Nimbus Alarm Server

Nimbus Administrator
Nimbus Alarm Receiver

Version: 1.0.35

TroSoft HB
www.automatisera.nu

The history of this document

Date	Comment
00.03.28/TR	First edition
00.04.04/TR	Import Sauter and InTouch,receiver SOS Access and Modemprinter
00.08.29/TR	Siemens M20T,Beijer import
01.01.15/TR	Unigyr import, Visonik import, EY-2400 import, TAC Vista import, Nimbus Alarm Receiver, new receivertypes
01.03.02/TR	Translated to english
01.09.25/RR	Minor corrections
03.01.03/TR	New import and exporttypes

Contents

11. Appendix - Imported systems 56

1. Introduction

Purpose   Nimbus Alarm Server provides a method to forward events in a SCADA system to a various number of alarm receivers based upon date/time and other conditions extracted from the SCADA system. Which system that can be imported depends on the version of Nimbus. See appendicies for setup of the different systems.
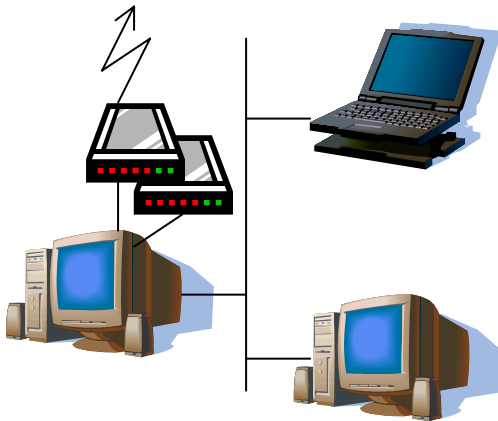
Nimbus Alarm Server is most frequently installed on the SCADA systems' alarm- or I/O server. *Nimbus Alarm Server* is administrated in the same server it is installed in. *Nimbus Alarm Server* can, beside modem or local/network printers, also distribute events to HTML or E-mail. See appendicies for a description of available receiver types.

1.1 System requirements

486/Pentium, 16 MB or Windows 95/98, 32 MB for Windows NT 4.0/2000, 20 MB diskspace. If necessary a modem and/or network card depending of the receiver type.

1.2 Installation

Floppy disk   Insert disk 1. Choose *File - Start - Run*, enter **A:SETUP**.

CD   Insert disk. The installation program is automatically started.

Standard installation path is '*C:\Program Files\Nimbus Alarm Server*'. At installation time, shortcuts for both the server and the administration program, *Nimbus Administrator,* will be created.

Autostart   *Nimbus Alarm Server* can, and should, be placed in the autostart folder to automatically start when the SCADA system starts. For Windows NT, *Nimbus Alarm Server* may be installed as a service to work independently of login.

Hardware lock *Nimbus Alarm Server* is delivered with a hardware lock (dongle) of the type *Rainbow Sentinel SuperPro*. The hardware lock is installed on a printerport.

A printer can be connected to the hardware lock, so the parallel port is not

wasted. For some operating systems (i.e. Windows NT 4) a driver must be installed. A installation program for that purpose is available in the catalogue *Rainbow* on the *Nimbus* CD or at Rainbow Technologies web site, *www.rainbow.com*. Run *SETUP.EXE* and the driver will be installed. In most cases, the computer does not need to be restarted.

Registration For some system, i.e. Citect, there is already a hardware lock installed for the SCADA system itself. *Nimbus Alarm Server* will use that hardware lock, but a registration key from the system supplier is required to unlock *Nimbus Alarm Server*. The registration key is entered in the server settings in *Nimbus Administrator* and is related to the serial number of the hardware lock. See the system specific descriptions for more information.

There is also a possibility to run *Nimbus Alarm Server* without a hardwarelock, i e if there are no parallel- or USB-ports on the PC, or if there is no support for them, i e thin server with Windows NT 4.0. In this case contact TroSoft +46 8 532 572 62 alternative E-mail *nimbus@automatisera.nu* to purchase a registrationcode that is based on the PC´s physic configuration and therefore becoms related to a unique PC.

Demo mode Without hardware lock or valid registration key, *Nimbus Alarm Server* can be used with full funcionality for 30 minutes (demo mode). After that it must be restarted.

2. Nimbus Alarm Server
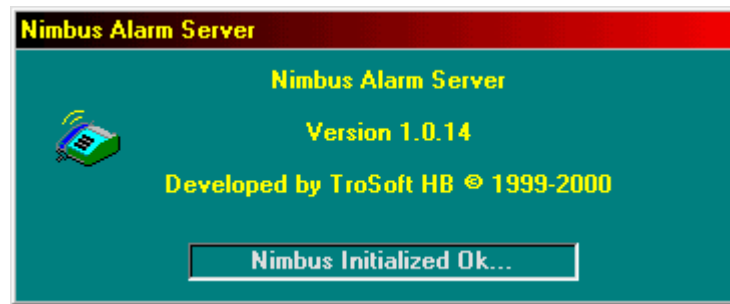
2.1 Start up

2.1.1 The first start up

Nimbus Alarm Server can be started in three ways, using the shortcut, using *Nimbus Administrator* or by the *Service Control Manager* (SCM) in Windows NT. *Nimbus Alarm Server* is the application that import events that are exported from the SCADA system and distributes them to the appropriate receiver. It must always be active (running) if the alarm transfer shall work.

Language   When *Nimbus Alarm Server* is started for the first time the program language must be selected.
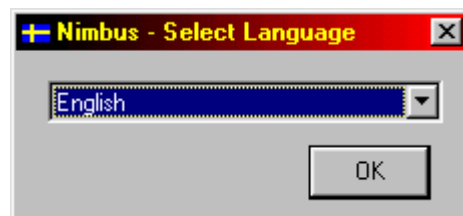
All available language files are viewed in the drop-down list.

2.1.2 Start sequence

When *Nimbus Alarm Server* is starting it will read receiver and system informa-tion from the databases. After that it checks the hardware lock and registration key (if any). If the hardware lock is missing there will be an error message. In some cases an ID is shown that is related to the connected hardware lock (*Dongle ID*). The supplier must have this ID to be able to create a registration key.

Nimbus Alarm Server

? The Sentinel dongle is missing !

Insert a valid dongle and try again (Cancel runs in demo mode)

[Cancel]   [Retry]   [Ignore]
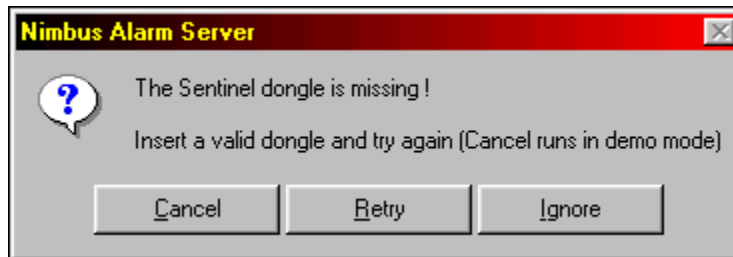
Cancel   Shuts *Nimbus Alarm Server* down

Retry   Tries to read the hardware lock again. If it does not succeed and it is correctly
                installed there are some technical support and necessary drivers at
                www.rainbow.com.

Ignore   Starts *Nimbus Alarm Server* in demonstration mode. *Nimbus Alarm Server* has
                full functionality in that mode (with all available systems) for a period of 30 minu-
                tes. After that *Nimbus Alarm Server* is automatically shut down .

Service in NT   If *Nimbus Alarm Server* is installed as a service (it is described later on in the
                manual at 's*tartparameters'* how to install it as a service) no messages will be
                shown on the screen. These messages will be sent to the *Windows NT Event
                Viewer*.

TCP/IP   *Nimbus Alarm Server* uses TCP/IP for certain functions, i.e. E-mail, LPD printer
                etc. If TCP/IP is not installed in the computer an error message will popup that
                indicates this. It depends on that Winsock can not create a socket. To prevent
                these error messages, simply disable TCP/IP support in Nimbus. This is done in
                the *NimServ.INI* file, see the related section *([TCPIP]Enabled=no)*.

2.1.3   Alarm routing

When *Nimbus Alarm Server* is started it will immediately scan the defined (and
entitled to, according to the hardware lock) systems. Existing (old) events will
either be deleted or ignored depending on how the SCADA system is exporting
events. After that *Nimbus Alarm Server* will scan defined systems with the
desired interval. If any event occurs it will be distributed according to the alarm
routing profiles.

2.1.4   System log

Most of the *Nimbus Administrator* and *Nimbus Alarm Server* internal messages
are stored in the system log. The system log is a textfile and is saved with the
format *YYYYMMDD.LOG*, ex *20010318.LOG* for March,18 year 2001. How many
days the system log will be preserved is selected in *Nimbus Administrator*.

2.1.5   Exit

Nimbus Alarm Server is shown as an icon in the notify-area (beside the clock), if
not running as a service. If *Nimbus Alarm Server* is running as a service it will not
be shown on the desktop. *Nimbus Alarm Server* can not be closed directly. It
must be closed by *Nimbus Administrator* or using the *Windows NT Service
Control Manager* in the control panel. *Nimbus Alarm Server* can also be closed
by *Ctrl-Alt-Del* and *Close Application* but that method should never be used.

3.   Nimbus Administrator

Nimbus Local Administrator 1.0.13B5 - TroSoft /

Nimbus Local Administrator

Version 1.0.13B5

Developed by TroSoft HB © 1999-2000

Nimbus Initialized Ok...
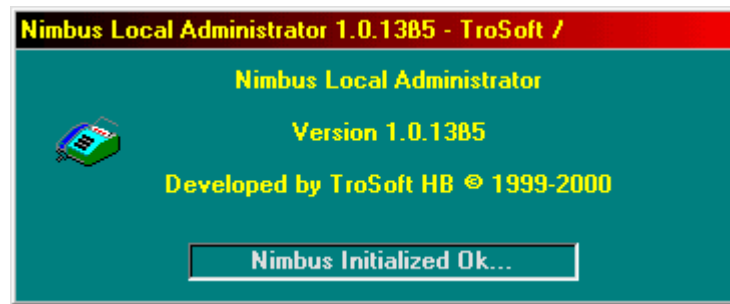
3.1   Start up

3.1.1   The first start up

Nimbus Administrator is started using the shortcut. Though it is intended to administrate *Nimbus Alarm Server*, it need to be running only when required, even though it can be running all the time. *Nimbus Alarm Server* does not need to be running to administrate receivers, alarmroute profiles etc.

If the server setup is changed, *Nimbus Alarm Server* must be restarted. In all other cases *Nimbus Administrator* will automatically cause *Nimbus Alarm Server* to re-read the databases.

Language   The language must be selected when *Nimbus Administrator* is started for the first time.

Nimbus - Select Language

English

OK
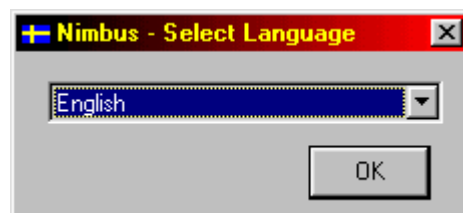
All available languages files are viewed in the drop-down list.

Users   The user database is created when *Nimbus Administrator* is started for the first time. This means that the user will gain full access to *Nimbus Administrator in* this occasion. The first thing to be done is to create one or more users. Each user has a code of his own and they may have different access levels.

If no user is created at this moment, *Nimbus Administrator*, will always start with full access. This is true until a user is created. If the access system will not be used, there is no need to create users.

3.1.2   Start sequence

When *Nimbus Administration* starts it will read receiver and system information from the databases. To be able to use the administration tool, no hardware lock

need to be installed. To be able to see events on several network connected (or Internet connected) PC's, the *Nimbus Alarm Receiver* should be used. Alternatively, the events may be sent to a HTML file on a Webserver, i e *Internet Information Server, Personal Web Server, Apache* etc.

3.2   Functions
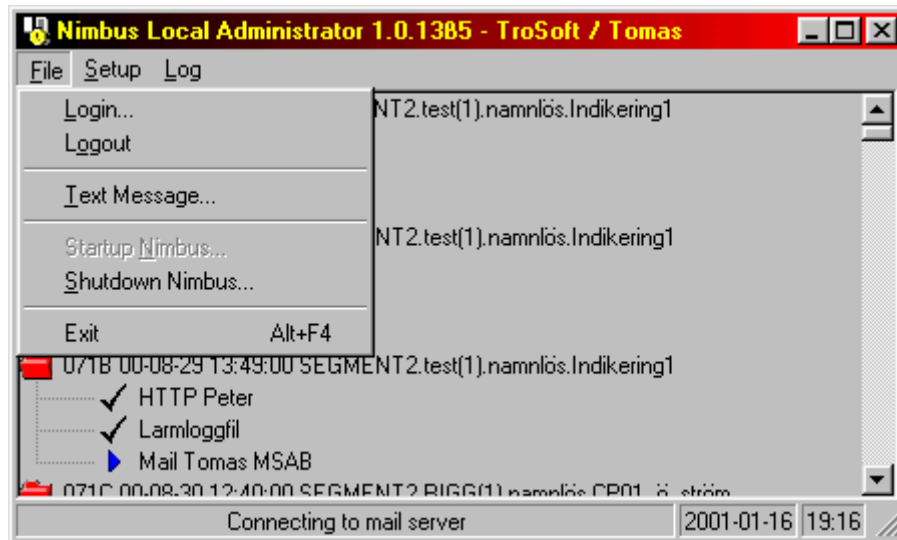
The window caption shows the program version, server name and any logged-in user. In the bottom information field the current status is shown.

3.2.1   Treeview events

The most recent events and their status are shown in the treeview. The treeview holds up to 200 events. If this is exceeded, the oldest will be removed. They are, however, always stored in the system log. *Nimbus Alarm Server* manage a maximum of 500 simultaneous events.

This treeview shows the events that occured after *Nimbus Alarm Server* was started. If *Nimbus Alarm Server* is shut down and restarted via *Nimbus Administrator,* the events will be kept. All active Nimbus applications must be shut down for this view to be cleared.
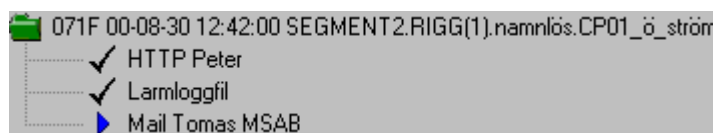
The folders have different colours depending on type of event, where:

Textmessage.

Event that indicates return of an alarm to normal.

Event that indicates acknowledgement of an alarm.

Event that indicates that an alarm has become active.

To the right of the folder is the event ID shown. Each event has an unique ID that increases with one for every new event and is presented in hexadecimal form. The ID is followed by the event date and the time. This info is read from the import

file from the SCADA system (if possible). At the end of the line, are the first characters in the event text (the text that replaces *[t0]* according to the alarm format in *Receiver types*, which typically is the tag name).

Each folder contains the receivers that *Nimbus Alarm Server* decided will receive this event. Which receivers the event will be forwarded to, is determined by the alarm route profiles.

Queued. Will be sent as soon as *Nimbus Alarm Server* is finished sending to previous receivers.

Is sending a message about the event to this receiver.

The receiver could not acknowledge the message. Waiting for retry.

The message was acknowlegded by the receiver. This means for example for cellular that the phone has acknowledged that the message is received. If the receiver was defined in the sequential list in the alarm route profile, this event will not be forwarded to the sequential receivers next in the list.

The message could not be acknowledged. This means for cellular that the phone was shut off or out of range. The message was stored in SMSC and will be sent when the cellular is reactivated.

The message could not be sent. The reason may be that the receiver is out of order, wrong phone numbers, IP-addresses, paths etc. More information about this is in the system log and eventually in the debug window (if it was active when the transmission trial was made)

The message was never sent. This depends on that following sequential receivers did not need the message. If *Nimbus Alarm Server* is shut down and there are active events they will be deleted and marked using this symbol.

4.   File

4.1   File - Login...

While it needs some knowledge about configuration for handling alarms can the system configuration not be accessed if the user does not log in. Without logging in only *Nimbus Alarm Server* may be started and all menues except the system log menu is disabled. This is only true if any user is in the database. If the user database is empty, then nothing is disabled.

Enter your password and press enter. All events of importance for the setup management are logged in the system log, and through it you can follow who has done changes and what time it was done. Also logins are logged in the system log.

Automatic   A login can be done automatically by using a startparameter in the shortcut. For example *C:\Program Files\Nimbus Alarm Server\NimAdmin.EXE" /P:NERD* will try to log in the user with the password '*NERD*' right after startup.

4.2   File - Logout...

Logs out inlogged user.

4.3   File - Textmessage...

The textmessage function is used to test that the connection and settings are correct for a receiver. It may also be used to send maintenance messages etc.
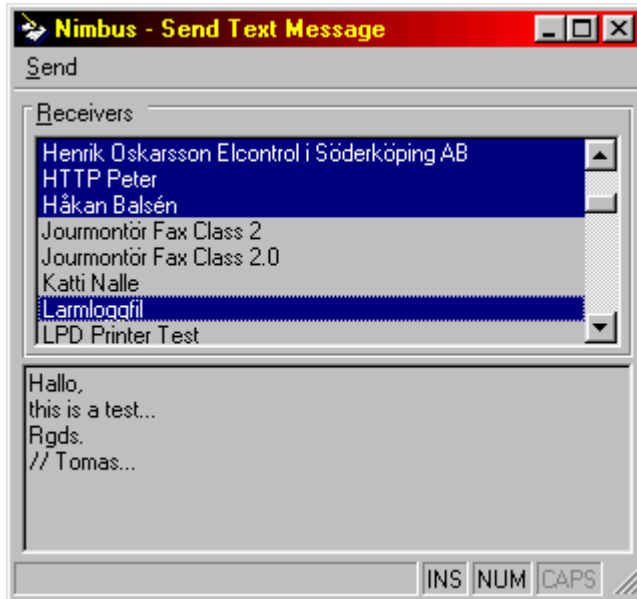
Write the message in the text box and select the desired receiver(s). Several receivers may be selected. Click on '*Send*' and the message will be sent when *Nimbus Alarm Server* scans the event queue next time. This is done with a couple of seconds interval. Current transmission status and the final result is shown in the *Nimbus Administrator* main window. It may be viewed at the same time as this window. Error codes etc are saved and viewed in the system log and if more detailed information about the transmission is required, the debug window should be used (especially with serial communication).

Nimbus Alarm Server must of course be running.

4.4   File - Startup Nimbus Alarm Server...

Starts *Nimbus Alarm Server*. If *Nimbus Alarm Server* is installed as a service in Windows NT, it must be started and stopped with *Windows NT Service Control Manager* in the control panel.

4.5   File - Shutdown Nimbus Alarm Server...

Shuts *Nimbus Alarm Server* down. When *Nimbus Alarm Server* isn't running, it will not route any events. If there are active events in the event queue they will be deleted. This will be indicated in the tree view in *Nimbus Administrator*.

All events that occur when *Nimbus Alarm Server* is shut down will be lost.

4.6   File - Abort all queued events

Will delete all events that are queued for transmission. The current transmission will be finished. No retries will however be made.

4.7   File - Exit

Closes *Nimbus Administrator.*

5.   Setup

5.1   Setup - User Setup...

All who shall have the authority to administrate *Nimbus Alarm Server* must be
registered in the user setup. It is no problem to not create any user. In that case
Nimbus Administrator always runs with full access.
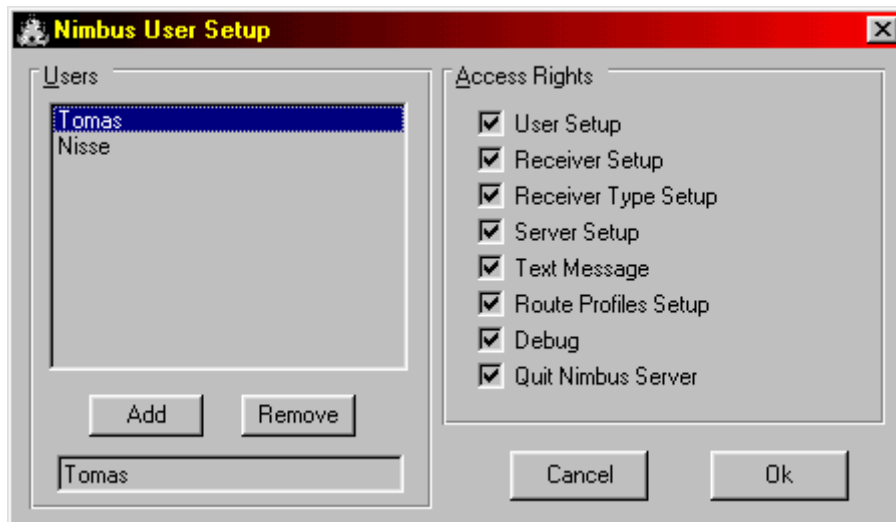
When *Nimbus Administrator* is started for the first time it creates a new, empty,
user database. All acess levels (rights) are granted, as long as the database is
empty.

Add   Enter a name in the text field, for example '*Nisse*' and click on *Ok*.

Enter a password, click *Ok*, and repeat it. At login time, only the password is
entered (no user name) and it therefore has to be unique.

Select the access rights that shall be granted to the new user. The new user will

automatically be granted the same rights as the last selected user. The rights can easily be changed.

Remove   Removes the chosen user.

Access rights Prohibites the user from access to the corresponding menues. It is only possible to change the rights the logged in user himself has access to.

Ok   When *Ok* is selected and *Nimbus Administrator* is started for the first time it will by default return to the main window logged out. This means that a login must be done with one of the recently created passwords.

5.2   Setup - Receiver Setup...

One or more receivers must be defined to be able to forward alarm events. Receivers based upon different receiver types may receive the same event. This is controled by the alarm route profiles (see further on).
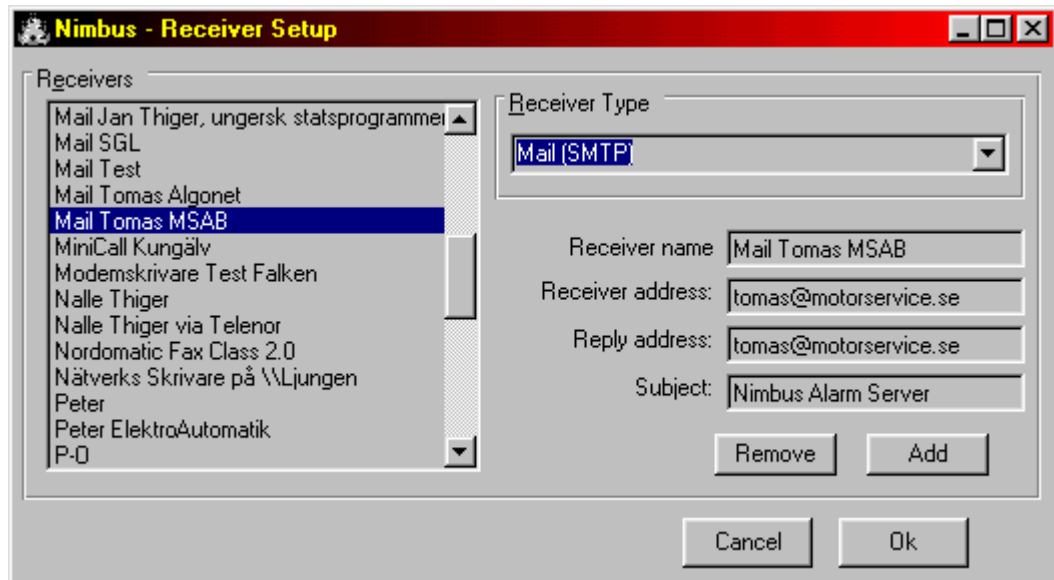
Add   To create a new user:

1. Enter a receiver name (if there already are a receiver and it is selected, write it over with the new name). A receiver name may contain any characters. It may not exist two receivers with exactly the same name.

2. Choose the receiver type in the drop-down list.
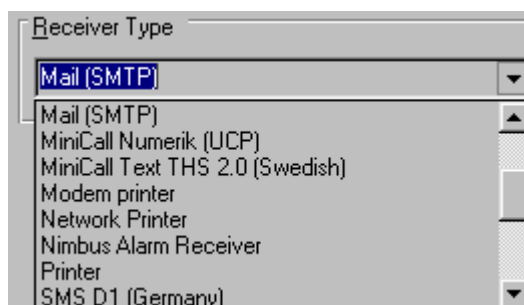
3. Fill in necessary extra information. When the receiver type is selected,

different text fields will be shown depending on what information is needed for each receiver type. In the example above the receiver address, reply address and subject must be filled in.

    4. Select '*Add*'.

Remove   Removes selected receiver.

5.3   Setup - Reciever Type Setup...

Each type of receiver; SMS, Mail, HTTP, SOSAB etc has a various number of different parameters that probably need adjustments. These are often unique and therefore is a dialogue for each receiver type available.
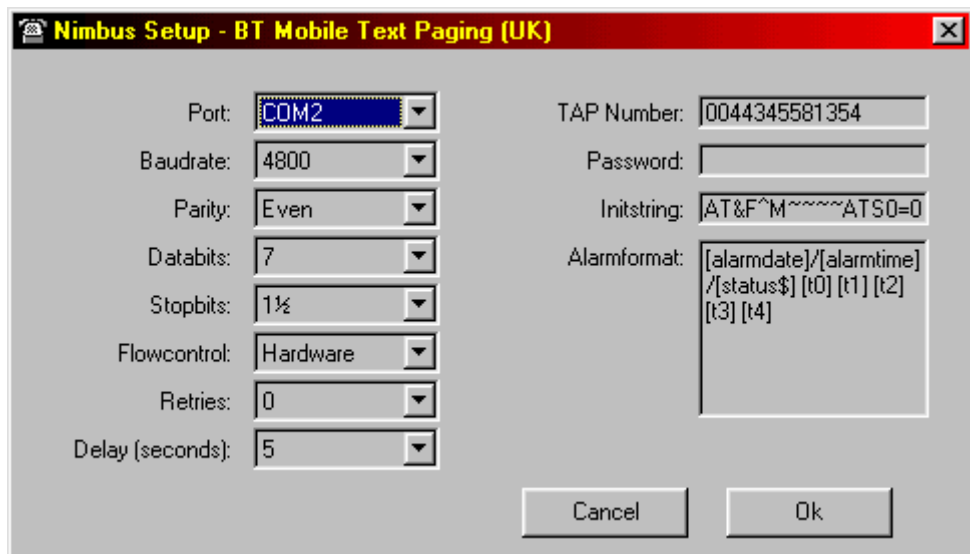
While there is unique settings for each receiver type, there are parameters that are common to almost all of them. These are described in the following section.

Port   COM1-COM16, physical or virtual. TAPI is not supported in this version of *Nimbus Alarm Server* for a number of reasons. *Nimbus Alarm Server* will not open any port when it is started. The port opens immediately before the message will be sent, and is closed after delivery immideately. Various receiver types can use different ports or the share the same port (and modem).
Nimbus Alarm Server can not share ports with RAS or a dedicated PCAnyWhere, NetOp etc. In this case it is better to connect two modems and wire these togheter to the same phone line.

Baudrate   300-28800 bps.

Parity   None, Odd, Even, Mark, Space

Databits   7, 8

Stopbits   1, 1½, 2

Flowcontrol   None, Software (xon/xoff), Hardware

Retries 0-19. *Nimbus Alarm Server* always tries to send at least once. This states the number of retries if the first did not succeed.

Delay   5-600 seconds. The number of seconds *Nimbus Alarm Server* will wait until it retries. Observe that no parallel sending is done, though it may exist sequential

receivers that is depending of the result of previous deliveries. If a SMS receiver is stated before an alarm printer in the receiver list in the alarmroute profile, then *Nimbus Alarm Server* will always try to send to the SMS receiver first. This means that a slight delay before the alarm prints will be the result, because *Nimbus Alarm Server* has to send the SMS first. In this case, the order could be changed.

Initstring   Is sent to the modem when the port is opened, before the call is made. In most cases '*AT&F*' or '*ATZ*' will do. *Nimbus Alarm Server* expects answer in '*Verbose*' form, i e '*OK*' etc. *Nimbus Alarm Server* hangs up using DTR toggle, which may require that '*&D2*' is stated in the initstring. The initstring may contain two specific control characters:

> ~   Wait for 0,5 seconds.
>
> ^   CTRL character. Subtracts 64 from ASCII code of the following character, i e the same function as pushing CTRL and a key. For example '*^M*' is equivalent to ASCII code 13 (*Carriage Return*).

Alarmformat   How the text is presented to the receiver is depending of the alarmformat. The alarmformat is composed of a number of expressions within brackets. These are replaced with real text and information that is extracted from each event, for example *date* and *time, tag*, *description, status* etc:

> *[t0]*   Depends on which system is imported, *[t0]* is often replaced with the tag name. See later on for respectively system.
>
> *[t1]*   See respectively system section.
>
> *[t2]*   See respectively system section.
>
> *[t3]*   See respectively system section.
>
> *[t4]*   See respectively system section.
>
> *[t5]*   See respectively system section.
>
> *[alarmdate]*The date the event occured in the format *YY-M-DD*. This is by default coming from the date of the imported event (when it exists there, otherwise it will be the date when the event was imported).
>
> *[alarmtime]*The time the event occured in the format *HH:MM:SS*. This is by default coming from the time of the imported event (when it exists there, otherwise it will be the time when the event was imported).
>
> *[date]*   The date the event is sent to the receiver in the format *YY-MM-DD*. It is created at transmission time.
>
> *[time]*   The time the event was sent to the receiver in the format *HH:MM:SS*. It is created at transmission time.
>
> *The date and time formats does not follow the international settings in the Control Panel. Instead it may be changed by edit the NimServ.INI file.*
>
> *[status]*   Type of event in numeric form, *0 = Inactive, 1 = Active, 2 = Acknowledged*.
>
> *[status$]* Type of event in text form, *INACTIVE, ACTIVE, ACKED.* These text are located in the text resource file, and may be changed to something else.
>
> *[servername]* The name that is stated in *Nimbus Administrator*, for example '*Acme on TroSoft', 'Ryhov*' etc.

[alarmid]　　The events' unique ID in hexadecimal form.

All expressions above can be formatted according to the following rules:

[t0:0-11]　　Is replaced with character number 0-11 from the expression. In this case *[t0]*. If *[t0]* is the tagname, for example '*S018_TA0220_GT18*' the complete expression will be replaced with '*S018_TA0220*'.

[t0:7]　　　Is replaced with the character number 7 from the expression. In the example above, the complete expression would be replaced with *'0'*.

[t0:0-11:32] The function is as the description above with the addition that the complete expression is padded with space up to 32 characters width. The result will always be 32 characters wide.

[t0::32]　　As above, but the whole string that replaces *[t0]* is used and is padded cut to 32 characters width.

Other possible expressions that can be used:

[replace:x:y]　Replace the text 'x' with the text 'y' in the following expression. For example if the expression is '*[replace:S018_:Operan][t0]...*' and *[t0]* is the tagname '*S018_TA0220_GT18*' the whole sequence will be replaced by '*Operan TA0220_GT18...*'.

[r:x:y]　　　The same as *[replace:x:y]*

[cutfrom:x]　Cuts the following expression from *'x'*. For example if the format is '*[cutfrom:_][t0]...*' and *[t0]* is the tagname, for instance '*S018_TA0220_GT18*' the whole sequence will be replaced by '*S018...*'.

[cf:x]　　　The same as *[cutfrom:x]*

[cutuntil:y]　Cuts the following expression until *'y'*. For example if the format is '*[cutuntil:_][t0]...*' and *[t0]* is the tagname '*S018_TA0220_GT18*' the whole sequence will be replaced with '*TA0220_GT18...*'.

[cu:y]　　　The same as *[cutuntil:y]*

[nn]　　　Is replaced with the character that has ASCII code *'nn'*. For example, if a line feed for SMS receiver or printer shall be inserted, then '*[13][10]*' is replaced with *Carriage Return* and *Line Feed*. If the line is broken using *Enter* in the alarmform field itself has no significance. These line breaks are always ignored, though *Nimbus Alarm Server* concatenates all lines before the formatting is done.

[dongleid]　Is replaced with the serial number of the hardware lock. This could be used if messages are sent to some 'in-house' developed application using TCP etc to verify a license etc.

Conditional expressions. These are used to change colour at print-outs of different types of events etc. The text following *'?'* is kept if the expression is true:

{active?x}　　The whole expression *'x'* is ignored if the event is not of the type *ACTIVE* (i.e. alarm is active).

{acked?x}　　The whole expression *'x'* is ignored if the event is not of the type *ACKED* (i.e. alarm is acknowledged).

{inactive?x}   The whole expression *'x'* is ignored if the event is not of the type *INACTIVE* (i.e. alarm is inactive).

{message?x}   The whole expression *'x'* is ignored if the event is not of the type text message.

An example that is used to create different colours in a HTML document depending on the eventtype:

*
[13][10]{active?<font color="#FF0000">}{inactive?<font color="#008000">}{acked?<font color="#0000FF">}[alarmdate] [alarmtime]
[13][10][t0] [t3] [t4] [status$]*

Between each expression can 'normal' characters and texts be inserted, for example space. In the example above, the result in the HTTP file for an alarm acknowledge event would be:

*
*
*<font color="#0000FF">00-03-19 12:33:45
*
S018_TA0220_GT18 Airtemperature Low TA0220 ACTIVE

5.4   Setup - Route Profile Setup...

Each event is treated using its characteristics, for example *date, time, status, tagname, desciption, category* etc and is forwarded to the desired receiver(s). The rules for this treatment (alarm routing) is set up in one or more profiles.
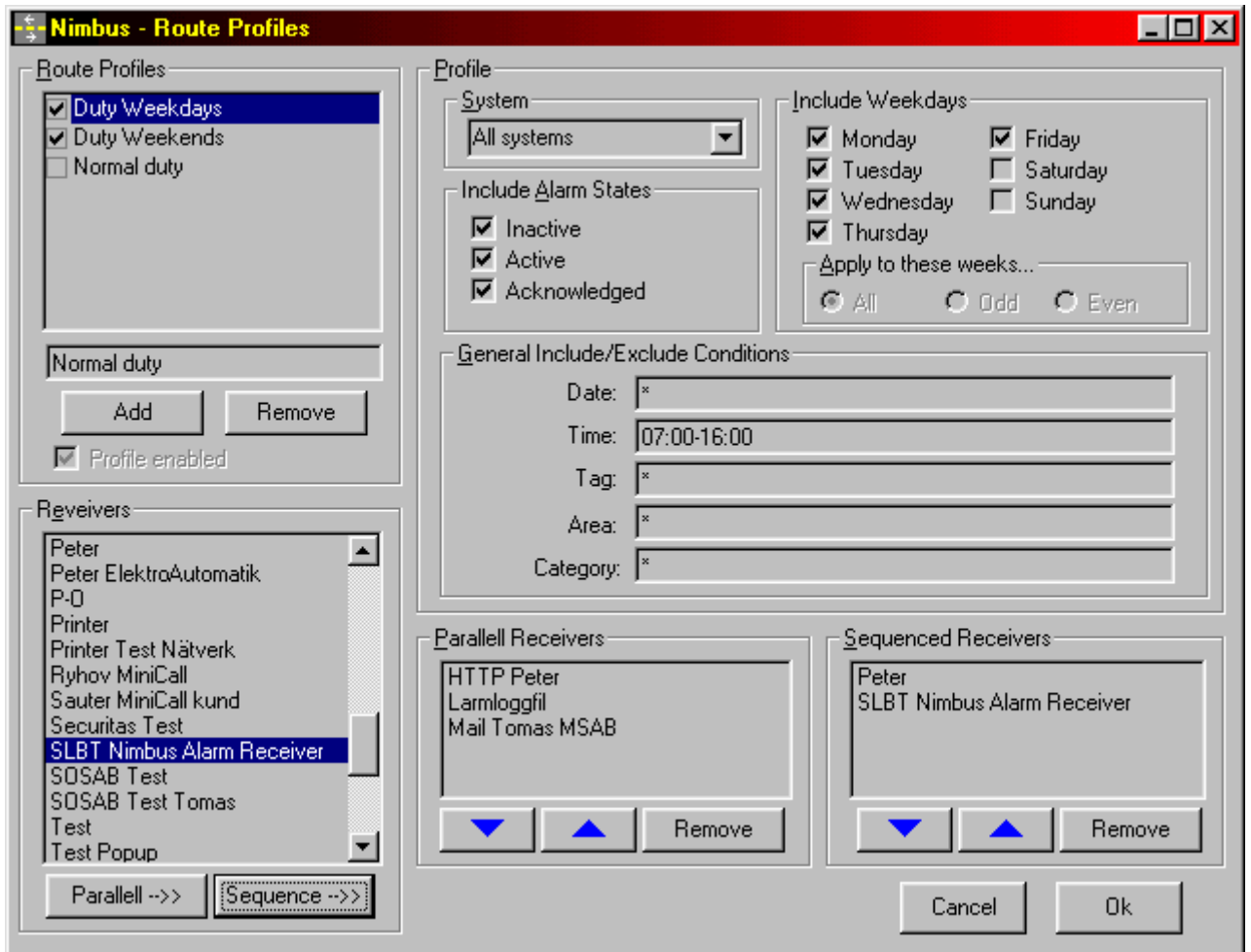
5.4.1   Alarm profiles

Add   Enter a new profile name in the field above this button, make all the desired
              settings and click on '*Add*'. A profile name may contain any characters. The new
              profile inherits the previously selected profile characteristics.

Remove   Removes the selected profile.

Activated   New profiles automatically becomes active (check-marked in the profile list). They
              can temporarily be disabled if you do not want to delete them. They are disabled
              by simply click on the check-mark in the profile list.

5.4.2   Receivers

Parallel   Adds the selected receiver to the parallel list for this profile. In this list are all
              receivers which always shall receive a message that matches the rules in this

profile.

Receivers of the type that is fastest to send (for example *printers*, *HTTP* etc) should be in the top of the list though all messages are sent in sequence one by one. The order can be changed by selecting a receiver and using the up- or downarrow button.

System   Select which system this profile should be active for. By default *'All systems'* is selected. If only one system is imported, this setting can be the default.

Alarm States   *Inactive, Active, Acknowledged.* Select the desired events that should be included in this profile.

Weekdays   Select the desired weekdays that should be included in this profile.

5.4.3   Include/exclude conditions in general

These conditions may differ between the systems. *Date* and *time* always have the same format. However *tag, area, category* etc can differ between the systems. In all systems an asterisk '*' may be used as a wildcard to include all values.

Date   Enter date or date interval, for example *01.03.18* or *01.03.18-01.04.01* etc (for 18. March 2001 until 1. April 2001). Exclude date(s) from this interval with '-' before the first date. Using comma ',' as delimiter, several dates and intervals can be entered, for example

01.03.18-01.04.01,01.05.01-01.05.03,00.12.24,-01.03.21-01.03.22

Where the last period excludes 21-22 March 2001.

The date format here is always the same, and cannot be changed.

There is also a possibility to enter an external condition here. If a file (in brackets) instead of a date is stated, the first line in this file will be scanned for an expression. For example

[c:\citect\user\hs\jour.txt=active]

This means that the file *'c:\citect\user\hs\duty.txt'* is opened and the first line is read. If there is a match with '*active'* then the condition will be fulfilled. The match could also be made using wildcards, i e '*?'* and, or, *'*'*. The file is scanned every time a new event occurs.

The purpose for this function is as follows:

A profile is created that matches only one tag, for example '*24-HOURDUTY'* and it forwards the event to a receiver of the textfile type named *'c:\citect\user\hs\duty.txt'* used in the above example (the file must be set to '*Overwrite*').
If the tag '*24-HOURDUTY'* is related to a physical unit or a virtual unit, the profiles can somewhat be enabled or disabled via the SCADA system.

Time   Enter time or timeinterval, for example *07:00-16:00* etc. Always in 24-hour format. Exclude time from this interval with '-' before the first time. Several intervals can be stated separately with comma ',', for example

07:00-16:00,-12:00-13:00

Tag   Text. Which tags shall be included in the condition, for example

*S018_*,S017_????_HISS,*_GT81*

Several conditions could be entered using comma ',' as delimiter.

Area   Text. Which areas shall be included in the condition, for example

1,ELEVATORS

Several conditions could be entered using comma ',' as delimiter.

Category   Numeric. Which categories skall be included in the condition. '*' states that all categories shall be included. The categories are entered as

*,-5-6

which states that all categories except 5 and 6 shall be included. This is the same (for Citect) as

1-4,7-255

5.4.4   Receiver

Parallel   This list contains the receivers which always shall receive a message that fullfills the rules in this profile. The messages are sent to receivers in the list order.

Sequenced   This list contains the receivers which shall receive a message that fullfills the rules in this profile. *Nimbus Alarm Server* tries with the first receiver in this list. If *Nimbus Alarm Server* do not get any acknowledge from this receiver (with acknowledge means that the receiving system indicates that the transmission is ok all the way to the presentation media, for example a screen, phone or printer) the message is sent to then next receiver in the list and so on. This is done until *Nimbus Alarm Server* get an acknowledge, or no more receivers are in the sequence list.
The number of transmission retries is determined by the setting in the receivertype setup.

Remove   Removes the selected receiver from the list.

5.4.5   Conditions for forwarding

All conditions must be fulfilled if the event shall be forwarded to the receivers in the profile. All profiles will be searched for one or more profile where all conditions are fulfilled (right *time, date, day, status, tagname, system, active profile* etc), each time a new event arrives (when *Nimbus Alarm Server* scans the system). The event is then forwarded to the receivers in the parallel- and sequencelist.

If the same receiver occurs in several profiles that fulfills the conditions only one message will be sent to it.
This is not valid for receivers in the sequencelist.

5.5   Setup - Server Setup...

Nimbus Alarm Server must be configured to know what system it should import.
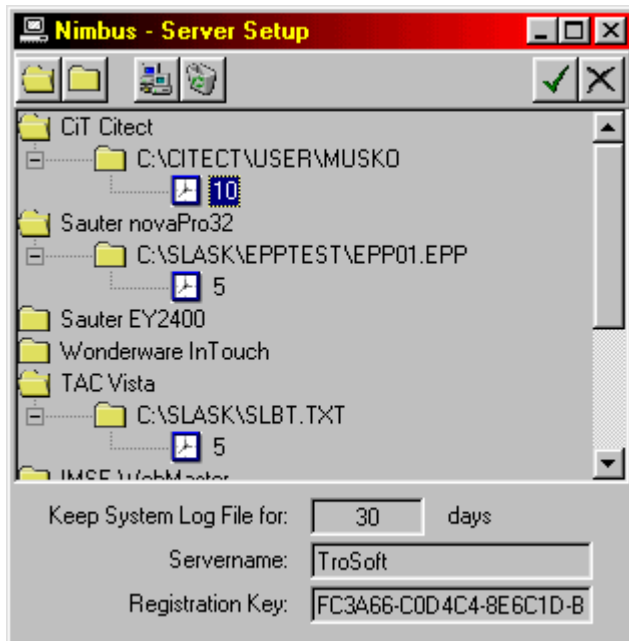
The treeview shows which available systems there are and which paths they are using. Most of the imports are made using some kind of alarm log file that *Nimbus Alarm Server* scans. In some cases the path is a IP-address or a COM-port setting. This is system dependant and is descibed later on.

The path and the time is changed by clicking twice on the text that shall be changed (the same way as in *Explorer*). Press *Enter* to save the changes before the dialogue box is closed.

📂	Expand all
📁	Compress all
🖥	Create new pointer to the selected system. New pointers are automatically set to something appropriate for that system. In some cases a file dialog is shown. The number beside the clock symbol (mostly) states the scan interval (in seconds) that *Nimbus Alarm Server* uses when checking for new events.
🗑	Remove selected path.
✓	Save changes and close the dialogue window.
✕	Ignore changes and close the dialogue window.

Keep system log files for xx days States how many days the systemlog will be preserved. While it growes with several lines per event (in average 60 bytes per event) these files will finally consume a considerable disk space if not limited. The systemlog is created in a new file every day. Each time *Nimbus Alarm Server* starts up*,* and by midnight if it is running, the old systemlog files will be deleted.

Servername A descriptive name of the project *Nimbus Alarm Server* import events from. This is only used as information to users of *Nimbus Administrator* and can also be used in the message itself (see *alarm format*).

Registration- In some systems, for example *Citect*, there is no need to have any particular

key	hardware lock for *Nimbus Alarm Server.* It can use the existing one. In that case, a registration key is needed. This registration key is then used to validate the hardware key for this application.

The registration key is provided by the SCADA system supplier and can in most cases be received directly by phone.

There is also a possibility to run *Nimbus Alarm Server* without a hardwarelock, i e if there are no parallel- or USB-ports on the PC, or if there is no support for them, i e thin server with Windows NT 4.0. In this case contact TroSoft +46 8 532 572 62 alternative E-mail *nimbus@automatisera.nu* to purchase a registration code that is based on the PC´s physic configuration and therefore becoms related to a unique PC.

6.   Log

6.1   Show Active System Log...

The active system log shows what has happened since *Nimbus Alarm Server* was started the last time. If *Nimbus Alarm Server* is closed and restarted via *Nimbus Administrator* this list will be preserved. All active Nimbus applications must be closed for this list to be cleared.
The list contains always a maximum of 200 lines, if there are more the oldest will be removed.
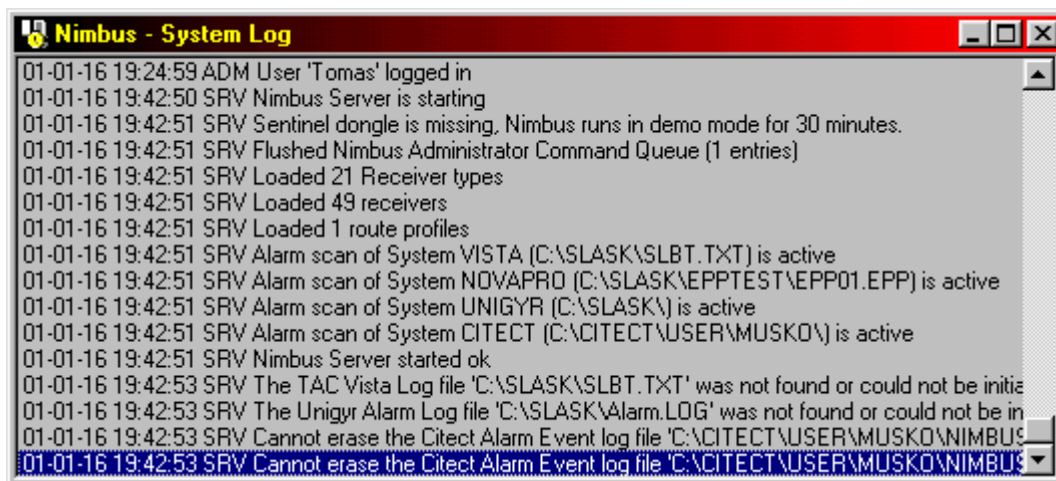
In the list date and time and originator is shown, i e *SRV* for *Nimbus Alarm Server* and *ADM* for *Nimbus Administrator*. The message itself is somewhat self explanatory and will not be further explained here.

Filename   All lines in this list are saved in a text file that is renamed every midnight. The files have the format *YYYYMMDD.LOG*, for example :

20010318.LOG

for 18th of March 2001. How many days the system log is kept is set in *Nimbus Administrator.* The system log could be required in contact vid support, and therefore it is important to keep it for at least 10 days.

6.2   Show Debug Window...

The debug window shows byte level information for each transmission. All communication through the usual communication ports are showed and in some cases also what passes via *Winsock (TCP/IP).*

The debug window causes a lot of overhead when it is open and should be used only when it is necessary.
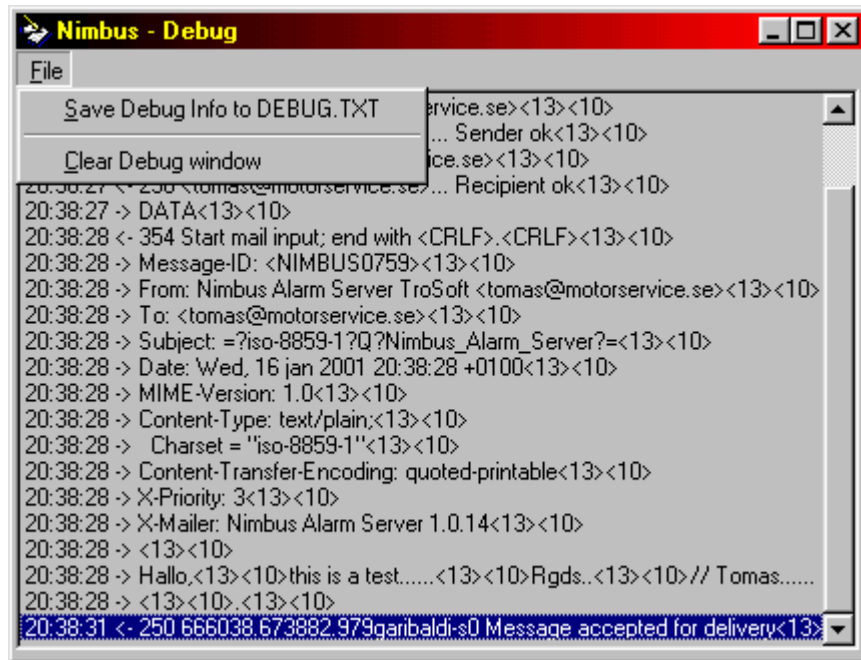
In this example the data for a normal transfer to an e-mail receiver is shown.

Save Debug.. The Debug information can be saved in an ordinary textfile. For support this an important help to find and correct communication problems.

Clear Debug- Clears the content of the debug window. It has a limit of 200 lines. If there are
window more, the oldest will be removed.
Observe that it is only the window that is cleared. Though the information is intermediate stored it will still be available in *Nimbus Alarm Server* and can be re-read if the window is closed and reopened.

6.3 History System Log...

The system log is stored in the Nimbus catalogue, and the last two weeks debug files are to be find in this menu. The rest of the system log files may manually be opened in the Nimbus catalogue.
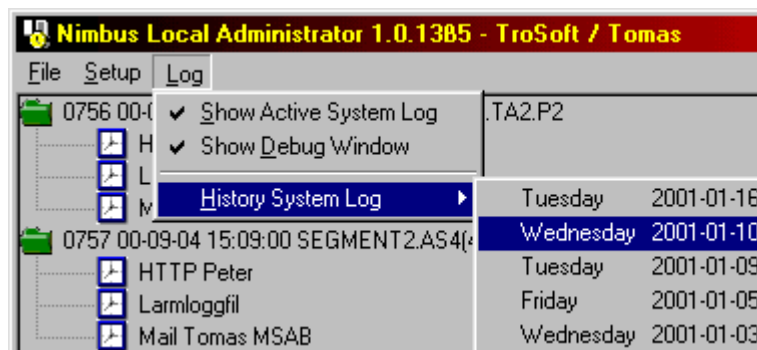
7. Appendix - Startparameters for Nimbus Alarm Server

These startparameters intends to install/uninstall *Nimbus Alarm Server* as a service in Windows NT to be able to be controlled by the *Windows NT SCM (Service Control Manager)*. In these cases no messages will be shown on the screen, though a user may not be logged in when the service is started. Any messages will be sent to the *Windows NT Event Viewer.*

/I   Install *Nimbus Alarm Server* as a service. It is done using *Start - Run* and

"c:\Program Files\Nimbus Alarm Server\nimserv.exe" /i

A message shows the result. Check *'Services'* in the *Control Panel* that the setup conditions are the desired. The default is '*Automatic*', which means it will start when Windows NT is booting.

When *Nimbus Alarm Server* is installed as a service, it shall not be started and stopped using *Nimbus Administrator.* The *Control Panel* must be used for this.

/U   Uninstall *Nimbus Alarm Server* as a service. It is done using *Start - Run* and

"c:\Program Files\Nimbus Alarm Server\nimserv.exe" /u

A message shows the result.

8. Appendix - Startparameters Nimbus Administrator

These startparameters are more of statistic character and should be stated directly in the shortcut.

/L   Disables the in- and outlog menu alternatives in *Nimbus Administrator.* This parameter is always used together with */P* to force *Nimbus Administrator* to a selected user.

/P:xxxx   Logs automatically in with the attached password, for example:

            "c:\Program Files\Nimbus Alarm Server\nimadmin.exe" /L /P:1234

            will log in with the code *'1234'* and after that prevent further in- and outlog.

9. Appendix - Databases

The following files are textbased and can be edited directly with *NotePad* etc. To make the changes valid, a restart of *Nimbus Alarm Server* is almost always neccessary .

There are almost no settings stored in the registry. This means that the Nimbus settings may easily be copied, though all settings are in the Nimbus catalogue where the Nimbus INI-files reside.

9.1 NIMADMIN.INI

```
;
; Nimbus  Alarm  Router  Administrator  INI-file
;

[General]
; Language  in  menus
Language=046
```

If the parameter *'Language='* is removed, *Nimbus Administrator* will show the language select window at startup.

9.2 NIMSERV.INI

```
;
; Nimbus  Alarm  Router  Server  INI-file
;

[General]
; Used for info
ServerName=Acme  på  TroSoft

; Just  grows
NextAlarmID=0582

; Language  in  menus
Language=046

; The cleanup interval, should be less than the different
; systems  Scan  Intervals
ScanInterval=2000

; Keys  Connected  to  the  System's  Sentinel
SentinelKey=FC3A66-C0D4C4-8E6C1D-B66C1E

; The alarm treshold. If the number of alarms read from the SCADA system
; overrides this value within the Scan Interval, it is considered as a
; failure. This will cause that Nimbus will remove all alarms, and create
; an alarm with Category set to NIMBUS that indicates this problem.
; Set to 0 to disable this function.
AlarmTreshold=0

; The WatchDog is used to indicate when no events are passed to Nimbus.
; If set to 0 it is disabled.
; Set the time in minutes that can pass between events (even events
; that are not routed resets the watchdog timer) before Nimbus will
; create an alarm with Category set to NIMBUS that indicates this problem.
WatchDog=0

; Date  format
DateFormat=YY-MM-DD

; Time  format
TimeFormat=HH:NN:SS
```

```
; What date and time info should be used ? If set to 1, it will
; use the Nimbus Alarm Server PC time when routing alarms. If set to
; 0 (default), the alarms will be routed using the time and date info
; that is extracted from the PLC/SCADA system (if any time is given there)
RouteUsingServerTime=0

; This parameter is used by Nimbus Administrator to determine if
; Nimbus Alarm Server is running as a service. Setting it to 1 will
; NOT cause Nimbus Alarm Server to be installed as a service. This
; parameter should not be changed. Use the NIMServ.EXE /I and
; NimServ.EXE /U options to install/deinstall Nimbus Alarm Server
; as a service.
RunAsService=0

; Set this parameter to 1 to cause Nimbus Alarm Server not to show any
; messages (as when running as service). The icon in the notify area will
; still be visible when Nimbus Alarm Server is running.
IgnoreStartupMessages=0

[TCPIP]
; If disabled, no TCP/IP or UDP/IP functions will be used
Enabled=yes
; The port we are listening at for incoming Beijer Terminal SMTP requests
SMTPPort=25

; The port we are listening at for incoming Nimbus requests (other
; Nimbus Alarm Server)
NimbusPort=12418

[SysLog]
; If this time is exceeded, the older SysLog files will be deleted
KeepForDays=30

[Systems]
CITECT=C:\CITECT\USER\NIMBUS,5000
NOVAPRO=C:\SLASK\EPP01.EPP,5000
NOVAPRO=C:\SLASK\EPP02.EPP,5000
```

If the parameter *'Language='* is removed, *Nimbus Alarm Server* will show the language select window at startup.

Port numbering may be changed in the TCP/IP section for the SMTP-port *Nimbus Alarm Server* uses for IMSE Webmaster and Beijer terminals.

9.3   NIM_LANG.xxx

All existing texts in Nimbus are stored in a text based language resource file. These can freely be translated into other languages and be saved with a new name.

The text resource file names are composed of a static prefix but using an country specific extension, ex *NIM_LANG.044* where the extension refers to englands' country code. For Finland the file would be named *NIM_LANG.358.*

```
;
; NIM_LANG.044 - English text resource file
;
; Date     / Vers  / Sign / Comment
;    -------------------------------------------------------------
; 00.03.09 / 01.00  /  TR  / Main
; 00.03.22 / 01.00  /  TR  / Added 16,17
;
;
;
;    -------------------------------------------------------------
;

0=English
```

```
;  AboutBox

10=Nimbus  Alarm  Server
11=Nimbus  Administrator
12=Nimbus  Remote  Administrator
13=Version
14=Developed  by
15=for  Autic  System  AB
16=for  Sauter  Automation  AB
17=for  Johnson  Control

;  Server  and  Admin  Texts

100=Nimbus  already  started
101=uninstalled  successfully
102=failed  to  uninstall
```

At first startup *Nimbus Alarm Server* and *Nimbus Administrator* will show the language resource files that are available. The information about which language the file contains is stated as text 0, in this case *'English'*.

9.4   NIM_xxxx.RCV

Each receiver type is defined in a RCV-file that describes how the communication takes place. That means that a new receiver type that is based on any of the built-in algorithms often can be implemented by simply create a new RCV-file.

At installation time, a number of OCV- and ONI-files are copied to the Nimbus directory. At startup time, these files are copied to RCV- and INI-files (if they not already exist). In this way the individual settings are preserved if an upgrade or reinstallation is done.

This example is for Telia SMSC using the UCP (Universal Computer Protocol):

```
[General]

Name=SMS  Telia  (Sweden)

Algorithm=UCP
MessageLength=160

[Protocol]
CallInputStringPrefix=01/00000/O/30/
CallInputStringSuffix=//1//////
WaitBeforeTransfer=5
WaitForAnswer=30
ResponseOk=//3/31
ResponseNotOk=/R/30/N/
ResponseBuffered=//3/32
Acknowledge=01/00019/R/01/A//69

[ReceiverSetupTemplate]
L0=Number
T0=

[ReceiverTypeSetupTemplate]
L0=Port
L1=Baudrate
L2=Parity
L3=Databits
L4=Stopbits
L5=Flowcontrol
L6=Retries
L7=Delay  (seconds)

L16=SMSC  Number
```

```
L17=Sender  ID
L18=Initstring
L19=Alarmformat

C0=COM1;COM2;COM3;COM4;COM5;COM6;COM7;COM8;COM9;COM10;COM11;COM12;COM13;COM14;COM15;COM16
C1=300;600;1200;2400;4800;9600;19200;28800
C2=None;Even;Odd;Mark;Space
C3=7;8
C4=1;1½;2
C5=None;Xon/Xoff;Hardware
C6=0;1;2;3;4;5;6;7;8;9;10;11;12;13;14;15;16;17;18;19
C7=5;10;20;30;40;50;60;120;180;240;360;480;600
```

The algorithm states the type of protocol that should be used.

Reservation   RCV-files from *NIM_0000.RCV* to *NIM_0999.RCV* are reserved for use by
TroSoft.
NIM_1000.RCV to *NIM_9999.RCV* can be freely used.

9.5   Import algorithms

The following algorithms are supported when this manual is written:

CIMD	Ex. Vodaphone SMS
DOSPRINTER	Opens LPTx and prints directly with DOS functions
FAX	Fax Class 2 och 2.0
GOOGOLT1	SafetyLine 300 baud protocol
HTMLDOCUMENT	HTML document
ILM	Nimbus Alarm Receiver (modem)
ILMTCP	Nimbus Alarm Receiver (TCP)
LPD	Line Printer Daemon
M20	Siemens M20T, Westermo GS-01
MINICALLUCP	Minicall via UCP (numeric/text)
MODEMPRINTER	PC Text SMS
MULTIUCP	Several SMS in same session
NETWORKPRINTER	Network printer
PCTEXT	PC Text SMS
POPUPFORM	Popupfönster
SERIAL	Serial connection
SMTP	Simple Mail Transfer Protocol
SOSACCESS	PC Text SMS
TAP	Telocator Alphanumeric Protocol
TCP	Raw TCP connection
TEXTFILE	Text file format
THS2.0	MiniCall text
T940SI	ESPA 4.4.4
UCP	Universal Computer Protocol

This increases for each upgrade of the software.

9.6   NIM_xxxx.INI

The receiver type settings are stored in a corresponding INI-file. The purpose for
this is that the RCV-file can be replaced without affecting local settings.

This example is for Telia SMSC using UCP:

```
;
; Telia SMS Settings
;
```

```
[ReceiverTypeSettings]
C0=0
C1=5
C2=0
C3=1
C4=1
C5=2
C6=0
C7=0
T16=0740930000
T17=1234
T18=AT&F^M~~~~ATS0=0
T19=[alarmdate]/[alarmtime][13][10][t0]/[t3]/[t4]
```

This setup should be made using *Nimbus Administrator*. Changing this file manually may give unpredictable results, and can even make *Nimbus Alarm Server* to stop sending events to the receiver type.

10. Appendix - Receiver types

Only settings that are unique to each receiver type are described in this section. This is part of the settings made in *'Setup - Receiver Type Setup'* and *'Setup - Receiver Setup'*.

In general it is no allowed to state receiver number etc with other characters than numeric, i e

0709-42 10 13

is a not valid number, it should be stated as

0709421013

Every receiver type headline is stated with the corresponding file number, i.e. *(0000)* for *SMS Telia* indicates that the algorithm etc is described in *Nim_0000.RCV* and the settings are stored in *Nim_0000.INI*.

10.1 SMS Telia (Sweden) (0000)

Through Telia SMSC can SMS also be sent to other operators in Sweden, i e *Europolitan* and *Comvik* though they have a roaming agreement with Telia. It is also available for foreign (international) cellular phones.

Cost   Each call cost 2 SEK.

10.1.1 Setup - Receiver Type Setup

SMSC number The telephone number to Telia SMSC (*Short Message Service Centre)*. In Sweden it is always *0740930000.*

Sender ID   The sender number that is presented on the phone the message is sent to. The name will be presented instead of the number if it is associated with a name in the telephone book. Most of the SMSCs must have a pure numeric content in this field.

10.1.2 Setup - Receiver Setup

Number   Destination telephone number, any prefix included, for example *0709421013*. The country code must be added, if a foreign cellular telephone is the destination. I.e. *0046709321013*.

10.2 SOSAB (SOS Access Sweden) (0007)

SOS Access ASN.1 using Telia PAD and X.25 to SOSAB, for example in Väs-terås or Uppsala.

Cost   Subscription on X.28 (PAD) and subscription with actionplan by SOSAB.

10.2.1 Setup - Receiver Type Setup

DataPak no The telephone number used to establish contact with Telias DataPak service. It is a modempool/gateway that provides access to the X.25 net where X.28 net itself reside. This telephone number is *020391010* and it is a modempool with autobaud modems up to 33.6 kbps.

The old numbers *020910037/23* should not be used.

SenderID	This is the subscriber number. It oftens begins with *9*, for example *901252*.
Password	The password that is associated with the subscription number, for example '*SECRET*'
CoordCom Address	The address in the CoordCom system itself. It is given by SOSAB.
CoordCom Password	The password in the CoordCom system itself. It is given by SOSAB.

10.2.2   Setup - Receiver Setup

Datexaddress	The X.28 address to the unit that will receive events. To Västerås it is *02403717103311*.
Alarmcode ACTIVE	The code that is associated with an actionplan by SOSAB, for example XL42760002 etc.
Alarmcode INACTIVE/ ACKED.	The code that is associated with an actionplan by SOSAB, for example XL42760003 etc

10.3   Fax Class 2.0 and Fax Class 2 (0008/0009)

When a faxpage is sent, *Nimbus Alarm Server* always try to send as many events as possible. Up to 50 lines can be created for each page. Practically the result mostly is one or two rows, though it usually takes some time before new events occurs. *Nimbus Alarm Server* waits for 2 seconds.

Cost	As a telephonecall.

10.3.1   Setup - Receiver Type Setup

Sender ID	The ID that is used as *FLID*. The receiving fax usually writes it as header or footer on the fax and is shown in an display (if existing) as sender name.
Init Prefix	String that is sent to the modem before the *AT+CLASS=2* command.
Init Suffix	String that is sent to the modem after the *AT+CLASS=2* command. These are different between Class 2 and Class 2.0

10.3.2   Setup - Receiver Setup

Number	The destination fax telephone number, for example *0853254451*.
Sender	The name that is stated in the '*From*:' field in the fax itself.

```
+---------------------------------------------------------------------+
! Alarm Server Name: Acme på TroSoft                                  !
+---------------------------------------------------------------------+
! From: TroSoft                                                       !
! To:   Fax TroSoft                                                   !
+---------------------------------------------------------------------+

        ACTIVE      01-03-03 07:46:59 S018_TA0220_GT81    Frysvakt
```

10.4   MiniCall Text THS 2.0 (Sweden) (0010)

MiniCall text using Telia PAD. This is a pretty old service and this protocol has partly been replaced with UCP.

Subscription   To be able to send via this service a X.28 (DataPak) subcription for MiniCall must exist. It is ordered by Telia, telephone number +46 90400.

Cost   Each call cost 1 SEK + 0.05 SEK per character.

10.4.1   Setup - Receiver Type Setup

DataPak no   The telephone number used to establish contact with Telias DataPak service. It is a modempool/gateway that provides access to the X.25 net where X.28 net itself reside. This telephone number is *020391010* and it is a modempool with autobaud modems up to 33.6 kbps.
The old numbers *020910037/23* should not be used.

Sender ID   This is the subscriber number. Begins often with *9*, for example *901252*.

Password   The password that is connected with the subscription number, for example '*SECRET*

10.4.2   Setup - Receiver Setup

Number   The number to the pager . It should be stated without prefix, for example if the pager number is *0746-453390* only *453390* shoud be stated.

10.5   MiniCall Numerik UCP (Sweden) (0011)

MiniCall Numerik using Telia SMSC (*Short Message Service Centre*).

Cost   Each call cost 4 SEK.

10.5.1   Setup - Receiver Type Setup

SMSC number The telephone number to Telia SMSC for MiniCall *(Short Message Service Centre)*. In Sweden it is always *0740931000*.

10.5.2   Setup - Receiver Setup

Number   Pager number prefix number included, for example *0740123688*. The prefix number must always be stated.

10.6   SECURIS (SOS Access Sweden) (0012)

SOS Access ASN.1 using Telia PAD and X.25 to Securitas, for example in Stockholm.

Cost   Subscription with actionplan by Securitas.

10.6.1 Setup - Receiver Type Setup

DataPak no   The telephone number used to establish contact with Telias DataPak service. It is a modempool/gateway that provides access to the X.25 net where X.28 net itself reside. This telephone number is *020391010* and it is a modempool with autobaud modems up to 33.6 kbps.
The old numbers *020910037/23* should not be used.

Sender ID   Not used.

Password   Not used.

User ID   User ID to *the ASM0* system, for example *980400410002000*. It is given by Securitas.

User PW   Password to the *ASM0* system. It is given by Securitas.

10.6.2 Setup - Receiver Setup

Datexaddress The X.28 address to the unit that will receive events. To Stockholm it is *SECURIS.* Any X.25 subscription is not needed, though the system is based on the name domain system.

Alarmcode ACTIVE   The code that is associated with an actionplan by Securitas, for example 3000000401.

Alarmcode INACTIVE /ACKED   The code that is associated with an actionplan by Securitas, for example 3000000400.

10.7 Modem Printer (0014)

Cost   As a telephonecall.

10.7.1 Setup - Receiver Type Setup

DOS-Ascii   *Yes* or *No*. Selects whether the printer character set is *ISO-Latin 1* or *IBM-ASCII (DOS)*. The easiest way to find out if it is correct is by simply send a text message with *Nimbus Administrator.*

10.7.2 Setup - Receiver Setup

Number   The telephone number to the modem printer with any prefix included, for example *0853257436*.

10.8 LPD TCP/IP Printer (0015)

Printer on network using LPD *(Line Printer Daemon)*. Most printerservers/ networkcard to printers with TCP/IP protocol supports also LPD.

The *Nimbus Alarm Server* computer does not need to be logged into a network or server, neither connected to a printerqueue. The LPD receiver type uses the Winsock layer directly.

The printer should be a matrix type that feeds the paper somewhat after print-out, and pulls it back when next printout is to be made.

No formfeeds are made by *Nimbus Alarm Server.*

10.8.1   Setup - Receiver Type Setup

No specific.

10.8.2   Setup - Receiver Setup

IP Address/   The address to the printer in dotnotation, for example *'192.168.123.7'.* As
Name   an alternative the hostname may be entered if it is available from DNS or via
                Hosts, for example *'046larmprinter.trosoft.se'.*

Queuename   Which queue to be used. See in the printer server manual. Often is the queue
              name *PR1, PR2* etc.

10.9   Network Printer (0016)

Printer on network via installed network protocols. The print-out is made through
the operative system and often requiers that the machine belongs to a domain, or
is logged in on a server (for example Novell or NT).

The printer should be a matrix type that feeds the paper somewhat after print-out,
and pulls it back when next printout is to be made.

No formfeeds are made by *Nimbus Alarm Server.*

10.9.1   Setup - Receiver Type Setup

Send through   The messages are sent using a virtual DOS printer port to prevent the windows
                 subsystem from sending a formfeed. The DOS printer port is redirected to point
                 to the desired network printer. Also a physical LPT-port may be redirected.
                 Choose between *LPT1-LPT7*. Default is *LPT3*.

                 If the printer is a laserprinter (or equalivalent) that must do a paperfeed, add a
                 FormFeed in the alarmformat. This is ASCII-cod 12, which means that *'[12]'*
                 should be appended to the alarm format. Some printers need other charactes to
                 empty the buffer and print the page.

10.9.2   Setup - Receiver Setup

Printerqueue   UNC to the printer, for example *'\\STO_MAIL1\046NEC62'.*

Password   A password associated with the printer (if it is shared using a password).

10.10 Textfile (0018)

Writes the message into a ordinary textfile.

10.10.1 Setup - Receiver Type Setup

Function   Append or Overwrite. Decides if the file shall be deleted before the new message
             is written. If you select 'Append' the textfile will grow unimpededly.

10.10.2 Setup - Receiver Setup

Filename   The name of the textfile with path included, for example *'c:\larm.txt'* or
              '\\046STOMAIL1\TRook$\larm.txt'.

10.11 Printer (0019)

A printer that is physically connected to then *Nimbus Alarm Server* computer, or a
network printer already associated to an UNC (printing using DOS).

The printer should be a matrix type that feeds the paper somewhat after print-out,
and pulls it back when next printout is to be made.

No formfeeds are made by *Nimbus Alarm Server.*

If the printer is a laserprinter (or equalivalent) that must do a paperfeed, add a
FormFeed in the alarmformat. This is ASCII-cod 12, which means that *'[12]'*
should be appended to the alarm format. Some printers need other charactes to
empty the buffer and print the page.

10.11.1 Setup - Receiver Type Setup

DOS-Ascii   *Yes* or *No*. Selects whether the printer character set is *ISO-Latin 1* or *IBM-ASCII*
              (DOS). The easiest way to find out if it is correct is by simply send a text
              message with *Nimbus Administrator.*

10.11.2 Setup - Receiver Setup

Printerport Select between *LPT1-LPT7.*

10.12 HTML Document (0020)

Events can be saved in a HTML document. This means that a Webpage can be
automaticaly created on another server which makes it easy to publish the page
without having a webserver installed on the *Nimbus Alarm Server* computer.

There is of course nothing against that *PWS (Personal Web Server), IIS (Internet
Information Server), Apache (www.apache.org)* etc is installed on the same
computer as *Nimbus Alarm Server* and the SCADA system to be able to publish
these documents directly.

Incoming events that should be sent to a receiver of this type are intermediate
stored in a temporary database. After each new incoming event the HTML
document is recreated from the database and template file and written to the
destination location.

10.12.1 Setup - Receiver Type Setup

Template   The web page template that shall be used, for example

              c:\Program Files\Nimbus Alarm Server\alarms.htm

              This is a standard HTML document that can be created with an optional tool,
              FrontPage etc. A standard web page template is also provided in the Nimbus
              catalogue (*Alarms*.htm).

              The tag *'<nimbus alarms>'* in the HTML file is replaced with the number of events

that are intermediated stored in the temporary database. Each event creates a line with exactly the same appearance as the one where *'<nimbus alarms>'* resides, but *'<nimbus alarms>'* is replaced with the formatted message.

10.12.2 Setup - Receiver Setup

HTML file The file and path where to store the recreated HTML document, for example
\\WebServ1\wwwroot$\Program\Apache Group\Apache\htdocs\peter.htm

Temp file The temporary database where events to this receiver are intermediated stored, for example
c:\Program Files\Nimbus Alarm Server\peter.tmp

This name must always be unique if it is more than one receivers with this receiver type, or the events will be mixed. The intermediate store is needed by *Nimbus Alarm Server* to keep track of previous events.

Lines The number of events that shall be intermediated stored in the temporary database. Each event creates at least one line (depending how the alarm format is stated). The number of lines should be small if the document is to be presented on a WAP-phone or a PalmPilot etc with slow transfer and small screensize.

10.13 Mail (SMTP) (0021)

Electronic mail is sent using SMTP *(Simple Mail Transfer Protocol)* directly to a SMTP server via *Winsock (TCP/IP).* That implies that an active TCP connection to a SMTP server must exist, i.e to the company's mailserver etc. The mailserver need to support SMTP, for example *Advox Omingate* (forwards to *Lotus Notes (Domino), Lotus cc:Mail, Microsoft Exchange, POP3* etc), *TFS Gateway, Microsoft Exchange* etc.

Internet A direct connection to Internet is of course the best, but unfortenately rather expensive. An ISDN router that connects to a Internet provider is a fast, nice and rather cheap way to send mail using Internet.

PPP Internet Also non-direct connections (dial-out) could be used if the PPP connection is automatically dialling when a TCP request is made. This requires that the timeouts for SMTP increases considerable, and is not recommended.

POP3 *Post Office Protocol*, which is used to collect electronic mail. *Nimbus Alarm Server* has no support for collecting electronic mail, only to send them.

Installation *Nimbus Alarm Server* does not require any particular application to be installed to be able to send electronic mail (i.e. Outlook etc), though *Nimbus Alarm Server* works directly to a TCP port and does not use *MAPI (Message Application Programmers Interface).* The only requirement is that the TCP/IP protocol is installed and that it works.

10.13.1 Setup - Receiver Type Setup

SMTP Server IP address in dot notation or the name on the mailserver, for example

192.168.123.50
STOMAIL1.Lotus.com
mail.telia.com
www.hotmail.com

If the hostname is given, it must be resolved using either DNS or Hosts file.

User ID	Is used when negotiating with the mailserver. Most mailservers do not care about this while standard SMTP does not have any function for authentication. Enter the user id that came from the ISP (Internet Service Provider) if a normal Internet account is used.

10.13.2 Setup - Receiver Setup

Receiver address	The receivers' E-mail address, for example

> *david@autic.se*
> *jour@securitas.se*

Reply address	Though *Nimbus Alarm Server* do not support incoming electronic mail, an existing reply address should be used if the receiver for some reason choose to reply the message. It can be an address to a coordinating person. The person that receives the message about the event (*receiver address*) selects *'Reply with history'* (or the equivalent function) and adds some information about his actions. The answer will be sent to the answering address, for example

> *driften@hs.dalkia.se*
> *tomten@jul.se*

In some cases the mailserver requires that the reply address really exists and belongs to a valid domain (mail spam prevent).

Subject	Comes up in the subject field. Suitable is some describing text about the content,

A-alarm from Ryhov
Alarm from B841

etc.

Later versions of *Nimbus Alarm Server* allows that format expressions are used in this field, i.e. *'[date] [time] [t0]'* etc.

10.14 SMS Telenor (Norway)   (0022)

While Telenor has roaming agreement with other operators, SMS can be sent not only there but also to NetCom. It is also possible to send to foreign cellular phones.

Cost	1 NOK.

10.14.1 Setup - Receiver Type Setup

SMSC number	The telephone number to Telenor SMSC *(Short Message Service Centre).* In Norway it is always *090002198.*
Sender ID	The sender number that are presented on the phone the message is sent to. The name will be presented instead of the number if it is associated with a name in the telephone book. Most of the SMSC must have a pure numeric content in this field.

10.14.2 Setup - Receiver Setup

Number	Destination telephone number with prefix code included, for example *0900111087*. If a foreign cellular telephone is used the country code must be added, *0046709321013*.

10.15 SMS NetCom (Norway)   (0023)

Sends SMS to NetCom connected cellular telephones.

Cost   ? NOK.

10.15.1 Setup - Receiver Type Setup

TAP number The telephone number to NetCom TAP *(Telocator Alphanumeric Protocol)*. In Norway it is always *092000890*.

Password   Some types of TAP centers require a password but NetCom does not.

10.15.2 Setup - Receiver Setup

Number   Destination telephone number with prefix code included, for example *0920211586.*

10.16 SMS Siemens M20T Europolitan/Telia   (0024/0025)

Through Siemens M20T (ex *ETM9000* from *ETM Mätteknik AB, +46 8 252875*) SMS may be sent to cellular telephones without a normal telephone subscription (not physically connected to PSTN), while M20T is placed in the GSM-net. The advantage to use M20T is that it is small and suited to fit in a control cabinet, for a pumpstation without connection to the telephone net etc. It is also considerably faster to send SMS this way versus using an ordinary modem. The response time with acknowledgement usually is about 20 seconds.

Cost   2 SEK.

10.16.1 Setup - Receiver Type Setup

SMSC number The telephone number to SMSC *(Short Message Service Centre).* It usually does not need to be stated.

PIN   The PIN-code to the SIM-card.

Avoid to use the SMSC-number and the PIN-code if possible. It it will add some extra seconds to each message that is sent, though Nimbus Alarm Server must send this to the M20T before each message.

10.16.2 Setup - Receiver

Number   Destination telephone number with prefix number included, for example *0709421013*.

10.17 BT Mobile Text Paging (UK)   (0026)

Through British Telecom SMSC text messages can also be send to foreign cellular phones.

Cost   ? GB.

10.17.1 Setup - Receiver Type Setup

TAP number	The telephone number to BT's SMSC *(Short Message Service Centre)* in the UK is always *0345581354*.
Password	Some types of TAP centers require a password but BT does not. Leave this field empty.

10.17.2 Setup - Receiver Setup

Number	Destination cellular telephone number, any prefix included. The country code must be added, if a foreign cellular telephone is the destination, i e *0046709321013*.

10.18 SMSC D1 (Germany) (0027)

Through D1 SMSC text messages can also be sent to foreign cellular telephones.

Cost	? DEM.

10.18.1 Setup - Receiver Type Setup

TAP number	The telephone number to D1's SMSC (Short Message Service Centre). In Germany it is always *01712092522*.
Password	Some types of TAP centers require a password but D1 does not. Leave this field empty.

10.18.2 Setup - Receiver Setup

Number	Destination cellular telephone number, any prefix included. The country code must be added, if a foreign cellular telephone is the destination, i e *0046709321013*.

10.19 Nimbus Alarm Receiver (modem) (0028)

Nimbus Alarm Receiver receives alarms through modem or TCP. This receiver type is used for intermittent (dial-up) modem connections. *Nimbus Alarm Receiver* is installed on one computer by a security company to where the events are destinated. *Nimbus Alarm Receiver* may receive events from one or more *Nimbus Alarm Servers*. The function of *Nimbus Alarm Receiver* is that it can print the event out locally, and returns an acknowledge to *Nimbus Alarm Server* when this is accomplished. All events are also presented in a tree view in *Nimbus Alarm Receiver*.

Cost	As an ordinary phone call.

10.19.1 Setup - Receiver Type Setup

Sender	*Nimbus Alarm Server* may also verify the quality of the connection by using the existing *Nimbus Alarm Receiver*. *Nimbus Alarm Receiver* must keep track of the *Nimbus Alarm Servers* that have verified the connection, and therefore a unique sender ID must be used. It could be *NIMBUS* or *HOGALID* etc.

10.19.2 Setup - Receiver Setup

Number	The phone number where the destination computer´s *Nimbus Alarm Receiver* is connected at.
KeepAlive	The interval *Nimbus Alarm Server* uses to verify the connection with this receiver. This interval must be shorter than the timeout that is set in *Nimbus Alarm Receiver (the destination)*.
	Ex 1200 (minutes = 20 hours) is entered in this field, and 1440 (minutes = 24 hours) is set in the destination *Nimbus Alarm Receiver*. If *Nimbus Alarm Server* doesn't verify the connection within the specified time (1440 minutes) because of some communication problem, the destination *Nimbus Alarm Receiver* will create a local alarm that indicates that the connection is bad.

10.20 Nimbus Alarm Receiver (TCP) (0029)

Nimbus Alarm Receiver receives alarms through modem or TCP. This receiver type is used for TCP connections. These can be on compact local subnet, via router, ISDN or PPP etc (even though dial-up PPP via modem is not recommended, better to use *Nimbus Alarm Receiver* directly with the modem). *Nimbus Alarm Receiver* is installed on one or more computers by the users in a LAN/WAN for example operating personnel, where *Nimbus Alarm Receiver* may receive events from one or more *Nimbus Alarm Servers*. The function of *Nimbus Alarm Receiver* is that it can print the event out locally, and returns an acknowledge to *Nimbus Alarm Server* when this is accomplished. All events are also presented in a tree view in *Nimbus Alarm Receiver*.

Nimbus Alarm Server and *Nimbus Alarm Receiver* uses the Winsock layer which means that the computers does not need to be logged in to the network.

The only obligation is that a working TCP/IP support exists.

10.20.1 Setup - Receiver Type Setup

Sender	*Nimbus Alarm Server* may also verify the quality of the connection by using the existing *Nimbus Alarm Receiver*. *Nimbus Alarm Receiver* must keep track of the *Nimbus Alarm Servers* that have verified the connection, and therefore a unique sender ID must be used. It could be *NIMBUS* or *HOGALID* etc.

10.20.2 Setup - Receiver Setup

IP-address	The IP-address for the destination computer´s *Nimbus Alarm Receiver*. The address is stated in dot notation or as a name, for example *192.168.123.76* or *nimrcv2.automatisera.nu* etc. If it is a it must be able to resolve using DNS or Hosts.
	There is no directly support for clients that use DHCP. This can however be solved if WINS/DNS-connection is used.
KeepAlive	The interval *Nimbus Alarm Server* uses to verify connection. This interval must be shorter than the timeout that is set in *Nimbus Alarm Receiver (the destination)*.
	Ex 120 (minutes = 2 hours) is entered in this field, and 180 (minutes = 3 hours) is set in the destination *Nimbus Alarm Receiver*. If *Nimbus Alarm Server* don't verify the connection within the specified time (180 minutes) because of some communication problem, the destination *Nimbus Alarm Receiver* will create a local alarm that indicates that the connection is bad.

10.21 SMS Libertel (Netherlands)   (0030)

Through Libertel SMSC may SMS also be sent to foreign (international) telephones.

Cost   ? NLG.

10.21.1 Setup - Receiver Type Setup

PCText Central Phone numer to the Libertel SMSC *(Short Message Service Centre).* In the Netherlands, it is always *0654545000.*

10.21.2 Setup - Receiver Setup

Number   Destination cellular telephone number, any prefix included, for example *0900111087*. The country code must be added, if a foreign cellular telephone is the destination, i e *0046709321013*.

10.22 Nimbus Popup (0031)

Views every event in a single system modeless popup form. The form pops up at the same machine the *Nimbus Alarm Server* runs at. *Nimbus Alarm Server* should not be runned as a service if this receiver type is to be used.

10.22.1 Setup - Receiver Type Setup

No special settings. The location of the form may be changed in NIM_0031.RCV.

10.22.2 Setup - Receiver Setup

No special settings.

10.23 T940SI (ESPA444 via RS-232) (0032)

The ESPA protocol is used by Ascom, Ericsson and several other phone equipment manufacturers. It is a polled protocol and is used for pagers and DECT phones.

10.23.1 Setup - Receiver Type Setup

Header   Header type. Defaults to *Call to pager*.

Beep coding Could be changed if desired. A copy of this receiver type must be made if beep codes should be mixed in a system.

Call type   Defaults to *Standard call*.

Transmiss. Not Used.

Priority   Not Used.

Info Page   Not Used.

10.23.2 Setup - Receiver Setup

Number   The pager (or DECT phone) number. It may be necessary to pad with leading zeroes, i.e. *004* etc.

10.24 T940SI (ESPA444 via TCP/IP) (0033)

The ESPA protocol is used by Ascom, Ericsson and several other phone equipment manufacturers. It is a polled protocol and is used for pagers and DECT phones.

10.24.1 Setup - Receiver Type Setup

Header   Header type. Defaults to *Call to pager*.

Beep coding   Could be changed if desired. A copy of this receiver type must be made if beep codes should be mixed in a system.

Call type   Defaults to *Standard call*.

Transmiss.   Not Used.

Priority   Not Used.

Info Page   Not Used.

10.24.2 Setup - Receiver Setup

Number   The pager (or DECT phone) number. It may be necessary to pad with leading zeroes, i.e. *004* etc.

IP Address/ Name   The address to the terminal server used to comunicate with the ESPA device (in dotnotation), for example *'192.168.123.7'*. As an alternative the hostname may be entered if it is available from DNS or via Hosts, for example *'espa.trosoft.se'*.

10.25 SMS Europolitan (Sweden) (0034)

Cost   ? SEK

10.25.1 Setup - Receiver Type Setup

SMSC Number   0708 331950

SMSC Login   Cimd1

CIMD Login   EURO_CMD

SMSC number   The telephone number to Europolitan SMSC (*Short Message Service Centre*). In Sweden it is always *0708 331950.*

SMSC login   The service that is to be used. Defaults to *Cimd1.*

CIMD Login   The login for the CIMD service. Defaults to *EURO_CMD.*

CIMD Password   Password for the above login. Defaults to *2062*.

10.25.2 Setup - Receiver Setup

Number	Destination telephone number, any prefix included, for example *0709421013*. The country code must be added, if a foreign cellular telephone is the destination. I.e. *0046709321013*.

10.26 SMS Tele (Finland) (0035)

Cost	? FIM

10.26.1 Setup - Receiver Type Setup

SMSC number	The telephone number to Tele's SMSC (*Short Message Service Centre*). In Finland it is always 0209801.
Sender ID	The sender number that is presented on the phone the message is sent to. The name will be presented instead of the number if it is associated with a name in the telephone book. Most of the SMSCs must have a pure numeric content in this field.

10.26.2 Setup - Receiver Setup

Number	Destination telephone number, any prefix included, for example *0709421013*. The country code must be added, if a foreign cellular telephone is the destination, i e *0046709321013*.

10.27 SMS Tele (Denmark) (0036)

Cost	? DKK

10.27.1 Setup - Receiver Type Setup

SMSC number	The telephone number to DK Tele's SMSC (*Short Message Service Centre*). In Denmark it is always 04362550.
Sender ID	The sender number that is presented on the phone the message is sent to. The name will be presented instead of the number if it is associated with a name in the telephone book. Most of the SMSCs must have a pure numeric content in this field.

10.27.2 Setup - Receiver Setup

Number	Destination telephone number, any prefix included, for example *0709421013*. The country code must be added, if a foreign cellular telephone is the destination, i e *0046709321013*.

10.28 SMS Swisscom (Schweiz) (0037)

Cost	?

10.28.1 Setup - Receiver Type Setup

SMSC number	The telephone number to Swisscom's SMSC (*Short Message Service Centre*). In Switzerland it is always 0794998990.

Sender ID   The sender number that is presented on the phone the message is sent to. The name will be presented instead of the number if it is associated with a name in the telephone book. Most of the SMSCs must have a pure numeric content in this field.

10.28.2 Setup - Receiver Setup

Number   Destination telephone number, any prefix included, for example *0709421013*. The country code must be added, if a foreign cellular telephone is the destination, i e *0046709321013*.

10.29 MiniCall Text UCP (Sweden) (0038)

MiniCall text using Telia UCP.

Subscription   To be able to send via this service a X.28 (DataPak) subcription for MiniCall must exist. It is purchased from Telia, telephone number +46 90400.

Cost   Each call cost 1 SEK + 0.05 SEK per character.

10.29.1 Setup - Receiver Type Setup

DataPak no   The telephone number used to establish contact with Telias DataPak service. It is a modempool/gateway that provides access to the X.25 net where X.28 net itself reside, which is connected to the UCP central. This telephone number is *020391010* and it is a modempool with autobaud modems up to 33.6 kbps.

Sender ID   This is the subscriber number. Begins often with *9*, for example *901252*.

Password   The password that is connected with the subscription number, for example '*SECRET*'

10.29.2 Setup - Receiver Setup

Number   The number to the pager. It should be stated with prefix, for example if the pager number is *0746-453390*, *453390* should be stated.

10.30 SMS Westermo GS-01 (Europolitan/Telia) (0039/0040)

Through Westermo GS-01 SMS may be sent to cellular telephones without a normal telephone subscription (not physically connected to PSTN), while GS-01 is placed in the GSM-net. The advantage to use GS-01 is that it is small and suited to fit in a control cabinet, for a pumpstation without connection to the telephone net etc. It is also considerably faster to send SMS this way versus using an ordinary modem. The response time with acknowledgement usually is about 20 seconds.

Cost   2 SEK.

10.30.1 Setup - Receiver Type Setup

SMSC number   The telephone number to SMSC *(Short Message Service Centre).* It usually does not need to be stated.

PIN   The PIN-code to the SIM-card.

               Avoid to use the SMSC-number and the PIN-code if possible. It it will add some
               extra seconds to each message that is sent, though Nimbus Alarm Server must
               send this to the GS-01 before each message.

10.30.2 Setup - Receiver

Number   Destination telephone number with prefix number included, for example
               0709421013.

10.31 SMS Telia Multi (Sweden) (0041)

This receiver type is used to send many messages in one connection. Through
Telia SMSC can SMS also be sent to other operators in Sweden, i e *Europolitan*
and *Comvik* though they have a roaming agreement with Telia. It is also available
for foreign (international) cellular phones.

Cost   Each call cost 2 SEK (for 2 messages), 10 SEK (for 15 messages) or 20 SEK
               (for 40 messages).

10.31.1 Setup - Receiver Type Setup

SMSC number   The telephone number to Telia SMSC (*Short Message Service Centre*). In
               Sweden it is always *0740930000* (for 2 messages), *0740930100* (for 15
               messages) and *0740930200* (for 40 messages).

Messages/conn. Number of messages that may be transmitted per session to the number
               above. Nimbus calculates how many messages that is waiting and makes a call
               to the number that could take all at once. *No cost calculation is made !*

Sender ID   The sender number that is presented on the phone the message is sent to. The
               name will be presented instead of the number if it is associated with a name in the
               telephone book. Most of the SMSCs must have a pure numeric content in this
               field.

10.31.2 Setup - Receiver Setup

Number   Destination telephone number, any prefix included, for example *0709421013*. The
               country code must be added, if a foreign cellular telephone is the destination, i e
               0046709321013.

10.32 SMS Vodafone (UK) (0042)

Sends SMS text messages via Vodafone to cellular telephones.

Cost   ? GB.

10.32.1 Setup - Receiver Type Setup

PCText Central The telephone number of the Vodafone SMS Centre in the UK is always
               07785499999.

10.32.2 Setup - Receiver Setup

Number   Destination telephones number, must be in the *international format* mobile number, digits (e.g. 44802123456).This must be translated from the national format number, which for the UK numbers is achieved by removing the leading 0 and adding the 44 prefixes. Spaces should not be included in mobile numbers.

10.33 BT Modem SMS Cellnet (UK) (0043)

Sends SMS text messages to British Telecom Cellnet cellular telephones.

Cost   ? GB.

10.33.1 Setup - Receiver Type Setup

TAP number   The telephone number of the Cellnet GSM SMS Centre in the UK is always 07860980480.

Password   Some types of TAP centers require a password but BT does not.

10.33.2 Setup - Receiver Setup

Number   Destination telephones number, must be in the *international format* mobile number, digits (e.g. 44802123456).This must be translated from the national format number, which for the UK numbers is achieved by removing the leading 0 and adding the 44 prefixes. Spaces should not be included in mobile numbers.

10.34 BT EasyReach Text Paging (UK) (0044)

Sends SMS text messages to British Telecom Cellnet cellular telephones.

Cost   ? GB.

10.34.1 Setup - Receiver Type Setup

TAP number   The telephone number of the Cellnet GSM SMS Centre in the UK is always *09011130000*.

10.34.2 Setup - Receiver Setup

Number   Destination pager number, any prefix included, for example *0347851264*. The country code must be added if a foreign pager is the destination, i e *0046709321013*.

10.35 TCP Alarm Receiver (0045)

Could be used to send alarms to any TCP socket server (own applications etc). Nimbus just opens the desired port and send the alarm to the server immediately followed by a LF. It then expects a LF to be returned as an acknowledge. Nimbus will then close the socket.

Only one alarm message is sent per TCP session.

10.35.1 Setup - Receiver Type Setup

Default only.

10.35.2 Setup - Receiver Setup

IP Address   The address to the terminal server used to communicate with the TCP device (in dotnotation), for example *'192.168.123.7'*. As an alternative the hostname may be entered if it is available from DNS or via Hosts, for example *'tcp.trosoft.se'*.

The port number is available in the Nim_0045.RCV file. It is by default 12413.

10.36 Nimbus Alarm Server (Modem) (0046)

Could be used to send alarms to another *Nimbus Alarm Server* via modem. On the other *Nimbus Alarm Server* must a related import be created. In this way several remoted *Nimbus Alarm Servers* can send events to one central place, where the events are transmitted to destination receiver.

10.36.1 Setup - Receiver Type Setup

Sender   Sender ID

10.36.2 Setup - Receiver Setup

Number   The modem number to the other *Nimbus Alarm Server*.

10.37 Nimbus Alarm Server (TCP) (0047)

Is used to send alarms to another *Nimbus Alarm Server* via TCP. On the other *Nimbus Alarm Server* must a related import be created. In this way can a several remoted *Nimbus Alarm Servers* send events to one central place, where the events are transmitted to destination receiver.

10.37.1 Setup - Receiver Type Setup

Sender   Sender ID

10.37.2 Setup - Receiver Setup

IP Address/   The address to the other Nimbus Alarm Server (in dotnotation),
Name   for example *'192.168.123.7'*. As an alternative the hostname
may be entered if it is available from DNS or via Hosts, for example
'nimbus.trosoft.se'.
The portnumber is available in *Nim_0047.RCV* filen. It is by default *12418*.

10.38 GoogolT1 (Robofon) (0048/0049)

Sends messages to GoogolT1 for transmission via a script to Robofon or other receiver types supported by GoogolT1. There is a default script adapted to *Nim-*

bus Alarm Server. Contact SafetyLine AB, +46 8 564 721 50 to purchase this.

Attention! There are two different receiver types depending of the version, before or after 2.40.

10.38.1 Setup - Receiver Type Setup

Sender   Default only.

10.38.2 Setup - Receiver Setup

Number   The telephone number that is allocated T16 i GoogolT1. The easiest way is to program the telephone number directly into GoogolT1, then you leave this field empty.

Message Type   *Robofon Codes/Text*. If *Robofon Codes* is selected *Nimbus Alarm Server* will adjust the string to the right and fill it with zeros from the left up to 8 characters. If the string is longer it will be cut from left.

Static Code   If an alarm code is stated here when *Robofon Codes* is selected, *Nimbus Alarm Server* will always send the stated alarm code.

10.39 Serial (RS-232) (0050)

Is used to send alarms out on a COM-port (own applications etc). *Nimbus* opens simply the desired port and sends the alarm followed by a *LF*. After that *Nimbus Alarm Server* closes the port.

10.39.1 Setup - Receiver Type Setup

Default only.

10.39.2 Setup - Receiver Setup

Default only.

10.40 TeleCom SMS (New Zeeland) (0051)

Sends SMS text messages to TeleCom cellular telephones.

Cost   ? NZD

10.40.1 Setup - Receiver Type Setup

TAP number   The telephone number to TeleCom GSM SMS Centre in New Zeeland is always *026199999*.

Password   Always *zmnote*.

10.40.2 Setup - Receiver Setup

Number   The telephone number to the cellular phone, for example *274743642*.

10.41 TeleCom Pager (New Zeeland) (0052)

Sends text messages to TeleCom pager.

Cost ? NZD

10.41.1 Setup - Receiver Type Setup

TAP number The phonenumber to TeleCom GSM SMS Centre in New Zeeland is always *0264001283.*

Password Always *zmnote.*

10.41.2 Setup - Receiver Setup

Number The number to the pager, for example *2574466*.

10.42 SMS ComvIQ (Sweden) (0053)

Sends SMS through ComvIQ SMS centre.

Cost ? SEK

10.42.1 Setup - Receiver Type Setup

SMSC number The phonenumber to ComvIQ´s SMSC (Short Message Service Centre). In Sweden it is always +46 707119010.

Sender ID Must always be *100*.

10.42.2 Setup - Receiver Setup

Number Destination cellular phonenumber, any prefix included, for example *0347851264*. The country code must be added if a foreign cellular telephone is the destination, i e *0046709321013*.

11. Appendix - Imported systems

11.1 CiT Citect

The import of events in the Citect system is made by a log file. The log file is created using a device.

11.1.1 License

The import function to CiT Citect is depending of Citect's hardware lock (dongle). There is no need to have any extra hardware lock. A registration key is needed to make *Nimbus Alarm Server* work. This key is created by Autic System AB. Contact their registration centre +46 418 471160 or by E-mail to *david@autic.se*.

11.1.2 Export from CiT Citect

Name	This name is used in *Alarm Categories* and should be something descriptive.	
Format	The format must be exactly stated to	

{DATEEXT,10}|{TIME,8}|{TAG}|{NAME}|{DESC}|{CATEGORY}| {AREA}|{LOGSTATE}

no more or less. Please note that *{DATEEXT}* in Citect 5.00 only is named *{DATE}*.

File Name	The log file that should be exported from Citect for further import in *Nimbus Alarm Server*. It is suitable to place it in the project catalogue, but it does not need to be saved there. It can also be saved on a network server. The file *must* be named *NIMBUS.TXT*. Please note that in the server setup in *Nimbus Administrator* should only the path (catalogue) be stated, not the file name.
Type	ASCII_DEV
No. Files	3

Period   Monday

All other settings as above, i e empty fields.

As far as *Categories* is concerned each category that shall be exported must have *Log Device* set to the device that was recently created. The same device is used for all categories.

Log Alarm Transitions should be set to *TRUE* for all events. The selection is made by alarmroute profiles.

11.1.3   Import to Nimbus Alarm Server

The path to the log file is stated in the server setup in *Nimbus Administrator*. It must be the same as the path in *Devices*. Only the path shall be stated there, not the file name.
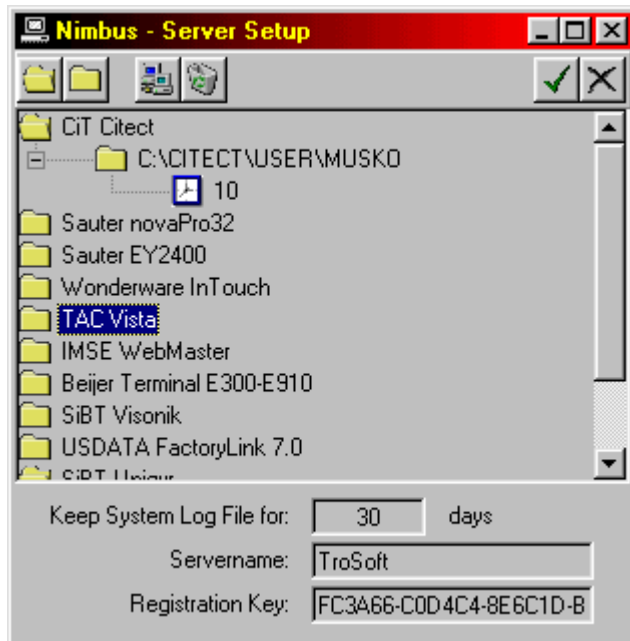
The import interval is set to the desired time, for example 10 seconds.

11.1.4   Expressions in format

[T0]   Tag
[T1]   Area
[T2]   Category
[T3]   Name
[T4]   Description
[T5]   Logstate

11.2   Sauter novaPro32

The export/import of events in *Sauter NovaPro* system is made by one or several log files. The log file is created as an EPP-file.

11.2.1   License

The import function for *Sauter novaPro32* is depending of a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.
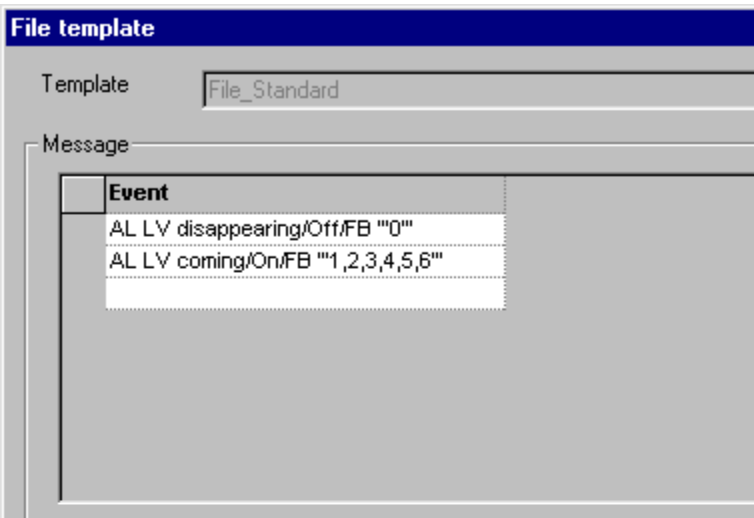
11.2.2   Export from Sauter novaPro32

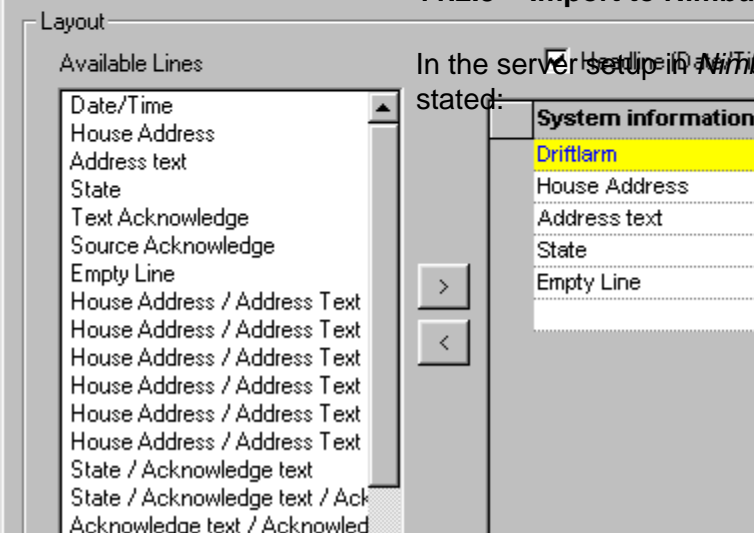Export / Filtering of alarms is made to one or several log files '*EPPnn.EPP*' via the function '*Messaging*'.

The log file is suitably placed in the project catalogue, but it does not need to be saved there. It can also be placed on a network server.

The file format is configured according to the following sample:

radmiol lof

File template

Template: File_Standard

Message

	Event
	AL LV disappearing/Off/FB '"0"'
	AL LV coming/On/FB '"1,2,3,4,5,6"'

Layout

Available Lines

Date/Time
House Address
Address text
State
Text Acknowledge
Source Acknowledge
Empty Line
House Address / Address Text
House Address / Address Text
House Address / Address Text
House Address / Address Text
House Address / Address Text
House Address / Address Text
State / Acknowledge text
State / Acknowledge text / Ack
Acknowledge text / Acknowled

System information
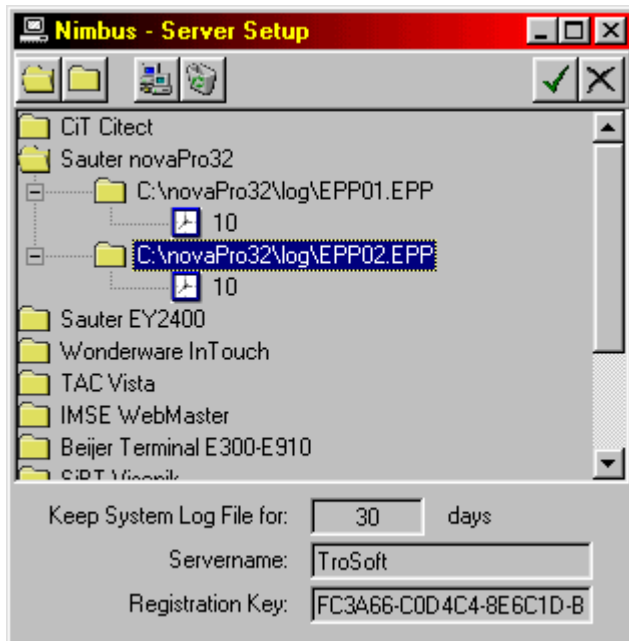
Driftlarm
House Address
Address text
State
Empty Line

11.2.3   Import to Nimbus Alarm Server

In the server setup in *Nimbus Administrator* is the path and name of the log files stated:

The import interval is set to the desired time, for example 10 seconds.

11.2.4   Expressions in format

[T0]   House Address (line 1 in message)
[T1]   (not used)
[T2]   Category, from the file name, for example *EPP02.EPP = 2*
[T3]   Address text (line 2 in message)
[T4]   Driftlarm (line 3 in message)
[T5]   State (line 4 in message)

Ignored   All events that have the text *'not responding'* or *'responding'* in Log state will be ignored.

INACTIVE   All status texts with the content *INACTIVE, CLEARED, OFF* or *NORMAL*.

ACKED   Is not used.

ACTIVE   All the other status texts.

Example of split:

```
02.11.1999  12:11  Startbox  Alarm  SB1.-VS02-GT1...-LAV  Heatwater  temperature
Normal
```

[T0]   *SB1.-VS02-GT1...-LAV*
[T2]   Depending on the file name the import is made from
[T3]   *Heatwater temperature*
[T4]   *Startbox Alarm*
[T5]   *Normal*

11.3   WonderWare InTouch

The import of events in the *WonderWare InTouch* system is made by a log file

(version <=7.1). The log file is created as an *ALG*-file.

11.3.1 License

The import function for *Wonderware InTouch* is depending of a separate hardware lock (dongle). Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.3.2 Export from WonderWare InTouch

Set up the alarm log file in *WindowMaker,* in the *Special - Configure - Alarms* menu, folder *Logging* :
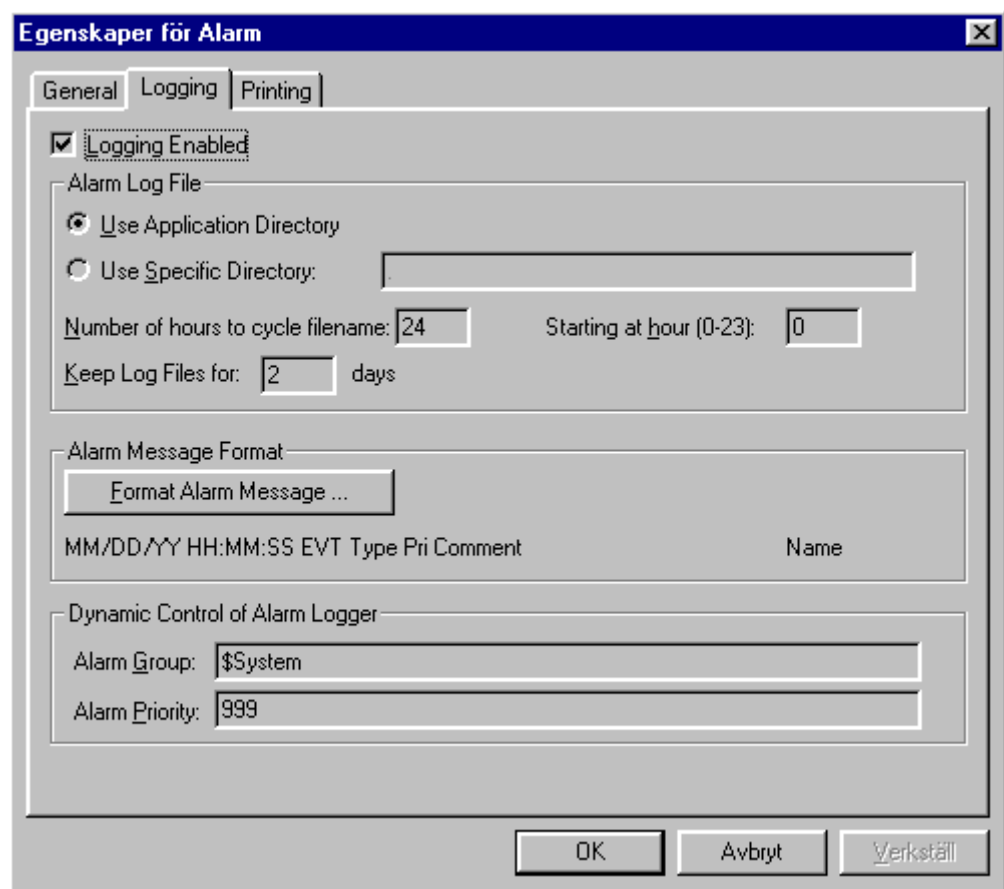
The cycle time for the log file must be at least two days. Be sure that *Starting at hour* is set to *0*.
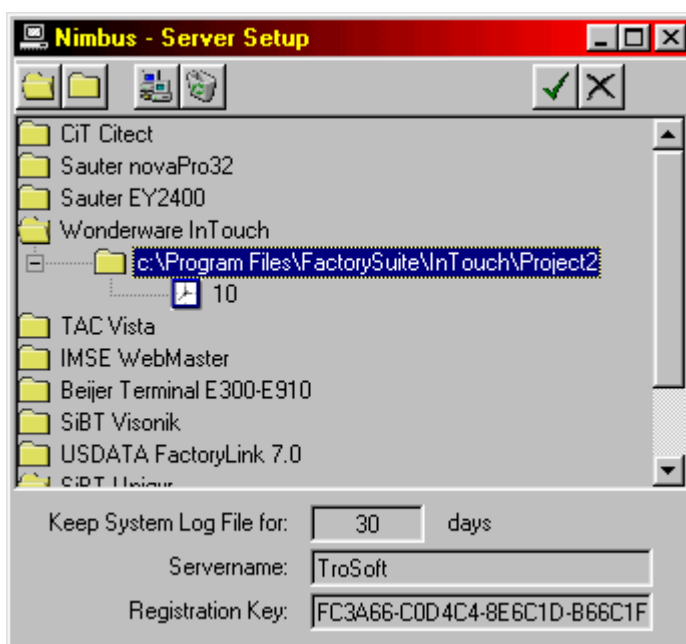
Enter *Format Alarm Message...* and state the following format:

All values are critical, i e they must be stated exactly as above.

11.3.3   Import to Nimbus Alarm Server

In the server setup in *Nimbus Administrator* is the path stated:

The import interval is set to the desired time, for example 10 seconds.

11.3.4 Expressions in format

[T0]   TagName, ex *TA0220GT81*
[T1]   Group Name, ex *$System*
[T2]   Priority, *0-999*
[T3]   Alarm Type, ex *LOLO, DISC*
[T4]   Comment, ex *Freezeprotection heatingbattery*
[T5]   State, ex *ALM, ACK, RTN*

Ignored   All events that do not indicate *ALM, ACK* or *RTN*.

INACTIVE   All status texts with the content *RTN*.

ACKED   All status texts with the content *ACK*.

ACTIVE   All other status texts.

11.4   WonderWare InTouch (version >= 7.11)

The import of events in the *WonderWare InTouch* system is made by a emulated TCP/IP-printer while InTouch 7.11 doesn´t support alarm logfiles.

To be able to use TCP/IP-printer must InTouch 7.11 patch 4 be installed.

11.4.1   Licence

The import function to *WonderWare InTouch* is depending of a separate hardware lock (dongle). Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.4.2   Configure TCP/IP printer

The program *InTouch AlarmPrinter* is used to send alarms to *Nimbus Alarm Server*. This is made via a printer of the type *Generic/Text Only* via a raw TCP-port.

Insert a new local printer of the type Generic/Text only.

Create a new of the type *Standard TCP/IP port* (The exemple is from an English Windows 2000).
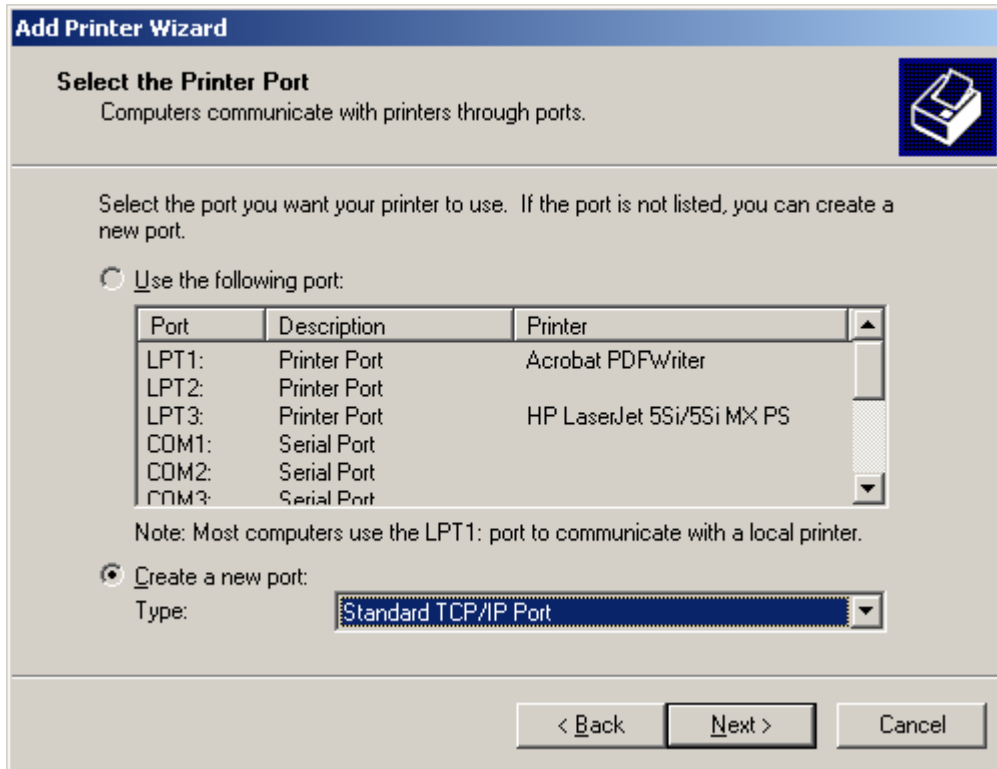
When *Printer Port TCP/IP Wizard* starts, select *Next*. State parameters as follows:

Printer Name or IP-address: *127.0.0.1*
Port Name: *Nimbus*

Select *Next*.

Select *Custom - Settings*. Check that the settings are as the picture below.

Select *Ok, Next* and finally *Finish*.

11.4.3 Export from WonderWare InTouch

Start Wonderware *Factorysuite - InTouch - AlarmPrinter*. Select *Configure* and set values as follows in tab *Message*:
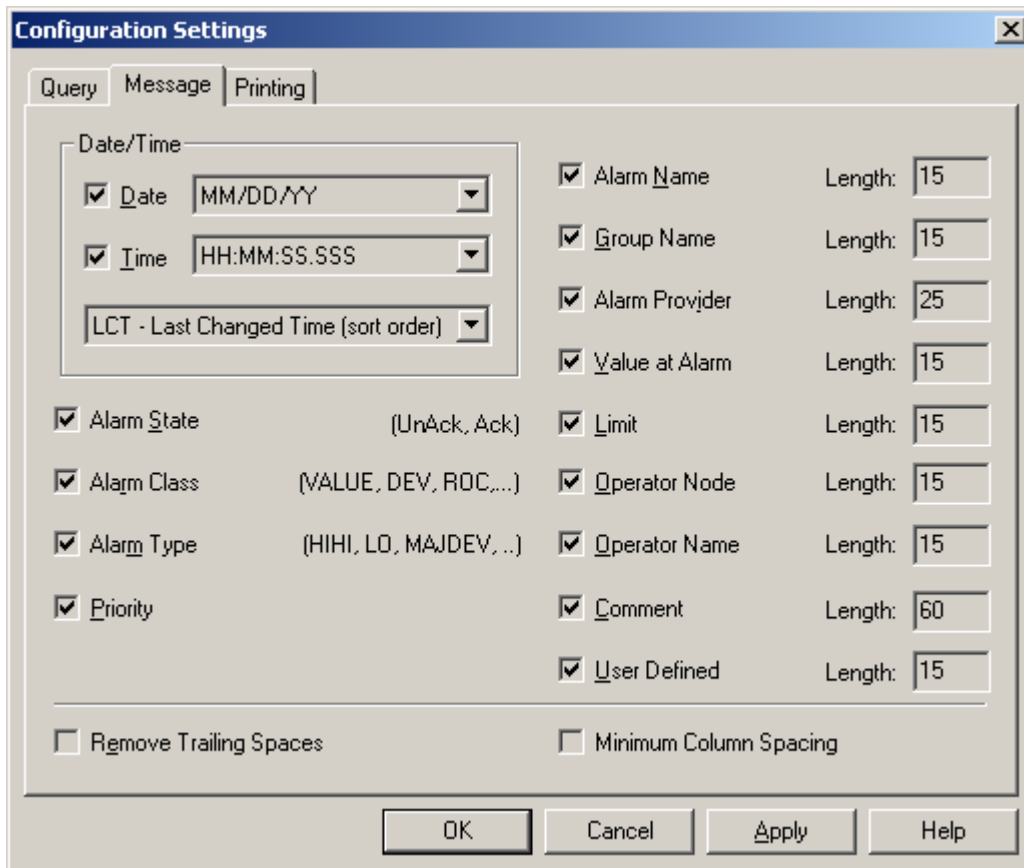
Please note the date/time format.

Select the printer that recently was installed in tab *Printing*.

If alarm should be send parallel both to the printer (not through *Nimbus Alarm Server*) and to *Nimbus Alarm Server* for forwarding can several instances of *AlarmPrinter* run at the same time. Check *AlarmPrinter* help to see how paths are created to load various ALC-files.

11.4.4 Import to Nimbus Alarm Server

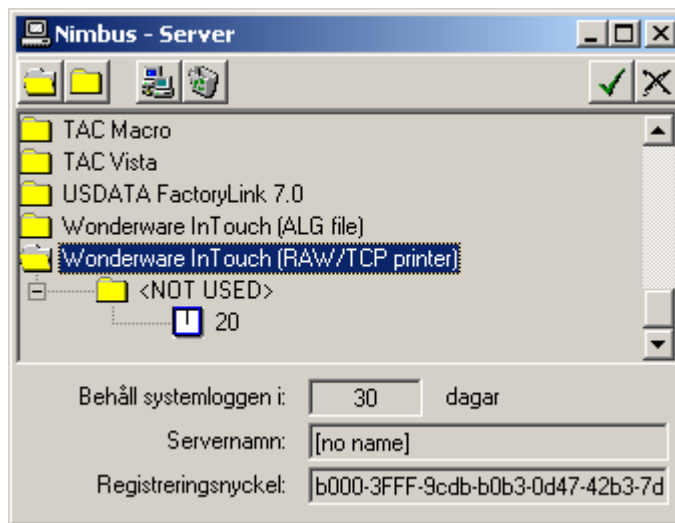Settings for server in *Nimbus Administrator* are stated as folllows:

11.4.5 Expression in format

[T0]   TagName, for example *TA0220GT81*
[T1]   Group Name, for example *$System*
[T2]   Priority, *0-999*
[T3]   Alarm Type, ex *LOLO, DSC*
[T4]   Comment + User Define, for example *Freezeprotection heatingbattery*
[T5]   State, for example *UNACK_RTN, UNACK etc*

Ignored   All events that do not indicate *ALM, ACK* or *RTN*.

INACTIVE   All status texts with the content *ALM*.

ACKED   All status texts with the content *ACK*.

ACTIVE   All other status texts.

11.5 Siemens Building Technologies Visonik

The import of events from the Visonik system is made using a TCP terminal port.

11.5.1 License

The import function for *Siemens Building Technologies Visonik* is depending of a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.5.2 Visonik setup

Though *Nimbus Alarm Server* is connecting as a TCP client, the IP-address and port must be correctly set up, both in Visonik and in *Nimbus Administrator*.

First of all, do some changes in the *VisoPRF.PRF*. Check below for the appropriate settings. The example uses *$T12* for *Nimbus Alarm Server* :

```
/   NOTE: The entries below are an example for a Terminal Server on a PLD5
```

```
//             Please refer to the VISONIK PM FACTS 41x023BC for more detailed
//             information of the usage of Terminal Servers.
//
//   For the Moxa server port 1
//     $TYtype[12] = SOCKETX
//      $TYsocketxname[12] = sc  143.99.254.101  [950];ts=moxa1
//
//   For the W&T server port A
//     $TYtype[12] = SOCKETX
//      $TYsocketxname[12] = sc  143.99.254.101  [8000];ts=wut1
//
//    For  each  other  terminal  server;  pppp=portnummer
//     $TYtype[12] = SOCKETX
//      $TYsocketxname[12] = sc  143.99.254.101  [pppp]

    $TYtype[12] = SOCKETX
    $TYsocketxname[12] = ss  192.168.111.5  [4162]


//**********************************************************
```

The IP-address must be the same as the Visonik computer itself has. The portnumber (4162) must be set above 4095 and must not be used for any other application. Ports above 4095 are 'free'.

The Visonik system now has to be restarted.

Use the dialogue to do some additional settings for *$T12*:

```
$T12.SIDTY=6              (=TCP/IP)
$T12.CHPL=132            (=TERA  i  V16,  characters/row)
$T12.LPP=0              (=RPS  i  V16,  rows/page)
$T12.DTYP=VT100          (=TTYP  i  V16,  terminal  type)
$T12.TYX=CEND            (=TYF  i  V16)
```

These parameter are named as they are in version 18 and 20. The names within paranthesis are for version 16. Version 16 and 18 runs in OS/2 and *Nimbus Alarm Server* must in these cases be located in another machine, though it runs only in 32-bit window systems *(Windows 95/98/ME/NT/2000)*.

To enable the Visonik system to send alarms at $T12, the terminal must either be stated in *$S.DevP1..3* or in a reaction (*SRK*) etc, just like a normal alarm printer. *DevAl* may also be used, but then is only alarms with *AlConf=1* or *AlConf=2* sent to *Nimbus Alarm Server*, but on the other hand, acknowledges will also be sent.

Both *DevP* and *DevAl* must not be used, though the alarm event will be sent twice.

Some other port than *$T12* may of course be used, but a port number that physically exists should not be used because it cannot be used to anything else.

However, if *Nimbus Alarm Server* is run at the PLD itself, then *$T7* can be used because it is linked to COM1. COM1 is then free to be used by *Nimbus Alarm Server* to sent SMS, fax etc.


11.5.3   Import to Nimbus Alarm Server

In the *Nimbus Administrator* server setup is the IP-address and port to the Visonikserver stated. In this case *192.168.111.5:4162*. The portnumber must be exactly the same as was stated for *$T12* in *VisoPRF.PRF*.

The length of the useraddress is stated immediately following the portnumber, below it is set to 21 characters. This setting is used when *Nimbus Alarm Server* is scanning the profiles, and need to be correct.

Nimbus Alarm Server does not need to be installed at the same computer as

Visonik and it does not require *Desigo InSight* to be running.
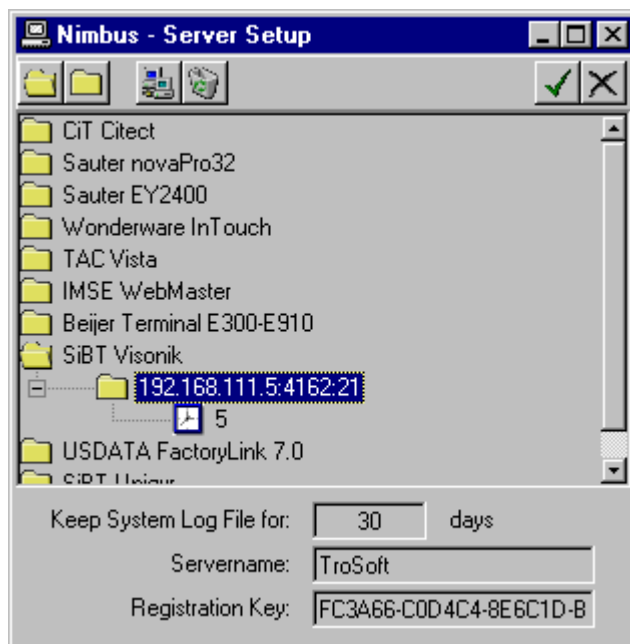
The time interval is quite short and is used by *Nimbus Alarm Server* to decide when a multiple row alarm has arrived completely. An alarm is transferred immediately though the communication is made through TCP/IP. The alarm event may contain more than one row, why *Nimbus Alarm Server* waits for three time intervals before the alarm event is treated (3 x 5 = 15 seconds). The previous alarm event will be treated at once if a new alarm event arrives during this period.

The time interval is also used to decide which interval *Nimbus Alarm Server* should use to do connection retries to Visonik after a break. *Nimbus Alarm Server* waits for 10 time intervals (10 x 5 = 50 seconds) before a new connection attempt is made.

11.5.4   Expression in format

Example:

**   DI   21:19:20 ST'S 'LB11'GX71   Smokedetector   Alarm   EST Free text for this alarm

[T0]	Tag/Useraddress	*ST'S 'LB11'GX71*
[T1]	Area	*RI (?RI etc)*
[T2]	Category	*0 (for ! and ?) or 1..3*
[T3]	Name	(not used)
[T4]	Description	*Smokedetector Alarm EST Free text for this alarm max 1 row*
[T5]	Logstate	*** (or ?RI)*

11.6   Siemens Building Technologies Unigyr

The import of events from the Unigyr system is done using a logfile. This logfile is automatically created by the Unigyr System. *Nimbus Alarm Server* can only be used with the NT version of Unigyr.

11.6.1 License

The import function for *Siemens Building Technologies Unigyr* is depending of a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

### 11.6.2 Export from Unigyr

Nimbus Alarm Server imports the alarmlogfile *Alarm.LOG* that always reside in the project path, i.e. *x:\Uni_Data*, ex *c:\Uni_Data\DemoProject\Alarm.LOG*.

Tool.PRF The alarmlogfile is set up in *Tool.PRF.* The parameter is *LogFile*. The default setting works well with *Nimbus Alarm Server* and there is no reason to change it.

11.6.3 Import to Nimbus Alarm Server

In *Nimbus Administrator* server setup is the path to *Alarm.LOG* stated. Only the path should be stated, not the filename:
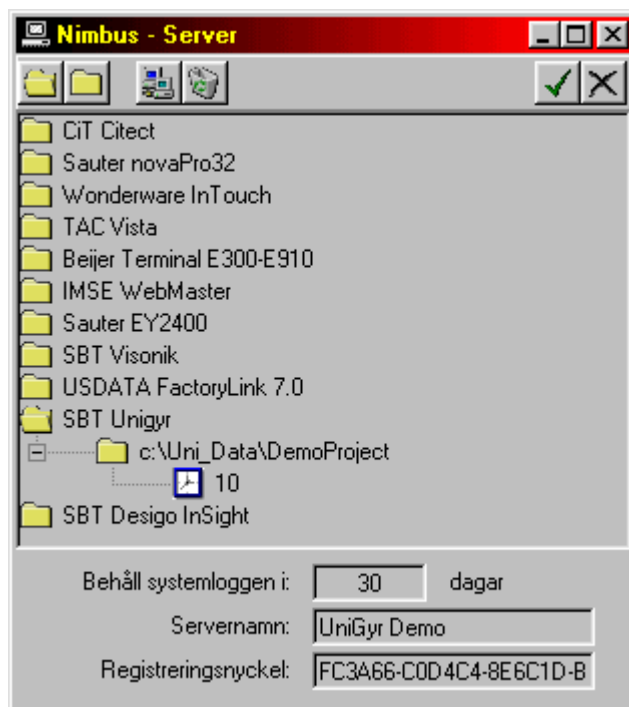
The scan interval is set to the desired interval, ex 10 seconds.

Nimbus Alarm Server will scan for the file with the above interval and if the file exists, it will be renamed before it is scanned and deleted. If a future alarm log file is desired must a receiver of the type *Textfile* be created. Create a profile that forward all alarms to this file.

11.6.4 Expressions in format

Ex: ****25-11-2000 13:02 -------------------------------------- Alarm TX2.Tx2_Demo(1).AC*

Freeze:Indicate.Error
Freetextrow 1
Freetextrow 2

| [T0]	Tag	*TX2.Tx2_Demo(1).AC.Freeze*
[T1]	Area	*AC*
[T2]	Category	3 (number of *)
[T3]	Name	*Indicate.Error*
[T4]	Description	*Freetextrow 1 & 2*
[T5]	Logstate	***

11.7 USDATA FactoryLink

The import of events from the FactoryLink system is done using a logfile. The logfile is automatically created by the FactoryLink system.

11.7.1 License

The import function for *USDATA FactoryLink* is depending of a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.7.2 Export from FactoryLink

Nimbus Alarm Server imports the alarmlogfile *Alarm.TXT* that should be exported from FactoryLink. These settings are necessary to make this work:
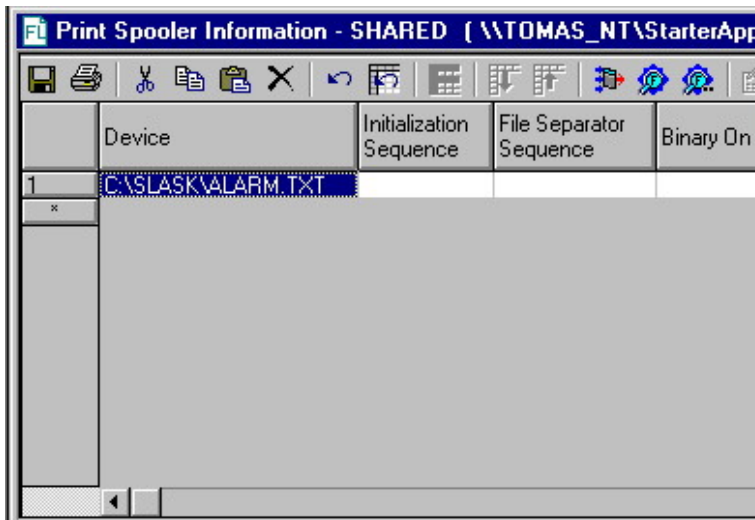
[MyStartApp-Reports-Print Spooler-Print Spooler Information]

Create a device according to the above picture. The destination path may be changed, ex *\\Server1\AlarmDir\Alarm.TXT*. This path should also be set in *Nimbus Administrator*.

[MyStartApp-Alarms-Distributed Alarm Definitions]

Add *Alarm Stat Print Device* for each group. The device number must match the number that was used for the alarm log file.

[MyStartApp-System-System Configuration-System Configuration Information-Spooler FR]

Select the checkbox *Run at Startup* to enable the spoolerapplication at startup time.

[MyStartApp-System-System Configuration-System Configuration Information- AL_LOG]

Check that the startparameter *-w* is used to avoid that old active alarms are exported each startup time.

The alarmformat in the exported file must be changed so *Nimbus Alarm Server* finds correct information. A revised *Al_Fmt.txt* file is installed in the *Nimbus Alarm Server* directory. It is used for FactoryLink 7.0 and should be copied to *C:\Program Files\Usdata\FactoryLink\FactoryLink\Msg\En*. Rename the original file first.

The format changes can also be done manually in the existing *Al_Fmt.txt*. All necessary changes are done in the *Alarm Print Device Format* section as below:

```
*  Initial  Alarm  Occurrance
PRTINI      $STS$ | $PRI$ | $DAT$ | $TIM$ | $TAG$ | $GRP$ | $ARE$ | $MSG$
*
*  Alarm  Acknowledgement
PRTACK      $STS$ | $PRI$ | $ADT$ | $ATM$ | $TAG$ | $GRP$ | $ARE$ | $MSG$
*
*  Alarm  Return-To-Normal
PRTNRM      $STS$ | $PRI$ | $DAT$ | $TIM$ | $TAG$ | $GRP$ | $ARE$ | $MSG$
*
*  Alarm  "Unknown  State"  Format
PRTUNK       UNK  | $PRI$ | $DAT$ | $TIM$ | $TAG$ | $GRP$ | $ARE$ | $MSG$
*
*  Event  Occurance
PRTEVT       EVE  | $PRI$ | $DAT$ | $TIM$ | $TAG$ | $GRP$ | $ARE$ | $MSG$
```

11.7.3   Import to Nimbus Alarm Server

In *Nimbus Administrator* server setup is the path to *Alarm.LOG* stated. Only the path should be stated, not the filename:
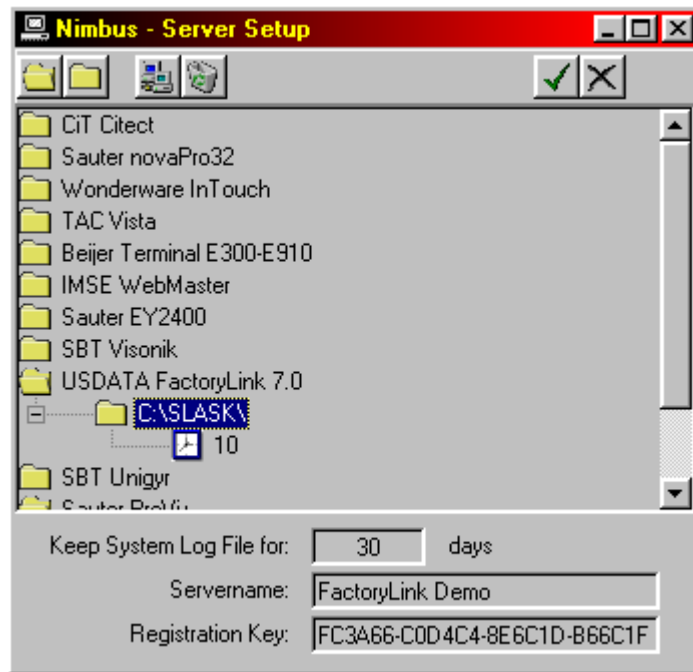
The scan interval is set to the desired interval, ex 10 seconds.

Nimbus Alarm Server will scan for the file with the above interval and if the file exists, it will be renamed before it is scanned and deleted. If a future alarm log file is desired it must be created using *Nimbus* (receivertype 'textfile').

11.7.4   Expressions in format

Ex: *Active | 1 | 11/23/00 | 09:56:11 | ALLOG_TEST_SYSTEM | SYSTEM | 23 |*
Floating point value = 9999.900

[T0]	Tag	(TAG : Alarm TAG Name)	*ALLOG_TEST_SYSTEM*
[T1]	Area	(ARE : Area Name)	*23*
[T2]	Category	(PRI : Alarm Priority)	*1*
[T3]	Name	(GRP : Group Name)	*SYSTEM*
[T4]	Description	(MSG : Alarm Message)	*Floating point value = 9999.900*
[T5]	Logstate	(STS : Alarm Status)	*Active*

11.8   Sauter EY2400

The export/import of events in *Sauter EY2400* system is made via a dedicated RS232 serial port.

11.8.1   License

The import function for *t*he *Sauter EY2400* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.8.2   Export from Sauter EY2400

Alarms are output to a dedicated RS232 Serial port (EYS3A566) and are setup within the EY2400 System utilising specific files 10210, 10215 and 10202 100, for detailed infomation see SAUTER EY2400 User´s Manual 7000198/003b.

Alarm Category File10202 100
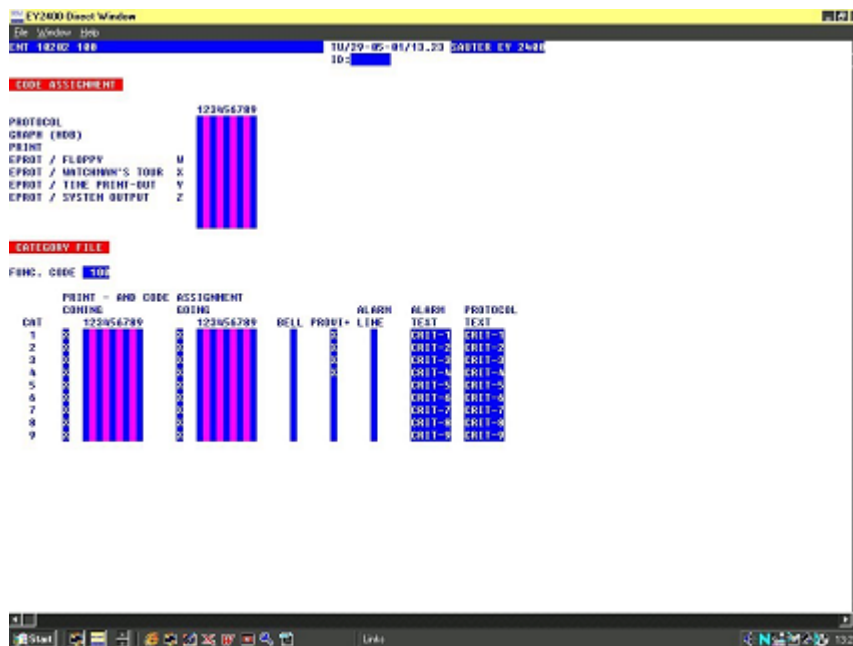
Nimbus checks the contents of the Alarm Text column for a specific text. As shown in above example alarms will not be treated by Nimbus, if the text is entered in a different format.

11.8.3 Import to Nimbus Alarm Server

In the server setup in *Nimbus Administrator* is the path of the Com port, where incoming alarms will be received. The Com port and the configuration can be altered. The default is that shown.
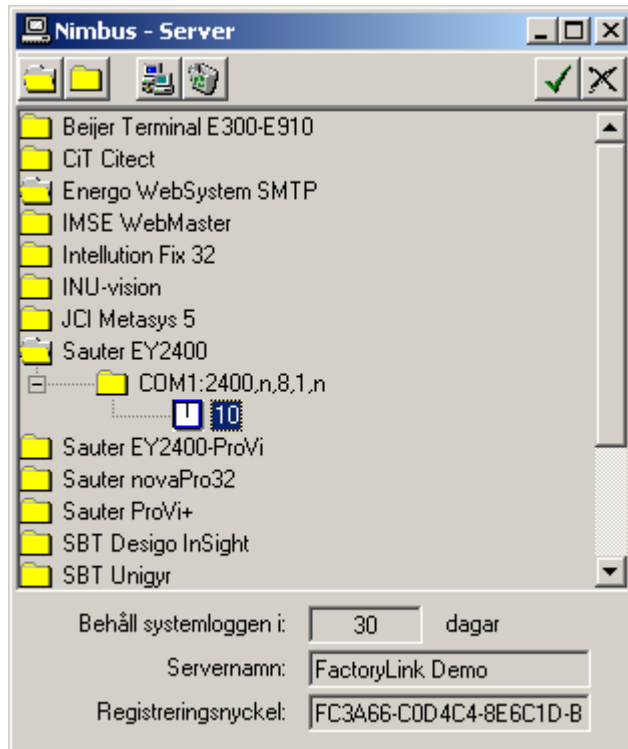
The import interval is set to the desired time, for example 10 seconds (this interval is used internally by Nimbus to decide when the arrived data is complete).

11.8.4 Expressions in format

[T0]   *Alarm Address Text*
[T1]   *Fine Detail Address*
[T2]   *Alarm Category (in file 10202 100 must be CRIT-1...9) translated to*
                   1...9
[T3]   *Installation Name*
[T4]   *Installation Description, and additional text information*
[T5]   *Alarm Text*

INACTIVE   Nimbus considers the *Alarm Text* normal state as *CLEARED, OFF, NORMAL*

ACKED   Nimbus considers the acknowledged *Alarm Text* as *ACK, ACKNOWLEDGED, QUIT*

ACTIVE   Nimbus considers all *Alarm Text* for an Alarm condition providing the appropriate text exists in *[T2]* e.g. *CRIT-1...9*

EXAMPLE   *[alarmdate]/[alarmtime] [t3] [t1] [[t2]] [t0] [t5] [13][10]*

01.04.200/09:20   ATRIUM   10-0 [1] ATRIUM VENTILATION SYSTEM AHU SUPPLY FAN NO.1 TRIPPED

             [T0]   AHU SUPPLY FAN NO.1
             [T1]   10-0
             [T2]   1
             [T3]   ATRIUM

[T4]   ATRIUM VENTILATION SYSTEM
[T5]   TRIPPED

Example with additional text:

[alarmdate]/[alarmtime] [t3] [t1] [[t2]] [t0] [t5] [cf:#] [t4][13][10] [cu:#] [t4]
    01.04.200/09:20 ATRIUM   10-0 [1] ATRIUM VENTILATION SYSTEM AHU
SUPPLY FAN NO.1 TRIPPED CONTACT DUTY SHIFT ENGINEER!

Within the Sauter EY2400 System there are optional text files 6000...9000 in the case of Nimbus any optional text file must be attached to the actual alarm (for detailed information see SAUTER-EY2400 User´s manual 7000190/003a).

11.9   Sauter EY2400-ProVi+

The export/import of events in *Sauter EY2400-ProVi+* is made by one log file *LOGFILE.RAW*.

11.9.1   License

The import function for *t*he *Sauter EY2400-ProVi+* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.9.2   Export from Sauter EY2400-ProVi+

Before EY-2400-ProVi+ can create its own log file (c:\provip\anydatp\logfile.raw) it first has to be setup.
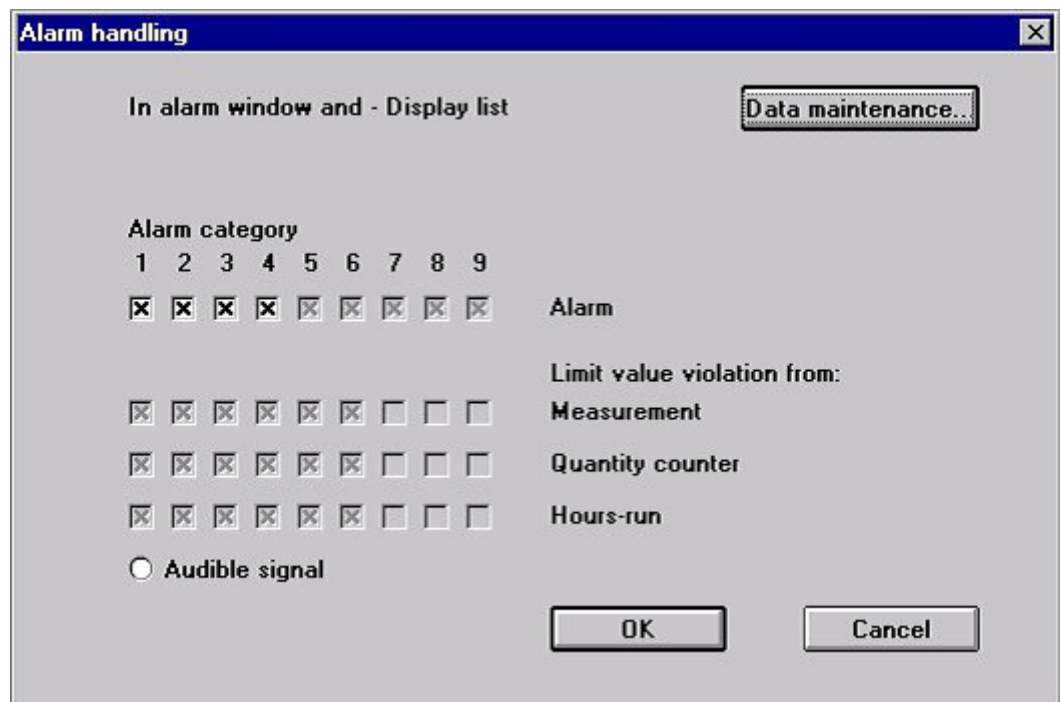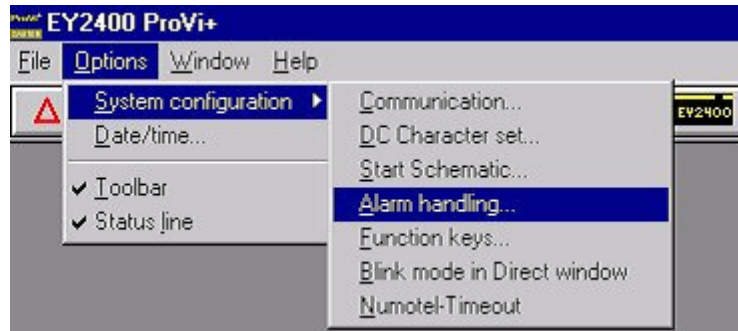
Within file 10202 100, the column for ProVi+ must have a cross entered with reference to the required alarm category, see example below, for detailed infomation see SAUTER EY2400-ProVi+ User´s Manual 7000453/003I section 10.

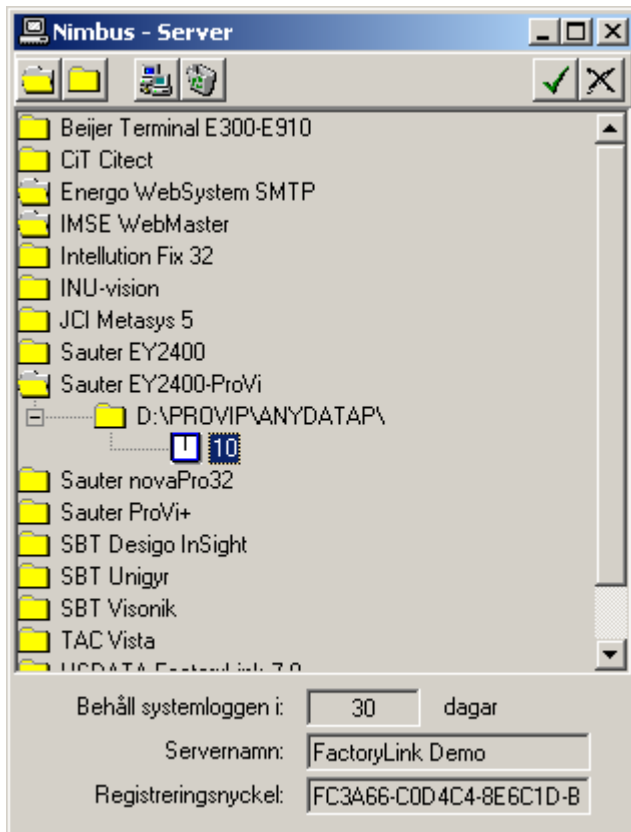Alarm Category File10202 100
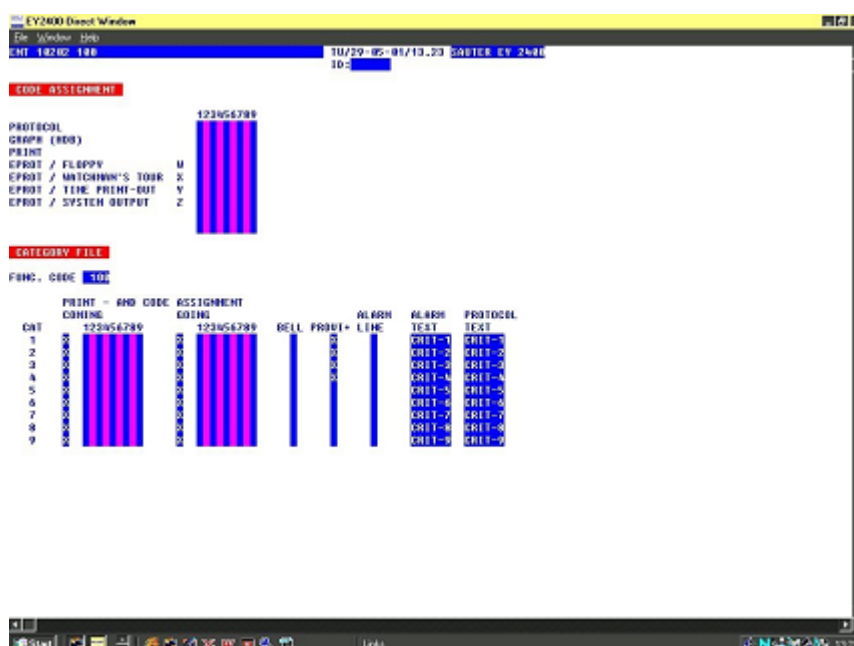
Apportioning the PC function.

From within EY2400-ProVi+ setup the Alarm handling as example below

All incoming alarms associated with categories 1...4 will be written into the c:\provip\anydatp\logfile.raw

11.9.3   Import to Nimbus Alarm Server

In the server setup in *Nimbus Administrator* is the path to the *LOGFILE.RAW* stated. Only the path should be stated.

The scan interval is set to the desired interval, for example 10 seconds.

11.9.4   Expressions in format

[T0]   Alarm Address Text
[T1]   (not used)
[T2]   (not used
[T3]   Installation Name
[T4]   (not used)
[T5]   Alarm Text

INACTIVE   Nimbus considers the *Alarm Text* normal state as *CLEARED, OFF, NORMAL*

ACKED   Is not used

ACTIVE   Nimbus considers all *Alarm Text* for an Alarm condition.

EXAMPLE   *[alarmdate]/[alarmtime] [t3] [t1] [[t2]] [t0] [t5] [13][10]*

             01.04.200/09:20   ATRIUM   AHU SUPPLY FAN NO.1 TRIPPED

             [T0]   AHU SUPPLY FAN NO.1
             [T1]   (not used)
             [T2]   (not used)
             [T3]   ATRIUM
             [T4]   (not used)
             [T5]   TRIPPED

11.10   Sauter EY2400-ProVi

The export/import of events in *Sauter EY2400-ProVi* is made via one or several log files.
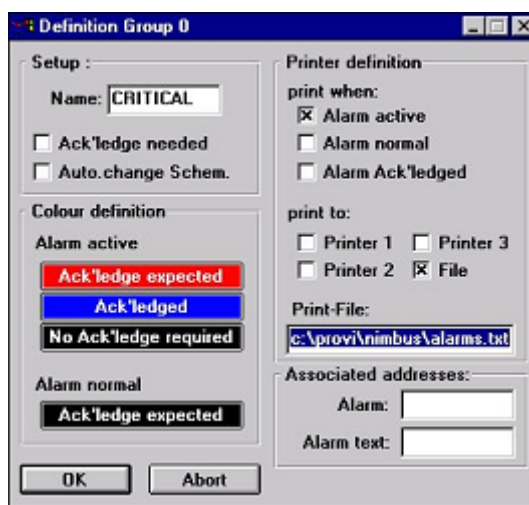
11.10.1   License

The import function for *the* *Sauter EY2400-ProVi* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.10.2 Export from Sauter EY2400-ProVi

The path and log file name can be determined within the Alarm-Editor/Group Definition (for more information see EY2400-ProVi User Manual 7000462203, Chapter 7).

Example:

11.10.3   Import to Nimbus Alarm Server

In the server setup in *Nimbus Administrator* is the path to the *LOGFILE.RAW* stated. Only the path should be stated.

11.11 Beijer E300-E910

The export/import of events in *Beijer E-terminals* is made by E-mail (SMTP), where *Nimbus Alarm Server* work as SMTP-Server. That means that no mailserver Exchange, Asvox Omnigate or TFS Gateway etc is needed to be installed to be able to receive E-mails from the E-terminals and forward them to other receivertypes.

11.11.1 License

The import function for *Beijer E300-E910* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

### 11.11.2 Export from Beijer E300-E910

Configure the terminal with *E-designer* to send mail to a *SMTP server* (is made with service *SMTP client*). The receivers E-mail address is optional, while *Nimbus Alarm Server* receives all messages sent from the E-terminal it doesn´t look at the receivers E-mail address.

State the *Nimbus Alarm Server* computers TCP/IP address as serveraddress.

The settings is described in detail in the document *Ki000.PDF* on *www.beijer.se*. Any *local E-postserver (MERAK/Pegasus mail)* as described in the document shall not be installed.

11.11.3 Import to Nimbus Alarm Server

In the server settings in *Nimbus Administrator* state only *Beijer Terminal E300-E910*. If any other port is to be used than the default port for SMTP (25) can this be changed in *NimServ.INI.*
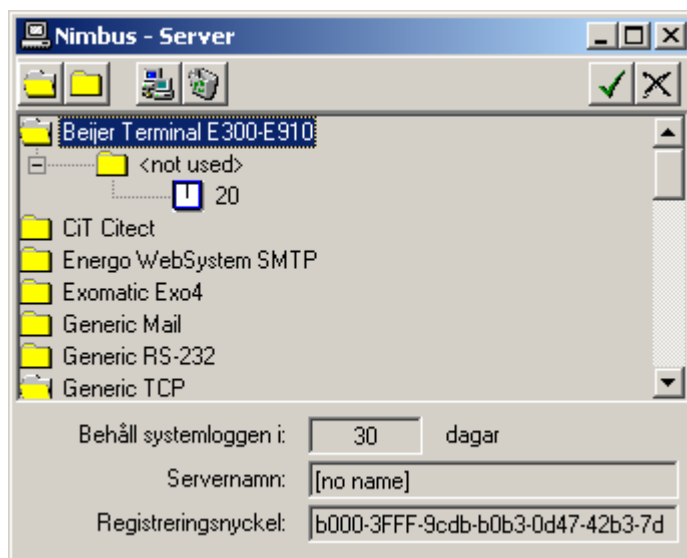
11.12 Energo Websystem / Niagara

The export/import of events in *Niagara* is made by E-mail (SMTP), where *Nimbus Alarm Server* work as a SMTP-Server. That means that no mailserver Exchange, Asvox Omnigate or TFS Gateway etc is needed to be installed to be able to receive E-mails from the E-terminals and forward them to other receivertypes.
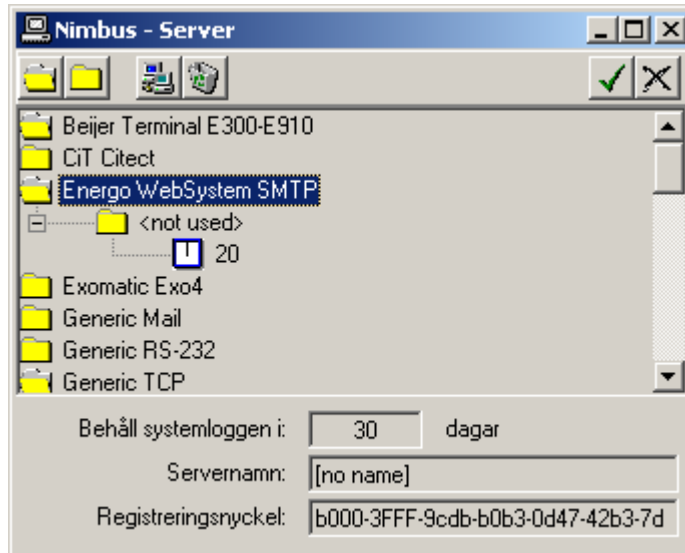
11.12.1 License

The import function for *Energo Websystem/Niagara* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.12.2 Export from Niagara

State the *Nimbus Alarm Server* computers TCP/IP address as server address.

11.12.3 Import to Nimbus Alarm Server

In the server settings in *Nimbus Administrator* state *Energo Websystem SMTP*. If any other port is to be used than the default port for SMTP (25) can this be changed in *NimServ.INI.*


11.13 Generic Mail (SMTP)

Nimbus Alarm Server work as a SMTP-Server and receives E-mail in several in advance defined formats. This format is generic and can be used by other systems that can send events as E-mail. That means that no mailserver Exchange, Asvox Omnigate or TFS Gateway etc is needed to be installed to receive E-mails from the E-terminals and forward them to other receivertypes.

11.13.1 License

The import function for *Generic Mail* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.13.2 Import to Nimbus Alarm Server

In the server settings in *Nimbus Administrator* state *Generic Mail*. If any other port is to be used than the default port for SMTP (25) can this be changed in *NimServ.INI.*
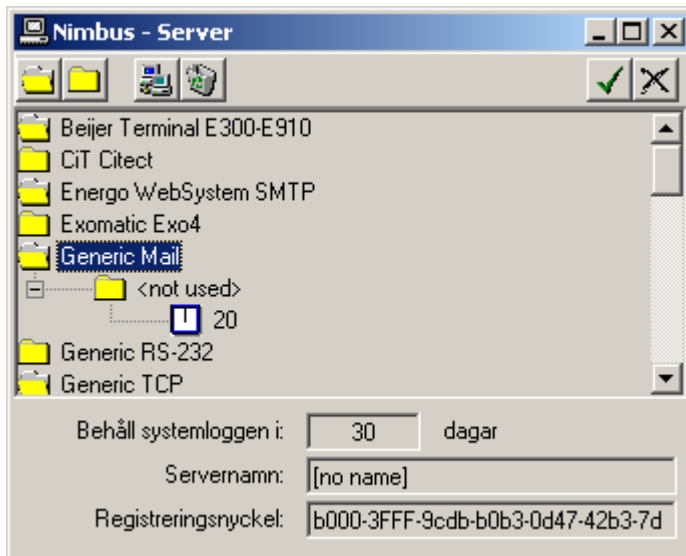
11.13.3 Expressions in format

Nimbus Alarm Server considers the content both in the body-field and in the header. The input E-mail must have ALARM in the subject field to be considered as valid. Alternative can be A-ALARM, B-ALARM and C-ALARM. In those cases when the priority is stated will [T2] contain the priority 1-3 which corresponds to A-C.

The body-field must contain parameters as follows:

TAG:	[T0]	*Tag address*
AREA:	[T1]	*Area*
CATEGORY:	[T2]	*Priority (if not already stated in the task field*
NAME:	[T3]	*Name*
DESC:	[T4]	*Description*
DESCRIPTION:	[T4]	*Description (as an alternative to above)*
STATE	[T5]	*Alarm State (see below)*
STATUS	[T5]	*Alarm State (see below) (as an alternative to above)*

The E-mail must have STATE or STATUS as the last row in the body-field and it´s the only field that must exist in the body-field.

INACTIVE   Nimbus considers the event as a return to normal (inactive) when STATE/STATUS = INACTIVE, FROM or NORMAL.

ACKED   Nimbus considers the event as acknowledged when STATE/STATUS = ACK, ACKNOWLEDGE or ACKED.

ACTIVE   Nimbus considers all other STATE/STATUS as active.

11.14 Generic RS-232

Nimbus Alarm Server can receive an alarm according to a default format via a common COM-port.

11.14.1 License

The import function for *Generic RS-232* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.14.2 Import to Nimbus Alarm Server

State *Generic RS-232* in the server setting in *Nimbus Administrator*.
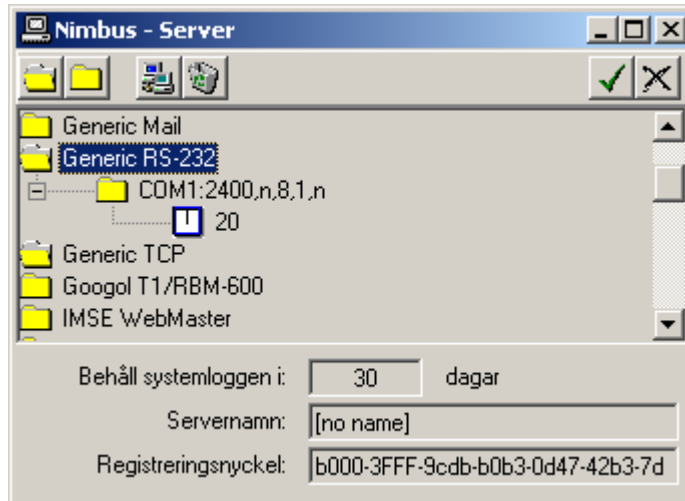
The settings for the COM-port is stated in the string:

COM1:2400,n,8,1,n

Where

2400	baudrate
n	paritet (n = none, e = even, o = odd)
8	databits
1	stopbits
n	flowcontrol (n = none, x = xon/xoff, h = hardware)

11.14.3 Expression in format

Nimbus Alarm Server considers the content in every inputting row. The rows must finish with linefeed (ASCII 10). The fields in the row is divided with a pipecharacter '|' (ASCII 124) and have division as follows:

MsgType|Date|Time|Tag|Area|Category|Name|Desc|State

MsgType	Messagetype (0 = Inactive, 1 = Active, 2 = Acknowledged, 3 = Freetext)	
Date	Date according to the format *YYYY-MM-DD*	
Time	Time according to the format *HH:MM:SS*	
Tag	Tagaddress	[T0]
Area	Area	[T1]
Category	Category, considers as figures	[T2]
Name	Name	[T3]
Desc	Description	[T4]
State	Status (Messagetype sets by *MsgType*)	[T5]

Both *Date* and *Time* can be excluded. *Nimbus Alarm Server* will use the PC-time

in that case.

If the message is of the type 3 (freetext) will the field *Name* be used to state the receivers name. The messagetext itself states in the *Desc* field.

Example:

2|2002-12-28|23:56:01|TA0220'GT41|A5|2|Pressure Fault|Pressure bad|ACTIVE

3||||||Bamse Grill|Kebab Ready for Take Away|

11.15 Generic TCP/IP

Nimbus Alarm Server can connect as a client to a TCP-socket and receive alarms according to a default format.

11.15.1 License

The import function for *Generic TCP/IP* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.15.2 Import till Nimbus Alarm Server

State *Generic TCP/IP* in the server settings in *Nimbus Administrator*.
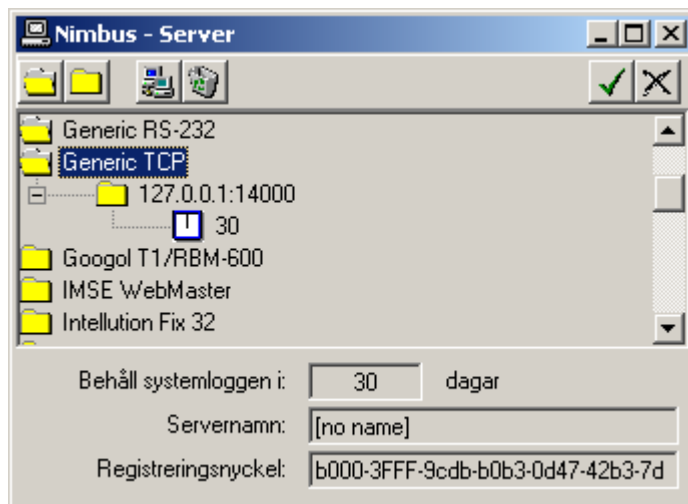
The settings for the TCP-socket is stated in the string:

127.0.0.1:14000

Where

127.0.0.1   IP-address to the servercomputer. Could be a name.
14000   Portnumber
30   Connection interval in seconds if the server doesn´t answer.

11.15.3 Expression in format

Nimbus Alarm Server considers the content in every inputting row. The rows

must end with linefeed (ASCII 10). The fields in the row is divided with a pipecharacter '|' (ASCII 124) and have division as follows:

MsgType|Date|Time|Tag|Area|Category|Name|Desc|State

MsgType	Messagetype (0 = Inactive, 1 = Active, 2 = Acknowledged, 3 = Freetext)	
Date	Date according to the format *YYYY-MM-DD*	
Time	Time according to the format *HH:MM:SS*	
Tag	Tagaddress	[T0]
Area	Area	[T1]
Category	Category, considers as figures	[T2]
Name	Name	[T3]
Desc	Description	[T4]
State	Status (Messagetype sets by *MsgType*)	[T5]

Both *Date* and *Time* can be excluded. *Nimbus Alarm Server* will use the PC-time in that case.

If the message is of the type 3 (freetext) will the field *Name* be used to state the receivers name. The messagetext itself states in the *Desc* field.

Example:

2|2002-12-28|23:56:01|TA0220'GT41|A5|2|Pressure Fault|Pressure bad|ACTIVE

3||||||Bamse Grill|Kebab Ready for Take Away|

## 11.16 Nimbus Alarm Server (RS-232/TCP)

Nimbus Alarm Server can connect to another *Nimbus Alarm Server*, either via modem or TCP/IP. In this way alarms can be distributed between several sites, for example can all events be sended to a central place where the administration of profiles is easier.

11.16.1 License

The import function for *Nimbus Alarm Server* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.16.2 Import to Nimbus Alarm Server

State *Nimbus Alarm Server (RS-232/TCP)* in the server settings in *Nimbus Administrator*.
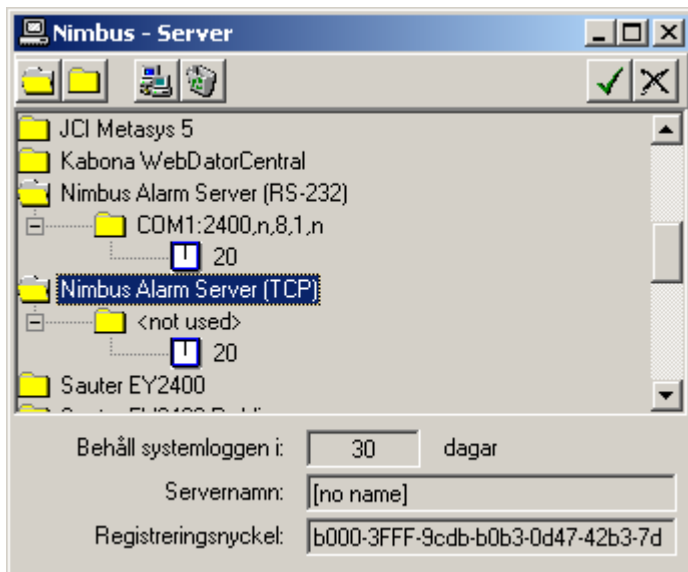
The settings for the COM-port is stated in the string:

COM1:2400,n,8,1,n

Where

2400	baudrate
n	paritet (n = none, e = even, o = odd)
8	databits
1	stopbits
n	flowcontrol (n = none, x = xon/xoff, h = hardware)

For TCP/IP doesn´t any particular setting need to done while *Nimbus Alarm Server* works as a TCP server. Default port is *12418* and can be changed in *NimServ.INI*.

In the *Nimbus Alarm Server* that should send the events is the receiver type stated as *Nimbus Alarm Server* (Modem eller TCP/IP) and a profile is set just as any other kind of receiver.

11.16.3 Expressions in format

Isn´t specific for this import. The whole event is send as it was imported in the sender *Nimbus Alarm Server*.

11.17 GoogolT1/RBM-600 (Robofon)

Nimbus Alarm Server can receive alarms according to the RBM-600 format via a usual COM-port.

11.17.1 License

The import function for *GoogolT1/RBM-600* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.17.2 Import to Nimbus Alarm Server

In the server settings in *Nimbus Administrator* is *GoogolT1/RBM-600* stated.
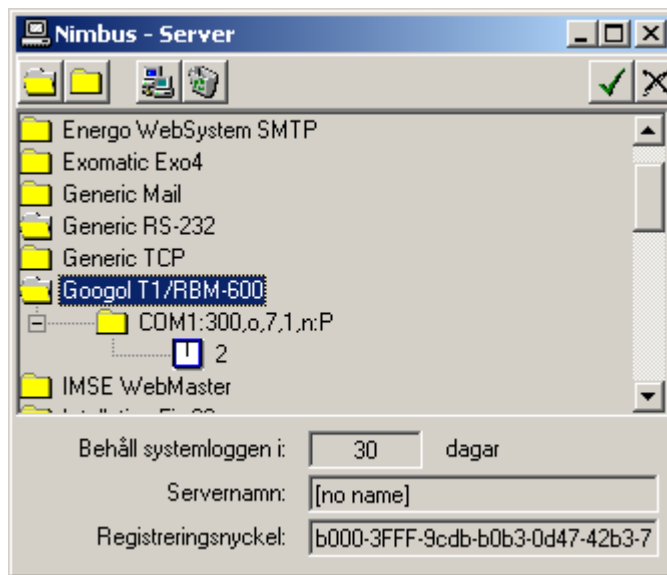
The settings for the COM-port is stated in the string:

COM1:300,o,7,1,n:P

Where

300	baudrate
o	paritet (n = none, e = even, o = odd)
7	databits
1	stopbits
n	flowcontrol (n = none, x = xon/xoff, h = hardware)
P	timestamp (R = from Robofon, P = from PC)

11.17.3 Expression in formats

[T0]	Codfigure 1..8 (+ 10..18)
[T1]	Received codesystem in decimals (30hex = 48dec)
[T2]	Telegramtype in decimals (50hex = 80dec)
[T3]	(not used)
[T4]	(not used)
[T5]	(not used)

11.18 Kabona WDC (WebDatorCentral)

Export/import of events from *WDC* is made via E-mail (SMTP), where *Nimbus Alarm Server* works as a SMTP-server. That means that no mailserver, for example *Exchange, Advox Omnigate, TFS Gateway* etc needs to be installed to receive E-mails from *WDC* and distribute them to other receiver types.

11.18.1 License

The import function for *Kabona WDC* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.18.2 Export from WDC

State the *Nimbus Alarm Server* computers TCP/IP address as serveraddress.

11.18.3 Import till Nimbus Alarm Server

Kabona WebDatorCentral should be stated in the server setup in *Nimbus Administrator*. If an other port than the default port SMTP (25) will be used you can change that in *NimServ.INI*.
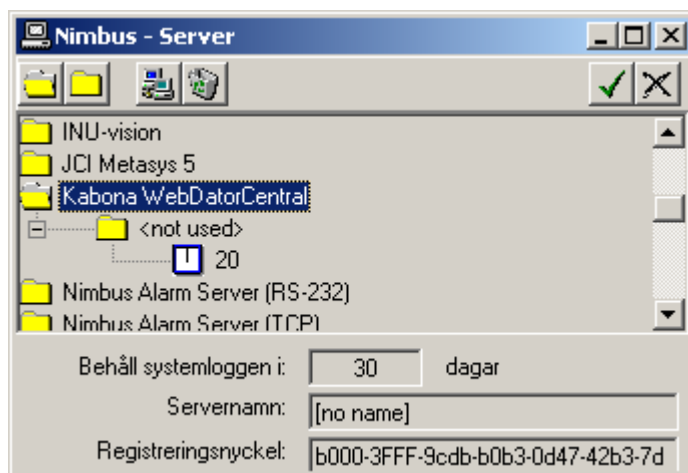
11.18.4 Expression in formats

[T0]   WDC-EID (ex. Partille/Kommun/Datorhall/DATA/GM6L)
[T1]   WDC-DOMAIN (ex. VENT)
[T2]   WDC-PRIO (ex. WARN)
[T3]   (not used)
[T4]   Desc (ex. Humidity level 1 GM6)
[T5]   (not used)

11.19 JCI Metasys 5

Nimbus Alarm Server can receive alarm from Metasys 5 via a DDE-link.

11.19.1 License

The import function for *Metasys 5* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.19.2 Import to Nimbus Alarm Server

State *JCI Metasys 5* in the server setup in *Nimbus Administrator*.
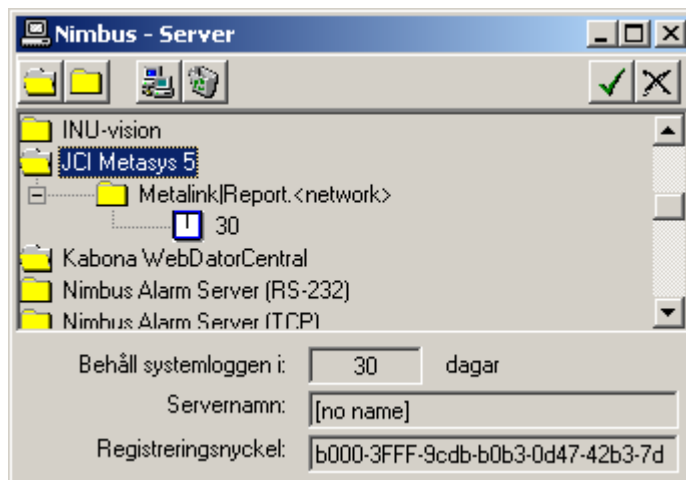
The settings are stated in the string:

Metalink|Report.<network>

Where

<network>   Replace it with netname, for example *FysikC*.
30   The time in seconds between reconnection retries.

11.19.3 Export from Metasys 5

Nimbus Alarm Server should run on the same computer as *MetaLink* and *MetaSys*. This means that *MetaLink* should be started, for example via AutoStart/ Startup folder. Nimbus tries to connect with the interval that is stated in the Settings-Server, in the picture example with 30 seconds interval.

MetaSys settings are described in the manual '*Metalink Applications - Metalink Users Guide*' page 34-37. Figure 11 is exactly how the settings should be. This has to be done for all *Report/Access* groups that should export alarms. *Nimbus Alarm Server*'subscribes' to *Crit1..4* (=Critical). What 'Crit' it is about is corresponding to *[T2] 'Category'*, in this case 1..4.

11.19.4 Expression in formats

[T0]   Group+System+Object, ex *OMR1\DRIFTL\DRIFT\HISS-H3*
[T1]   Group, for example *OMR1\DRIFTL*
[T2]   Priority, for example ex *2*.
[T3]   Object, for example *HISS-H3*
[T4]   ExpandedID, for example *L01-GX71*
[T5]   AlmType, for example *ALARM*

11.20 IMSE Webmaster

Export/import of events from *IMSE* are made via E-mail (SMTP), where *Nimbus Alarm Server* works as a SMTP-server. That means that no mailserver, for example *Exchange, Advox Omnigate, TFS Gateway* etc needs to be installed to receive E-mails from *WDC* and distribute them to other receiver types.

11.20.1 License

The import function for *IMSE Webmaster* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.20.2 Export från IMSE Webmaster

State the *Nimbus Alarm Server* computers TCP/IP address as serveraddress.

11.20.3 Import till Nimbus Alarm Server

In the server settings in *Nimbus Administrator* should *IMSE Webmaster* be stated. If any other port than the defaultport for SMTP (25) is tobe used it must be changed in *NimServ.INI*.
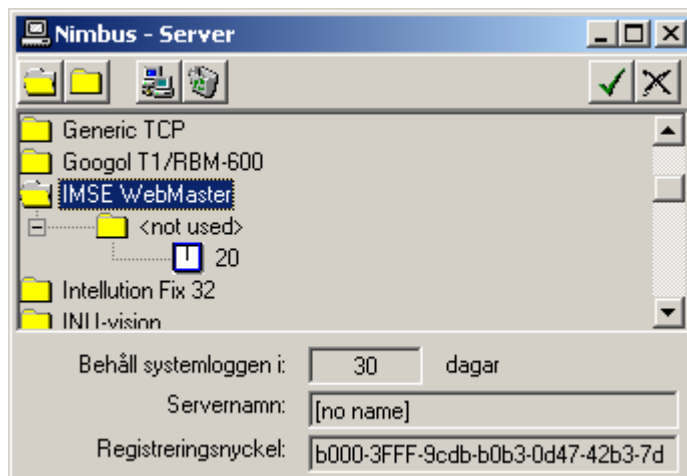
11.20.4 Expression in formats

Alarm is presented in the *Subject*-field, for example.

Alarm Normal DI 1 A-Alarm Lötskolan 0

[T0]	*DI 1*
[T1]	Sender
[T2]	Priority, *1 = A, 2 = B* etc
[T3]	*DI*
[T4]	*Lötskolan*
[T5]	*Normal*

11.21 Siemens Building Technologies Desigo InSight

The import of events in the Unigyr system is made via a logfile.

11.21.1 License

The import function for *Siemens Building Technologies Unigyr Webmaster* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.21.2 Export from Desigo InSight

Nimbus Alarm Server imports the alarm log file *Alarm.LOG*. Please contact Dan Pettersson, *Siemens Building Technologies*, +46 8 578 410 00 for the exact information.

11.21.3 Import to Nimbus Alarm Server

In the *Nimbus Administrator* server setup is the path to *Alarm.LOG* stated. Only the path should be stated, not the filename:
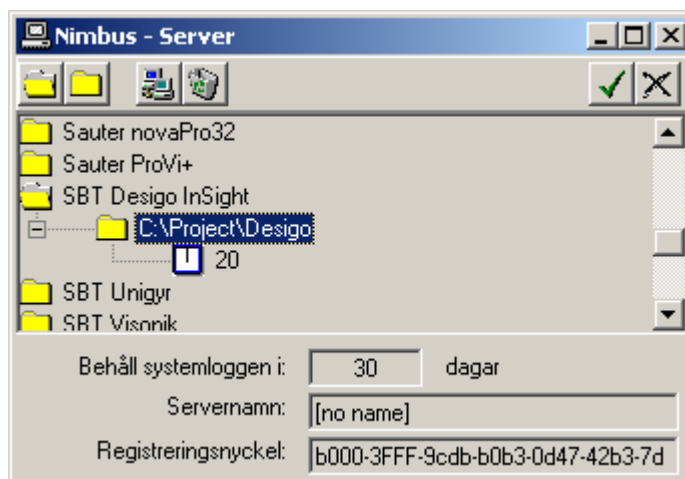
The import interval is set to the desired time, for example 20 seconds.

Nimbus Alarm Server will scan for the file with the above interval and if the file exists, it will be renamed before it is scanned and deleted. If a future alarm log file is desired must a receiver of the type *Textfile* be created. Create a profile that forward all alarms to this file.

11.21.4 Uttryck i format

Example of export from Desigo InSight:

```
'
 ' --------------------:
' TimeStamp           : 2001-02-13 09:29:11
' MessageType         : 0
' MgtStationName      : SEHUDW0432
' Priority            : Prioritet 3
' SiteName            : DCS
```

```
'  DeviceName              :  REG:$d033022
'  UserDesignation         :  Reg  'TE'L'LB01'KS01
'  ObjectDescription       :  Cirkpump  överström
'  AlarmEvent              :  Larm , Till
'  AlarmCondition          :  Tillståndsändring
'  AlarmValue              :  1
'  UnitText                :  Larm
'  AlarmMessage            :  =Larm
'  AlarmHelpText           :  Detta är en cirkpump
'  AdditionalMessage       :  Alla  larmer  från  systemet
'  EventMessage            :
'  Message                 :
'  UserName                :
'  ReceiverID              :  Nimbus  Larm  Server
'
```

Is translated to:

[T0]	Tag	*Reg 'TE'L'LB01'KS01*
[T1]	Area	*Nimbus Alarm Server*
[T2]	Category	*3*
[T3]	Name	*Circ pump överström*
[T4]	Description	*This is a circ pump*
[T5]	Logstate	*Alarm*

11.22 TAC Macro

The export/import of events in *TAC Macro* system is made via a dedicated RS232 serial port.

11.22.1 License

The import function for *TAC Macro* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.22.2 Export from TAC Macro

Alarm sends out on a terminal port, configured as an alarmprinter.

11.22.3 Import to Nimbus Alarm Server

In the setup in *Nimbus Administrator* for the server is the Com port, where incoming alarms are received. The Com port and the configuration can be changed. Default is as shown below.
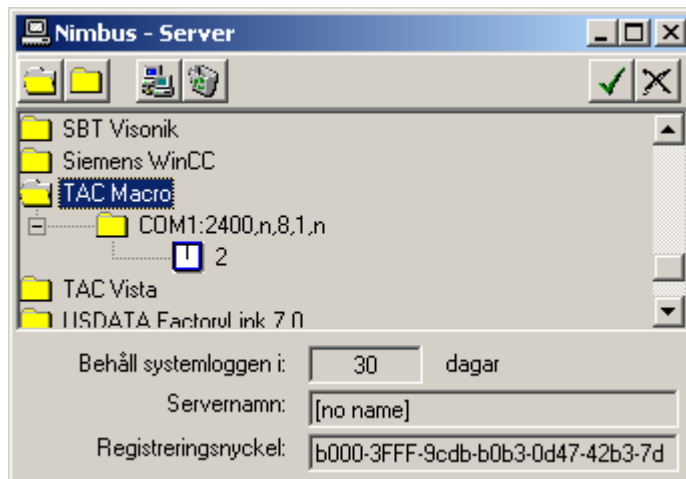
The import interval is set to the desired interval, for example 2 seconds (this interval is used internal by *Nimbus* to decide when received data is completed).

11.22.4 Expression in formats

Examle:

```
PRI-1-KVITTERAT     : DUC 69 IN 11     *02-12-13 15:43:57* SEKVENSNUMMER 213
OPERATÖR:  MATS
604-AE-511-RD
UTLÖST  RÖKDETEKTOR  064AE511(FL785)
PM4 HÄLDERI DUC 69
```

[T0]   *604-AE-511-RD*
[T1]   (not used)
[T2]   *1 (from PRI-1)*
[T3]   (not used)
[T4]   *UTLÖST RÖKDETEKTOR 064AE511(FL785) PM4 HÄLDERI*
            DUC 69
[T5]   *ACKNOWLEDGED*

11.23 INU-vision

The import of events in the *INU-vision system* is made by a log file. The log file is created using a device.

11.23.1 License

The import function for *INU Vision* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.23.2 Export from INU Vision

Nimbus reads the history log files from *INU Vision*, which means that the alarm history in *INU Vision* can not be used. All events are copied to a text file with the

same name before the log file is deleted. The textfile is placed in the same catalogue as the history log file.

11.23.3 Import to Nimbus Alarm Server

In the setup in Nimbus Administrator for server is the path to the log files stated:
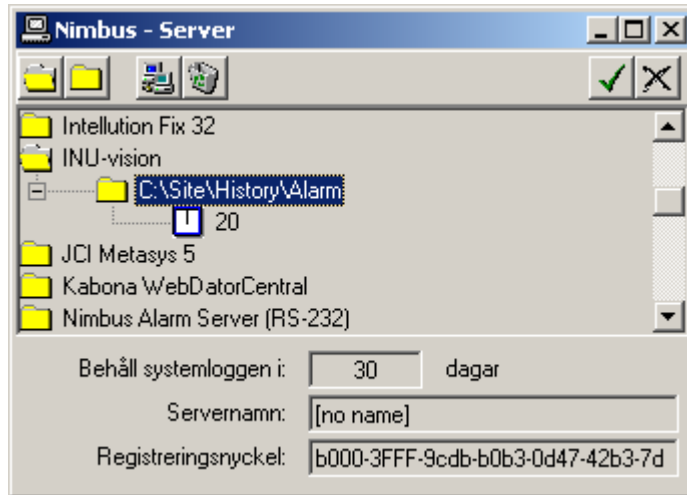
The import interval is set to the desired time, for example 20 seconds.

11.23.4 Expression in formats

Example from a post in a log file:

```
2001-03-05  09.42
Kvitterat      B 2001-03-05 09.42 av JMF              Namn:N01101/AL0402
              DUC 11.1
              FA01-FF2
                DRIFTFEL/FLÄKTVAKT UTL.MOTORSKYDD/OMK.FEL
              Flera rader med larm
               Aktiverat 2001-03-05 08.50
```

Is translated from *Nimbus Alarm Server* to:

[T0]	Tag	*FA01-FF2*
[T1]	Area	*11.1*
[T2]	Category	*B*
[T3]	Name	*N01101/AL0402*
[T4]	Description	*DRIFTFEL/FLÄKTVAKT UTL.MOTORSKYDD/ OMK.FEL*
[T5]	Logstate	*Acknowledged*

11.24 Exomatic Exo4

The import of events in the *Exo4 system* is made by a log file.

11.24.1 License

The import function for *Exo4* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.
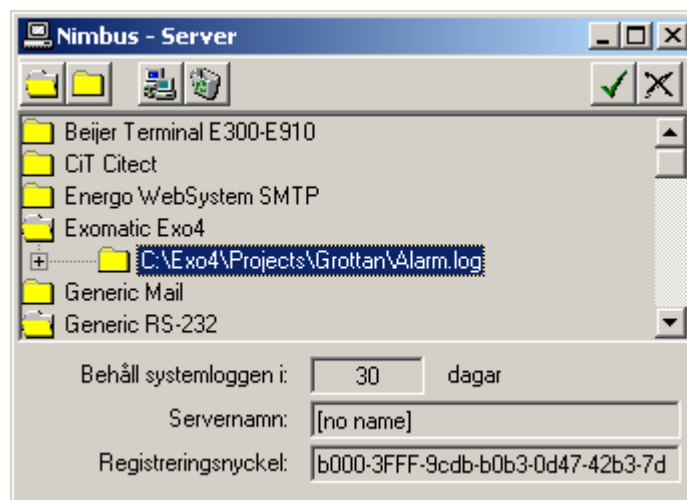
11.24.2 Export from Exo4

Nimbus reads an alarm log file as *Exo4* creates at alarm events (file-alarm-printer).

Check the *Exo4* manual for information how it should be created.

11.24.3 Import to Nimbus Alarm Server

In the setup in Nimbus Administrator for server is the path to the log file and its name stated:

The import interval is set to desired time, for example 20 seconds.

11.24.4 Expression in formats

Example from a log file:

```
20021205 154918 6   A mod1.AlaPt1              mod1, Alarm Point No 1 utlöses.
20021205 155226 4   A mod1.AlaPt1              mod1, Alarm Point No 1 går ifrån.
20021205 155430 5   A mod1.AlaPt1              mod1, Alarm Point No 1 går till.
20021205 155441 6   A mod1.AlaPt2              mod1, Alarm Point No 2 utlöses.
```

Is translated from *Nimbus Alarm Server* to, example:

[T0]	Tag	*mod1.AlaPt1*
[T1]	Area	
[T2]	Category	*A*
[T3]	Name	
[T4]	Description	*mod1, Alarm Point No 1 utlöses.*
[T5]	Logstate	*Active*

11.25 Siemens WinCC

The import of events in the *WinCC system* is made by a log file.

11.25.1 License

The import function for *WinCC* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.25.2 Export from WinCC

Nimbus reads an alarm log file that WinCC creates at alarm events. This is made through a script connected to an alarm class. Please, contact *Leif Jonsson, Siemens, +46 8 728 10 00* to purchase the script.

11.25.3 Import to Nimbus Alarm Server

In the setup in Nimbus Administrator for server is the path to the log file and its name stated (Alarm.TXT):
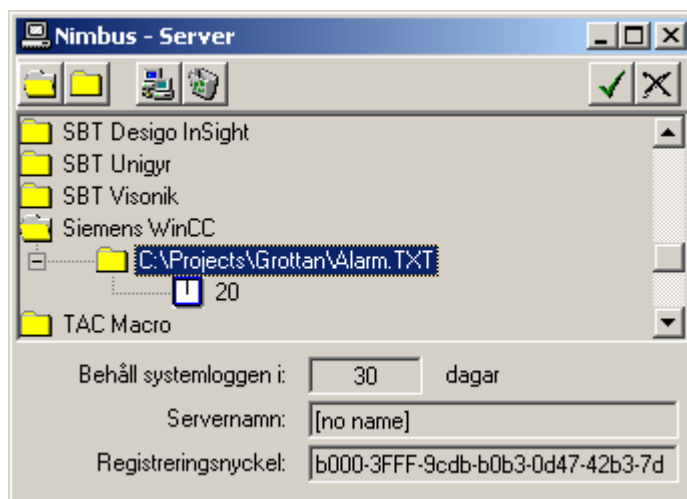
The import interval is set to the desired time, for example 20 seconds.

11.25.4 Expression in formats

Example from a log file:

```
2002-00-15  #13:50:06  #Larm  nr  1  Larmtext#Aktivt#Error#
2002-00-15  #13:50:11  #Larm  nr  1  Larmtext#Avgått#Error#
2002-00-15  #13:50:13  #Larm  nr  1  Larmtext#Kvitterat#Error#
```

Is translated from *Nimbus Alarm Server* to, example:

[T0]	Tag	*Alarm no 1 Alarmtext*
[T1]	Area	
[T2]	Category	*Error*
[T3]	Name	
[T4]	Description	

[T5]   Logstate   *Active*

11.26 TAC Vista

The import of events in the *TAC Vista system* is made through a log file.

11.26.1 License

The import function for *TAC Vista* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.26.2 Export from TAC Vista

Nimbus reads an alarm log file as TAC Vista creates at alarm events. Create an alarmreceiver - fileobject. Mark all parameters. Select a file name, for example *AlmFile.TXT*.

11.26.3 Import to Nimbus Alarm Server

In the setup in Nimbus Administrator for server is the path to the logfile and its name stated (*AlmFile.TXT*):
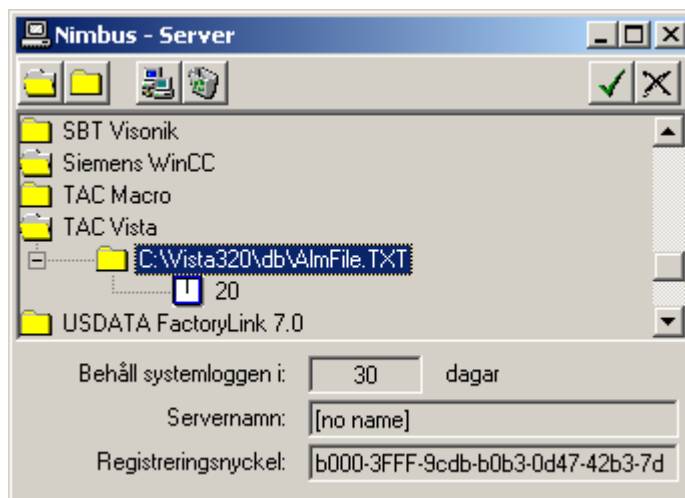
The import interval is set to the desired time, for example 20 seconds.

11.26.4 Expression in formats

Example from a log file:

```
PRI-1-ÅTERSTÄLLT: LARM till NORMAL     ** 2000-12-13 15:43:57 **
0150-STYR-AS301-SUM/A_SL_L
A-LARM, SUMMALARM APPARATSKÅP HUSBYSKOLAN, UNDERCENTRAL B006
```

Is translated from *Nimbus Alarm Server* to, example:

[T0]   Tag   *0150-STYR-AS301-SUM/A_SL_L*
[T1]   Area

[T2]	Category	*3 (från PRI-3)*
[T3]	Name	
[T4]	Description	*A-ALARM, SUMMALARM CABINET HUSBYSKOLAN, UNDERCENTRAL B006*
[T5]	Logstate	*RESET*

11.27 Intellution Fix32

The import of events in the *Fix32 system* is made by one log file.

11.27.1 License

The import function for *Fix32* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

11.27.2 Export from Fix32

Nimbus reads an alarm log file as *Fix32* creates at alarm events. Create an alarm transcription to a file. Mark off '*date*' and mark '*use common format*'.

11.27.3 Import to Nimbus Alarm Server

In the setup in Nimbus Administrator for server is the path to the log files stated:
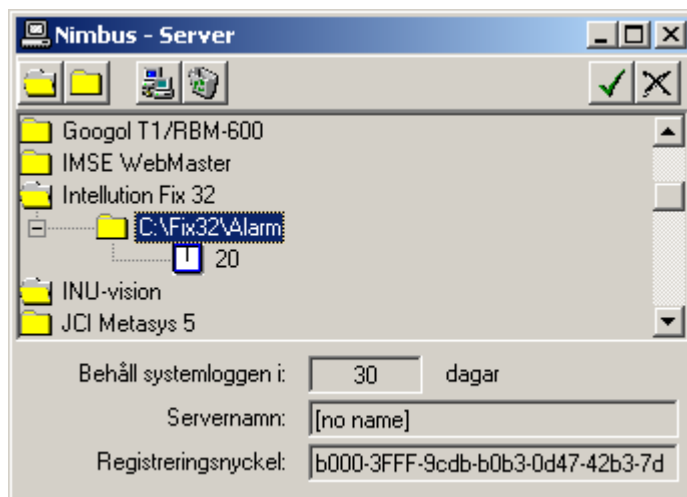
The import interval is set to the desired time, for example 20 seconds.

11.27.4 Expression in formats

Example from a log file:

```
11:34:37.3 [FIX  ] TA0220GX81S COS CLOSE     Rökdetektor Service
11:34:40.5 [FIX  ] TA0220GX81S COS  OPEN     Rökdetektor Service
```

Is translated from *Nimbus Alarm Server* to, example:

[T0]	Tag	TA0220GX81S
[T1]	Area	FIX
[T2]	Category	CLOSE (alt. 100.00 for AI)
[T3]	Name	([°C] for AI etc)
[T4]	Description	Smokedetector Service
[T5]	Logstate	COS

11.28 OPC Alarms & Events

The import from *OPC AE* is made by one separate client application, *NimOpc*, which forwards the events with TCP/IP to *Nimbus Alarm Server*. In this way can *Nimbus Alarm Server* be placed on a PC without any DCOM-rights to OPC Server PC.

11.28.1 License

The import function for *OPC AE* is depending on a separate hardware lock. Please contact TroSoft, +46 8 532 57262, alternative E-mail *nimbus@automatisera.nu*, to purchase this.

NimOPC is by this manuals modification (january 2003) betatest version.

11.28.2 Export from OPC AE

No particurlar settings are usually needed in the system that will export the alarms (ex. *Iconics*)

11.28.3 Import to Nimbus Alarm Server

The import to *Nimbus Alarm Server* is set as *Generic TCP/IP*, see section 11.15.

11.28.4 Settings in NimOPC.INI

```
[TCPIP]
DisableNagleAlgorithm=0
ServerPort=14000

; KeepAlive interval in ms. Set to 0 to disable KeepAlive transmissions.
KeepAliveTime=1000

[OPC]
ProgId=Iconics.AlarmServer
```

ProgId can be difficult to find in the documentation, please contact TroSoft to guide you through the register +46 8 532 572 62 or *nimbus@automatisera*.

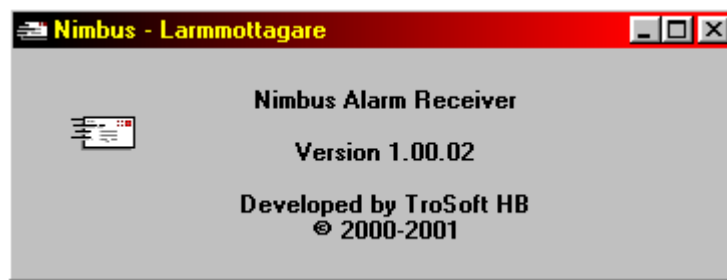*NimOPC.EXE* should be started automatically (autostart/startup folder).

11.28.5 Expressions in format

Example from OPC AE:

[T0]	Tag	TA0220'GT41	(Source)
[T1]	Area		
[T2]	Category	2	(Severity)

[T3]	Name	*Pressure Fault*	*(Condition Name)*
[T4]	Description	*Pressure bad*	*(Message)*
[T5]	Logstate	*ACTIVE*	*(Subcondition Name)*

12. Appendix - Nimbus Alarm receiver

12.1 Purpose

Nimbus Alarm Receiver is designed to receive alarms from *Nimbus Alarm Server*, either using a dial-up connection (modem) or TCP/IP. *Nimbus Alarm Receiver is treated as any alarm receiver in Nimbus Alarm Server*.

12.1.1 License

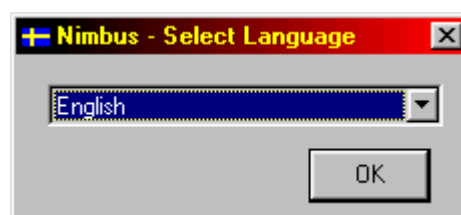There is no license needed to install *Nimbus Alarm Receiver*.

12.2 Startup

12.2.1 First startup

Nimbus Alarm Receiver is started via the shortcut. The shortcut should be copied to the *Startup* folder.
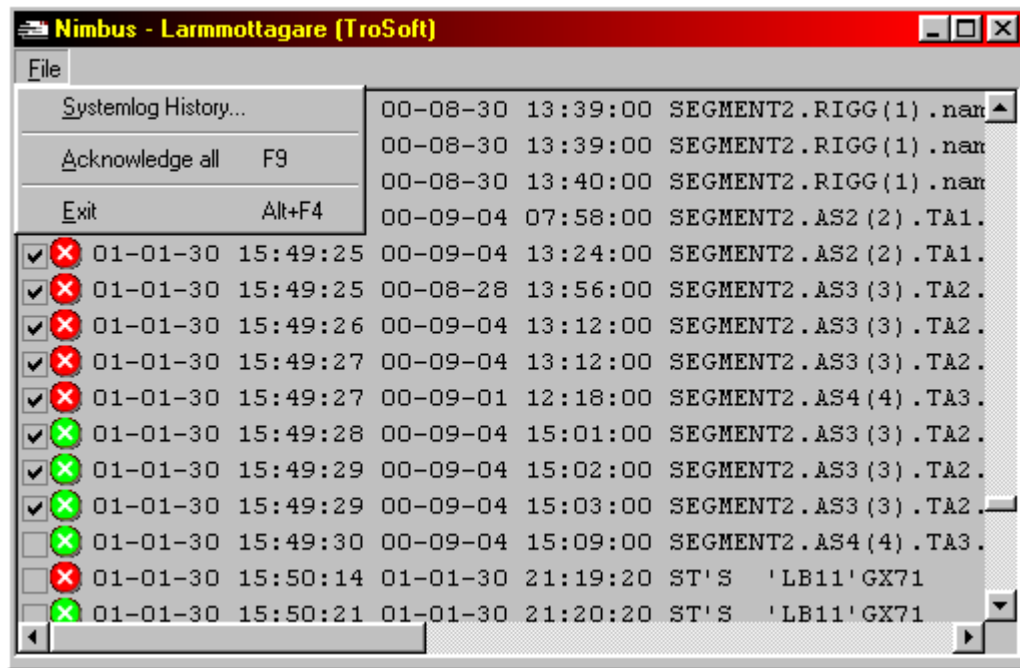
Language   When *Nimbus Alarm Receiver* is started for the first time the program language must be selected.

All available language files are viewed in the drop-down list.

12.3 Functions

Nimbus Alarm Receiver presents all incoming events in a list. The events may be locally acknowledged in this list, this is accomplished by double-clicking the event. The event may be unacknowledged again by selecting the check-mark to the left.

Nimbus Alarm Receiver only views events that occured, it does not show the actual state for each event. It works like a printer.

Acknowledges are not sent back to *Nimbus Alarm Server*.

Normal/Inactive. These events are sent to the local printer (if desired).

Alarm/Active. These events are sent to the local printer (if desired).

Acknowledge (from the SCADA system). These events are sent to the local printer (if desired).

Information message. These messages are never sent to the local printer.

The format of the event string is set in *Nimbus Alarm Server* (*Setup - Receiver Type Setup*).

12.3.1   File - Systemlog History

The events are written to a text based database. The last 1000 events are viewed in the list (default). The database holds up to 10000 events (default). The database is shrinked at midnight and when the program is restarted.

12.3.2   File - Acknowledge all

Acknowledges all unacknowledged events in the list.

12.3.3   File - Exit

Shuts *Nimbus Alarm Receiver* down. When the program is shut down, it will not receive any events from *Nimbus Alarm Server*. *Nimbus Alarm Server* will then assume that the receiver is out of order and forward the event to the next receiver in the sequence list (if the receiver was in that list). I.e. it is possible to use *Nimbus Alarm Receiver* as the normal alarm event receiver, but if it fails, the event can be forwarded to a mail recipient etc.

Nimbus Alarm Server does not do any buffering, i.e. if the event can not be transmitted it will never show up in the list.

12.3.4   NimRcv.INI

All settings for *Nimbus Alarm Receiver* is located in this file.

```
[General]

; This name appears in the caption field
Object=TroSoft

; Number of events in the alarm log (the log file is cleaned every
; 24th hour)
LogFileSize=10000
```

This is the number of events that will be viewed in the list.

```
; Number of events in the TreeView
LogViewSize=1000
```

Normal information messages 🛈 does not need to be viewed in the list.

```
; Set to 1 if all information messages should be shown
ShowInfo=1
```

If there is only one event originator (*Nimbus Alarm Server*), then there really is no need of showing the name of it.

```
; Set to 1 if sender names should be shown
ShowSender=0
```

Though the sender id's may differ in length, it may be limited to a certain length. If the sender id is shorter, it will be padded with space.

```
; The number of chars that the sender id will be limited to
SenderIDPad=7
```

This parameter indicates if a sound signal should be played when an event arrives.

```
; Set to 1 to indicate a new event using a signal
EventSignal=1
```

This parameter indicates if *Nimbus Alarm Receiver* should be restored and popup on the desktop when an event is received.

```
; Set to 1 to indicate a new event by maximizing the window and set
; it flashing
EventPopup=1

; Set to 1 to show the Nimbus Receiver in the TaskBar (otherwise it will
; be in the notify area)
ShowInTaskBar=0

; The language file that is used
Language=046
```

All originators' (*Nimbus Alarm Server*) sender id's should be stated. If *KeepAlive* is to be used, then the id's must match the setting in *Nimbus Alarm Server*.

The timeout must be longer than the *KeepAlive* interval in *Nimbus Alarm Server*.

```
[Senders]
; Sender names=Verification interval. If interval is omitted, then no
verification is made.
NIMBUS=0
;  NAME2=1440
;  NAME3=1440
```

The keyword *TCP* followed by a TCP-port number should be stated instead of a COM-port if *Nimbus Alarm Receiver* is to be used with TCP/IP. *Nimbus Alarm Server* uses the TCP port 12412 by default. The TCP port number is located in *Nim_0029.RCV* if it needs to be changed.

If a dial-up connection is used, then the COM-port must be stated. TAPI is not used. *Nimbus Alarm Receiver* opens the COM-port, and keeps it open when it is running. The modem is periodically initialized. If the modem can not be initialized, it will be indicated by a failure message in the list and at the local printer (if desired).

```
[Comm]
; The port that should be used, i.e
;  1=COM1
;  2=COM2 etc...
;  TCP:12800=use TCP/IP at port 12800

Port=TCP:12412
;Port=1

; The following parameters apply to the modem based input only

; 110, 300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400
; 56000, 128000, 256000
BaudRate=9600

; None, Even, Odd, Mark, Space
Parity=None

; 7, 8
DataBits=8

; 1, 1.5, 2
StopBits=1

; 0=None, 1 = Xon/Xoff, 2 = RTS/CTS, 3 = Both
HandShaking=2

InitString=ATS0=1
```

Local printer port. If a network printer is to be used, it has to be linked to a LPT-port. Set the printer port number to 0 to disable printouts.

```
[Printer]
; Set to 1 to convert from ISO-Latin1 to ASCII
ISOLatConv=1

; LPT port number, 0 means no printer
Port=0
```