



Fumis PC-PRO

Quick reference guide

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SW version 4.51b
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About Fumis PC-PRO

Fumis PC-PRO is a computer based application that provides access to FUMIS® controllers. It enables you to configure and maintain heating systems with Fumis controllers. Fumis PC-PRO significantly reduces time and cost of installation setup, and simplifies heating system maintenance.

Fumis PC-PRO application is intended for manufacturers, installers and service personnel for setting up and configuring the heating systems controlled by the Fumis controllers, optimizing the performance, and maintaining the heating systems.

Fumis PC-PRO connects to the FUMIS controller directly, using the uCOM converter cable.

Technical requirements

Fumis PC-PRO runs on Windows platform. Minimum system requirements are:

- 800 MHz processor
- 512 MB RAM
- 100 MB available disk space

To connect the computer to the Fumis controller, you need the uCOM converter and an USB cable (available separately at [ATech](#)).

In addition, the FTDI device drivers are required:

- Virtual COM Port (VCP) driver
- Direct (D2XX) driver

The VCP driver emulates a standard PC serial port such that the USB device can be communicated with as a standards RS232 device. The D2XX driver allows direct access to a USB device via a DLL interface.

Both drivers are included in the installation pack.

Installing Fumis PC-PRO

The Fumis PC-PRO installation file is located on the CD. To install the Fumis PC-PRO application, run the **Fumis_PC-PRO_setup.exe** file and follow the wizard.

When you successfully finish the installation, connect the computer to the controller using the uCOM converter and an USB cable. You are prompted to install the FTDI device drivers. The drivers are located in the Fumis PC-PRO installation folder (typically in folder *C:/FumisPcPro/Drivers/FTDI_Driver/CDM_20600*). In the *Found New Hardware Wizard* select the option **Install from a list or specific location** and then supply the location of the drivers. Follow the wizard to complete the installation.

TIP:

To avoid unnecessary problems, we recommend you to first connect the hardware, and then run the installation.

First startup

To start the Fumis PC-PRO application, go to *Start/Programs/Fumis PcPro* and click **Fumis PcPro**. At first startup of the Fumis PC-PRO application you are prompted to configure passwords for three different user groups, Production, Servis, and Development. At the moment the permissions for these user groups are not defined.

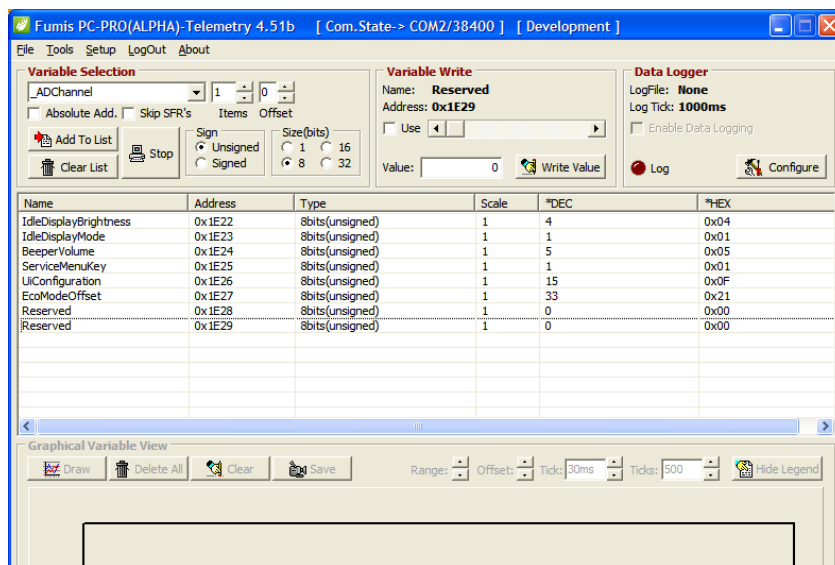
Using Fumis PC-PRO

With the Fumis PC-PRO application you can configure and manage Fumis controllers. First connect the computer to the controller. To start the application, go to *Start/Programs/Fumis PcPro* and click **Fumis PcPro**. The Fumis PC-PRO opens the *Telemetry* window.

To access the Fumis controller, first import the map file for the selected Fumis controller (for example, Fumis ALPHA). The map file, provided by ATech, contains information for the specific controller type. To import the map file in the *File* menu click **Import MAP File**. Locate the required *.map file (for example, *FumisAlpha.map*), and click **Open**.

Then set up the connection to the Fumis controller. In the *Setup* menu click **Communication**. Select the *COM Port*, through which you connected to the controller, and in the *Boud Rate* field select **38400**. Click **Open Port** and then click **OK**.

The application stores the COM Port setting and connects to this port in all future sessions. In case another application connects to the same port, they are in conflict. In this case close the second application to release the required COM Port.



CAUTION:

The *Telemetry* window is used for direct access to the Fumis controller and enables monitoring and controlling the operation of the Fumis controller. Use the options in this window carefully, as any mistake can result in serious damage to the controller.

Managing the Fumis controller

To manage the Fumis controller, in the *Tools* menu click **Control Panel**. This opens the *Control Panel* window, where you can monitor, manage and configure the controller.

To test the operation of the controller and the connection, click **Sync Time** button in the *Control Panel* window. If *MB Time* and *PC Time* values synchronize, the controller is up and running, and the connection to the controller is established properly.

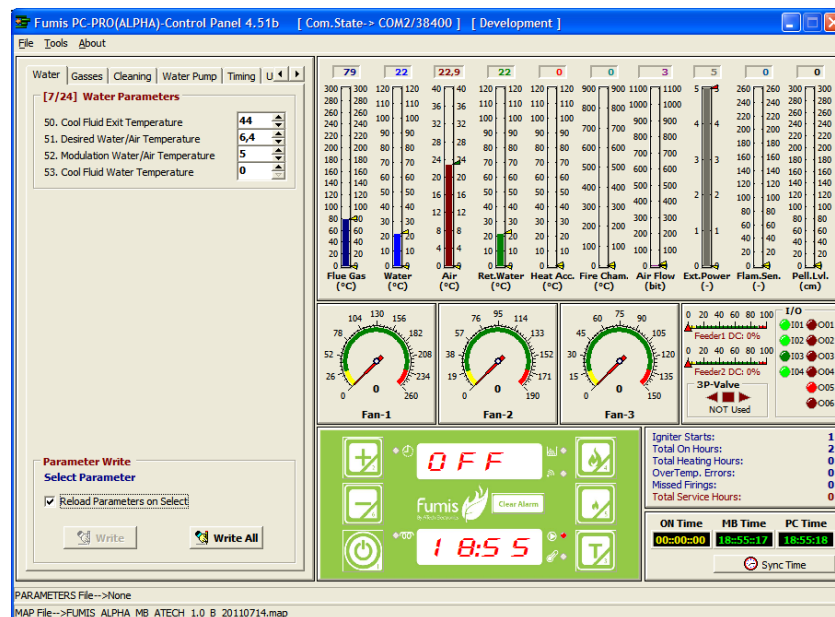
In the *Control Panel* window you can monitor the performance of the heating system with the Fumis controller. The left pane contains the list of all parameters for the controller. Note that the disabled parameters are crossed out and cannot be modified.

The parameter values can be saved to a *.prm file. You can use this file to import or export parameter value settings.

To export parameter settings, in the *File* menu click **Save Parameters**.

To import parameter settings, in the *File* menu click **Load Parameters**. Locate the required *.prm file and click **Open**.

To modify the parameters, select the required parameter and change the parameter setting value. For each parameter a valid value range is defined and you cannot set the value outside the valid range. To save the setting press Enter or click **Write**, otherwise the change is discarded when you move to a different parameter field.



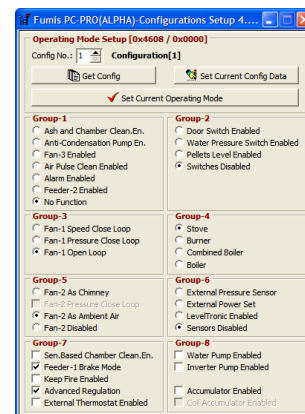
Configuring the Fumis controller

To configure the Fumis controller, first select one of the predefined configurations or define a custom configuration, and then set a valid value range for the required parameters.

To select the configuration, in the **Tools** menu click **Configurations**. This opens the *Configurations Setup* window. In the *Config No.* field select the predefined configuration.

To define a custom configuration, you can use a predefined configuration as a template. Click **Use as Template** and modify the required options. When you are done, click **Set Custom** to save the custom configuration to the list of configurations.

To save the selected configuration for the controller, click **Set Current Operating Mode** and close the window.



To set a valid value range for the parameter settings, in the **Tools** menu click **Parameter Limits**.

The parameter limits can be saved to a *.prl file. You can use this file to import or export parameter value range settings.

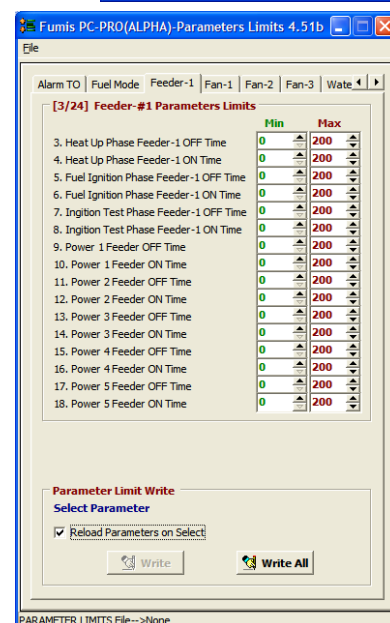
To export parameter value range settings, in the **File** menu click **Save Parameters Limits**.

To import parameter value range settings, in the **File** menu click **Load Parameters Limits**.

Locate the required *.prl file and click **Open**.

To set the parameter limits, select the required parameter and enter the minimum and maximum values in the appropriate fields. You can select the values between 0 and 255. To disable a parameter, enter the 0 – 0 Min and Max values.

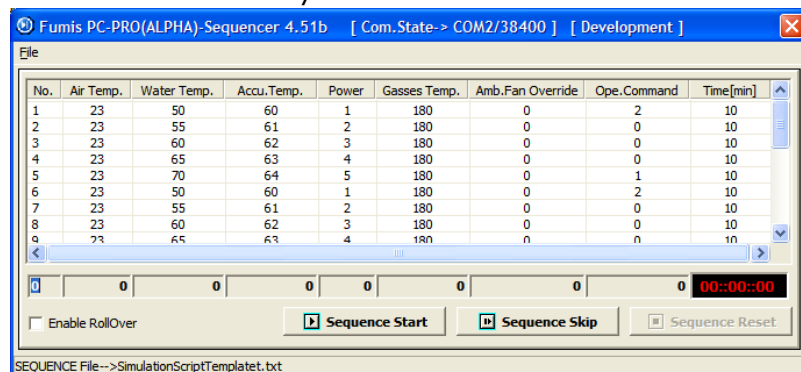
To save the settings press Enter or click **Write**, otherwise the change is discarded when you move to a different parameter field.



Testing the performance of the heating system

The Fumis PC-PRO application enables you to test the performance of the heating system. With the *Sequencer* tool you can automate the testing procedure. You can provide a file containing a set of instructions to be performed on the system, and the results are logged.

To set up the automated testing procedure, first edit the provided test template file in Excel. In the table specify the instructions as necessary and then save the file as a tab delimited text file. Note that you can also edit the text file directly, but make sure to use the Tab delimiters correctly.



To import the tab delimited text file, in the **Tools** menu click **Sequencer**. This opens the *Sequencer* window. In the **File** menu click **Open Sequence File**. Locate the required *.txt file (for example, *FumisAlphaTest.txt*), and click **Open**.

The settings are imported in the *Sequencer* table as read-only. In case any of the settings are outside the valid value range, you are notified and the setting is automatically modified to the maximum permitted value.

If you want to cycle the procedure, check the **Enable**

RollOver option. To start the testing, click **Sequence Start**.

NOTE:

The automated testing procedure stops when you close the *Sequencer* window. If you intend to run the test for a longer period of time, make sure to disable the power saving options in Windows.

Monitoring the operation of the Fumis controller

The Fumis PC-PRO application enables you to monitor the operation of the Fumis controller. You can view and analyze the Fumis controller output data. You can also collect and store the data to a log file.

To monitor the operation of the Fumis controller and collect the log files, in the *Telemetry* window first select the variables you want to view, and then configure data logging.

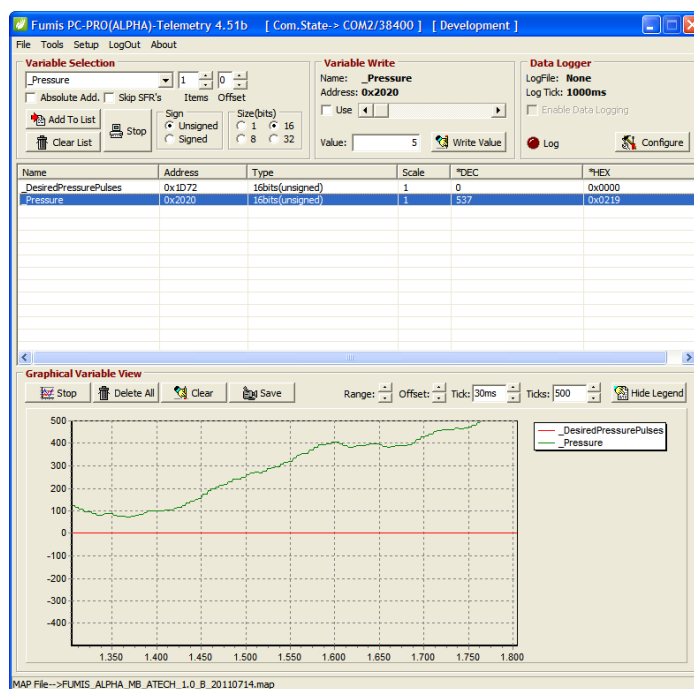
To view the output data for Fumis controller, in the *Telemetry* window select the variables in the *Variable Selection* drop-down list. Specify other options as required and click **Add To List**. The selected variables are loaded into the list, and you can view the detailed properties of the variables.

To display the graphical representation of the variable performance, select the variable in the list, specify the graph options as required and click **Draw**.

For the variables in the list you can collect the log file. To enable data logging, in the *Data Logger* window section click **Configure**. This opens the *Data Logger Configuration* dialog box.

In the *Log Save Tick* field select the frequency for saving the output values (for example, to save the values to the log file each second, in the field enter the value 10). Click **Set Log File** and select the filename and location for the log file. Then click **OK** to close the dialog box.

To start logging the data, check the **Enable Data Logging** check-box. The log indicator blinks each time the log file is saved. To stop logging, uncheck the **Enable Data Logging** check-box.



Additional tools

Fumis PC-PRO offers additional tools for managing the Fumis controllers. These can be accessed in the *Parameters* window in the *Tools* menu. The provided tools are:

- Timers – tool for setting the weekly timer programs. To import the timer settings from the Fumis controller and display them in Fumis PC-PRO, click the **READ** button. To load the timer settings to the Fumis controller from Fumis PC-PRO, click the **WRITE** button.
- BootLoader – tool for updating the Fumis controller firmware pack
- Diagnostic – tool for digitally testing the outputs
- Status Log – tool for viewing the last 16 log events (events and errors)

IMPORTANT:

All external files, required by the Fumis PC-PRO application, are provided in the <install_dir>/Files folder (for example, C:/FumisPcPro/Files). Additional help and user guides are located in the <install_dir>/Manuals folder (for example, C:/FumisPcPro/Manuals).

LEGAL NOTICE: Fumis products are intended for controlling the process of biomass combustion in wood biomass heating systems (pellets, cutter chips, firewood) and wood-like biomass (pallets and briquettes from another biomass, shells, vegetable grains and the like). Functioning of these devices can, in certain circumstances, among other, produce next risks:

- A.) When the device is not used appropriately, an excess amount of explosive mixture of wood gas and air can be produced in the device which may explode
- B.) In case of misuse and excessive overheating of the device the pressure inside the boiler can become too high and the boiler can explode
- C.) During the combustion carbon monoxide is being produced, inside the device. In case of inappropriate exhaust design or operation, carbon monoxide can threaten health and life of people and animals
- Abovementioned explosions are powerful enough to produce the damage on combustion device, nearby devices and also on the building where the device is installed. People nearby can be injured
- To avoid abovementioned risks it is necessary, when setting or changing parameters of device operation, to use Fumis PC-PRO software with a special care, so the operation parameters of the Fumis product stays at all times within such limits, to ensure safe operation of the whole device, in accounting for the operating principles of the Fumis product, characteristics of the device containing the Fumis product, required safety devices, and also circumstances in which the device is being used. Any person setting up or changing the Fumis product settings, with acceptance of these conditions of using Fumis PC-PRO software, expressly declares and guarantees to be fully acquainted with operating principles of the Fumis device, the product containing the Fumis device and with circumstances in which the device is being used, as well as with the meaning and effect of changing the particular operation parameters of the Fumis device, and also accepts full responsibility for all damage that may occur as a result of inappropriate setting of the Fumis product, with regard to characteristics of the Fumis product, characteristics of device in which the Fumis product is installed, or circumstances in which the device is being used.



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