

# Template:Networking rut manual input output

The information in this page is updated in accordance with firmware version .



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## Summary

**Inputs and Outputs** are used for the monitoring and controlling of a connected device or receiving signals from that device in order to trigger certain events.

This chapter of the user manual provides an overview of the Input/Output page for {{{name}}} devices.

## Characteristics

{{Template:Networking\_{{{series}}}\_manual\_input\_output\_characteristics|name={{{name}}}}}

## Status

The **Status** tab displays the current states the router's input and output:

[[File:{{{file\_status}}}|border|class=tlb-border]]

## Custom Labels

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If the default Input/Output labels do not suit your needs, you can always configure custom ones in the **Custom Labels** section. Click the 'Edit' button next to the desired Input or Output and you will be redirected to a window such as this:

[[File:{{{file\_status\_digital}}} |border|class=tl-t-border]]

The figure above is an example of custom label configuration for *Digital Input*. You can change an input's/output's name and the names of their states. The changes are purely cosmetic and used for easier management purposes.

## Status and control from command line

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{{Template:Networking\_{{{series}}}\_manual\_input\_output\_cli}}

## Input

The **Input** tab is used to configure the router's input pin.

### Input Rules

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The **Input Rules** section provides you with the possibility to set up rules that execute user specified actions after a certain trigger occurs. To add a new rule, look to the Input Configuration section that is just below. Select the input, the trigger and the action for the rule and click the 'Add' button. A new rule will appear in the Input Rules list:

[[File:{{{file\_input\_add}}} |border|class=tl-t-border]]

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To begin editing an input rule, click the 'Edit' button located next to it. Refer to the figure and table below for information on input rule configuration.

[[File:{{{file\_input\_config}}} |border|class=tl-t-border]]

{{Template:Networking\_{{{series}}}\_manual\_input\_output\_input\_rule\_table|name={{{name}}}}}

## Output

The **Output** tab is used to configure the router's output pin.

### Output Configuration

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The **Output Configuration** section is used to change the default state of the router's output pin.

[[File:{{{file\_output\_config}}}]]

Field	Value	Description
Open collector output	Low level   High level; default: <b>Low level</b>	Changes the default* state of the open collector (OC) output pin.

\* Changing the default state of an output means that the changes will be written into the input/output config and saved. This means that unless some other related change occurs the state of the output will remain as set in this section.

## ON/OFF

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The **ON/OFF** section is used to turn the router's output on or off. This action does not save the state permanently, meaning that after a reboot the state will revert back to their default values.

[[File:{{{file\_output\_on\_off}}}]]|border|class=tl-t-border]]

## Periodic control

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The **Periodic control** section allows you to set up automatic output control rules that trigger output state changes at the specified period or interval. Refer to the figure and table below for information on configuration fields contained in that section.

[[File:{{{file\_output\_periodic}}}]]|border|class=tl-t-border]]

Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns the rule on or off.
Output	Digital OC Output; default: <b>Digital OC Output</b>	The output pin that will be effected by the rule.
Action	On   Off; default: <b>On</b>	The action that will be performed on the output.
Action timeout	yes   no; default: <b>no</b>	Action timeout specifies whether an action should end after some time. For example, if action is set to <i>on</i> and timeout is set to 10, when the trigger occurs the output will turn on for 10 seconds before turning off.
Mode	Fixed   Interval; default: <b>Fixed</b>	When the rule will be triggered. <ul style="list-style-type: none"><li>• <b>Fixed</b> - triggers the specified action on a specified day(s), hour and minute. For example, every Sunday at 8:30 AM.</li><li>• <b>Interval</b> - performs the action at an interval. For example, every 1 hour during Mondays.</li></ul>

## Scheduler

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With the help of the output **Scheduler** you can configure a timetable of when the output should be enabled or disabled based on time.

```
[[File:{{{file_output_scheduler}}} |border|class=tl-t-border]]
```

## Post/Get

Enabling **Post/Get** will allow you to send HTTP POST/GET requests to the router that control the state of the output. The figure below is an example of the Post/Get configuration section and the table below provides information on the fields contained in that section:

```
[[File:{{{file_output_post_get}}} |border|class=tl-t-border]]
```

Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns Post/Get on or off.
Username	string; default: <b>none</b>	Username used for authentication in POST/GET queries.
Password	string; default: <b>none</b>	Password used for authentication in POST/GET queries.

## Post/Get examples

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It is possible to turn the output on and off by using a HTTP POST/GET requests. Use a web browser or any other compatible software to send HTTP POST/GET requests to the device.

Below is a table containing syntax examples of this usage:

```
{{Template:Networking_{{{series}}}_manual_input_output_post_get_examples_table|name={{{name}}}}}
```

### Overview:

- 192.168.1.1 - router's default LAN IP address; replace it in accordance with your own configuration.
- username - login name from Post/Get configuration.
- password- password from Post/Get configuration.
- action- the action that will be performed on the output (can be *on* or *off*).
- pin - specifies the output (use *oc*).
- delay - defines a delay (in seconds) after which the specified action will be performed.
- time - defines a window of time during which the action will take place. For instance, if you post an *on* action while specifying *time=5*, the output will turn on and stay on for 5 seconds before turning off.

Delay and time parameters can be used together. For example, if delay is 10, time is 5, action is on, then 10 seconds after the execution of the command, the output will switch to *on* (or stay in *on* state if it was already that way), then after 5 more seconds it will switch to *off* state. In this case the overall command execution time is 15 seconds.

## Additional Information

Input/Output hardware application examples:

- **[[{{{name}}} Relay to Open Collector Output|Relay to Open Collector Output]]**

[[Category:{{{name}}} Services section]]