

MyOffice Gadget

rev. 2

(applies to MyOffice gadget v1.4 and later)



cybrotech

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General

Gadget is a personal interface to Integra-BM system.

Unlike touch screen or operating panel, gadget is a piece of software, small program running on your computer. You may use gadget exactly the same way as you use wall thermostat, switch or dimmer.



MyOffice is a series of gadgets made to control Integra-enabled office. They all have the same functionality, and differ only in design.

MyOffice needs 8Mb or system RAM and almost no CPU cycles, so it is negligible load even for a thin PC.

For customized gadgets contact Cybrotech support.

Installation

PLC programmer

Take care that plc variables match predefined gadget names.

System administrator

Install gadget in common shared directory on company server.

For each user, create a registry file with following keys (red text depends on user):

```
Windows Registry Editor Version 5.00

[HKEY_CURRENT_USER\Software\Cybrotech\Integra Gadgets\MyOffice]
"UserName"="Arthur Dent"
"CyBroNad"=dword:000003e8
"Password"=""
"RoomIndex"=dword:00000000
"LightCount"=dword:00000004

[HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Run]
"MyOffice"="\\Server\Program Files\Integra Gadgets\MyOffice\MyOfficeSmall.exe"
```


UTF-8 (Unicode) enabled editor is required (e.g. Notepad).

E-mail registry file to users. Also send links to the available gadgets.

User

Open registry file. Start gadget. Enjoy.

Operation

 HVAC mode – heating, cooling or inactive.

62.2
water Fan-coil water intake temperature.

12.4 **55%** **78%**
outside humidity lightness Outdoor temperature, humidity and lightness.

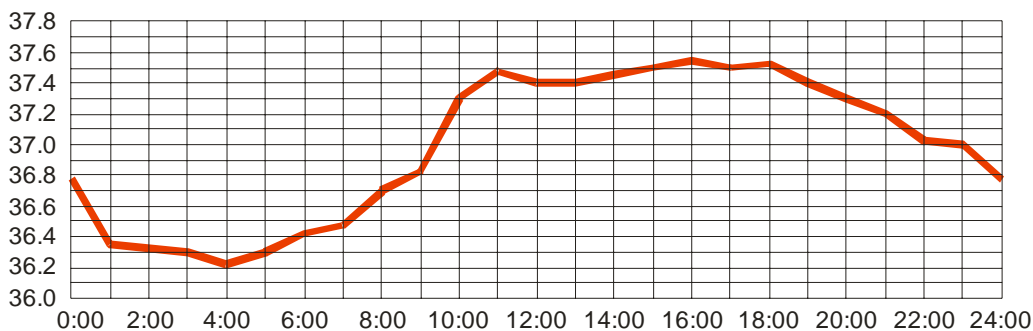
25.0
setpoint Requested room temperature in °C.

 Fan-coil speed and valve position.


 Fan-coil speed limit.


+0.7
offset Bio-offset

Human body temperature varies during the day, peaks afternoon and dips during night. Bio-offset service calculates those diurnal variations and makes an attempt to correct room temperature accordingly, in order to get better subjective feel and comfort.



More details at <http://en.wikipedia.org/wiki/Thermoregulation>.

 **15:00** Temporary activates heating/cooling at maximum speed. During this period, setpoint and maximum fan speed are ignored.

 **15:00** Room presence timer. Reloads with PIR sensor and mouse movement. When not active, lights go off and room temperature falls back to alternative system-defined value.

Status Messages

Registry settings
one or more registry keys is missing

Network connection
PC has no connection to local network

CyBro connection
PC has no connection to CyBro

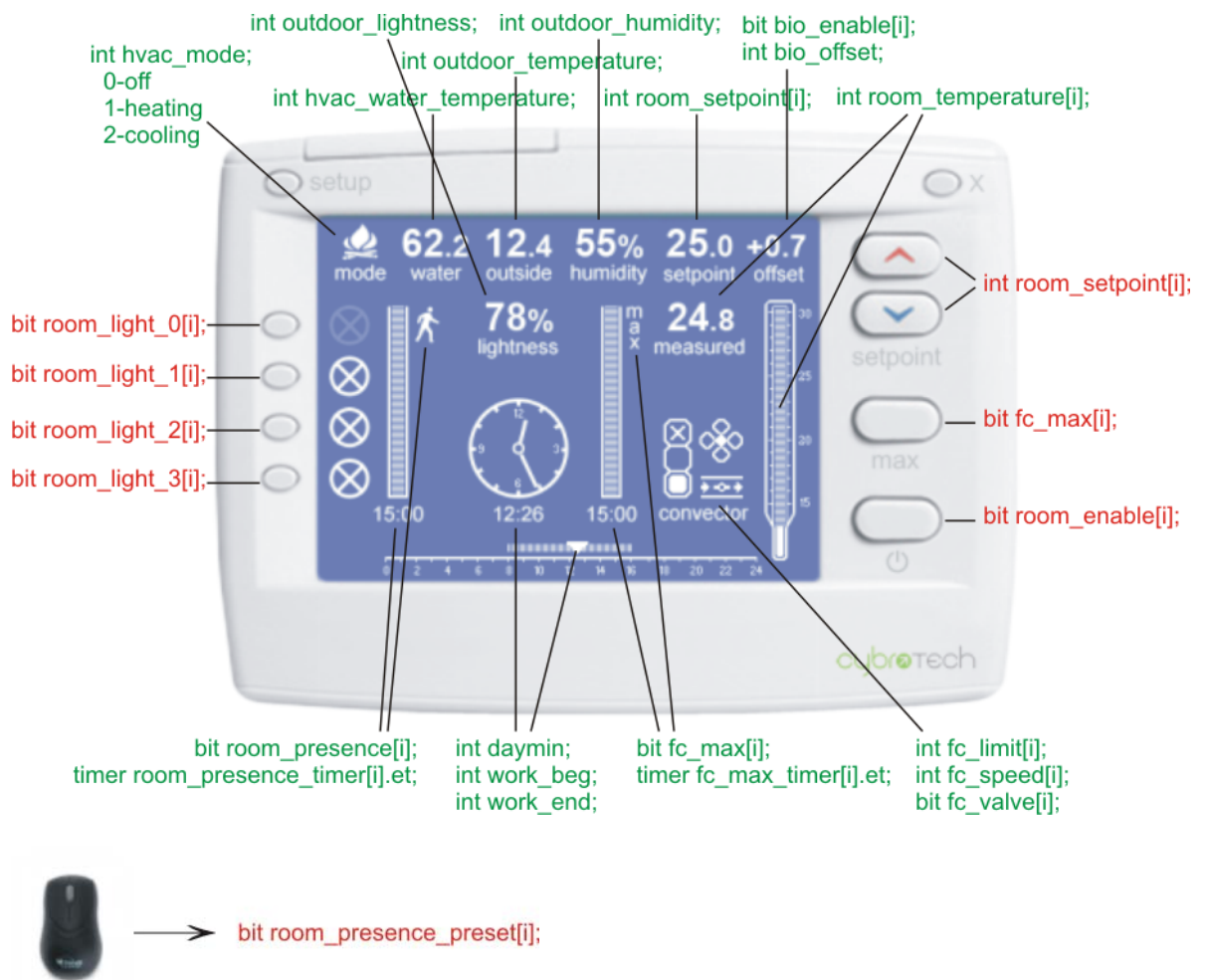
PLC program
CyBro has no plc program

Allocation file
CyBro program has no allocation file

CyBro running
CyBro is stopped

A-bus password
CyBro program is protected with password

Variables



Green variables are read-only. Red variables are read/write.

Indexed variables are per-room, others are global.

Bits variables are positive logic: 0 is disabled, 1 is enabled.

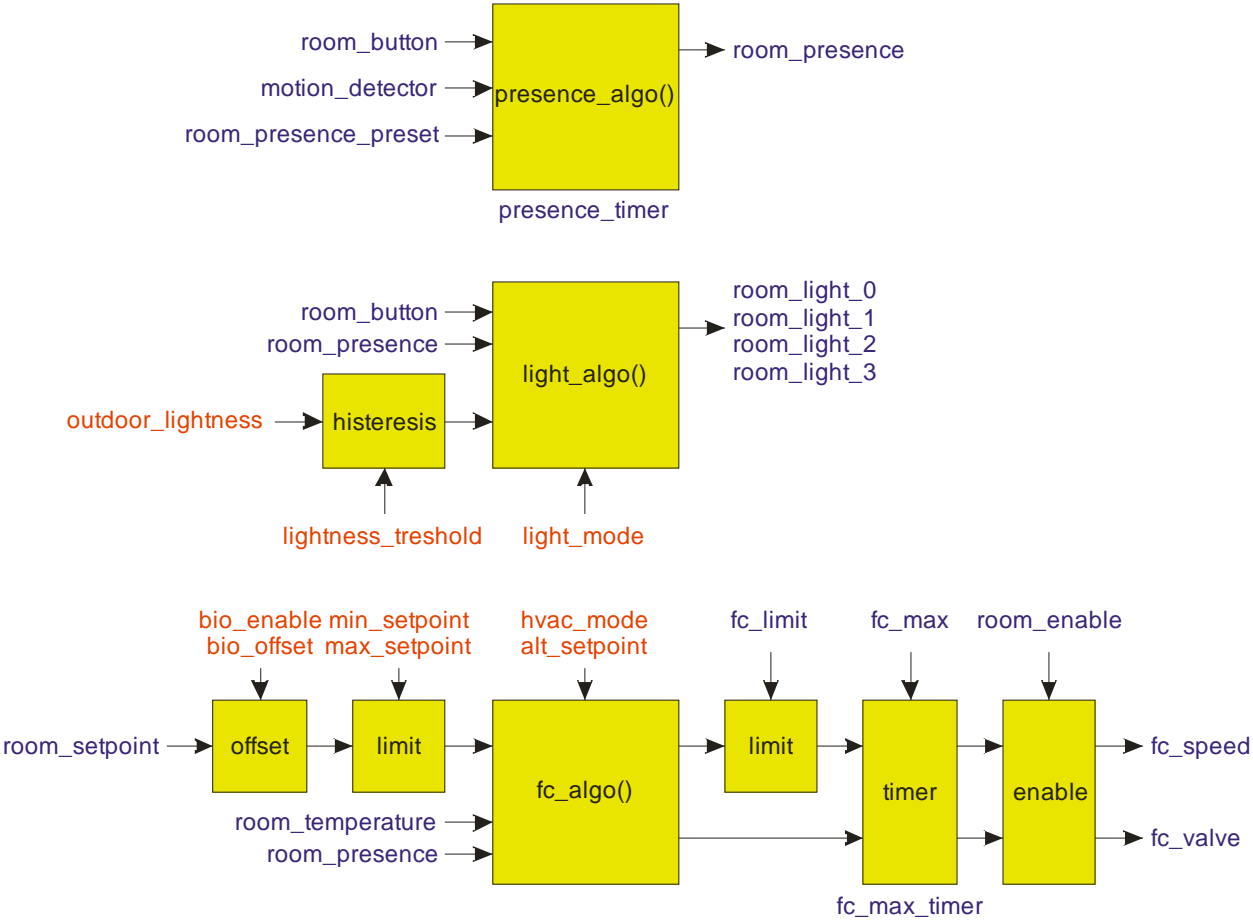
Temperature is given as °C multiplied by 10.

Variables `room_max_setpoint` and `room_min_setpoint` are top and bottom setpoint limits.

If variable doesn't appear in plc program, it won't be displayed. No errors are reported.

Block Diagram

PLC program should comply to the given block diagram:



Blue variables are indexed, per-room settings. Red variables are global, system-wide settings.

Functions:

presence_algo()
timer logic to detect human presence in room

light_algo()
lights on/off, based on presence and outdoor lightness

fc_algo()
fan coil control and the associated logic