

INSTRUCTION MANUAL



AVIA

Computer application

Manufacturer:

POL-EKO-APARATURA

Version: 1.04

Date: 05.10.2020

Table of contents

1. Program description	4
2. System requirements	6
3. Installation of the program	6
4. Operation of the program	10
4.1. Simple Mode	10
4.2. Advanced Mode preparation for use – first configuration.....	10
4.3. Connection with RT2014 device	11
4.4. Parameterization	12
4.5. Dashboard	14
4.6. File manager	15
4.7. Management	16
4.8. Settings.....	18
4.9. Info.....	19
4.10. Update software in RT device	19
5. Alarms.....	21
ATTACHMENT 1 Installation of USB drivers for Windows 7	22
ATTACHMENT 2 Installation of USB drivers for Windows 8	23

Thank you for your interest in our product. We hope it will fulfill your expectations. Please contact our company in case of any problems. We constantly improve our products and extend their range, so it is welcome to provide us with any feedback and suggestions. You can visit our website at www.pol-eko.com.pl.



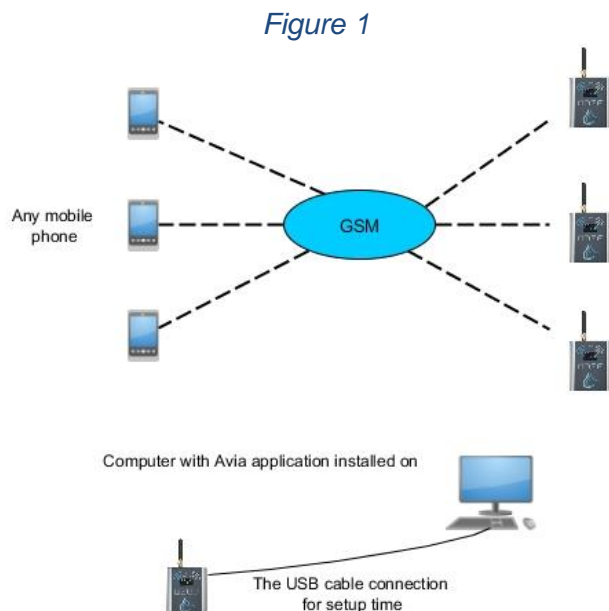
This symbol indicates helpful tips.

1. Program description

Avia is an application which is an integral part of the RT2014 data logger, manufactured by POL-EKO Aparatura. The application is provided with the device, but it can also be downloaded independently from the manufacturer's website www.pol-eko.com.pl. It is used mainly for data transfer between the RT2014 device and a computer, it enables synchronization of files from available devices (automatically or manually) and their parameterization. In case of this last one, it is necessary to connect the device to a computer using included USB cable. For devices with wireless Wi-Fi connection it is possible to display information about them in **Devices** tab and alarms that notify about different events recorded by the device (such as low battery or exceeding set temperature). More information about alarms can be found in chapter 5.

Depending on RT 2014 version, there are several ways to use Avia application.

Using only devices in GSM version – during installation and selection of the components, choose "Basic Installation" (only the Avia application will be installed). See Figure 1



Using devices in WIFI version – on one of the computers during the installation and selection of the components is required to select Full installation. The Avia, Avia Server and SQL Server will be installed (the computer will act as a server). On the other computers

choose "Basic Installation" during the installation and selection of the components (only the Avia application will be installed). See Figure 2. It's possible to use only one computer on which one a full installation can be performed. See Figure 3

Figure 2

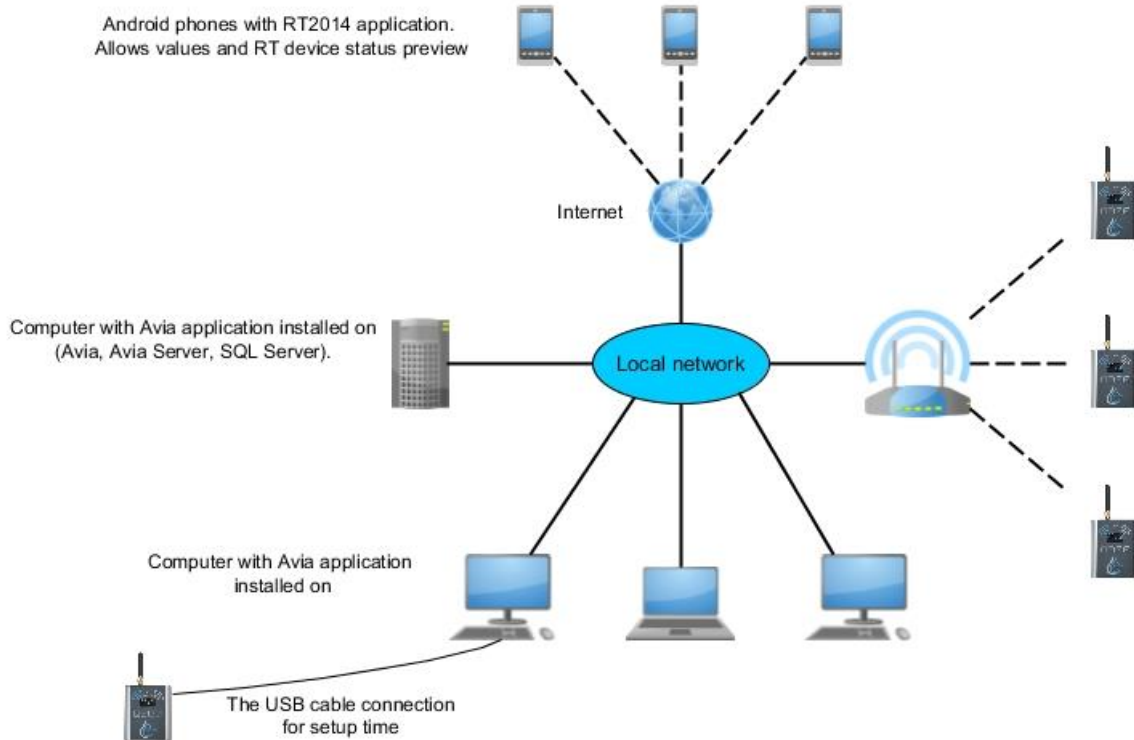
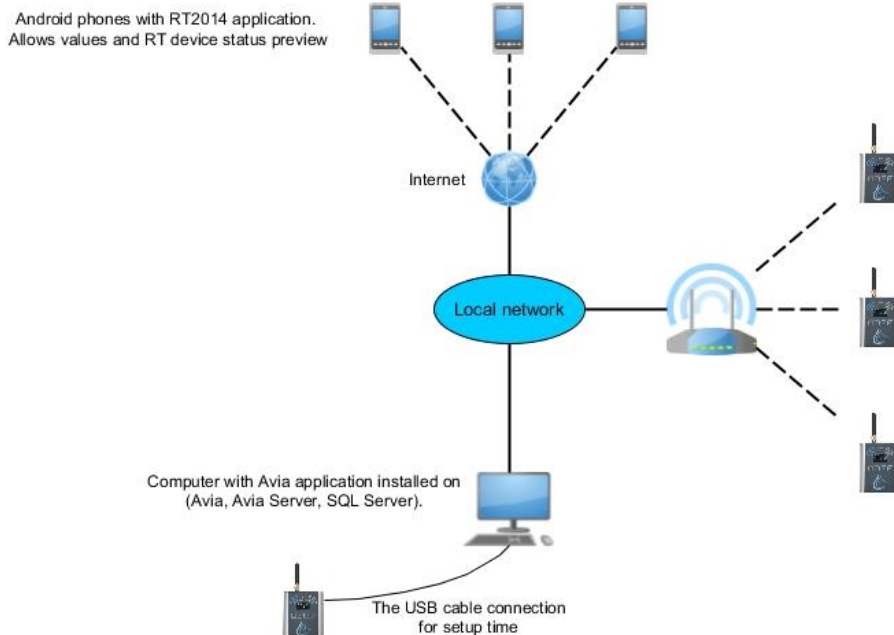


Figure 3



2. System requirements

Program Avia can be installed on a computer which meets the following specification:

- Windows Vista/ 7/ 8/ 10 operating system,
- a minimum of 4 GB of free space on hard disk,
- a minimal screen resolution of 1024x768 16-bit (1280x1024 32-bit is recommended),
- LAN network card,
- .NET Framework 4.0 installed (to be downloaded from www.microsoft.com).

Applies to devices in WIFI version

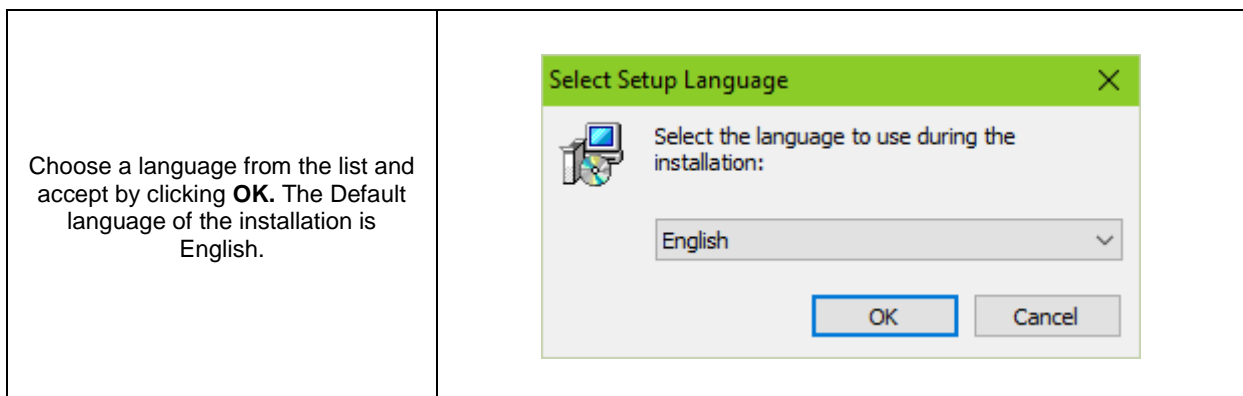
To ensure trouble-free operation and continuous access to data loggers it is recommended to meet several conditions:

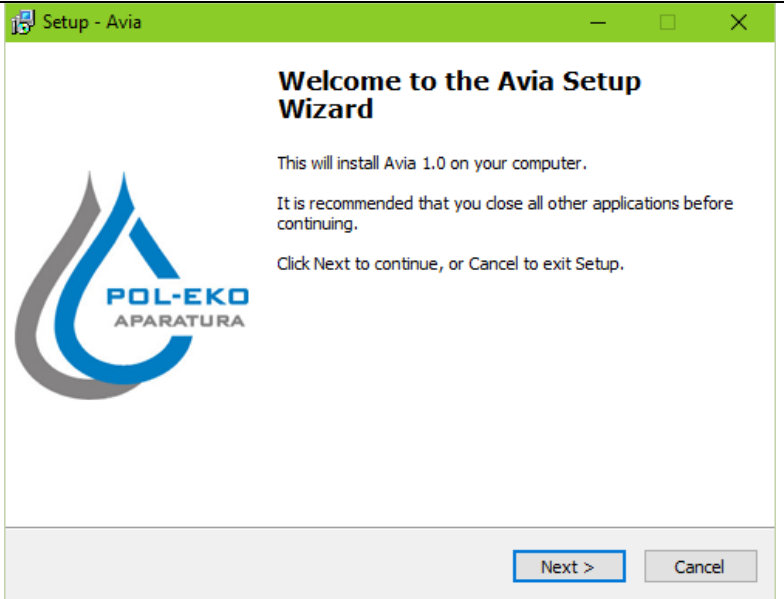
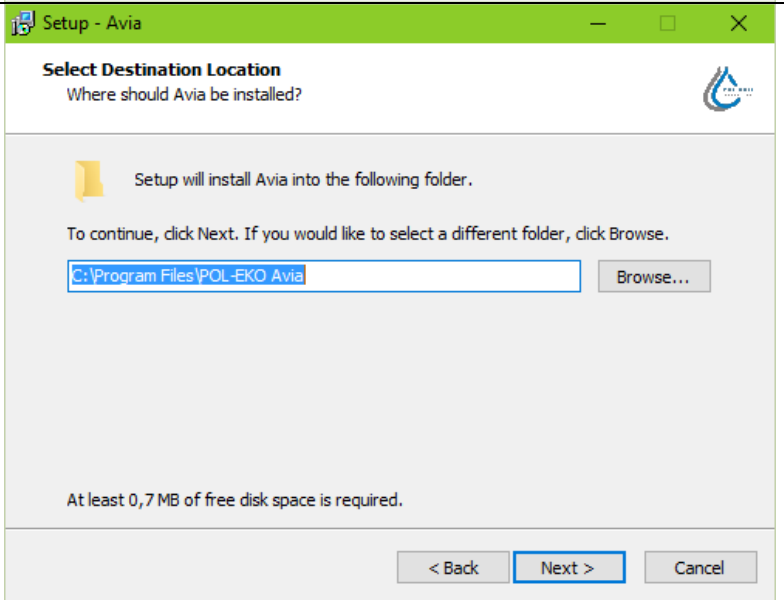
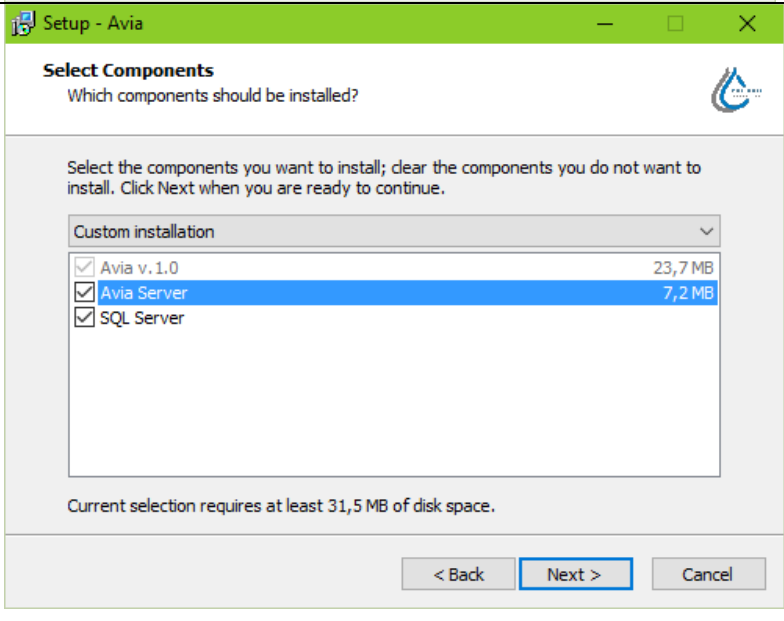
- the server computer must be running all the time and to have backup power supply,
- Ethernet network components that are used for connecting to the RT data loggers should be provided with backup power supply.
- Internal network should have access to the Internet.

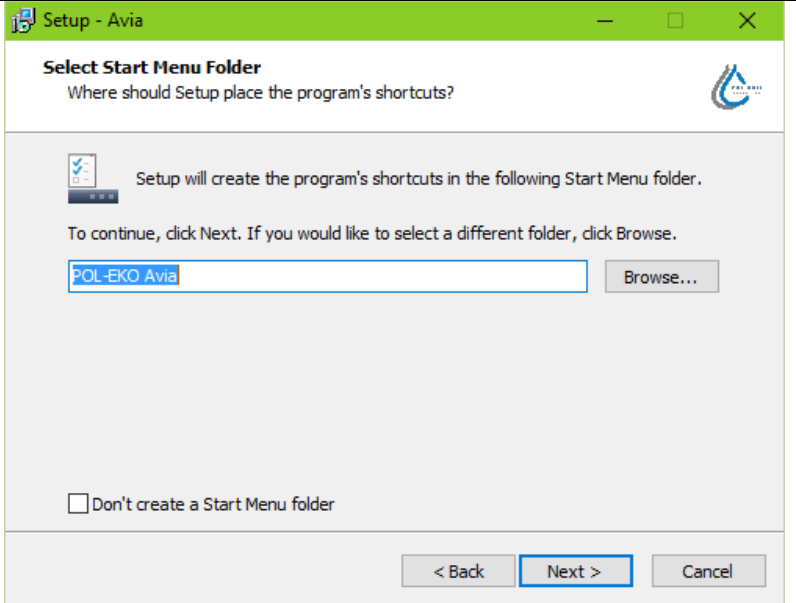
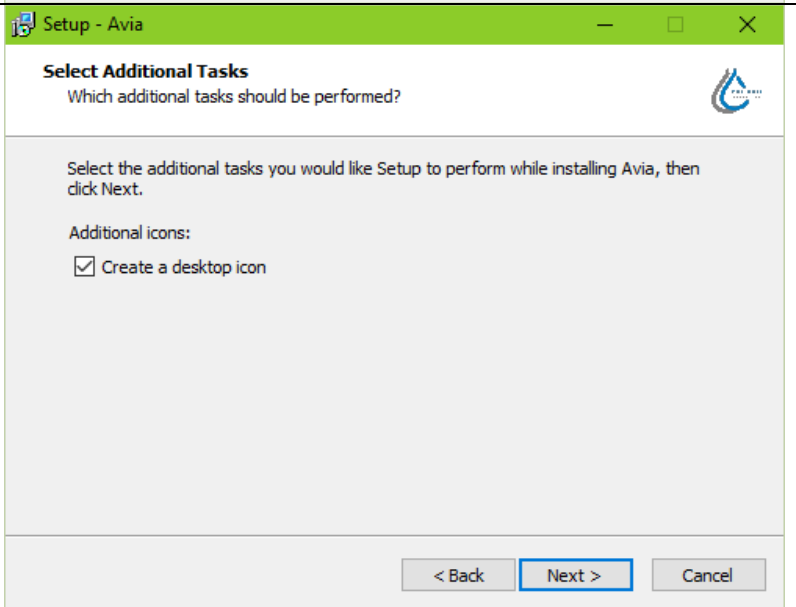
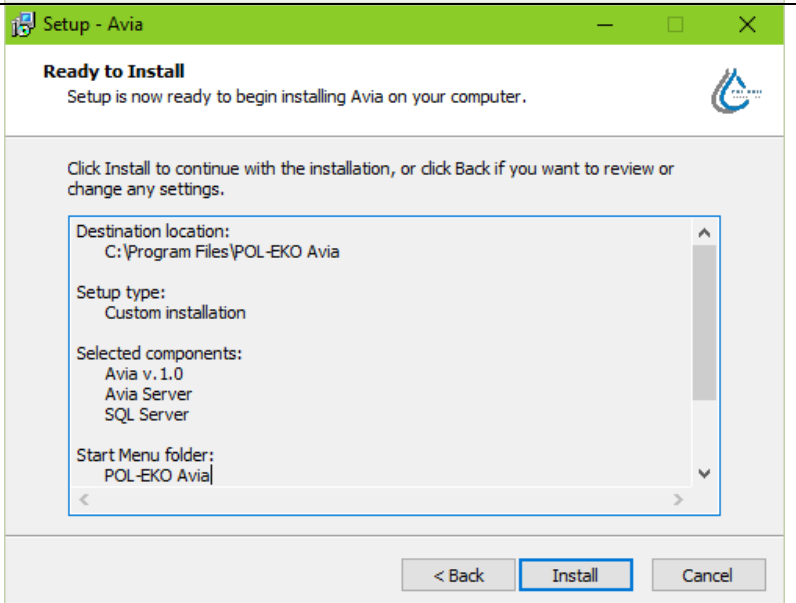
3. Installation of the program

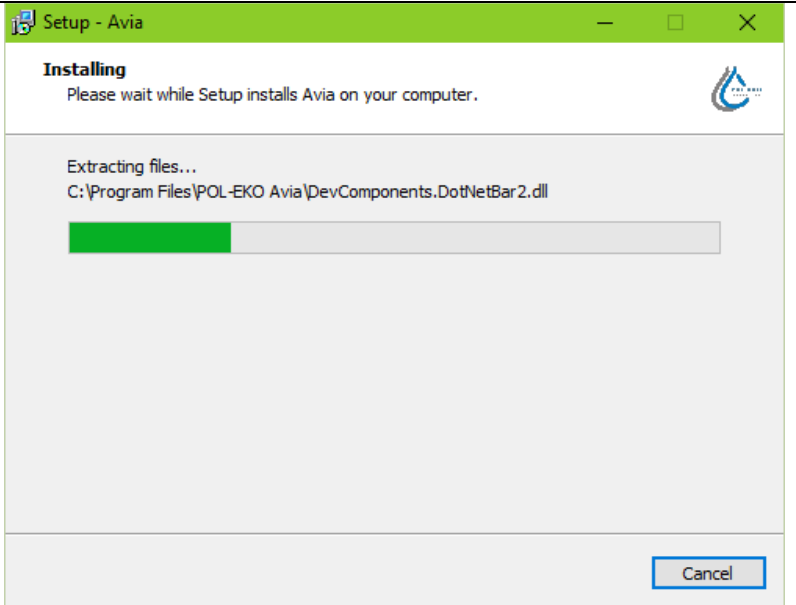
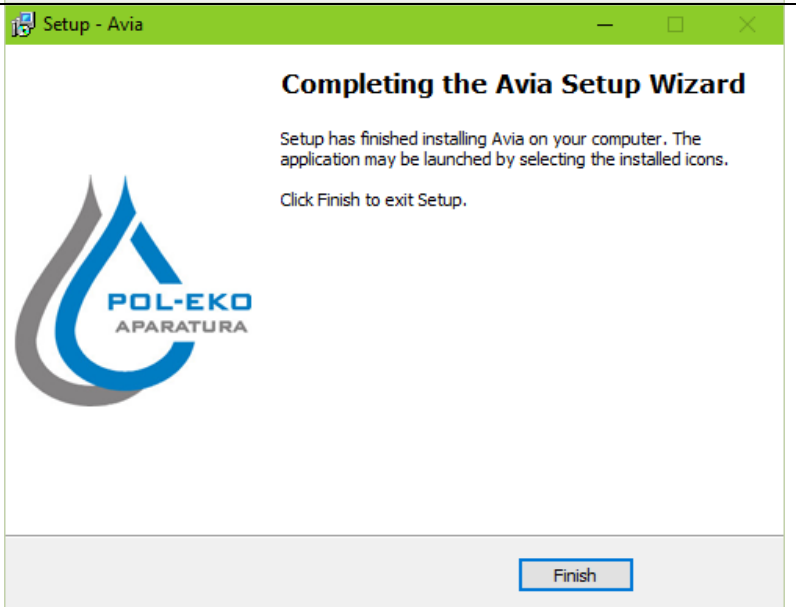
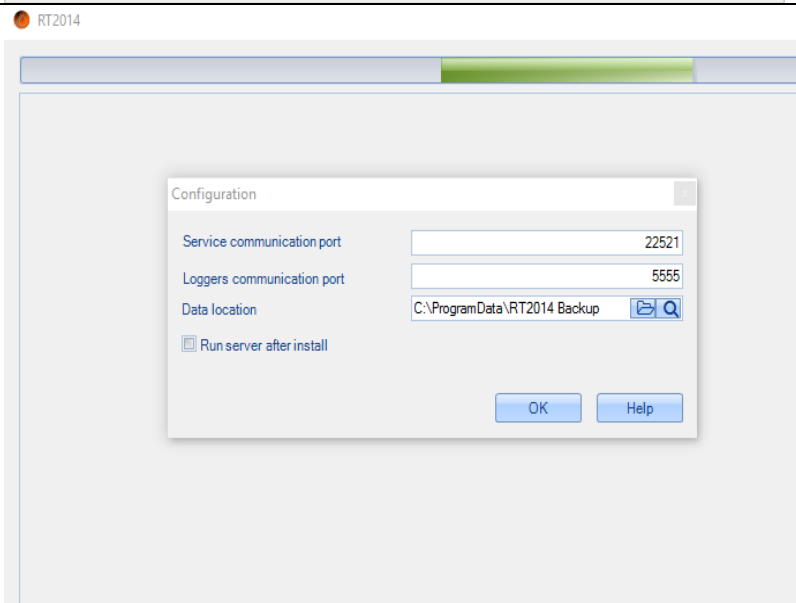
Before starting the installation, refer to the section 1, where are different ways of use presented.

In order to use the Avia application, it is necessary to install it first. The installation runs accordingly to the procedure described below.



<p>Once the installation wizard shows up, click Next.</p>	
<p>Choose the desired localization and click Next.</p>	
<p>In the next window, you can choose the following components from the list:</p> <ul style="list-style-type: none"> - Avia Server – necessary for synchronization of files between devices and application and for start-up of logging server - SQL Server – attaching the database of application. You can edit this database by using any database editor (e.g. Microsoft SQL Server) <p>More information about the components can be found in the section 1.</p>	

<p>You can change the name of the shortcut in the folder Start Menu or leave it as it is. You can also select the option Do not create a folder in Start Menu, but it is not recommended. When you finish, click Next.</p>	
<p>It is possible to create a shortcut on the desktop. Click Next.</p>	
<p>Finally, appears a window with information about chosen installation parameters. You can change these parameters by clicking Back. If parameters are correct, click Install.</p>	

<p>Installation progress is shown graphically. You can cancel the process of installation by clicking Cancel (not recommended)</p>	
<p>To complete the installation process, click Finish.</p>	
<p>If the compononet Avia Server was chosen from the list before installation, the installation wizard will ask about:</p> <ul style="list-style-type: none"> - service communication port – appropriate setting of value of this port enables a synchronization of the files from the RT2014 devices, - logger communication port – by choosing the value of this port it is possible to parameterize data with RT2014 devices - data location – select the localization where downloaded files from the device should be placed. Port value can be chosen within the range of 1024-65535. After setting the options mentioned above, click OK to continue the installation. 	

If the **SQL Server** component was chosen before the installation, the installation wizard will attach the database of application and there will be an information about applied changes shown.

The application can be started in several ways:

- If the option **Create a shortcut on the desktop** was selected during installation, you can start the program by clicking a shortcut on the desktop:



- If the option **Do not create a folder in Start Menu** stayed deselected during installation, the application can be started by choosing **Start** → **All applications** → **POL-EKO Avia**
- The icon shown above can be found in the installation folder, which was chosen in the beginning of the installation process. The default folder is C:\Program Files\POL-EKO Avia.



Any actions related with operating the program and changing parameters will cause appearance of adequate messages in the bottom right corner of the screen.

4. Operation of the program

4.1. Simple Mode

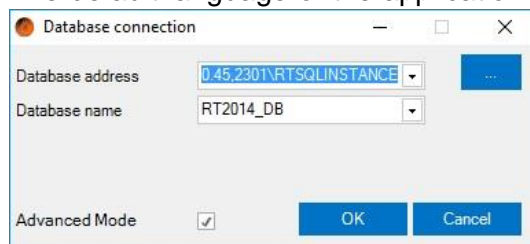
The application is started in simple mode by default and only allows the parameterization and reading files through USB cable. Switching between modes can be done in Settings by selecting „**Advanced Mode**”. In advanced mode, the device can be parameterized in both, GSM and WiFi versions.

Description of the connection with device is described in the section 4.3

Description of device parameterization is described in the section 4.4

4.2. Advanced Mode preparation for use – first configuration

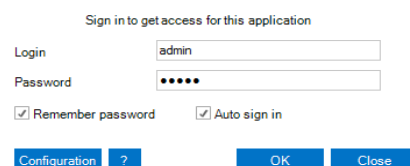
The default language of the application is English. After starting the application it is required






to check the connection to the database. For this purpose, click the **Configuration** button on the logging screen. Next, click the **...** button to search for available databases or enter the address manually in the **Database address** field. If the address is introduced correctly, it will be possible to choose a desired database called „RT2014_DB”. Correct insertion of data described above will cause appearance of adequate message in the bottom of the screen.

In the end, it is required to enter a login and password and confirm by clicking **OK**. In case of starting the application for the first time, you can use the Administrator account by entering **admin** in both login and password fields.

to check the connection to the database. For this purpose, click the **Configuration** button on the logging screen. Next, click the **...** button to search for available databases or enter the address manually in the **Database address** field. If the address is introduced correctly, it will be possible to choose a desired database called

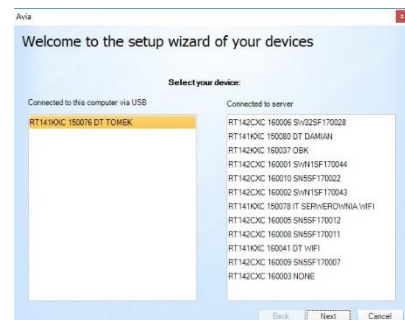


	Database address: IP address of the computer on which the installation of Avia system was performed, afterwards comma we give port number - default 2302. Example: 192.168.1.10,2302\RTSQLINSTANCE
	It is recommended to change the default login name and password after logging for the first time to avoid making changes by an undesirable person in the application.
	In case of problems with database connection or user logging, you can deselect the advanced mode field and run the application in simple mode which allows you to use the USB cable for parameterisation and reading files.

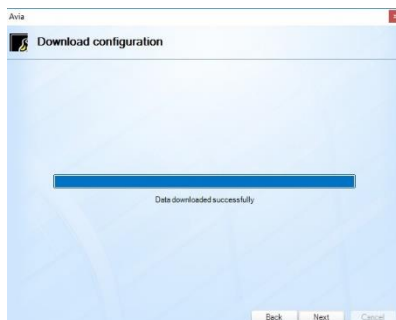
4.3. Connection with RT2014 device

Connect the data logger to the computer by using included USB cable. After this operation, the program will automatically detect the device and the setup wizard will be displayed. Choose the device from the list and click **Next** to proceed with downloading the configuration.

The list of connected devices is also available in the „Device Manager”




The setup process is presented graphically. The device also emits an audible signal during the configuration procedure. Click **Next** in order to go to the next window. Choose **Configure device** and click **Next**.



The final window of the configuration process is shown on the right. Click **Finish** in order to have an access to the **Parameterization** tab.

After connecting to the device, current settings are downloaded from it. Then you can go to the parameterization described in the section 4.4.



	When the connection between the device and the computer will be interrupted during downloading, sending or updating files, the program will display an adequate information in the bottom right corner of the screen.
---	---

4.4. Parameterization









After a successful configuration, new options will appear in the **Parameterization** tab. Those options are the same for both types of data loggers, except the last option (**Wi-Fi** or **GSM**).

Information about the name, serial number and type of device is visible at the bottom of the screen.

After completion of the parametrization, in order to update the settings in RT device click „**Send to Device**”

Detailed information about options of **Parameterization** tab is described below.

- 
Read from file
- reading of saved parameters from file in .rtfactory format
- 
Save to file
- saving parameters to *.rtfactory file format
- 
Read from device
- downloading parameters directly from the device. An audible signal is also emitted by device
- 
Send to Device
- sending set parameters to the device. An audible signal is also emitted by device
- 
Beginning
- short version of configuration instruction
- 
Parameters
- setting the values of parameters (depending on the type of owned sensor):

- **Temperature** – setting lower and upper range of temperature. After exceeding these temperatures there will appear an alarm (range between -120°C - 400°C). You can also set a time delay for displaying the alarm (from 1-240 minutes),
- **Humidity** - setting lower and upper range of humidity. After

exceeding these humidity values there will appear an alarm (range between 0-100%), and, as in case of temperature, there's a possibility of setting of time delay for displaying the alarm,



- **Temperature scale** – choosing the scale of displayed temperature (°C or F)
- **Power alarm** – activation of the alarm informing about power failure and a delay of displaying an alarm
- **Recording to SD card** – activation of recording parameters to micro SD card which is included to the device,
- **Interval** - the frequency with which the data should be recorded,
- **To File** – how often a new file should be created (daily, weekly or monthly).

You can find a detailed information about alarms in chapter 5 of this instruction manual.

- setting network parameters (for wireless W-Fi data logger only):

- **Profiles** – choosing one of three available Wi-Fi configuration profiles,
- **LAN settings** – enter a name of the network in **SSID** field. Set the type of **Encryption** and enter password in **Key** field. Turning on the **DHCP** option will result in achieving configuration data from server: **IP Address, Mask** and **Gate**,
- **Remote server parameters** – IP address of the server is required for

proper operation of the mobile application. You must set the IP: 40.113.83.240, Port: 3333,

- **File Server Parameters** – IP address and server files port. This is the computer on which has been installed the full version of AVIA (with Avia Server and SQL Server).



GSM - setting GSM parameters (only for this type of data logger):

- **SIM PIN** – possibility to set the PIN number,
- **Type of SMS** – choosing the type of received messages (**Normal** or **Flash**),
- **Type of alarm** – type of notification in case alarm may occur. You can select one of three available: sending **SMS** message, **calling**, or both,
- **USSD** – in this field you can enter a code through which one it is possible to check account's balance.

In the Phones section, you can enter the phone numbers to which messages / calls will be sent in case of an emergency and notification. The maximum amount of phone numbers that can be introduced is 5.

On the right hand side is the Schedule window, which allows you to select the days of the week and the time that the User receives the SMS with the status of the device

4.5. Dashboard

Only available in Advanced mode. Information about available Wi-Fi devices appears in **Devices** tab. To make sure the device appears on the list, it is necessary to enter the correct IP address and port in **File Server Parameters** field located in **Parametrization** → **Wi-Fi**, and to send data to the device by choosing **Send to device** option. After this operation, it is necessary to disconnect device from the computer and check whether it appears on the list (time delay of displaying usually does not exceed one minute).

Indeks	Name	Serial Number	IP	Saved files	Files in Device	Info	Progress	Start	Connected	Alarm
1	DT DAMIAN	RT141HOC 150080	192.168.102.14	27	20			Update		



Detailed information		Sensors configuration	
Protocol	v1.0	Main sensor	PT100
Firmware	1.42		
SD Card	103788 MB		
Work time	04:04:22		
Signal strength	-54 dBm		

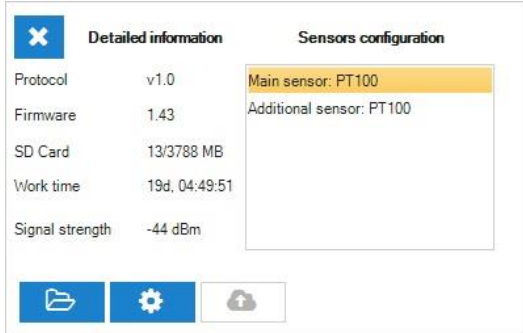
An example of the **Devices** tab with one available data logger is shown above.

Above there is an example of a tab **Device** with one data logger available.

Description of columns:

- **Name** - name of the data logger, go to the section 4.4 to see how to change it,
- **Serial Number** - serial number assigned by the manufacturer,
- **IP address** - the IP address, go to the section 4.4 to see how to change it,
- **Recorded files** - files stored on the server,
- **The files in the data logger** - files stored on the card in the data logger,
- **Information** - may appear information about the ongoing files downloading, ongoing software update, information about disconnection of the device from the WIFI network,

- **Progress** - progress bar during the implementation of a task e.g. files update,
- **Start** – by clicking Update the transferring of files starts from RT device to the server,
- **Connected** –  LED indicates that the RT device is connected to a WIFI,  LED indicates disconnection of RT device with WIFI or server,
- **Alarm**- green LED indicates lack of alarm situations, the red LED indicates the presence of an alarm, e.g. the lack of WIFI coverage, over-temperature alarm, no power.



You can display detailed information about the device (such as firmware, memory available on SD card or whether alarm has occurred) by clicking any column of the table we are interested in. There are three buttons for quick access to certain functions:



- goes to the „File Manager” and open the folder with the latest data, for more information go to the section 4.6



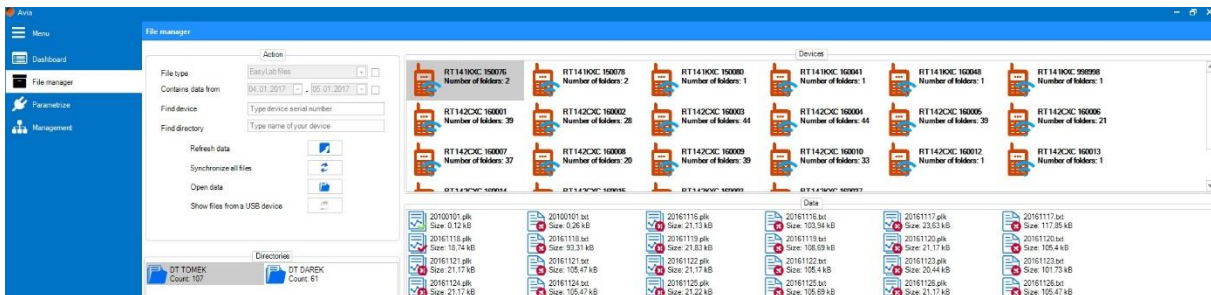
- passes to the RT device parameterization, for more information go to the section 4.4



- starts the software update on the RT device, inactive icon indicates that the latest version is already installed.

4.6. File manager

This tab is used for viewing and synchronizing files from currently connected device and/or external server. Information about the number of connected devices, port, starting/stopping of server and time of the next update is available at the bottom of the screen. Detailed information about all options in **File manager** tab is described below.











- **File type** – select this option in order to display files in the desired format: .plk (viewing files in this format is possible with free LabDesk software, which can be downloaded from the www.pol-eko.com.pl website), .txt (text files) or other,
- **Contains data from** – select this option in order to display files only from the desired time range
- **Find device** – display the device with entered serial number,

- **Find directory** – display directories with entered name,
- **Refresh data** – display actual data for all devices,
- **Synchronize all files** – synchronize all files from available data loggers,
- **Open data** – displays the local folder with a data for the selected device,
- **Show files from a USB device** – wyświetla pliki z urządzenia podłączonego kablem USB (konieczne jest wcześniejsze połączenie przez zakładkę **Device manager**).

Available directories for a specific data logger are available in the window **Directories**. By right-clicking the directory you can **Synchronize** files from this folder or **Open** its content.

Available data loggers appear in the window **Devices**. By right-clicking the desired data logger (similarly to the **Directories** window) you will be able to **Synchronize** files or **Open** the content of selected data logger.

The symbol  represents device, which data is stored on a remote server, while  represents device directly connected to PC via USB cable. No sign inside  means that at this moment there is a data presented from your local disk storage.

In the **Data** window, all files available for the particular device are displayed, the **Synchronization** of a single file and **Opening** are also available. If the file is synchronized properly it will show as: , otherwise as: . Files in .plk and .txt formats are shown as  and  respectively. Other types of files have  icon.






In order to view files from a data logger connected by USB cable you need to download its settings in the **Parameterization** tab.

4.7. Management


In this tab, some important operations related to synchronizing and using the application can be performed, The tab is divided into two windows: **Basic** and **Advanced**. Options in the first of the mentioned windows are:


Actions

Update devices 


Data location C:\Users\dpozimski\Desktop\I  

Automatic synchronization

Execute at 11:57 

Interval Daily 

Day of week Monday



Day number of the month 1 


- **Update devices** – by clicking this option you will update files for all available devices in the **Devices** tab. An adequate information will appear in the bottom right corner of the screen,
- **Data location** – enables to choose or open the directory of synchronized files.

devices.

In the bottom section of the window, as the name suggests, there's an option of **automatic synchronization** of files from all available

- **Execute at** – select the hour then the automatic synchronization should be executed at,
- **Interval** – interval of time between consecutive synchronizations. You can select one of three intervals: daily, monthly or weekly,
- **Day of week** – choose the day of the week when the synchronization should be executed on (available only for weekly interval)
- **Day of the month** – choose the day of the month when the synchronization should be executed on (available only for monthly interval)

To start or stop automatic synchronization, use buttons  and  respectively.



Synchronization is carried out even when the AVIA application is turned off. Attempting to run an application during synchronization may fail. Wait a few minutes to complete the synchronization.






Only the User with Administrator rights has an access to the **Advanced** window.

The **Advanced** window enables to start the file server, set the communication port with data loggers and add, edit or delete registered Users. It is possible to give some privileges to the User, restricting User's access to the particular options of the application. More information in this regard is described in further part of this chapter.

The **Server** window enables to start, stop or restart the file server. **Loggers' Communication** window contains the following options:

Server



 Restart
 Start
 Stop

Loggers' communication

Port

Interval

Actions

 Refresh settings
 Save settings

Users

Role	Login	First Name	Last Name
Administrator	admin	ADMIN	ADMIN
Operator	operator	Operator	POLEKO
Viewer	viewer	VIEWER	VIEWER

Login

Password

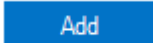

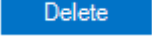
First Name

Last Name

Role

- **Port** – it is required to set correct parameters for the devices' communication port (designated during installation),
- **Interval** – setting the time interval of communication with data loggers.

Actions window enables to **Save** or **Refresh** settings saved in the **Loggers' Communication** window.

In the **Users** window it is possible to **Add**, **Edit** and **Delete** registered Users (using ,  and  buttons respectively). User list appears in table on the left side of the window. Fields with User data are placed on the right side: **Login**, **Password**, **Name**, and **Surname**. In order to add a new User those fields need to be filled in. You can set one of four available types of privileges for every User:

- **Administrator** – full access to all options in the application,
- **Operator** – access to all options of the program except the **Advanced** window in **Management** tab,

- **Viewer** – can only view **Devices** and **File Manager** tabs, open directories with files and change the language in **Settings** tab. The **Viewer** cannot synchronize files, neither change IP address nor port in **Settings** tab (more details can be found in chapter 4.6.),
- **None** – access only for viewing **Devices** and **File Manager** tabs. Every other action is unavailable except for changing the language in **Settings** tab.

4.8. Settings

Detailed information about the **Settings** tab is described below:


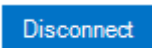
synchronization,

- **Language** – language selection: Polish or English (default),
- **Run at system startup** – selecting this option will cause running the program after system's start-up,
- **IP address** – enables to set the IP address of the computer on which has been installed the full version of AVIA (with Avia Server and SQL Server) which will be used for file

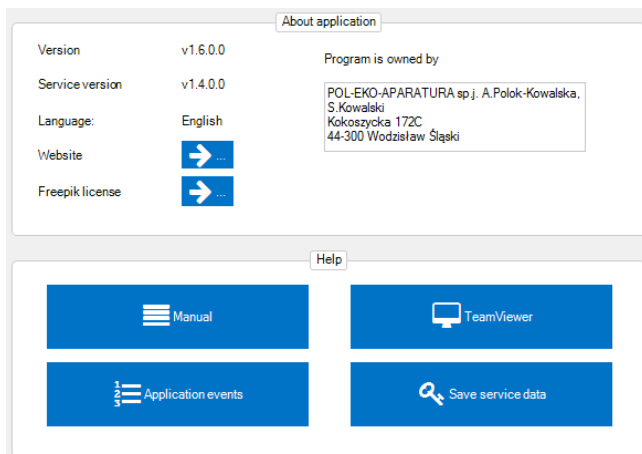


Usually, the **IP address** is equivalent to the address of a computer, where the application is installed on. File synchronization will be impossible if the IP address is incorrect.

- **Port** – enables to set the value of communication port with the server. It is required to enter the **communication port** value with server, designated during the installation process,
- **Connect at startup** – automatically connects to the server after the application starts.

To connect or disconnect with the service, click  or  buttons respectively.

4.9. Info




Information regarding the program, as well as possibility to receive help either using this instruction manual or manually through TeamViewer application, installed with the software, is displayed in the **Info** tab. Both types of assistance are available in the **Help** window. Detailed information about the **About application** window is shown below.

- **Version** – the actual version of the application,
- **Service version** – the actual version of service application,
- **Language** – selected language,
- **Website** – redirection to the manufacturer’s website,
- **Freepik license** – redirection to Freepik website.

Information regarding the owner of the software is visible on the right side of the window.

In order to log out from the application, click the **Sign out** tab. Closing the application is possible via logging window by selecting **Close**, or clicking on the close button on the top right corner of the screen.

4.10. Update software in RT device


	<p>During an update, the micro SD card must be in the device During the update operation don't switch off the application or the computer. For the proper operation of the update the Internet connection is necessary.</p>
---	---

Software updates are made available by the manufacturer and downloaded by the AVIA program according to a fixed schedule (section 4.7 Advanced) and during each launch of the application.

The update can be performed by connecting the device to the computer using included USB cable. The devices in WIFI version can be updated over the network, provided they are connected to the server.

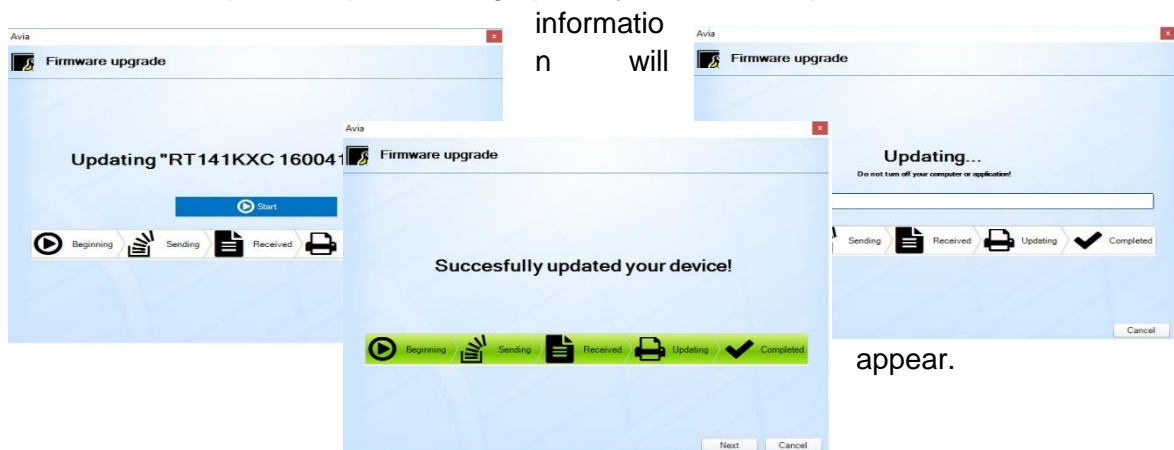
Click the „Device Manager” tab. Device selection wizard will be displayed where we will have a choice of devices connected via USB cable (in the left window) or devices connected

to the server via WIFI (in the right window). Select the device and click **Next** twice. Then select „**Check if there is a newer version of the software available.**” It will be checked if there’s a more recent version of the software. If so, you can perform updates by clicking **Next**.

The update can be also carried out by clicking  in the **Devices** tab, section 4.5. You can upgrade all the available RT devices in the WIFI version that appear in the **Devices** tab. This option is available in the tab:

Management ->Basic->Update Devices. See section 4.7.

The course of update is presented graphically. When the update is successful, a relevant



5. Alarms

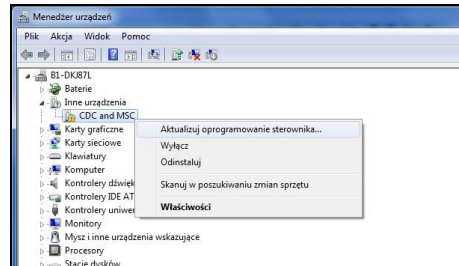
For the wireless Wi-Fi data logger is possible to display alarms in the application. They inform about various events occurring in the device. An adequate information will be displayed about occurring and disappearing of alarms in the bottom right corner of the screen. Full list of alarms with possible reasons of their occurrence is presented below.

<i>Type of alarm</i>	<i>Reason</i>
#1 Exceeding the upper range of temperature	Temperature recorded by the sensor connected to the first channel is higher than designated upper limit in Parametrize tab
#2 Exceeding the upper range of temperature	Temperature recorded by the sensor connected to the second channel is higher than designated upper limit in Parametrize tab
#1 Exceeding the lower range of temperature	Temperature recorded by the sensor connected to the first channel is lower than designated lower limit in Parametrize tab
#2 Exceeding the lower range of temperature	Temperature recorded by the sensor connected to the second channel is lower than designated lower limit in Parametrize tab
Sensor error	Temperature or humidity sensor can be damaged or disconnected from the device
Exceeding the higher range of humidity	Humidity recorded by the sensor is higher than designated upper limit in Parametrize tab
Exceeding the lower range of humidity	Humidity recorded by the sensor is lower than designated lower limit in Parametrize tab
Power failure	Low battery level
Open door	Information about door opening (only for data loggers provided with the Door option)
Digital input active	Activation of digital input

ATTACHMENT 1 Installation of USB drivers for Windows 7

When you connect your device to your computer via USB, the computer detects the new hardware. If the USB drivers have not been previously installed, go through the installation process. Here is the example installation on Microsoft Windows 7.

Go to Device Manager (right click on My Computer icon/Properties/Device Manager), choose position 'CDC and MSC' (right click) and go to 'Update driver software'.



Mark the location where are the files:

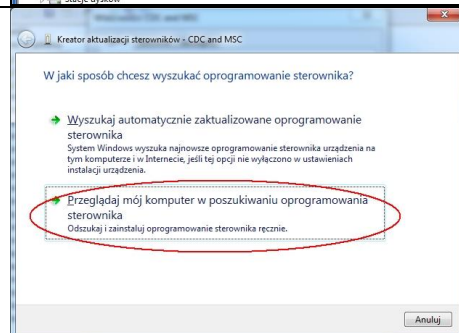


atmel_devices_cdc
Wykaz zabezpieczeń
9 KB

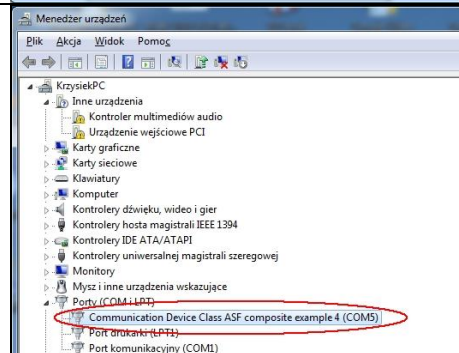


atmel_devices_cdc
Informacje Instalatora
9 KB

atmel_devices_cdc. – the location is on delivered DVD in Driver folder. Copy the files to the PC on the local hard disc (e.g C:) and indicate the correct patch.



Correctly installed port to operate the device - in brackets will display the COM port number (in this case, COM5) to which the device is connected.



After doing the point above, you are ready to use the device.

ATTACHMENT 2 Installation of USB drivers for Windows 8



Installation of USB drivers for Windows 8 is made in two stages:

STAGE 1 Disable the verification of digital signatures for Win8

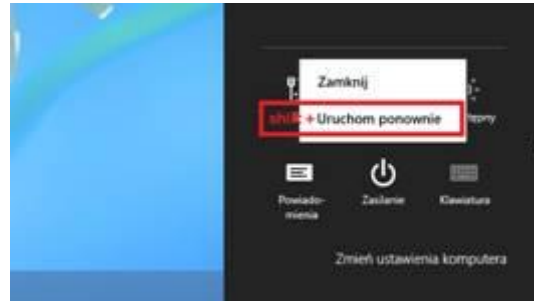
Variant 1 (pic.1)

Move the cursor to the bottom right corner of the desktop. Go to the power options and click on the 'Restart' while pressing SHIFT.

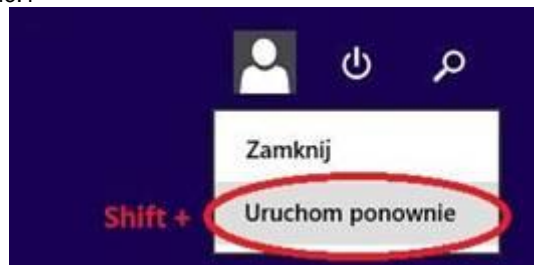
Variant 2 (pic.2)

Click 'Start'  and click in the right upper corner icon  and then choose 'Restart' while pressing SHIFT.

For Win8 with Win7 overlay Start → turn off → Restart (with SHIFT).

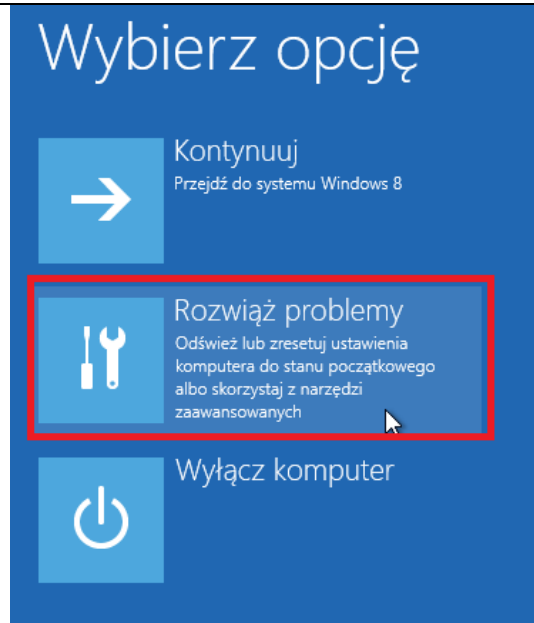


Pic.1

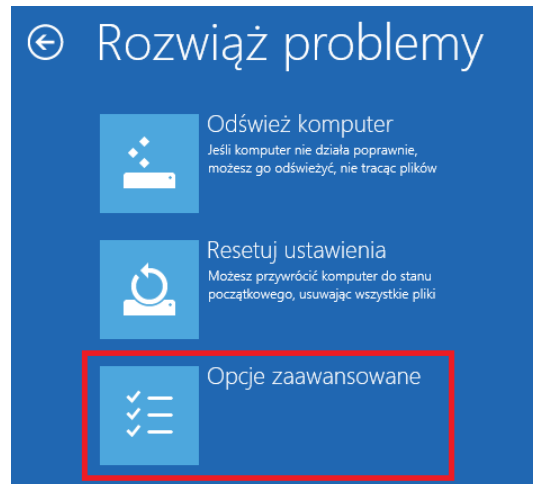


Pic.2

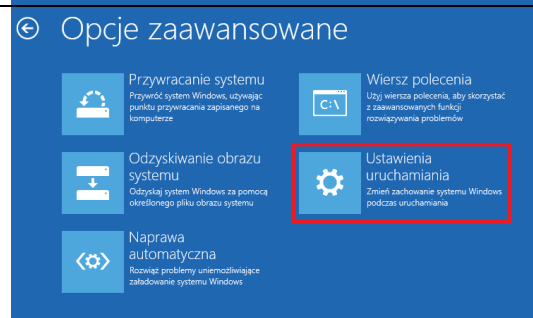
Choose 'Solve problems'.



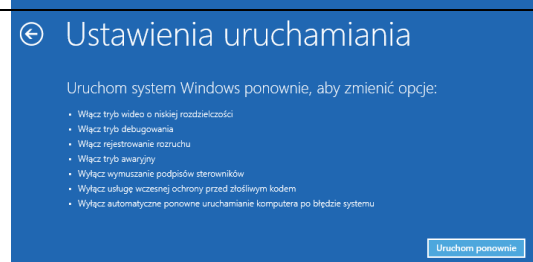
Choose 'Advanced options'.



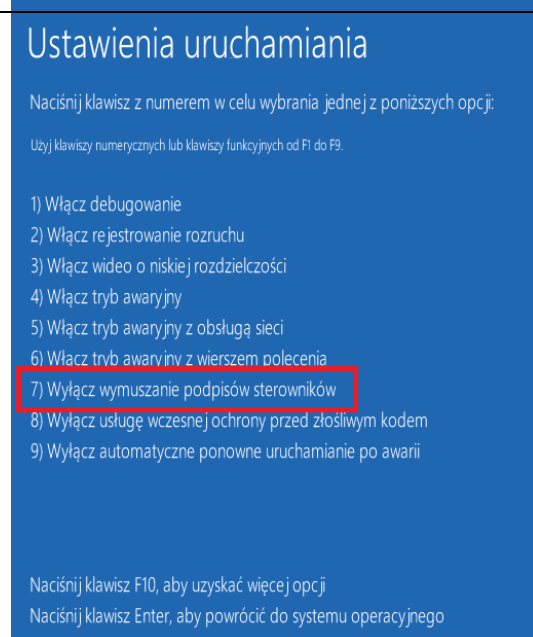
Choose 'Restart options'.



Choose 'Restart'.

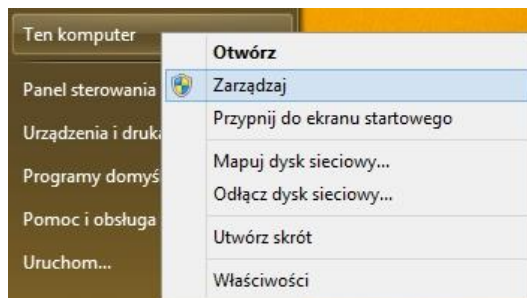


The PC will boot and show options – choose and click F7 button. Windows 8 will launch with disabled verifications of drivers.

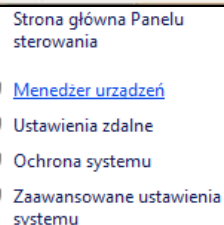


STAGE 2 Drivers installation

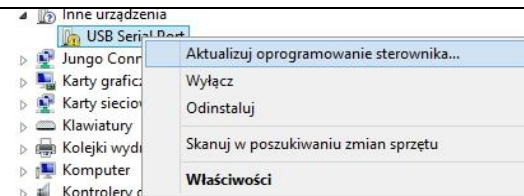
Click 'Start', right-click on 'This computer' and choose 'Manage'.



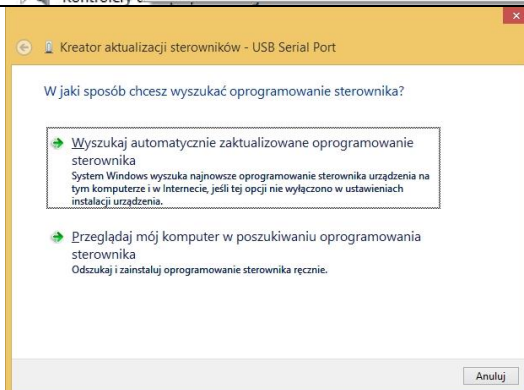
From the list choose 'Device manager'.



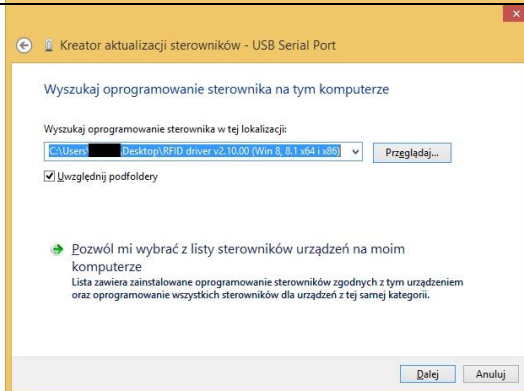
Now choose 'Other devices', right-click on 'USB Serial Port' and choose 'Update driver software'.



Click on 'Browse my computer for driver software'.



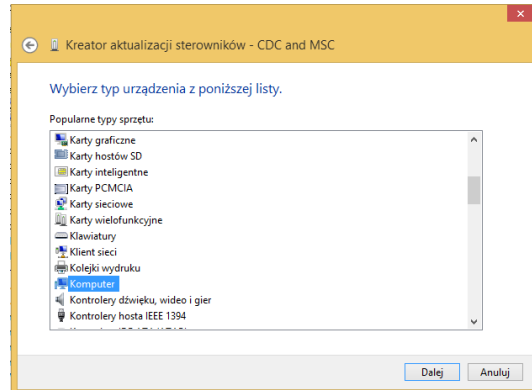
Now 'Let me choose from the list of device drivers on my computer'. Then go 'Next'.



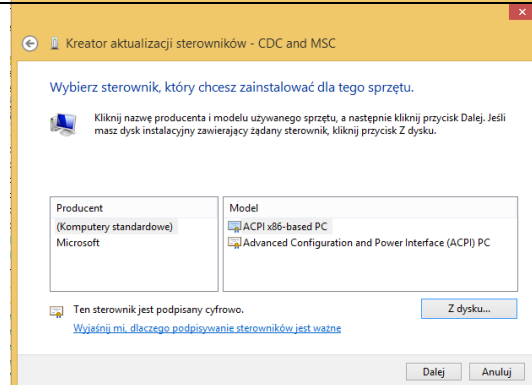
From the list choose the drivers location on DVD (folder Driver: atmel_devices_cdc).



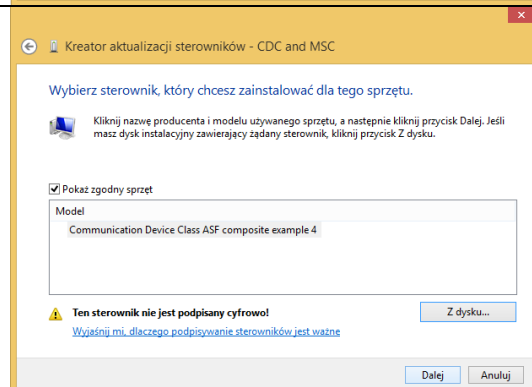
Copy them on local disc (e.g C:). Then choose localization – ‘Computer’ and go ‘Next’.



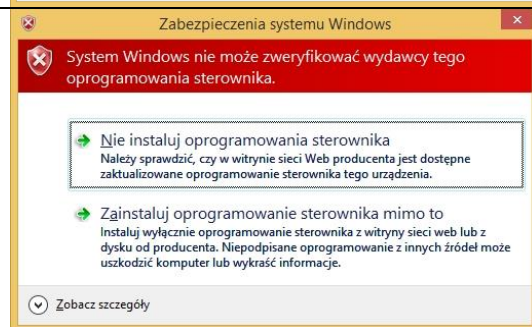
Choose ‘from hard disc’ and choose localizations where drivers (atmel_devices_cdc). Click ‘Open’ and ‘OK’.



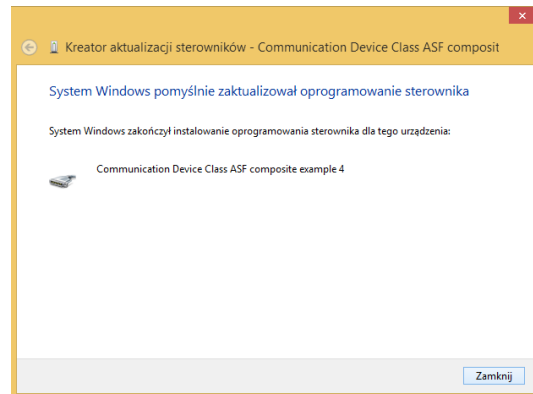
Choose ‘from hard disc’ and choose localizations where drivers (atmel_devices_cdc). Click ‘Open’ and ‘OK’.



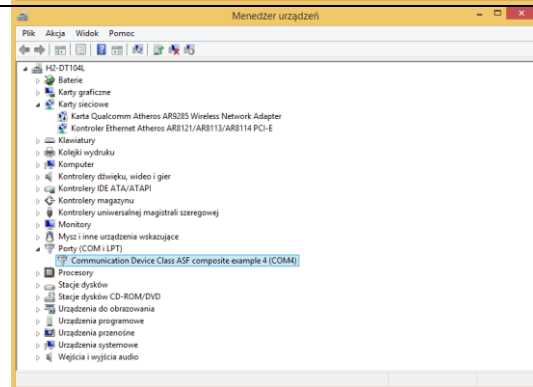
The window will appear. ‘Windows security’. Click ‘Install this driver software anyway’.



After approval, the driver will be installed. Then 'Finish' the installation



In order to verify the proper operation of the controller open window "Device Manager" (as earlier in the manual). Unroll 'Ports (COM and LPT)' and check if the new COM port has appeared. If not, perform the installation again. Close the 'Device manager'.



Re-inclusive computer can be carried out in normal mode.



Producer of basic and indispensable laboratory equipment
as well as continuous measurement equipment.

Authorized dealer of:

Knick, Thermo Scientific, WTW



POL-EKO-APARATURA sp.j.

A. Polok-Kowalska, S. Kowalski

ul. Kokoszycka 172 C

44-300 Wodzisław Śląski, Poland

Tel. +48 / 32 453 91 70, Fax. +48 / 32 453 91 85

e-mail: info@pol-eko.com.pl

web: <https://www.pol-eko.com.pl> * <https://www.cieplarki.pl>

We produce:

- thermostatic cabinets
- refrigerators
- laboratory freezers
- heating ovens
- cooled incubators
- drying ovens
- colony counters
- stationary samplers
- specialized devices for controlled sewage
and waste waters taking

We organize:

- trainings
- seminars

We provide:

- warranty service
- post-warranty service

We offer portable, laboratory and on-line equipment:

- pH-meters
- ISE measuring
- dissolved oxygen meters
- conductivity meters
- photometers
- spectrophotometers
- thermo reactors
- turbidity meters
- heavy metals trace analyzers
- pH electrodes
- conductivity sensors
- D.O. sensors
- pH buffer solutions
- conductivity standards
- photometric tests
- chromatography syringes
- laboratory accessories

**We advise our customers as far as the choice
and maintenance of the equipment are concerned !**