

# FLEXIT CS1000

## **E** Installation instructions and user guide Web operation





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# 1 Introduction

## 1.1 About this document

This document contains information on how to install and configure the Saphir controller (ACX32) with the communication unit/ RCC card ACX52.22 (VVS12SPI) for web **mad** by ASP.

## 1.2 Requested applications and material

The following applications and material are needed to configure and use Saphir Web:

- Internet Explorer
- Web pages for the actual application
- Compact Flash memory card to store web pages.

## 1.3 About the RCC card

RCC is a communication card that can be used in conjunction with the SAPHIR primary controller ACX32. It contains among other things:

- Web server and FTP server.
- TCP/IP connection
- Windows CE

IP address assignment is either dynamic via a DHCP server, or it can be manually preselected via HMI.

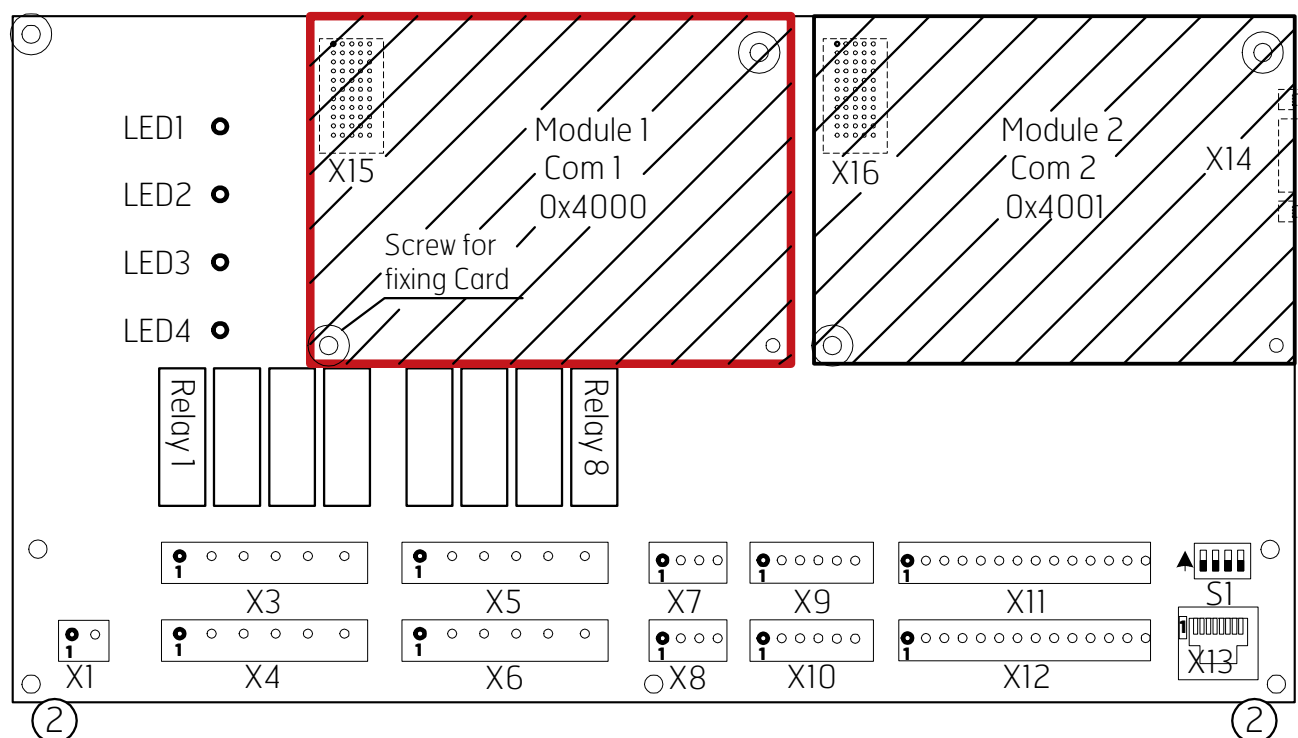
RCC can also log on to a WINS server if there is one present on the network.

**For file transfers and setup of the RCC card, connect to the FTP server**

**To access the main user interface (which includes monitoring functions etc), connect to the web server.**

The RCC card (Windows CE image) can be updated by using a special application/tool. Files may also be updated via the FTP server.

Fig. 1: ACX32



## 2 Installation

### 2.1 Installing the RCC card

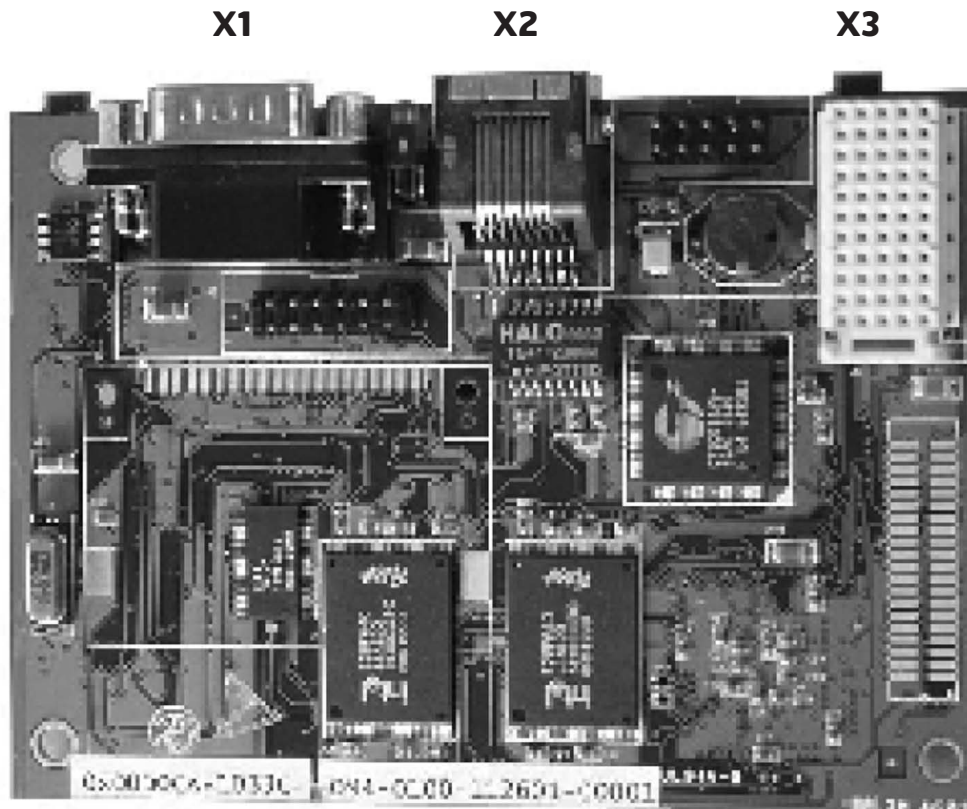
Follow the instructions below to install the RCC card on the Saphir controller.



**IMPORTANT!** Connect yourself to ground to avoid static electricity that could seriously damage the circuits.

1. Power off.
2. Dismount the two forward outside screws on the cover with a type Torx 10 screwdriver or a flat chisel.
3. Mount metal fixing supports.
4. Place the card with belonging cover plate in the "Com 1" slot.
5. Check that the card is connected correctly.
6. Fix card with the screws that are in the kit.
7. Remount the cover of the controller.
8. Turn the power on.

Fig. 2



## 2.2 TCP/IP connection

Follow the instructions below to set up the TCP/IP connection.

1. Prepare the unit with all settings before commencing the TCP/IP install.
2. Attach the network cable to connector X2.
3. Restart by switching the power off and then on again.
4. Log in with password (1000 or 2000). Navigate to the following menu:

**System parameter**

**Communication**

**RCC configuration**

5. Here, the IP-address can be monitored or changed.
6. If a DHCP server exists, the given IP address can be monitored.
7. A specific IP-address can be entered, completing the following sequence:
  - enter the menu Change IP.
  - Change DHCP to Fixed.
  - Enter the new address.
  - To confirm the new address replace **Apply** with **Yes**.
8. Restart by switching the power off and then on again.

## 2.3 Inserting the memory card



**IMPORTANT!** Turn the power off before inserting the memory card.

Insert a Compact Flash (CF) memory card in the memory slot on the RCC unit. This memory card will contain all web pages that will be used.

A capacity of at least 256MB is required, as the history/trend function requires a lot of space.

## 3 Configuration

### 3.1 General

The Compact Flash memory card must be loaded with web pages for the actual application. You can either use the FTP server or an external memory card reader to load web pages.

To connect to the FTP server, Internet Explorer must be configured.

### 3.2 Internet Explorer settings

Settings in Internet Explorer for the FTP server (Fig. 3).

Open Internet Explorer settings:

**Tools - Internet settings - Advanced.**

Check the box for **Activate view for FTP-sites.**

**Use passive FTP** - depending on network architecture this option must be checked or unchecked.

Press, **OK** if changes have been made.

### 3.3 Communication test

#### 3.3.1

Ping the RCC card with the WINS or the IP address to test the communication (Fig. 3).

(WinStart->Run->Open "CMD")

C:\>ping sbt\_rcc\_v2\_OAC1

If the ping test fails, something could be wrong in the network, or the TCP/IP settings are wrong.

Make sure that the ping test results are ok before continuing.

If the Compact Flash card is already loaded, continue to section 3.5.

#### 3.3.2

Connect to the Saphir via Internet Explorer to test the web server.

For example; "http://SBT\_RCC\_V2\_OAC1"

Fig. 3

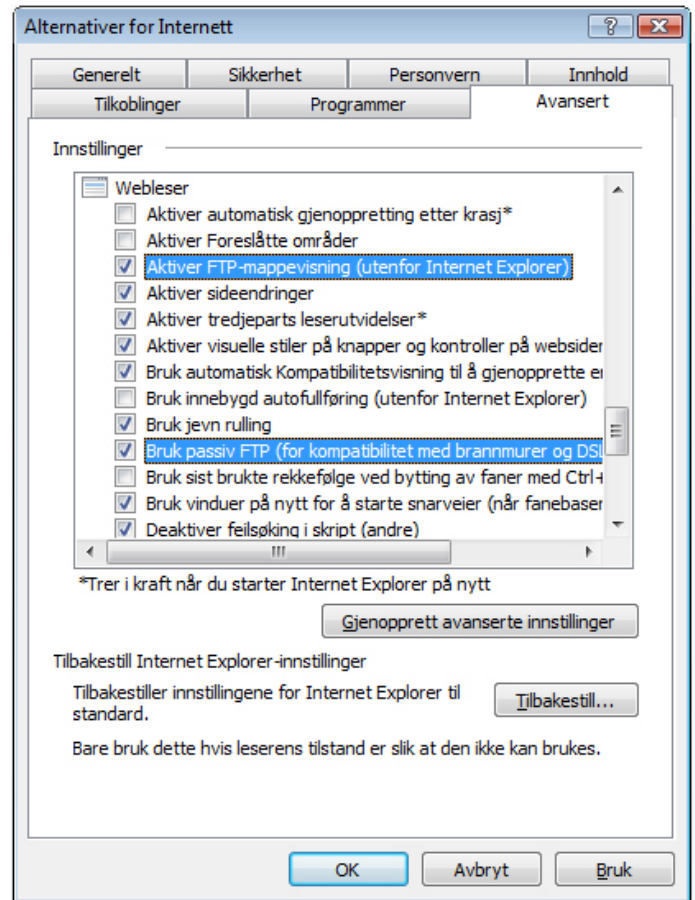
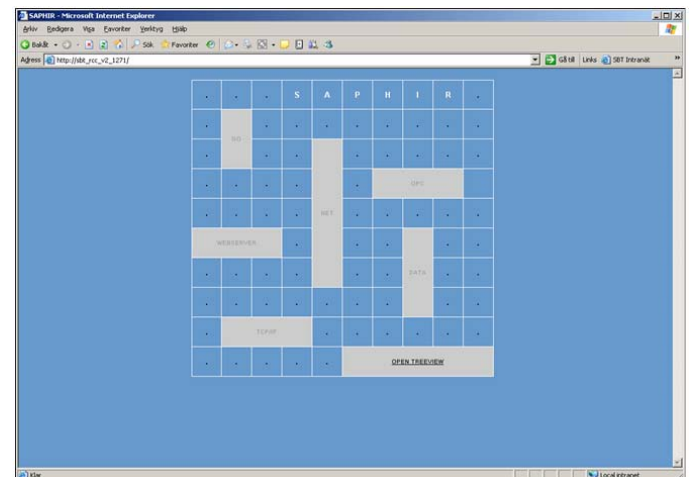


Fig. 4



### 3.4 Loading web pages via FTP server

Connect to the FTP server for file transfers and setup of the RCC card.

If the Compact Flash memory is empty it must be loaded with web pages for the actual application, by using the FTP server on the RCC card.

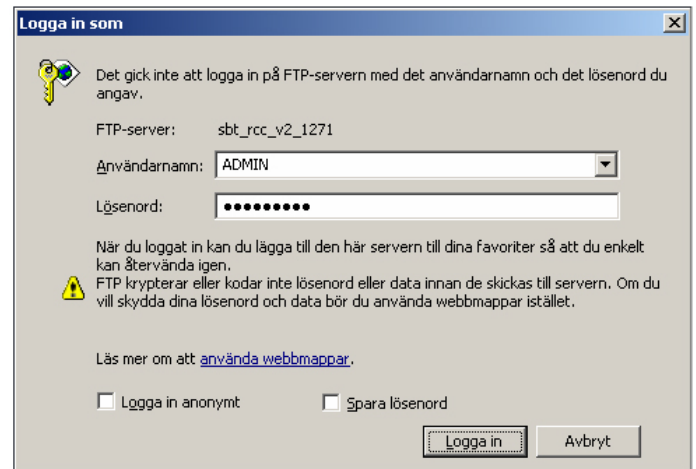
#### 3.4.1

Connect to the Saphir FTP server via Internet Explorer to load the web pages. For example:  
 ftp://ADMIN@SBT\_RCC\_V2\_0AC1/ or  
 ftp://ADMIN@146.253.69.197/

Log in with (Fig. 5):

**User name:** ADMIN  
**Password:** SBTAdmin!

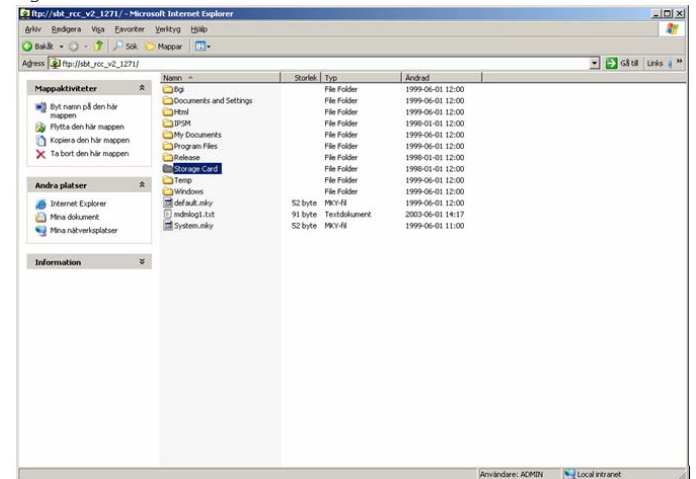
Fig. 5



#### 3.4.2

Open **Storage Card** (Fig. 6).

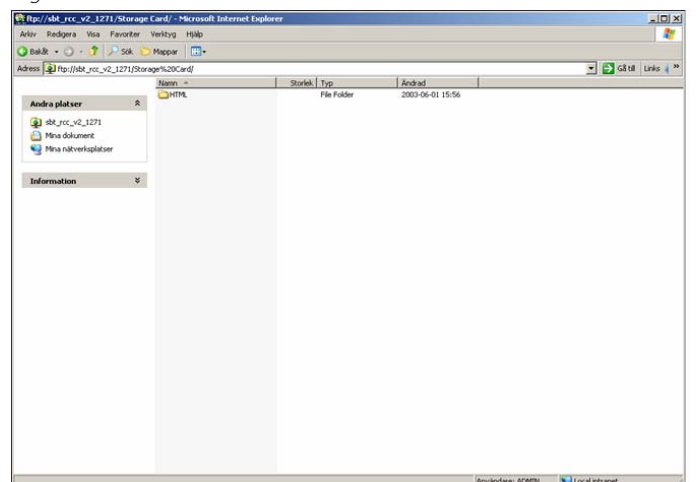
Fig. 6



#### 3.4.3

Right click and select **New Folder**, and name the new folder **HTML** (Fig. 7).

Fig. 7







## 4 Web menus

## 4.1 System monitoring and status

A flow chart and a table showing the status of the various components in the system is available in the following menus (Fig. 10):

Go to the following menus:

Summary  
Flow chart

## Summary Table

Fig. 10

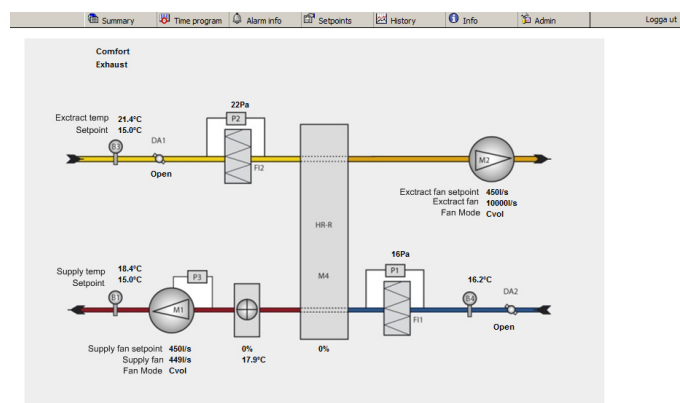


Fig. 10

Summary	Time program	Alarm info	Setpoints	History	Info	Admin	Logout
Op mode: Comfort							
Name	Value	Name	Value				
Act.Setpoint supply	15.0 °C	Supply fan	88 %				
Act.Setpoint extract	15.0 °C	Extract air	77 %				
Outside air	16.3 °C						
Supply Temp	18.4 °C						
Extr.Temp	21.4 °C	Sup	452 l/s				
HR	0.0 %	Ext	449 l/s				
		Act.Setpoint Supply	450 l/s				
		Act.Setpoint Extract	450 l/s				
		Time chanel	Comfort High Speed				
Control type	Room/Extract air	Supply fan mode	Cvol				
		Extract fan mode	Cvol				
		Damper	Open				

## 4.2 Time program

The time program lets you program the air handling on a daily, weekly or yearly basis (Fig. 11, 12 and 13). For user defineable time lapses, the following values can be selected;

**Comfort  
Off**

Go to the following menus:

Time program  
Day  
Week  
Year

Fig. 11

Summary	Time program	Alarm info	Setpoints	History	Info	Admin	Logga ut
---------	--------------	------------	-----------	---------	------	-------	----------

Namn	Tid	Värde	Aktiv
Air handling/Time schedule			
Day schedule 01	5 : 00	Conf 2 ▾	<input checked="" type="checkbox"/>
Day schedule 02	19 : 00	Off ▾	<input type="checkbox"/>
Day schedule 03	18 : 00	Off ▾	<input type="checkbox"/>
Day schedule 04	18 : 00	Off ▾	<input type="checkbox"/>

*Fig. 12*








Summary	Time program	Alarm info	Setpoints	History	Info	Admin	Logga ut
---------	--------------	------------	-----------	---------	------	-------	----------

	Start		Slut		Värde	Aktiv
	Dag	Tid	Dag	Tid		
Air handling/Time schedule						
Week schedule 01	Lö ▼	6 : 00	Sö ▼	18 : 00	Off ▼	<input type="checkbox"/>
Week schedule 02	Lö ▼	6 : 00	Sö ▼	18 : 00	Off ▼	<input type="checkbox"/>
Week schedule 03	Lö ▼	6 : 00	Sö ▼	18 : 00	Off ▼	<input type="checkbox"/>
Week schedule 04	Lö ▼	6 : 00	Sö ▼	18 : 00	Off ▼	<input type="checkbox"/>
Week schedule 05	Lö ▼	6 : 00	Sö ▼	18 : 00	Off ▼	<input type="checkbox"/>
Week schedule 06	Lö ▼	6 : 00	Sö ▼	18 : 00	Off ▼	<input type="checkbox"/>
					On ▼	<input type="checkbox"/>

[Spara](#)

Fig. 13

 Summary	 Time program	 Alarm info	 Setpoints	 History	 Info	 Admin	Logga ut
---	--	--	---	---	--	---	----------

	Start			Slut			Värde	Aktiv
	Mån	Dag	Tid	Mån	Dag	Tid		
Air handling/Time schedule								
Year schedule 01	Jan ▾	31 ▾	6 : 00	Dec ▾	31 ▾	18 : 00	Off ▾	<input type="checkbox"/>
Year schedule 02	Jan ▾	31 ▾	6 : 00	Dec ▾	31 ▾	18 : 00	Off ▾	<input type="checkbox"/>
Year schedule 03	Jan ▾	31 ▾	6 : 00	Dec ▾	31 ▾	18 : 00	Off ▾	<input type="checkbox"/>
Year schedule 04	Jan ▾	31 ▾	6 : 00	Dec ▾	31 ▾	18 : 00	Off ▾	<input type="checkbox"/>
Year schedule 05	Jan ▾	31 ▾	6 : 00	Dec ▾	31 ▾	18 : 00	Off ▾	<input type="checkbox"/>

### 4.3 Alarms

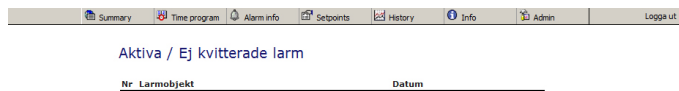
Information about both active and past alarms are available. The alarm cause and status is given (Fig. 14 and 15).

Go to the following menus:

Alarm info  
Active alarm

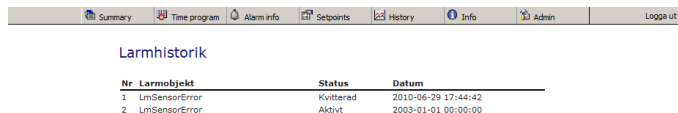
Alarm Info  
Alarm history

Fig. 14



Nr Larmobjekt	Datum
---------------	-------

Fig. 15



Nr Larmobjekt	Status	Datum
1 LmSensorError	Kvitterad	2010-06-29 17:44:42
2 LmSensorError	Aktivt	2003-01-01 00:00:00

### 4.4 Setpoints

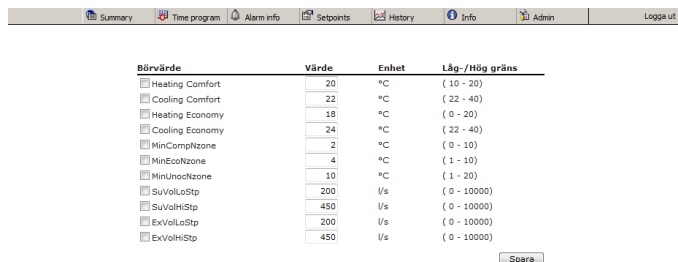
In the Setpoints menus, values for temperatures and air flow rates can be set (Fig. 16 and 17). Changes made can be saved.

Go to the following menus:

Setpoints  
Setpoint

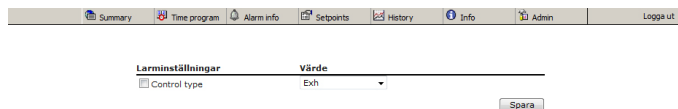
Setpoints  
Controller type

Fig. 16



Börvärde	Värde	Enhet	Låg-/Hög gräns
<input type="checkbox"/> Heating Comfort	20	°C	( 10 - 20 )
<input type="checkbox"/> Cooling Comfort	22	°C	( 22 - 40 )
<input type="checkbox"/> Heating Economy	18	°C	( 0 - 20 )
<input type="checkbox"/> Cooling Economy	24	°C	( 22 - 40 )
<input type="checkbox"/> MinComplZone	2	°C	( 0 - 10 )
<input type="checkbox"/> MinEcolZone	4	°C	( 1 - 10 )
<input type="checkbox"/> MinUnocZone	10	°C	( 1 - 20 )
<input type="checkbox"/> SuVolloStp	200	l/s	( 0 - 10000 )
<input type="checkbox"/> SuVollHiStp	450	l/s	( 0 - 10000 )
<input type="checkbox"/> ExVolloStp	200	l/s	( 0 - 10000 )
<input type="checkbox"/> ExVollHiStp	450	l/s	( 0 - 10000 )

Fig. 17



Control type	Värde
<input type="checkbox"/> Control type	Exh

## 4.5 History

In the History menus, temperatures and air flow rates can be examined (Fig. 18 and 19).

The user can select the logging span, the time span and up to 11 different temperature and air flow rate values. The values can be presented in the form of a diagram or a table.

Go to the following menus:

History  
Air  
Air diagram  
Air table

Fig. 18

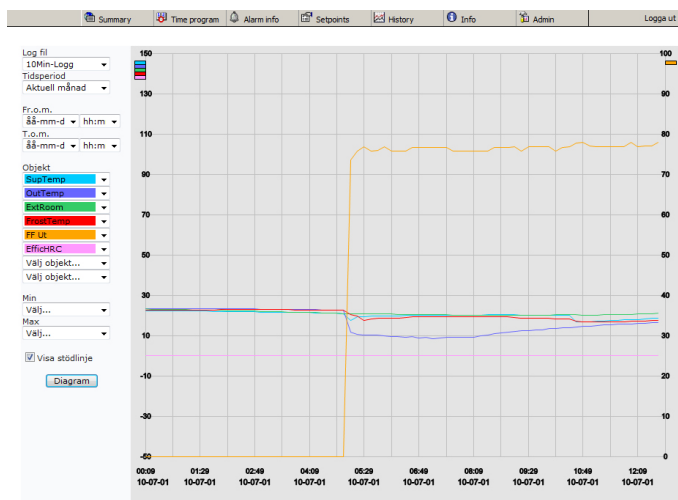
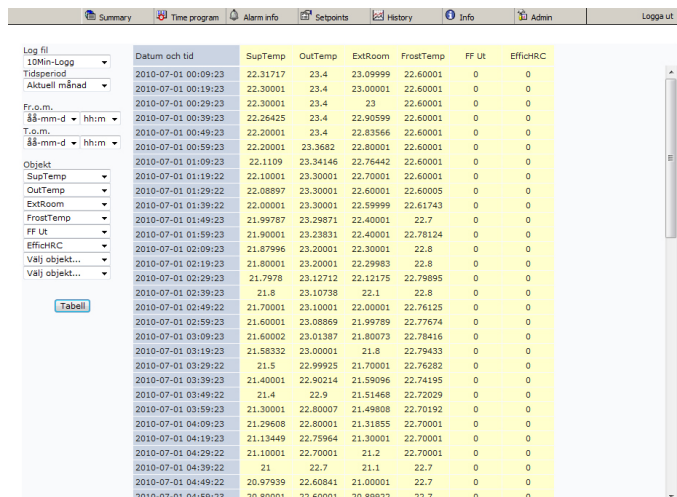


Fig. 19



Datum och tid	SupTemp	OutTemp	ExtRoom	FrostTemp	FF Ut	EffichRC
2010-07-01 00:09:23	22.31717	23.4	23.09999	22.60001	0	0
2010-07-01 00:19:23	22.30001	23.4	23.00001	22.60001	0	0
2010-07-01 00:29:23	22.30001	23.4	23	22.60001	0	0
2010-07-01 00:39:23	22.26425	23.4	22.90599	22.60001	0	0
2010-07-01 00:49:23	22.20001	23.4	22.83566	22.60001	0	0
2010-07-01 00:59:23	22.20001	23.3682	22.80001	22.60001	0	0
2010-07-01 01:09:23	22.1109	23.34146	22.76442	22.60001	0	0
2010-07-01 01:19:23	22.10001	23.30001	22.70001	22.60001	0	0
2010-07-01 01:29:23	22.08897	23.30001	22.60001	22.60005	0	0
2010-07-01 01:39:23	22.00001	23.30001	22.99999	22.61743	0	0
2010-07-01 01:49:23	21.99787	23.29871	22.40001	22.7	0	0
2010-07-01 01:59:23	21.90001	23.23831	22.40001	22.78124	0	0
2010-07-01 02:09:23	21.87996	23.20001	22.30001	22.8	0	0
2010-07-01 02:19:23	21.80001	23.20001	22.29983	22.8	0	0
2010-07-01 02:29:23	21.7978	23.12712	22.12175	22.79895	0	0
2010-07-01 02:39:23	21.8	23.10738	22.1	22.8	0	0
2010-07-01 02:49:23	21.70001	23.10001	22.00001	22.76125	0	0
2010-07-01 02:59:23	21.60001	23.08869	21.99789	22.77674	0	0
2010-07-01 03:09:23	21.60002	23.01387	21.80073	22.78416	0	0
2010-07-01 03:19:23	21.58332	23.00001	21.8	22.79433	0	0
2010-07-01 03:29:23	21.5	22.99925	21.70001	22.76382	0	0
2010-07-01 03:39:23	21.40001	22.90214	21.59096	22.74195	0	0
2010-07-01 03:49:23	21.4	22.9	21.51468	22.72029	0	0
2010-07-01 03:59:23	21.30001	22.80007	21.49808	22.70192	0	0
2010-07-01 04:09:23	21.29608	22.80001	21.31855	22.70001	0	0
2010-07-01 04:19:23	21.13449	22.75964	21.30001	22.70001	0	0
2010-07-01 04:29:23	21.10001	22.70001	21.2	22.70001	0	0
2010-07-01 04:39:23	21	22.7	21.1	22.7	0	0
2010-07-01 04:49:23	20.97939	22.60841	21.00001	22.7	0	0
2010-07-01 04:59:23	20.80001	22.60001	20.89922	22.7	0	0

## 4.6 Info

Various information and links can be found under the Info menu.

Go to the following menus:

Info  
Links  
Operating info  
Help  
About SAPHIR WEB

## 4.7 Trend/History

The trend/history application (Fig. 20) must be started manually.

Go to the following menu:

Admin  
File manager  
RCC file system

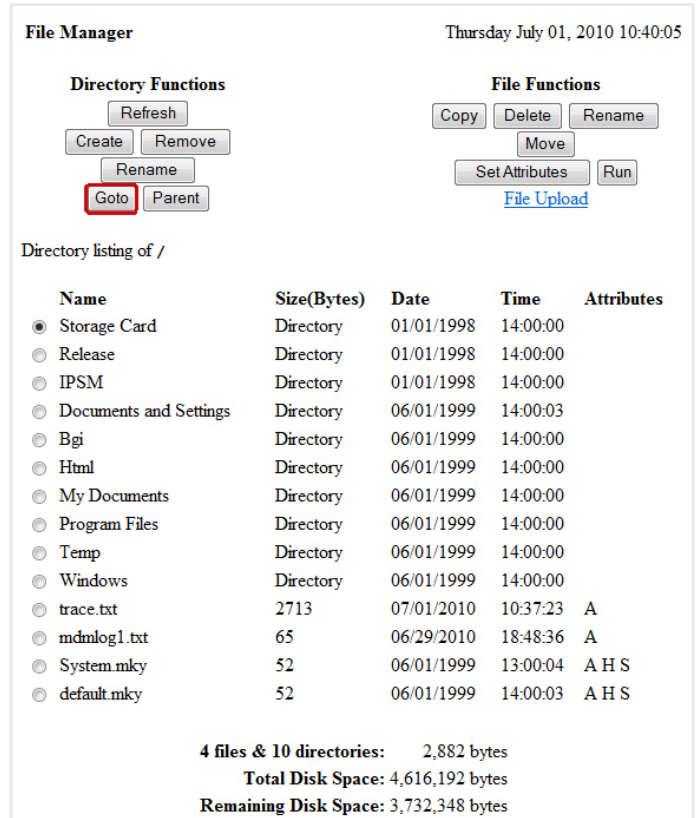
1. Mark Storage Card and then select Go
2. Mark HTML and then select Goto.
3. Scroll down and mark TrendGenerator.exe, and select Run.
4. Press Run Executable.
5. Close the window.

**The Saphir web application is now ready for use.**

Web pages may have a different look depending of application.

Continue to section 4 to set up alarm handling.

Fig. 20



## 5 Alarm handling

Alarms can be sent via email or sms.

### 5.1 Email

For configuration of alarm handling via email (Fig. 21), go to the following menu:

#### Admin Configuration

1. Fill in the address to the SMTP Server (E-mail server).
2. Fill in "own" email address.
3. Fill in email addresses (max 4).
4. Fill in "Subject", the subject in the email for each alarm from the actual Saphir.
5. Fill in "email message", a message that contains in all e-mails from the actual Saphir. Then fill in "%s" where the actual alarm message should be placed.
6. Mark "enable Mail sending".
7. Select if an email should be sent for alarm and/or acknowledge alarms.
8. Select language for the alarm message (0=Swedish, 1=English e.g.).
9. Press "Update all Values".
10. Test by press "Send Test Mail".
11. Run a test by activating a real alarm in the Saphir.

Fig. 21

Mail Config

7/1/10 11:15:16 AM

With this form you can setup the RCC's email configuration.

If your email provider allows sending mails only with authentication method "POP3 before SMTP" you have to fill out the POP3 Server section. If your provider allows sending mails without any authentication you only have to know your SMTP Server and own email address and ignore the other settings.

For testing your configuration press the "Send Test Mail" Button. If you already connected to the internet and a connection to the MSP could be established the test mail is send immediately. Otherwise the mail is cached and you have to setup the dial out RAS configuration too.

Description	Actual Value
SMTP Server	<input type="text" value="example.company.com"/>
own eMail address	<input type="text" value="cs1000@company.com"/>
SMTP authentication	<input type="checkbox"/>
POP3 before SMTP authentication	<input type="checkbox"/>
POP3 Server	<input type="text"/>
Login Name	<input type="text"/>
Password	<input type="text"/>
eMail Address 1	<input type="text" value="myemail@company.com"/>
eMail Address 2	<input type="text"/>
eMail Address 3	<input type="text"/>
eMail Address 4	<input type="text"/>
Address Number Selected	<input type="text" value="Active=#1 (bjorn.tore.nordeide@flexit.no)"/> <input type="text" value="0X0017 0X01 0X000E"/>
eMail Subject	<input type="text" value="Test"/>
eMail Text (%s inserts Saphir message text)	<div> <div>Feil på ventilasjonsaggregat PU-Avdeling.</div> <div>Må rettes omgående!!!</div> </div>
enable Mail sending	<input checked="" type="checkbox"/>
send mail when Alarm is going into active state	<input checked="" type="checkbox"/>
send mail when Alarm is going into inactive state	<input checked="" type="checkbox"/>
Language ID	<input type="text" value="0"/>

## 5.2 SMS

For configuration of alarm handling via sms (Fig. 22), go to the following menu:

### Admin Configuration

1. Fill in telephone numbers (max 4).
2. Fill in PIN code for the SIM card, leave blank if no PIN code is used.
3. Mark "enable SMS sending".
4. Mark if a SMS should be sent for alarm and/or acknowledge alarms.
5. Select the language for the alarm message (0=Swedish, 1=English e.g.).
6. Press "Update all Values".
7. Test by pressing "Send Test SMS".
8. Run a test by activating a real alarm in the Saphir.

Fig. 22

### SMS Config

7/1/10 11:21:13 AM

With this form you can setup the RCC's SMS configuration.

To send SMS successfully a GSM Modem is absolutely necessary.  
The PIN number is sent to the GSM modem only at start up. After changing this you have to reboot the SCC. Note that you only have 3 attempts for the right PIN number before the SIM-Card is disabled.

Description	Actual Value
Init String 1	ATZ
Init String 2	AT+FE0L0M0S0=0&S0
Init String 3	AT+CGMM
Init String 4	AT+GCAP
Init String 5	AT+CREG?
Init String 6	AT+CSQ
Init Count	2

☐ Enable Member Settings

Phone Number 1	0X0017 0X01 0X0007
Phone Number 2	0X0017 0X01 0X0008
Phone Number 3	0X0017 0X01 0X0009
Phone Number 4	0X0017 0X01 0X000A
Phone Number Selected	Active=#1 ()

PIN

ComPort for Modem

enable SMS sending ☐

Only if the "enable SMS sending" checkbox is marked

send SMS when Alarm is going into active state ☒

send SMS when Alarm is going into inactive state ☐

Language ID

