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User Manual

ARsoft-CFG WZ1 4.0

Version 4.0

1. Description

ARsoft-CFG application is designed to configure and read the measurement data from APAR production equipment provided with RS485/RS232 communication interface, USB or Ethernet.

Software features:

- on-line reading of measurement results,
- fast, on-line editing of device parameters,
- storing configuration of connections with various devices,
- reading and entering device parameters with an option of editing the text of the created file.

2. Hardware Requirements

- Operating System: Microsoft Windows 08/07/10
- the processor and RAM in accordance with the recommendation of the manufacturer of operating system
- depending on the type of communication interface of the device connected - COM port RS232/RS485, USB or network card. In the absence of the hardware port, you may also use commercially available USB converters to RS232/RS485, but in case of RS485 we recommend to use converters with galvanic isolation.

3. Installation

In order to install the application run "Setup_ARSOFT-CFG_x.x.exe" (where x.x is the version number) and follow the instructions on the screen. The installation wizard will let you to choose a destination folder (by default it is "C:\Program Files\ARSOFT\CFG"), data folder and to create a shortcut in the Start Menu and on the desktop.



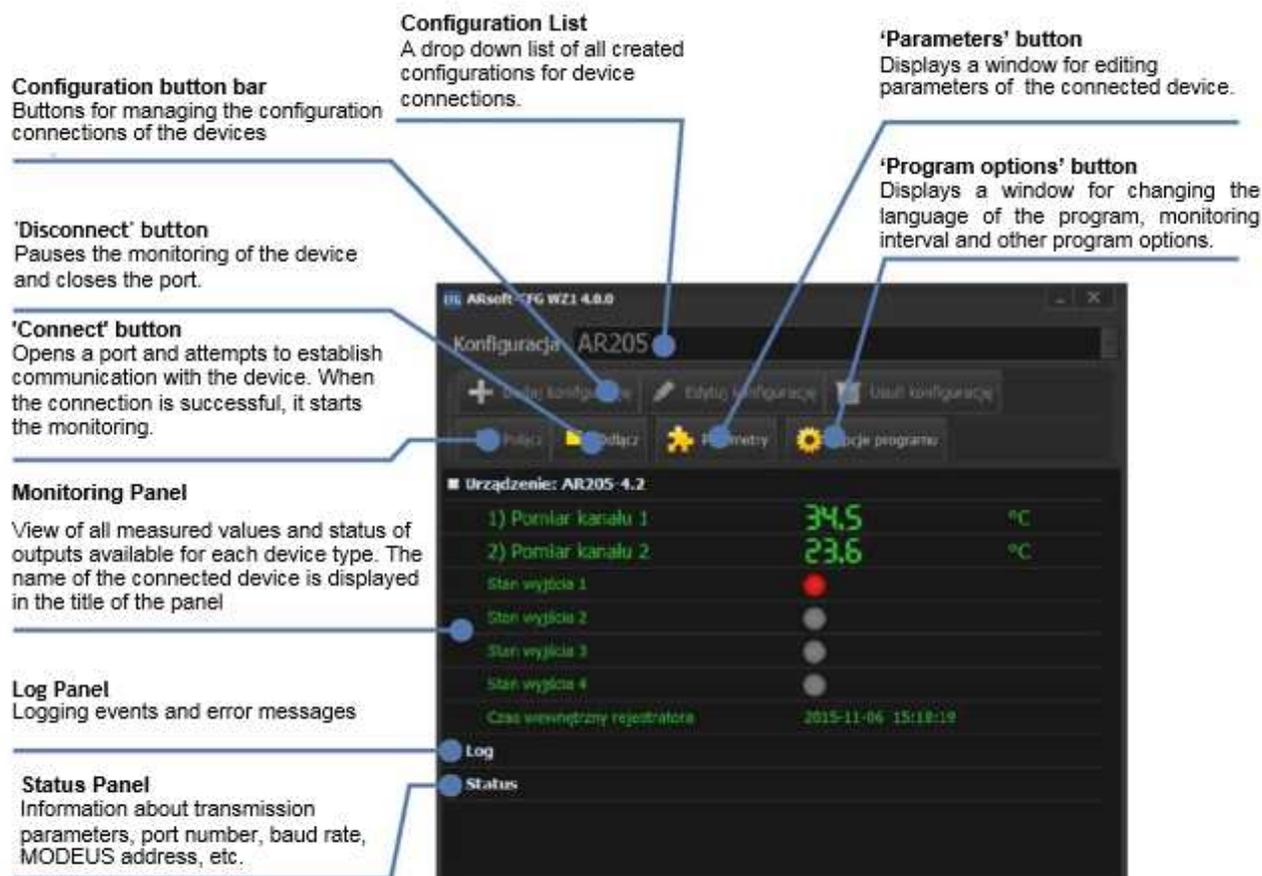
During the installation of the software, drivers for devices will be also uploaded to the data folder.

The current installer version may be downloaded from the following website:

www.apar.pl/pobierz/oprogramowanie.html.

4. Main window

The main window contains elements for establishing communication with the device and visualization of measurements. Arrangement of the elements and description of their function is presented below.



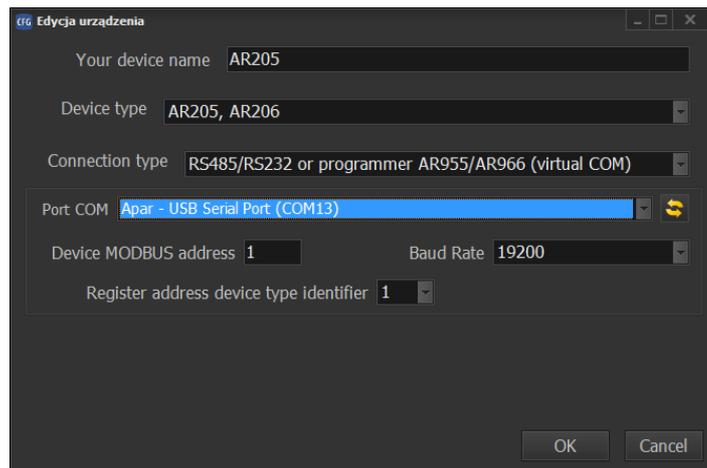
5. Configuring connection with the device

Before the first data transmission to/from the device, configure the connection. To do this, click on "Add configuration" button. A window will be displayed for selecting:

- device type
- connection type - RS485 / RS232, USB or Ethernet (connection with AR955 and AR956 programmers is regarded as RS connection)
- COM port - applies to RS or USB connection - this port is selected from the list of currently existing COM ports in Windows - in order to correctly detect it, you should previously connect the device and install the appropriate drivers.
- MODBUS address - concerns RS connection - state MODBUS address set in the device, the default company value is 1,
- IP address or NetBIOS name - applies to an Ethernet connection.

- UDP or TCP connection - applies to an Ethernet connection.
- Register address of the device identifier - for all newly purchased devices leave the default value suggested by ARsoft program; for older devices (several years), in the absence of communication with the device - change the address value from 1 to 200 (check the address in the original user's manual supplied with the device).
- names of channels and units - for devices that cannot save the names of measuring channels and the corresponding measurement units, you may optionally assign your own values that will be displayed by ARsoft software.

In order to identify the device, you may name it. Confirm the created configuration by clicking "OK". Saved configuration may be edited by pressing "Edit Configuration" button.



6. Starting the transmission

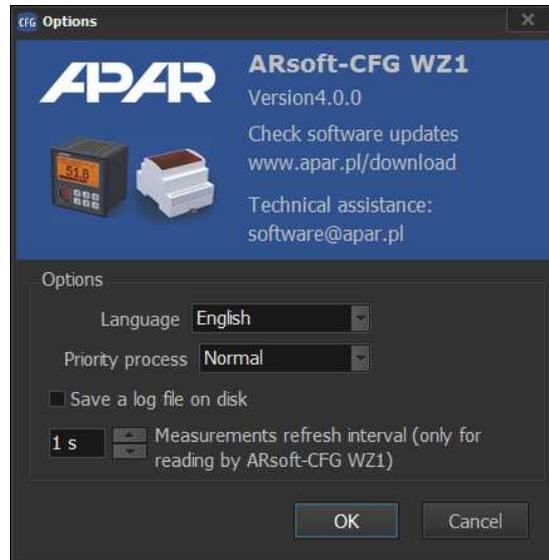
To start the transmission, enter the main window and select the appropriate connection configuration and press "Connect" button. The program automatically sends a request to the device. When a device answers, the program will recognize its type and then it will display windows of all measured values for each detected type and then it will start the monitoring measured values, their status and outputs at the pre-set read-out intervals.

In the absence of an answer or for incorrect one, the following messages may be displayed:

- port opening error - COM port is used by another application or does not exist. Make sure you have selected the correct port in the configuration, or when you use USB/RS or Ethernet/RS adapters - check if the adapter is properly connected and configured.
- the device does not respond - check whether the device and the program have identical transmission parameters and addresses; check if you have selected the correct port and proper connections and power supply of the device. For older devices also check the register address of type identifier of the device (try to set it to 200).
- CRC error - line interferences or two devices in MODBUS network have the same addresses set and their attempt to answer at the same time.

7. Program Options

All configuration settings are provided in 'Options' window.

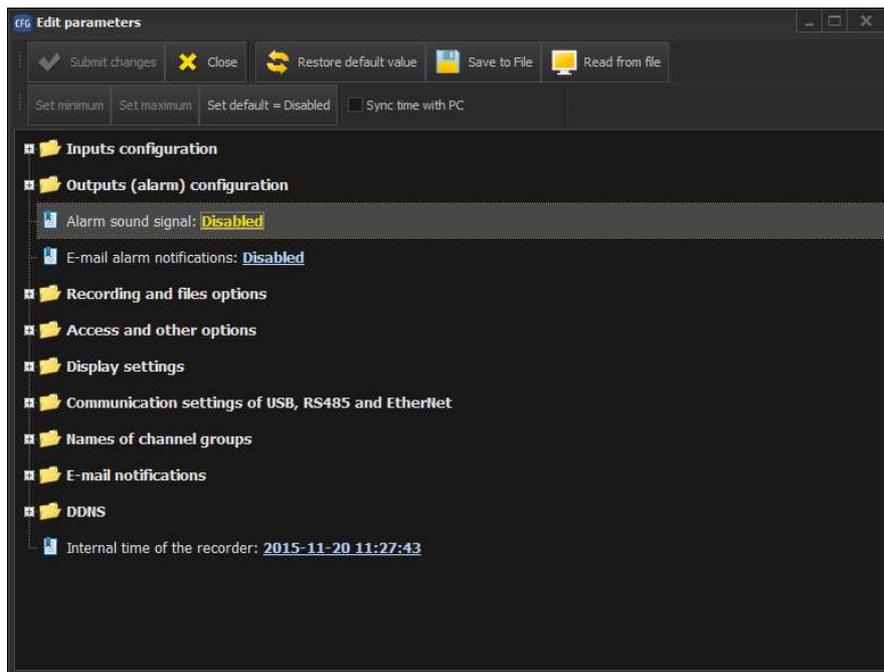


You can change the settings of the following options:

- program language
- process priority: the ability to change the system priority of the application process this is a useful feature for a short period of monitoring and high CPU usage.
- log: the ability to enable logging of events and error messages (files are stored in the application data folder)
- measurement read-out interval: the time between successive queries sent to the device by ARsoft program during the monitoring (300 ms ÷ 24 hours).

8. Editing Parameters

In order to edit the parameters, press *Parameters* button and enter the password (if required) to gain the access to the device configuration, then enter *Edit* window, select the parameter and click on its value (light blue). Values entered for individual parameters are automatically checked and corrected for proper recording. Incorrect values may be rounded to the nearest value (correspondingly to a given parameter) or set to the maximum or the minimum value, if the entered value is outside the parameter range. You may also possible to use buttons to set the maximum, minimum and default values, or to restore the entire configuration to default values. The changed parameter is displayed in red in the list. After editing all the parameters, press *Approve the changes* button. When the window is closed without approving, the changes will be cancelled.



For devices with the real-time clock you may select option "Synchronize time with the PC". In this case, the time will be synchronized automatically after each pressing of "Approve the changes" button.

The change of parameters related to the transmission (baud rate, MODBUS, address, IP address, TCP / UDP) influences the configuration of the program and stops the transmission (monitoring); in order to re-establish the connection - manually set the correct values in connection configuration window.

Edit window also enables the user to enter and read to/from a file of all configuration parameters available for a given type of the device. Files for different devices or different configuration parameters for one device must be stored in separate folders.