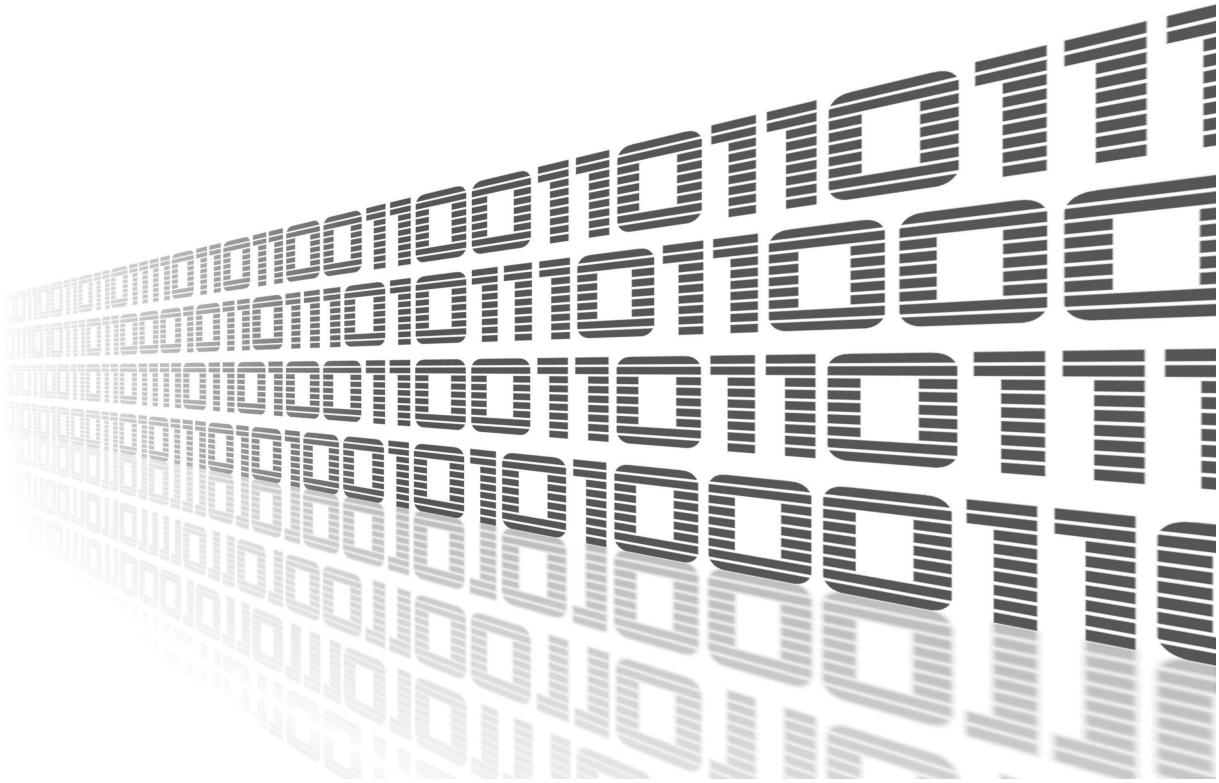
RouterApp

User Module

# Sleep Mode

APPLICATION NOTE



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# Used symbols

*Danger* – Information regarding user safety or potential damage to the router.



*Attention* – Problems that can arise in specific situations.

*Information, notice* – Useful tips or information of special interest.

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# 1. User Module Description

*Sleep Mode* user module allows to switch the router into Low Power Mode and then wake it up again, based on various parameters. It is an advanced graphical user interface that enables employment of LPM command supported by v3 routers.

Control parameters for sleep (low power mode) and wake up can be binary inputs or time (time period expiration and time of the day).



User module *Sleep Mode* is not included in the standard router's firmware. Uploading of this user module is described in the *Configuration Manual* [1-4] in chapter *User Modules*.

This user module is compatible with Smart Routers of v3 platform only.

For configuration of the *Sleep Mode* user module a web interface is available. It can be accessed by pressing the module name on the *User modules* page of the router's web interface.

Left part of this interface contains a menu with the *Return* link in the *Customization* section (see Figure 1), which will switch back to the main router's web interface. The main part of the interface contains the configuration page described in the next chapter.


Figure 1: User module menu

# 2. Configuration

You can enable the *Sleep Mode* user module and then set the *Wake Up* and *Sleep* control parameters. See the Table 1 for explanation. Activate the desired *Wake Up/Sleep* event(s) and click *Apply*. On the Figure below there is an example of running the router only when binary input 1 is active and then sleep after 10 seconds of binary input 1 inactivity.

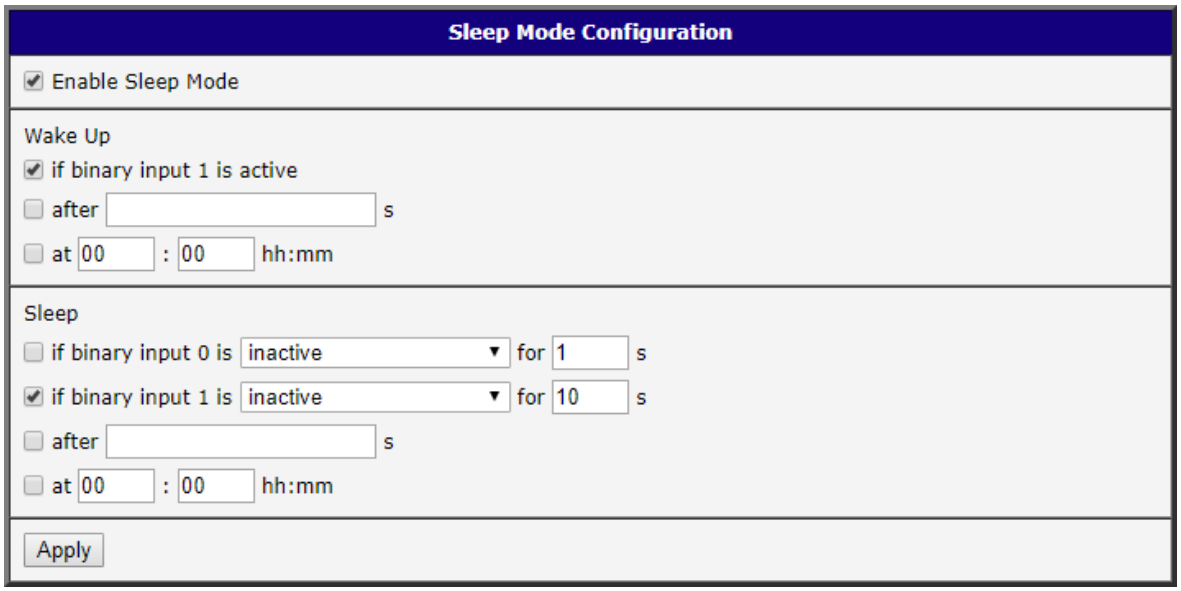


Figure 1: Configuration – SmartFlex, run when binary input active

**Attention!** Be cautious when configuring the *Sleep* section of the user module. When not properly set, the router can be in low power mode for a long period of time or even can not be waken up in some configuration combination. When you could not wake up your router, the factory reset would wake up the device.

| Number | Description |
|---|---|
| Enable Sleep Mode | Activate the user module. |
| Wake Up if binary input 0/1 is active | Wake up the router from low power mode based on binary input status change to active (on). Binary input 0 only is available for SmartStart and ICR-3200 routers, binary input 1 only is available for SmartFlex and SmartMotion routers. |

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| Number | Description |
|---|---|
| Wake Up after ___ s | Countdown interval (in seconds) to wake up the router from low power mode. Minimum is 5 seconds. |
| Wake Up at HH:MM | Hour and minute of the day when the router will wake up from low power mode regularly every day. |
| Sleep if binary input 0 is inactive/active for ___ s | Inactive is default (status = off), since wake up can be done only on active input. You can set the length of the binary input inactivity/activity (impulse) that leads to sleep mode. Sleep on binary input 0 is available on all v3 routers. |
| Sleep if binary input 1 is inactive/active for ___ s | Inactive is default (status = off), since wake up can be done only on active input. You can set the length of the binary input inactivity/activity (impulse) that leads to sleep mode. Sleep on binary input 1 is available on SmartFlex and SmartMotion routers only. |
| Sleep if after ___ s | Countdown interval (in seconds) to switch to low power mode (sleep). Minimum is 5 seconds. |
| Sleep at HH:MM | Hour and minute of the day when the router will be switched to low power mode regularly every day. |

Table 1: Sleep Mode configuration parameters

It is possible to activate more then one *Wake Up/Sleep* events. If done so, the **first event counts**. E.g.: Both *Wake Up if binary input ...* and *Wake up at HH:MM* are active. At specified HH:MM the router is waken up. Afterwards the binary input is set to active, but it does nothing since the router is already awake.



The binary inputs available for particular router models may vary. Note the difference on Figures 1 (SmartFlex, SmartMotion) and 2 (SmartStar, ICR-3200). On SmartFlex and SmartMotion the binary input 0 can not be used to wake up the router. For details on binary inputs see *User Manual* of your particular device, chapter *I/O Port*.

## 2.1 Example

On Figure below there is an example of setting the *Sleep Mode* in SmartStart/ICR-3200 router (wake up on binary input 0 available). The router is configured to sleep always after 2 hours since waken up (7200 seconds). It can be waken up either if binary input 0 is active, or it will wake up after 4 hours anyway (14400 seconds) when the binary input stays inactive.

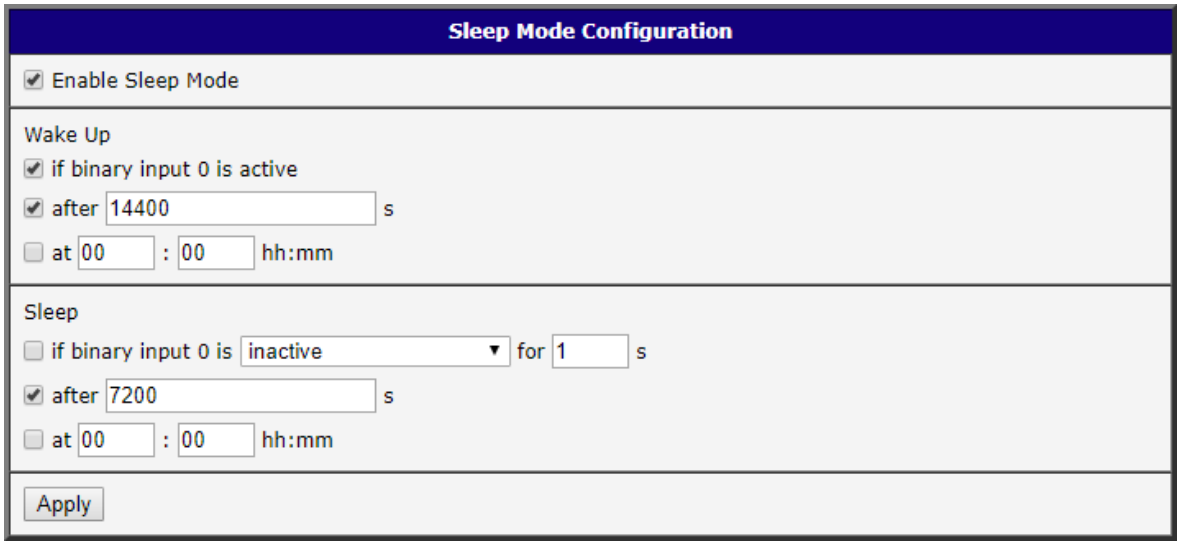


Figure 2: Example of configuration – SmartStart/ICR-3200

# 3. Related Documents

**[1]** Advantech Czech: **SmartFlex Configuration Manual** (MAN-0023-EN)
**[2]** Advantech Czech: **SmartMotion Configuration Manual** (MAN-0024-EN)
**[3]** Advantech Czech: **SmartStart Configuration Manual** (MAN-0022-EN)
**[4]** Advantech Czech: **ICR-3200 Configuration Manual** (MAN-0042-EN)

Product related documents can be obtained on *Engineering Portal* at www.ep.advantech-bb.cz address.



Choose appropriate version of the manual matching model of your router.