



GSM-PRO Portal
Instruction Manual





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1 DESCRIPTION

1.1 Summary

The GSM-PRO Portal is a desktop monitoring and control software for multiple GSM-PRO modules.

1.2 Safety instructions

- This device is NOT suitable for monitoring sensible or time critical processes. Power interruption or GSM network failures do not guarantee flawless monitoring.

1.3 General note

For further instructions of the GSM-PRO please download the GSM-PRO manual:

<http://www.conta-clip.com/en/service/>



2 SOFTWARE

Download the latest GSM-PRO Portal software at:

<http://www.conta-clip.com/en/service/>

On start up the interface software checks if there is a new interface available. To manually check for updates click: About -> check for updates.

NOTE: checking for updates requires an internet connection.

2.1 System requirements

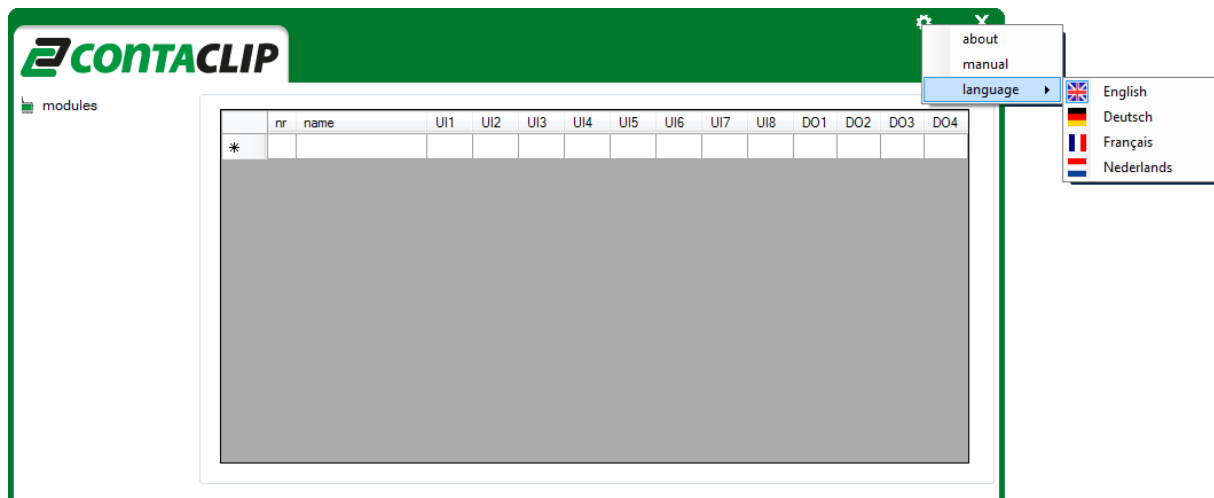
The following requirements are needed to run and use the software properly:

- Windows XP sp3, Vista, 7
- Minimal 1024 x 768 pixels screen resolution
- 100MB Hard disc capacity available
- 256MB RAM
- Internet connection

2.2 Software installation

Run the GSM-PRO_PORTAL_setup.exe to install the application. The setup wizard will guide you through the rest of the setup process.

After starting the interface set the language. The chosen language is saved and recalled at start up.



2.3 Dongle

The Portal is free to use for 2 GSM-PRO modules. If you want to use more modules connect the Portal Dongle to your PC (artnr. 16155.2, sold separately, please contact Conta-Clip for further information).

NOTE: when inserting the dongle for the first time it could take a few minutes for hardware configuration to complete.



3 GETTING STARTED

3.1 Port forwarding

If your PC is located behind an router, you need to open a port on the router and forward this port to the fixed LAN IP of the PC so that you can connect to the program correctly from the Internet. This function is available on most routers in the market and is often known as “Port Forwarding”.

It is possible to forward multiple ports and run the same amount of Portals to categorize or spread large number of GSM-PRO’s.

The Portal software needs a port that is suitable for TCP connections. For further information on Port Forwarding please contact your system administrator or read your routers manual.

NOTE: when the Portal software is started for the first time Windows might prompt if the program is allowed to listen to the internet beyond the firewall. Click “allow access”.

3.2 Module setup

3.2.1 By interface

The Portal software can be configured on each module using the “GSM-PRO interface”. Download this software at:

<http://www.conta-clip.com/en/service/>

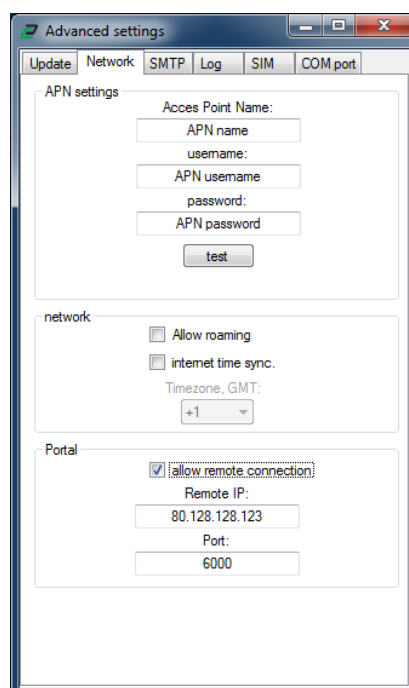
See the GSM-PRO manual for further instructions on the GSM-PRO interface.

In the Advanced settings “Network” tab make sure to enter the correct APN settings so the module can connect to the internet.

Check the “allow remote connection” box, insert the remote IP address and insert the port you chose to use. Finally upload the settings.

The remote IP is the address from where your PC or router is accessed over the internet. If you do not know your remote IP visit <http://www.whatismyip.com/>.

Note: your remote IP has to be a fixed IP address. If your Internet Service Provider doesn’t provide this service use a DDNS service like: <http://www.dyndns.com> or <http://www.no-ip.com>. Make sure router supports a DDNS service.





3.2.2 By sms

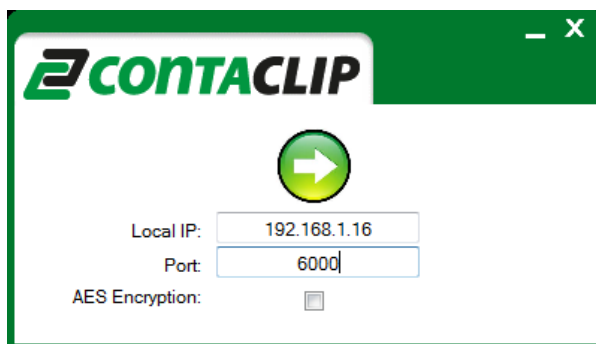
It is possible to configure the Portal software by sending an SMS: **PORTAL<IP>:<PORT>**. E.g. PORTAL80.128.128.123:6000.

NOTE: it is not possible to turn the Portal functionality OFF with an SMS.

3.3 Starting the Portal

On startup the Portal software requires the IP address from the PC on which the software is running from and the port you chose to use. If you do not know your remote IP address:

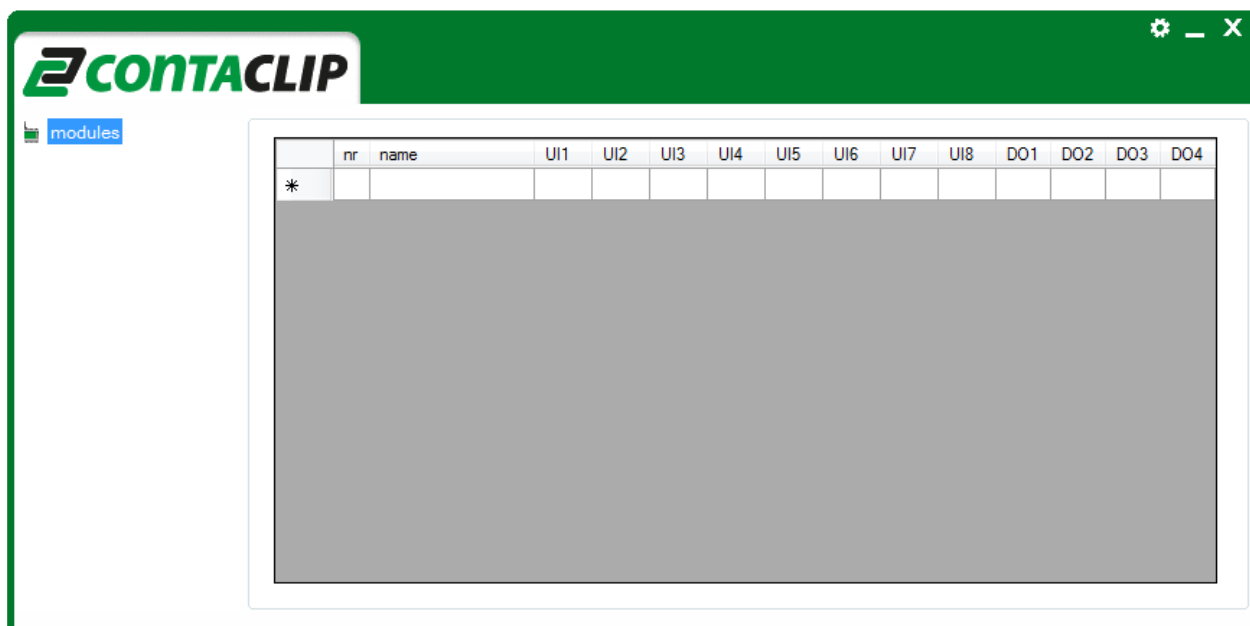
- access your Windows start menu
- Open the Command Prompt:
 - For Win7 in Start -> Search programs and files type "CMD"
 - For WinXP in Start -> Run type "CMD"
- In the Command Prompt type: ipconfig
- Search your IP address next to IPv4



Press the connect button to start the Portal. All modules configured to connect to the Portal will do so within 2 minutes.

NOTE: If a module could not connect to the Portal for a time of 12 hours it performs a restart. This is to prevent GSM network connectivity failure.

NOTE: Trying to connect to the Portal while the Portal is not running uses about 100k data per hour.

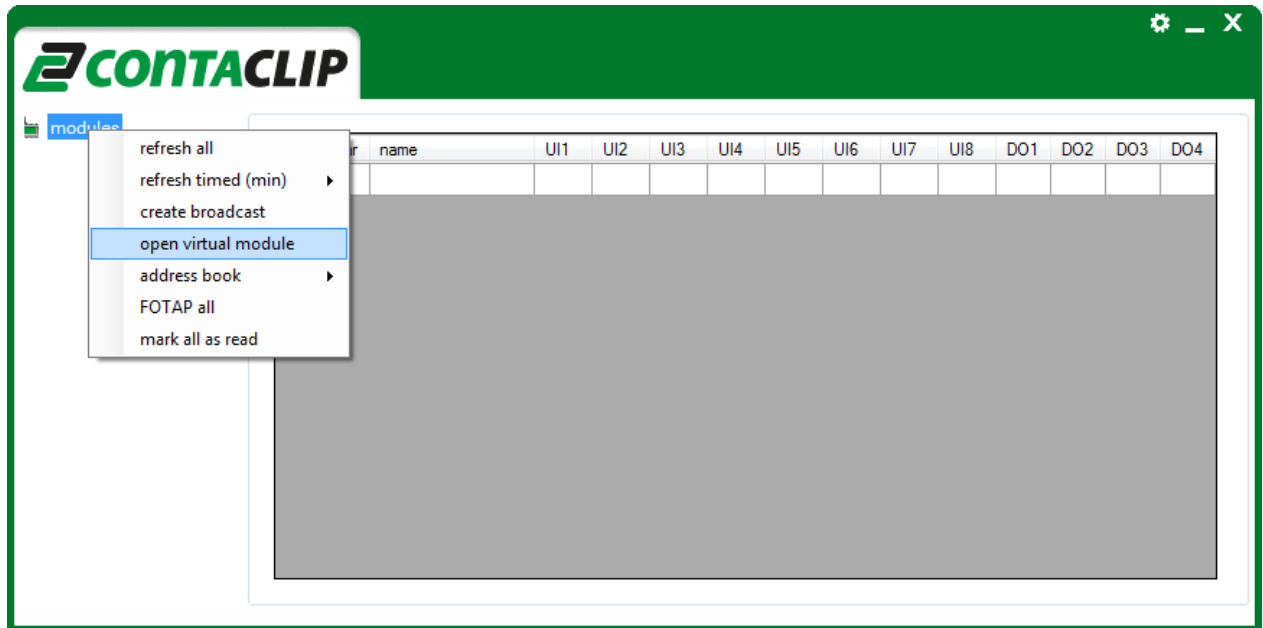




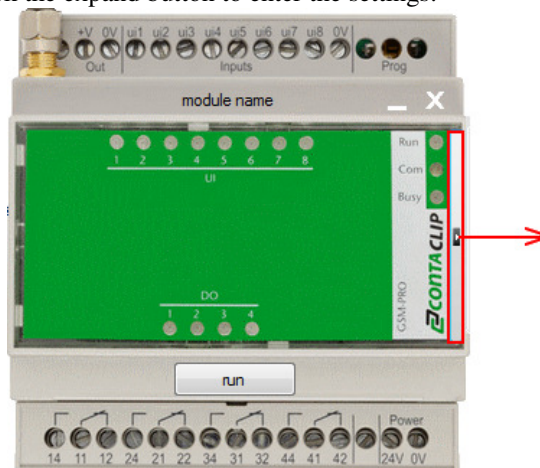
3.4 Virtual module

The Portal is equipped with a virtual GSM-PRO module so you can test the port forwarding or visualize the required functions.

To use the Virtual GSM-PRO right click on “Modules” and select “Open virtual module” or tap F2.

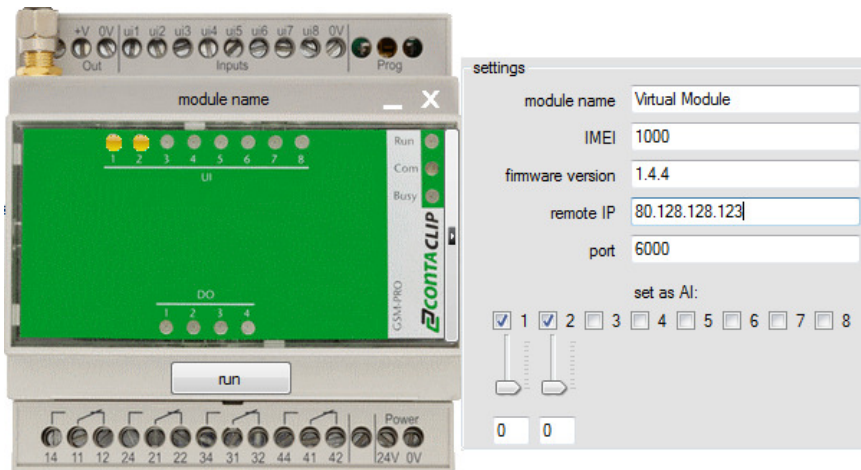


In the Virtual GSM-PRO click the expand button to enter the settings:



Here you can enter:

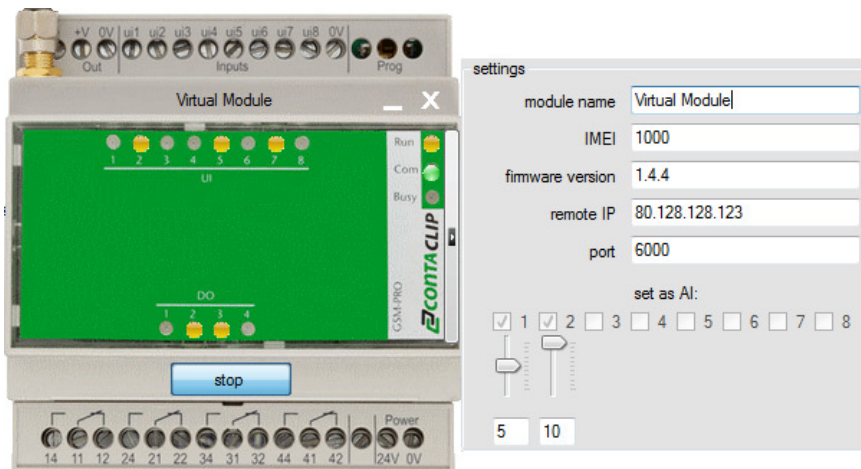
- Module name
- IMEI number, this is a unique number and has to be different from other modules connected to the Portal
- Virtual firmware version
- Remote IP address (see chapter 3.2)
- Chosen port
- Set universal input to analog input. Default is Digital input.



Press “run” to activate the Virtual GSM-PRO, the module now connects to the Portal. If a IO change is required click on the LED of the digital IO, or move the slider from an analog input. The Portal detects the changes (see chapter 4).

Note: the analog inputs are all set as:

- Minimum value: 0V
- Maximum value: 10V
- Lower threshold: 2V
- Upper threshold: 8V





4 MONITORING

4.1 Module overview

After the Portal is started all configured modules connect within 2 minutes. On the left side the modules are listed in a tree-view, on the right side the modules are listed with status overview in a data-grid. In both overviews the modules are sorted by module name.

nr	name	UI1	UI2	UI3	UI4	UI5	UI6	UI7	UI8	DO1	DO2	DO3	DO4
1	module - 0	4 V	0	10 V	0	0	1	0	1	1	1	1	1
2	module - 1	0	0	0	0	0	0 V	0	0 V	0	0	0	0
3	module - 2	1	0	0	0	0	0	0	1	0	0	1	1
4	module - 3	1	0	1	0	1	0	1	0	0	1	0	1
5	module - 4	0	0	0	0	0	0	0	0	0	0	0	0
6	module - 5	0	0	0	0	0	0	0	0	0	0	0	0
7	module - 6	0	0	0	0	0	0	0	0	0	0	0	0
8	module - 7	0	0	0	0	0	0	0	0	0	0	0	0
9	module - 8	0	0	0	0	0	0	0	0	0	0	0	0
10	module - 9	0	0	0	0	0	0	0	0	0	0	0	0
11	Virtual Module	5 V	10 V	0	0	1	0	1	0	0	1	1	0

4.1.1 tree-view

When a module is added to the tree-view it is preceded by an enumeration: “nr1”. This way in longer lists the link between the data-grid and the tree-view is easier found.

In the tree-view the module can adopt the following statuses with font-styles and icons:



Module is connected



Module is disconnected



Module has a new event (see chapter 4.3)



Portal is waiting for the module to connect (see chapter 4.4)

4.1.2 data-grid

The data-grid shows the modules name with the status of all IO's. After the module name the 8 UI's are shown with the values 1 or 0 in case of a digital input or the value + unit in case of an analog input. Next the 4 digital outputs are shown with the status 1 or 0.

If the module sends a new event the referring cell in the data-grid is marked yellow and the font-style is set to bold. Click on a cell to mark it as read with normal font-style and no marking.

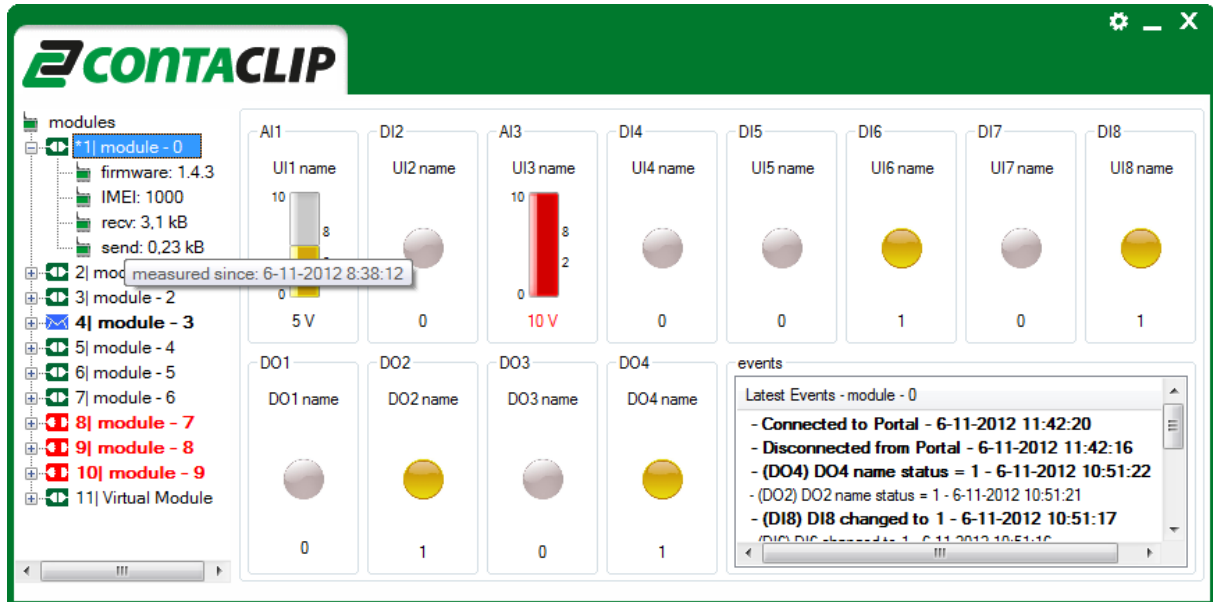
When a module is disconnected the font-style is set to red.



Note: you can mark multiple cells as read by selecting a row or even the complete data-grid.

4.2 Detailed module view

Select a module from the tree-view to get a detailed view, the selected module is marked with "*" in the tree-view:



If you expand the tree-view it shows the following module data:

- Firmware version
- IMEI number
- Number of bytes received from the module
- Number of bytes send to the module

The number of bytes send and received are logged from a certain time stamp. This is shown by hovering over the counter. To reset the data counter for a module right click and select "reset data log".

To view the total amount of data send and received by the Portal click settings and about. This Log can be reset by right click and selecting "reset data counter"

NOTE: the data counter per module counts only the data communicated with the Portal. All other actions within the module are not counted.

4.2.1 Universal inputs

On top the universal inputs are visualized with the input type + number: digital(DI) or analog(AI). Below the input type the input name as configured with the Interface software is shown.

If an input is configured as digital the color of the LED and below the value indicate the status of the input.

If an input is configured as analog the Portal shows a bar-graph representing all values of this input. On the left side the min and max values, on the right side the upper- and lower limits. Below the value + unit.

If the value is outside the upper- and lower limits the bar-graph and value is red. Otherwise the bar-graph is yellow and the text is black.

4.2.2 Digital Outputs

On the bottom left the digital outputs are visualized. Below the output number the output name as configured with the Interface software is shown.



The color of the LED and below the value indicate the status of the output.

4.2.3 Events

The bottom right lists the latest events from the selected module. The GSM-PRO shares the following events with the Portal:

- Module is connected
- Module is disconnected
- Digital input changed
- Analog input threshold exceeded
- (Multiple) Digital output(s) changed
- Periodical message
- Power down message
- Power cycle message
- Log file full
- Firmware update
- Configuration update

If a new event is received, it is added to the event list and marked with font-style bold as unread. When you click the event it is marked as read with normal font-style.

Right click on the event list to open a sub menu where you can mark all events as read, delete all events or export the events to a *.txt file.

Right click on “modules” in the tree-view and select “mark all as read” to mark the tree-view, data-grid and event-list as read.

The screenshot displays the CONTACTLIP software interface. On the left, a tree view shows a hierarchy of modules, with the top-level module selected. The main area is divided into two rows of indicators. The top row contains eight digital input (DI) indicators, each with a name (DI1 to DI8) and a status indicator (a circle that is yellow for '1' and grey for '0'). The bottom row contains four digital output (DO) indicators, each with a name (DO1 to DO4) and a status indicator (a circle that is yellow for '1' and grey for '0'). A context menu is open over the events log, showing options: 'mark all as read', 'delete all', and 'export'. The events log contains entries such as '(DO4) DO4 name status = 1 - 6-11-2012 10:51:22' and '(D18) D18 changed to 1 - 6-11-2012 10:51:17'.

Note: if you mark or delete all events the data-grid in the module overview and the tree-view will set the complete row for this module as read.

4.3 Read All

The Portal can ask for a IO status for one or all modules on a time given base or manual. To manual refresh a IO status right click on the module in the tree-view on the desired module and select “refresh”. To refresh all IO statuses right click on “modules” in the tree-view and select “refresh all”.

To refresh all modules automatically right click on “modules” click “refresh timed (min)” and select a rate in minutes.

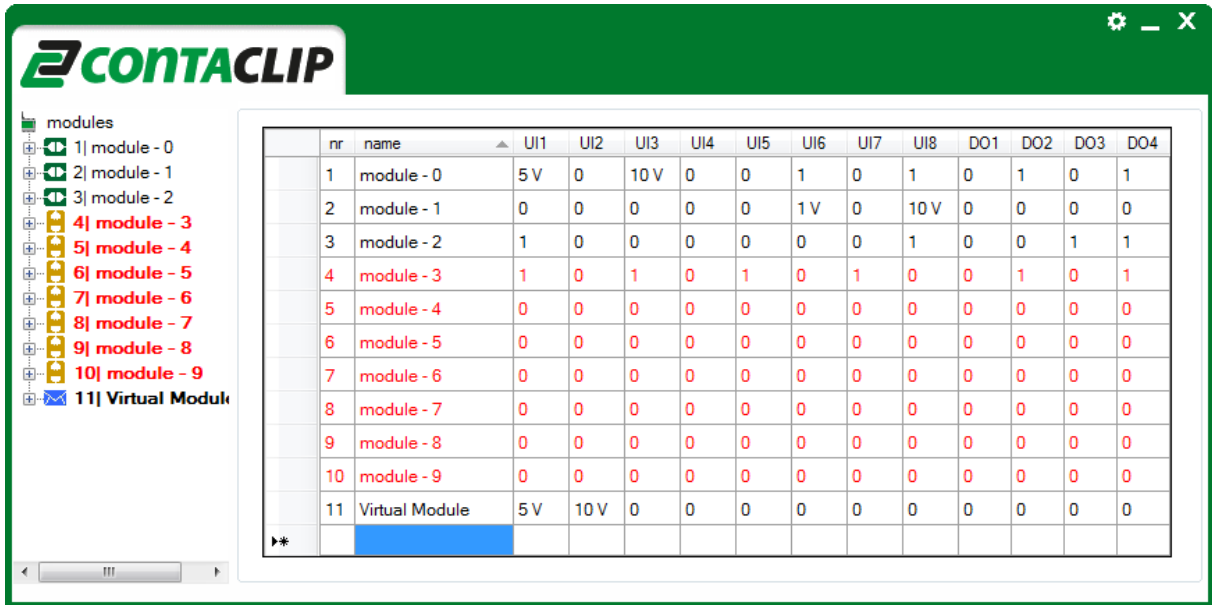


4.4 Address book

NOTE: the “address book” function is NOT available in trial mode.

The Portal keeps track of every module connected to it. On start-up this list can be called so the user is aware of any modules that should connect. To select this function right click “Modules”, click “Address book” and check “Use address book on startup”.

In the example numbers 4 to 10 are in the address book but not connected (yet):



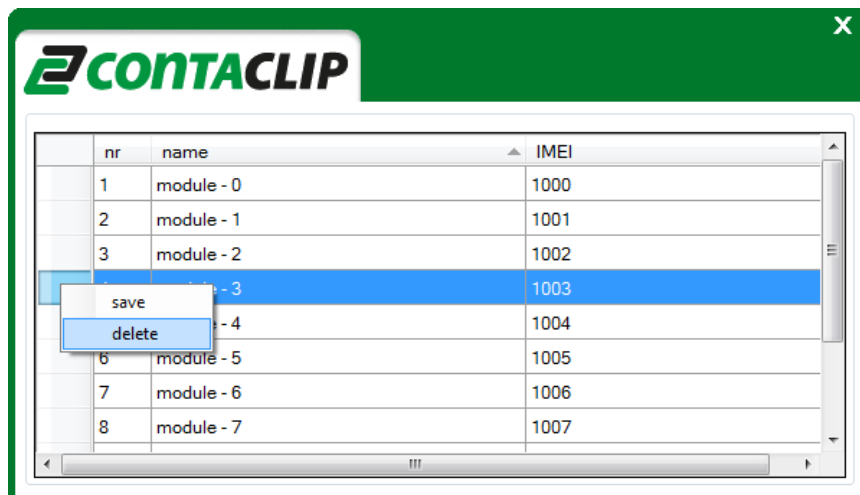
To edit the address book right click “modules”, click “address book” and click “edit address book”. Here you can add and delete modules from the list.

To delete select one or more rows right click and select delete.

To add a module go to the last row, insert the IMEI address and if known the name. The name is adapted the first time the module connects.

NOTE: if the IMEI is unknown send an SMS “IMEI” to the module. It responds with the IMEI number.

When closing the address book it saves automatically and refreshes the Portal.



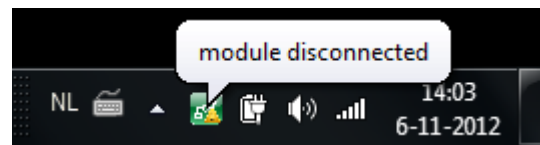
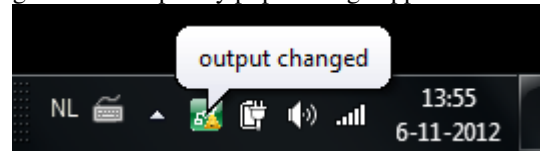


4.5 Notify icon

The Portal adds an icon to the taskbar so it is not necessary to keep it visible on your desktop:



If an event occurs the icon changes and a temporary pop message appears in the taskbar:





5 CONTROL

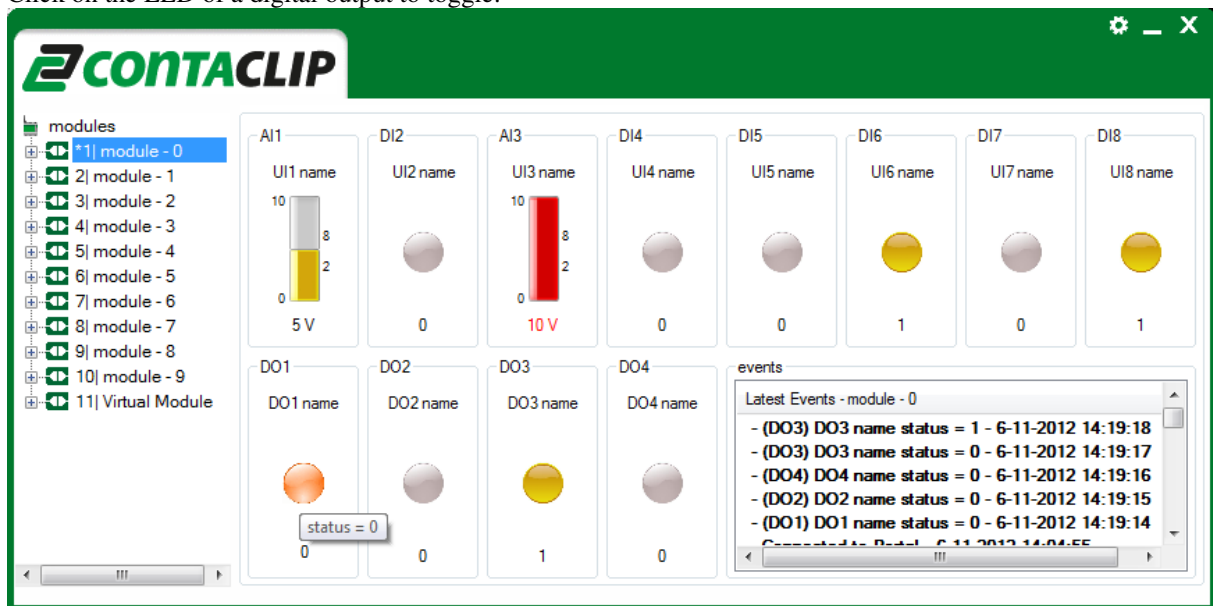
5.1 Set outputs

The digital outputs can be controlled by module or by a (selected) broadcast to all modules.

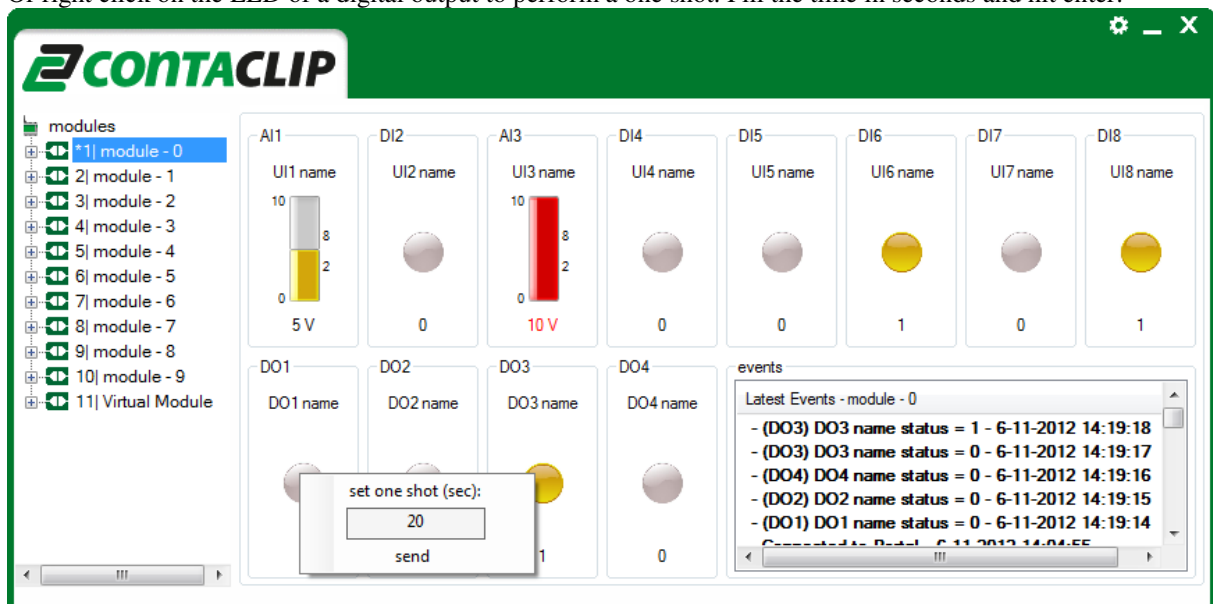
The digital outputs can be set for a given time from 1 to 36000 seconds. When this command is received, the DO sets to 1 and after the number of seconds the DO falls back to 0. The one shot function is called by selecting a DO and choose the number of seconds.

5.1.1 Single module

Click on the LED of a digital output to toggle:



Or right click on the LED of a digital output to perform a one shot. Fill the time in seconds and hit enter:



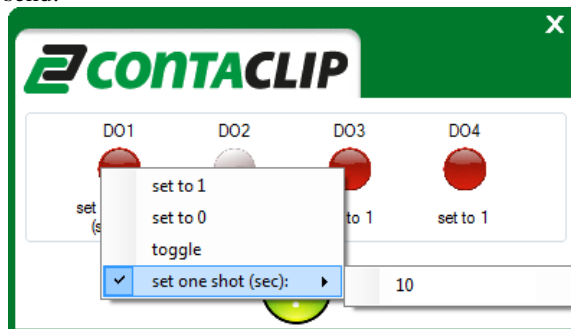


5.1.2 Broadcast

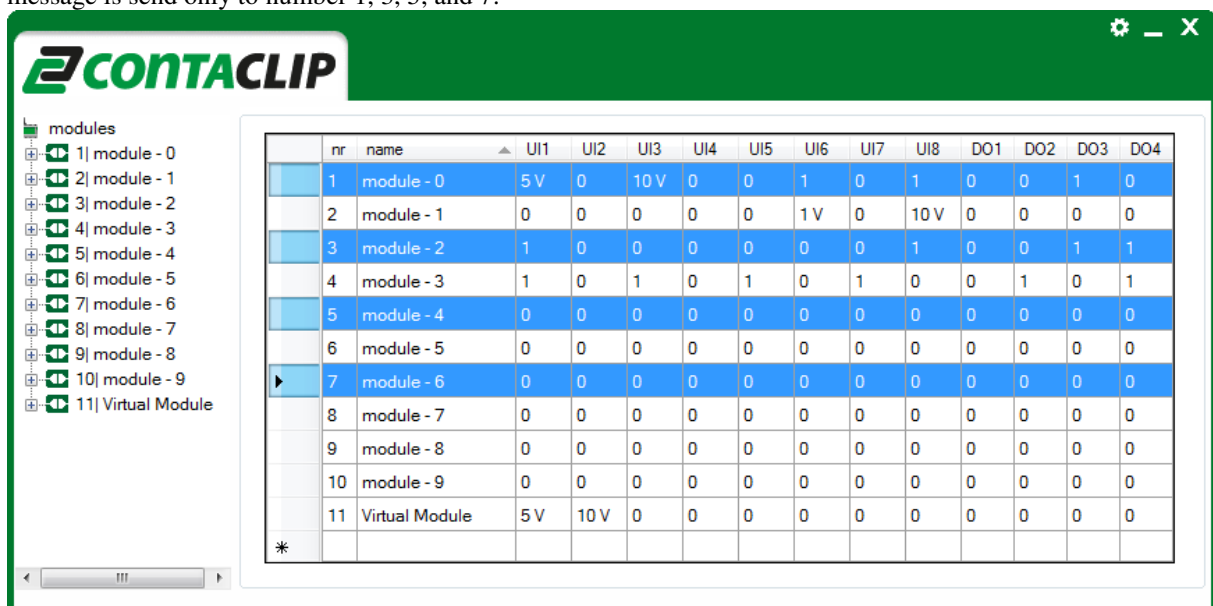
To perform a broadcast message right click “Modules” and select “Create broadcast”. Here it’s possible to select an action per output:

- set to 1
- set to 0
- toggle
- set one shot (sec)

If an action is set for the required output the LED on the screen is red and the action is mentioned beneath it. Press the broadcast button to send:



It is possible to send a broadcast message to a selected group of users. In the data-grid select one or multiple rows, right click on one of them or right click “modules” and select “create broadcast”. If you now create a message and press the broadcast button it is only send to the selected modules. In the example below the message is send only to number 1, 3, 5, and 7:



5.2 Other Functions

5.2.1 Firmware update

The Portal can give a command to the module to activate the OTA(Over The Air) firmware update. This can be given to one module or by (selected) broadcast.

To update one module right click the selected module and select “FOTAP”.

To update all or a selected group of modules (see chapter 5.1.2) right click “modules” and select “FOTAP all”.

See the GSM-PRO manual for further information on the Over The Air Firmware update.



5.2.2 OTA configuration

The GSM-PRO can be configured remotely. To activate this right click on the selected module and click “ROTAC”. The module now uploads the settings to the server. When ready the module answers “configuration file uploaded”.

Fill the unique module International Mobile Equipment Identity (IMEI) into the user interface and press “download configuration”. The user interface will be automatically updated with the settings of the (remote) module.

NOTE: Right click the module and select “Copy to Clipboard” to copy the IMEI number.

After making the required changes to the configuration, press “upload configuration” to upload the new configuration onto the server.

Finally right click on the selected module and click “COTAC” to inform the module that the new configuration is online. It will download the configuration and resets, this will take about one minute. The module answers: “configuration file updated”.

See the GSM-PRO manual for further information on the Over The Air Configuration.

5.2.3 Restart device

A GSM-PRO can be restarted by the Portal. Right click the selected module and click “reset”. The module disconnects and reconnects within 2 minutes.



6 TROUBLESHOOTING

6.1 Module does not connect to the portal

- Module configured? (see chapter 3.2)
- Port forwarding activated? (see chapter 3.1)
- Check the data connection on your module: SMS “CDC”
- Does the firewall on the PC block the Portal? Check your security settings or ask your system administrator.

6.2 Module does not connect to the portal but has been connected

- Restart Portal
- Restart module: SMS “WRESET”
- Check the data connection on your module: SMS “CDC”