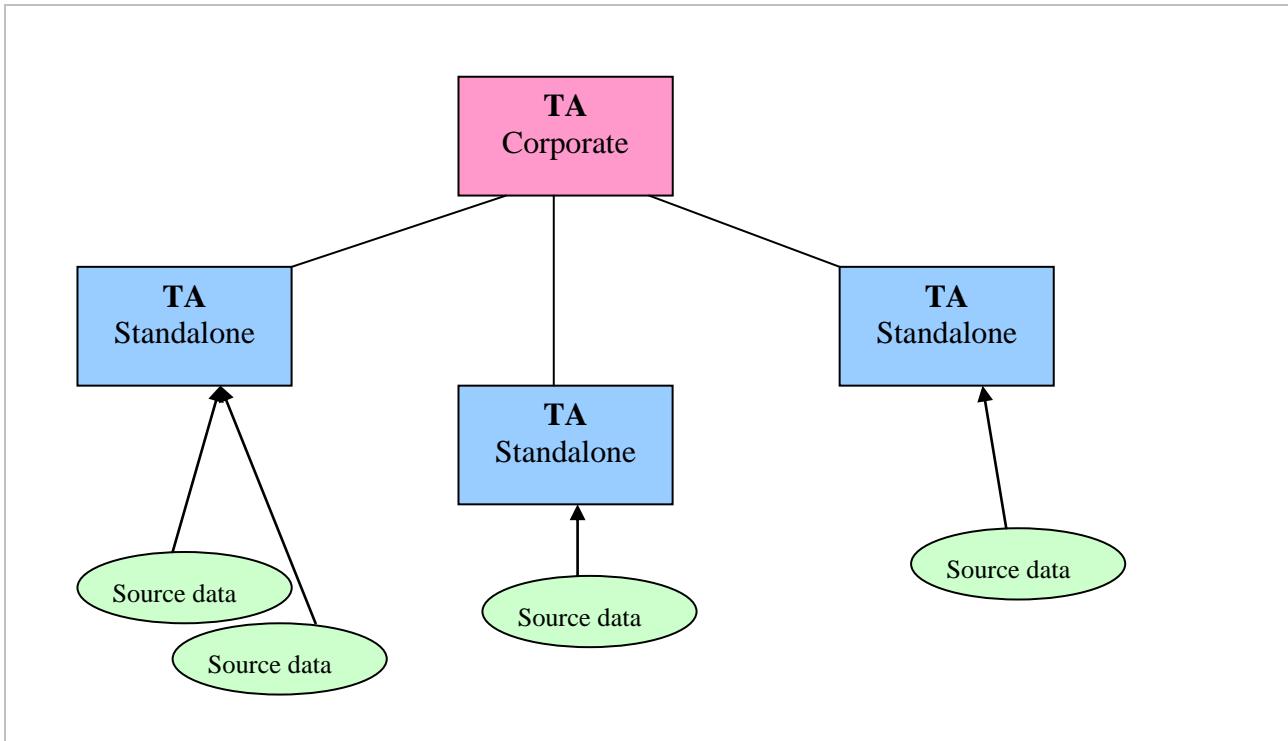
T&A should be back online in about 2m 39s

Thank you for your understanding.

At the end of process the login page will show up.

5.5. SETUP CORPORATE

This section aims to transform the current TA as a corporate. A corporate TA aggregates data from other TA applications. This is a diagram of a corporate architecture.



Typically, a Standalone TA would aggregate data from Cigale engines and would be dedicated to a local region or country. A corporate TA would aggregate from these different local TA to get a global overview of the network over the whole geographic area monitored by Astellia systems.

Remind that when a TA has been set as a corporate, there is no way to change it back to a standalone again.

To transform a TA as a corporate, you must follow these two steps:

5.5.1. STEP 1: SETUP THE APPLICATION AS A CORPORATE

As soon as you have set all the connections to standalone applications, you can setup the application as a corporate.

- ① Select the minimum time aggregation the corporate application.
- ② For each family of the product, select the minimum network topology level aggregation, and the data to be aggregated: RAW counters and/or KPIs.
- ③ Saving transforms your product in a corporate. Remember that, although the corporate settings can be modified at any time, when a TA has been set as a corporate, there is no way to change it back to a standalone again.

Setup corporate



1 Please, configure the Corporate families and press "Save" to deploy the configuration.
Notice : if you choose to export Kpis, they will be integrated as raw counters in the Corporate.

Once families are configured, **do not forget to configure the connections to your affiliates** if not already done.

Click here to access the "Setup Connection" interface.

Family	Minimal Network Aggregation (1st axis)	Minimal Network Aggregation (3d axis)	Super Network	Data to export
Net-Work	Cell			<input checked="" type="checkbox"/> Counters <input type="checkbox"/> Kpis
Net-Work	NET-Work			<input checked="" type="checkbox"/> Counters <input type="checkbox"/> Kpis
Office	Office			<input checked="" type="checkbox"/> Counters <input type="checkbox"/> Kpis
Building	WIFI-BLD			<input checked="" type="checkbox"/> Counters <input type="checkbox"/> Kpis
Home-Net	Cell	Tel		<input checked="" type="checkbox"/> Counters <input type="checkbox"/> Kpis
Home-Net	Cell	Cell		<input checked="" type="checkbox"/> Counters <input type="checkbox"/> Kpis
Cell-Net	Cell	Tel		<input checked="" type="checkbox"/> Counters <input type="checkbox"/> Kpis

③ **Save**

5.5.2. STEP 2: SETUP FTP CONNECTIONS TO THE STANDALONE PRODUCTS

You must set a FTP connection to each TA product you want to aggregate in the corporate TA.

You can switch to the *setup connection* menu directly for the *setup corporate* section:

Setup corporate



Please, configure the Corporate families and press "Save" to deploy the configuration.
Notice : if you choose to export Kpis, they will be integrated as raw counters in the Corporate.

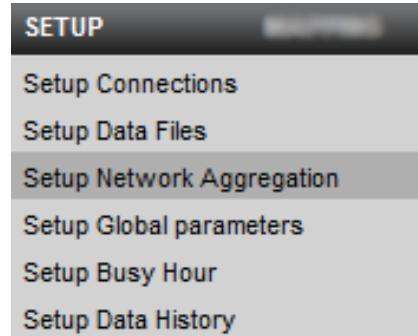
Once families are configured, **do not forget to configure the connections to your affiliates** if not already done.

➡ [Click here to access the "Setup Connection" interface.](#)

For each TA application the corporate must aggregate, set a connection to the [**/home/<standalone_ta_application_name>/upload/export_files_corporate/**](#) directory:



5.6. SETUP NETWORK AGGREGATION



This interface will let you create new “Network” aggregations that will be added to the default ones. A new “Network” aggregation applies to one specific family (on each product). So you will be first asked to choose a product and a family.

- “Network aggregation” main interface:

Setup Network Aggregation Interface 

New

Current family 

Network aggregation list

Name	Label	Aggregation Source
observednetwork	Observed Network	msc
cluster3	UserCellCluster3	cell
cluster2	UserCellCluster2	cell
cluster1	UserCellCluster1	cell
msc	MSC	bsc
lac	LAC	cell
bsc	BSC	cell
cell	Cell	cell

Click on the “New” button to create a Network aggregation.

- How to create a new network aggregation?

Step 1: Click on the “New” button to make appear the interface below.

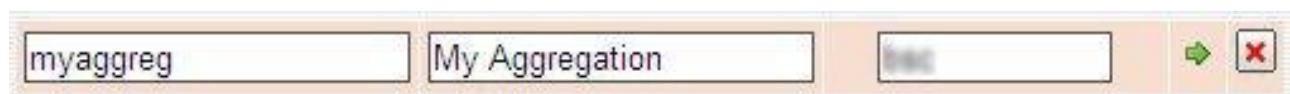
Name *	<input type="text"/>
Aggregation label *	<input type="text"/>
Aggregation Default Source *	<input type="button" value="Make your selection"/>
Aggregation Level *	<input type="button" value="="/>
Aggregation level of *	<input type="button" value="Make your selection"/>
<input type="button" value="Confirm >>"/> <input type="button" value="Save"/>	

Step 2: Fill in all the information below.

Name	Name of the aggregation used by the system (enter only lower case characters with no space)
Aggregation label	Label of the aggregation to be used for display.
Aggregation Default Source	Default aggregation to be used as the source for aggregation calculation (e.g. BSC will be aggregated based on Cell level).
Aggregation level	Select the operand to order the aggregation created.
Aggregation level of	Select the aggregation used for the order.

Step 3: Click on the “Save” button to save the information.

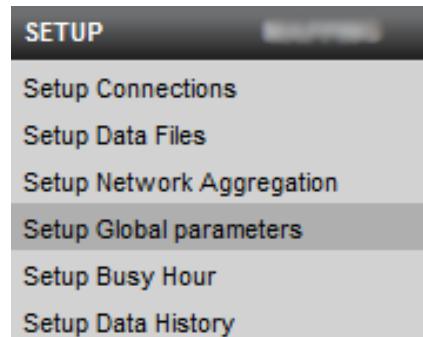
Step 4: A new line has been added to the previous table. Click on the green arrow to activate your network aggregation.



You can delete a network aggregation you defined. This will lead to the destruction of all related tables. A confirmation box will appear.

You cannot activate nor delete an aggregation while a process is running. A message will be shown if you try that.

5.7. SETUP GLOBAL PARAMETERS



This interface will let you modify the main parameters of the application. Some parameters cannot be modified but are just listed for information.

The parameters are defined for each product.

Note that the master product has an additional tab compared to the slaves one named "Global parameters". These specific parameters are defined for all products.

User Settings

Application Settings

Process Settings

Global Parameters

SMS-C Settings

④

Parameters list

① Parameter name	② Parameter value	③ Description
Backup Database directory	/home/backup/	
Capture Duration	3600	
Number of Counters/KPIs	1570	
Number of characters displayed for network aggregation label in the filter	30	
Number of probes	3	
SNMP trap activation	1	
SNMP Server Port	162	
SNMP Server	localhost	
Path to product documentation		
SNMP community	public	
SNMP trap format version	1	
BSC identifier option	0	
Save		⑤

①	Name of the parameters.
②	Value of the parameters.
③	Parameter description when the mouse is over this icon.
④	Tabs gathering the parameters.
⑤	Click on the "Save" button to save the parameters value.

You will find in following table explanations for available global parameters:

	Name	Description
User settings	Capture Duration	Time (sec.) during a capture has been performed by a probe (by default the value is set to 3600)
	SNMP trap activation	0 = deactivate SNMP traps 1 = activate SNMP traps
	SNMP Server Port	Port on which the SNMP Traps will be sent
	SNMP Server	IP address of the server that will receive the SNMP Traps
	SNMP trap format version	Version of the format used to send SNMP traps (either 1 for version 1 or 2c)
	SNMP Agent Address / Entity	Allow to configure the SNMP Agent Address / Entity. Default value is “”.
	SNMP community	Allow to configure the SNMP community. Default value is “public”.
	Backup Database directory	Backup Database directory where the database backup is stored
	Country identifier	Country identifier to be used when using a corporate server. Identifier is set by default to a blank value
	Number of counters/KPIs	Maximum number of active Counters/KPIs allowed
	Number of characters displayed for network aggregation label in the filter	Number of characters displayed for network aggregation label in the filter
	Number of probes	Number of probes installed that provide data to Trending&Aggregation
	Path to product documentation	Path to product documentation (path and file name), example : /doc/doc.pdf
	BSC identifier option	0 : use only id BSC, 1 : id BSC = [id MSC]_[id BSC]

	Name	Description
Application settings	Maximum number of displayed elements	The maximum number of network aggregation elements displayed in a dashboard in over time mode (default value is 10).
	Alarm Systems Activation	Activate/Deactivate the management alarm systems for files missing 0 = deactivate / 1 = activate

	Name	Description
Application settings	Gis mode	<p>Gis mode: Activation/Deactivation of the GIS module.</p> <p>0 = GIS module is deactivated 1 = 2D and 3D GIS are activated 2 = 3D GIS only is activated (limited mode for multi SRID countries)</p>
	Gis/Gis 3D display mode	<p>Gis display mode:</p> <p>0 : Disable Voronoi Polygons 1 : Enable Voronoi Polygons" (if "Gis mode" is set on "3D only", Voronoi Polygons are disabled)</p>
	Link To Activity Analysis	<p>Link to Activity Analysis on contextual menu:</p> <p>0 = deactivate / 1 = activate</p>
	Database and servers history for Activity Analysis	<p>Database and servers history for Activity Analysis :</p> <p>number of days of data available in Trending&Aggregation (by default : 60 days)</p>
	Product Name	Name of the product
	Product Version	Version of the product
	Application custom name	Astellia support custom name of application
	Reliability Indicator mode	<p>Activation/Deactivation of the Reliability indicator in the graph.</p> <p>1 = activated 0 = deactivated</p>
	Number maximum of 3rd Axis	Number maximum of 3rd Axis elements uploaded in the Topology
	First Day of the week	1 = Week starts on Monday 0 = Week starts on Sunday
	ErlangB availability	<p>0 = ErlangB function not available in KPI builder 1 = ErlangB function available in KPI builder</p>
	Parameters Trx and Charge In Topology	<p>Includes or not the Trx -- Transmission/Reception Unit -- and Charge parameters in topology (used for ErlangB KPI)</p> <p>0 = active 1 = inactive</p>
	Maximum number of KPI using Erlangb	Maximum number of KPIs using Erlangb function in their formula.
	Source Availability Activation	<p>0 = Deactivate Source Availability 1 = Activate Source Availability</p>

	Name	Description
Process Settings	Compute Mode	Compute Mode: “hourly” to setup aggregation calculation hour by hour “daily” to calculate all the hours of a day at the same time
	Hourly statistics history	Number of days of hourly available in Trending&Aggregation (by default the value is set to 7)
	Daily statistics history	Number of days of daily statistics available in Trending&Aggregation (by default the value is set to 120)
	Weekly statistics history	Number of weeks of weekly statistics available in Trending&Aggregation (by default the value is set to 52)
	Monthly statistics history	Number of months of monthly statistics available in Trending&Aggregation (by default the value is set to 60)
	Automatic topology update	1=Enable automatic topology update 0=Disable automatic topology update. If set to 1, the parameter “Topology file location” needs to be filled in
	Extended topology information from source files	1 to extract new topology information contained in source files (for example about MSC in Gsm, PCU and SGSN in Gprs). 0 to keep previous functioning and ignore them. Default value is "0". Should not be activated if all probes are not compliant.
	Topology file location	Topology file location: Full path to topology file
	Alarm e-mail subject format	Allow to configure the subject of the email sent when an alarm is triggered. Example: Trending&Aggregation Alarm (119 results) 2013-04-11-22-00 → Parameter tooltip is automatically updated with the message example corresponding to parameter value.
	Alarm results limit	Maximum number of results allowed for an alarm (by default it is set to 1000)
	Top/Worst List results	Number of results by Top/Worst List (by default it is set to 10)
	Delete data files during retrieve process	0: sub-directories disabled, 1: sub-directories enabled. This parameter must be set to: “0” for DataTrends product “1” for others products
	Duration delay for capture end time	Delay (in sec.) subtracted from capture end to define data hour

	Name	Description
Process Settings	Duration delay for capture end time	Delay (in sec.) subtracted from capture end to define data hour 0: delete disabled / 1: delete enabled
	Search data files into sub-directories	This parameter must be set to: "0" for DataTrends product "1" for others products

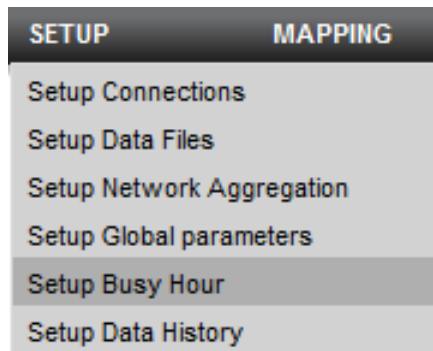
	Name	Description
Global Parameters	User statistics Mode	User statistics Mode: 0 = display statistics on user connections 1 = display statistics on number of pages viewed
	Tab color of graph	Tab color of graph: Possible colors are: deep pink, hot pink, magenta, orange red, red, green, blue, yellow, olive drab, brown, cyan, black, aqua, chocolate
	Automatic Email Activation	Automatic Email Activation: ➤ activate/deactivate the automatic email sending for alarms and reports (0=deactivate, 1=activate). ➤ activate/deactivate « Send To » contextual menu in dashboard interface
	'Critical' Alarm display color	Color used for the display of critical level alarms (default is set to #f88484)
	'Major' Alarm display color	Color used for the display of major level alarms (default is set to #fab308)
	'Minor' Alarm display color	Color used for the display of minor level alarms (default is set to #f7fa08)
	Alarm management Refresh	Alarm management automatic refresh periodicity
	Investigation dashboard - Number of selection	Number of network elements allowed for selection in the "Investigation dashboard" interface (by default it is set to 15)
	Reply To	Reply email address used in the automatic email sending. This email address corresponds to sender email address for alarms and reports automatic email sending.
	Number of charts with interactive data	Maximum number of charts displayed in a dashboard that will contain interactive data

	Name	Description
Global Parameters	Numbers maximum results displayed during a topology upload	Maximum number of results displayed during a topology upload
	Timer Builder Report	Maximum running time allowed for a query from the “Query Builder” interface before it is automatically killed (by default it is set to 300 seconds)
	Report Files History	Number of days of report files history available in Trending&Aggregation (by default, the value is set to 21)
	First Day of the week	First Day of the week: 1 = Week starts on Monday 0 = Week starts on Sunday
	Auto refresh delay	Delay in minutes to refresh GIS
	Gis 3D maximum number of elements	Maximum number of elements exported with Gis 3D module before displayed a warning
	Query Builder CSV export expiry date	Removes Query builder CSV exports older than x days
	Maximum results number displayed in Query Builder	Maximum number of result display in Query builder table and graph result.
	Minimum free disk space (in %) required for Query Builder	Minimum free disk space (in percent) required to launch a CSV export in Query builder.
	Extrapolation – Number of time aggregations	If <i>Extrapolation – Activation</i> has been set to ‘1’, set the maximum number of consecutive time aggregation periods for which KPI values will be deduced from existing data and represented on graphs.
	Extrapolation - Activation	Activate or deactivate the data extrapolation ability : ➤ Set ‘0’ to deactivate it ➤ Set ‘1’ to activate it
	Nova Explorer url	Url of related Nova Explorer application to link to.

	Name	Description
SMS-C Settings	SMS-C Host	SMS-C Host address
	SMS-C Port	SMS-C Port
	SMS-C System Id	System identifier use for SMS-C identification at bind time
	SMS-C System Type	System type used to categorize the type of ESME that is binding to the SMSC
	SMS-C Password	Password used by the SMSC to authenticate the identity of the binding ESME
	Alarm SMS Sender	SMS Sender phone number
	Alarm SMS Format	Default pattern is: [ALA_NAME] has been triggered [NB_ALA] times on [APP_NAME] ([IP])
	Alarm SMS maximum delay	Maximum authorized delay for SMS sending
	Alarm SMS minimum severity	Minimum severity for which SMS are sent
	Temporization of SMS sending	Allow to configure the SMS sending temporization

Note: If data extrapolation has been activated, it will not be possible to distinguish real values from extrapolated ones.

5.8. SETUP BUSY HOUR



The “Busy hour” feature can be configured for each family (on each product). It consists of choosing an indicator (raw counter or KPI) which maximum value will define the busiest hour of the day. Then, the dashboards can be displayed in “normal” or “busy hour” mode.

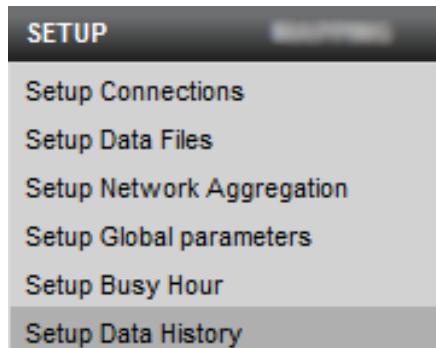
- How to configure a “Busy Hour” compute?

The dialog box has a title bar with 'Setup busy hour' and a small icon. Below it is a toolbar with a 'Save' button (marked 5), a 'Delete' button (marked 6), and other icons. The main area is titled 'Busy Hour definition'. It contains three sections: 'Based on:' (radio button 2, 'Type' selected), 'Time aggregation:' (radio button 3, 'BH' selected), and 'Network aggregation:' (radio button 4, 'Standard' selected).

1	Click on this button to change the current family.
2	Select the “raw counter” or “KPI” used to calculate the “Busy Hour”.
3	Select “Busy Hour” time aggregation mode: BH: Busiest hour of the day. Indicators values are computed as follows: ➤ Day BH: value of the busiest hour of the day ➤ Week BH: value of the busiest day of the week ➤ Month BH: value of the busiest days of the month
3	3DBH: Average of the three busiest periods. Indicators values are computed as follows: ➤ Day 3DBH: average of three busiest hours of the day ➤ Week 3DBH: average of three 3DBH days of the week ➤ Month 3DBH: average of three 3DBH days of the month

	Select “Busy Hour” network aggregation mode:
④	Standard: Busiest hour of the network element
	Aggregated Sum of busiest hours of network elements used to aggregate the network element
⑤	Click on the “Save” button to save the configuration.
⑥	Click on the “Delete” button to delete the configuration.

5.9. SETUP DATA HISTORY



This interface is dedicated to configure for each family (from each product) how long hour/day/week/month data will be stored in T&A application.

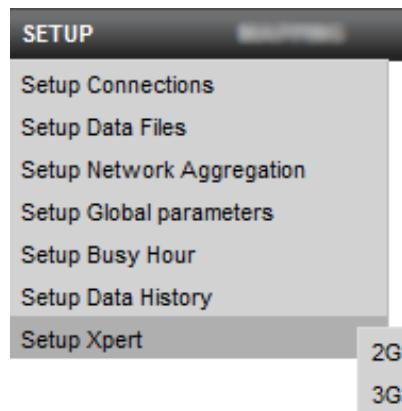
A screenshot of a configuration interface titled "Setup data history". At the top right are icons for "Print" and "Close". The main title is "TA Cigale Iu : Efficace/Paging/Timers SAI" with a refresh icon. Below the title is a section titled "Parameters list" with a radio button next to it. A table lists four time aggregation periods with their current values:

Time Aggregation	Value
Hour (31 days max.)	7 days
Day (200 days max.)	120 days
Week (104 weeks max.)	52 weeks
Month (60 months max.)	60 months

A "Save" button is located at the bottom right of the table.

If user does not customize data history parameters values, through this interface, the data storage period is defined according to Hourly statistics history, Daily statistics history, Weekly statistics history, Monthly statistics history global parameters (see [Setup Global parameters](#) paragraph).

5.10. SETUP XPERT



If one or more T&A Xpert software is installed with the T&A Master Product, an Xpert sub menu is available in the administrator Setup menu.

This link allows the user to access the T&A Xpert viewer user interface (Please report to T&A Xpert user manual for details)

If more than one T&A Xpert is configured, multiple Xpert submenus will be available, one for each Xpert viewer (as displayed in the screenshot above).

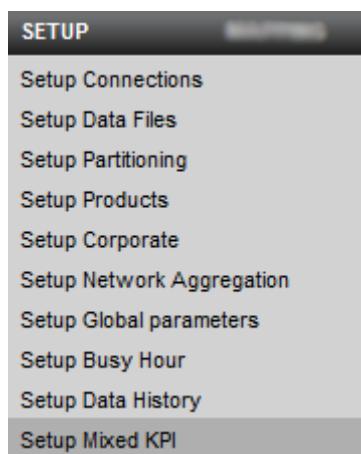
5.11. SETUP MIXED KPI

This new feature allows you to compute kpis coming from different products. It is situated on the master product and is not activated by default.

When this feature is activated, “Mixed KPI” is a new product. When opening a T&A function like “KPI Builder” for instance, “Mixed KPI” is one of the items among the products and you’ll configure KPIs the same way you do with standard products (the only difference will be that the input data will come from several products).

5.11.1. FEATURE ACTIVATION

In order to activate Mixed KPI function, go to SETUP/Setup Mixed KPI menu:



When selecting « Setup Mixed KPI », the page below is activated:



In order to activate the “Mixed kpi” feature, follow these steps:

1/ Select the button “Activation of Mixed KPI product” from the window (see above). The page below will appear:

Setup Mixed KPI



1

Installation of Mixed KPI product will restart all the processes. Check that all processes have been stopped correctly. Be careful, this installation may increase processing time for all applications installed on this server.

It must having enough space disk for all applications make correctly on this server. You can activate Mixed KPI product even if it is not enough space disk but it possible to have one saturation of space disk

Disk space for database :

Free : 634.2 GB
Recommend : 328 MB

Disk space for the application :

Free : 525.5 GB
Recommend : 139 MB

Warning : The activation will take a few minutes

Confirm the activation of Mixed KPI product

2/ Select the button 'Confirm the activation of Mixed KPI product'. During activation, please do not make any action and not press 'Escape' key".

The page below will appear:

Setup Mixed KPI



1

General information

- You can configure the Mixed Kpi families below.
- You can change the label of your family with the link "edit family".
- You can select the families from each product with the link "edit family".
- You can select the Network Aggregation levels to use with the link "edit NA".
- If you do not select the Network Aggregation levels you will get errors while the retrieve process.
- You can not edit counters or kpis if you have not selected its Network Aggregation.
- To setup connections to your other products, follow the link hereafter: Mixed Kpi setup connection.

Minimal Time Aggregation

- You can modify the minimal Time Aggregation of the product.
- However this can lead to loose data.
- The minimal Time Aggregation is defined for your whole Mixed KPI Product.

Minimal Time Aggregation of this product :

4

Mixed KPI family list

Family name	N° min	Actions
-------------	--------	---------

1	Allows to go to the “connection setup interface” of mixed kpi product (see 5.1).
2	➤ Minimal Time Aggregation configuration.
3	Mixed KPI family configuration.
4	Dashboard selection for mixed kpi indicators.

5.11.2. MIXED KPI FAMILY CONFIGURATION

After choosing the appropriate minimal Time Aggregation (**2** above), you can configure mixed kpi families. “Mixed KPI” feature is restricted to families which are composed with only 1st axis. Families containing 3rd axis will not be available.

In order to do so, follow these steps:

1/ Select the button “Add a family” (**3** above). A new window is displayed:

The screenshot shows a software interface titled "Setup Mixed KPI". At the top, there's a "Back to main page" link and a gear icon. Below it, a section titled "Edit family properties" has a "Family label" input field containing "compteur" with a red circle and question mark icon. A blue bar below says "Select the NA families over the different installed products." There are three columns of checkboxes representing different products or families. At the bottom is a "save & configure NA" button.

1	Edition area to register the family name.
2	➤ Product name
3	Family name in the product.

2/ Enter the new family name in the appropriate area (**1** above)

3/ Choose the families in which you want to select counters/kpis (**3** above)

4/ Then select the button “save & configure NA”: A new window is displayed to configure NA levels:

Setup Mixed KPI

Back to main page 5

1 You can not deselect the level you are using as min level. This level is obligatorily aggregated on itself.
Once defined, changing min level and selected level can lead to loose data.

NA name	Use the level as min 1	include the level 2	NA source for Aggregation 3
	<input type="radio"/>	<input checked="" type="checkbox"/>	
	<input type="radio"/>	<input type="checkbox"/>	
	<input type="radio"/>	<input type="checkbox"/>	
	<input type="radio"/>	<input type="checkbox"/>	
	<input type="radio"/>	<input checked="" type="checkbox"/>	
	<input type="radio"/>	<input checked="" type="checkbox"/>	
	<input type="radio"/>	<input type="checkbox"/>	
	<input type="radio"/>	<input checked="" type="checkbox"/>	

Save 6

1	Selection of the minimal NA level.
2	➤ Choice of other NA levels.
3	Choice of source aggregation level for each NA.
4	Go back to the previous page.
5	Go back to the main Setup Mixed KPI page.
6	Save the configuration and go back to the main Setup Mixed KPI page.

5/ Select Save (see 6 above): the main Setup Mixed KPI page is displayed with the new registered family:

Setup Mixed KPI

General information

- You can configure the Mixed Kpi families below.
- You can change the label of your family with the link "edit family".
- You can select the families from each product with the link "edit family".
- You can select the Network Aggregation levels to use with the link "edit NA".
- If you do not select the Network Aggregation levels you will get errors while the retrieve process.
- You can not edit counters or kpis if you have not selected its Network Aggregation.
- To setup connections to your other products, follow the link hereafter: [Mixed Kpi setup connection](#).

Minimal Time Aggregation

- You can modify the minimal Time Aggregation of the product.
- However this can lead to loose data.
- The minimal Time Aggregation is defined for your whole Mixed KPI Product.

Minimal Time Aggregation of this product:

Mixed KPI family list

Family name	Na min	Actions			
		<input type="button" value="Edit family"/>	<input type="button" value="Edit NA"/>	<input type="button" value="Edit counters"/>	<input type="button" value="Edit Kpis"/>
1	2	3	4	5	6

1	Name of the configured mixed kpi family
2	➤ Minimal NA level for the family
3	Family Edition
4	NA Edition
5	Counters Edition.
6	KPIs Edition.
7	Erase the family.
8	Selection of Mixed KPI Dashboards.

5.11.3. MIXED KPI FAMILY EDITION

The Edition of the family is done from the main Setup Mixed KPI page (§5.11.2, Step 5).

5.11.3.1. Family edition

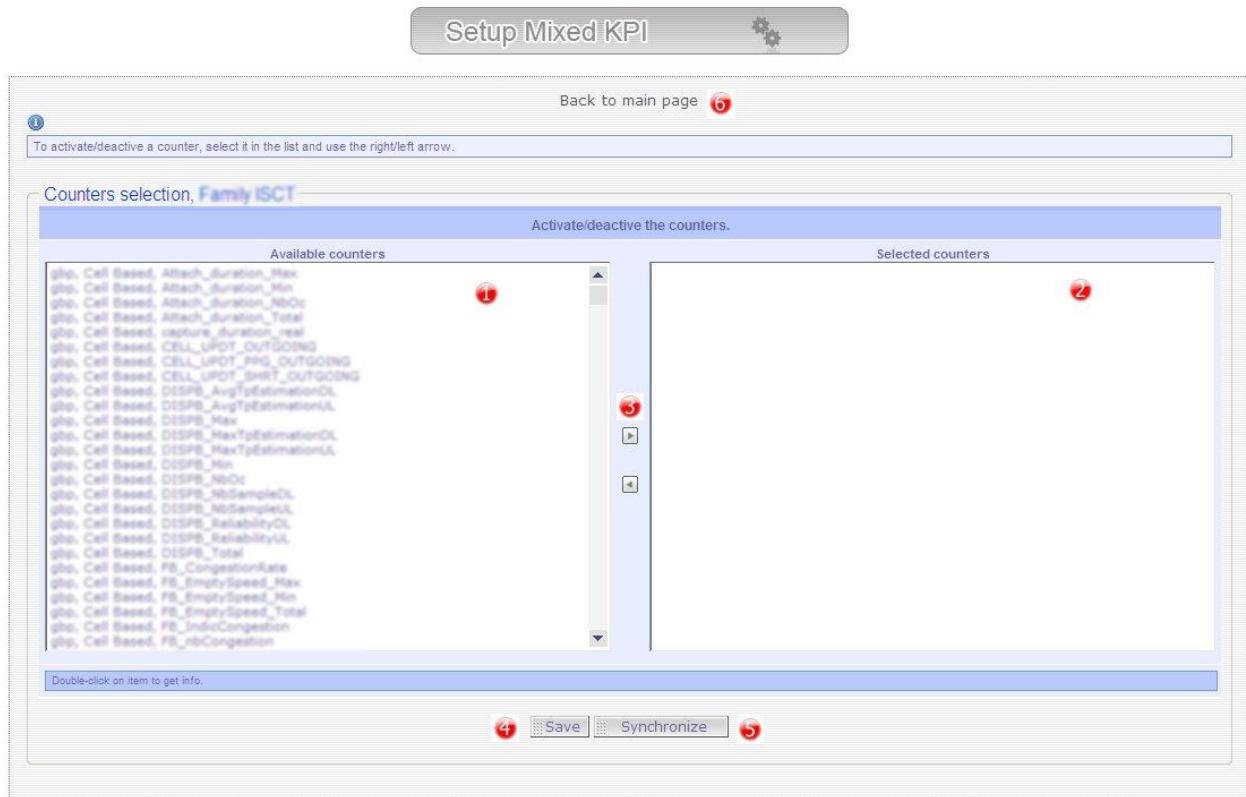
Select link **3** above and go to the page from § 5.11.2 Step 1

5.11.3.2. NA edition

Select link **4** above and go to the page from § 5.11.2 Step 4

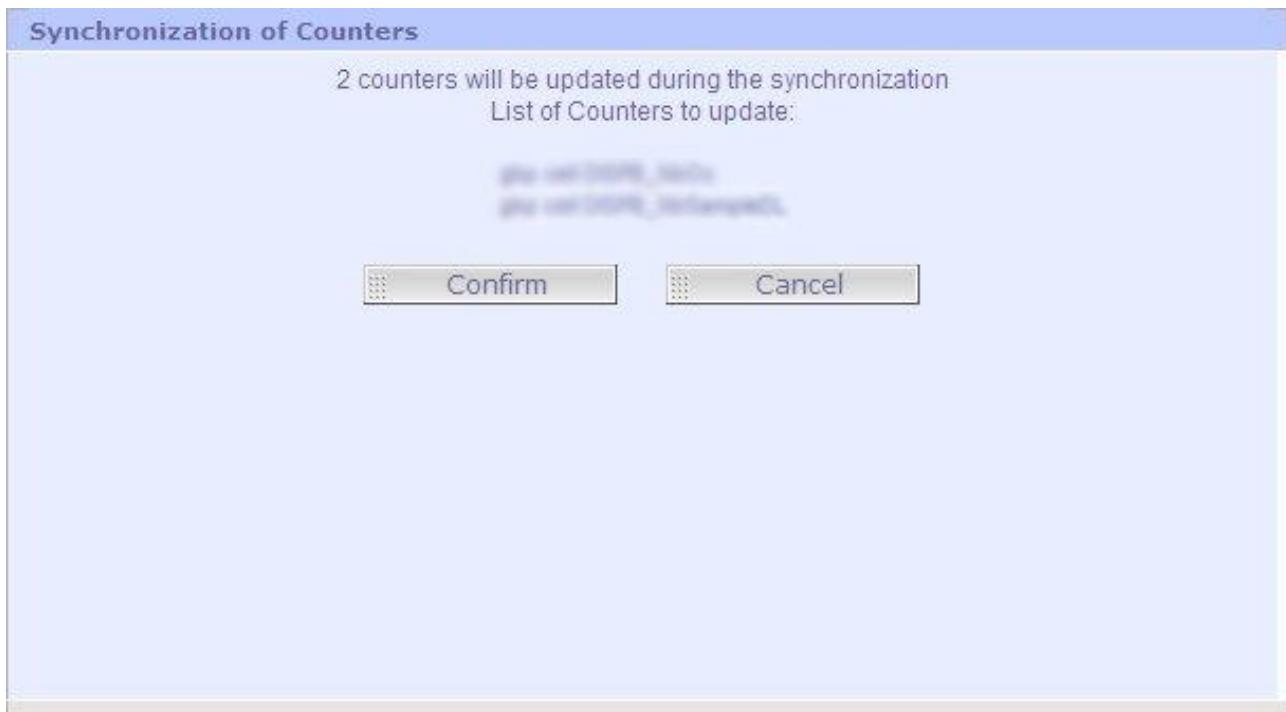
5.11.3.3. Counters Edition

Select link ⑤ above and go this page:

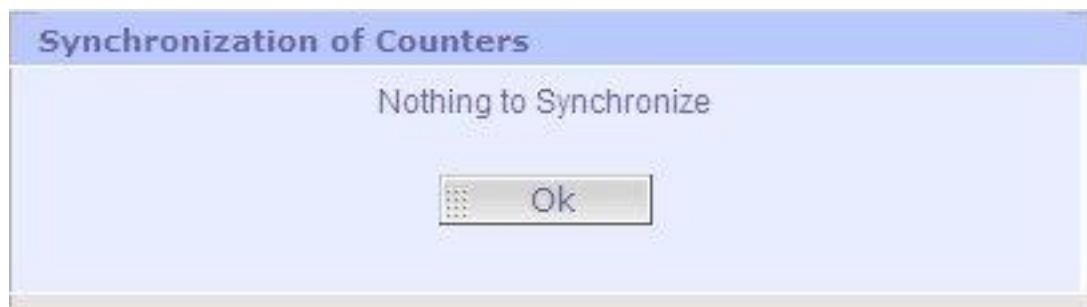


①	Available counters area (composed with “Trigram, Family name, Counter Name”)
②	➤ Selected counters area
③	Command buttons to choose counters
④	Save the configuration
⑤	Synchronize formula of counters
⑥	Go back to the main Setup Mixed KPI page.

- 1/ Choose the counters by selecting them in ① (above)
- 2/ use the arrow buttons (③ above) to transfer counters from one area to the other.
- 3/ When your counters are selected (they must be displayed in area ② (above), you can save your configuration (④ above).
- 4/ You can synchronize formulas of counters between Mixed KPI product and affiliate product.
 - Confirmation will be necessary to update formulas of counters on Mixed KPI product



- If formulas are the same between Mixed KPI product and affiliate product, update will not be available



5.11.3.4. Kpis Edition

Select link “Edit KPIs” (see § 5.11.2 Step 5) and go to this page:



1	Available kpis area
2	➤ Selected kpis area
3	Command buttons to choose kpis
4	Save the configuration
5	Go back to the main Setup Mixed KPI page.

Same steps as 5.11.3.3 excepts synchronization command

5.11.4. DASHBOARD CONFIGURATION

1/ Select button “Select Dashboards” from the main “Setup Mixed KPI” page. This page is displayed:

Setup Mixed KPI

Back to main page

① You can select to automatically deploy dashboards in Mixed KPI product.
If some elements are not present:

- They will not be deployed.
- If a graph, pie or dashboard are sorted by them, they are replaced by the first element found.

You cannot copy dashboards in which all elements are missing.

Color code for Raw counters and KPIs

All Raw counters and KPIs with the color **green** are present in Mixed KPI product.
All Raw counters and KPIs with the color **red** are not present in Mixed KPI product.

Color code for Graphs, Pies and Dashboards

Items in **green** are complete, no missing Raw counters or KPIs.
Items in **orange** have at least one missing Raw counters or KPIs.
Items in **red** have no known Raw counters or KPIs.

Select Dashboards

ADIACENCIES HANDOVERS

A Interface circuits

APN INFORMATION (xit_gprs_doc)

Call Drops **③**

- Drop rates of connected calls **④**
- DC BSS Drop rates
- TC BSS Drop rates
- Detail on call drops causes

GMMBERS (xit_gprs_doc)

INQUAL

RDCCH

SERVICE QUALITY (xit_gprs_doc)

SESSION (xit_gprs_doc)

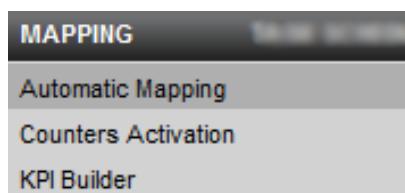
Type of Calls, Codec Supported-Allocated

⑤

①	Information about Dashboards configuration
②	➤ Checkbox to select mixed kpi dashboards
③	Available dashboard
④	Available graph
⑤	Save the configuration.

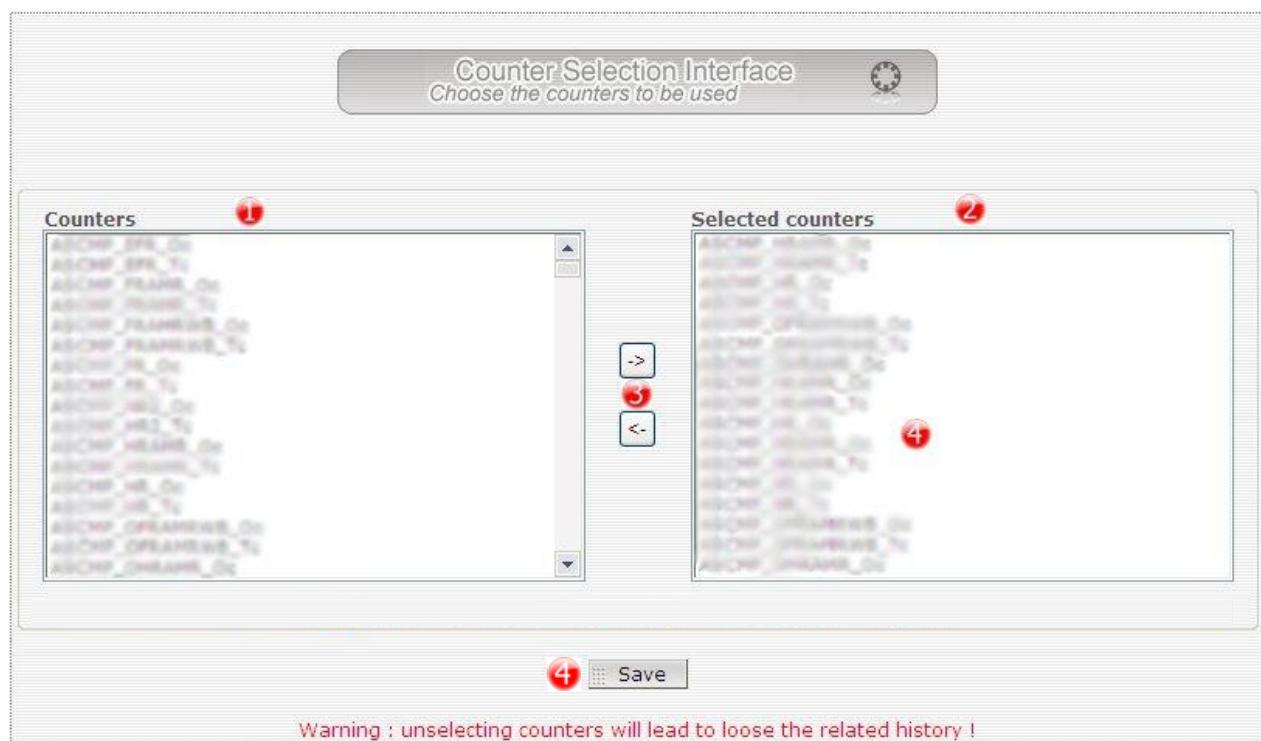
6. MAPPING

6.1. AUTOMATIC MAPPING



This interface will let the administrator choose for each product the counters available to be collected by the application.

The list of “mapped” counters will be added to the standard list provided at the installation of the application.



- | | |
|---|----------------------------------------------------------|
| ① | List of all available counters in the data source files. |
| ② | List of counters selected by administrator. |
| ③ | Enable or Disable the use of counters. |
| ④ | The “Save” button will save the configuration. |

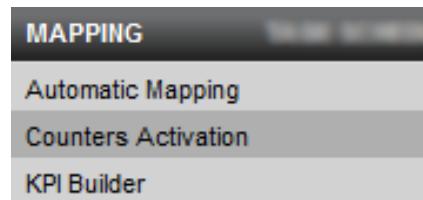
Unselecting counters will lead to lose the related history.

Once a counter is selected, it appears in the available counters list of the “Counters Activation” interface.

- Rules on "Automatic Mapping":

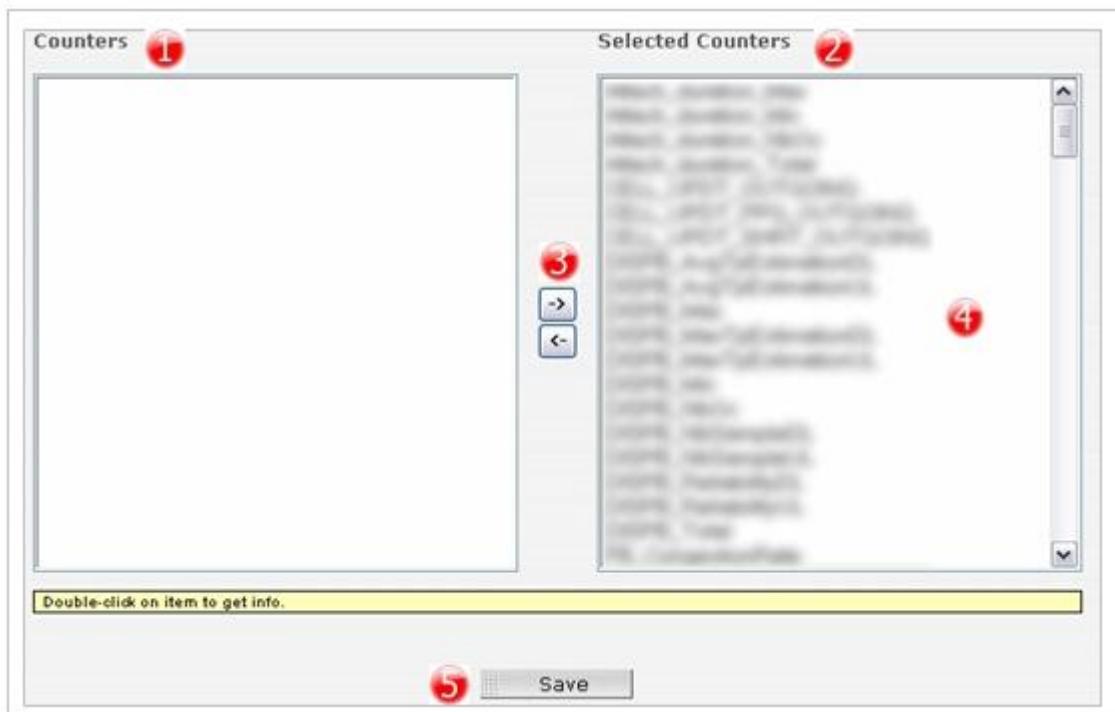
1. It is not possible to disable a counter used in a KPI formula. In case a “raw counter” belongs to a KPI formula, you would be warned by a red error message.
2. In order to activate the selected counters, it is required to use the “Counters Activation” interface (See "[Counters Activation](#)" paragraph).
3. Before being available in the “Counters activation” interface, the counters that have just been mapped must be recognized by the system during a process of “data collect” that occurs during the retrieve process.

6.2. COUNTERS ACTIVATION



By using the “Counters activation” interface, the administrator will manage the list of counters that will be collected and calculated automatically by the system for each family (from each product).

- “Counters activation” main Interface:



1	List of all available counters.
2	List of counters selected to be collected and calculated.
3	Enable or Disable the use of counters.
4	By double-clicking on a counter, detailed comments on the counters are displayed.
5	The “Save” button will save the configuration.

- Limitation on the number of selected counter

There are limited number of counters that can be activated, the remaining number of counter is displayed above the Selected counter list (2).

When this number is running low, T&A might be able to recover some counter availability from previously deleted counters. In this case, a message is displayed showing the

number of available counters that will be recovered. However this operation can be very time consuming and can therefore be only executed during the next daily compute process (See "Process" paragraph).

- Limitation in case of running processes
- Counters can't be selected between "Retrieve" and "Compute" processes. Wait for the end of the upcoming "Compute" and retry.

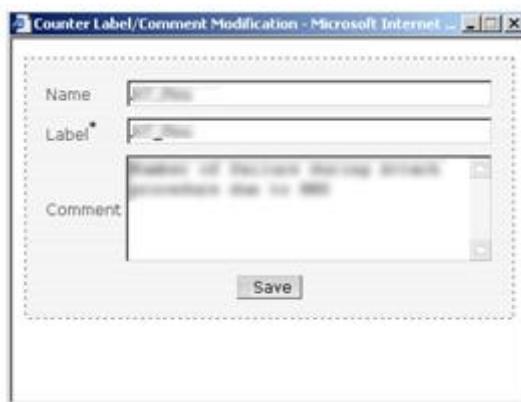
In that case, the arrow from "Counters" list to "Selected counters" list is not displayed and a warning message is displayed.

- How to modify one counter properties?

Step 1: By double-clicking on a selected counter, a hyperlink "Modify" will be displayed next to the counter information.



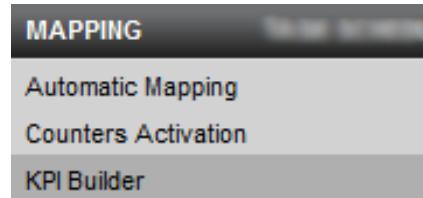
Step 2: By clicking on "Modify", the following window will be displayed. The label of the counter and its comment can be modified and saved.



- Rules on "Counters Activation":

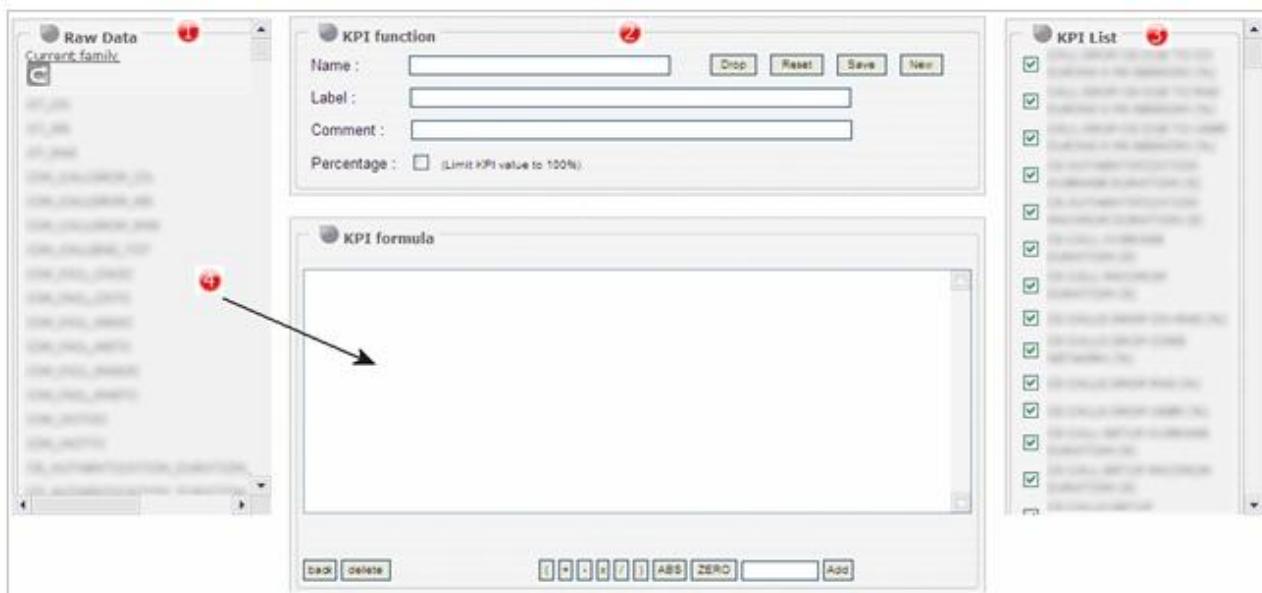
4. It is not possible to disable a counter that is used in a KPI formula. In case a "raw counter" belongs to a KPI formula, you would be warned by a red error message.

6.3. KPI BUILDER



The “KPI Builder” interface will let the administrator create any KPI based on the “raw counters” for each family (from each product).

- “KPI Builder” main Interface:



The interface is divided in 3 parts:

①	List of activated counters classified by family.
②	Interface to create / update / delete a KPI.
③	List of KPIs created for the chosen family.

When clicking on a counter, it will appear in “KPI formula”. (④)

By choosing a family, the system will display the list of counters that have been activated through the “Counters Activation” menu (see “[Counters Activation](#)” paragraph).

- How to create a KPI?

The screenshot shows the 'KPI function' configuration interface. At the top, there are fields for 'Name' (with a help icon), 'Label', 'Comment', and a 'Percentage' checkbox (unchecked) with the note '(Limit KPI value to 100%)'. Below these are four buttons: 'Drop', 'Reset', 'Save', and 'New'. A large text area for the KPI formula is centered. At the bottom, there's a toolbar with buttons for 'back' and 'delete' on the left, and operators (+, -, ×, ÷, ABS, Greater than 0) on the right.

Step 1: Reset (if necessary) any KPI that would be displayed in the KPI formula area by clicking on the “Reset” button.

Step 2: Give a name to the KPI. The name only accepts standard letters and figures with no space (you can use underscore).

Step 3: Give a label to the KPI. This will be used for the display in the dashboards.

Step 4: Enter a comment for the KPI that will be used in the dashboards.

Step 5: Check the box “Percentage” in order to limit the KPI value to 100% in case the calculation result is over 100. Pay attention to check the box only for percentage KPIs.

Step 6: Add any counter to the formula by clicking on a counter from the list. Add any operator (+, -, ×, ÷, ABS) by clicking on the toolbar below the KPI formula interface. The “Greater than 0” operator will force to 0 the result of the expression if it is a negative value. Usage: `GREATEST(0,[expression])`.

Delete the whole formula by clicking on the “delete” button from the toolbar. Move back in the formula by clicking on the “back” button from the toolbar.

Add any figure (e.g. 101.32) by typing the figure in the appropriate zone and then click on the “Add” button.

If you want to create a KPI based on an ErlangB formula, please refer to the special ErlangB formula section bellow.

Step 7: Click on the “Save” button and check that the KPI is now created in the list.

In case, the formula and/or the KPI name is not correct, you will be prompted an error message.

Special note about ErlangB: How to define a new KPI based on an ErlangB formula:

PLEASE CARE ABOUT THAT SECTION, BECAUSE IF YOU DEFINES A NON VALID ERLANG FORMULA AS A KPI, ALL THE KPI WON'T BE CALCULATED, NOT ONLY THAT SINGLE ONE.

ERLANGB KPIs WILL ONLY BE CALCULATED FOR THE MINIMUM TOPOLOGY LEVEL OF YOUR NETWORK (EX: CELL FOR GSM/GPRS, SAI FOR IU)

6.3.1. AIM OF THE ERLANGB MODULE:

Erlang's B table defines the relationship between three kinds of data. These are:

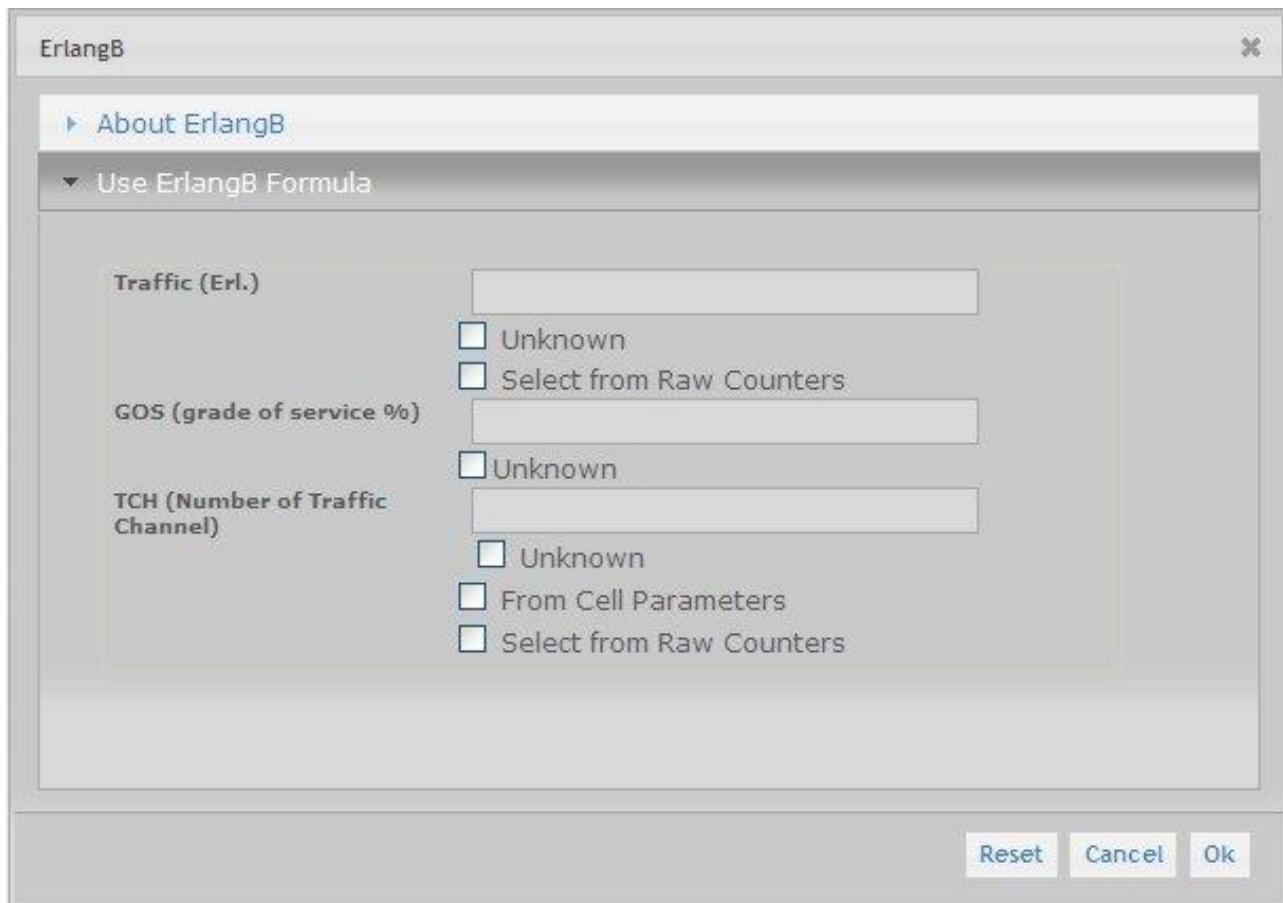
- The traffic intensity. Referred as Traffic, expressed in Erlang.
- The Grade of Service. Referred as GoS, expressed in percentage.
- The number of traffic channels.
- The ErlangB KPI builder allows the calculation of one of these 3 elements, from the others two, based on the Erlang's B table.

6.3.2. PREREQUISITES:

Having activated the ErlangB calculation ability is a prerequisite. ErlangB calculation ability setting is managed in *Setup > Setup Global Parameters > Application Settings*. Field “Erlang B Calculation Activation” must have been set to 1.

6.3.3. CREATE A KPI ERLANGB FORMULA THROUGH THE ASSISTANT INTERFACE:

To go on the Erlang B formula creation assistant, click on the Erlang B button. This is the ErlangB formula creation interface:



6.3.3.1. Select the data you want to calculate

Check the box '*Unknown*' of the data you want to calculate.

Note: You must of course check one and only one '*Unknown*' box.

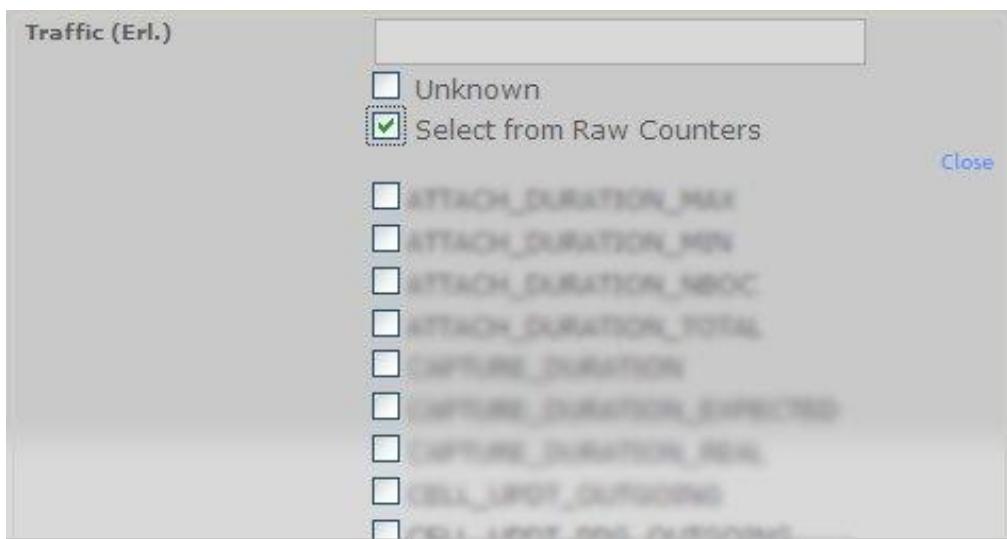
6.3.3.2. Fill the others two data

6.3.3.2.1. Filling the traffic intensity:

You can either fix a numeric value as the traffic intensity, or make it being calculated from some raw counters, that you will select.

To fix a value, fill the field with that value, and be sure that both the '*Unknown*' and '*select from raw counters*' boxes are unchecked.

To make the traffic being calculated from raw counters, verify that the value field and the '*Unknown*' box are both unfilled and unchecked. Then, check the '*Select from raw counters*' box. Then you'll be able to select the counters you want the traffic to be calculated from:



By default, the traffic will be calculated as the sum of the counters you selected. To change that to another formula, you will have to edit the KPI formula after having closed the erlangb assistant (and of course saved your work before.)

Go to the [Edit the Erlang KPI formula](#) section (below to be guide through this operation.)

6.3.3.2.2. Filling the Grade of Service:

Fill the value you want to set for GoS. For a 2% GoS, fill '2'.

GOS (grade of service %)	2
--------------------------	---

6.3.3.2.3. Filling the Number of Traffic Channels:

Three options are available to you so set the value for the number of traffic channels argument, and you must choose one. These are:

6.3.3.2.3.1. Fix a numeric value

To fix a value, fill the field with that value, and be sure that both the 'Unknown' 'From cell parameters' and 'Select from raw counters' boxes are left unchecked.

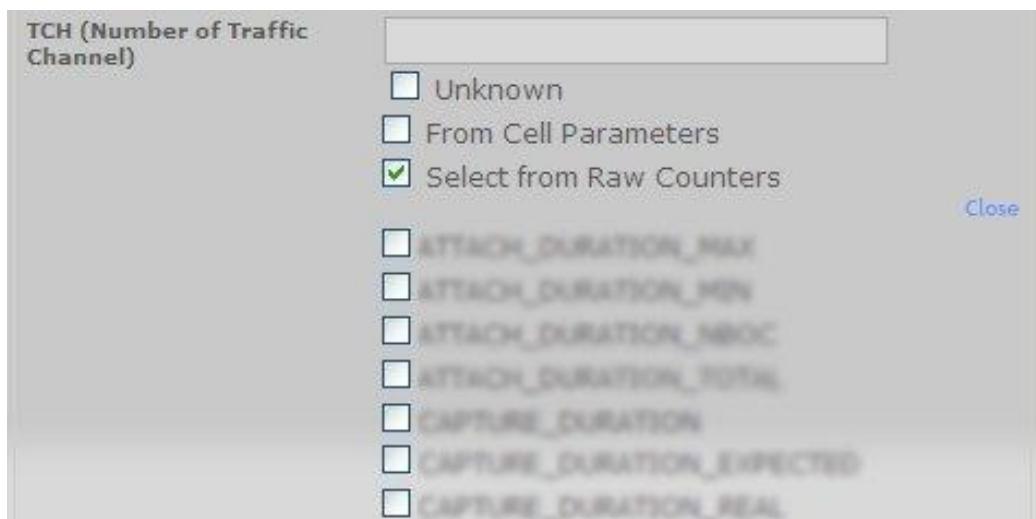
6.3.3.2.3.2. Check the 'From cell parameters' box

By checking this box, you make the TCH being calculated for each cell from the *Trx* and *Charge* arguments you have previously set in your topology.

Ensure that you have previously both set the *Setup > Setup Global parameters > Application settings > Parameters Trx and charge in topology* bit to 1 and uploaded a topology with these values.

6.3.3.2.3.3. Check the 'Select from raw counters' box

To make the TCH being calculated from raw counters, verify that the value field, the 'From cell parameters' box the 'Unknown' box are left unfilled/unchecked. Then, check the 'Select from raw counters' box. Then you'll be able to select the counters you want the traffic to be calculated from:



By default, the TCH will be calculated as the sum of the counters you selected. To change that to another formula, you will have to edit the KPI formula after having closed the erlangb assistant (and of course saved your work before.)

Go to the [Edit the Erlang KPI formula](#) section (bellow to be guide through this operation.)

6.3.3.2.4. Edit the ErlangB KPI formula

After you have created your formula through the assistant, it appears in the *KPI formula* window, formatted as:

`erlangb(arg1,arg2,arg3,arg4,arg5,arg6)` where:

`arg1` is the Traffic calculation formula from raw counters (case *Filling the traffic intensity*, i.e. if the *select from raw counters* option has been selected for traffic).

`arg2` is the TCH calculation formula from raw counters (case *Filling the Number of Traffic Channels*, i.e. if the *select from raw counters* option has been selected for TCH).

`arg3` is the GoS numeric value

`arg4` is the TCH numeric value

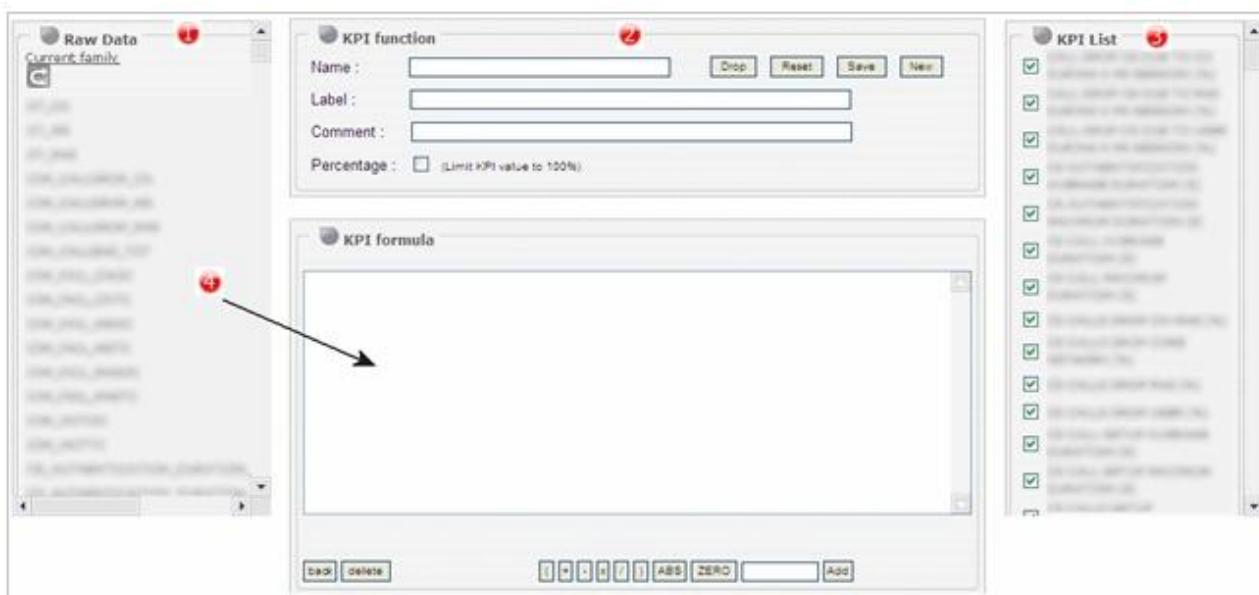
`arg5` is the Traffic numeric value

`arg6` is the data that have been set as the unknown ('TRAFFIC', 'GOS' or 'CHANNEL')

If you have checked the '*Select from raw counters*' box for Traffic or TCH in the assistant, `arg1` or `arg2` will by default be set as the sum of the raw counters you have selected.

You can edit these formulas.

- How to modify a KPI?



Step 1: Click on a KPI from the KPI list (KPI name and formula) in the KPI interface (3).

Step 2: Modify the KPI formula by using the “toolbar” operators and functions.

Step 3: Click on the “Save” button in order to update the KPI. A message will ask for confirmation of the modifications.

- How to remove a KPI?

Step 1: Click on a KPI from the KPI list to be displayed (KPI name and formula) in the KPI interface.

Step 2: Click on the “Drop” button to remove it. A message will ask for confirmation.

Note: the deletion of the KPI will be effective after the execution of a Retrieve Process (see “Task Scheduler” paragraph).

When removing a KPI, all its history will be deleted from the database. In case you just want to disable a KPI, please follow the instructions below “How to disable a KPI”.

- How to disable a KPI?

Click on the checkbox next to the KPI to be disabled. When the checkbox is unchecked / checked, the KPI is disabled /enabled.



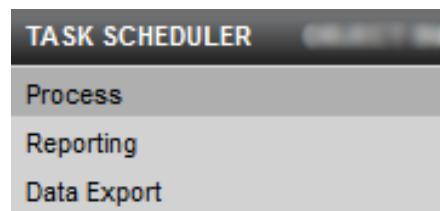
Be careful: if you deactivate a kpi which is in a dashboard, this dashboard would not be longer available for the kpi results

- Rules on KPIs:

5. It is not possible to remove a KPI that has not been created by the customer and. its formula can only be displayed.
6. If a KPI used in a Graph/Dashboard is disabled, you may not be able to see appropriate Graph/Dashboard results especially if the KPI is used for “GIS”, “Overtime” and “OverNetworkElements” sort.

7. TASK SCHEDULER

7.1. PROCESS

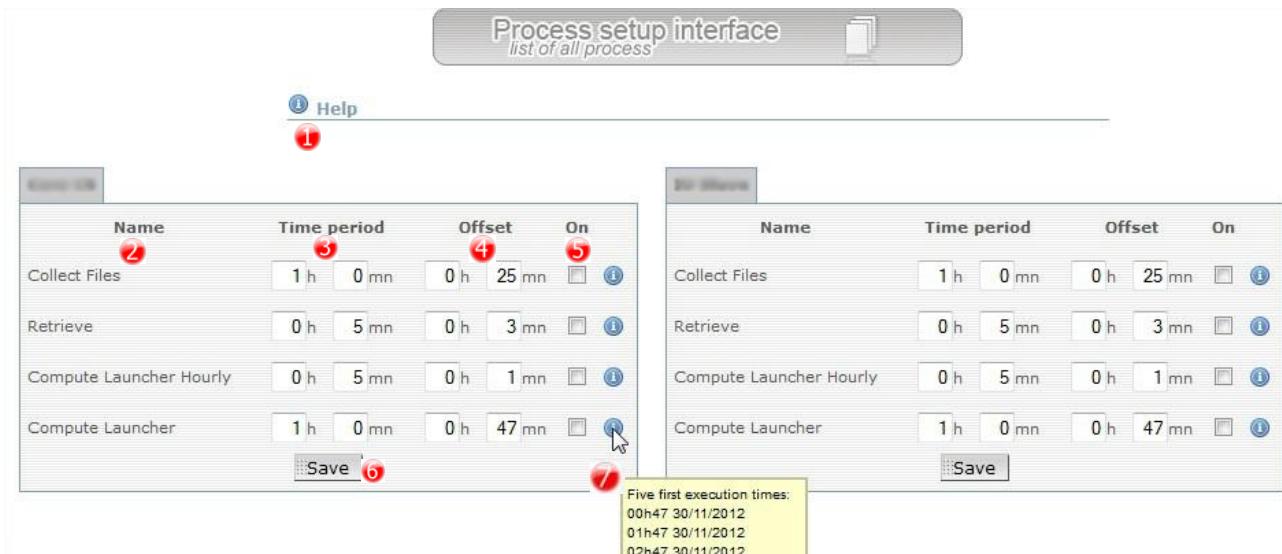


The Task scheduler is an interface to parameterize the launch of the automatic process on each product:

- Collection of sources data files (Collect Files)
- Automatic extract of data from source files (Retrieve)
- Automatic calculation of data (Compute)
- Corporate Process (used only for a corporate installation).

- “Process” main Interface:**

This interface shows a box per installed product.



①	Click to display / hide help.
②	List of the process that will be parameterized. No process can be created or deleted.
③	<p>“Time period” is the period expressed in hour and minutes:</p> <ul style="list-style-type: none"> Choose the time period between two consecutive launches of the process. <p>“Offset” is a delay added to the “Time period” to determine the time the process will be launched.</p> <p>The “Offset” cannot be upper than the “Time period”.</p> <p>The 0 for the offset hours corresponds to midnight</p> <p>The 0 for the offset minutes correspond to any hour and 0 minutes.</p> <p>A process launched every day at 3:30am must be parameterized as follows:</p> <ul style="list-style-type: none"> Time period = 24h0min Offset = 3h30min <p>A process launched every 2 hours at 15 minutes is to be parameterized as follows:</p> <ul style="list-style-type: none"> Time period = 2h0min Offset = 0h15min <p>It is extremely important not to parameterize a process that could be run during the change of the day (overlapping Midnight).</p>
④	
⑤	“On” is a flag to activate a process. If “On” is not selected then the process will not run.
⑥	Click on button to launch related process without waiting scheduling. Process is then launch after a short time.
⑦	The “Save” button will save the configuration.
	This Information tooltip previews the first 5 execution times of the process with currently configured Time period and offset.

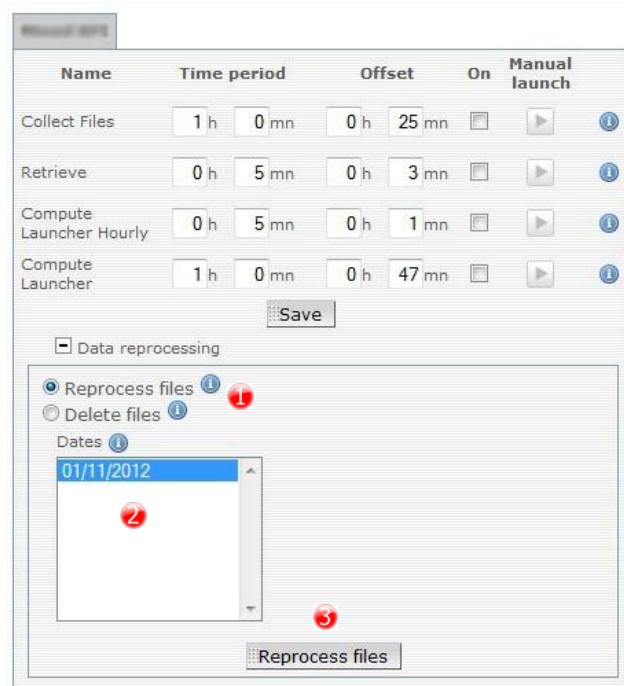
Process scheduling configuration best practice:

Although *Retrieve* and *Compute* tasks must be run sequentially, *Collect* and *Compute* can run in the same time. Actually, they should capitalize of that ability and be scheduled to run together to optimize the overall data processing time.

- “Reprocess files” Interface:

The “Reprocess files” process allows to reintegrate data from the archive files.

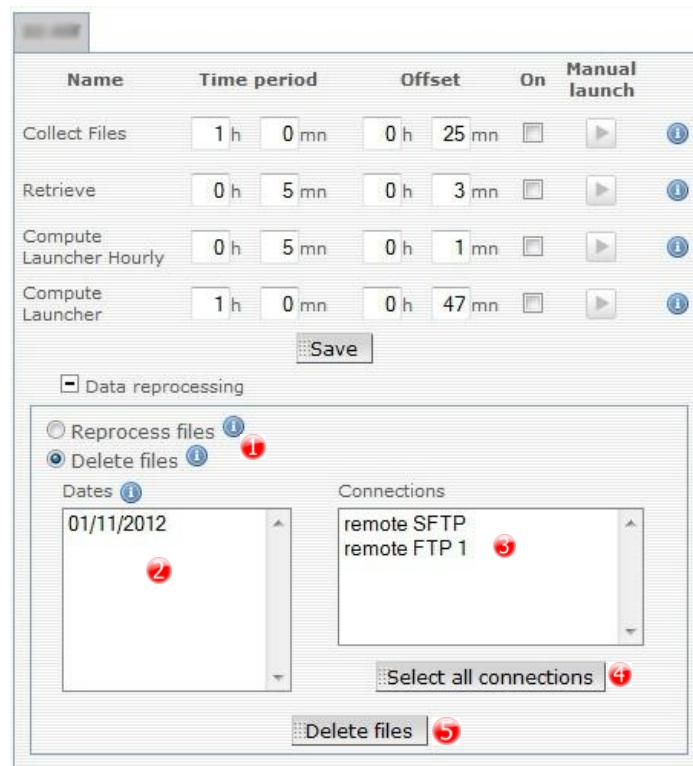
Archive files will be reintegrate at the next execution of the retrieve and compute processes.



1	Mode of data reprocessing. In that case, “Reprocess files”.
2	List of dates containing archive files.
3	The “Reprocess files” button will run the process.

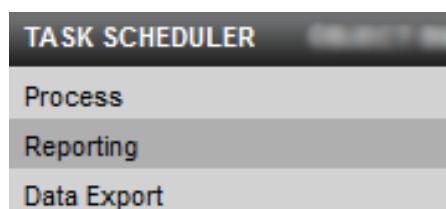
- “Delete files” Interface:

The “Delete files” process allows to delete archive files and their references in database for a targeted connection. New data files will be integrated from the connection if existing.



- | | |
|---|------------------------------------------------------------------|
| 1 | Mode of data reprocessing. In that case, “Delete files”. |
| 2 | List of dates containing archive files. |
| 3 | List of active connections. |
| 4 | The “Select all connections” will select all active connections. |
| 5 | The “Delete files” button will run the process. |

7.2. REPORTING



The “Reporting” interface will let you configure the schedule of Reports. The reports will be periodically and automatically sent to users, groups of users and emails (users not registered in T&A).

- “Reporting” main interface:

Schedule setup interface
list of all schedules

Schedule Name	Period	Actions
schedule 1	Monthly	
schedule 2	Weekly	
schedule 3	Daily	

New Schedule

1	Button to create a “New Schedule” for Reports.
2	General information on a Report Schedule.
3	Button to delete a Report Schedule.
4	Button to get detailed information on a Report Schedule.

- How to create a new report schedule?

Step 1: Click on the button “New Schedule”. A window will open with information to be parameterized.

Step 2: Fill in the information.

Schedule setup interface
interface to configure schedules

Back to the list

Schedule Name*

Files attached Html link to files

Files type :

Option :

Report selector

Available reports

Chosen reports

1	Enter a name for the schedule report.
---	---------------------------------------

2	Select options for the report: <ul style="list-style-type: none"> ➤ to receive it as attached file or as link in the email, ➤ the file format (pdf, word, excel), ➤ the landscape / portrait mode
3	Select from the “Available reports” list the reports to be scheduled. Click on the “->” to add these reports.



4	Group Selector: Select from the “Available Groups” the lists of groups who will receive the reports. Click on the “->” to add these groups.
5	User Selector: Select from the “Available users” the list of users who will receive the reports. Click on the “->” to add these users.

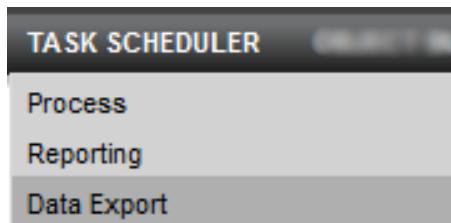
6 Email selector

Email	Subscribed emails
Name : <input type="text"/>	
Email : <input type="text"/>	<input type="button" value="→"/> <input type="button" value="←"/>
Schedule *	
<input type="radio"/> Daily 	
<input type="radio"/> Weekly <input type="button" value="Monday"/>	
<input type="radio"/> Monthly <input type="button" value="1"/>	
<input type="button" value="Save"/>	

 Email Selector:	For users who are not registered in T&A, it is possible to send them reports. Enter the Name and email of the person. Click on the “->” to add the email.
 Schedule:	Select the periodicity used by T&A to send automatic emails: ➤ For “weekly”, choose the day of the week. ➤ For “monthly”, choose the day of the month.

Step 3: Click on the “Save” button to save the configuration of the Report schedule.

7.3. DATA EXPORT



The “Data Export” is an interface to parameterize automatic export of data from the database for each family on each product. The scheduled export is always available after a daily compute execution.

- “Data export” main interface:

A screenshot of the 'Export setup interface' showing a list of exports. The interface includes a header with 'Current family : Call family 2000', a toolbar with a 'New export' button, and a table for managing exports. The table columns are 'Export Name', 'Network Aggregation', 'Periodicity', and 'Target File'. A row in the table shows 'kpiraw3' as the export name, 'Daily' as the periodicity, and 'exportkpiraw3.csv' as the target file. There are also buttons for deleting (red circle with a white 'X') and getting detailed information (blue circle with a white 'i').

Export List			
Export Name	Network Aggregation	Periodicity	Target File
② kpiraw3		Daily	exportkpiraw3.csv ③ <input checked="" type="checkbox"/>

①	Button to create a new “data export”.
②	General information on the data export (Export Name and periodicity of the export).
③	Button to delete a “data export”.
④	Button to get detailed information on the “data export”.

- How to create a new “data export”?

Step 1: Click on the button “New export”. A window will open with information to be parameterized.

Step 2: Fill in the information. All the fields with a “*” are mandatory.

Export setup interface
list of all exports

[Back to the list](#)

Export Configurations

Export Name*

Target dir (for information) /home/astellia/your_directory/export_files/

Target file* export.csv
The date will be automatically added to the target file.

Field separator

File content options

Use Counters and Kpis Codes in the export

Add Network Topology Reference In Data Export File

Use code network elements

Additionnal files

Add Topology file

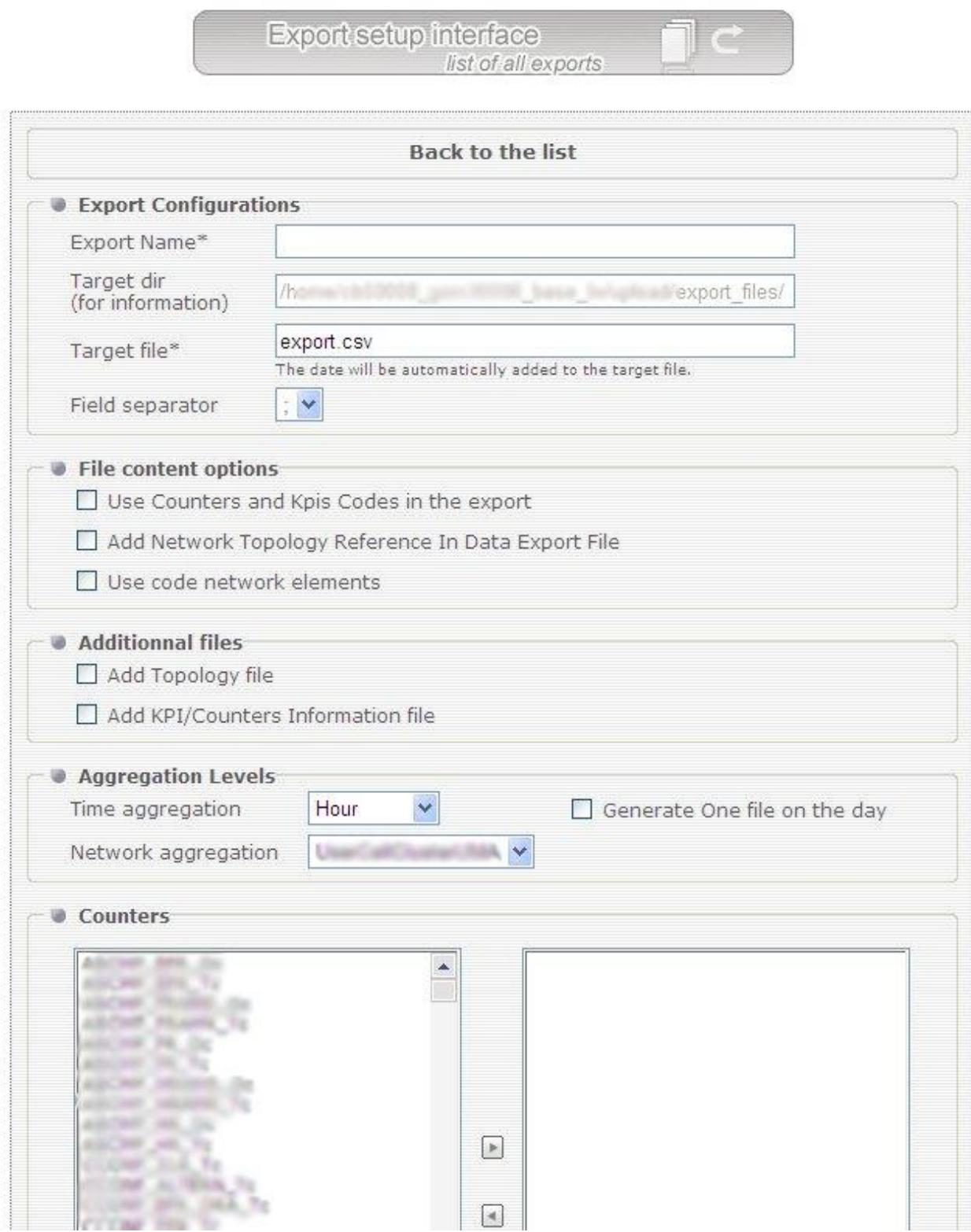
Add KPI/Counters Information file

Aggregation Levels

Time aggregation Generate One file on the day

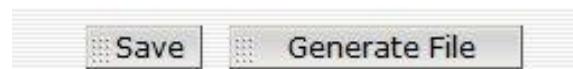
Network aggregation

Counters



Export configuration	Export Name:	Enter the name of the data export
	Target dir:	The directory is not customizable. It is written for information.
	Target file:	Enter the name of the file in which the result will be stored. The date of the export will be automatically added to the

		filename (e.g. export.csv will become export_20090918.csv)
	Field separator:	Choose the separator (comma or semi-colon) between all the data (raw counters and KPIs).
File content options	Use counters and KPI codes	Check this box to display counters and KPIs codes in the export file header instead of their labels.
	Add network topology reference	Check this box to add to the export file all topology since the selected network aggregation.
	Use code network elements	Check this box to display network elements codes in the export file instead of their labels (header included).
Additional files	Add Topology file:	Generate one file that contains the complete topology.
	Add KPI/Counters Information file	Generate two files that contain KPI and counters information.
Aggregation Levels	Time aggregation:	Choose the time aggregation data export: <ul style="list-style-type: none"> ➤ Hour => hourly data available after day compute execution ➤ Day => daily data available after day compute execution ➤ Week => weekly data available after last day of the week compute execution ➤ Month => monthly data available after last day of the month compute execution ➤ Time aggregation Day, Week and Month are available in "Busy Hour" mode too.
	Generate One file on the day	Check this box to show in the data export file all hours of the calculated day. The export file will be generated during the compute day. Else, the export file will only contains the calculated hour and will be generated during the compute hour.
	Network Aggregation:	Choose the network aggregation.
	Raw counters:	Select the raw counters that will be exported to the result file. Choose the ">" or "<" button to select or unselect the raw counters
	Kpis:	Select the KPIs that will be exported to the result file. Choose the ">" or "<" button to select or unselect the KPI.



Step 3: Click on the “Generate File” Button permits to generate a data export file, in order to see if it's matching to the expected file.

A popup will be displayed with links to generated files (data file, and also topology and KPI/Counters Information files if selected).

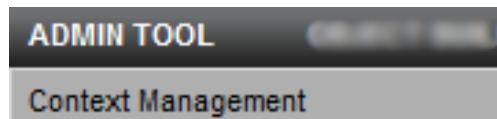


Step 4: Click on the “Save” Button to store the “data export” parameters.

The system will generate automatically a result file in the appropriate directory according to all the parameters selected from this interface.

8. ADMIN TOOL

8.1. CONTEXT MANAGEMENT



This interface will let you download, upload and manage uploaded contexts.

The context contains all information about the Graphs, Dashboards, Reports, Alarms, KPIs, Raw counters, Data range, Dynamic counters, Data Exports and Busy Hour configured in the T&A application. The download/upload process permits to copy a configuration from a product to another one.

- How to upload a context?

Context Management

Quick links : Upload a context, Uploaded context, Build a context

Upload a context

Browse... Upload

You simply have to select a tar.bz2 file by clicking on the “Browse...” button in the first part of the interface.

Then click on the “Upload” one.

Your uploaded file will appear in the second part of the interface.

- How to manage uploaded contexts?

Uploaded context		
Context name	Date	
new_avant_restore_001.tar.bz2	2009-09-18 14:36:41	Done Mount Delete the file
sql_update.tar.bz2	2009-09-18 09:20:55	Done Mount Delete the file

①	Fly over this blue icon to see on which product context is (or will be) mounted.
②	Information about the context: archive name and upload date. Click on the archive name to download the specified context.
③	Status of the installation: : this context is not installed, : this context is installed. Fly over this icon to see on which product and at what time it occurred.
④	Click this button to mount the considered context. A message will ask for

	confirmation.
⑤	Click this button to delete the file from the server. That will not uninstall the context. A message will ask for confirmation.

After mounting a context, the raw and KPI imported are not available. They will be activated after a retrieve process.

- How to download a context?

Build a context

Context properties

Context name: my_context Context file my_context_001.tar.bz2 will be created

Context version: 001

Context content

Elements ②

Check all | Uncheck all

Graphs [View details...](#)
 Dashboards [View details...](#)
 Reports [View details...](#)
 Static alarms [View details...](#)
 Dynamic alarms [View details...](#)
 Top/Worst lists (No Data)
 KPI
 Counters
 Data Range
 Dynamics counters
 Data Export
 Busy Hour

Options ③

Include Deleted items

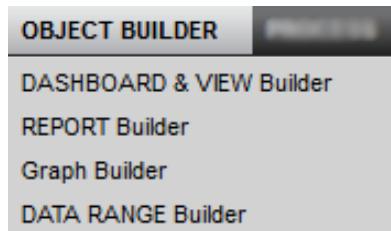
Build context ④

①	Fill in the context name and version. The file name is shown on purple background. Only alphanumeric characters, “.”, “-” and “_” are allowed. This information will be used in the name of the context and also in the “About” information when a context is mounted.
②	Select the elements you want to include in the context. Click on the “view details...” link to select particular items (a specific graph for example).
③	Check the “Include deleted items” option to reflect deletion. Example: there are two identical products with the same Graphs (made by mounting the same context). On the first one, you delete several of them. You can apply these changes on the second product, by creating a context including deleted items.
④	Click this button to build the configured context. A link will be displayed to enable you to download the created file.

9. OBJECT BUILDER

With the “object builder” menus (Dashboard & View Builder, Report Builder, Graph Element Builder, Data range builder), you will be able to create:

- Dashboards
- Reports
- Graphs
- Data Color Ranges



The first three “Object Builder” interfaces are using the same general process. The screen is divided in three parts.

① List of existing elements. Choose one by clicking its name in the select box.

Create a new one by clicking on the “New” button.

The elements are ordered by owner (Astellia, Administrator, Users).

② List of components to import in the element you selected.

③

Parameters to filter the component list. The box enables you to specify a chain of characters. The other parameters depend on the object we are considering.

Choose an existing element or create a new one.

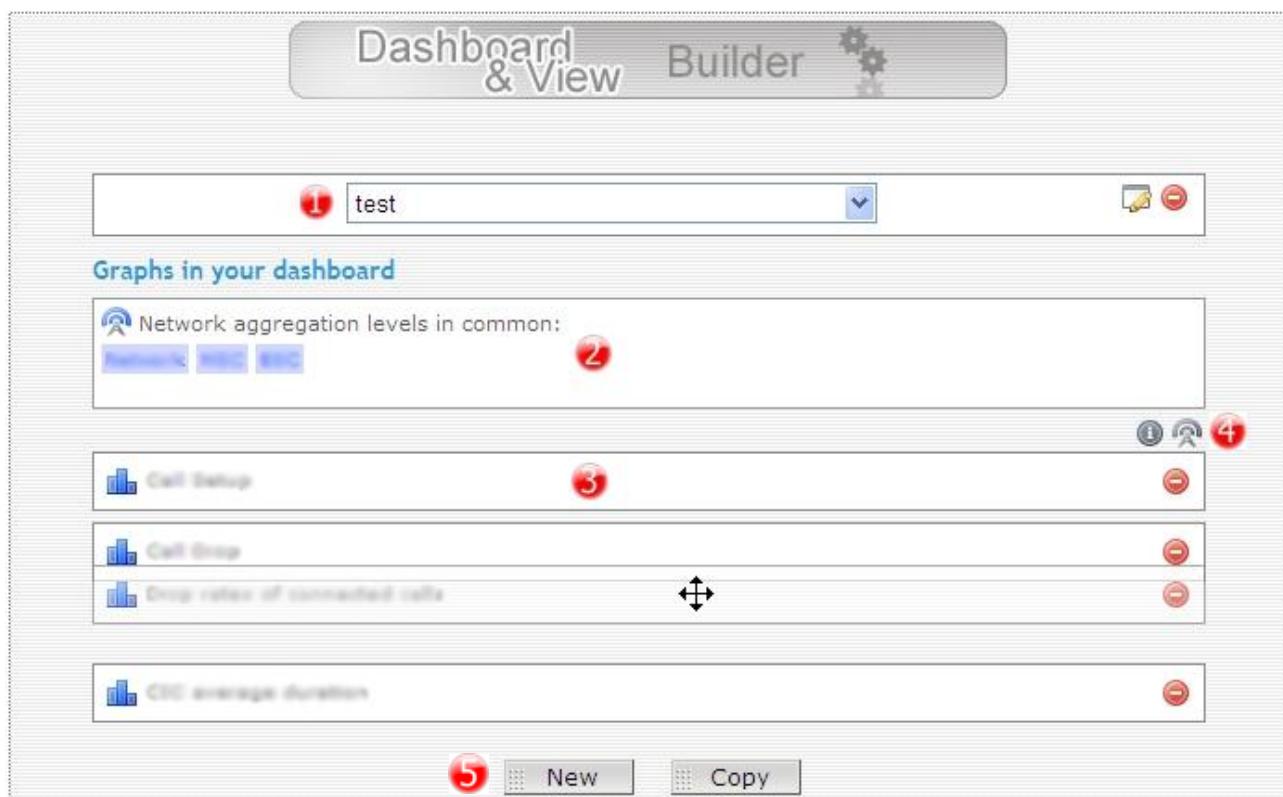
By selecting an existing element in the list, its components appear.

In this part:

“element” means dashboard, report or graph depending on the selected interface (respectively Dashboard & View Builder, Report Builder or Graph Element Builder),

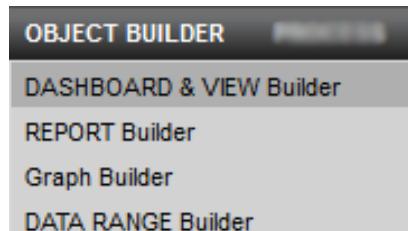
“component” means graph, dashboard/alarm, raw/KPI depending on the selected interface (respectively Dashboard & View Builder, Report Builder or Graph Element Builder).

An element contains one or more components.



①	Selected element. Click on to view and modify details (if you are authorized). Click on to delete this element.
②	List of network aggregation levels common to the various components.
③	Components of the element. Click on the component name to access to its details. Click on to delete the component. You can modify the components order by simple drag'n drop.
④	Click these buttons to get help () or to view network aggregation levels of all the components () .
⑤	Click these buttons to create a new element or to copy the selected one.

9.1. DASHBOARD AND VIEW BUILDER



This interface will let you create dashboard including several graphs.

You can refer to the “Object Builder” introduction for the general principle of operation.

- “Dashboard and view builder” filter:



The filter area will permit you to select the Graphs according to their author.

- How to create a new Dashboard?

Step 1: Click on the button “New”. A window opens with information to be parameterized.

Step 2: Fill in the information. The “title” field is mandatory.

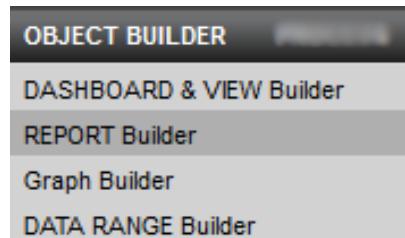
Dashboard title	<input type="text"/>	
Mode	Overtime <input type="button" value="▼"/>	
Menu link	CLIENT DASHBOARD <input type="button" value="▼"/>	<input type="checkbox"/> Online
Selector:		
Default order by	<input type="text"/> You need to add a graph to your dashboard <input type="button" value="▼"/>	
Sorting order	<input type="radio"/> Asc	<input checked="" type="radio"/> Desc
Period	<input type="text"/> 30	
Top Over Time	<input type="text"/> 3	
Top Over Network	<input type="text"/> 40	
Network Aggregation	<input type="button" value="▼"/>	
<input type="button" value="Create new dashboard"/> <input type="button" value="Close"/>		

Dashboard title	Name of the dashboard (only alphanumeric characters are allowed).
Mode	Choose the display mode of the dashboard (Overtime, Over network elements, both).
Menu link	A dashboard can be affected to a user menu. Select a menu in the list box and check "online" to publish it.
Default order by	Once a graph is added to the dashboard, you can select here a raw or Kpi used for default order by. User can override this using the selector.
Sorting order	Choose the data sorting order.
Period	Default period used in time aggregation mode.
Top Over Time	Default number of top elements to select on Over Time mode.
Top Over Network	Default number of top elements to select on Over Network mode.
Network Aggregation	Once a graph is added to the dashboard, you can select here the network aggregation level to display. The list shows only levels common to the various graphs.

Step 3: Click on the button "Create new dashboard" to save your parameters.

Step 4: Choose graphs in the left area and click on them. They are added to your dashboard and appear in the right area.

9.2. REPORT BUILDER



The “Report Builder” menu will let you create automatic reports with existing dashboards and alarms. Those reports will be sent automatically to users by email.

You can refer to the “Object Builder” introduction for the general principle of operation.

- “Report builder” filter:

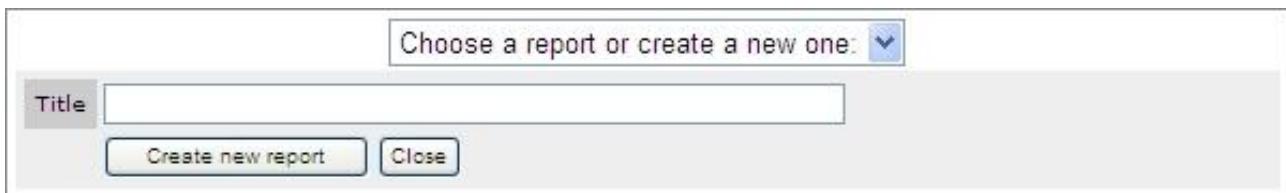


The filter area will permit you to select the Dashboards according to their author and the Alarms by their type (static, dynamic, top/worst) or family.

- How to create a report?

Step 1: Click on the button “New”. A window opens with information to be parameterized.

Step 2: Fill in the “title” field (mandatory).



Step 3: Click on the button “Create new dashboard” to save your parameters.

Step 4: Choose dashboards and alarms in the left area and click on them. They are added to your dashboard and appear in the right area. Once added, you can view components details by clicking on .

Step 5: You have to configure the dashboards which you include in the report. By clicking on , a window appears. Customize the filter by choosing the elements used to generate the dashboard:

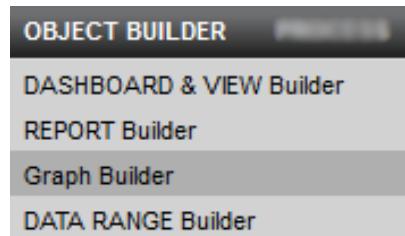
- Display “Mode”: Overtime / OverNetwork
- Time aggregation and period
- Network elements
- “Sort By” and “Trigger” conditions

Click on display to save the configuration for the selected dashboard.

Fixed Hour from BH mode: On OverNetwork mode and Hour time aggregation, you have the possibility to configure the dashboard on a fixed hour (calculated on a network element busy hour). You have just to specify on which network element and counter/kpi the fixed hour must be based on (third axis element, if exists, can also be specified).

Step 6: you can preview your report in pdf file format by clicking the “Preview in PDF” button.

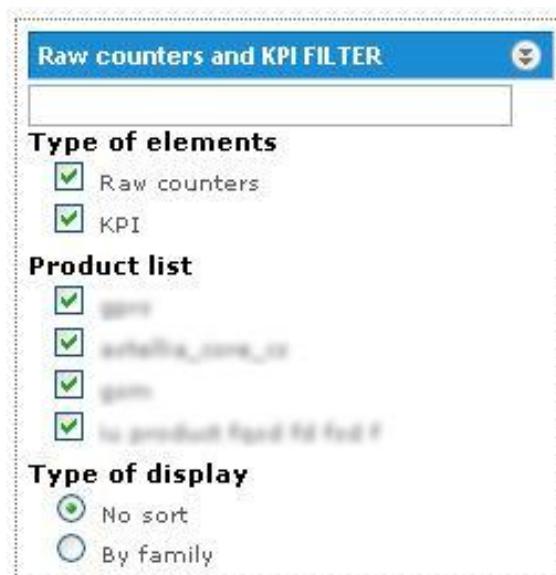
9.3. GRAPH ELEMENT BUILDER



This interface will let you create Graphs.

You can refer to the “Object Builder” introduction for the general principle of operation.

- “GTM Element Builder” filter:



The filter area will permit you to select the raw counters and KPI according to their type, product or family.

- How to create a Graph element?

Step 1: Click on the button “New”. A window opens with information to be parameterized.

Step 2: Fill in the information. The “title” field is mandatory.

Choose a graph or create a new one:

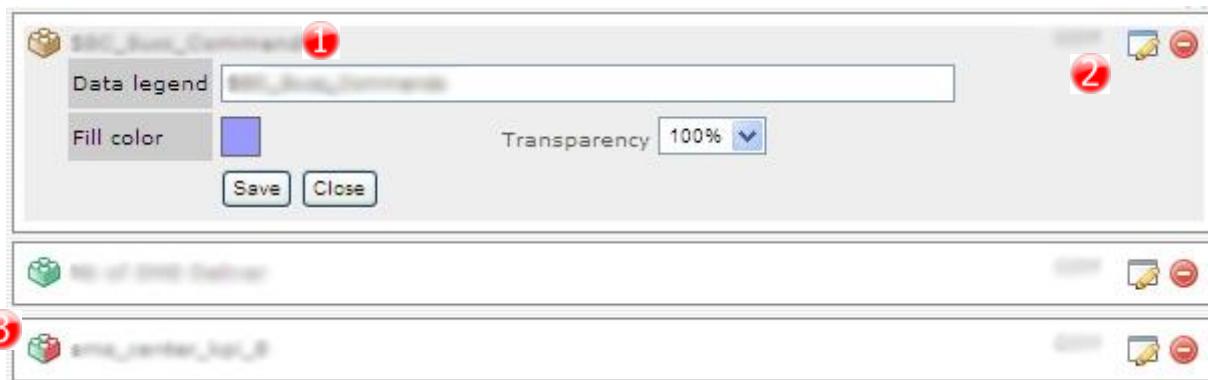
Title	<input type="text"/>	
Definition	<input type="text"/>	
Troubleshooting	<input type="text"/>	
Graph type	<input checked="" type="radio"/> Graph <input type="radio"/> Pie <input type="radio"/> SingleKPI Scale type: <input checked="" type="radio"/> linear <input type="radio"/> db	
Y-axis label	Left*	<input type="text" value="Data"/>
Graph size	Width*	<input type="text" value="900"/>
	Height	<input type="text" value="450"/>
(minimum size: width = 700, height = 350)		
Legend's position	<input checked="" type="radio"/> Top	<input type="radio"/> Right
GIS	<input checked="" type="radio"/> Off	<input type="radio"/> On
Default order by	there is no data in your graph <input type="button" value="Desc"/>	
<input type="button" value="Create new graph"/> <input type="button" value="Close"/>		

Title	Name of the graph (only alphanumeric characters are allowed).
Definition	A definition for the graph.
Troubleshooting	Information, explanations, actions to lead.
Graph type	You can choose between graph () , pie () or Single KPI () and then: - for graph, scale type linear or db, - for pie, split by first axis or third axis and a raw/kpi name for it (once one is added). - for Single KPI, the legend position is forced to be 'top'
Y-axis label	The label for the Y-axis label left and right (if used).
Graph size	Edit graph width and height.
Legend's position	Select legend's position (top or right)
GIS	Activate GIS display. When GIS is 'On', select the raw/KPI used for the GIS display. <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> • GIS : <input type="radio"/> Off <input checked="" type="radio"/> On Gis display based on: <input type="button" value="Down"/> </div>
Default order by	Once a graph is added to the dashboard, you can select here a raw or Kpi used for default order by.

Step 3: Click on the button "Save" to save your parameters.

Step 4: Choose raws and KPIs in the left area and click on them. They are added to your dashboard and appear in the right area.

Step 5: You can edit components details () , and modify the data label, fill color and transparency.

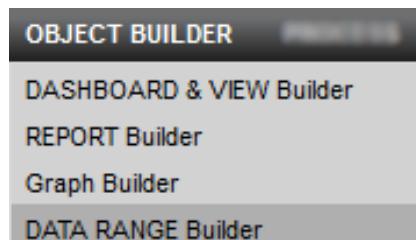


1	Raw/kpi legend
2	Product name
3	Element type: raw counter, KPI, KPI with range, KPI from client.

- Rules on the Graphs:

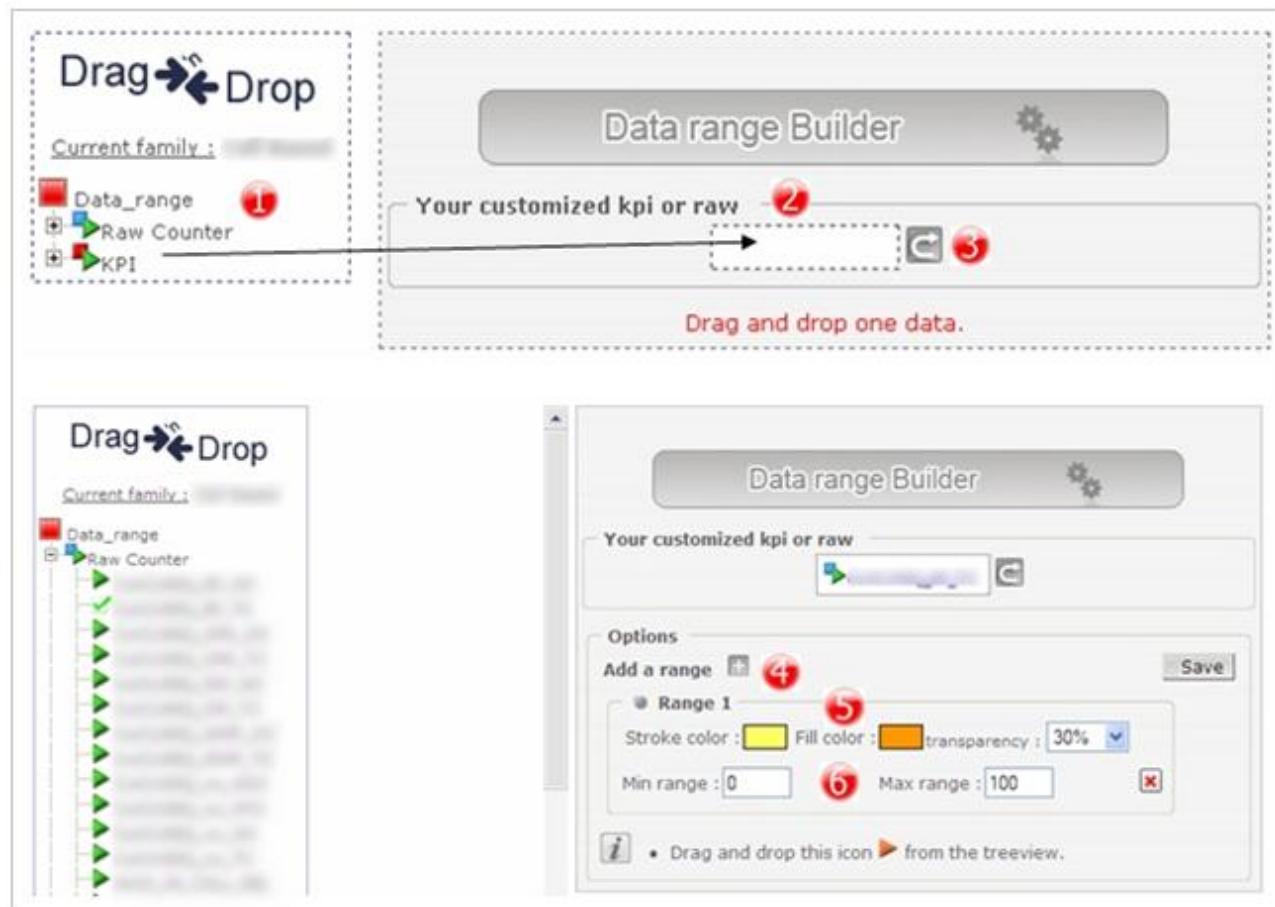
7. It is not possible to remove a raw/KPI from a GTM when this KPI is used in the Geographical Overview (GIS option).
8. It is not possible to remove a raw/KPI from a GTM when this KPI is used for the “Default order by” option.

9.4. DATA RANGE BUILDER



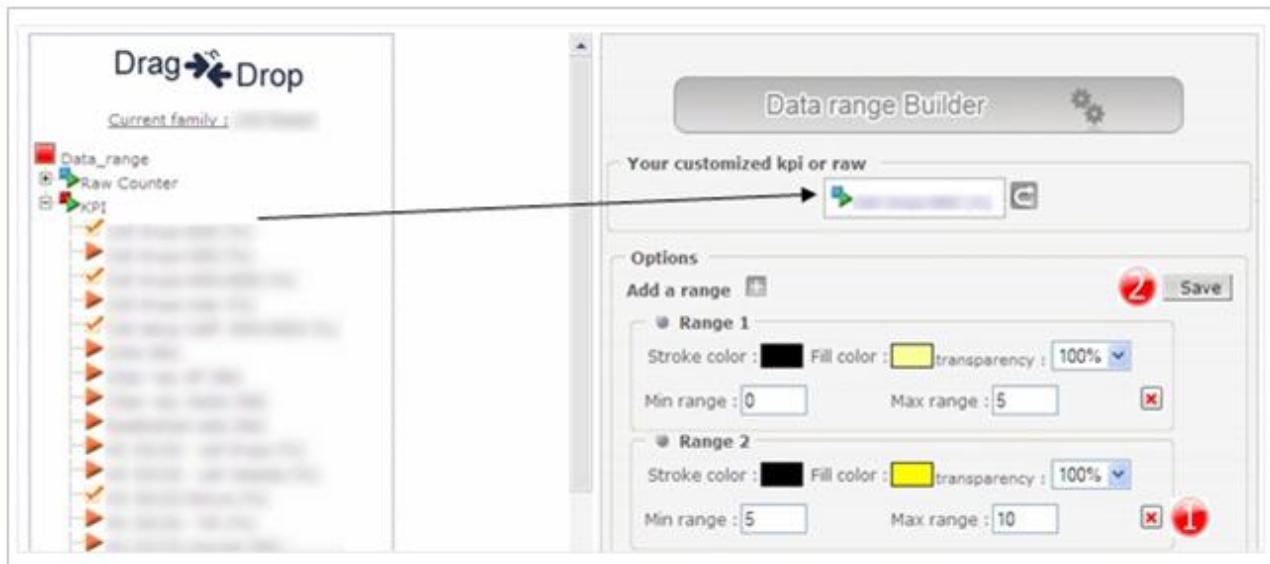
The “Data range Builder” menu will let you configure data ranges for KPIs and raw counters that will be displayed in Geographical Overview elements.

- “Data range builder” main interface:



1	List of existing “raw counters” and “KPIs”.
2	Drag and drop a data from the tree view to this area to configure / modify it.
3	Back to the family list.
4	Click on this button to add a data range.
5	Click on colored buttons to choose data range colors (stroke color, fill color, fill transparency).
6	Select the minimum and maximum max values for the data range.

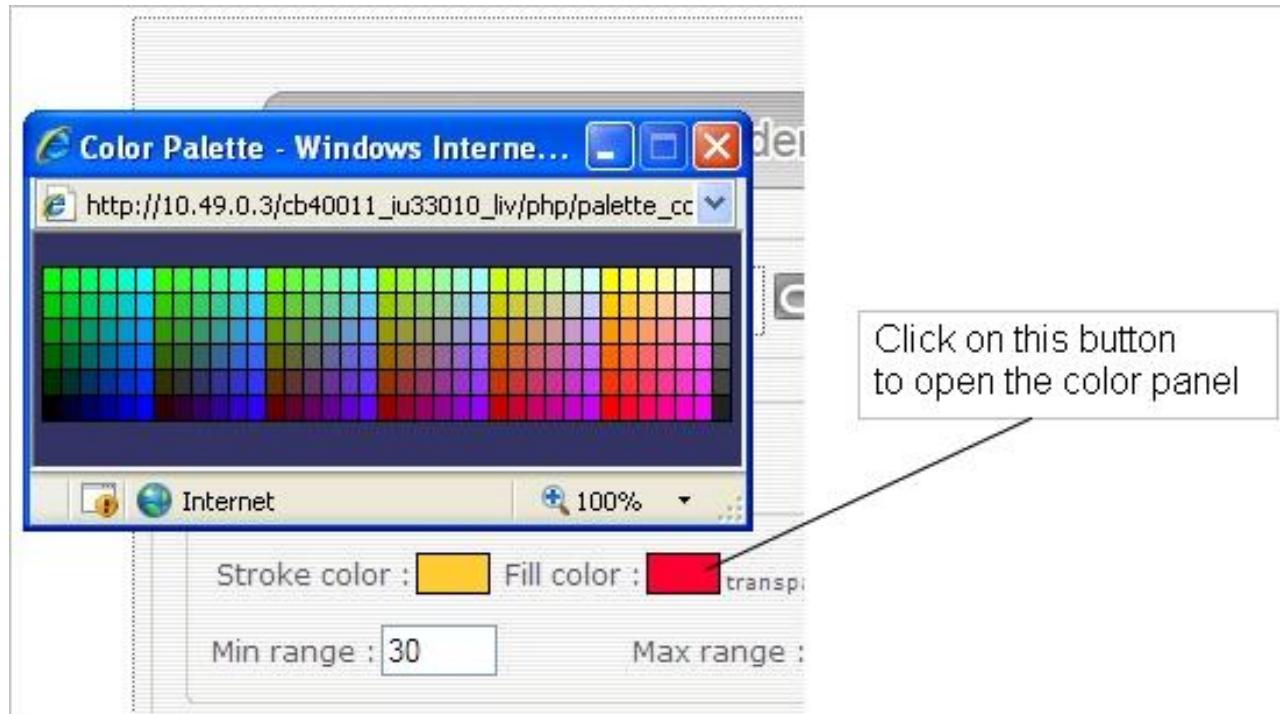
- How to modify a data range?



To modify a data range, drag and drop the data from the tree view to the drop area.

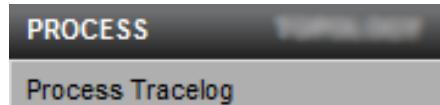
1	Click on this icon to delete a range.
2	Click on the save button to save modification.

- Specific features:



10. PROCESS

10.1. TRACE LOG



The “Trace Log” interface will display information on processes. It permits to the administrator to check if every process has run properly.

The information displayed is:

- List of all files collected.
- Number of data inserted in the database.
- Start process of “data computing”.
- End process of “data computing”.

For all information, the exact time and the “severity” of the message are also available.

- “Trace Log” main Interface:

Filter ①

Product: ab5100_gsm_rsc	Date: []	Severity: Info	Module: All
Message: []			
Limit: 500	<input type="button" value="Refresh"/>		

Download Log ②

Date / Period: Until

Content

<input checked="" type="checkbox"/> Application Daemon	<input checked="" type="checkbox"/> Tracelog
<input checked="" type="checkbox"/> Topology Daemon	<input checked="" type="checkbox"/> Version History
<input checked="" type="checkbox"/> Global Parameters	<input checked="" type="checkbox"/> Health Indicators
<input type="checkbox"/> File permissions	

3

Date	Severity	Message	Module
2010/07/29 08:57:44	Info	PROCESS : End Retrieve	Data Collect
2010/07/29 08:57:36	Info	1 Data Inserted for 2009110020 - Signalling	Data Collect
2010/07/29 08:57:36	Info	1 Data Inserted for 2009110019 - Signalling	Data Collect
2010/07/29 08:57:36	Info	22 Data Inserted for 2009110020 - Roamer LU	Data Collect
2010/07/29 08:57:36	Info	20 Data Inserted for 2009110019 - Roamer LU	Data Collect
2010/07/29 08:57:35	Info	1 Data Inserted for 2009110020 - Phone Numbers	Data Collect
2010/07/29 08:57:35	Info	1 Data Inserted for 2009110019 - Phone Numbers	Data Collect
2010/07/29 08:57:35	Info	10 Data Inserted for 2009110020 - SME Center	Data Collect
2010/07/29 08:57:34	Info	10 Data Inserted for 2009110019 - SME Center	Data Collect
2010/07/29 08:57:34	Info	73 Data Inserted for 2009110020 - Paging	Data Collect
2010/07/29 08:57:34	Info	73 Data Inserted for 2009110019 - Paging	Data Collect



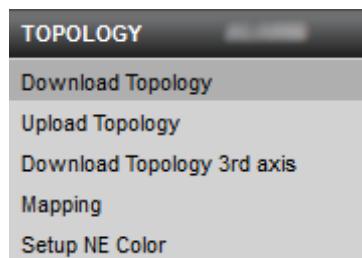
Filter definition:

This section allows you to filter log messages. Following filter parameters are

	<p>available:</p> <p>Date: use this filter to select logs depending on their date value. Example : 2009/09 means that only the messages of September will be shown 2009/09* 17:* will display the messages of September which occurred between 5pm and 5:59pm whatever the day.</p> <p>Product: select the product on which the message appeared.</p> <p>Severity: there are three criticality levels for the messages.</p> <p>Information: information on the system.</p> <p>Warning: warning of the system, does not block the application.</p> <p>Critical: the application does not function correctly.</p> <p>Module: sub process which produced the message. Possible values are: alarm calculation, automatic upload topology, backup database, data collect, data compute, license management, process check and vacuum database.</p> <p>Message: use this filter to select logs depending on their content. You can use the escape char *.</p> <p>Limit: number of messages you want to be shown.</p> <p>To apply your filter, click Refresh.</p>
	<p>Download Log:</p> <p>This section allows you to select any type of TA system log sources and then download it.</p> <p>In the date/period section, select the period for which you want to download the log files (date/period section is only available for 'Application deamon', 'Topology Deamon' and 'Tracelog').</p> <p>In the content section, select the source log files you wish to download. Then select the products for which you want to download log files.</p>
	Logs with date, severity, message, concerned product and module.

11. TOPOLOGY

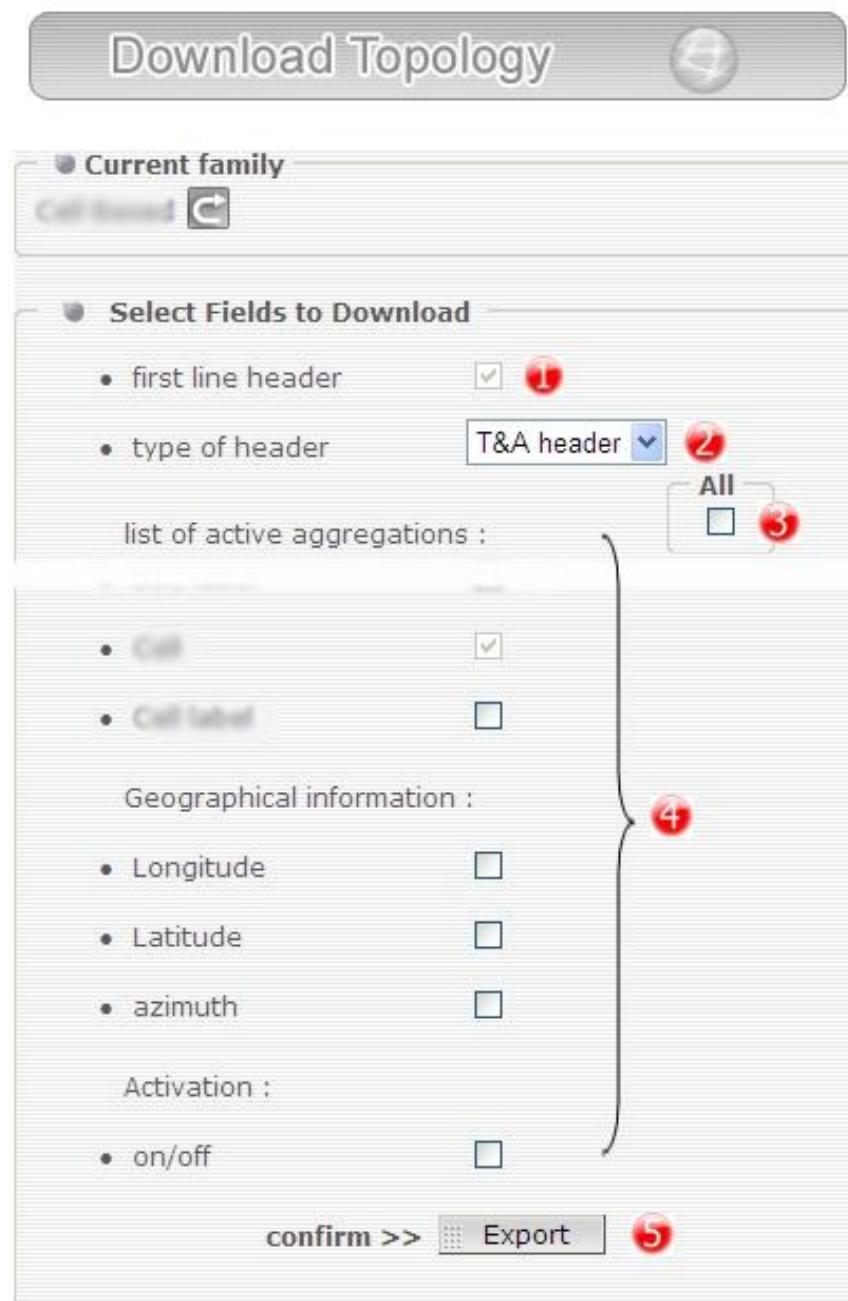
11.1. DOWNLOAD TOPOLOGY



The “Download Topology” interface will let you export the topology reference available in the application (for each family of each product).

Export of geographical information (longitude, latitude and azimuth) is only possible for the main family of data (the one that contains cell elements).

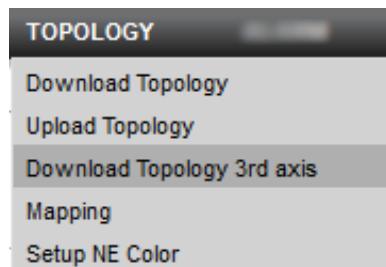
- “Download topology” main Interface:



1	The header is always included in the Topology export result.
2	Only the “T&A header” type is available.
3	Click this button to check/uncheck all information.
4	Check all information that will be exported to the Excel file.
5	Click on this button to launch the export of the selected information.

The result of the export is an Excel file with all the columns that have been selected.

11.2. DOWNLOAD TOPOLOGY 3RD AXIS



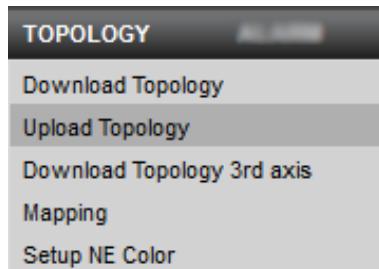
The “Download Topology 3rd axis” interface will let you export the 3rd axis topology reference available in the application (for each family of each product with 3rd axis).

- If your product doesn't have a third axis, the selection of this item leads to this interface:



- If your product has a third axis, the selection of the item leads to the same kind of interface as the “Download Topology” main interface (above) with third axis NA levels.

11.3. UPLOAD TOPOLOGY



The “Upload Topology” interface will let you delete or update the network topology reference table.

As the source flat files give a few links between the network elements (e.g. link between SAI and RNCs), it is necessary to update manually information on other aggregation levels such as MSC, region, zone etc...

Upload of geographical information (longitude, latitude and azimuth) is only possible for the topology that covers the topology of the network including the cell level.

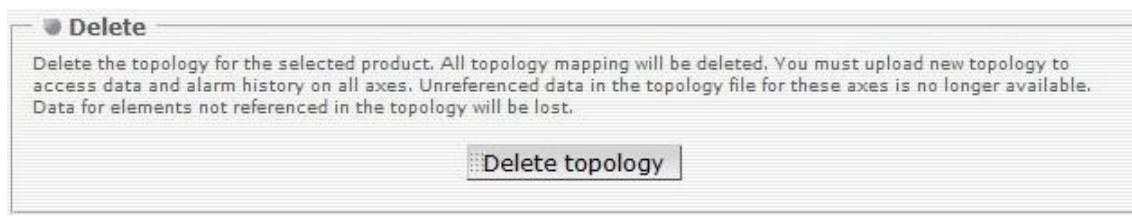
- How to delete a network element from topology?

In order to delete network elements, you must delete the full topology of a selected product and then upload the network topology reference without those elements.

WARNING: Deleting topology will delete all network elements on all families and axis of the selected product. All data related to a deleted network element will no longer be available.

Step 1: Download the topologies of all the network elements you wish to keep from the selected product. (See Download Topology chapter above)

Step 2: Delete the topology by clicking the “Delete Topology Button” in the Upload topology screen.



Step 3: Delete elements from downloaded topologies and upload them all using the Upload topology feature (see below)

- How to update the network topology reference?

Step 1: Create a text file with all the information to be updated separated by a “;” or a “,”.

The columns of the text file are the network aggregation to be updated.

The lines of the text file are all information to be updated.

A header is mandatory. In order to see an example of header, just use the "Download Topology" feature to extract a topology file. Open this file to check out how the header is

filled in.

It is also necessary to have in the topology file at least the lowest network level (e.g. cell) as the update of information is performed using this level as the identifier.

Step 2: Fill in the upload interface below (on a specific product).

Upload Topology

Current product

Delete

Delete the topology for the selected product. All topology mapping will be deleted. You must upload new topology to access data and alarm history on all axes. Unreferenced data in the topology file for these axes is no longer available. Data for elements not referenced in the topology will be lost.

Upload

List of uploaded file.

CSV File to upload

Delimiter :

Each field in the CSV file must be separated with delimiter

Header
The first line of the CSV file will be ignored

List of uploaded file:	Click on this link to display the list of files that have been previously uploaded.
CSV file to upload:	Click on the “Browse” button and select the text file that has been created.
Delimiter:	Select the delimiter used in the text file (“,”, “.” or “tab”).
Header:	The header is mandatory which means that the first line of every topology file will be considered as the header.

If the import is successful, the interface will display a message on green background. If there are changes, they will be displayed.

The screenshot shows a user interface for managing network topology. At the top left, there is a 'Current product' dropdown menu. In the center, there is a large green rectangular box containing the text 'The topology file has been successfully uploaded'. Below this, there is a table titled 'Topology changes summary' with the following columns: Network level, Network value, Change info., Old value, and New value. The table contains six rows of data, each representing a change in the network topology between two nodes (PON and BBC).

Topology changes summary				
Network level	Network value	Change info.	Old value	New value
PON	13401-270	New		13401-270
PON	13401-120	Change On/Off	1	0
BBC	13011-0	BBC <=> BBC	0147	0147
PON	13001-120	PON <=> BBC	13011	13011
BBC	13011-0	BBC <=> BBC	0147	0147
PON	13001-120	PON <=> BBC	13011	13011

- Rules on Topology:

The checks that are performed on the topology file and the updates that are performed follow the same rules as the “Automatic Topology Update” (Refer to “[Automatic Topology Update](#)” paragraph).

11.4. AUTOMATIC TOPOLOGY UPDATE

The “Automatic Topology Update” is a process which will let you update the network topology reference and geographical information (longitude, latitude and azimuth) automatically.

- How to automatically update the network topology reference?

Step 1: Fill in the “Topology file location” parameter in Setup / Setup Global Parameters / Process Settings. By default its value is “/home/[T&A directory]/topology/topology.csv”. The chosen directory must have permission to create a file. You can either specify a filename or a directory. Specifying:

- a single filename leads to integrate this particular topology file,
- a directory leads to integrate all topology files existing in the directory which name contains “topology_”.

Step 2: Activate the “Automatic Topology Update” process by setting the “Automatic topology update” parameter to “1”.

Step 3: Create a text file with all the information to be updated **separated by a “;” or a tab**:

- The columns of the text file are the network aggregation to be updated
- The first line of the text contains the name of the topology columns to be updated
- The other lines of the text file are all information to be updated.
- The columns must neither contain semi-colon, nor tabular characters.

Step 4: Upload the file in the directory specified in step 1 every time an update is to be performed. The topology will be automatically updated during the next “retrieve” process.

- Results of an automatic topology update:

A mail is sent to all administrators containing two attached files:

- the topology text file that has been treated
- a log file with all changes or errors that occurred during the update.

The topology text file also appears in the “List of uploaded file” in the “Upload Topology” Interface.

An event is created in the Tracelog.

- Rules on “Topology Automatic Update”:

9. The topology file that is loaded is the reference compared to the topology in the application database.

10. The file used to update the topology is verified using the following rules:

- Lower network level identifier cannot be empty (e.g.: cell for BSS)
- Lower network level identifier must be unique.
- Upper network level identifier (“network” by default) must be the same for all network elements.
- A network level must have a unique label.
- Rules applying to the network aggregation paths must be respected (see “[Setup Network Aggregation](#)”). e.g.: BSC is aggregated based on cell level. This rule implies that one Cell cannot belong to one more BSC.

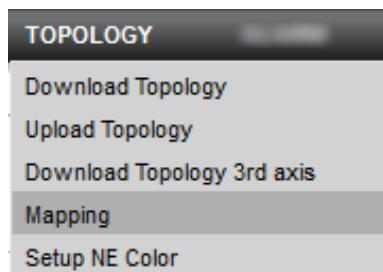
11. The rules applying to the update of the topology are the following:

- Missing labels are automatically filled in
- Families of data which contains same network aggregation levels as in the main family are automatically updated when changes have been performed on the main family
- Network elements and their labels are updated according to their reparenting.

11.5. TOPOLOGY UPDATE MANAGED BY ASM

Topology update can also be remotely managed by ASM. For more information about it, please refer to ASM product.

11.6. MAPPING



The “Mapping” interface will let you define the correspondence between network elements of a selected product and network elements of the master topology product.

For example, you can tell the application that a specific cell on the product “A” corresponds to a specific cell on the master topology product.

This interface is accessible only in multi-product context.

The screenshot shows the "Topology mapping" interface. At the top, there is a header with the title "Topology mapping" and a back arrow icon. Below the header, there are several configuration sections:

- Product name of master topology:** A dropdown menu with the value "S3000-24G-16S-16X-SFP+ (1)" and a red number "1" above it.
- List of products to be mapped:** A dropdown menu with the value "S3000-24G-16S-16X-SFP+ (1)" and a red number "2" to its right.
- Header:** A checkbox labeled "The first line of the CSV file will be ignored" with a red number "3" above it.
- Name of the columns for header:** A section containing "id", "id_codeq", and "na" with a red number "4" above it.
- Upload:** A section with a "CSV File to upload" input field, a "Parcourir..." button, and an "Upload" button, with a red number "5" above it.
- Download:** A section with a "Choose a type of value for name of the column corresponding to the network aggregation level:" dropdown and a "Download" button, with a red number "6" above it.
- Empty:** A section with a "Select the product on which the topology mapping must be empty." dropdown and a "Truncate" button, with a red number "7" above it.

①	Product name of master topology.
②	List of other installed products. Select the one you want to be mapped.
③	The first line of the mapping file has to contain the header (this box cannot be deselected).

	Help about the header of the mapping file. This file contains 3 columns: - id : the column corresponding to the mapped product network element identifiers – the id of the network element on the selected “slave” topology product, - id_codeq : the column corresponding to the master topology product network element identifiers – the id of the network element on the master topology product, - na : the column corresponding to the network aggregation level of the two elements to be mapped.
④	Upload a new mapping for the selected product.
⑤	Download the installed mapping for the selected product.
⑥	Erase the mapping on the selected product.

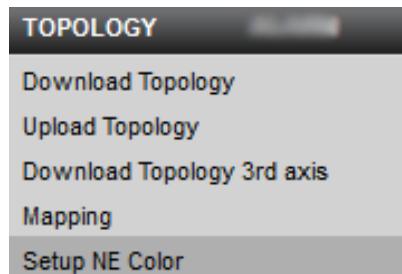
Example of topology mapping:

id	id_codeq	na
p2_cell_0001	cell_0001	cell
p2_cell_0002	cell_3145	cell
mynetworkp2	mynetwork	network
id_on_mapped	id_on_mastertopo	aggregation_level

- Rules on “Topology Mapping”:

The two mapped elements have to belong to the same network aggregation level.

11.7. SETUP NE COLORS



This interface is dedicated to configure Network Element colors used in pies split by Third Axis (Hplmn in GTM builder interface):

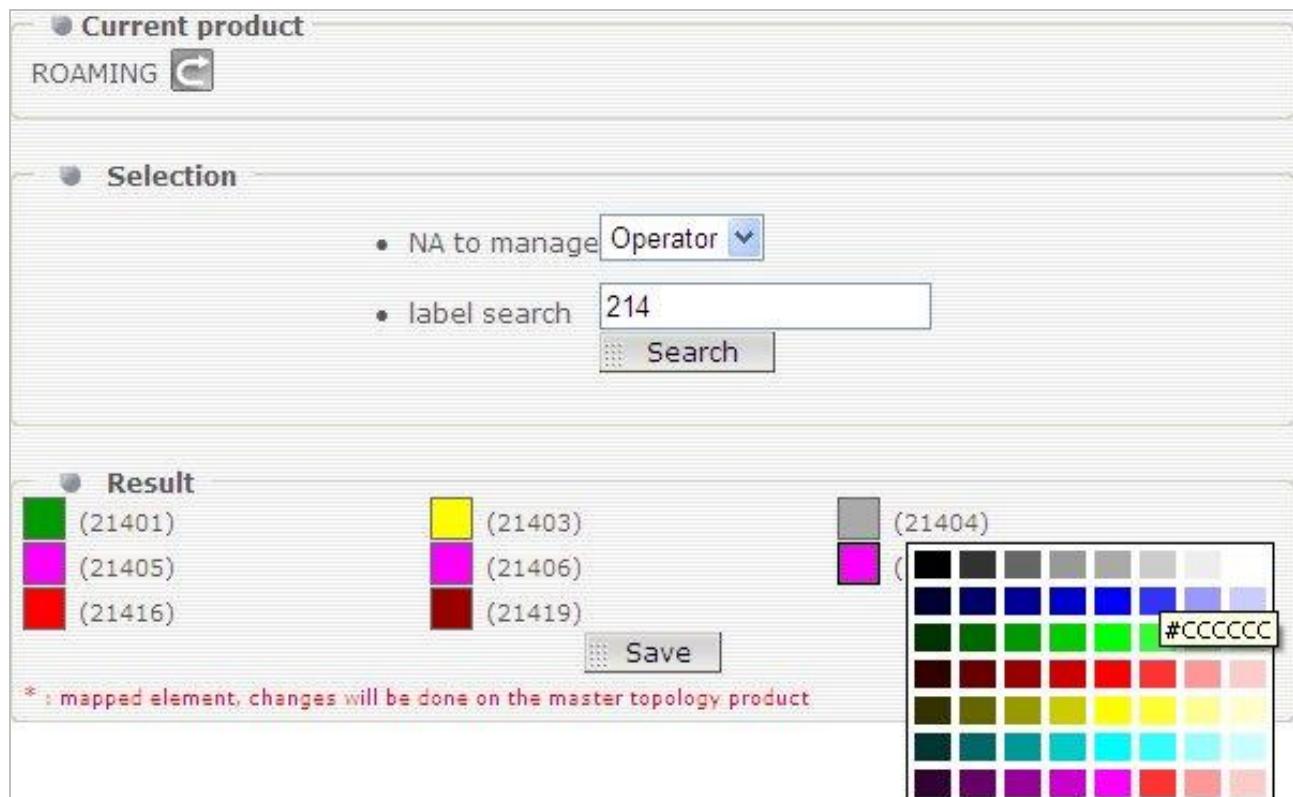
A screenshot of the "Graph element Builder" interface. At the top, there is a dropdown menu labeled "Choose a graph or create a new one:". Below it, there are three input fields: "Title", "Definition", and "Troubleshooting". Under "Graph type", there are two radio button options: "Graph" (unchecked) and "Pie" (checked). A dropdown menu next to "Split by:" shows "First Axis" and "Third Axis", with "Third Axis" being checked. A red oval highlights this "Third Axis" option. Below this, there are settings for "Y-axis label" (Left*), "Graph size" (Width*: 900, Height: 450), "Legend's position" (Top), "GIS" (Off), and "Default order by" (there is no data in your graph, Desc). At the bottom of the dialog are "Create new graph" and "Close" buttons. In the bottom right corner of the dialog, there is a "New" button.

All Network Element, which Network Aggregation level id configured to be colored managed, present in Cigale files appear in this interface.

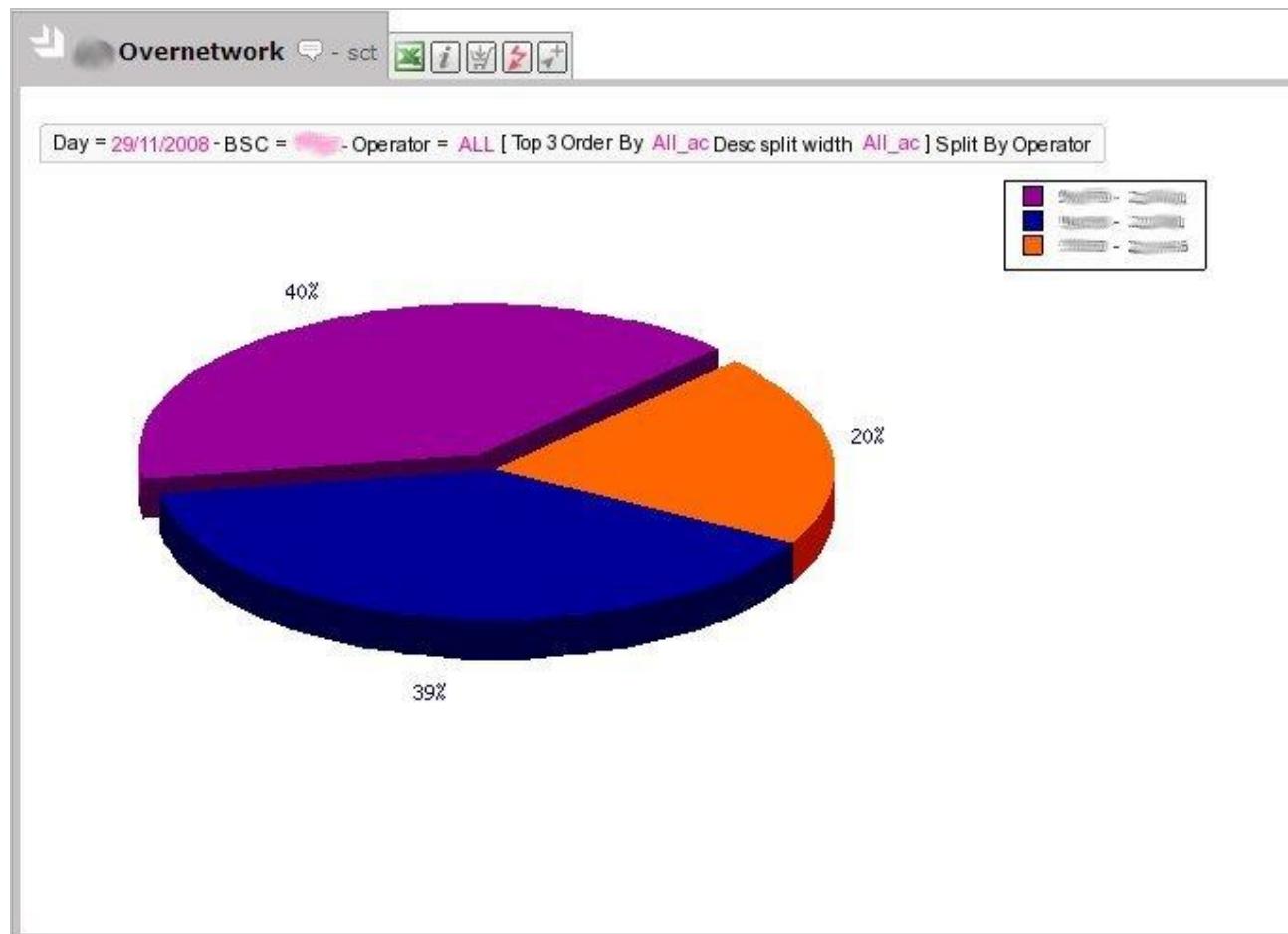
When clicking on one Network Element colored square, user can choose one color for this selected operator.

Once each color is configured, click on "Save" button to save configuration.

Mapped elements are identified with "*" and modified with this interface.



Then, connected as user, the configured colors will be displayed for pies split by third axis in over network mode display:



12. ALARM

12.1. STATIC ALARM



The “Static Alarm” interface will let you create alarms based on “raw counters”/“KPIs” (for each family of each product).

The result of static alarms will be available in the user interface menus. It will be automatically sent by email to groups of users in a PDF format or sent in a SNMP Trap.

It is possible to define 3 different severity levels for the same alarm (Critical, Major and Minor).

Up to five triggers can be parameterized. All the triggers are linked with an “AND” condition.

- “Static alarm” main Interface:

The screenshot shows the 'Setup alarm interface' window. At the top, there is a 'New Static Alarm' button with a red exclamation mark icon. Below it is a section titled 'Thrending Aggregation Cigale GSM : Cell Based' with a refresh button. The main area is titled 'Alarm list' and contains a table with the following data:

Alarm Name	Network Level	Time Level	1	2	3	4	5	6	7
Equipment failure	Cell	Day	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
MSC Cell setup efficiency MSC + BSC	MSC	Day	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
No traffic cell	Cell	Day	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
MSC M2M submit efficiency	MSC	Day	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
EMS MT deliver efficiency	MSC	Day	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				

At the bottom, there is a note: **i Alarms in orange are desactivated**.

1	Button to create a new “Static alarm”.
2	General information on the “Static alarm”.
3	Button to delete a “Static alarm”.
4	Icon displayed when alarm is part of report(s). A tooltip indicates which they are.
5	Button to get detailed information on the “Alarm” and edit them.
6	Button to parameterize the list of group(s) to whom the alarms will be sent by email: No mailing-list configured Mailing-list is configured
7	Button to activate/deactivate SNMP Trap: SNMP Trap is deactivated SNMP Trap is activated
8	Button to parameterize the list of group(s)/user(s) th whom the alarms will be sent by SMS: No SMS sent Recipients list is configured

SNMP Traps can be sent only if the parameter “SNMP trap activation” is set to 1 (0=deactivated). This parameter can be modified using the “Setup Global Parameters” Interface (refer to 5.7 Setup Global Parameters).

The alarms that are deactivated are displayed in orange.

- How to create a new “Static Alarm”?

Step 1: Click on the “New Static Alarm” button. A window will open with information to be parameterized:

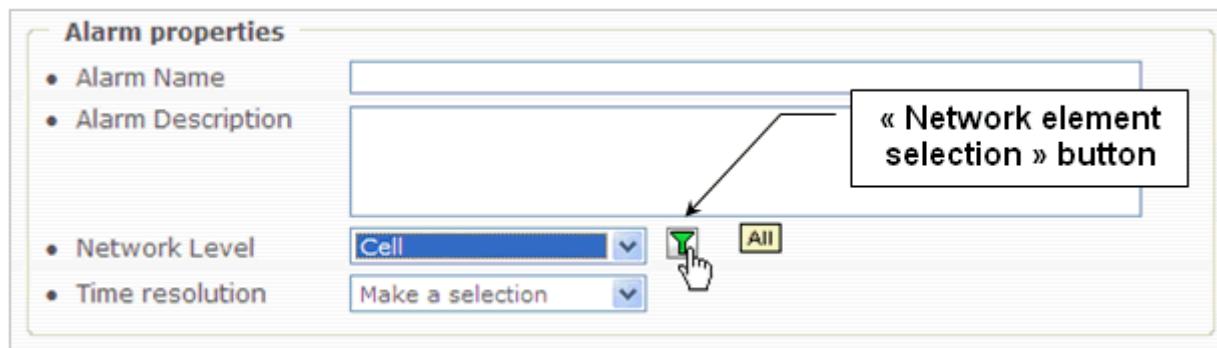
Alarm properties	
• Alarm Name	<input type="text"/>
• Alarm Description	<input type="text"/>
• Network Level	Make a selection <input type="button" value="▼"/>
• Time resolution	Make a selection <input type="button" value="▼"/>
• Alarm calculation activated	<input checked="" type="checkbox"/>

Step 2: Fill in “Alarm name” (mandatory) and “Alarm Description” (optional) fields.

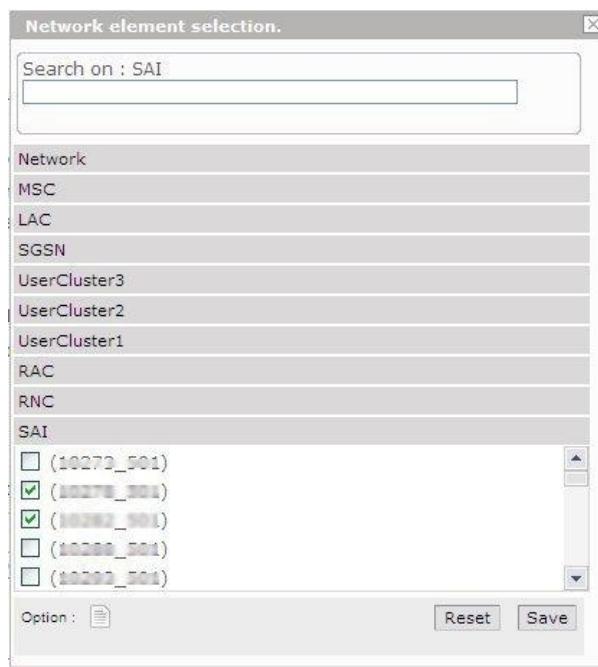
Alarm Name:	Name for the “Static Alarm”.
Alarm Description:	Description of the “Static Alarm”.

Step3: Choose the “Network Level”.

“Network Level” selection will make appear the “Network element selection” button:



This button allows launching “Network element selection” interface. With this interface user can select a list of particular network elements.



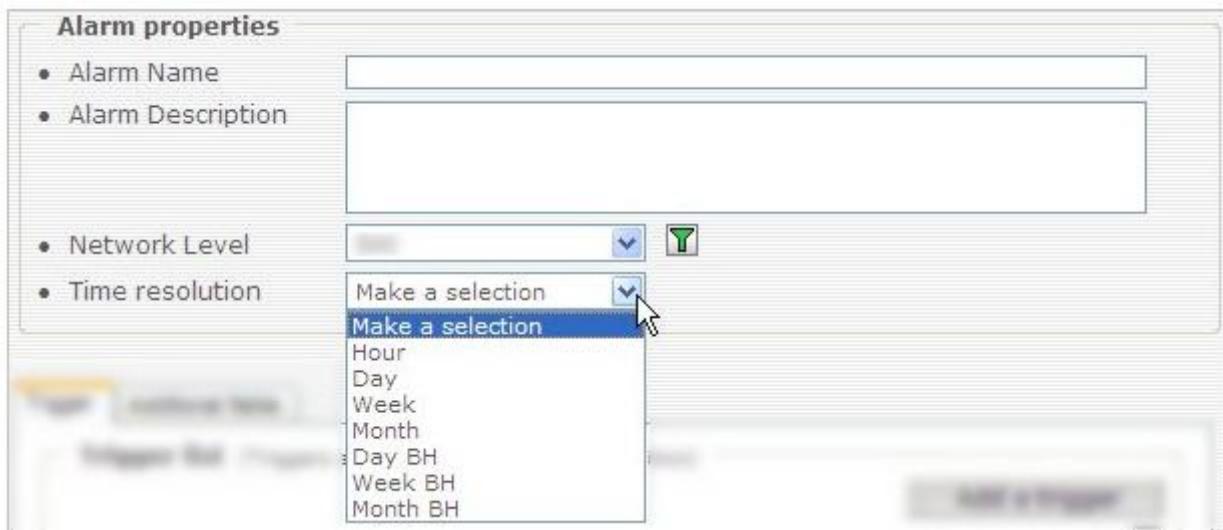
“Network element selection” button is green if at least one network element is selected. When the mouse is over this button, a tool tip gives the numbers of selected elements.

User can directly check elements for the selected network level or check elements by the selection of parent network levels.

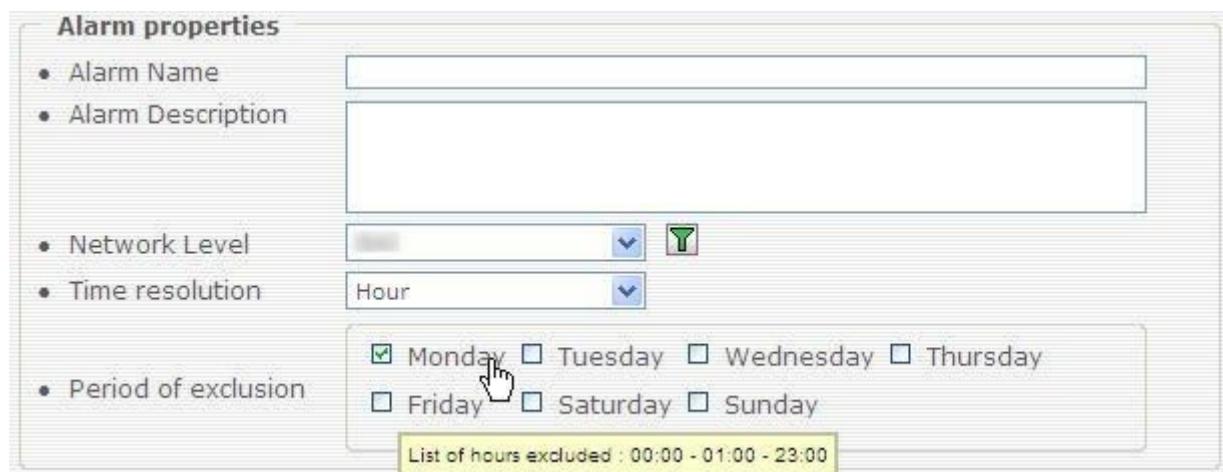
Example: if user wants to select all SAI related to a RNC, he can check this RNC and all SAI related will be automatically checked

This network level will be the result of the “Static Alarm” (e.g. If cell is chosen, the result of the “Static Alarm” will be a list of cells).

Step4: Choose the “Time resolution”:



- If selecting “Hour” time resolution, the following “Period of exclusion” interface will appear:



Checking a day makes appear following interface:



With this interface, user can exclude some hours for the selected day. It means that the static alarm will not be calculated for excluded hours.

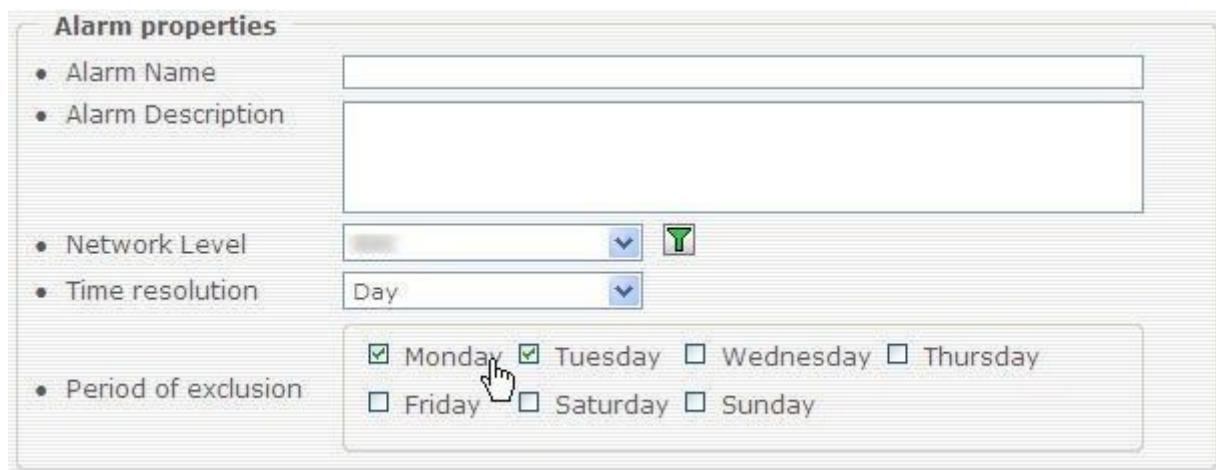
User can modify a configured day with clicking on corresponding day. "Exclusion of hour" interface will open.

"All" allows user to select all hours of selected day. With clicking on "Apply to all days", selected hours will be excluded for all days.

When mouse is over a day the list of excluded hours are displayed in a tooltip.

Rules on hour exclusion: It is not possible to select all hours of all days.

- If selecting "**Day**" or "**Day BH**" time resolution, the following "Period of exclusion" interface will appear:



With this interface, user can exclude some days for the static alarm calculation. It means that the static alarm will not be calculated for excluded days.

Rules on hour exclusion: It is not possible to select all days.

Step 5: Click on the "Add a trigger" button to get up to five triggers.

Trigger Additional fields

Trigger list (Triggers are linked using an 'AND' condition)

Add a trigger

KPI 1

Type 2

Make a selection

Critical ■

Number of iterations : [] Period : [] 4

• [] = []

• No trigger selected none []

Major ■

Number of iterations : [] Period : []

• [] = []

• No trigger selected none []

Minor ■

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Configure every trigger as follows:

①	Select a type (raw counter or KPI).
②	Select a raw counter or a KPI from the list.
③	Select an operand and set a trigger value for at least one critical level.
④	Optionally you can specify a minimum number of iterations over a number of periods that the trigger criteria must be verified for the alarm to be raised. The period is expressed in hours or days depending on the selected “time resolution”. To configure a classical (non-iterative) alarm, leave these fields empty. This is the default value and means “1 iteration over 1 period”.

A trigger with no severity level defined will be ignored.

Step 6: Click on the “Additional fields” tab and select additional information (raw counter or KPI). This information is not used in the calculation but only for further information on the alarm display result.

The screenshot shows the 'Additional fields' tab of a configuration interface. The tab has a header with 'Trigger' and 'Additional fields'. Below the header is a section titled 'Additional field list' containing five entries, each with a radio button and a label: 'Additional field 1', 'Additional field 2', 'Additional field 3', 'Additional field 4', and 'Additional field 5'. Each entry has a 'Type' dropdown and a 'Make a selection' button. To the right of the fifth entry is a red callout box with the text 'Reset an additional field' and a red 'X' button.

Step 7: Click on the “Save” button to save all the “Static Alarm” parameters.

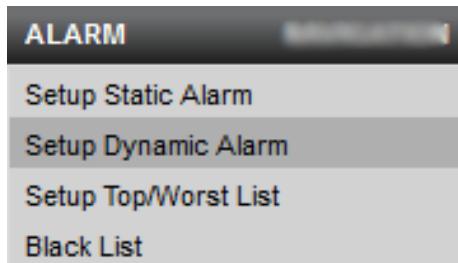
Step 8: Click on the button  of “Static alarm” main interface to open a window to parameterize the list of groups who will receive the alarm results by email:



Select / unselect the group(s) of users by using the “->” / “<-” buttons.

Step 9: Click on the “Save” button to save groups parameters.

12.2. DYNAMIC ALARM



The “Dynamic Alarm” interface will let you create dynamic alarms based on “raw counters”/ “KPIs” (for each family of each product). The result of every alarm will be available in the user interface menus.

The calculation of the dynamic alarms is the following:

$$\frac{\text{ABS}(\text{Average of the data over the last 14 periods} - \text{Current value of the data})}{\text{Standard deviation of the data over the last 14 periods}}$$

When this result is superior or equal to the threshold then the network element will be part of the alarm. An optional condition can be set on a raw counter or KPI to filter the results.

An optional static condition can be set on a raw counter or KPI to filter the results.

The result of every alarm will be available in the user interface menus and will be automatically sent by email to groups of users in a PDF format.

- “Dynamic Alarm” main Interface:

The screenshot shows the 'Dynamic Alarm Setup Interface' with a title bar 'Dynamic Alarm Setup Interface' and a sub-header 'New Dynamic Alarm'. Below is a table titled 'Dynamic Alarm list' with columns: Name, Threshold Raw / KPI, Network Aggregation, Time resolution, and several checkboxes for conditions.

Name	Threshold Raw / KPI	Network Aggregation	Time resolution	Condition 1	Condition 2	Condition 3	Condition 4	Condition 5	Condition 6	Condition 7
BSC Call drop rate	Call drop rate 1000+1000 (%)	BSC	Day	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
BSC Call setup failure	Call setup failure 1000+1000 (%)	BSC	Day	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
BSC CPU consumption	CPU usage 1000+1000 (%)	BSC	Day	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

1	Button to create a new “Dynamic alarm”.
2	General information on the “Static alarm”.
3	Button to delete a “Static alarm”.
4	Icon displayed when alarm is part of report(s).
5	Button to get detailed information on the “Dynamic Alarm”.
6	Button to parameterize the list of group(s) to whom the alarms will be sent by email: No mailing-list configured Mailing-list is configured
7	Button to activate/deactivate SNMP Trap: SNMP Trap is deactivated SNMP Trap is activated
8	Button to parameterize the list of group(s)/user(s) whom the alarms will be sent by SMS: No SMS sent Recipients list is configured

See “[Static Alarm](#)” paragraph for information on SNMP Trap.

The alarms that are deactivated are displayed in orange.

- How to create a new “Dynamic alarm”?

Step 1: Click on the “New Dynamic alarm” button. A window will open with information to be parameterized.

Step 2: Fill in the information:

Alarm properties	
• Alarm Name	<input type="text"/>
• Alarm Description	<input type="text"/>
• Network Level	<input type="button" value="..."/>
• Time resolution	<input type="button" value="Day"/>
• Period of exclusion	<input checked="" type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday <input type="checkbox"/> Thursday <input type="checkbox"/> Friday <input type="checkbox"/> Saturday <input type="checkbox"/> Sunday
• Discontinuous	<input type="checkbox"/>
• Alarm calculation activated	<input checked="" type="checkbox"/>

Alarm Name:	Enter a name for the “Dynamic Alarm”.
Alarm Description:	Enter the description of the “Dynamic Alarm”. (optional)
Network level:	Choose the Network aggregation level. See “ Static Alarm ” part for “Network element selection” interface description.
Time resolution:	Choose the time aggregation level. See “ Static Alarm ” part for “Period of exclusion” feature description. Note that “Hour” time

	resolution is only available if Global parameter "Compute Mode" is set to "Hourly".
Discontinuous:	<p>This checkbox is only available for the time aggregations hour and day. If checked, following calculation is done:</p> <ul style="list-style-type: none"> ➢ Hour level: the 14 hours used for the calculation are always the same hour of the day ➢ Day level: the 14 days used for the calculation are always the same day of the week. <p>Otherwise calculation is done with the 14 last periods.</p>

Step 3: Fill in the trigger information:

The screenshot shows the 'Trigger' configuration page. At the top, there are tabs for 'Trigger' and 'Additional fields'. The 'Trigger' tab is selected. The interface is divided into three sections: 'critical' (red), 'major' (yellow), and 'minor' (green). Each section contains input fields for 'Number of iterations' and 'Period'. Below these fields are two sets of radio buttons: 'both' (blue) and 'none' (orange), each with a percentage input field. Red numbers (1 through 6) are overlaid on various UI elements, likely indicating steps or specific settings to be configured.

Threshold	
1	Select the raw counter or KPI to be used in the threshold calculation.
2	Type the number of Standard deviation for at least one critical level.
3	This value is used as the threshold to be compared with the result of the Average value of a raw counter/KPI on a defined period minus the value itself.
6	Select the way alarm will be triggered (alarm values in blue, threshold in orange, red area is when alarm is triggered) :
Both	
Increase	
Decrease	

Trigger (optional)	
3	Select the raw counter or KPI to be used as a static trigger.
4	Select an operator and a trigger value for at least one severity level where a threshold is defined.
Iterations (optional)	
5	<p>Optionally you can specify a minimum number of iterations over a number of periods that the trigger criteria must be verified for the alarm to be raised.</p> <p>The period is expressed in hours or days depending on the selected “time resolution”.</p> <p>To configure a classical (non-iterative) alarm, leave these fields empty.</p> <p>This is the default value and means “1 iteration over 1 period”.</p>

Step 4: Click on the “Additional fields” tab. (see “[Static Alarm](#)” paragraph).

Step 5: Click on the “Save” button to save the “Dynamic Alarm” configuration.

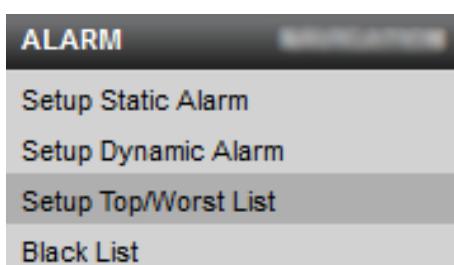
Step 6: Click on the button **5** of “Dynamic Alarm” main interface to open a window and parameterize the list of groups who will receive the alarm results by email. (See “[Static Alarm](#)” paragraph)

Step 7: Click on the “Save” button to save groups parameters.

- Rule on “Dynamic Alarms”:

In the calculation of the Average and Standard deviation, the current value of a KPI/raw counter is always excluded.

12.3. TOP/WORST LIST



The “Top/Worst List” interface will let you create list of network elements (mostly cells) based on a raw counter/KPI ordered ascending or descending (for each family of each product).

An optional condition can be set on a raw counter or KPI to filter the results.

The result of every list will be available in the user interface menus and will be automatically sent by email to groups of users in a PDF format.

- “Top/Worst List” main Interface:

Setup Top/Worst List Interface

Name	Sort Raw / KPI	Sort	Network Aggregation	Time resolution	Icon 1	Icon 2	Icon 3
Call now	Call now (20%)	asc	---	Day			
Temp worst	COMP_000_000_00	desc	Call	Hour			

1	Button to create a new “Top/Worst List”.		
2	General information on the “Top/Worst List”.		
3		Button to delete a “Top/Worst List”.	
4		Button displayed when “Top/Worst List” is part of report(s).	
5	Button to get detailed information on the “Top/Worst List”.	Button to parameterize the list of group(s) to whom the lists will be sent by email:	
		No mailing-list configured	
			Mailing-list is configured

- How to create a “Top/Worst List”?

Step 1: Click on the “New Top/Worst List” button. This will open a new window made to enter detailed information on the “Top/Worst List”.

Step 2: Fill in all the information on the “Top/Worst List”.

The screenshot shows a configuration window titled 'Alarm properties'. It contains several input fields and dropdown menus:

- 'Alarm Name': A text input field.
- 'Alarm Description': A large text area.
- 'Network Level': A dropdown menu with a small green 'T' icon.
- 'Time resolution': A dropdown menu set to 'Hour'.
- 'Period of exclusion': A section containing checkboxes for days of the week (Monday checked, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday). Below this is a note: 'List of excluded hours : 06:00 - 07:00 - 08:00 - 09:00 - 10:00 - 11:00'.
- 'Alarm calculation activated': A checkbox checked with a green checkmark.

Alarm Name:	Enter a name for the list.
Alarm Description:	Enter the description of the list
Network level:	Choose the Network level. See “ Static Alarm ” part for “Network element selection” interface description.
Time resolution:	Choose the time resolution. See “ Static Alarm ” part for “Period of exclusion” feature description.

Step 3: Fill in the Sort and trigger information:

Trigger		Additional fields	
Trigger list Number of iterations : <input type="text"/> Period : <input type="text"/> 5 <ul style="list-style-type: none"> • Sort condition 1 Type <input type="button" value="▼"/> Make a selection <input type="button" value="▼"/> asc <input type="button" value="▼"/> 2 <input type="button" value="X"/> • Trigger 3 Type <input type="button" value="▼"/> Make a selection <input type="button" value="▼"/> none <input type="button" value="▼"/> 4 <input type="button" value="X"/> 			
Sort condition <ul style="list-style-type: none"> 1 Select a raw counter or a KPI which will be the element to sort the list. 2 Select the way to sort the list (ascending / descending) according to the condition element selected above. 			
Trigger (optional) <ul style="list-style-type: none"> 3 Select the raw counter or KPI to be used as a static trigger. 4 Select an operator and a trigger value. 			
Iterations (optional) <ul style="list-style-type: none"> 5 Optionally you can specify a minimum number of iterations over a number of periods that the trigger criteria must be verified for the alarm to be raised. The period is expressed in hours or days depending on the selected "time resolution". To configure a classical (non-iterative) alarm, leave these fields empty. This is the default value and means "1 iteration over 1 period". 			

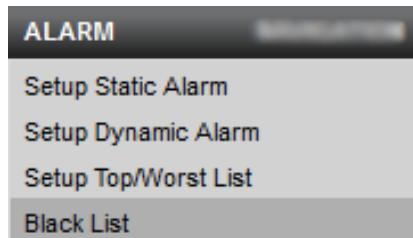
Step 4: Click on the “Additional fields” tab. (see the paragraph 12.1 concerning the “Static Alarm”).

Step 5: Click on the “Save” button to save the “Top/Worst List” parameters.

Step 6: Click on the button 5 of “Top/Worst List” main interface to open a window and parameterize the list of groups who will receive the list results by email.

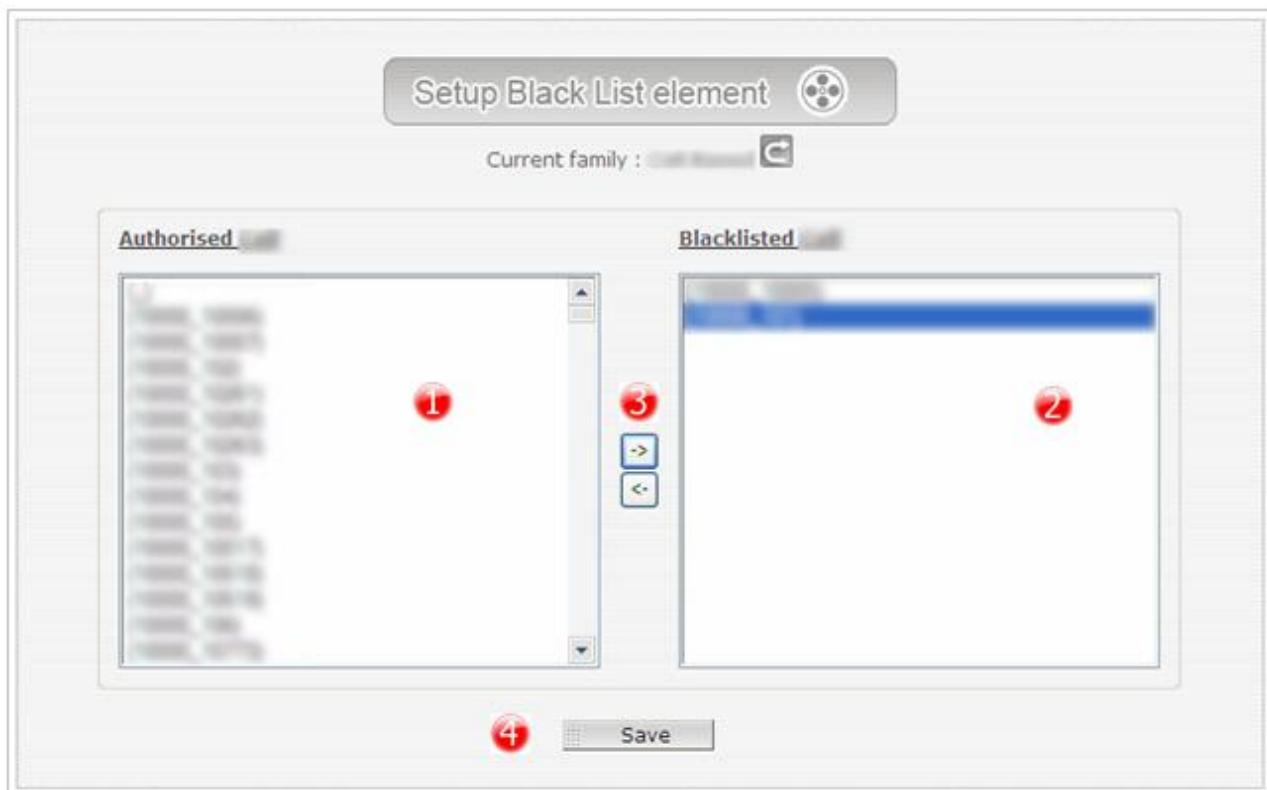
Step 7: Click on the “Save” button to save groups parameters.

12.4. BLACK LIST



By using the “Black List” Interface, the administrator will manage the list of network elements that will be ignored during alarm calculation for each family on each product.

- “Black list” main Interface:



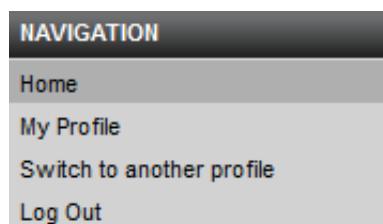
①	List of network elements allowed during alarm calculation.
②	List of network elements ignored during alarm calculation.
③	Enable or Disable network elements in alarm calculation.
④	The “Save” button will save the configuration.

- Rules on “Black List”:

12. Blacklisted elements always concern the lowest level of network element defined in the topology (cell)
13. Blacklisted elements can be defined for every family of data

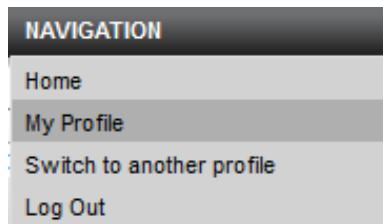
13. NAVIGATION

13.1. HOME



The “Home” menu will let you go back to the Homepage.

13.2. MY PROFILE



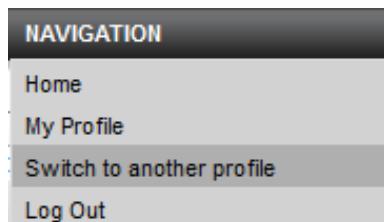
The “My Profile” menu is an interface dedicated to any user who can consult his/her own information that has been initialized on Portal by the administrator.

- “My Profile” main Interface:

The screenshot shows the "User Administration Interface" with a sub-section titled "My Profile". The profile details listed are:

- User Login admin
- Username Administrator
- Email admin@astellia.com
- Phone number (for SMS) (0601140700)

13.3. SWITCH TO ANOTHER PROFILE



This interface allows the user to change the profile he uses. If a user owns various profiles (rights) for the current application, he can then switch from one to another without logging out.

A screenshot of a "Profile Selection" interface. At the top, it says "Select your right / profile". Below is a list of profiles with radio buttons:

- MyUserProfile
- MyAdminProfile
- UserProfile
- AdminProfile

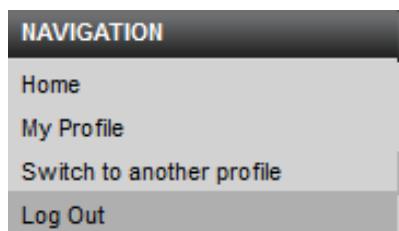
If the user owns more than two profiles, the icon  will lead to the same list as the menu.

If he owns only two profiles, the icon  allows to directly switch from the current profile to the other one.

If the user owns only one profile, the icon is not displayed.

Profiles can be from the various types “admin” and “user”.

13.4. LOGOUT



The “Logout” will let you log out from T&A and go back to the login page.

14. T&A DATABASE BACKUP/RESTORATION

14.1. AUTOMATIC DATABASE BACKUP

An automatic database backup is launched every Sunday provided that a daily compute has been executed.

The generated compressed dump is stored in the directory specified by “Backup Database directory” parameter of “Global Parameters”. (See “[Global Parameters](#)” part)

By default, backup directory is “/home/backup”.

14.2. MANUAL DATABASE BACKUP

Log on T&A server as “astellia” user.

To backup full database, launch following command:

```
/usr/local/pgsql/bin/pg_dump -U postgres -d <database name> .....>  
> <backup_directory/backupfile.sql>
```

In case of voluminous database, launch following command to generate a compressed dump:

```
/usr/local/pgsql/bin/pg_dump -U postgres -d <database name> .....>  
| bzip2 > <backup_directory/backupfile.sql.bz2>
```

To have help about “**pg_dump**” command, launch following command:

```
/usr/local/pgsql/bin/pg_dump --help
```

14.3. DATABASE RESTORATION

As “astellia” user, execute following procedure:

- Launch following command to delete current database:

```
/usr/local/pgsql/bin/dropdb -U postgres <database name>
```

- Launch following command to create an empty database:

```
/usr/local/pgsql/bin/createdb -E SQL_ASCII -U postgres <database name>
```

- Launch following command to restore saved database:

➤ In case of non-compressed backup file (“.sql” file):

```
cat <backup_directory/backupfile.sql> | /usr/local/pgsql/bin/psql -U postgres  
.....X  
<database  
name>
```

➤ In case of compressed backup file (“.sql.bz2” file):

```
bzcat <backup_directory/backupfile.sql.bz2> | /usr/local/pgsql/bin/psql.....X  
-U postgres <database name>
```

- Launch following command to install the database patch:

```
dos2unix /home/<application_name>/modules/divparzero/install_divparzero.sh
```

```
sh /home/<application name>/modules/divparzero/install_divparzero.sh  
/home/<application name> <database name>
```