

CetraC Statusryprt

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# Statusryprt

Statusryprt is an application to display and store the Status messages coming from a Status port of a CetraC system. It is also meant to handle the dialog with each device of a CetraC network and displays the “Status and Counters” data frames.

This application is written in Python and runs on PC with Windows or Linux where the following have to be installed:

* Python 3.4
* PyQT 5
* Libpcap

The PC needs to have a standard Ethernet device connected to the status port of the CetraC device configured to output the Status messages of the whole network.

If the “Status and Counters” data are also needed, this port has also to be the configuration port for the system. So be sure your configuration is handling the Status frames on the configuration port.

# Command line

Statusryprt needs to be launched with administrator privileges for libpcap to be able to grab all the incoming traffic with the following command:

*Python Statusryprt [-e | -E] [-v | -V]*

Optional –e or –E argument can be used to ignore the Ethernet interface number stored in the configuration file. The user will then be asked to select the Ethernet interface in the list of the interfaces found by Libpcap.

This interface number will automatically be stored in the configuration file and used for subsequent calls if this option is not used.

Optional –v or –V argument is the verbose mode activation.

Warning or monitoring information from the application are written in the console window.

# Configuration file

Some behavior of Statusryprt can be configured using the content of the file:

*Statusryprt.cfg*

This file has to be located in the same directory than the application, and may contain the following sections:

[MMread]

Related to “Status and Counters” information management

Options:

* discover = Yes or Y / No or N

The application is scanning the CetraC devices of the network to retrieve all the initialized devices and the active ports information.

This option allows skipping this scanning.

* readstatus = Yes or Y / No or N

The application is by default handling the dialog with the devices when “Status and Counters” information are asked by the user for a device or a port. If the connection to the configuration port is not part of the current configuration it will result in timeouts for each demand

Use this option to forbid these demands

[Ethernet]

Related to the Ethernet device number in the Libpcap available device list.

Option:

* port = *number*

Specify *number* as the Ethernet device number in the Libpcap list that correspond to the PC network port connected to the CetraC device.

If specified this device is used for Libpcap initialization except if the –e | -E option is used at starting time.

Note that after a user selection, the selected device number is automatically written in the configuration file by the application.

[Log]

Related to the files where status data frames displayed in the application interface can also be stored.

Statusryprt is using a file named: Stat-YYMMDD-HHMMS.log to copy the formatted status data received from the CetraC device.

Where YYMMDD are the year month and day of application launching and HHMMSS are the hours minutes and seconds of application launching.

These files are stored in the application directory.

Options are:

* file= Yes or Y / No or N

If No or N option is used no log file is created

* directory = *directory name*

If specified and valid, *directory name* will be used to store the log files.

[Layout]

Related to the application appearance when automatic discover is not possible.

Statusryprt automatically organizes its interface with the number of devices available and the number of ports for each device.

This information is normally found by asking information to all the devices of the network. If thus can’t be found 3 devices with 10 ports are initialized.

Options are:

* devicesnumber = *number*

If network discovery is forbidden or impossible and *number* is given with a min value of 1 and max value of 10 the application will display the status data for *number* devices

* device*x* = *n , p*

If *x* is more than 0 and less or equal devicesnumber value:

*n* will be used as CetraC device ID associated to device number *x* in the interface.

If *n* is not a valid number ID is the default ID value of the TabDevices variable of the application.

If *p* is a valid number greater than 3 or lower or equal to 20 *p* ports information will be displayed in the application interface.

If *p* is not a valid number 10 will be used, if *p* greater than 20, 20 will be used and if *p* is less than 3, 3 will be used.

# Interface style

If the user needs to change the Statusryprt interface style i.e.: colors, button shapes and borders, font values and size, the default style can be overridden using the file:

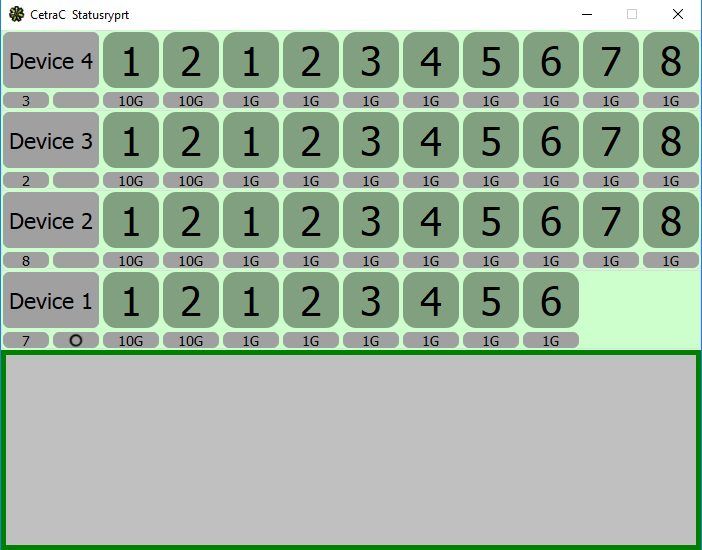
*Statusryprt.css*

This file must be placed in the same directory than the application to be taken in account.

A css example file is given as a starting point for modification.

# Execution

One the network is discovered or the configuration values are applied the interface is the following:



Devices section

Log section

The Devices section displays all the devices found or configured with an indicator associated to each found or configured port.

The Log section displays the formatted status messages received for each port of each device.

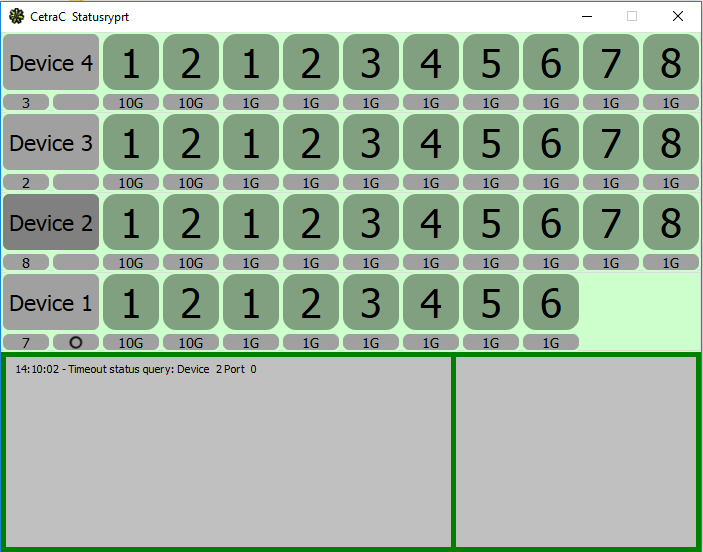
The Log section will receive the formatted status messages headed with a time stamp.

The last received message is always seen at the end of the list but a slider allows to review earlier messages.

If you want to clean the Log message area just press the reset log view button

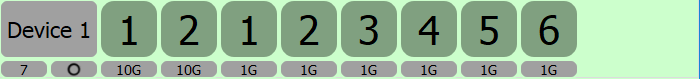
I you choose to keep the log file, the reset will not affect the file.

If “Status and Counters” functions are enabled click in the name a one of the devices will have the following result:



The right part of the Log section displays a new window to receive first the global data from the selected device which button is darken.

In the Device section you can find the following information:



For each device, upper line starts with the Device selection button

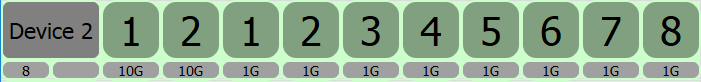
The following labels are green and will turn read for 5 seconds each time a status frame reports an error related to the port of the device.

The first 2 labels correspond to the 10 Gb/s backbone ports and the protocol of the subsequent buttons is displayed on the small button under the label in the lower line.

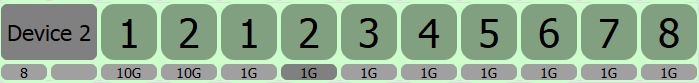
If auto discovery is possible, this label is written in black for each initialized port and in grey if not.

The left button of this lower line displays the device ID used by CetraC status to label the device.

Once a device is selected the device button is darkened.



For now on a click on the button on the lower line will display the status and counters of the related port in the right window of the Log section only if this port is initialized and “Status and Counters” is configured and available.



The button of the selected port is also darkened

A click in a selected device button unselects the device and the button returns to his normal colour. The port selection is then no more possible until further device selection.