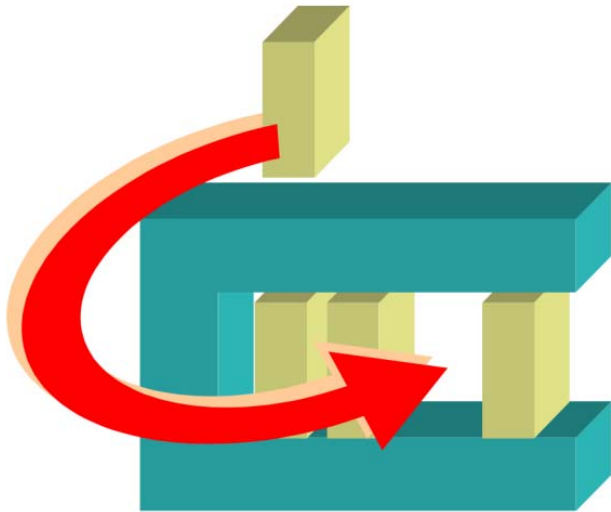


SIEMENS



MM8000 MP4.xx

**LIST Fire Control Unit Add-on
module**

Installation

Operation Manual

Configuration

Building Technologies

Fire Safety & Security Products

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About this document

Purpose

This manual is intended as a guide to the installation, configuration, and operations for the MM8000 Management Stations that includes the LIST fire control units. It presents the MM8000 Add-on module for the LIST support.

This guide is part of the general DMS8000 engineering documentation set which includes the Composer Technical Manual, the other DMS8000 Connectivity Guides (the complete list includes: Network, Fire, Intrusion, Access Control, Video, and OPC), and the Installation, Configuration, and Commissioning manual (ICC) for each specific product.

Scope

This document applies to the **MM8000 Management Station MP4.60** and higher.

Target audience

This documentation is intended for the following users:

- Project Managers
- Project Engineers
- Commissioning Personnel

It is assumed that individuals performing the operations described in this manual have prior expertise and training in the field of safety and security, at least a moderate level of familiarity with the Siemens Building Technologies product line, and experience with the installation, configuration, and commissioning of security management systems.

Documentation resource information

The *DMS8000 Documentation Resource Information and Glossary Guide* assembles important information regarding documentation resources. This document contains the following:

- Comprehensive definitions of the target audiences for Siemens FS DMS documents
- Training program information including the Siemens intranet link
- A complete list of all available DMS8000 documents
- Instructions for how to obtain a document via the Siemens intranet using the Siemens Asset Portal
- A map of relevant documents for each target audience group
- Customer Support links & resources
- A glossary containing definitions of all terms and acronyms used in DMS8000 documentation

To access the *DMS8000 Documentation Resource Information and Glossary Guide* (document no. A6V10089056), go to the link and follow the document search instructions below:

<http://assetportal.bt.siemens.com/portal/index.html>

1. In the Search column on the left, set:
 - Segment: **04 Fire -3F**

- Document Type: **All**
- Image Type: **All**
- Advanced search criterias: Select **Brochure No.** and enter the document number to search for (*A6V10089056*). Alternatively, select **Title** and enter the product name (*DMS8000*).

2. Click **Search** to start.

3. In the resulting area on the right, click on **Contents** link to show the list of search results.

For more information such as Siemens news and announcements, visit the STEP Web portal at:

<https://workspace.sbt.siemens.com/content/00001123/default.aspx>

Operational and safety regulations



Before groups of persons begin work on the system, they must have read and understood the Safety Regulations [→ 7] section in this manual.

Liability disclaimer for damage or injuries

Before products are delivered, they are tested to ensure they function correctly when used properly. Siemens disclaims all liability for damage or injuries caused by the incorrect application of the instructions, or the disregard of danger advisories. This disclaimer applies in particular to personal injuries or damage caused by:

- Improper and/or incorrect use.
- Disregard of safety instructions in the documentation or on the product.
- Poor maintenance or a lack of maintenance.

We have checked the contents of this manual for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this manual are reviewed regularly and any necessary corrections are included in subsequent editions. Suggestions for improvement are welcome.





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Documentation Conventions

The following table lists conventions to help you use this document in a quick and efficient manner.

Convention	Examples
Numbered Lists (1, 2, 3...) indicate a procedure with sequential steps.	<ol style="list-style-type: none"> 1. Turn OFF power to the field panel. 2. Disconnect the power cord. 3. Open the cabinet.
One-step procedures are indicated by a bullet	<ul style="list-style-type: none"> ● Expand the Event List.

point.	
Conditions that you must complete or must be met before beginning a procedure are designated with a ▷. Results, after completing a step or at the end of the entire procedure, are designated with a ⇨.	▷ The report you want to print is open. 1. Click the Print icon  . ⇨ The Print dialog box appears. 2. Select the printer and click Print . ⇨ The print confirmation appears.
Bold font in a procedure indicates something you should select or type.	Type F for Field panels. Click OK to save changes and close the dialog box.
Menu paths are indicated in bold .	Select File > Text, Copy > Group , which means from the File menu, then select Text, Copy and finally Group .
Error and system messages are displayed in Courier New font.	The message <i>Definition successfully renamed</i> displays in the status bar.
<i>Italics</i> are used to emphasize a term.	The Open Processor continuously executes a user-defined set of instructions called the <i>control program</i> .
	This symbol signifies a Note. Notes provide additional information or helpful hints.
 Caution	This is a Caution message and indicates that minor or moderate injury or property damage may occur if a procedure is not followed.
 Warning	This is a Warning message and indicates that a serious injury or a severe equipment and property damage may occur if a procedure is not followed.
Cross references to other information in printed material are indicated with an arrow and the page number, enclosed in brackets: [→92]	For more information on creating flowcharts, see Flowcharts [→92].

Modification index

Note: For versions more than four years old, please visit the Siemens Asset Portal.

Version	Date	Notes
A6V10238692_a_en	06.2013	DMS8000 4.60. Installation procedure for versions older than version 4.15 has been removed.
A6V10238692_a_en	06.2009	DMS8000 4.20. New Add-on Manager for software installation.

1 Safety regulations

This section describes the danger levels and the relevant safety regulations applicable to the use of the products described in this manual. Please read the following work instructions as well as the preceding section *About this document* thoroughly before beginning any work.

1.1 Country-specific standards

Siemens products are developed and produced in compliance with the relevant international and European safety standards. Should additional country-specific, and/or local safety standards or regulations concerning project planning, installation, and/or operation of the product(s) apply, then these standards and/or regulations must also be taken into account, in addition to the safety regulations mentioned in the product documentation.

1.2 Commissioning and testing

- Activate security-, fire- and third party systems or devices *only* in the presence of the person responsible.
- Abide by the safety regulations of the connected sub-systems when working on management stations. This especially applies when switching-off system components.
- Inform people before the testing of alarm devices; take the possibility of panic reactions into account.
- Inform the alarm and fault receiving stations connected to the system before carrying out any tests.

1.3 Modifications to system design and products



Modifications to a system or to individual products may cause faults or malfunctioning.

Please request written approval from Siemens Building Technologies, FS-DMS, and the relevant authorities concerning intended system modifications and system extensions.

2 Introduction

The LIST control unit is a fire system capable of handling special sensor cables applied in critical environments.

The LIST control unit can communicate over a serial line to the NK82xx units. The communication protocol is based on the Siemens Procedure 3964(R) and requires a specific NK82xx firmware [→ 12].

Version supported

MM8000 MP3.20 and later, equipped with LIST add-on extensions, can support LIST SCU 2000.

2.1 What's new

Here is the list of modifications for new functions and software improvements.

Section	Modifications
N/A	N/A

3 Installation

3.1 Add-on distribution package

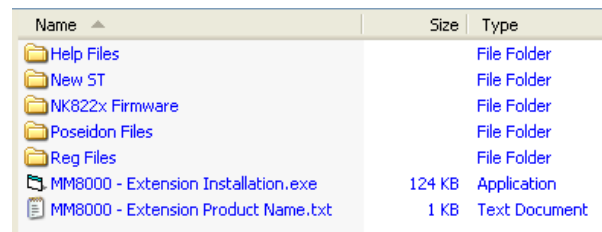
The MM8000 software for the control unit support is distributed as an add-on package, to be installed on the stations including the Composer tool (client-only and FEP stations are therefore excluded) after the standard MM8000 Setup.

The package is named **MM8000 MPx.xx - System Extension N.05 (List Vy.yy)** and is made up by an installation kit of a few files.

Installation kit

The installation kit includes:

- The new **Help Files**, describing the control unit configuration procedures.
- The new Composer Subsystem Tool (**New ST**) for the control unit models.
- The firmware for the NK82xx units (**NK822x Firmware**), i.e. the DLL module supporting the control unit protocol.
- The **Poseidon Files**, including the definitions of the control unit data structures.
- The registry file folder (**Reg Files**), containing a command for registering the add-on package.
- The installation utility: the **MM8000 – Extension Installation.exe** program (managed by the Add-on Manager).
- The extension name text file; e.g.: **MM8000 – Extension Product Name.txt**.



Name	Size	Type
Help Files		File Folder
New ST		File Folder
NK822x Firmware		File Folder
Poseidon Files		File Folder
Reg Files		File Folder
MM8000 - Extension Installation.exe	124 KB	Application
MM8000 - Extension Product Name.txt	1 KB	Text Document

Installation kit

3.1.1 Installation checklist

Items needed for the installation

- The MM8000 Setup DVD
- The **MM8000 MPx.xx - System Extension N.05 (List Vy.yy)** installation kit
- The MM8000 hardware key (dongle)
- The MM8000 license PAK code (or the REG file that contains it)

Installation checklist

1. Install the MM8000 Software and the required license key and PAK.
Refer to *MM8000 Installation, Configuration and Commissioning Guide* and *Release Notes*
2. Install the NK8000 units (NK82xx).
Refer to *NK8000 Installation, Configuration and Commissioning*

3. On the station(s) with configuration capability (Composer tool), install the add-on module [→ 11].
4. Update the NK8000 firmware [→ 12].

3.2 Software installation

3.2.1 Requirements

This add-on does not add any special requirements to the standard MM8000 setup. Therefore, software and hardware requirements are described in the MM8000 Installation, Configuration and Commissioning manual (A6V10062413) and in the NK8000 Installation, Configuration and Commissioning manual (A6V10062437).

The MM8000 software must be properly installed before the add-on can be installed. For more information on the MM8000 installation, please refer to the MM8000 Installation, Configuration and Commissioning manual (A6V10062413).

3.2.1.1 MM8000 compatibility

This add-on package is designed to work with MM8000 MP3.20 and higher. Contact FSP-DMS support to verify the compatibility with other versions.

3.2.2 Software License

An additional license is required to run the add-on module. On top of the base MM8000 license codes, a specific PAK is therefore needed.

Therefore, the required license includes:

- WW8000 Composer (project configuration and download): Composer License or Service key.
- NS8210 driver: NK8000 connections, indicating the number of NK82xx units. This license is required for enabling the network driver and the NK82xx units communicating with the control units.
- MM8000 core, no. of subsystems. This license should include the number of control units.
- MM8000 core, no. of devices. This license should include the number of physical objects (detectors, auxiliary and control outputs).
- Add-on license. Check detailed sales policy for your country

Other licenses, covering more MM8000 options, may or may not be used and they are not related to the add-on support.

3.2.3 Installing the Add-on module

The following is the installation procedure for the add-on module.



⚠ WARNING

Add-on versions older than MP4.15 require a different installation procedure; for such cases, please refer to the add-on manual of the corresponding version.

3.2.3.1 Installation on MM8000 MP4.15 and later

A specific application – the **Add-on Manager** – is provided starting from MM8000 MP4.15, and allows installing and updating the add-on modules. The application supports the installation of add-ons developed for all MM8000 versions starting from MP4.15.

The following are the installation procedures for the add-on module.

1. Start the **Add-on Manager**.
 - From the Windows **Start** menu, select the following:
Start > DMS8000 > Tools > Add-on Manager
⇒ The **Add-on Manager** window appears.
2. In the list of **MM8000 Add-Ons/Name**, select the **name of the module** you wish to install
-- OR -- (if the name of the add-on is not in the list on the screen):
click **Browse**, locate the installation files of the add-on module, and select the text file (**Extension Product Name.txt**) in the root folder.
3. If your installation includes a customized *MM8000 internal account*, then deselect the check box **Use default MM8000 User account** and specify the customized username and password.
Note: For information about the MM8000 Internal Account, refer to *MM8000 internal user account* section of the MM8000 ICC, doc.no. A6V10062413_a_en.
4. Click **Install** (or **Update** if a previous version was detected).

3.2.3.2 Multiple add-on's installations

In general, it is possible to install multiple add-on packages and benefit of their combined functionalities. However, specific incompatibilities might exist. Please check about possible problems in the documentation of all add-on modules that must be installed.

3.2.4 Removing the Add-on module

Add-on module cannot be uninstalled.

3.3 Communication network

The control unit is connected to the MM8000 system by means of the NK8000 network and namely via the NK82xx units.

In order to communicate with the control unit, the NK82xx units should however be equipped with a new firmware that is included in the installation package as an additional component (DLL) to be added to the standard firmware file set.

The software installation procedure provides to copy the firmware files (a compressed ZIP archive) in the **NK82xx – Firmware** folder of the MM8000. From there, the files can be downloaded to the NK82xx units using standard Composer commands. The required procedure is described here below.

3.3.1 Downloading NK82xx firmware

The following are the download procedures for the NK82xx firmware supporting the control unit communication protocol.

Note: It is assumed that the NK82xx are physically installed, powered on, and communicating over the network. For more information about the NK8000 installation, please see the document no. A6V10359485, DMS8000 Connectivity Network guide. More advanced technical issues are also discussed in the document no. A6V10062437, NK8000 Installation, Configuration and Commissioning.

Also, you should have available the Composer project that includes the NK8000 network and all the NK82xx units.

Verifying the connection with NK82xx

The NK82xx download requires that the TCP/IP connection between the host PC and the NK82xx is working properly.

In the Windows Command Prompt window, you can check easily this connection using the **Ping** command:

- **Ping n.n.n.n**
where **n.n.n.n** is the IP address of the NK82xx unit, e.g. 168.123.8.76.
If the IP connection is good, the message text looks like the following example:

```
C:\>ping 192.168.8.76
Pinging 192.168.8.76 with 32 bytes of data:
Reply from 192.168.8.76: bytes=32 time<10ms TTL=60
Reply from 192.168.8.76: bytes=32 time<10ms TTL=60
Reply from 192.168.8.76: bytes=32 time<10ms TTL=60
Reply from 192.168.8.76: bytes=32 time<10ms TTL=60

Ping statistics for 192.168.8.76:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

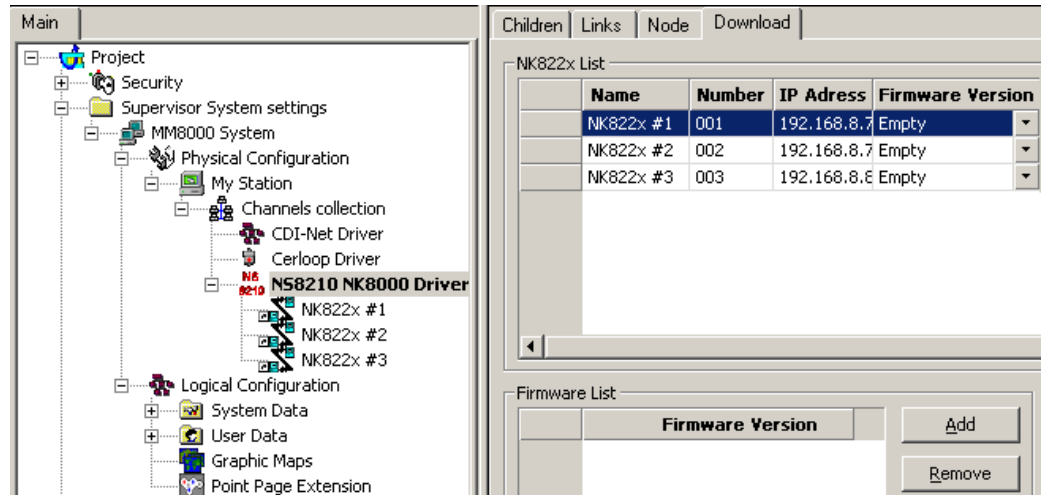
Checking IP connection

- **Reply from n.n.n.n: bytes=... time ... TTL=...**
If the IP connection is not working for any reason, different messages may appear (Request timed out, Destination net unreachable, etc.) In these cases, verify the network settings and cabling and try again.

Downloading the NK82xx firmware

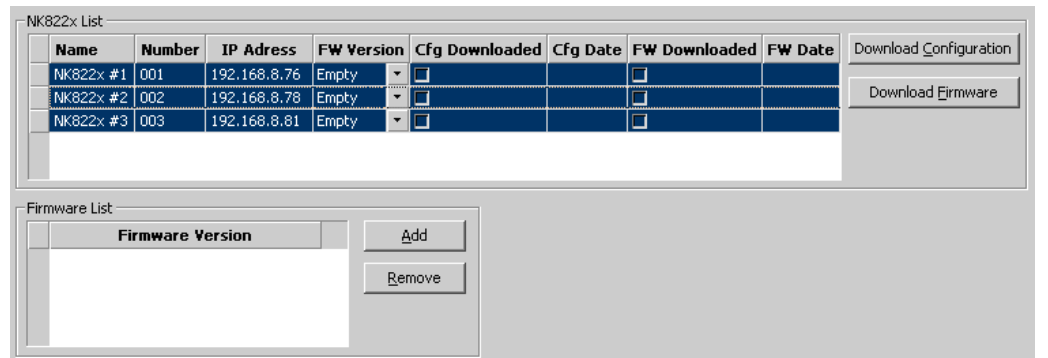
1. Start Composer and open the project that includes the control units.

2. Expand the **Channel collection** folder in:
Supervision System Settings > MM8000 System > Physical configuration > Station (or FEP) > Channel collection
3. Select the **NS8210 driver** node and then the **Download** tab.



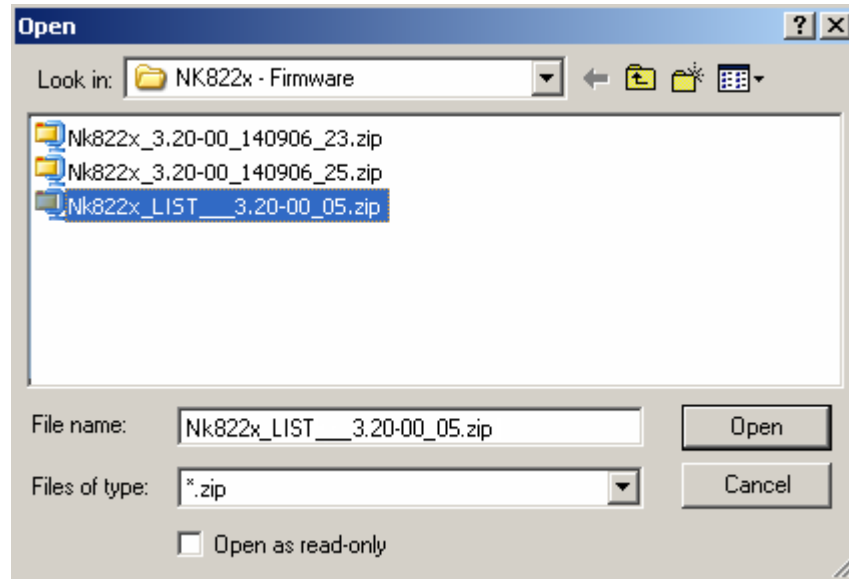
Download tab

4. Select all the branches (NK82xx) in the list located in the upper part of the form.
Note: In order to select multiple branches, keep the CTRL key pressed while you make your selections. See the following:

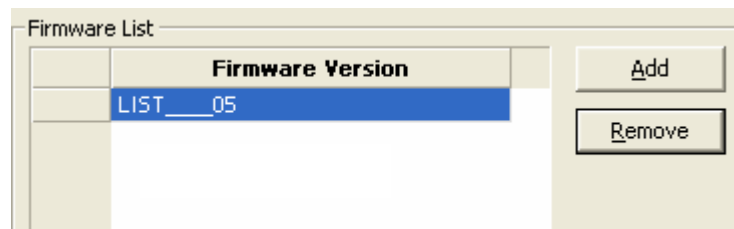


Selecting the NK82xx

5. Add the new firmware version:
 - a. Click **Add**, then browse and locate the additional firmware file in:
<MM8000 installation folder>\NK82xx – Firmware
 - b. Click the zip file: **NK82xx_<add-on>_x.xx-xx**, with x.xx-xx being the software version.
 - c. Click **Open**.



⇒ In a few moments, the new firmware shows in the Firmware List.
The **_0x** suffix in the firmware name indicates the add-on index.



6. Select the new firmware version in the Firmware List.
7. Click the **Download Firmware** button.
 - ⇒ The download procedure starts. The new firmware is downloaded to the NK82xx units via FTP (File Transfer Protocol) services over the network.
8. Ensure that you have successfully completed all downloads.
Verify that the **FW Downloaded** check boxes contain **X**'s.
That completes the NK82xx firmware download.

Note that the NK82xx configuration will also need to be downloaded after having configured the control units in Composer.



Downloading multiple firmware

In case multiple add-on packages have been installed, then all the associated firmware files can be safely downloaded in sequence (each of them being a single additional DLL) as long as the base NK82xx version is the same. Please check the firmware version in the firmware list before selecting the file to download. Also, get informed about latest compatibility issues in the most recent NK8000 Release Notes.

4 Configuration

4.1 Configuration checklist

Verify that you have satisfied the items needed in the first checklist before proceeding to the configuration checklist that follows.

Items needed for configuration

- The number of LIST systems
- Exact information on the LIST internal configuration (units, zones, detectors)
- The exact connection to the NK8000 unit (NK82xx).
- Plug-ins needed:
 - #354701



Note: Plug-ins are installed during the software setup procedure. You can check that the Plug-ins are actually available using the **Composer Plug-in Installer** in the DMS8000 start menu.

Configuration overview

1. If not already done, install the new NK82xx firmware.
2. Add the folder(s) required for identifying the location of the LIST in the project structure tree.
3. Add the LIST control unit node to the new folder.
4. Configure the LIST objects: units, zones, and detectors.
5. Link the LIST to the communication network.
6. Repeat steps above for all the LIST units in the project.
7. Download the configuration.


4.2 Configuration procedure

The following are the configuration procedures for the LIST control unit.

Adding the folder for the LIST system

1. Open the Composer project.
2. Create a folder for the control unit.

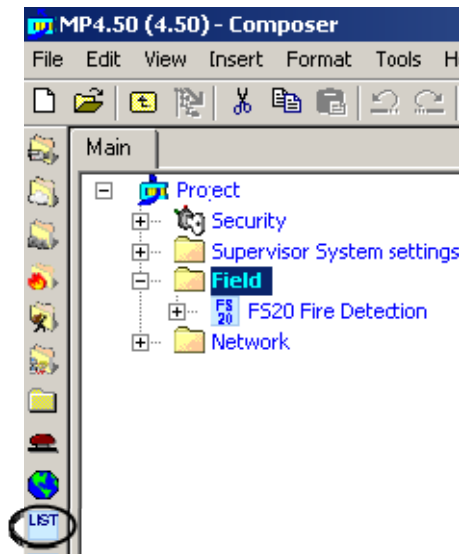
Adding the LIST node

1. Select the new folder.
2. Select the LIST icon .

⇒ The new node is added to the project structure.



Note: You can customise the default name of the new node by clicking once on the name, typing a new name, and pressing **Enter**.



Adding an LIST subsystem

Detailed unit configuration

You now have to define the LIST internal structure to reflect the actual control unit configuration. By default, the LIST structure includes a physical and a logical tree folder. The following list shows where different objects are located in the physical and logical trees:

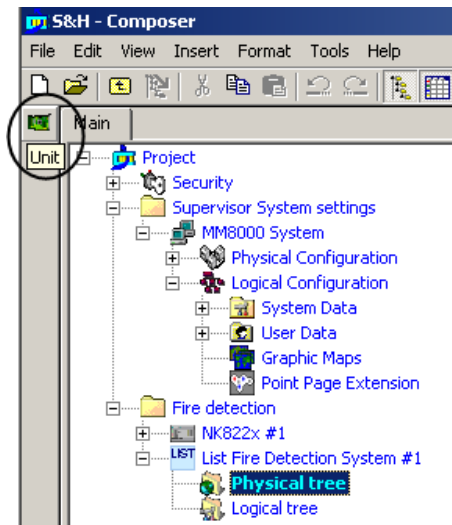
- Physical tree:
 - Units (up to 32)
- Logical tree:
 - Zones (up to 64)
 - Detectors (up to 2048)



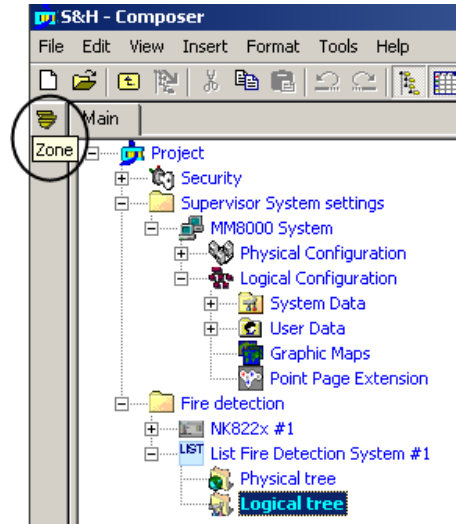
When adding multiple objects, you can profit of the specific Composer function that allows inserting a series of objects in one shot. Just press the **SHIFT** key and click the object icon (or select the corresponding Insert menu); in the form that appears, enter the number of object to insert and then confirm.

Configuration procedure

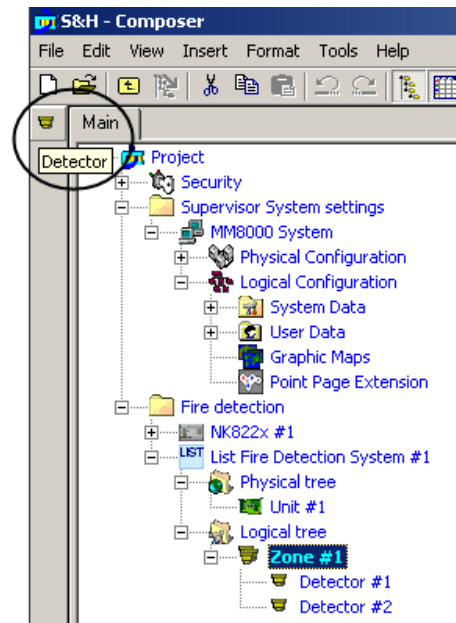
1. Select the **LIST** node and open the sub-tree.
2. Select the sub-folder: **Physical tree**.
 - ⇒ The Composer toolbar, on the left hand side of the screen, is populated with the icons associated to the objects you can to add the selected sub-folder.
3. Click the **Unit** icon to add as many units as required by your configuration.
 - ⇒ The new objects are added to the tree.
4. Select the sub-folder **Logical Tree**.
 - ⇒ The Composer toolbar, on the left hand side of the screen, is populated with the icons associated to the objects you can to add the selected sub-folder.
5. Click the **Zone** icon to add as many zones as required by your configuration.
 - ⇒ The new objects are added to the tree.
6. Select the zone nodes and add the detectors associated to each zone.



Adding Unit objects in the Physical Tree



Adding Zone objects in the Logical Tree





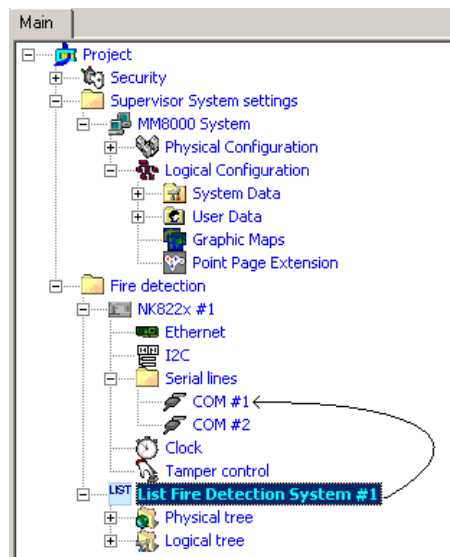
Adding detectors to a Zone

Linking the Communication network

1. Open NK82xx sub-folders.
Expand the NK8000 network folders until you reach the node that represents the NK882x COM port that is physically connected to the control unit.
2. Select the **control unit** node.
3. Drag and drop the control unit node to the network **COM** port.



Note: Composer helps you in recognising a valid link by showing a shortcut Link icon  instead of the circle No-link icon .



Link LIST to the NK8000 network

When the link is established, a new node appears on the structure tree, and its properties can be seen on the Link tab of both the connected nodes.

Downloading the MM8000 configuration

Before operating with the new MM8000 configuration, you need to download it. In Composer, the download command is available in the Tools menu. The preparation to the download is discussed in the document no. A6V10062413, MM8000 Installation, Configuration and Commissioning.

Downloading the NK82xx configuration

After any modifications on the control units, a new configuration download is required for the NK82xx devices.

**WARNING**

The NK82xx units handle the control unit messages interpretation for MM8000. In order to do so, the NK82xx needs to be downloaded with the updated configuration of the management stations, even after a minor modification to the subsystem structures (e.g.: after having imported an updated metafile including new objects). Depending on the specific configuration change, failing to download the NK82xx units may affect the correct behaviour of the telegram interpretation and result in missing event signalling. In general, we recommend including an NK882x download after any change in the configuration.

The download procedure can be started in two ways:

1. In the **Download** tab of the **NS8210 driver** node:
 - Select:
Supervision System Settings > MM8000 System > Physical configuration > Station (or FEP) > Channel collection > NK8210 driver
 - In the list that shows up, select the **NK82xx units**.
Note: In order to select multiple branches, keep the CTRL key pressed while you make your selections.
 - Click the **Download Configuration** button.
 - Ensure that you have successfully completed all downloads.
Verify that the **Cfg Downloaded** checkboxes contain **X**'s
2. In the **NS82xx** node (select all units one after the other):
 - Right click the node.
 - In the menu, click **Node commands > Download file CNF**.

5 Operation

MM8000 operations are described in the document no. A6V10062409, MM8000 Operation Manual. Specifically, the possible events related to the control units are listed in the table below.

Node	Alarms	Faults	Other events
LIST unit		Fault Not reachable	Advisory (Silence) Exclusion (Disabled)
Zone	Severe alarm (Fire alarm) Alarm (Fire pre-alarm)	Fault	
Detector	Severe alarm (Fire alarm) Alarm (Fire pre-alarm)	Fault	
Unit		Fault	

Note: All objects can also be affected by the Maintenance event according to the MM8000 function that allows setting any part of the system tree in maintenance mode and divert the associated events into a separate list.

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