

Data collection system

# **AXIS READER**

User guide

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# Indroduction – the purpose of software package

This software is for accounting devices to collect data collection, analysis and visualization.

Data collection, vizualization and processing system "Axis Reader software" package consists of two programs: data collection programe "AXIS Reader" and data visualization using web browser programe "Axis Webserver".

The data storage device DK-3 is used for reading data from the SKS-3, SKS-4, SKU-03,SKM-1M,SKU-01xx, SKU-4 types of heat meters via optical, wired or wireless digital interfaces. Data can be readed from other types of meters, with a standard M-Bus interface, used to save collected data and transfer it to computer database.

The data storage device DK-3 is equipped to work with the program "Axis Reader", which can be installed in personal computer operating systems Windows 2000/NT/XP/Vista/7.

Review of basic properties

## The data collection program "AXIS Reader"



The data collection programme Axis Reader is used for collecting data from objects using cable modems or GSM, or GPRS Internet connection, or directly connect to the meter. The programe supports many standard and non-standard device communications protocols. It is an independent program that works as a service, i.e. can simultaneously read data automatically at a specified time or read data at specified period from a specified list of devices:

- From one to several devices (direct connect via the serial communication channel)
- From one to several devices (using GSM modems)
- Enco telemetry devices (via Ethernet or GPRS connection).

It also can be scaned manualy, i.e. from the same list of devices, or manually set parameters, which are necessarry to read device.

The list of all accounting and regulatory devices ever made by AB "Axis Industries":

- SKM-1 (all modifications)
- SKU-01 (all modifications)
- SKS-3 (all modifications)
- SKU-03
- SR-1
- other

Also other manufacturers ("Siemens", "Danfoss") heat meters as well.

It's possible not only scan device parameters, but to manage them also.

Readed data is saved in an archive, so all saved data can be watched and analized by variety of standart applications. The data stored in the archives contains of all possible data readed from the accounting devices - real measured parameters, statistics of hours ; statistics of days; statistics of months; statistics of stops, etc.

## Data visualization program "AXIS Webserver"

The data visualization program "Axis Webserver" is used to display stored data on the Internet. This program forms the accumulated data from the "Axis Reader" data archive. This program forms data from accumulated "Axis Reader" archive. The program results can be displayed on any standard web browser.

# Program "AXIS Reader"

## First start

To run the program, you need click "Start" button on the desktop taskbar. When menu opens, select "Programs", next – "AXIS" and click on "AXIS Reader".

Ē	AXIS	1	AXIS Reader
		• 🔁	AXIS Reader Description Ru
		• 🔁	DK-3 Description Ru
		• 😼	Uninstall AXIS Reader

When the programe is started for the first time, it displays a message that the database can not be found:

Confirm		×
?	Not refered or ur Refer to other da	navailable database. atabase or create a new?
	Yes	No

It is necessary to create a new database or link the old one.

🕹 Open database				×
🕜 🚺 🕈 Public 🤊	Public Documents + AXIS	Reader 👻 🚮	Search AXIS Reader	<u> </u>
Organize 👻 New folder			-	• 🔲 🔞
Favorites	Name *		Date modified	Туре
Desktop Downloads		No items match your	search.	
Libraries Documents Music Pictures				
Videos				
WIN 7 (C:)				
Network	•			•
File	name: DataBase	[	MS Access database file	e (*.mdb 💌 Cancel

## Updating the database

If you specify an older version of the application database, program automaticaly convert database into new one. It may take a few minutes, depending on the amount of data accumulated in the old database. Also a copy of old database named "db\_name.mdb.BAK" will be done.

Process name	Status	^
Copy SKM-01 [31884] device data	Success!	
Copy SKS-3 [6275] device data	Success!	
Copy SKS-3 [9882] device data	Success!	
Copy SKM-01 [32861] device data	Success!	
Copy SKM-01 [33365] device data	Success!	Π
Copy SKM-01 [30807] device data	Success!	
Copy SKM-01 [30808] device data	Success!	
Copy SKM-01 [31143] device data	Success!	1
Copy SKM-01 [33471] device data	Success!	
Copy SKM-01 [31512] device data	Success!	
Copy SKM-01 [31703] device data	Processing 14	-

## The main window

The program consists of a standard Windows environment with standard window management tools and menus:

And a state of the	der [v4.1.	0.22]									_0×
Management	Administra	ative tools Prog	ram settings Wind	lows Lang	juages Abou	t Help					
Management	Administra	ative tools Prog	gram settings Abou	ut							
Manually read device	Show device list	Show selected device data	Add new location or device	Add new device	Edit selected record	Manually read selected device	Restart all devices	Disconnect all devices	Delete selected record	Show Google map	Show active device list

#### Basic menu structure

Management consists of several menu levels.

The expanded text menu can be seen in the first bar.

Menu with icons, which are divided into separate groups can be seen in the second bar.



Let's briefly discusses all of the tabs with icons.

## Management

Description of icons tab "Management" is listed below.



Description of icons tab "Management".

Icon	Function
Manually read device	Opens window for manually read devices (F2).
Show device list	Opens the list of devices scanned (F5).
Show selected device data	Shows the data readed from device (F3).
Add new location or device	A new entry (region, city, street, device).
Add new device	Add new device (Ctrl + Ins).
Edit selected record	Edits the selected device (Ctrl + E).
Manually read selected device	Starts scanning device manually (Ctrl + F2).
Restart all devices	Starts scanning device automatically.

Disconnect all devices	Terminates current automatic reading (Shift + Ctrl + Del).
Delete selected record	Delete (Ctrl +Del).
Show Google map	Show device locations on the map.
Show active device list	Show the status of the reading process.

## Administrative tools



Icon	Function
Show dient list	Opens a list of users.
Add new dient	Add a new client.
Edit selected dient	Edit selected user's data.
Delete selected record(s)	Deletes all marked records.
Activate data record	Activates or deactivates the record.
Send selected client e-mail	Sends selected client e-mail containing data.

## **Program settings**



Icon	Function
Open new database	Opens old or create a new database.
Program settings	Program settings (F4).
Show info window	Opens the sent and received data display window (Ctrl + D).

#### About



Icon	Function
About us	Opens "About us" window.
License management	Opens license management window.
Check updates	Checks for newer version.

# Reading devices manually

Press button "Manually read device" to read devices manually. Opens window:

	Select user template
Jser report template	2 - 5 <del>2</del>
Jubscriber	Reading period
	Off 🔹
ata period in days Parameter t	ype
45 🛛 🗹 Current dat	a
Serial <u>n</u> umber	Period (min.) 1440
)	
MBus number	
	Chappen unlike (MWb, SCept)
Reading inteface	Change value units (MWh->Gcal)
Reading inteface Connect using Ethernet	Change value units (MWh->Gcal)
Reading inteface Connect using Ethernet	Change value units (MWh->Gcal)
Reading inteface Connect using Ethernet	Change value units (MWh->Gcal)
Reading inteface	Change value units (MWh->Gcal)
Reading inteface Connect using Ethernet	Change value units (MWh->Gcal)
Reading inteface Connect using Ethernet	Change value units (MWh->Gcal)  10.2.3.130
Reading inteface Connect using Ethernet IP address : Port :	Change value units (MWh->Gcal)  10.2.3.130  37777
Connect using Ethernet	Change value units (MWh->Gcal)  10.2.3.130  37777
Reading inteface Connect using Ethernet IP address : Port :	Change value units (MWh->Gcal)

Choose device type from list "Device type", data interface from list "Reading interface", data reading period from list "Data period in days", needed data type from list "Parameter type", and other parameters, if needed. Some devices have an extended list of parameters (for example SKU-3)(on the right side).

When reading through the serial interface, must choose optional interface port, parity, stop bits, number of bits, connection speed and modem "legs".

When reading via modem, opens window like shown below, where telephone number must be written in and method of dialing chosen. Your modem settings can be changed changed in program settings.

eading interace		Change value units (Mwh->Gcal)	
connect using modem	-		
Phone number :		+37068461256	
Phone number :		+37068461256	

When reading using a device (such as "Enco") connected to a local area network, Internet or GPRS network, IP address and port must be entered .

I Change value units (IVIWIN->GCal)
67.12.10
7

If all parameters are set, reading can be started by pressing the button "Manually read". Settings window closes and scanning the data begins. There opens the information window, which is featured a list of active devices.

If reading is successfully finished and a setting "Show data, when reading manually"selected, then scanned data will be seen immediately.

🙆 AX	IS Reader [v4.1.0.22]									<u>_0×</u>
Manag	gement Administrative tools Program s	ettings Win	dows Languages Abo	out Help						
Manag	gement Administrative tools Program s	ettings   Abo	put					124-11		
Man read o	ually show device list device data	new location or device	Add new Edit selecte device record	d Manually rea selected dev	ad Restart all ice devices	Disconnect all devices	Delete selecte record	ed Show Googli map	e Show activ device list	e
d De	evice list			Client list					íl 🛛	i.
	🙆 Archive Window									
	🔺 Make report 🛛 🔽 auto sc	roll								
	1. ENReader0 (00123456) Current data	ENRea	der0 (00123456) Curi	rent data						
	<ol> <li>ENReader1 [00123456] Current data</li> <li>ENReader2 [00123456] Current data</li> </ol>	Number	Reading time	Press,[bar]	Press1,[bar]					
		163	2012.03.23 11:22:00	0,000	0,000	1				
÷.		164	2012.03.23 11:22:10	0,000	0,000					
		165	2012.03.23 11:22:20	0,000	0,000	-				
		166	2012.03.23 11:22:30	0,000	0,000					
ė- I		167	2012.03.23 11:22:40	0,000	0,000					00 00 00 00 00 80 🔺
		168	2012.03.23 11:22:50	0,000	0,000					Non-Television
		169	2012.03.23 11:23:00	0,000	0,000					0 00 00 00 00 00 00
		170	2012.03.23 11:23:10	0,000	0,000	-				
		171	2012.03.23 11:23:20	0,000	0,000					00 00 00 00 00 00 00
		172	2012.03.23 11:23:30	0,000	0,000					
		173	2012.03.23 11:23:40	0,000	0,000				_	00 00 00 00 00 00
	ВКТ-7 (Тері 3С 3С 00 00 3 Ваграмяна, 2 SKM-01, [N0 55 3C 00 00 17 201 SKM-01, [N0 53 3C 00 00 17 201 SKM-01, [N0 53 3C 00 00 17 201 Балтийское шо 35 35 00 00 11 SKM-01, [N0 53 3C 00 00 31 SKM-01, [N0 55 3C 00 00 31 SKM-01, [N0 55 3C 00 00 71 201 SKS-3, [N00 56 10 00 00 07 12 01 SKS-3, [N00 56 10 00 00 07 12 01 SKS-3, [N00 56 10 00 00 07 12 01 SKS-3, [N00 56 10 00 00 00 07 12 01 SKS-3, [N00 56 10 00 00 00 07 12 01 SKS-3, [N00 56 10 00 00 00 07 12 01 SKS-3, [N00 56 10 00 00 00 07 12 01 SKS-3, [N00 56 10 00 00 07 12 01 SKS-3, [N00 56 10 00 00 00 00 07 12 01 SKS-3, [N00 56 10 00 00 00 00 00 00 00 00 00 00 00 00	00 40 E2 01 00 06 00 00 5 00 00 00 00 00 40 E2 01 00 06 00 00 5 00 00 00 00 5 00 40 E2 01 00 06 00 00	00 00 00 00 00 00 01 00 0 00 00 00 00 00 00 67 00 00 00 00 00 00 00 00 00 00 00 00 00	0 00 01 00 08 00 0 00 01 00 08 00 1 00 08 00 1 00 08 00	0 02 19 FD 00 18 0 02 19 FD 00 EF 0 02 4A FD 00 29 0 02 4A FD 00 80 0 02 7B FD 00 30	2 17 08 17 03 3 17 08 17 03 2 17 08 17 03	0C 40 E2 01 00 / 0C 40 E2 01 00 / 0C 40 E2 01 00 /	x1 20 00 11 02 0 x1 20 00 11 02 0 x1 20 00 11 02 0	7 12 00 00 06 17 12 00 00 06 17 12 00 00 06	
							C:	Users Public Do	cuments\AXIS	Reader\Baze.mdb

To see the scanning process, information display window can be opened (Ctrl + D). Requests, answers and other data can be seen in this window.

🙆 Info window				
F HEX/ASCII F Stop F	arse <u>C</u> lear	Eind	Save	
3E 3E 00 00 15 00 00 00 00 00 00 00 00	00 00 00 00 00 00 01 00 0A 00 0	02 8C 21 05 A1	05 05 47 00 00	
A1 20 01 11 01 05 0C 00 00 06 00 00 0	30 00 01 00 00 00 01 00 04 001 30 00 00 F0 3D 40 9B	02 80 21 05 23	25 UB 17 U3 UC 4	10 E 2 01 00
3E 3E 00 00 15 00 00 00 00 00 00 00 00	00 00 00 00 00 00 01 00 0A 00 0	02 BO 21 05 9D		
3C 3C 00 00 31 00 40 E2 01 00 00 00 0	00 00 01 00 00 00 01 00 0A 00 I 10 00 00 E0 3D 40 E4	02 D4 21 05 28	25 0B 17 03 0C 4	40 E2 01 00
3E 3E 00 00 15 00 00 00 00 00 00 00 00	00 00 00 00 00 00 01 00 0A 00 (	02 D 4 21 05 F9		
3C 3C 00 00 31 00 40 E2 01 00 00 00 0	00 00 01 00 00 00 01 00 0A 00 0 00 00 00 E0 2D 40 CD	02 F8 21 05 2D	25 0B 17 03 0C 4	40 E2 01 00
3E 3E 00 00 15 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 01 00 0A 00 (	02 F8 21 05 D5		
3C 3C 00 00 31 00 40 E2 01 00 00 00 0	00 00 01 00 00 00 01 00 0A 00 I	02 1C 22 05 32	25 0B 17 03 0C 4	10 E2 01 00
3E 3E 00 00 15 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 01 00 QA 00 (	02 1C 22 05 32		
3C 3C 00 00 31 00 40 E2 01 00 00 00 0	00 00 01 00 00 00 01 00 0A 00 0	02 40 22 05 37 :	25 0B 17 03 0C 4	0 E2 01 00
3E 3E 00 00 15 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 01 00 0A 00 (	02 40 22 05 6E		
3C 3C 00 00 31 00 40 E2 01 00 00 00	00 00 01 00 00 00 01 00 0A 00 0	02 64 22 05 00	26 0B 17 03 0C 4	0 E2 01 00
3E 3E 00 00 15 00 00 00 00 00 00 00 00 00	00 00 00 00 00 30 40 40 00 00 00 00 00 00 01 00 0A 00 (	02 64 22 05 4A		
3C 3C 00 00 15 00 40 E2 01 00 00 00 0	00 A0 01 00 00 00 01 00 0A 00	03 64 22 05 E9	2	-
Sent byte : 19683	Received byte : 44929			11.

Read data saves in database if a setting, save read data from devices to database is chosen. If the database does not contain such a device, the device is placed in the group "Undefined devices location". If device already exists in database, and "Update, if device type and number matches" settings are marked, device's data updates automatically.

#### **Device** list

#### View the list of devices

This is the main program window, where new devices can be added, scanned data reviewed and device settings changed .



the added and read This window shows all devices in the database. If the device was scanned manually, the device will be added to the group "Undefined devices location". If the device address is specified, it will be assigned a specific district. If the device address is specified, it will be assigned to specific location. Devices can be assigned to previously entered address by simply dragging them on the correct location address. If to changing the name of the region, city, street, or to changing device settings is wanted, press the right button on the desired entry and choose the menu that appears or use keyboard shortcuts:

- Add new location or device (Ctrl + L)
- Add users template to device (Ctrl + T)
- Add new device (Ctrl + Ins)
- Edit selected entry (Ctrl+ E)
- Delete selected entry (Ctrl + Del)

#### Add new location or device

Depending on what the entry is selected, deeper entry is added. If the selected device or "not location", new region is added. If a region is selected, city is added. If city is selected, street is added. If street is selected, device is added. Here is hierarchy:

			Device list		
		Place 2			
	City 1			City 2	Place 3
	Stre	eet 1	Street 2	City 3	Place 4
	Device 1	Device 2	Street 3	City 4	Place 5
	Device 3	Device n	Street n	City n	Place n
C					)

To add region press down arrow and type text to appeared window.

Region name		
Калининградская	я область	
Kaunas		
•		
•		
<u>+    </u>	- 1 - dd - binet - man damar - F	Þ

Be careful when entering similar streets from different cities, device must be added to specified street and specified city.

The following window shows when attempting to add a new device:

	SKM-01	Select user template
(алининградская область 🛛 🛄	User report template	
City	C:\Users\Superuser\Desktop\Knyga1.xlsx	
1 Калининград 🔄	Subscriber	Reading period
Street	МУЗ Поликлиника №6', ул.Алданская, 1	Reading period 🔹
Алданская, 10 💌	Data period in days Parameter type	
	45 🛛 Current data	
ndefined location devices	Serial number	Period (min.) 720
ENReader, [234545456]	31163 Month statistic	
ENReader, [244545456]	MBus number Stop statistic	
ENReader, [123456]	0	Chapped uplus uplie (MMb NCcol)
ENReader, [123456]	Reading inteface	<ul> <li>Change value unics (MWHPPacar)</li> </ul>
ENReader, [20123456]	Connect using modem	
ENReader, [123456]		
	Phone number :	89118507086
		_
Celected undefined location devices	Dulse dial	
Selected undefined location devices	Pulse dial	
Selected undefined location devices	Pulse dial	

## Edit selected record

If you select the desired device, push the button "Edit selected device" or the key combination (Ctrl + E or Ctrl + Enter) or holding the Ctrl and twice press the left mouse button opens a window:

Country or region		SKM-01	Select user template
Салининградская область	·	User report template	
City		C: \Users \Superuser \Desktop \Knyga 1.xlsx	
I Калининград	·	Subscriber	Reading period
Street		МУЗ 'Поликлиника №6', ул.Алданская, 1(	Reading period
Алданская, 10	<u> </u>	Data period in days     Parameter type       45     ✓ Current data       ✓ Hours statistic	5 - 1 / - 2
ENReader, [234545456] ENReader, [244545456] ENReader, [123456] ENReader, [123456] ENReader, [20123456] ENReader, [123456]		MBus number	Change value units (MWh->Gcal)
		Phone number :	89118507086
Selected undefined locatio	n devices	Pulse dial	

On the left side of the window you can specify the device's country, town or street. Unallocated devices can be seen below.

To add a new country, city or street, press the button on the right marked "…" and write name, after navigating to the end of list, using arrows.

dd or edit region		×
Region name		
Калининградская Kaunas	область	
•		×
Delete object	add object - arrow down	Close
dd or edit city		×
City name		
Мамоново		
5 Чернышевское		
2_Зеленоградск		
в южный		<u> </u>
•		•
Delete object	add object - arrow down	Close
dd or edit street		×
Street name		
Трамвайный пере	улок, 13	
Чайковского, 49-	51	
Дм.Донского, 9		
Кароышева 4-6		
Delete object	add object - arrow down	Close

On the right side of the device settings can be changed: device type, consumer report template, the subscriber's name, reading period, period in days (depth of reading data), device and M-Bus numbers.

country of region	SKM-01	· · · · · · · · · · · · · · · · · · ·	Select user templa	te
Калининградская область 🔄 🛛	. User report template			
City	C:\Users\Superuser\	Desktop\Knyga1.xlsx		
1 Калининград 💽 .	. <u>S</u> ubscriber		Reading period	
Street	МУЗ Поликлиника №	№6', ул.Алданская, 1(	Reading period	-
Алданская, 10 💌	Data period in days	Parameter type		
	45	Current data		
Indefined location devices	Serial <u>n</u> umber	Davs statistic	Period (min.) 720	
ENReader, [234545456]	31163	Month statistic		
ENReader, [244545456]	MBus number	Stop statistic		
ENReader, [123456]	0		Change value units (MWb.	Secol
ENReader, [123456]	Reading inteface		I change value ands (mvm	- Pacal)
ENReader, [20123456]	Connect using moder	n 🗾		
ENReader, [123456]				
	Phone nu	umber :	89118507086	
- Selected updefined location devices	Pulse dia	4		
Selecced differined foradon devices	T disc die		1	

This window opens when user's template is chosen:

User report template		Parameter type list
Template fill page na DeviceData	me Select tempate file	
Start row index	Start col index	
<u>D</u> elete template	V OK X Cancel	

Pressing the button "Select template file" links previously created report template or a blank MS Excel document.

Next set additional page (tab) name, lines and columns indexes, where report data will appear. Select wanted data from left side parameters type list.

Clicking "OK", will protect the template information. Clicking button "Delete template", erase all template parameters.

It should be noted that each device requires a separate template, because the program always writes to the specified position, pushing the older data down (inserts line). Standard MS Excel functions can be used to create complex reports.

#### Adding new device

Pressing the button "Add a new device" opens the same window as clicking the "Edit selected record". Settings fields must be filled for all new devices.

User report template		
C: \Users \Superuser \Desktop \Knyga	1.xlsx	
Subscriber	Reading	period
МУЗ 'Поликлиника №6', ул.Алдан	ская, 1( Reading	period 🗾
Data period in days Parameter ty	pe	
45 Current data		
Serial number	Pe	eriod (min.) 720
31163 Month statist	- c	
MBus number 🗹 Stop statistic		
0		and the second second
Reading inteface		e value units (Mwn->Gcal)
Connect using modem	<u>.</u>	
Phone number :	891185	07086
Dulas dial	_	
Puise dial		
A REAL PROPERTY OF A REAT	Subscriber MY3 'Поликлиника №6', ул. Алдан Qata period in days Parameter ty 45 Serial number 31163 MBus number 0 Month statisti ✓ Stop statistic ✓ T1 error statistic Reading inteface Connect using modem	Subscriber Reading ; MY3 'Поликлиника №6', ул. Алданская, 1( Reading ; My3 'Поликлиника №6', ул. Алданская, 1( Reading Serial number Serial number 31163 Month statistic Month statistic Month statistic Month statistic T1 error statistic Reading inteface Connect using modem Phone number : 891185 Pulse dial

#### Manual reading

If you open the list of devices, select needed device, choose manual scan command "Read selected device manually" (Ctrl + F2), then starts scanning data from the device.

#### **Delete record**

If you open the device list, select the needed record like device, street address, town or region and click command delete the selected record (Ctrl + Del) this will erase all related entries (data, settings etc.). If you want to delete the entry in the higher hierarchy, delete all records in the lower hierarchy first.

#### View map

If you open the device list, and select needed entry with the correct street, city or region, and pressed the button "Show on Google map", you can see the device on the map.



#### Device data review and reports

When you select particular device and click "Show device data", quick key (F3), pressing the Enter key or double clicking the left mouse button opens a window that displays the data read from device. Needed data can be selected on the screen.

Hide list From: 2011.09.03	To: 2011.10.04 TEilt	er Mak	e Report	F	eport type:	Lithuanian	•	Open
Object list Parameter list	Source Graphic			-		j.	14857	
Current data	Time	E,Gcal	M1,t	P,k₩	P1,k₩	P2,k₩	Pc,kW	Q 🔺
Hours statistic	2011.09.20 21:12:12	2 16516,89	455286,9	0	0	0	0	0,0
Days statistic	2011.09.21 06:01:1	5 16517,37	455346,9	0	0	0	0	0,0
Month statistic	2011.09.21 10:32:4	16518,16	455367,0	263	263	0	0	4,8
T1 error statistic	2011.09.21 22:03:0	5 16521,67	455456,2	203	203	0	0	5,0
T2 error statistic	2011.09.22 10:03:0	4 16523,78	455533,6	261	261	0	0	4,1
Flowmeter F1 error statistic	2011.09.22 22:03:0	16526,53	455597,5	0	0	0	0	0,0
T1-T2 < 3°C statistic	2011.09.23 10:53:1	7 16527,89	455643,0	264	264	0	0	5,4
	2011.09.23 22:54:2	5 16530,31	455701,1	0	0	0	0	0,0
	2011.09.25 09:09:2	7 16535,89	455950,9	405	405	0	0	9,4
	2011.09.25 21:09:21	7 16538,15	456020,6	171	171	0	0	4.1
	2011.09.26 09:09:3	16540,33	456129,7	364	364	0	0	7,0
	2011.09.27 20:20:3	16547,55	456300,0	368	368	0	0	6,8
	2011.09.29 14:48:0	3 16555,99	456526,9	345	345	0	0	6,1
	2011.09.30 02:48:0	7 16558,71	456598,8	266	266	0	0	9,2
	2011.10.02 18:06:4	3 16569,11	456849,4	248	248	0	0	5,5
	2011.10.04 02:25:2	3 16574,96	457054,4	280	280	0	0	8,7

Pressing the right button on the desired object, open the menu:

Hide list From: 2011.09.03 To: 2	Eilter	Mak	e Report	Re	eport type:	Lithuanian	•	(
Object list Parameter list	Source Graphic							
Current data	Time	dE,Gcal	dM1,t	T1,*C	T2,*C	dTrun,h	Error,	
lours statistic	2011.09.21	5,11	179,3	63,81	31,67	24	00000000	
Make Report Alt+E5	2011.09.22	4,53	131,3	63,86	28,56	24	00000000	
Delete selected data Alt+Del	2011.09.23	3,77	103,6	63,51	27,71	24	00000000	
1 Delete selected record to date Alt+F11	2011.09.24	4,51	146,5	63,52	32,59	24	00000000	
2 error statistic	2011.09.25	3,73	185,1	64,39	37,44	24	00000000	
lowmeter F1 error statistic	2011.09.26	5,03	97	63,74	38,77	9,16	00000000	
1-T2 < 3°C statistic	2011.09.27	4,06	98	65,96	25,54	24	00000000	
	2011.09.28	5,13	130,8	66,73	28,26	24	00000000	
	2011.09.29	5,28	94,1	66,8	30,45	24	00000000	
	2011.09.30	4,83	23,8	66,5	38,63	24	00000000	
	2011.10.01	3,83	83,4	64,54	23,35	24	00000000	
	2011.10.02	3,06	78,8	65,35	28,91	24	00000000	
	2011.10.03	4,69	169,3	66,64	31,53	24	00000000	
	2011.10.04	0,48	15,6	66,26	34,65	2,43	00000000	
	Time	E,Gcal	M1,t	Trun,h				_
	2011.10.04 02:25:29	16574,96	457054,4	57584,64				

Menu consists of following items:

- Generate report (Alt + F5) functions discussed in following pages
- Delete selected data (Alt + Del) deletes selected data (current, hours, days or months Statistics, errors)
- Delete selected records data up to specified date (Alt + F11) delete selected data from the period of the current date to the date specified.

In the tab "Parameter list" you can hide or show the fields you want, and changed the settings can be memorized by pressing "Save Filter". If you press the button "Filter", then the data will be elected by the date specified in the "From" and "Up to" strips.

Hide list	From: 20	11.09.03 💌 <b>To</b> : 20	11.10.04 🗾 Filter	Make Re	port	Report ty	pe: Lithuani	ian 💌	Op	ien us
Object list Param	neter list		Source Graphic							
			Time	Qo(TB1),Gcal	V1(TB1),m3	V2(TB1),m3	M1(TB1),t	M2(TB1),t	Mg(TB1),	,t 🔺
Clear All	Set All	Remember filter	2011.09.19 09:42:20	793,881	51589,0988	50936,2089	50878,1489	50575,5589	302,59	
	-		2011.09.19 21:42:21	793,882	51590,4388	50936,2089	50879,4889	50575,5589	303,93	
	Data column:	;	2011.09.20 21:45:45	793,882	51592,2988	50936,2089	50881,3489	50575,5589	305,79	
Uo[181],Gcal			2011.09.21 23:19:56	793,883	51594,9088	50936,2089	50883,9589	50575,5589	308,4	
✓ V2(TB1),m3			2011.09.22 11:19:51	793,883	51595,8788	50936,2089	50884,9289	50575,5589	309,37	
M1(TB1),t			2011.09.22 23:19:52	793,883	51596,8588	50936,2089	50885,9089	50575,5589	310,35	
✓ M2(TB1),0 ✓ Ma(TB1) t			2011.09.23 11:23:12	793,883	51597,9988	50936,2089	50887,0489	50575,5589	311,49	
✓ G1(TB1),m3/h			2011.09.23 23:23:41	793,883	51598,1188	50936,2089	50887,1689	50575,5589	311,61	
✓ G2(TB1),m3/h			2011.09.25 10:57:18	793,884	51598,8588	50936,2089	50887,9089	50575,5589	312,35	
✓ (1/181), °C			2011.09.25 22:57:13	793,884	51598,8988	50936,2089	50887,9489	50575,5589	312,39	
🗹 di(TB1),°C	*		2011.09.26 10:57:13	793,884	51598,8988	50936,2089	50887,9489	50575,5589	312,39	
P1[181],kg/cm P2[181],kg/cm	2		2011.09.27 09:38:38	793,885	51600,3688	50936,2089	50889,4189	50575,5589	313,86	
BHP(TB1),h			2011.09.27 21:41:07	793,885	51601,2688	50936,2089	50890,3189	50575,5589	314,76	
BOC(TB1),m3			2011.09.29 16:14:35	793,886	51604,5788	50936,2089	50893,6289	50575,5589	318,07	
			2011.10.02 19:01:18	793,887	51608,6488	50936,2089	50897,6989	50575,5589	322,14	
			2011.10.04 03:26:37	793.887	51609.0288	50936,2089	50898.0789	50575,5589	322.52	_

The data can be viewed in graphical format. This can be done by opening the tab "Graphics".

#### Software package "AXIS Reader"



#### Pressing the button "Create Report" will create and open standard report.

C	1	) =		1 Калин	нинград,	Баграмя	на, 2 SKI	N-01[318	79] Curre	nt data	- Microsof	Excel				
	Home Inser	rt Pa	ige Layout	Forr	nulas	Data	Revie	w V	iew	Add-In:	5				۲	_ =
Pas	A Microsoft B Z 1 te J P 2 oard S Fo	Sar + 8 <u>U</u> - A - <u>A</u> - int	A I I I I I I I I I I I I I I I I I I I	「二日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日	r I Ar I I I I I I I I I I I I I I I I I	Genera Genera Color Solo Numb	II ▼ % > } }	Co Fo Ce	nditiona rmat as T I Styles ` Sty	I Format able ≁ les	ting *	•= Insert → • Delete → I Format Cells	Σ • 	Sort & Fin ilter * Sel Editing	d & Si ect → Er	gn and crypt * Privacy
	A1	• (*	f <sub>x</sub>	Ataska	aita nuc	2011.0	9.08 iki	2011.10	.04							
	A	В	С	D	E	F	G	Н	1	J	К	L	М	N	0	Р
1					Atas	skaita (	nuo 20	011.09	.08 iki	2011	10.04					
2	Abonentas:		моу дс.	ЦЮ Юно	сть, наб	Баграм	вяна, 2									
3	Adresas:		1 Калин	инград.	Баграмя	на, 2										
4	Prietaisas:		SKM-01													
5	Prietaiso numeris:		31879													
6	Ataskaitos data:		2012.03	23												
/	Duomenų suvestir	né:					-					-	-	-		-
8	lime	E,Gcal	MIL	P,kW	P1,kW	P2,kW	Pc,kW	Q1.t/h	11,-C	12,-C	11-12,*C	Irun,h	Inorun,h	Qmax,h	Qmin,h	Error,
10	2011.09.08 08:07	16468,9	453903	217	217	0	0	5,14	62,35	25,97	36,38	56966,3	3534,87	0	27827,7	0
11	2011.09.08 19:08	16471	453956	263	263	0	0	4,83	66,6	19,8	46,8	56977,4	3534,87	0	27838,7	0
12	2011.09.09 07:37	16473	454029	243	243	0	0	7,62	64,13	36,65	27,48	56989,8	3534,87	0	27847	0
13	2011.09.09 21:11	16475,7	454097	0	0	0	0	0	64,41	29,22	35,19	57003,4	3534,88	0	27857,3	0
	Recovered_9	Sheet1	1	2	10 (A)							1 2				
Read	y												1309	6 😑	U	+

The program can prepare standard reports, but you can also use custom reports using your own report templates and automatically filling in the necessary data. This requires MS Excel because templates are filling with MS Excel.

If you press the button "Open the user account", extract to user specified template in MS Excel format will be created. Template data is filled, regardless of their type was set in the template. This is done because it is automatically selected data type that fits best. To fill in the template data from the desired period, set out time mark "Up to".

Completed template sheet handy to use as a data source, the other pages.

Filled users template looks like this:

-					
🔀 Microsoft Excel - ter	mplate.xls				<u>-0×</u>
Eailas Redagavim	as Rodymas Įterpimas	Formatavimas Įrankiai Duomeny	s La <u>n</u> gas Žinyn <u>a</u> s	Įveskite klausima	t - ₽ ×
i 🗋 💕 🛃 🖪 🐧	🍄 📖   👗 🖡 🛍 🕶	🏈   🔊 • (° -   🤱 Σ - Å 🕴	↓ 🛍 剩 100% 👻 🖕		• <u>-</u>
Arial	12 • P P E	E 🚍 🗮 📴   🕎 % 000 % 💰	29   律 律   🖽 • 🍌 • 🛕 • 💂		
A1 -	fx Time				
A	В	С	D	E	F
1 Time	Operation Time,h	delta Operation Time,h	Energy accumulated positive,MWh	delta Energy accumulated positive,MWh	Volume,m3
2 2000-09-28 05:00	93,2	93,2	(		5372,452
3					
4					
5					
6					
9					
10					++
11					
12					
13					
14					
15					
H + H Lapas1 / La	apas2 test Lapas3 /	1	<b>.</b>	'	Ì.
🕴 Braižyti 🕶 😓 🛛 Automat	tinės figūros 🔹 🔪 🔌 🔲	o 🖭 4 🔅 🗕 🔠 🍐 • 🛓	🛃 • 📥 = 🚍 🚍 💷 🗊 📜		
Paruošta				N	UM ,

## **Review of active devices**

When reading data from the devices, a list containing all the devices and their status can be seen.

AXIS Reader info wind	ow	×
Device name	Description	
ENReader [12345	56]	
ENReader [23454	15456]	
ENReader [23454	15456]	
ENReader [24454	15456]	
ENReader [23454	15456]	*
•		►

Double-clicking the mouse on the record, reading window opens. This can be done when reading manually or automatically as well.



If you remove the device during data reading, data reading is terminated.

#### Remote thermal regulator SR-1 data scanning and management

Default remote thermal controller scanning and data management.

SR-1 Data Current SR-1 status Heatir	g parameters DHW F	Parameters User parameters In	stallation parameter	s
К1		K2		·
Status	E (	Status		$^{\odot}$
Set temperature	20,0 *C	Set temperature	e 55,0	•C
Temperatures		Valves		
Temp. 1*(	, Temp. 4	*C Y1	0	%
Temp. 2 *(	Temp. 5	*C Y2	0	%
Temp. 3*(	;			
AntiFrost Protection	Summer Disc	onection Alarm	Forsage	ECO Mode
Set time				
Time 16	39:00 🔹	Set computer time	Thu	rsday
Weak Day Th	ursday 💌	Set time	16:3	39:00
Load config	Store config	Keep connection		Read

Heating temperature schedule can be set.

SR-1 Data						
urrent SR-1 status Heal	ing parameters DHV	√ Parameters	User parameti	ers   Installatio	on parameters	
К1						
🖪 Graphie	Mode 🔹	₩ 20,0	) °C	-	15,0 °C	-
Monday	•			· · ·	<u></u>	
Selected Week	Day					
20						
0 1 2 3	4 5 6 7	8 9 10 11	12 13 14	15 16 17	18 19 20 2	1 22 23 24
Period 1 Begin 06:00	End 23:0	0	]			
Period 2 Begin:	End:					
Period 3 Begin:	End:	×				
Copy Pas	Clear	<b>⊽</b> Kee	p connectio	n	Set	Read

Hot water system temperature schedule can be set.

🙆 SR-1 Data	×
Current SR-1 status   Heating parameters   DHW Parameters   User parameters   Installation parameters	
Г <b>К2</b>	
Graphic Mode      ☐ 55,0 °C      35,0 °C	
Monday	
Selected Week Day	
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	
Period 1 Off Period 1	
Begin         05:00         ×         End         23:50         ×         Begin         -:         ×         End         -:         ×         I	
Period 2 Off Period 2	
Begin         00:00         x         End         01:30         x         Begin        :         x         End        :         x	
Period 3 OffPeriod 3	
Begin -: End -: Begin -: End -:	
Copy         Past         Clear         Image: Keep connection         Set         Read	

The user can change the heating and hot water systems critical parameters



#### View and change the critical circuit parameters

실 SR-1 Data	×							
Current SR-1 status   Heating parameters   DHW Parameters	User parameters Installation parameters							
Plant parameters Limitation Other parameters								
Return Temperature Limitation								
Treturn D012	Return temperature limitation (P20)							
P012	Const. Limitation Value (P09) 40,0 *C							
	Tilting Point (P10)							
	Slope of Shifting Range (P11) 2,0							
	Max. Limitation Value (P12)							
Toutside								
Ti2 Limitation (P22) 1 min.	Ti1 Limitation (P13) 2 min.							
Max Temperatures Limitation	itatian (D14) May DUby Tananahan (D15)							
Max Temperature Lin								
115,0 °C	115,0 °C							
Flow Limitation Max Flow L	imit (P23) Pulse Value (P24)							
Flow limitation (P29)         250 m3/h         1 imp/l								
✓ Keep connection     Set     Read								

#### View and change the type of building, alarm or gear travel options

🕹 SR-1 Data	×							
Current SR-1 status   Heating parameters   DHW Parameters	User parameters Installation parameters							
Plant parameters Limitation Other parameters								
Building Type (P18)								
Poor Isolation, Light Construction	Alarm activation (P16)							
© Good Isolation, Light Construction	Data Protection (P21)							
© Poor Isolation, Heavy Construction	DHW off Activation (P27)							
C Good Isolation, Heavy Construction								
Forsage Rate (P25)	ECO Temperature (P26) 0.0 °C							
Controler address (P30)	Statistic Actvation (P42)							
Language (P40) Lithuanian 💌	Statistic Period (P41) 5 min.							
Max Flow Action Limit (P19) 10 s K1 & K2 purpose (P17) K1 Heating, K2 DHW V								
✓ Keep connection Set Read								

Read data of regulation in archive, that was accumulated during specified interval of time and display statistics by the table or graph.



## Terminate all scans

If you want to stop all devices reading, click the button "Disconnect all devices."

#### Database

If you want to specify a different database or create new, click button "Open Database", specify the database location and name and click "Open."

Open database				×
🔵 🚺 🕶 Users 🗸	• Public • Public Documents • AXIS Re	ader 👻 🌄	Search AXIS Rea	ader 💋
Organize 👻 New folder				H • 🔟 🔞
* Favorites	Name *	Date	modified	Туре
Desktop Downloads Recent Places	ව Baze 진 DataBase	2012 2012	Microsoft Office Ac	
Pictures Videos Computer WIN 7 (C:)				
File	▼∫ <b>∢</b>   e name: <mark>Baze</mark>		MS Access data Open 🗸	base file (*.mdb ▼

# Program settings

Program settings are made up of several groups.

## **General settings**

All general settings can be changed in this tab.

ssage center			and the second sec
	Received data from device write in data base		wait answer if received data
WEB Server	Reading manually, the same type and serial number of the device, writes in existing device record		by COM port [ms]: 1000 by MODEM [ms]: 4000
	Don't receiving data if they exists in data base	•	by ETHERNET [ms]: 1000
	Show receiving window at reading manually	•	Delete records older than
	Change energy value units (MWh->Gcal) for M-Bus	Г	
	protocol devices	1	2010.03.24
	TCP server active (only for ENCO devices)	1	Compact database
	TCP server port: 37775	_	
	Show TCP server receiving window	V	
	Automatic reading devices		Change medium type names
	Automatic reading error, repeat:		Change data type names
	Automatic reading error, repeat every min.: 5		
	Automatic reading error log:	Г	Change device names
	Automatic reading error log file:		Change value name
	\\Users\Public\Documents\AXIS Reader\AXISRea		Change value units name

- "Received data from device write in data base". All read data from devices saves in database.
- "Reading manually, the same type and serial number of the device, writes in existing device record". If there is the same type and serial number, like currently reading, data is attributed to this device in data base
- "Don't receiving data if they exists in data base". Interrupt the reading, if such data is readily available.
- "Show scan window, reading the manual". Displays readed data when reading manualy.
- "Change energy value units (MWh ->Gcal) for MBus protocol devices". When reading devices by MBUS protocol, measurement units automatically converted from MWh to Gcal.
- "TCP server active (only for ENCO devices)". Starts TCP server. This allows the program to retrieve data from remote Enco devices via the Internet .
- "TCP server port". Sets the TCP server port that can connect to Enco devices.
- "Show TCP server receiving window". Shows data received over a TCP server.
- "Automatic reading devices". Switches on the automatic scanning of devices.
- "Automatic reading error, repeat". Sets the number of times to try to retrieve the device if an error occurs.
- "Automatic reading error, repeat every min.". Sets period of trying to read, if an error occurs.
- "Automatic reading error log". Creates an error log.
- "Show references in the program". When you move the mouse cursor on the program button, displays a hint.
- "Delete records older than …" Deletes all entries older than the specified date.
- "Compact database". Compress database, and this increases the work performance.
- "Change names … " Change names.

#### Modem settings

This is window of modem settings.

If the program will be used to collect data via modems, it is necessary to determine which interface to connect the modem and configure the correct settings.

Scenarios can be made in the bottom of the window.

Message center	in the second se	1.5	Raud rate		Parity		Bite
WEB Server	Modem configurati	on	-		( No	ne	C 5
	Modem ports list (checked)		C 300	· 9600	Cod	ld	
	Port name		C 600	C 19200	C Ev	en	1 0
	COM3		000	19200	СМа	rk	C 7
			C 1200	C 38400	C Sa	pce	€ 8
					Stop b	its	
			C 2400	C 57600	· 1	bit	
			C 4900	C 115200	C 1.5	5 bit	- DIK
			· -1000	· 115200	C 2	bit	RTS
	Dialing Hangup Modem o	onfiguration sequ	uence	Ionore answer	Repeat	Enter	-1
	Dialing Hangup Modem c	onfiguration sequ	uence     Wait [ms]	Ignore answer	Repeat	Enter	
	Dialing Hangup Modem of	Onfiguration sequ	uence     Wait [ms]   1000	Ignore answer False	Repeat 3	Enter True	
	Dialing Hangup Modem of Ask AT AT	onfiguration sequ Answer OK OK	Uence Wait [ms] 1000 1000	Ignore answer False True	Repeat 3 1	Enter True True	
	Dialing Hangup Modem of Ask AT ATZ ATE 1V1M1	OR OK OK OK OK	Wait [ms] 1000 1000 2000	Ignore answer False True True	Repeat 3 1 1	Enter True True True	
	Dialing Hangup Modem of Ask AT ATZ ATE IV JM 1 ATSO0	Onfiguration sequestion OK OK OK OK CONNECT	Wait [ms] 1000 1000 2000 2000 2000	Ignore answer False True True True False	Repeat 3 1 1 1	Enter True True True True	
	Dialing Hangup Modem of Ask AT ATZ ATE IV1M11 AT8D0 ATD <phonenumber></phonenumber>	Onfiguration sequ OK OK OK OK OK CONNECT	Wait [ms] 1000 1000 2000 2000 90000	Ignore answer False True True True False	Repeat 3 1 1 1 1	Enter True True True True True	
	Dialing Hangup Modem of Ask AT ATZ ATE:V1M1 ATB00 ATD <phonenumber></phonenumber>	Onfiguration sequ OK OK OK OK CONNECT	Wait [ms] 1000 1000 2000 2000 90000	Ignore answer False True True True False	Repeat 3 1 1 1 1 1	Enter True True True True True	
	Dialing Hangup Modem of Ask AT ATZ ATE1V1M1 AT8D0 ATD <phonenumber></phonenumber>	Answer OK OK OK OK OK CONNECT	Wait [ms] 1000 1000 2000 2000 90000	Ignore answer False True True True False	Repeat 3 1 1 1 1 1	Enter True True True True True	
	Dialing Hangup Modem of Ask AT ATZ ATE:IV:1M1 AT8D0 ATD <phonenumber></phonenumber>	Answer OK OK OK OK OK CONNECT	Vait [ms] 1000 1000 2000 2000 90000	Ignore answer False True True True False	Repeat 3 1 1 1 1	Enter True True True True True	
	Dialing Hangup Modem of Ask AT ATZ ATE V1M1 ATB00 ATD <phonenumber></phonenumber>	Onfiguration sequ OK OK OK OK CONNECT	Vence Vait [ms] 1000 1000 2000 2000 90000	Ignore answer False True True False	Repeat 3 1 1 1 1 1 2 Default o	Enter True True True True True	

#### Message center

The window for reporting e-mail forwarding and configuration. If your computer is configured to work with program MS Outlook, do not have to do anything additional. To check if configuration is correct, you must enter the recipient's e-mail address (for testing only), and click "Test" button. If the letter is received at the address - everything is configured correctly.

rogram settings		
General settings Mes	sage center	
Modem settings		
WEB Server		
	Send e-mail using MS Outbook	
	Name of the sending server (SMTP): mail.smtp.com	
	Port: 25	
	Account: Username	
	Password: ******	
	Sender address: AXISreader @mail.com	
	Priority: Highest	
	Subject: Report message	
	Recipient address (only for test): usermailname@mail.com	
	Test message form AXIS reader	
	Cancel @ Apply	

If you use the SMTP server settings input will look like this:

Program settings	X
General settings	essage center
Message center	
WEB Server	Simple mail server (SMTP)
	Name of the sending server (SMTP): mail.smtp.com
	Port: 25
	Account: username
	Password: ******
	Sender address: AXISreader@mail.com
	Priority: Highest
	Subject: Report message
	Recipient address (only for test): usermailname@mail.com
	Test message form AXIS reader
	A Test
	Test

## "Web server"

Program "Web server general settings. More about them here.

Program settings		X
General settings Modem settings Message center WEB Server	WEB Server	
	Web server port:	80
	Administrator user name:	Administrator
	Administrator password:	
	Administrator e-mail:	administrator@e-mail.com
	Require authentication	
		Start Web server
		Stop Web server
	<u>√</u> <u>o</u> ĸ	

## Info window

To see the scanning process, you can turn on the information display window (Ctrl + D). Requests, answers and other data can be seen in it.

🙆 Info window			
F HEX/ASCII Stop F	arse <u>C</u> lear <u>I</u>	Eind Save	
3E 3E 00 00 15 00 00 00 00 00 00 00 00	00 00 00 00 00 00 01 00 0A 00 02 8	C 21 05 A1	<b>•</b>
3C 3C 00 00 31 00 40 E2 01 00 00 00 0	JU UU U1 UU UU UU UU U1 UU UA UU U2 B 30 00 00 E0 20 40 98	10 21 05 23 25 0B 17 0	13 OC 40 E2 01 00
3E 3E 00 00 15 00 00 00 00 00 00 00 00	10 00 00 P0 30 40 36	0 21 05 9D	
3C 3C 00 00 31 00 40 E2 01 00 00 00	00 00 01 00 00 00 01 00 0A 00 02 C	)4 21 05 28 25 0B 17 (	03 OC 40 E2 01 00
A1 20 01 11 01 05 0C 00 00 06 00 00 0	00 00 00 E0 3D 40 E4		
3E 3E 00 00 15 00 00 00 00 00 00 00 00	00 00 00 00 00 00 01 00 0A 00 02 D	)4 21 05 F9	
3C 3C 00 00 31 00 40 E2 01 00 00 00	00 00 01 00 00 00 01 00 0A 00 02 F	8 21 05 2D 25 0B 17 0	03 OC 40 E2 01 00
AT 20 0T TT 01 05 0C 00 00 06 00 00 0	JU UU UU EU 3D 4U CD 30 00 00 00 00 00 01 00 04 00 02 5		
3C 3C 00 00 31 00 40 E2 01 00 00 00	<u>10 00 00 00 00 00 00 01 00 04 00 02 1</u>	C 22 05 32 25 0B 17 0	3 0C 40 F2 01 00
A1 20 01 11 01 05 0C 00 00 06 00 00 0	00 00 00 E0 3D 40 35	0 22 00 02 20 00 11 0	000 40 22 01 00
3E 3E 00 00 15 00 00 00 00 00 00 00 00	00 00 00 00 00 00 01 00 0A 00 02 1	C 22 05 32	
3C 3C 00 00 31 00 40 E2 01 00 00 00	00 00 01 00 00 00 01 00 0A 00 02 4	0 22 05 37 25 0B 17 0	3 OC 40 E2 01 00
A1 20 01 11 01 05 0C 00 00 06 00 00 0	00 00 00 C0 3D 40 4C	0.00.05.05	
3E 3E 00 00 15 00 00 00 00 00 00 00 00	JU UU UU UU UU UU UU UI UU UA UU U2 4	U 22 U5 6E	0 00 40 50 01 00
A1 20 01 11 01 05 0C 00 00 06 00 00 0	00000000000000000000000000000000000000	04 ZZ UO UU Z6 UB 17 U	3 UC 40 EZ UT UU
3E 3E 00 00 15 00 00 00 00 00 00 00 00		4 22 05 44	
3C 3C 00 00 15 00 40 E2 01 00 00 00	00 00 01 00 00 00 01 00 0A 00 03 6	4 22 05 E9	-
Sent byte : 19683	Received byte : 44929		

## **Clients list**

#### Add new client

Pressing the button "Add client" or Shift + Ins opens window, through which adds a new client:

	Send e-mail every month day:	× 01.00.00
dient name	Serve e mair ever y month days [1	p1.00.00
User name		
Cient	acount:	
Clienter	anuardi	
Clience	issword. J	
e-mail list:		
user.name@mail.	com	
user.name@mail.( subject	com	
user.name@mail.o subject "AXIS Reader" e-r	rom nail subject	
user.name@mail.o subject "AXIS Reader" e-r e-mail body:	rom nail subject	
user.name@mail.o subject "AXIS Reader" e-r e-mail body: "AXIS Reader" e-r	nail subject nail body if need	
user.name@mail. subject "AXIS Reader" e-r e-mail body: "AXIS Reader" e-r attachments:	rom nail subject nail body if need	

If the tick "Active User" is set, then the messages is automatically sent the user at a specified time or when automatic scanning devices.

Write in new client's name, which will be seen in the list.

User name and password field is filled, to connect to "Web server" via web browser. Fields below is for sending e-mails configuration.

A list of devices and client list also opens in the background .

#### Show clients list

Pressing the button "Show client list" or the key combination Shift + F5 opens the window with a list of clients and devices assigned to them.



Users can be assigned to devices by simply selecting the desired device, and dragging it to desired client. Data type of data displayed is showed near assigned device. Data type can pressing button "Activate data record" or activated or deactivated by using the keyboard shortcut Shift + A. Activated data type is displayed in blue and will be inserted in the report.

Green display attached device template.

#### Edit client data

Pressing the button "Edit selected client" or Shift + E opens window as you create a new user, but with the previously entered data.

Paral Same	Send e-mail every month day: 1 ▼ 01:00:00
д/с 16	
Cient aco	unt: mdou 16
Client passw	vord: *****
- mail liste	
Reports@termo-c.ru	
ubject	
"AXIS Reader" e-mail :	subject
e-mail body:	
"AXIS Reader" e-mail l	body if need
attachments	

#### **Delete client**

Selecting the desired client or device assigned to it and pressing the "Delete selected record(s)" or the key combination Shift + Del will delete the selected item.

#### Activate data record

Data type can activated or deactivated by pressing button "Activate data record" or using the keyboard shortcut Shift + A. Activated data type is displayed in blue and will be inserted in the report.

#### Send an e-mail

Clicking 'Send selected client e-mail "or the key combination Shift + S will form a report for the period to current time, and sent by e-mail, no matter, the client is active or not.

#### **Changing names**

Possible to change names to some you prefer better. This can be done by going to "Program Settings" and choosing the desired operation.



Clicking "Change data type names" opens a window where a left side shows the current name, and on the right side, you can enter any name you want. Entered items saves by clicking "Yes". To restore names, click "Reset".

Exists field name	New field name	
Current data	Current data	
Hours statistic data	Hours statistic data	
Hours errors	Hours errors	
Days statistic data	Days statistic data	
Days errors	Days errors	
Hours statistic	Hours statistic	
Days statistic	Days statistic	
Month statistic	Month statistic	
Stop statistic	Stop statistic	
T1 error statistic	T1 error statistic	
T2 error statistic	T2 error statistic	
T3 error statistic	T3 error statistic	
T4 error statistic	T4 error statistic	
Flowmeter F1 error statistic	Flowmeter F1 error statistic	
Flowmeter F2 error statistic	Flowmeter F2 error statistic	
Flowmeter F3 error statistic	Flowmeter F3 error statistic	
Q1 > Qmax statistic	Q1 > Qmax statistic	

The same procedure for changing other names: devices, media types, parameters and measurement units. Set parameters of devices, environment, and the names of the units of measurement is valid in "Axis Reader" and "Web server" program, and the parameter names only in "web server" program.

## License

Functions of programme depends on type of license you have. License management can be done by pressing the "License management".

icense			
			Active device list
Your Personal Key		Send e-mail	
Activation code 8C4D835B2368	72C984B6556806FF13C7	Copy To Clipboard	SKU-01S
			SKM-01
			SKS-3
Enter your Personal License Delow			
Registered. I	xpired date: 2022.03.21		M-Bus device SKU-4
	Paste fro	m Clipboard	SKS-4
			TEM-104 (APBAC)
			ENReader
🧹 ОК	Cancel (I will enter	Personal License later)	TBA-1 (Dasu)
			TCPB-03X (Vzljot)     ''AXIS Reader'' web server     IX DK-3

For the first time introduced the program is running at full functionality, but for a limited45day trial period. After the trial period, it is necessary to register the program with the desired functionality.

To register the program, please send us an activation code and we'll generate a license key. After receiving a licence key, paste it into the field and confirm it. Then program starts to work with funcions under license.

# "About us" and program updates

Clicking on "About ..." -> ,,About us" opens window , showing the information about the producer and program update options.

About us	×
AXIS industries	
Auto check new program version	
☑ Show DK3 firmware update warning window	
About us: <u>http://www.axis.lt</u> Download program	
Check new version	

Setting tick "Auto check new program version" will check whether there is a newer version of the program. Setting tick "Show DK3 firmware update warning window" will be checked for new data storage device DK-3 firmware.

Click "Check new version" will manually check and report about the current version of the program.

## Program "Web server"

Program web server is designed to display data via a web browser on your computer, joined a local network or the Internet connection.

## Configuration

The main "web server" program settings can be changed in "Axis Reader" program settings window tab, "Web server".

Program settings			×
General settings	WEB Server		
Modem settings			1
Message center			
WEB Server			
	Web server port:	80	
	Administrator user name:	Administrator	
	Administrator password:		
	Administrator e-mail:	administrator@e-mail.com	
		-	
	Require authentication		
		Start Web server	
		Stop Web server	
	<u>✓ O</u> K	Cancel 63 Apply	

Select "Request Authorization" will allow to join only those users who are correctly configured "Axis Reader", and administrator. Users see only their assigned devices and their data. The administrator will see all devices and data.

Clicking "start web server" will activate server.

At program start-up asks what mode program will operate.

Confirm		×
?	Program run as s	ervice?
	Yes <u>N</u> o	

Icon near clock can be seen after startup:



Double-click on the icon opens a configuration menu.

Software package "AXIS Reader"

🖾 AXIS Web Server	
✓ Activate	E <u>x</u> it
Start sequence Server log	
Root C:\Documents and Settings\All Users\Applicat	ion Data\AXIS Reader\
Port: 80	
Start sequence	
Check program configuration	
🔽 Check data base	
Check web ports	Require authentication
Restart	Service application

## Connecting to web server

The Web server can be joined by entering existing IP address of the computer in web browser (i.e. <u>http://localhost/</u>, 10.12.3.64, 192.168.1.10 ar 172.157.16.39). If you are using a firewall, it must be properly configured for this program To ensure that the server is accessible via the web, you may need to configure a network devices and equipment.

If correctly connected, appears accumulated data:

🙋 "AXIS Industries" Technologic	information center - Wi	ndows Internet Explorer			×
COC The http://localhost/Log	ginW 🔎 💌 😽 🗙	"AXIS Industries" Techr	nologi ×		ሰ 🕁 😳
AXISindustries					Now login Administrator
Каипаз		From: 2011.05.2	1 Калннинград, SKM-01 3 Шт То:[2011.06 Archive size - from: 201	Алданская, 10 [31163] 5.15 Change 1.05.23 to: 2011.10.05 Full data report	period
1.5 Багранлия, 2 1.6 Балтийское шоссе, 110 1.7 Банковская, 25-31 1.8 Бариаульская, ба 1.9 Белинского, 61А 1.10 Белинского, 61А 1.11 Борзова, 101 1.12 Гайдара, 113 1.13 Гайдара, 119 1.14 Горбунова, 14-22 1.15 Гражданская, 11 1.16 Грига, 10	Current data Hours statistic Days statistic Month statistic Stop statistic Q1 < Qmin statistic T1-T2 < 3°C statistic	Energy Mass Time 2011.05.23 15:39:40	Power Flow TL-C Z 67,68	All parameters Temperature 12.°C V 54,51	Run time & status Status T1-T2,°C X 13,17

If user authorization is active, attempting to connect to the Web server will require to enter your user name and password in browser:

	AXISReader web server	
	User name:	
	Password:	
	Connect	
If you have connection problems, o	or forgotten your login, please contact th	ie system <u>administrator</u> .

In such cases the connection is only possible after success loging in, and only those devices can be seen which are assigned to the user. Online Administrator can view all data.

## Data review

e "AXIS Industries" Technologic information center - Windows Internet Explorer \_ 0 × 🚱 🕤 🗢 🥘 http://localhost/LoginW 🔎 💌 😒 🖘 🗙 🎯 "AXIS Industries" Technologi... 🗙 Now login Administrator **AXIS**industries Caunas \* 1.Kreves 82 1.1 Butas 1 1 Калининград, Алданская, 10 Калининградская область 1.1 Калининград 1.1 9 апреля, 7 1.2 Алданская, 10 SKM-01 [31163] From: 2011.05.23 To: 2011.06.15 Change period Archive size - from: 2011.05.23 to: 2011.10.05 SKM-01 [31163] Full data report Артиллерийская, 45 Артиллерийская, 46 Баграляна, 2 Балтийское шоссе, 110 Банковская, 25-31 1 Show graphic All parameters 16 Power Run time & status Energy Mass Flow Temperature Status Банковская, 25-51
 Барнаульская, 6а
 Белгородская, 7-7А
 Белинского, 61А
 Гайдара, 103
 Гайдара, 103
 Гайдара, 119
 Гаражданская, 11
 Гаражданская, 11 T1-T2,°C T1,°C T2.°C Current data Time Hours statistic  $\overline{\mathbf{v}}$ ~ ~ 2011.05.23 15:39:40 Davs statistic 67.68 54.51 13.17 Month statistic Stop statistic Q1 < Qmin statistic T1-T2 < 3°C statistic .16 Грига,10 👁 AB "AXIS Industries", 🛛 Lithuania LT-47190, Kaunas, Kulautuvos str. 45a, tel. 💷 👻 +370 37 360234 😉 , Fax. +370 37 360358, e-mail : info@axis.lt

When connected to a server, devices and their data can be seen.

Select the data period, the data of interest (on the top of table) and the optional schedule or report review.

When choosing a data type, you can choose the data type of the group (energy, capacity, power, flow, temperature, time, status) by clicking on the top of the table of parameters. You can also select specific settings, placing ticks near the parameter name. Clicking on "All parameters" will again open all possible parameters.

Changing the display period, carried out by entering a date or choosing it in the calendar:



After changing the date, it is necessary to press the button "Change period", in order for data to be refreshed.

Display of data can be choosen by this buttons:

<b>8</b>	i i i i i i i i i i i i i i i i i i i
Show graphic	Full data report

Selecting "Full Data Report" generates a report. The report generated by the settings selected in program "Axis reader".

	//oc	alhost/ChartV	Vindow?of	-FlashDat	ta0.8347881	1818374	09							- 2	4 × P	Google It		
	Serie Ferreite	n Taala	Uala															
e <u>c</u> uit i		es <u>1</u> 00is	Tob															
Favorites	😭 🚺 Sug	gested Sites	• 🥲 We	b Slice Gall	ery •													
- 61	AXIS Industries	"Technologi	. 🔗 Dua	omenų atas	ikaita	×									🔂 • (	2) × 🖂 👾 .	• <u>Page</u> • <u>Safet</u>	y • T <u>o</u> ols
								Ata	skaita nu	io 20	11-09-:	28 iki 2011-1	0-06					
bonentas:																		
dresas:		Kaunas, kul	autuvos 4	5a														
rietaisas:		TEM-104 (A	PBAC)															
rietaiso nu	meris:	1246674																
.taskaitos d	lata:	2011-11-03																
Time	Energy1.Gca	Volume1.m	Mass1.t	Trun.h	Tsystun1.h	Tmin1.	Tmax1.	Tdtmin1.	TError1.h	Error	Error1	Temperature 11,	Temperature 12	Temperature 13,*	Pressure11.MPa	Pressure 12. MP	Pressure13 MPa	FlowInt1
11.00.00	1	-	•			7		•	10	1,	2,	<u>C</u>	<u>C</u>	<u>C</u>		17		
13:17	2988,846	449393,854	443483,088	3816,771	3807,625	0	0	0	9,146	47	8018	0	0	10	0,9	0,5	0,4	p
28:07	2988,846	449393,854	443483,088	3816,998	3807,64	0	0	0	9,358	47	8018	0	0	10	0,9	0,5	0,4	p
11-09-28	2988,846	449393.854	443483,088	3817,006	3807,641	0	0	0	9,365	47	8018	0	0	10	0,9	0.5	0,4	o
011-09-28	2988,846	449393,854	443483,088	3817,105	3807,651	0	0	0	9,454	47	8018	o	0	10	0,9	0,5	0,4	0
011-09-28 1:37:05	2988,846	449393,854	443483,088	3817,134	3807,66	0	0	0	9,475	47	8018	0	0	10	0,9	0,5	0,4	0
011-09-28	2988,846	449393,854	443483,088	3819,736	3807,661	0	0	0	12,075	47	18	0	0	10	0,9	0,5	0,4	0
11-09-28	2988,846	449393,854	443483,088	3820,06	3807,671	0	0	0	12,389	47	18	0	0	10	0,9	0,5	0,4	0
11-09-28	2988,846	449393,854	443483,088	3829,072	3807,685	0	0	0	21,387	47	18	o	D	10	0,9	0,5	0,4	0
11-09-28	2988.846	449393.854	443483.088	3829.089	3807.686	0	0	0	21,403	47	18	0	0	10	0.9	0.5	0.4	0
11-09-28	2958,846	449393.854	443483.088	3829.12	3807.693		0		21.428	47	18	0	0	10	0.9	0.5	0.4	0
11-09-28	2998 846	449292 854	442492.089	1829 256	2807 696		0		21.56	47	10	0	0	10	n 9	0.5	0.4	
1:47:07	2000 040	440202 054	442402.000	2005 020	2807 204			6	00 775		10			10				
28:35	0000.040	40303.034	442402.000	0005.020	2007.704	Ĩ.	×	[	00.220	Ľ	10	ř	~ 	10	0.0			Ľ
29:14	4000,046	*******	**********	3903,838	5607,704			Ľ	90,232		10	, 	,		u,o	0,0 		Ľ
29:30	2388.846	#4a3a3.854	443483,088	13905,941	\$807,705	0	U	2	95,236	4/	18	U	v	10	0.9	0.5	0,4	0
30:33	2988,846	449393,854	443483,088	3905,953	3807,711	0	0	0	98,242	47	18	0	D	10	0,9	0,5	0,4	p
0:34:38	2988,846	449393.854	443483,088	3924,02	3807,714	0	0	0	116,306	47	18	0	0	10	0,9	0,5	0.4	p
011-10-03 4:56:19	2988,846	449393,854	443483,088	3932,348	3807,735	0	D	0	124,613	47	18	0	o	10	0,9	0,5	0,4	p

Selecting "Graphic representation" generates data schedule:



# Software package installation

The programs are allowed to be installed by PC professional administrator.

Axis Reader program can be installed on your computer running the installation executable file "AXISReaderSetup\_Vxxxxx.exe"

During installation, follow the installation wizard.



Click "Next".

	_ 🗆 🗙
Back Next >	Cancel
	Back Next >

#### Click Next

🕼 Setup - AXIS Reader
Select Destination Location Where should AXIS Reader be installed?
Setup will install AXIS Reader into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\AXIS\AXIS Reader Browse
At least 13.4 MB of free disk space is required.
< <u>B</u> ack <u>N</u> ext > Cancel

The path, where program will be installed. Click "Next".

🚏 Setup - AXIS Reader	
Select Start Menu Folder Where should Setup place the program's shortcuts?	
Setup will create the program's shortcuts in the following Start Menu folder.	
To continue, click Next. If you would like to select a different folder, click Browse.	
AXIS Browse	
< <u>B</u> ack <u>N</u> ext > C	ancel

Enter the "Start" bar folder name, which will be included in the program launch icon. Click "Next".

🚏 Setup - AXIS Reader	_ 🗆 🗙
Ready to Install Setup is now ready to begin installing AXIS Reader on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
User information: Test Axis	*
Destination location: C:\Program Files\AXIS\AXIS Reader	
Start Menu folder: AXIS	
x	▼ ▶
< <u>B</u> ack Install	Cancel

Shows all previously entered software installation settings. Click "Install". Wait until the program is installs.

🚏 Setup - AXIS Reader	_ 🗆 🗙
Installing Please wait while Setup installs AXIS Reader on your computer.	
Extracting files C:\Program Files\AXIS\AXIS Reader\AXIS Reader description RU.pdf	
	Cancel



Click "Finish". Program installation is complete.

# Manufacturer



AB "AXIS INDUSTRIES" Kulautuvos g. 45a LT-47190, Kaunas Tel. (+370 37) 36 02 34 Fax. (+370 37) 36 03 58 Email: <u>info@axis.lt</u> Web: <u>www.axis.lt</u>