

StatLink

Users manual

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Introduction in English

About Husdata

Husdata is developing solutions for heating system owners looking for advanced functionality in data collection, presentation and monitoring. This makes it possible to connect your heating system to PC and further on to the Internet. The solutions from Husdata demands more from the the users but in return it will give advanced possibilities for individual customisation.

If you do not need the PC connection and instead are looking for a simple alarm and remote control solution with guaranteed uptime then we recommend that you contact your reseller and aquire the heating system manufacturer's online-system instead.

About the software StatLink

The main functions of StatLink are...

- that with different interfaces and protocols communicate with heating systems.
- that with powerful functionality satisfy advanced users who will make their own homepages, reports, realtime views or external programs to work with the collected information.
- that with integrated monitoring views give the user better understanding of how their heating system and their control logic works.
- to link between your heating system and the Husdata-portal. This makes it very easy to bring your heating system online on the Internet or mobile phone.

Today StatLink has support for the IVT Greenline, Carrier and Autotherm controller of type Rego6xx and Thermia heatpumps with controller of type 501, but other brands and models will be supported in the future. StatLink is a Windows software written to use consume very little system resources. It works with the operating systems Windows 98 and later. Computers should have a Pentium 133 processor or better.

About the Husdata Online portal

The Husdata portal gives you the possibility to reach the collected data from the Internet. You can view the status of the current situation, view historical reports in charts and tables. You can choose to make your information private or share it with other users. Pleas visit the portal www.husdata.se to find out more about the service.

Introduktion på Svenska

Om Husdata

Husdata tar fram lösningar för värmesystemsinnnehavare med avancerade krav på informationsinsamling, presentation, uppföljning och kontroll. Husdata med dess mjukvaror och interface möjliggör anslutning av värmesystemet till PC och sedan vidare till Internet. Lösningarna kräver lite mer av användarna men gengäld medges avancerade möjligheter för individuell behovsanpassning med stor flexibilitet.

Om du inte har något behov av PC anslutning utan istället är ute efter en enkel lösning med garanterad funktion för larm och fjärrstyrning av värmeinställning rekommenderar vi att du kontaktar din återförsäljare för att ansluta dig till tillverkarens eget online-system.

Om programmet StatLink

StatLinks huvuduppgifter är...

- Att via olika interface och protokoll kommunicera med värmesystem
- Att med kraftfulla funktioner tillmötesgå avancerade användare som vill göra egna hemsidor, rapporter, realtidsvyer eller tilläggsprogram för att behandla insamlad information.
- Att med specialfunktioner för individuella värmesystem presentera vyer som på ett översiktligt sätt visar hur reglertekniken arbetar och fungerar.
- Att agera länken mellan ditt värmesystem och Husdata-portalen för att på ett mycket enkelt sätt göra ditt värmesystem online på Internet eller i mobilen.

StatLink har idag stöd för inkoppling mot IVT Greenline, Carrier och Autotherms reglerdator av typ Rego6xx samt Thermias värmepumpar med reglerdator 501 men utveckling pågår för att längre fram stödja andra fabrikat och modeller. StatLink är ett Windows program som är skrivet för att ha låga krav på systemresurser och fungerar med operativsystem Windows 98 och senare. Pentium 133 och senare är ok.

Om Husdata online tjänst

Husdata tjänsten medger loggning av visning av data insamlat av programmet StatLink. Tjänsten gör att du när som helst, via webben kan kontrollera status på värmesystem din elförbrukning, mm. Du kan välja att behålla informationen för dig själv eller dela med den till andra användare. Idag finns funktioner för loggning av data med visning i olika former av rapporter och diagram.

Var vänlig och besök portalen www.husdata.se för detaljerad information

Installation

StatLink software

Login to Husdata.se with your account and download the latest StatLink setup file.

Run the Setup file on your computer.

The standard installation directory is C:\StatLink but you can choose another if you want.

If you have an older operating system such as Windows 98 or ME and it may be necessary to install the Microsoft XML parser. This can also be found in Husdata downloads.

H10 interface for the IVT Rego 6xx controller

You have to connect the supplied interface between the heat pump and your PC to enable the software to communicate with the Rego controller. The interface has an Optical coupler to cater for galvanic isolation between the heat pump and the PC. This is protecting your equipment from transients caused by thunderstorms or any fault in the electrical network.

Interface installation

1. Turn off your heatpump.
2. Open the front of your heat pump.
3. Locate a small green circuit board with a 9-pin connector with the label "Service"
4. Connect the interface to this connector (the circuit board side).
5. Connect the other side to the computers serial port and USB port.
6. Start up your heat pump again.

Note!

When communicating with a Rego controller it is best to position the display in the Main menu position (the date and time shows). If you leave the display in the "Info" menu position the Rego is constantly updating the display and this will slow down the link to the PC.

H14 interface for Thermia heat pumps using the 501 controller

You have to connect the supplied interface between the heat pump and your PC to enable the software to communicate with the controller. The interface has an Optical coupler to cater for galvanic isolation between the heat pump and the PC. This is protecting your equipment from transients caused by thunderstorms or any fault in the electrical network.

Interface installation

1. Turn off your heatpump.
2. Open the front of your heat pump.
3. Locate the 901 501 controller.
4. Connect the interface to a connector labelled "ext".
5. Connect the other side to the computers serial port and USB port.
6. Start up your heat pump again.

Connect an Electrical meter with S0-pulse interface

Warning! Husdata is not guaranteeing the functionality for your type of meter.

Also pay attention that the line between the PC and electrical meter is not isolated.

Husdata will not take any responsibility of any damage or problems caused by this type of connections. All connections to the S0 port is done at your own risk.

If you have an Electrical meter with a S0 connector you have the possibility to connect it to your PC and enable StatLink to show and store information about the electrical consumption.

You will not need any interface. The cables are connected directly to the pins of the serial port. Up to two electrical meters can be connected simultaneously.

To be able to connect the meters you must have the skills to handle a solder iron.

Otherwise contact Husdata for assistance of making a special cable for you.

Description of how to connect to the 9-pole D-sub connector.

Pin	Meter
8	S0 – Meter for Heatpump
4	S0 + Meter for Heatpump
4	S0 + Meter for total house measurement
6	S0 – Meter for total house measurement

Settings that needs to be performed to enable the meter.

1. Enable the S0 interface by enter the Setup and choose Interfaces.
Select the interface type S0. You can connect the S0 meter to the same comport as the Rego interface.
2. Enable the meters in the Sys_ID table. (Se Appendix A)
You must also select the correct number of pulses per kWh. This information is usually found on the label on your electrical meter.

With the S0-meter connected you will be able to extract the following information.

- Realtime display showed in the EL-Meter and Sensor table views.
(The intraday kWh and momentarily Power load in Watt)
- Logging to file in selectable intervals. (See Actions and Rapporttemplate chapters)
- Logging to Flatfile DB format for graphical presentation.
- Logging to the husdata portal is not supported in this version of Statlink.

Extending the cable

Probably you will need to extend the cable length. Extensions up to 30-40 meters are normally not causing any problems. The easiest way to do this is to cut the cable in the middle and reconnect the wires with the extended cable with some kind of simple connector.

Use a standard 2-pair telephone wire to extend the cable.

Please do not mix up the colours of the wires because it could destroy the interface or serial port.

Users manual

General about settings in StatLink

General setup

All general settings is made trough the settings dialogue found under the menu File.

All general settings are stored in the Settings.xml file residing in the StatLink program directory. Please make backup of this file if you are uppgrading or re-installing the software. Please see the File menu chapter for more information.

Advanced Setup

Advanced settings such as modifying Sys_ID's and configuring automated Actions is found in the StatLink.ini file. The editor for this file can be reached from the General setup menu.

Storing historical data

There are numerous ways to store information about how your heating system is performing. This chapter is describing how this can be achived in different ways.

Flat file DB, Store detail data to local disc

The logging format called Flatfile DB is a simple file based database that is used by StatLink to present its line chart diagrams.

The Flatfile DB is enabled by default when Statlink is installed. Here are some options described.

Modify DB settings

Enter the setup menu and select the "DB / Logging" section.

Here you can change how often you want to write data. Default is every 2 minutes.

Notice that a higher resolution will take more disk space.

If you logg all temperatures every 2 minutes the DB size will increase aprox. 100kB per day or 36Mb per year

Enable / Disable sensors and objects

You can choose witch object's information to store in this log.

For that you will have to open and modify the statlink.ini file.

Select witch sensors you want to log under the section [Sensors].

This is also where you can change the names of the objects if you want.

Pleas see Appendix A for more information.

Storing daily summary to local disc

In different views of StatLink you can view information collected since midnight.

(See the "sensor table" chapter)

StatLink has a flexible way to log this information and both the intervals, contents and formats are customisable using the Actions and Templates features.

StatLink is preconfigured with an "Action" that is storing Intraday information at 00:00 every night for longterm reporting/calculation of historical informatino. A new row of data is added in the tab-separated file "DayRpt.csv" witch can be opened and worked with in MS Excel.

In the StatLink directory there is a template file called "tDayRpt.txt". The output file is generated from this template. Edit this file to change the contents and layout of the report.

Please note that all stored information is in Integers and has to be devided by ten to get the correct information. For eample, the temperature 22.7 degrees is stored as the number 227.

Runtime is stored in seconds and electrical consumption i watt hours.

Connetion to the Husdata online portal

An easy way to get your information available from the internet is to use the Husdata-online service. This also makes it possible to compare your information with other users.

You will get your "own" info-page witch easily can be linked to from a mail foot or your own homepage. Överföringen av informationen från StatLink till Husdata portalen sker med FTP.

To get your information in the Husdata-online pages do the following...

1. See to that you have a valid online account at Husdata.se.
2. You must also have a fixed connection to the Internet. (broadband)
3. Enter the setup, section Husdata-Online and type in your provided Username and Password
4. Log in to Husdata.se and select to show your info in public (if you want)
5. Now data should start to show in about ten minutes.

The portal service is constantly under construction and functionality will change in the future.

Reporting

Mail reports

StatLink has the possibility to schedule sending of emails containing reports.

With use of a template-file you configure the layout and contents of the report.

To make this work you must configure your email account settings in StatLink and also configure "Actions" for an email sending event

Report templates

To setup the layout and contents of the reports you have to configure report templates.

The way this is working is that you enter "Tags" in the report template in positions where you want to present the information. When the template is processed by StatLink the tag is replaced by the actual data for output in the report.

Reports are generated when StatLink is running an "Action" of type "Make Report".

Please see the chapter about *Actions* for more information.

In the StatLink program directory there are some examples of report templates that you can view and customize for your own needs.

tWebRpt.html	An HTML template suitable to use for email reports or presentation on your homepage.
tCSV.txt	An TAB separated template suitable to store data that is importable into MS Excel.

This is a list of available Tags to use in the report templates.

%Time%	Time now (eg. 10:35:55)
%Date%	Date now (eg. 2005-01-01)
%YesterDate%	Yesterdays date (2005-05-04)
%TotalkWh%	Summary of the intraday electrical consumption.
%NewRow%	Inserts LF and CR to generate row change.
%SysID_X _Name%	Shows the name of an Monitored Object X=SysID. The table of all SysID's is found in appendix B.
%SysID_X _Value%	Current value in text. (eg. 10.2c, On/Off)
%SysID_X _Stat1%	Intraday statistics, see chapter about the Objects table.
%SysID_X _Stat2%	Intraday statistics, see chapter about the Objects table.
%SysID_X _Stat3%	Intraday statistics, see chapter about the Objects table.
%SysID_X _tValue%	Same as above but is presenting numeric values. (102, 1/0)
%SysID_X _tStat1%	
%SysID_X _tStat2%	
%SysID_X _tStat3%	

Example of how you can build an template...

Report generated %Date% %Time%

The Radiator temperature is: %SysID_1 _Value%.

The outdoor temperature is: %SysID_2_Value% and the Max temp today are: %SysID_2_Stat3%.

The generated report will then look like this...

Report generated 2005-12-20 13:55

The Radiator temperature is: 33.4c.

The outdoor temperature is: -2.3c and the Max temp today are: 1.2c.

Automated Actions

There is a functionality in StatLink to schedule events called Actions.

Things that can be automated is Sending emails, Take pictures and producing reports.

You set up the Actions under the section [Actions] in the statlink.ini file.

Up to 9 Actions can be configured (1-9).

Example of how to use Actions (See Appendix A for more information)

Action to send an email containing an report of the yesterday data.

This event will generate a report based on the template "tWebRpt .html" and send it by email at the time 00:00 every day.

```
Act1-Name=Send Email report every day
Act1-Type=MakeReport
Act1-Input=C:\StatLink\tWebRpt.html
Act1-Interval=00:00
Act1-SendEmail=True
```

If you have a Web server and want to publish a page with info.

This event will generate a report based on the template "tWebRpt.html" and write the result in the file "WebInfo.html" every minute.

"Mode=Replace" means that the result file is overwritten every time.

```
Act2-Name=Generate a web-page every minute
Act2-Type=MakeReport
Act2-Input=C:\StatLink\tWebRpt.html
Act2-Output=C:\StatLink\WebInfo.html
Act2-Mode=Replace
Act2-Interval=1
Act2-SendEmail=False
```

If you have a Web server and want to publish a picture of StatLink.

This event will generate a screenshot of StatLink and write it into the file ScreenShot.jpg every minute. Note that the screen shot function has some limitations. For the screen shot to work, the StatLink software cannot be minimized and no other windows should block the StatLink windows

```
Act3-Name=Make screenshot every minute
Act3-Type=MakePicture
Act3-Output=C:\StatLink\ScreenShot.jpg
Act3-Mode=Screenshot
Act3-Interval=1
Act3-JpgQuality=90
```

Action to log historical data in Excel importable format.

This event will generate a report based on the file "tCsv.txt" and write the result into the file "Minutelogg.csv" every minute.

"Mode=Append" means that the result file will not be overwritten. Instead it will be appended with new data.

```
Act4-Type=MakeReport
Act4-Name=Save data to CSV file every minute
Act4-Input=C:\StatLink\tCsv.txt
Act4-Output=C:\StatLink\Minutelogg.csv
Act4-Mode=Append
Act4-Interval=1
```

Menues

Menu File

Settings

This selection will launch the setup dialogue.

Select setup-section by clicking an entry into the list at the right.

If you place the mouse pointer over an option text you get additional information of how to use the option.

Here is an overview of available setup options.

- **General**
 - o Common
Select the Volt and Fuse to get correct calculation och power consumption.
 - o Email
Select options for outgoing email used in actions for report sendings.
Normally you don't have to fill in the username and password
- **Interfaces**
 - o Interface 1
Select the type of interface and assign it to a Com-port.
H10 Rego6xx, H14 Thermia.
 - o Interface 2
Select the type of interface and assign it to a Com-port.
S0 can be assigned to the same Com-port as H10 or H14 interfaces.
- **Log / DB**
 - o Flat file DB
See Flat file DB chapter. DB Used for line diagrams.
- **Husdata Online**
 - o If you have an active account on the Husdata Online system you can enable it here.
Enter the username and password you got from Husdata.
- **Automated Actions**
 - o See chapter "Automated Actions" for more info
- **Sensor Settings**
 - o See chapter "Automated Actions" for more info
- **Pulse Views**
 - o Pulse view 1
A Pulse view is a realtime view of your heating system or other environment.
You can design your own Pulse view or modify the current.
See the the "Pulse view designer" chapter for more info
 - o Pulse view 2
Up to two views can be configured

Reset stat

Every midnight the Intraday statistics is automatically reset.

Here you can manually reset the statistics for the day.

Exit

Exit from StatLink

Menu Actions

In this menu you can manually run your configured actions.
This is useful to verify that your emails are sent or reports are generated as expected.

Menu Show

Rego Dashboard

The Rego Dashboard is only available when a Rego6xx interface is enabled. This view is presenting specific information and functions of this controller.
The view has 2 tabs.

- The tab “Control Curve”

This is a graphical presentation of how the controlcurve is set up in your Rego.
Together with historical logging and line diagrams you are equipped with a powerful tool to optimise your heat pump.

Depending on if you have a Room sensor or not you must enable or disable it to get the correct presentation of the curve. Please see the Appendix C of how to do this.

“Read REGO settings” button

If you have make changes in the Rego settings when StatLink is running you should press this button to re-read the settings from the controller for correct presentation of the curve.

“Refresh view” button

This is redrawing the graph. This is also performed automatically every 30 sec.

”Track movement” checkbox

If you want to track how the control point and curve are moving during time, select this box.

”Show with Room sensor influence” checkbox

If this is selected, the curve position will be influenced by the room temp, as it is actually done in the controller.

- The tab Remote display

In this tab you can perform remote control of the Rego-display from StatLink and also get an overview of the indicator lamps. The remote control can sometimes feel slow. This is a normal condition and caused by limitations in the Rego controller.

You navigate in the menus by clicking on the three buttons below the display.

Use the two arrowed buttons to "turn" the knob.

The button "Refresh" has to be used in some situations. The display is automatically refreshed every time you push any of the buttons. If you save a setting the text "Saving.." is displayed and then you have to click on the "Refresh" button to be able to see the text that is coming up afterwards.

An alternative to click on the buttons to navigate is to use your numeric key pad instead.

Below is a list of the keys to use.

4 = Menu button left

5 = Menu button center

6 = Menu button right

1 = Turn the knob left

2 = Refresh

3 = Turn the knob right

Notice!

When you enter the remote display tab, all other readings from the Rego is halted. As long as you are working in this tab no logging will be done. To avoid the scenario where you forget the tab in that position, the Rego Dashboard view will return to the Control curve tab after 2 minutes of inactivity.

On the Rego control-panel at your heatpump you can hold down the left button for some seconds to enter the Service menus. This is not possible to do from the remote display. You must enter these menus by pressing the button at your physical heatpump.

Monitored Objects Table

This is a view showing all the enabled objects. The view is showing both current status and accumulated intraday information.

Description of the columns.

ID	The SysID of the sensor or object.
Source	The source of the data
Name	The name of the object (Changeable under the [Sensors] section of statlink.ini)
Type	Type of object / data
Value	Current value / status of the object
Changed	The time the object has changed value or state
Stat1-3	Accumulated intraday statistics. See table below

Type of object	Stat1	Stat2	Stat3
Temp	Average temp	Max temp	Min temp
Status	El consumpt. in kWh	Run time	Status changes
EL-Meter	Acc. kWh	-	-

Electrical Meter

This view is only visible and usable if you have electrical meters connected via the S0 pulse interface and the interface enabled. The view will show intraday electrical consumption in kWh and current power outage i Watt. Up to 2 meters can be used at the same time.

Events

This view is showing the time and info of the last 30 status changes of all objects.

Reports*Line diagram*

To view the stored data in line charts select the menu Reports and option Line diagram. Now a selector dialog is shown. Please select all objects to include and the period of time.

Click on "Generate" and then chart will be displayed.

For zoom, hold the Right mouse button while moving the mouse right or left.

For move in time, hold the Left mouse button while moving the mouse right or left.

Pulse views

The Pulse view gives you a realtime picture with information from different objects.

It is fully editable with the possibility to Add, Remove, Rename and change properties of all the displayed objects. You can even replace the background picture and create your complete personalized view from scratch.

-Viewer

If you put the mouse pointer over an object it will show additional information with intraday statistics.

To show a line diagram with the last 24 hours of historical data, click on an object.

If nothing happens while clicking an object it is because the object is not enabled for logging to the Flat file DB. See the Appendix A for more information.

-Editor

To enter the editor you just double click anywhere on the Pulse picture.

Now a blow dot is shown at every editable object.

To change properties of an object, click on the blue dot.

To add a new object you right-click anywhere in the picture.

Properties box

Button – Move Click on this and place the object with the left mouse-button.
When you are done you exit the move mode with the right mouse button

Button - Delete this Will delete the selected object

Button - Delete all Will delete all objects from the view

Button - Ok Confirm changes

Button - Cancel Cancel changes

Field 1 Enter the name / display text for the object

Field 2 Select type of object (see table below)

Field 3 Option 1 for the object (see table below)

Field 4 Option 2 for the object (see table below)

Field 5 Option 3 for the object (see table below)

Bind to SysID Enter SysID number to bind this object to (see Monitored Objects table view)

Table of object types and properties

Name	Description	Option1	Option2	Option3
Temperature	Small box showing temp.	Show text	Trend arrow	
Pump	Animated pump symbol	Show text	Flow dir.	
Compressor	Animated compressor symbol	Show text		
Heater	Animated additional heater symbol	Show text	Step 1, 2	
Switch valve	Animated switch valve symbol	Show text		
Label	Text label	Font size	Style	Text colour
Info display	Special inform display for Rego			
Power display	Intraday kWh, Watt and Amp disp			
Led LED	Status indicator	Text colour		

To exit the Edit mode, just double click on the picture again.

Notice

Remember to enable the Object you want to show in the Pulse view in the statlink.ini.

The Power display is showing the intraday accumulated electrical consumption and also the power (watt) and load (amp). These values are based on how much power each object consumes. To give the correct information, this must be altered to suite your heat pump model in the [Sensors] section of statlink.ini. See appendix A.

Trouble shooting

Tracelogs

In your StatLink software directory it resides a directory called *TraceLogs*.

In case of some error, StatLink stores information in trace filer.

If you encounter problems with your StatLink softare, pleas check the trace files for any explanation of the reason to the problem.

If you want to change the trace log level, please see Appendix A.

Support

If you need any help, please send a mail to info@husdata.se or enter the www.husdata.se portal and leave a message via the contact form. We will do our best to help you get started.

You can also try getting help from other Husdata users trough the support forum found at www.husdata.se/forum.asp

Appendix A – Options for the Statlink.ini file

[Tracing]

TraceLogLevel=Error

Description: When set it stores trace information for troubleshooting in <progdire>\Tracelogs\ directory. Review the log files for errors whenever you experience any problem.

Valid settings: Error, <nothing>

[Actions]

Replace X with the number of your configured Action (1-9)

ActX-Name=

Description: Your description of this action. This text will show up in the "actions" menu in the application and also in trace-logs.

Valid settings: <Any text>

ActX-Type=

Description: The type of action. Select if you want to generate a report file based on a template or if you want to generate a picture.

Valid settings: MakeReport and MakePicture

ActX-Input=

Description: Here you enter the full path and filename to the template file used in MakeReport Type. This is not used in MakePicture Type.

Valid settings: <Path\File>, Ex. C:\StatLink\Template.txt

ActX-Output=

Description: Here you enter the full path and filename to the generated report or picture file. This is used in both MakePicture and MakeReport Type.

Valid settings: <Path\File>, Ex. C:\StatLink\Report.html

ActX-Mode=

Description: This is the mode selection for the selected Type.

Valid settings:

If MakeReport Type...

Replace (Will replace the current rpt file)

Append (Will append data to the current rpt file)

New (Will create a new file name every time)

If MakePicture Type...

Screenshot (Will take picture of StatLink main window)

ActX-Interval=

Description: This is the run interval for the action.

Valid settings:

<num> in Minutes. Ex. 5= Will run action every 5 minutes.

<time> in HH:MM. ex. 09:55=Will run action at 09:55 every day.

ActX-JpgQuality=

This setting is valid if using the MakePicture Type.

Select file size and quality of the saved Picture, Jpg file.

Valid settings: 1 - 100. (100 produce the best quality)

ActX-SendEmail=

This setting is valid if using the MakeReport Type. If set to True, it will send the generated report as an email.

Valid settings: True or False

[Sensors]

TEMPERATURES-----

SysID_1=Radiator Retur GT1,True,True,0
 SysID_2=Ute GT2,True,True,0
 SysID_3=Varmvatten GT3,True,True,0
 SysID_4=Framledning Rad GT4,False,False,0
 SysID_5=Rum GT5,True,True,0
 SysID_6=Hetgas GT6,True,True,0
 SysID_7=Värmebärare Ut GT8,True,True,0
 SysID_8=Värmebärare In GT9,True,True,0
 SysID_9=Köldbärare In GT10,True,True,0
 SysID_10=Köldbärare Ut GT11,True,True,0
 SysID_11=Varmvatten GT3x,False,False,0

Description: Here you setup the temperature sensors.

Pos1: The name witch can be changed.

Pos2: Select if the sensor is Enabled (visible)

Pos3: Select of you want to log this sensor to "LocalLog"

Pos4: Integer number to calibrate temperature input.

Ex. 0=No adjustment, 55=Add 5.5 degrees,
-102=subtract 10.2 degrees.

STATUS-----

SysID_12=Köldbärarpump P3,True,False,106
 SysID_13=Kompressor,True,False,2200
 SysID_14=Tillskott steg 1,True,False,3000
 SysID_15=Tillskott steg 2,True,False,6000
 SysID_16=Radiatorpump P1,True,False,55
 SysID_17=Värmebärarpump P2,True,False,46
 SysID_18=Växelventil VXV1,True,False,0
 SysID_19=Summa larm,True,False,0

Description: Here you setup the status sensors.

Pos1: The name witch can be changed.

Pos2: Select if the object is Enabled (visible)

Pos3: Select of you want to log this sensor to "LocalLog"

Pos4: The power effect in watt for the object

EL-METERS-----

SysID_510=EL-Värmepump,True,True,16,1000
 SysID_520=EL-Total,True,True,16,1000

Description: Here you setup the electrical meters (S0 interface)

Pos1: The name of the meter.

Pos2: Select if the meter is Enabled

Pos3: Select of you want to log this meter to "LocalLog"

Pos4: Ampere of your fuses in series with the Meter

Pos5: Number of pulses per kWh on the meter

Appendix B – Table of Monitored Objects and their SysID's

SysID	Source	Type	Name English	Name Swedish
1	Rego6xx	Temp	Radiator Return GT1	Radiator Retur GT1
2	Rego6xx	Temp	Outdoor GT2	Ute GT2
3	Rego6xx	Temp	Hot water GT3	Varmvatten GT3
4	Rego6xx	Temp	Shunt, flow GT4	Framledning Gt4
5	Rego6xx	Temp	Room GT5	Rum GT5
6	Rego6xx	Temp	Compressor GT6	Hetgas GT6
7	Rego6xx	Temp	Heat fluid Out GT8	Värmebärare Ut GT8
8	Rego6xx	Temp	Heat fluid In GT9	Värmebärare In GT9
9	Rego6xx	Temp	Cold fluid In GT10	Köldbärare In GT10
10	Rego6xx	Temp	Cold fluid Out GT11	Köldbärare Ut GT11
11	Rego6xx	Temp	Hot water (ext. tank) GT3x	Varmvatten (ext. tank) GT3x
12	Rego6xx	Status	Ground loop pump P3	Köldbärarpump
13	Rego6xx	Status	Compressor	Kompressor
14	Rego6xx	Status	Additional heat step 1	Tillskott steg 1 (3kW)
15	Rego6xx	Status	Additional heat step 2	Tillskott steg 2 (6kW)
16	Rego6xx	Status	Radiator pump P1	Radiatorpump P1
17	Rego6xx	Status	Heat carrier pump P2	Värmebärarpump P2
18	Rego6xx	Status	Three-way valve VV1	Växventil VV1
19	Rego6xx	Status	Alarm	Summalarm
50	Rego6xx	Control	GT1 On Value	GT1 tillslagstemp
52	Rego6xx	Control	GT1 Target value	GT1 börvärde
54	Rego6xx	Control	GT1 Off value	GT1 frånslagstemp
55	Rego6xx	Control	GT3 On value	GT3 tillslagstemp
56	Rego6xx	Control	GT3 Target value	GT3 börvärde
57	Rego6xx	Control	GT3 Off value	GT3 frånslagstemp
58	Rego6xx	Control	GT4 Target value	GT4 börvärde
65	Rego6xx	Control	Add. heat power in %	Tillskott i procent
80	Rego6xx	Control	Add. Heat timer in sec	Tillskottstimer
30	Rego6xx	Settings	Heat curve	Värmekurva
31	Rego6xx	Settings	Heat curve fine adj.	Värmekurva finjustering
32	Rego6xx	Settings	Indoor temp setting	Innetemp
33	Rego6xx	Settings	Curve infl. by in-temp	Rumsgivarpåverkan
34	Rego6xx	Settings	Adj curve at 20° out	Knäcka vid 20° out
35	Rego6xx	Settings	Adj curve at 15° out	Knäcka vid 15° out
36	Rego6xx	Settings	Adj curve at 10° out	Knäcka vid 10° out
37	Rego6xx	Settings	Adj curve at 5° out	Knäcka vid 5° out
38	Rego6xx	Settings	Adj curve at 0° out	Knäcka vid 0° out
39	Rego6xx	Settings	Adj curve at -5° out	Knäcka vid -5° out
40	Rego6xx	Settings	Adj curve at -10° out	Knäcka vid -10° out
41	Rego6xx	Settings	Adj curve at -15° out	Knäcka vid -15° out
42	Rego6xx	Settings	Adj curve at -20° out	Knäcka vid -20° out
43	Rego6xx	Settings	Adj curve at -25° out	Knäcka vid -25° out
44	Rego6xx	Settings	Adj curve at -30° out	Knäcka vid -30° out
45	Rego6xx	Settings	Adj curve at -35° out	Knäcka vid -35° out
510	S0	El-Meter	Heatpump meter	Elmätare värmepump
520	S0	El-Meter	Total meter	Elmätare totalt

Appendix C – Special considerations for different models of heatpumps.

IVT Greenline C- Series versus E- series

The C-Series has an internal warm water tank and the E-Series has an external. Therefore the sensors have to be configured correct for the software to work properly.

Also to show correct info in the Pulse view you must change the SysID for the Hot water temp display. Please see then Pulse view chapter how to edit the view.

C-Series	E-Series
SysID_3=Hot water GT3, True ,True,0	SysID_3=Hot water GT3, False ,False,0
SysID_11=Hot water GT3x, False ,False,0	SysID_11=Hot water GT3x, True ,True,0
Pulse view editor: Bind to SysID = 3	Pulse view editor: Bind to SysID = 11

Room sensor

If you have a roomsensor installed you should enable it in StatLink.

SysID_5=Room GT5,**True**,True,0

If you **don't** have a room sensor it should be disabled.

SysID_5=Room GT5,**False**,False,0

Also remember to add or remove then temperature object in your Pulse view.

Appendix D – Software version history

1.1.6 2006-01-29

- AutoStart option i statlink.ini tillagt
- Möjlighet att kalibrerera temp sensor output i statlink.ini tillagd
- Lagt till tag "%TotalkWh%" för rapportmall, för att kunna rapportera dagens totala elförbrukning.
- Elmätare visar nu även Ampere
- Temp displayer i Rego Dashboard visar nu trend med pilar.
- Data som sänds till Husdata portalen innehåller nu även driftstider och StatLink versionsnummer.

1.1.7 2006-03-02

- Ny Elpatrondisplay (som nu fungerar)
- Utökat info i vyn för reglerkurva samt fixat en felaktig kurvposition vid rumsgivarpåverkan.
- Möjlighet att Dashboard visas automatiskt vid prg start. Se appndx A
- StatLink kan nu automatiskt synka Din dators klocka med Husdata systemet för korrekt timing i loggarna. Se "HusData-ClockSyncGMT" inställningen.
- Direktlogin i portalen från "show" menyn, med flera länkar.
- Ändrat amperemätaren till att visa en fas istället för alla 3 summerat
- Fixat så StatLink hanterar utländska datumformat korrekt.
- Fixat så att om en status "sensor" loggas till Lämpömittari format så loggas det inte som 0 eller 10 längre utan som 0 eller samma värde som objektets SysID. Detta för tydligare avläsning i linjediagrammen.
- Ett antal mindre buggar fixade

1.2.0 2006-04-10

- Felvisning i display när tillskott 1 och 2 är aktivt fixat.
- Fixat så att rapportfiler kan sparas med olika namn varje dag (Mode=New).
- Fixat så att backup tas på Intraday var 5:e minut samt att gårdagens data inte kan läsas in.
- Ny option i "Control curve" där du kan välja om kurvan ska visa med eller utan påverkan av rumsgivare.
- Byggt ut Remote Display med "Lysdioder" samt knappar för Servicemenyn och K2. OBS. De sistnämnda är mer på test. Funkar INTE på ver 2.26 men misstänker att man fixat den buggen på senare Rego. Kom med feedback.
- Man kan nu ange säkringsstorleken för sin värmepump statlink.ini. Utökat Elmätaren med en grafisk mätare som visar hur nära man ligger att säkringen smäller...
- Implementerat stöd för att läsa av elmätare med S0 utgång.

1.2.1 2006-09-27

- The Bug causing the software not starting properly when an unexpected shutdown has occurred has been fixed.
- Splash box removed as it has caused start up problem.
- Implemented step one in a new, safer, less bandwidth demanding way of transferring stat-data to the portal. This is done to enable mobilephone / modem use.
- Changed the Remote Display and removed buttons who didn't work.
- Average temp calculation is enhanced and now corrected.
- New Option in Statlink.ini English=True changing the language to english, False = Swedish.
- New "Tag" for Report templates "NewRow"

1.2.2 2006-09-27

- The Bug causing the software not starting properly when an unexpected shutdown has occurred has been fixed.

2.0.0 2006-12-22

- Added option Email:SMTP_Port
- Automatic version check and info when starting Statlink if Husdata online is enabled.
- Corrected Ampere meter for Norwegian electrical system (See NetVolt setting)
- If you set an object in statlink.ini to false it will now be disabled complete instead of just hidden as it was previous.
- Moved most of the settings from Statlink.ini to an internal settings dialogue.
- Removed Process view from Rego Dashboard
- Added a separate Pulse view function with built in editor.
- Added built in Line chart functionality.

2.0.2 2006-12-30

- Fixed problem with path to Pulse view pictures
- removed Disable option from interface setup
- Enhanced text positioning in Pulse views
- Fixed overflow problem showing line diagrams with much data.
- Remake of legend view in Line diagram.
- Automatic selection of Decimal or Puncture as decimal separator for Linegraph.
- Show Warning of no data in Linegraph
- Object in Pulse view clickable, Linegraph will show.
- New Pulse view object, Status LED and new Room picture.
- Installation package does not hav any Setyp.xml file included. Defaults is used.

2.1.0

- Added support for Thermia interface
- Corrected text colour error in pulse view
- Corrected problem with min/max values if object don't change for the whole day.