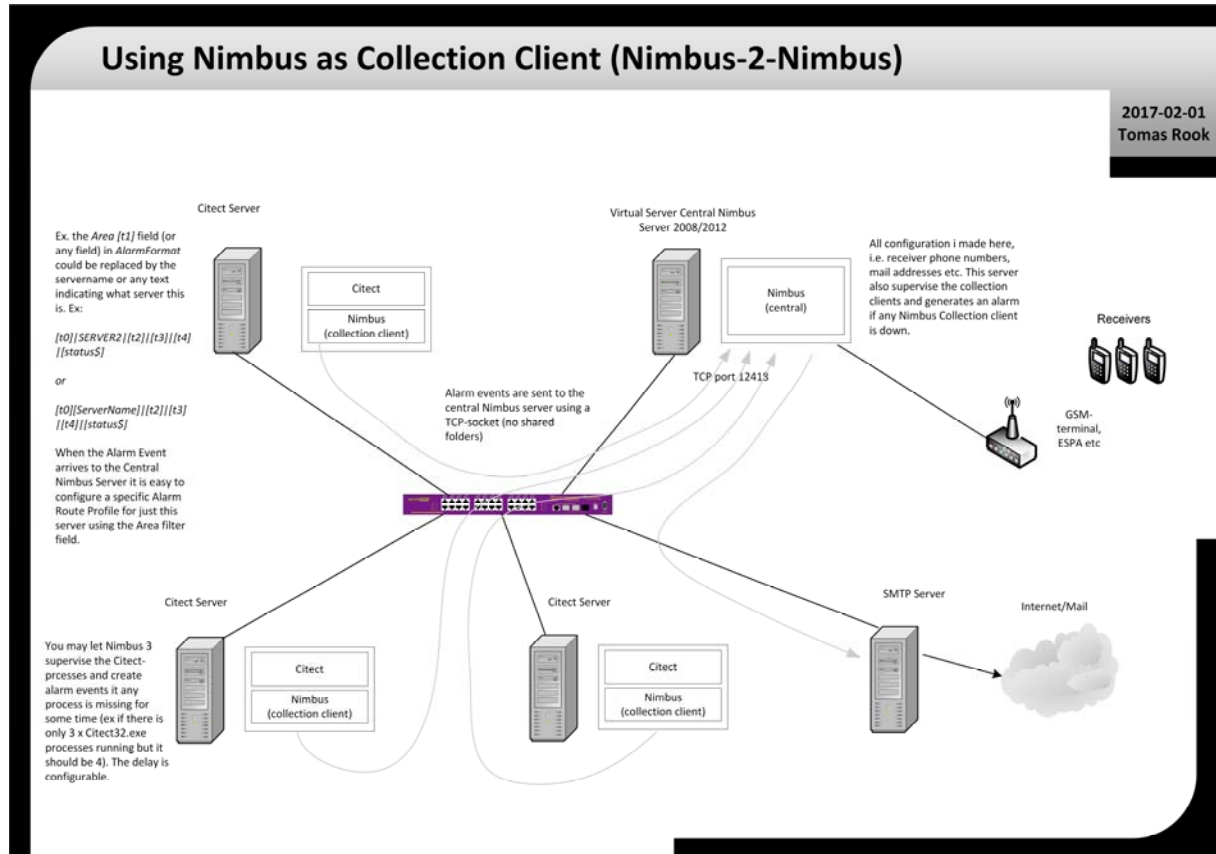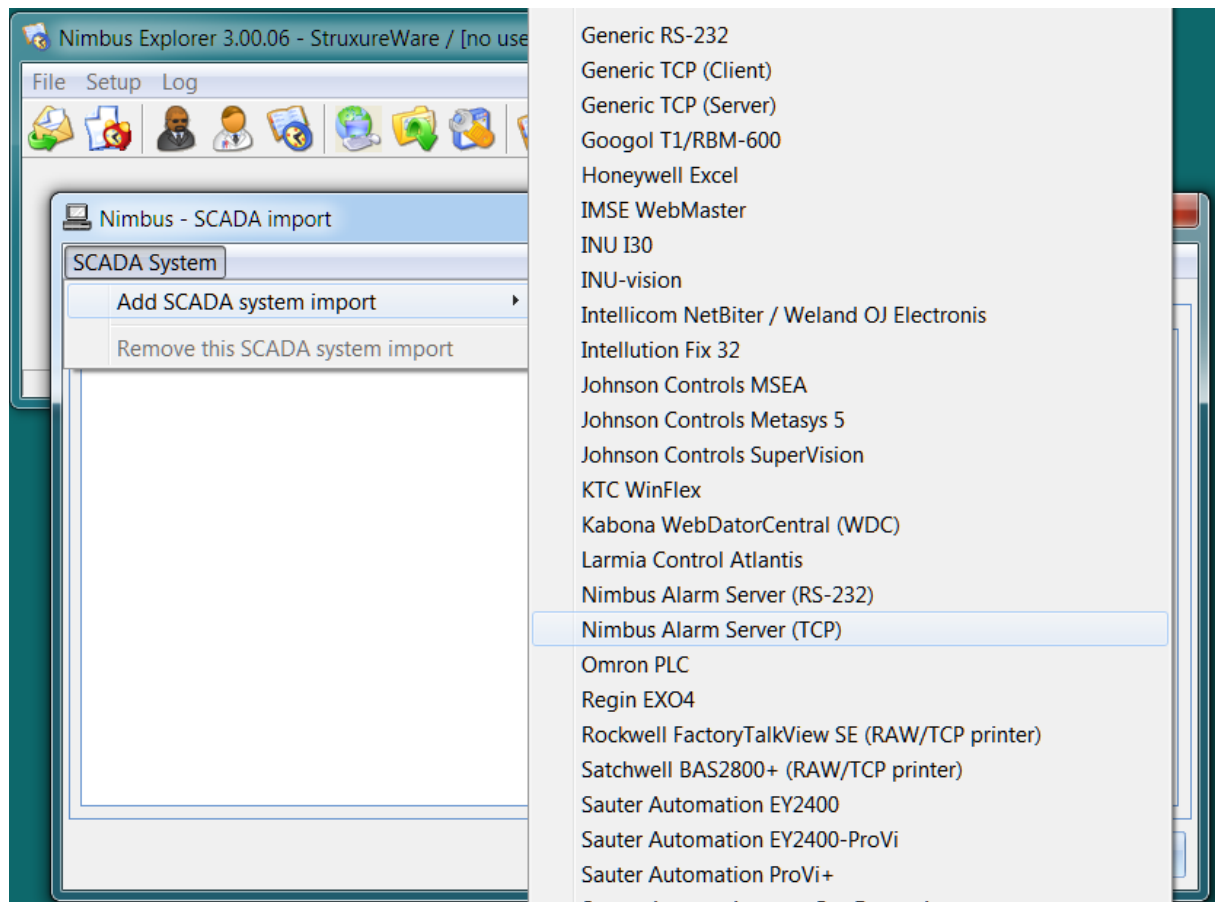# One central Nimbus Server to multiple SCADA

It is possible to use one central Nimbus installation and manage all *Alarm Route Profiles* and *Receivers* in only one place. All SCADA need an installation of *Nimbus Alarm Server* but it will run as a Collection Client only and will have only one Receiver. The *Receiver Type* to be used is *Nimbus Alarm Server (TCP).*

The above example shows four SCADA servers. In this case all SCADA are Citect servers but may be any kind of SCADA system Nimbus can import.

Any of the SCADA Nimbus installaitons can be the central Nimbus server, it does not need to be installed on a separate server.

Central Nimbus Server setup

Add SCADA System *Nimbus Alarm Server (TCP)*

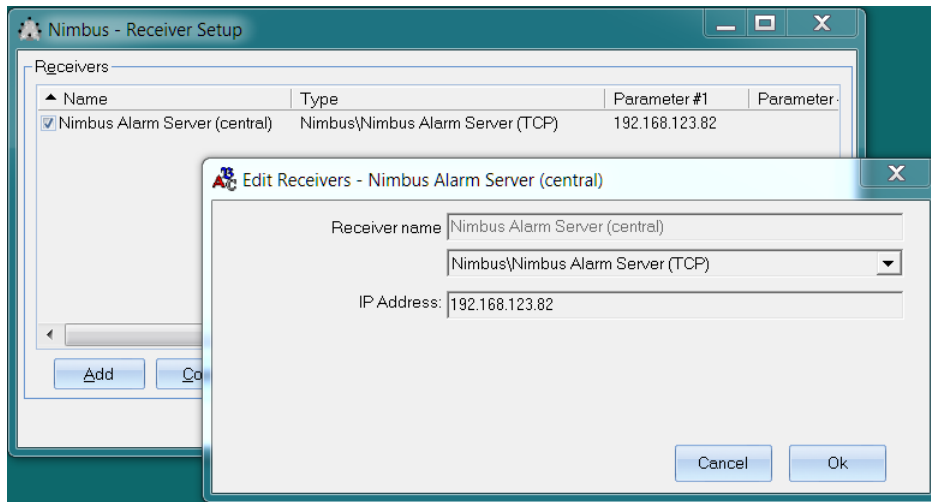Restart *Nimbus Alarm Server*.

The communication will use TCP port 12418 where the central Nimbus Server acts as a socket server, hence it is necessary to ensure any firewalls allow the clients to connect to TCP port 12418.

The port number for the central Nimbus server can be changed, it is located in *Nimbus_Server.ini, section [TCPIP]*, parameter *NimbusPort=12418*. If you change the port you will have to restart Nimbus Server.

If the port number is changed in the central Nimbus Server it must be changed in the Nimbus Collection clients. The port number is located in *ReceiverType_0047.RCV*. The parameter is accessible in *Setup -> Receiver Type Setup -> Nimbus -> Nimbus Alarm Server (TCP).* Check the *Advanced Settings* box - the parameter is named *RemotePort*.

SCADA server setup (Nimbus Collection Client)

Install Nimbus (*Nimbus Alarm Server* and *Nimbus Explorer*) and configure Nimbus to import SCADA alarms (see separate installation document for the appropriate SCADA system).

Create a *Receiver*, use the receiver type *Nimbus Alarm Server (TCP).* There are multiple receiver types with similar names, ensure you select the correct one.

As *IP Address* either the DNS name or the IP address to the central Nimbus server can be used.
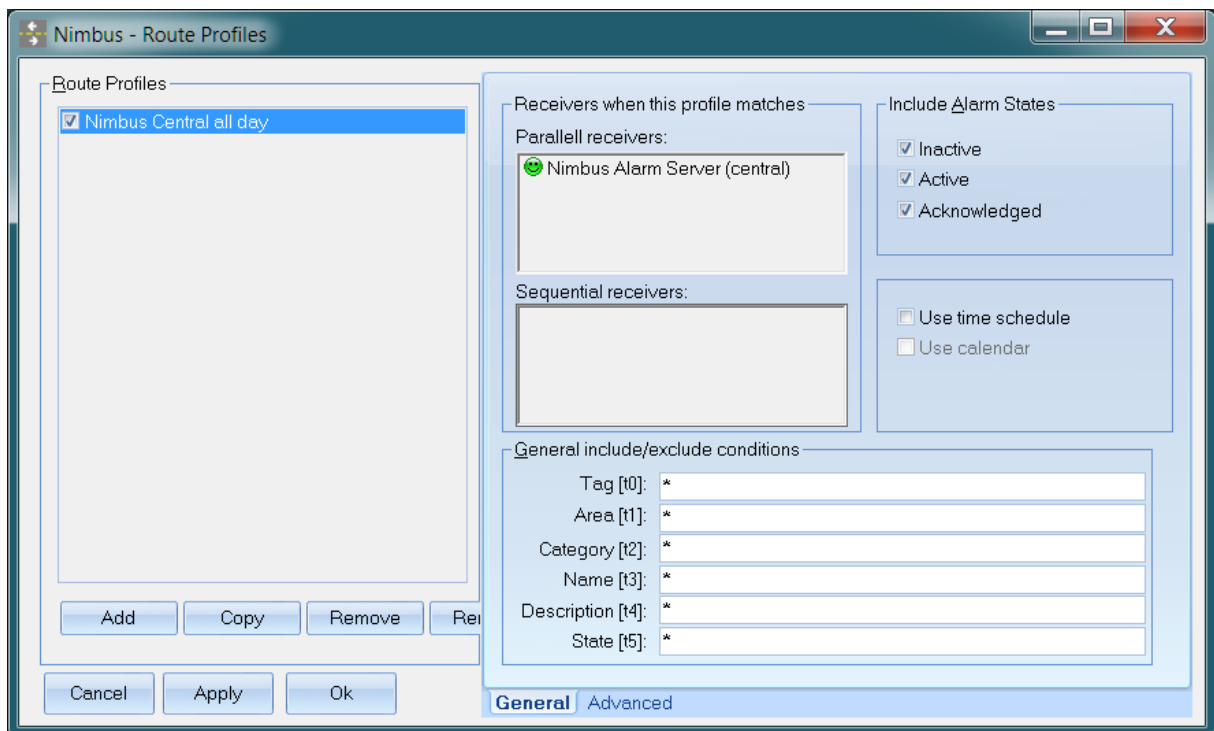
Create an *Alarm Route Profile*. The profile should normally send all alarm events to the previously created receiver. Select also *Acknowledged*. If needed some filtering may also be made here (ex only high prio alarms).

Now the client is configured.

If you like to filter alarm events in the central Nimbus Server using the source (which Nimbus collection client it came from) the *AlarmFormat* could be changed.
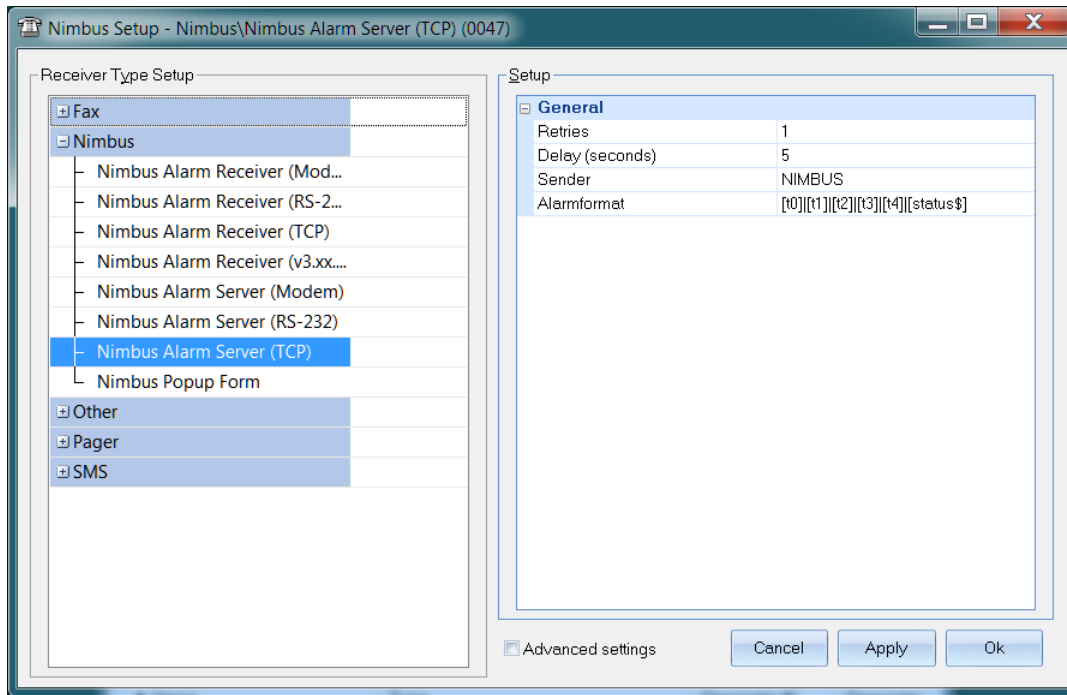
AlarmFormat defaults to *[t0]|[t1]|[t2]|[t3]|[t4]|[status$]* and the fields will be parsed by the Central Nimbus Server in the order they appear. If the format is changed to ex:

[t0]|Citect2|[t2]|[t3]|[t4]|[status$]

then you may use *Citect2* in the Central Nimbus Server Alarm Router profile field *[t1] Area* to ensure the profile is valid for alarm events from this collection client only. All other fields may also be manipulated accordingly to exchange texts etc.
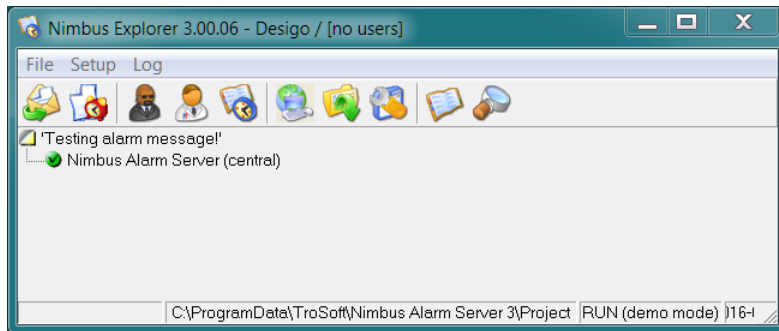
The SCADA system filter in the *Advanced* tab (*Use this Profile for specific SCADA systems*) could not be used to filter out different SCADA from collection clients - from the Central Nimbus Server perspective all alarms comes from another Nimbus Alarm Server.

Check that it works

Use *Nimbus Explorer -> File -> Text message*.
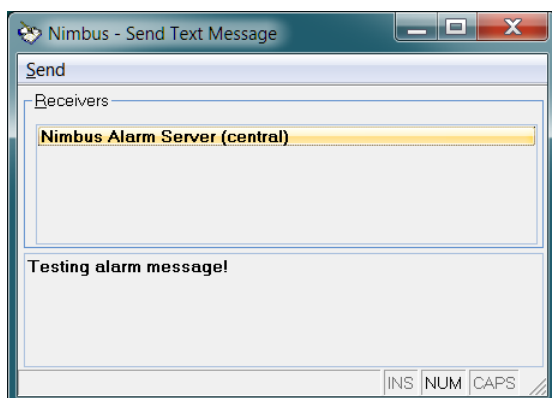
Send some random text.

Here is an example of a successful transfer of the text message. The transfer was acknowledged by the Central Nimbus Server.

The Central Nimbus Server will throw text messages without any notification. Only alarm events will be placed in the internal alarm event queue.

If you are to configure multiple Nimbus Collection clients with similar configuration you could easily copy the configuration to the new installations. All configuration is found in the Project-folder. Right-click the Project-path in Nimbus Explorer (status bar below) and select *Open Explorer at this location*.

Copy the complete folder to the new collection client installation.

The software license key (if used) is located in the *Project\Nimbus_Server.ini* file and may need to be chnaged afterwards. The same applies to the *AlarmFormat* if it was updated.

Why not using shared folders instead, and will this not be more expensive (more licenses)?

When the SCADA alarms are imported using some kind of text file, it is possible to share folders and let Nimbus read from them.

However when running Nimbus as service it by default does not have access to network resources. If you change user context for the service you will need to ensure the user always have the same password. If the shared folder is unavailable, Nimbus will lock until it get an error from the network and this will cause severe delays in alarm sending.

We strongly advise against such a solution.

A software key is needed for each collection client, but the pricing is such as there mostly is no difference in price using collection clients and one Central Nimbus Server or only one Nimbus Server using shared folders.