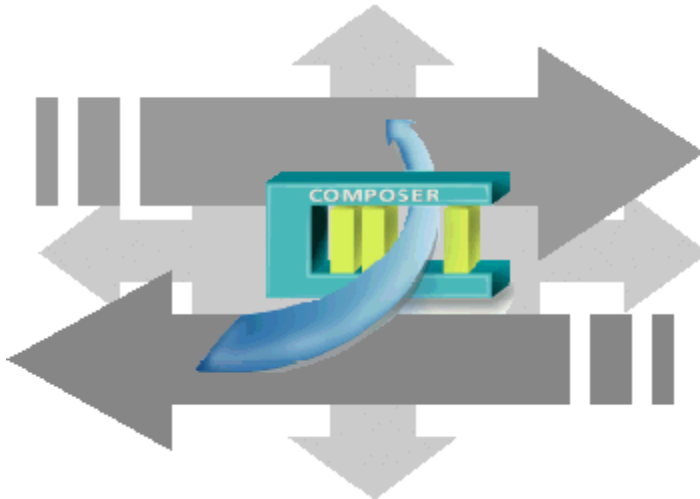


SIEMENS



DMS8000 MP4.81

**SI410/420,
SPC4000/5000/6000, CS6, CS4,
CS440, CZ12**

Operation Manual

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About this document

Purpose

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 **DMS8000 MP4.81**.

Target audience

This documentation is intended for the following users:

- Project Managers
- Project Engineers
- Commissioning Personnel

Individuals performing the operations described in this manual are expected to be already familiar with the concepts and terminology related to the field of security, as well as with the Siemens fire and security products, and the networks and subsystems supported by them.

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:

<https://step.bt.siemens.com/portal/StandardAssetPortal#contextID=Headquarters&workspaceID=Approved&screen=homepage>

1. In the Simple Search column on the left, set:
 - Search Text: Enter the document number to search for (for example *A6V10089056*) or type part of the document name.
 - Asset Type: **All**
2. Click **Search** to start.
3. In the resulting area on the right, click on **Contents** link to show the list of search results.
4. In the list, select one or more documents and click the **Download Assets** icon.

5. After the download preparation completes (**Background Process ...**), click **Download** and follow the instructions of your browser.

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 any DMS system, they must have read and understood the related documents. In particular the Safety Regulations included in the Installation, Configuration, and Commissioning manual (ICC) for each specific product.

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 point.	<ul style="list-style-type: none"> ● Expand the Event List.
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 ⇨.	<p>▷ The report you want to print is open.</p> <ol style="list-style-type: none"> 1. Click the Print icon . <p>⇨ The Print dialog box appears.</p> <ol style="list-style-type: none"> 2. Select the printer and click Print. <p>⇨ The print confirmation appears.</p>
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 <code>Definition successfully renamed</code> 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:	For more information on creating flowcharts, see Flowcharts [→92].

[→92]

Modification index

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

Version	Date	Notes
A6V10359489_a_en	09.2016	DMS8000 4.81. For details regarding updates/modifications, see What's new [→ 8].
A6V10359489_a_en	09.2015	DMS8000 4.80. FlexC protocol support.
A6V10359489_a_en	09.2014	DMS8000 4.70.
A6V10359489_a_en	06.2013	DMS8000 4.60.
A6V10359489_a_en	06.2012	DMS8000 4.50. Former <i>Network Connectivity Guide</i> has been split in 3 manuals (Configuration Guides for Network, Fire, Intrusion, respectively): new version code.
A6V10062425_b_en	10.2011	DMS8000 4.30-01
A6V10062425_a_en	06.2011	DMS8000 4.40

1 Introduction

Siemens fire safety and security products are designed to work together. While there are many occasions where only one product may be used in a facility, when combined our products create a robust and flexible set of architectural and connectivity solutions. The possible combinations of Danger Management Systems (DMS), network choices, and subsystems used in any given plant are extensive. However, the time involved with commissioning tasks can be substantial.

With the aim of reducing time spent on configuration, Siemens BT FS has developed their products so that the DMS and the networks can all be configured with a single tool called WW8000 Composer.

The networks and subsystems supported by our Danger Management Systems are always configured in the same way within the Composer environment.

What this document contains

This document includes the configuration procedures for the video subsystems supported by our DMS8000 products. It discusses in detail how to configure these systems by hand.

What this document does not contain

Each DMS carries a different set of technical and behavioural characteristics that interact with the networks and subsystems. These differences typically appear as additional tabs in the network and subsystem work areas of Composer. However, since these tabs are always associated with attributes specific to the DMS being used, they are not discussed in this manual. This information can be found in the corresponding product manual.

Reference documents are listed in the Resource Information document (see About this document [→ 4]).

1.1 Additional documents

Depending on your level of experience with Composer, and the architectural solutions available with our products, as well as where you are in the commissioning process, there are a number of additional documents that you may find useful. If you need a document that you do not have, you can download it on the Siemens Intranet.

Please see the following descriptions of relevant additional documents:

- The Composer WW8000 Technical Manual contains mostly introductory information for new users of Composer. In addition to general introductory information, it contains details about several functions and shortcuts that can be useful for users. This manual is typically included with the documentation set that comes with each product. The document number is A6V10062401.
- The Application and Planning guide (A6V10063710) shows the architectural solutions currently available with the DMS systems, including network and subsystem connectivity options. These documents are a kind of library of technical solutions, and are intended primarily as sales tools, but provide an overview of the relationships within the system that may be useful when planning a configuration.
- The product-specific Installation Configuration & Commissioning manual (ICC) is the necessary complement to this manual for getting a complete view of the configuration process. Please refer to the latest edition of the following document:
 - MM8000 ICC (A6V10062413)
 - MT8001 ICC (A6V10096181)
 - MK8000 ICC (A6V10062407)
 - NK8000 ICC (A6V10062437)

- The Network Connectivity Guide (A6V10359485) contains detailed information about configuring the networks supported by DMS8000 products.

Reference documents are listed in the Resource Information document (see About this document [→ 4]).

1.2 What's new

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

Section	Modifications
Configuring an SPC4000/SPC5000/SPC6000 [→ 18]	Removed limitations about user name display of duress events with FlexC.

2 Configuring intrusion control units

This section describes how to configure control units. The list includes:

- SI410
- SPC4000/SPC5000/SPC6000
- CS6 Quarto
- CS4
- CS440
- CZ12

2.1 Configuring a Sintony SI410

The Sintony SI410 is an intrusion detection unit with individual addressing and access control capability. It can handle detection lines on which *transponder* units can concentrate *alarm inputs* and *outputs*. Inputs can be operated in groups, organised in *Rooms*, *Wards*, and *Clusters*.

The physical and logical configuration for the unit is first defined for the hardware unit set-up by means of a PC tool (*SYLCOM*), and then ported to the Composer environment using a metafile generated by a special tool, the *Sintony Uploader*, distributed with the DMS8000 products.

The Sintony SI410 can communicate to DMS8000 systems over a serial line or via network connection using an internal (SMN36 or SMN42/43) or external (NK8000 or 3rd party) network adapter.

SI420 model

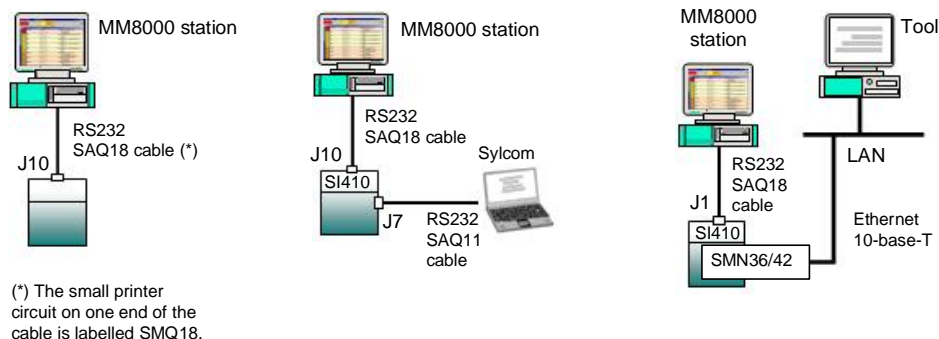
The SI420 model also exists and it is functionally equivalent to the SI410 as far as the management station functions are concerned. In this document, the name SI410 is used hereafter to refer to either model.

2.1.1 SI410 connectivity overview

A - Serial connection

SI410 can be connected to DMS8000 over a serial line. The service PC running the SI410 SYLCOM tool can connect via another serial port or over a LAN link. Note that the LAN connection requires the SMN36 (or the newer SMN42/43) module or an external adapter (see the *Network Connectivity Guide*).

DMS8000 connection SYLCOM tool connection (serial) SYLCOM tool connection (LAN)

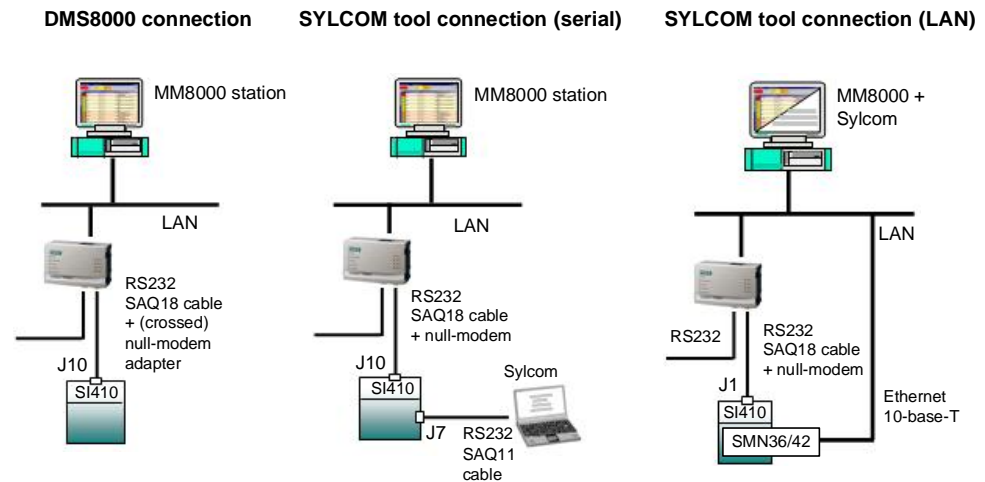


SI410 serial connectivity: DMS8000 and Sylcom Tool

B - Network connection via NK8000

The NK8000 network allows for connecting a SI410 unit using a serial line. The NK82xx Ethernet Port unit provides an optimised (and possibly encrypted) access to the LAN (Ethernet 10-Base-T) for DMS8000. NK82xx can also handle local interactions between the connected subsystems.

The service PC running the SI410 SYLCOM tool can connect via another serial port or over a LAN link. Note that the LAN connection for the tool requires the SMN36/42/43 module see the *Network Connectivity Guide*).



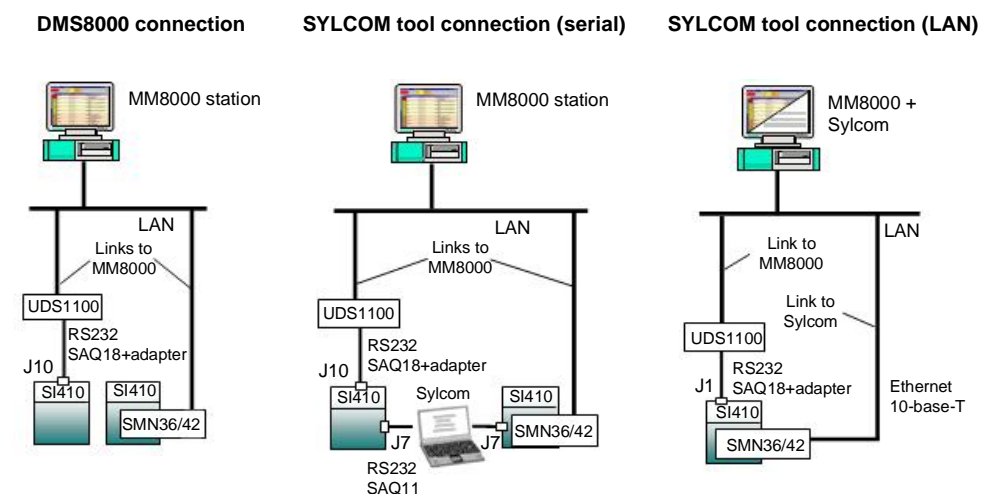
SI410 Network connectivity via NK8000: DMS8000 and Tool

C - Network connection via adapters

The use of serial-to-network adapter permits the LAN connection to DMS8000 using the SI410 serial port.

The internal adapter SMN36/42/43 or an external device (e.g. LANTRONIX UDS1100) can support the LAN (Ethernet 10-Base-T, 10Kbps) connectivity. The service PC running the SI410 SYLCOM tool can connect via another serial port or over a LAN link.

In comparison with the option B, this solution offers no encryption or interaction capability.



SI410 Network connectivity via adapters: DMS8000 and Tool

2.1.2 SI410 connectivity: technical notes

2.1.2.1 SI410 internal options and settings

Serial ports

The SI410 can provide serial connectivity to host computers on the port J1, J7 and J10 (please refer to SI410 documentation).



Note: Port **J7** is used for connecting to the Sylcom PC, whereas **J1** or **J10** is used for DMS8000. In the connection solutions to DMS8000, the J10 port is used when the Sylcom tool is connected to J7. J1 should instead be used for DMS8000 when the tool connects over LAN via SMN36/42/43.



Note: When in serial mode, in the System Node of the SYLCOM tool, please select the following options:

- **Networking mode** = J10 (or J1)
- **Sending Node** = WUD

Network adapters SMN36 and SMN42/43

The SI410 control unit also offers an internal module option for serial to LAN TCP/IP conversion, namely the SMN36 or SMN42/43 board. This optional module is installed internally to the control unit's cabinet and provides a 10-base-T Ethernet link on RJ-45 connector.

Note that the SMN36/42/43 is the only option that allows network connectivity for the Sylcom tool.



Note: The SMN36/42/43 board is internally connected to the SM410 motherboard with a flat cable.

On the SMN36 circuit board, jumper **S1** and **S2** must be closed.

On the SMN42/43 circuit board, set the **S250** switch to OFF. In addition, in the DIP-switch set, set the **Config** switch to ON and all other switches to OFF (namely **Res**, **Boot**, **WD**, **FW-upd**, and **SI1/2**).

In this configuration, the SI410 must be connected to the building network via an Ethernet Hub or Switch that is compatible with the speed of the SMN36 or SMN42/43.

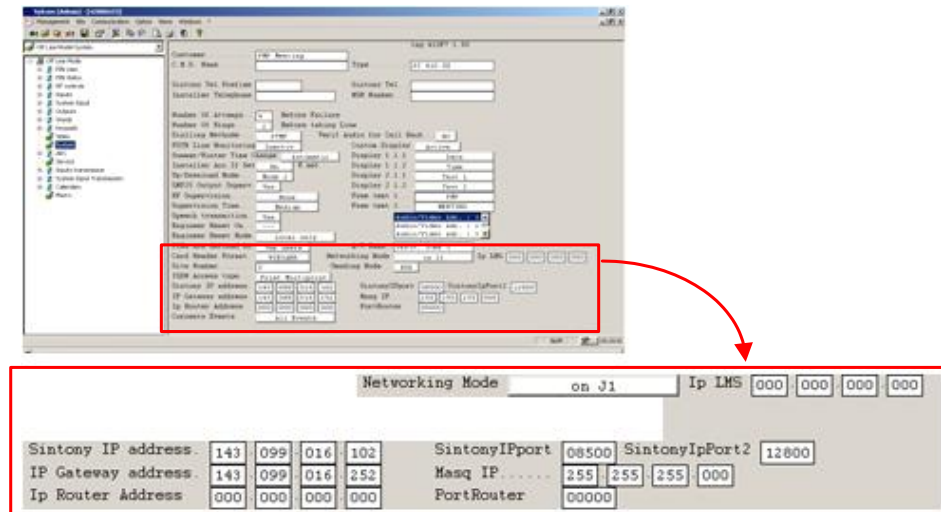
SMNxx setup in the Sylcom tool - System page, IP network settings

The SI410 configuration should include some specific parameters for the SMNxx board. The picture below shows the required options:

- **Up/download mode:** do not select **Mode 0** (first option).
- **Networking Mode:** on J1.
- **IP LMS:** IP address of DMS8000 stand-alone or FEP (NS8014 driver).
- **Sintony IP address:** IP address of SI410 unit.
- **IP gateway:** if required, enter IP address for the router/gateway that links the SI410 subnet with the DMS8000 subnet. If not used, set 0.0.0.0 (the default 255.255.255.0 will not work).
- **Mask IP:** enter the required IP mask (typically 255.255.255.0).
- **Sintony IP Port 2:** IP Port number (contact network administration) used by the DMS8000 driver NS8014 to communicate over Ethernet. This is the TCP port number that should be configured in Composer (see Configuration procedures

[→ 15]).

Note that the **Sintony IP port** field is used for the Sylcom network link only.



SI410 configuration for network connectivity

Further options required in the Sylcom tool - System page

In order to be able to reset alarms from DMS8000 with no need of unsetting the Ward, make sure to enable the **Clear Al.Mem Full Set** option in the System Properties.

Options required in the Sylcom tool – ARCpage

The **Serial Port Protocol** must be set, e.g. **SUPALARM TCP/IP** to enable the SMNxx card.

2.1.3 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 SI410 in the system.
- The SI410 metafile(s) generated by the Sintony Uploader tool (.INI file).
- If serial connectivity is used, the SAQ18 cable is required for connecting the SI410 J10 serial line interface of the SM410 mainboard (to be ordered from the intrusion product range).
- The host PC or the NK82xx and the serial line where to connect the SI410. For connecting NK82xx or PC to the SAQ18 cable, a crossed serial cable is needed (a DB9/m and a DB9/f connector for NK82xx or two DB9/f connectors for PC.)
- If the LAN connectivity is used, the IP address and TCP port of the LAN communication.
- Plug-ins needed:
 - #352001



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. Generate the SI410 metafile.
2. Add the folder(s) required for identifying the location of the SI410 in the project structure tree.
3. Add SI410 system node to the new folder.
4. Import the metafile.
5. Link the SI410 to the communication line.
6. Configure the serial or network link options.
7. Repeat the steps above for all the SI410s in the project

2.1.4 Generating the SI410 metafile

Configuration uploading tool

The SI410 physical and logical configuration should be saved into an export file (metafile) in order to import it into Composer. The metafile is generated by the *Sintony Uploader* tool that is capable of acquiring the configuration data from the control unit over the serial line.

This tool is one of the utilities available in the DMS8000 products. Refer to the Installation, Configuration, and Commissioning manuals.

Reference documents are listed in the Resource Information document (see About this document [→ 4]).



Note: The metafile exported by the SYLCOM program, and used by LMSmodular, is not valid for the Composer import described here.

Uploading the metafile data

The *SintonyUploader.exe* program is installed along with DMS8000 software in the **Utilities** folder and allows for an easy generation of the required metafile. Proceed as follows:

1. Connect the SI410.
 - a) Direct **Serial connection** to the PC with the uploading software.

Configure the serial port in the unit to handle a host serial link on the J10 port (this link is used for both the NK82xx and the upload tool connection).
Connect the SI410 port to any COM port of the PC where the Sintony Uploader is available. Use the SAQ18 cable (refer to the SI410 documentation) and a crossed serial cable with two DB9/f connectors.
 - b) LAN **IP connection** to the PC with the uploading software.

You need the LAN adapter (SMNxx) option installed (see SI410 internal options and settings [→ 11]). The IP connection will be based on the SI410 IP address and the IP Port 2. From the DMS8000 PC, the SI410 unit should be reachable using the ping command.

Note: Given that only one TCP port is available on SI410 for external hosts, the LAN connection of the Sintony Uploader makes use of the same port as the NS8014 DMS8000 driver. This implies that you need to stop the DMS8000 server software before connecting the Sintony Uploader.
 - c) **Connection via NK82xx**
Preliminary steps:
 - Configure the serial port to handle a host serial link on the J10 port (this link is used for both the NK82xx and the upload tool connection).
 - Configure the SI410 node in Composer and link it to the NK8000 COM port

(see Configuration procedures [→ 15]).

- Download the configuration on the NK8000 unit (see the *Network Connectivity Guide*).

- Connect the SI410 port to the COM port of the appropriately configured NK82xx port.

2. Launch **SintonyUploader.exe**.

⇒ The software guides you through the following steps.

3. Select the connection type: direct serial, LAN or NK82xx.

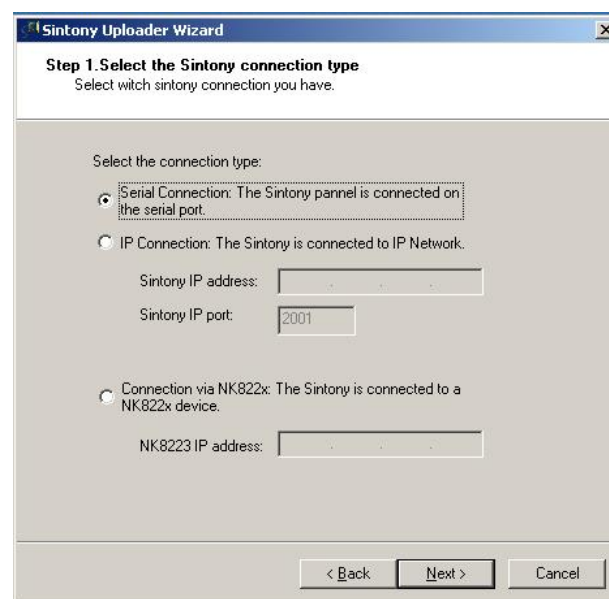
a) Serial connection: click **Next** and then **Auto Detect** button.

⇒ The software automatically detects the correct COM port.

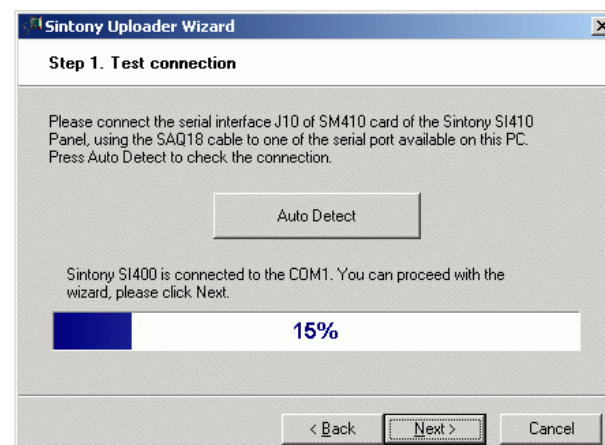
4. LAN IP Connection: enter the Sintony **IP address** and **port** (IP Port 2).

Connection via NK82xx: enter the NK82xx **IP address**.

Note: If this step fails, check the physical connection and try again.



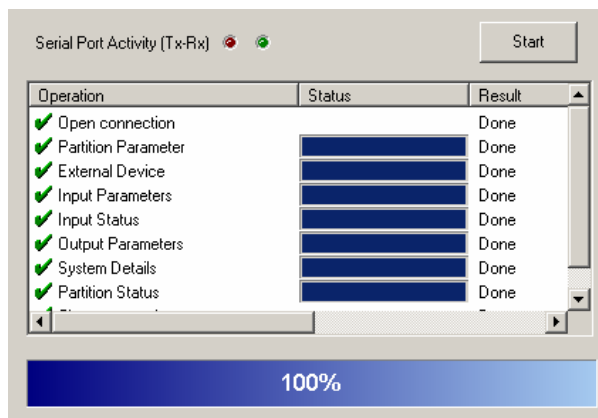
Sintony Uploader: selecting the connection type



Sintony Uploader: auto-detecting the COM port

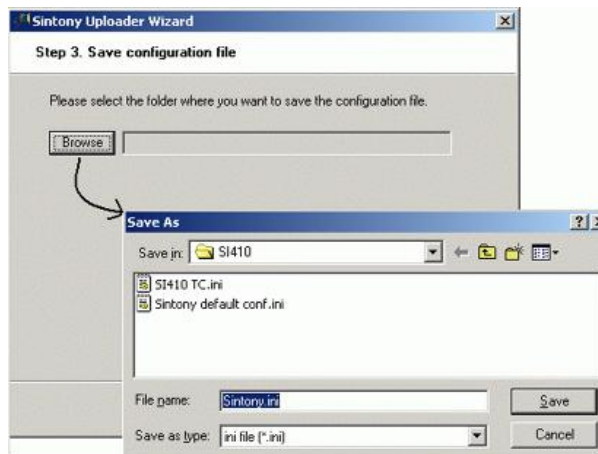
5. At this point, press **Next** and let the **Read Data** page show up.

6. Then press the **Start** button.
Note: In case of errors, check the SI410 firmware release (compare with latest requirements in the DMS8000 product Release Notes).
 ⇒ The software starts communicating with the SI410 and acquiring the configuration data over the serial line. An item list and a progress bar show the activities and the uploading results.



Sintony Uploader: uploading the configuration

7. When the upload process has completed, a success message appears. Click **OK** to acknowledge it.
8. Save the uploaded data.
 You have now to select the file name and destination folder of the metafile. Use the browsing button to open the navigation windows.




Sintony Uploader: saving the configuration


9. Finally, press **Next** and then **Finish** to terminate the program.

2.1.5 Configuration procedures

Adding the intrusion system folder

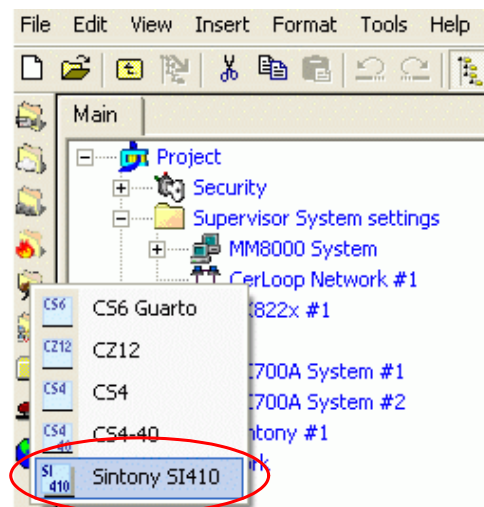
1. In the left-hand bar, click the **Generic Template** icon .
 ⇒ A new node is added to the project structure.
2. Select the new folder and name it in the **Description** field of the **Node** tab.

Adding the intrusion system node

1. Select the new folder.
 2. In the left-hand bar, select the **Intrusion** folder icon .
 3. In the menu that appears, select the appropriate icon to add a new intrusion system node.
- ⇒ A new node is added to the project structure.



Note: You can customise the default name of the new node typing in a new name in the **Description** field of the **Node** tab, but do not customise it now since it will be renamed during the metafile import.



Adding a new SI410 node

Importing the SI410 metafile

1. Select the SI410 node.
 2. Select **Tools > Import** in the Composer menu to start SI410 import.
 3. The software presents a browsing window to search for the file to import (the INI file is expected, see Generating the SI410 metafile [→ 13]).
 4. Select the import file from the file selection window and click **Open**.
- ⇒ In a few moments, the SI410 structure is imported, and the node is represented in the Composer tree.



Note: The node is renamed to match the metafile name. To customise the name, click the node text, type in a new name, and press **ENTER**.





Note: After the import procedure, by selecting the **Import** tab, a report page displays. It contains the detailed logs of the latest import procedure, including any added or removed objects.

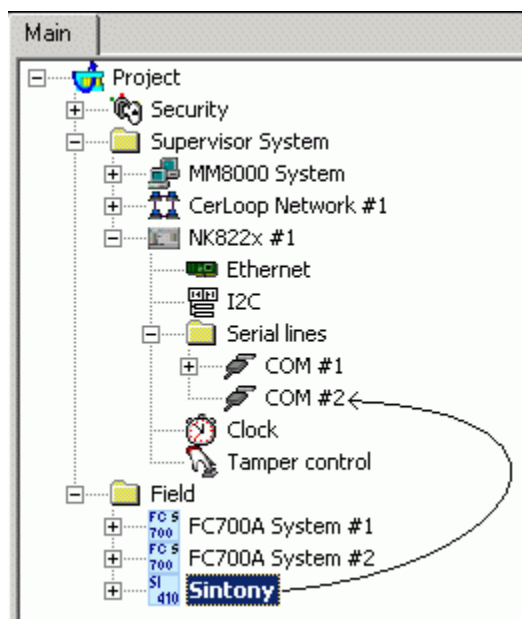
Linking the SI410 to the Communication network (NK8000)

To link the SI410 node to the NK82xx node, do the following:

1. Expand the network folders until you reach the node that represents the NK8000 network node physically connected to the SI410.
2. Select the SI410 node.
3. Drag and drop the SI410 Sintony node to the serial port of the NK82xx node.
4. In the newly created link, configure the communication **Baud Rate**.



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



Linking SI410 to NK82xx

Linking the SI410 to the Communication network (MM8000/MK8000)

To link the SI410 node to the MM8000/MK8000, do the following:

1. Expand the system station folders (Stand-alone or FEP) until you reach the node that represents the NS8014 driver.
2. Select the **NS8014 SI410 Driver** node.
Note: If this driver is not present, you can add it to the Channels by clicking the corresponding icon on the left toolbar.
3. Drag and drop the SI410 node to the driver.
⇒ A new node appears in the tree under the driver representing the link.

Configuring the serial or network link (MM8000/MK8000)

In the newly created link, configure the communication options.

1. Under the **NS8014 SI410 Driver** node, select the link node.
2. Select the **Node** tab.
3. Configure the communication options:
 - In case of serial link (see Figure *Setting the serial communication options*), set the **Serial Port**, the **Baud Rate** and the bit-packet options (**Parity**, **Data**, and **Stop bits**) that the DMS8000 station uses to connect top the SI410 unit.

- In case of network link (see Figure *Setting the network communication options*), set the **IP address** of the SI410 control unit and the **TCP Port Number** used in the network communication.

The screenshot shows two sections of a configuration window. The top section, titled "Serial Communication Settings", has a checked checkbox for "Serial Communication Enable". Below it are dropdown menus for "Serial Port" (set to "1 - COM1"), "Baud Rate" (set to "9600"), "Parity" (set to "0 - None"), "Bits" (set to "8"), and "Stop bits" (set to "1"). The bottom section, titled "Network Communication Settings", has an unchecked checkbox for "Network Communication Enable". Below it are input fields for "IP Address" (set to "192 . 168 . 100 . 100") and "Port Number" (set to "2001").

Setting the serial communication options

The screenshot shows the same configuration window as above, but with the "Network Communication Enable" checkbox checked. The "Serial Communication Enable" checkbox is now unchecked. All other settings (Serial Port, Baud Rate, Parity, Bits, Stop bits, IP Address, and Port Number) remain the same as in the previous screenshot.

Setting the network communication options

2.2 Configuring an SPC4000/SPC5000/SPC6000

The SPC4000, SPC5000 and SPC6000 are intrusion detection units belonging to the SPC series. They can support both wired and wireless intrusion devices (true hybrid controller) and a LAN interface possibly integrated by additional communications modules (PSTN/GSM/RF). Starting from SPC V3.1 all the SPC model types support Ethernet connection.

Intrusion inputs can be operated in groups, organised in *Areas* and *Zones*. Exact limits depend on the SPC model.

The SPC units can communicate to an external system over a network TCP/IP connection. The MM8000/MK8000 systems can support the FlexC protocol (starting from SPC V3.6) and the EDP protocol (Europlex Datagram Protocol). The two protocols are managed by 2 different drivers. The SPC panel can be linked to 1 driver only, but you can create both drivers in the SPC project with a single license.

The FlexC protocol is an encrypted protocol which provides more information and commands than the EDP protocol, and offers a redundancy mechanism which supports up to 9 backup physical paths between the SPC panel and the management station.

The support of the FlexC protocol by MM8000/MK8000 systems has the following restriction:

- The redundancy mechanism is not supported.
- Only the fixed key encryption method is supported (*AutoEncryption* is not supported).

If you use the FlexC protocol, take note also of the following:

- You can reset fault events (like *Warning Fault*, *Hold Up Fault*, and *Detector Fault*) only if the grade of the panel is set to *Unrestricted* or *Grade 2*. You can use the *Restore Alarm* command of the SPC configuration tool instead.

2.2.1 Local SPC settings: technical notes

The SPC physical and logical configuration is first defined for the hardware unit set-up using the SPC configuration tool (SPC Pro or the web-based tool) and then ported to the Composer environment using an export file (SigNET X Configuration File). The configuration instructions, which are relating to the SPC Pro interface, are different for the FlexC and the EDP protocol.



Note: The SPC configuration tool is a web application that works with an Internet browser. The most common browser, Internet Explorer (IE), requires however a special setting: in **Tools > Internet Options > Advanced** tab, in the option list, search for the **Security** options and enable **Do not save encrypted pages to disk**.

FlexC protocol configuration


1. Start the SPC configuration tool in Full Engineer mode.
2. Add an SPC panel.
3. Select the SPC panel and click **Configure**.
4. Select **Communications > FlexC** and click **Add Single Path ATS** (*Alarm Transmission System*). Note the following parameters:
 - **SPT Account Code:** ID of the panel.
 - **RCT ID:** must match the NS8021 driver setting [→ 21].
 - **RCT URL or IP Address:** must match the IP address of the management station.
 - **RCT TCP Port:** must match the NS8021 driver setting [→ 21].
5. Click the ATS you created and check the values of the following parameters in the **ATS Profiles** section:
 - **Event Profile:** must be **Default Events** (default value).
 - **Command Profile:** must be **Default Commands** (default value).
6. Edit the ATP (*Alarm Transmission Path*) in the ATP list, then click **Advanced ATP Settings** and configure the encryption mode in the **Encryption** section:
 - **Encryption Key Mode:** must be **Fixed Encryption**.
 - **Encryption key:** type the encryption key (64 hexadecimal digits are required).
7. Select **Panel Settings > System Settings > Timers** and configure the following parameters:
 - **Dialler delay:** must be 0; otherwise a delay occurs before alarms are transmitted to the management station.

- **Time Sync Limit:** suggested value is 120 seconds (max value is 999). The time synchronization command is only accepted by the panel if the new time and actual time of the control panel are outside of the defined time interval; otherwise the command will be ignored.
8. Select **Panel Settings > System Settings > All Zones** and check for the **Local** attribute of each zone: the **Local** attribute must not be selected.
 9. Save and export the SPC configuration file.
 - ⇒ SPC Pro exports a `[file_name].cfg` configuration file.
 - ⇒ The web tool exports a `[file_name].cfg` file. You need to manually rename the file `[file_name].cfg` (note the `.cfg` extension.)

EDP protocol configuration

1. Start the SPC configuration tool in Full Engineer mode.
2. Add an SPC panel.
3. Select the SPC panel and click **Configure**.
4. Select **Communications > EDP Settings** and add an EDP receiver. Note the following parameters:
 - **Receiver ID:** must match the NS8013 driver setting [→ 21].
 - **Receiver IP Address:** must match the IP address of the management station.
 - **Protocol version:** must be *Version 2* (click the EDP receiver to edit this parameter).
 - **Event Timeout:** must be higher than 0.
5. Click the EDP receiver and click **Advanced**. Configure the following parameters:
 - **Commands Enable:** must be selected.
 - Select the **Network Enable** check box and configure the **Network Protocol:** select **TCP/IP** or **UDP/IP**.
 - **Receiver Port:** must match the NS8013 driver setting [→ 21].
 - **Always Connected:** must be selected.
 - **Panel Master:** must be selected for TCP/IP.
 - **Polling Interval:** keep the default value 10.
 - **Polling Trigger:** keep the default value 10.
 - **Primary Receiver:** must be selected.
 - **Requeue Events:** must be selected.
6. Click the **Filter** button. In the **Event Filter** list that displays, select all check boxes except **Early / Late** and **Zone States** (to prevent slowing the system).
7. Select **Panel Settings > System Settings > Timers** and configure the following parameters:
 - **Dialler delay:** must be 0; otherwise a delay occurs before alarms are transmitted to the management station.
 - **Time Sync Limit:** suggested value is 120 seconds (max value is 999). The time synchronization command via EDP is only accepted by the panel if the new time and actual time of the control panel are outside of the defined time interval; otherwise the command will be ignored.

8. Select **Panel Settings > System Settings > All Zones** and check for the **Local** attribute of each zone: the **Local** attribute must not be selected.
9. Save and export the SPC configuration file.
 - ⇒ SPC Pro exports a *[file_name].cfg* configuration file.
 - ⇒ The web tool exports a *[file_name].cfg* file. You need to manually rename the file *[file_name].cfg* (note the *.cfg* extension.)

	<p>⚠ WARNING</p> <p>When the web tool is connected to the SPC unit in Full Engineer mode, no alarm messages are transmitted to MM8000.</p>
---	---

2.2.2 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 SPC units in the system.
- The SPC metafile(s) generated by the SPC tool (SigNET X configuration file).
- FlexC protocol: **RCT ID**, **RCT IP Address**, and **RCT TCP Port** of the SPC network configuration.
- EDP protocol: **Receiver ID**, **Receiver IP Address**, and **Receiver Port** of the SPC network configuration.
- Plug-ins needed:
 - #358901 for SPC
 - #360501 for the communication driver for the FlexC protocol.
 - #359001 for the communication driver for EDP protocol.



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. Add the communication driver in the physical channels.
2. Add the folder(s) required for identifying the location of the SPC in the project structure tree.
3. Add the SPC unit to the new folder and configure the IP address.
4. Import the metafile.
5. Link the SPC to the communication driver line.
6. Repeat the steps above for all the SPC units in the project.


2.2.3 Configuration procedures

Adding the SPC driver


1. Open the Composer Project.

2. Select the path:
Supervisor System Settings > MM8000 System > Physical configuration > Station (e.g. My Station) > Channels Collection
3. Click the **NS8021 FlexC Driver** or the **NS8013 SPC Driver** icon in the icon toolbar to add the driver to the channels collection.
⇒ The new driver node appears in the station folder.
4. Configure the network parameters for the driver:
 - NS8021 FlexC Driver: **TCP Port** (the **RCT TCP Port** of the panel configuration) and **Receiver ID** (the **RCT ID** of the panel configuration).
 - NS8013 SPC Driver: **UDP Port** or **TCP Port**, and **Receiver ID**, which should match the corresponding values in the EDP client list of SPC.
Note: You can check the valid values in the **Client Configuration** list of the **Node** tab of the SPC units after importing the metafile.

Adding the intrusion system folder

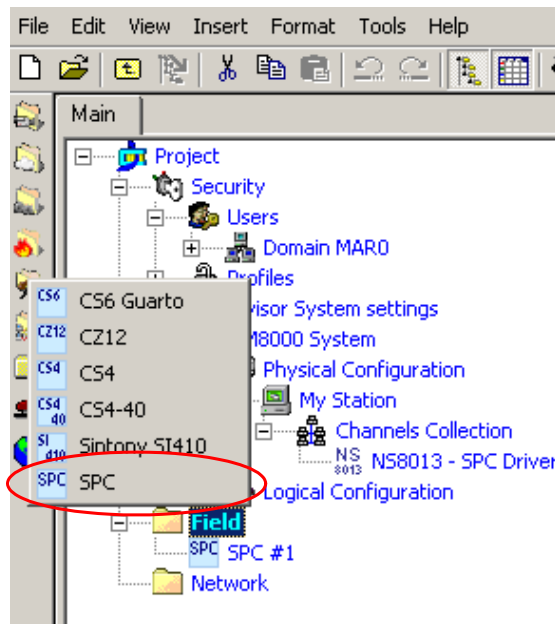
1. In the left-hand bar, click the **Generic Template** icon 
⇒ A new node is added to the project structure.
2. Select the new folder and name it in the **Description** field of the **Node** tab.

Adding the intrusion system node

1. Select the new folder.
2. In the left-hand bar, select the **Intrusion** folder icon .
3. In the menu that appears, select the appropriate icon to add a new intrusion system node.
⇒ A new node is added to the project structure.



Note: You can customise the default name of the new node typing in a new name in the **Description** field of the **Node** tab, but do not customise it now since it will be renamed during the metafile import.



Adding a new SPC node

Importing the SPC metafile

1. Select the SPC node.
2. Select **Tools > Import** in the Composer menu to start the SPC import.
 - ⇒ The software presents a browsing window to search for the file to import.
3. Select the import file from the file selection window and click **Open**.
 - ⇒ In a few moments, the SPC structure is imported, and the corresponding nodes are represented in the Composer tree.



Note: The node is renamed to match the metafile name. To customise the name, click the node text, type in a new name, and press **ENTER**.



Note: After the import procedure, by selecting the **Import** tab, a report page displays. It contains the detailed logs of the latest import procedure, including any added or removed objects.

Modifying the imported IP address (optional)

If necessary, you can modify the SPC IP address that was imported (the modification won't be affected by subsequent imports):

1. Select the SPC node.
2. Select the **Node** tab.
3. Enter the **IP Address**.

Linking the SPC to the Communication network (MM8000/MK8000)

To link the SPC node to the corresponding driver, do the following:

1. Expand the system station folders (Stand-alone or FEP) until you reach the node that represents the driver.
2. Select the **NS8021 - FlexC Driver** or the **NS8013 - SPC Driver** node.

3. Drag and drop the SPC node to the driver.
- ⇒ A new node appears in the tree under the driver representing the link.



Note: If the driver settings do not match any of the client settings in the imported SPC configuration, the link is declined. In this case, you can modify the driver parameters or add a new client in the SPC configuration, export a new metafile, and run the import again.

In addition, the SPC IP address should be unique and valid for the MM8000 network in order to succeed in linking the unit to the driver.

All the network-related SPC settings are visible in the **Client Configuration** list of the **Note** tab of the imported unit.

2.3 Configuring a CS6 Guarto

CS6 Guarto Intrusion Control Unit

The CS6 Guarto is an intrusion detection and access control system with individual addressing. It consists of the CC6 control unit and CT6 operating units. The ADI addressing elements transmit the detector signals to the control unit.

The data structure of the CS6 includes multiple logical levels; namely:

- Area (max. 1): Switchover level for the total alarm organisation (UNSET/SET) of a building or part of a building.
- Intrusion and access control sections (max. 99): Operating level for switching ON/OFF a single or several zones. Within the control unit's configuration, a section can allocate unlimited zones.
- Zones (max. 500): Lowest level to which the user has access. Zones must be allocated to the ADI detector loops. A zone can be a single detector or a group of detectors. Each zone has its own alarm organisation, and alarm signals are indicated according to specific zones.

The physical and logical configuration for a CS6 is first defined for the hardware unit set-up, and then ported to the Composer environment using an export or metafile generated by the CS6 tools (SWE6).

DMS8000 connectivity and tunnelling function

NK8000 can communicate with CS6 Guarto in two ways:

- NK822x units communicate by a CerCom/LON bus. Up to four CS6 units can be installed on a single bus.
- NK823x units communicate by a USB network interface (Echelon USB Network Interface - TP/FT-10). A single CS6 unit can be connected to an NK823x.

A 3-level address identifies each CS6 unit: LON subnet, LON node in the subnet, Logical address.

NK822x supports a tunnelling function for remote CS6 configuration: see SWE6 tunnelling for remote CS6 configuration [→ 29].

2.3.1 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

- (NK822x only) The number of CS6s in the system.
- The CS6 metafiles (CNAP profile files).
- The Cercom/LON addresses (settings of the rotary switches of the K3I070 Parallel LON Adapter in the CS6 control unit):

- (NK822x only) Subnet, Node, and Logical address for each CS6.
- (NK823x only) Subnet and Node of the CS6.
- The connection to the CS6 network:
 - (NK822x only) Connection to Cercom/LON.
 - (NK823x only) Connection via the Echelon U10 USB Network Interface – TP/FT-10 (to be purchased locally; ECHELON Distributor Partners can be found on <https://www.echelon.com/partners/distributors.htm>)
- The NK8000 connection to the DMS.
- (NK822x only) Plug-ins needed:
 - #300101



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.



The Echelon U10 USB Network Interface – TP FT10, needed for NK823x

Configuration overview

1. Add the folder(s) required for identifying the location of the CS6 in the project structure tree.
2. Add the CS6 system node to the new folder.
3. Import the metafile.
4. Add the node needed for the communication with CS6:
 - (NK822x only) Add the node for the CerCom/LON bus.
 - (NK823x only) Add the node for the USB Port.
5. Link the CS6 to the communication node.
6. Set CerCom/LON bus addresses.
7. (NK822x only) If necessary, configure the remote configuration tunneling.
8. (NK822x only) Repeat the steps above for all the CS6 units in the project.

2.3.2 Configuration procedures

Adding the intrusion system folder

1. In the left-hand bar, click the **Generic Template** icon .
 - ⇒ A new node is added to the project structure.
2. Select the new folder and name it in the **Description** field of the **Node** tab.

Adding the intrusion system node

1. Select the new folder.
2. In the left-hand bar, select the **Intrusion** folder icon .

3. In the menu that appears, select the appropriate icon to add a new intrusion system node.
- ⇒ A new node is added to the project structure.



Note: You can customise the default name of the new node typing in a new name in the **Description** field of the **Node** tab, but do not customise it now since it will be renamed during the metafile import.



Adding a new CS6 node

Importing the CS6 metafile

1. Select the CS6 node.
2. Select **Tools > Import** in the Composer menu to start CS6 import.
 - ⇒ The software presents a browsing window to search for the file to import; the following CNAP profile files are expected:
 - DCD001_CLASS.TXT
 - DCD001_DATA.TXT
 - DCD001_INST.TXT
 - DCD001_LINK.TXT
 - DCD001_TEXT.TXT.
3. Select one of the import files from the file selection window.
 - ⇒ In a few moments, the CS6 structure is imported, and the node is represented in the Composer tree.



Note: The node is renamed to match the metafile name. To customise the name, click the node text, type in a new name, and press **ENTER**.





Note: After the import procedure, by selecting the **Import** tab, a report page displays. It contains the detailed logs of the latest import procedure, including any added or removed objects.

Adding the communication node

1. Select the NK822x or the NK823x node.

2. In the left-hand bar, select the communication node:

- For NK822x, click the **LON** icon .
- For NK823x, click the **USB** icon .



Linking the CS6 to the communication network

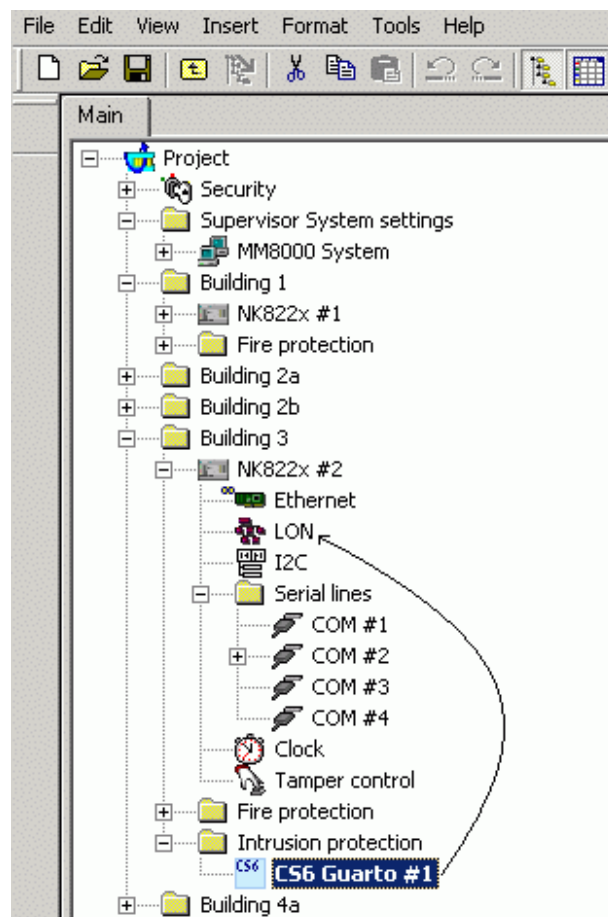
- Drag and drop the CS6 node to the CerCom/LON node (for NK822x) or to the USB node (for NK823x).
- ⇒ When the link is established, a new node appears on the structure tree, and its properties can be seen on the **Node** tab.



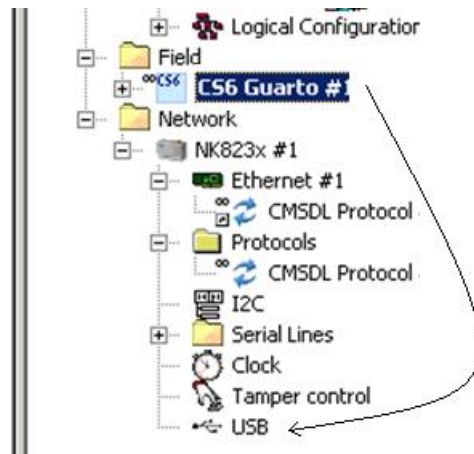
Note: The valid link position for Cerloop is always the same main node, representing the entire loop. The valid link positions on NK8000 units are distributed along the subsystem lines.



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



Linking CS6 to NK822x



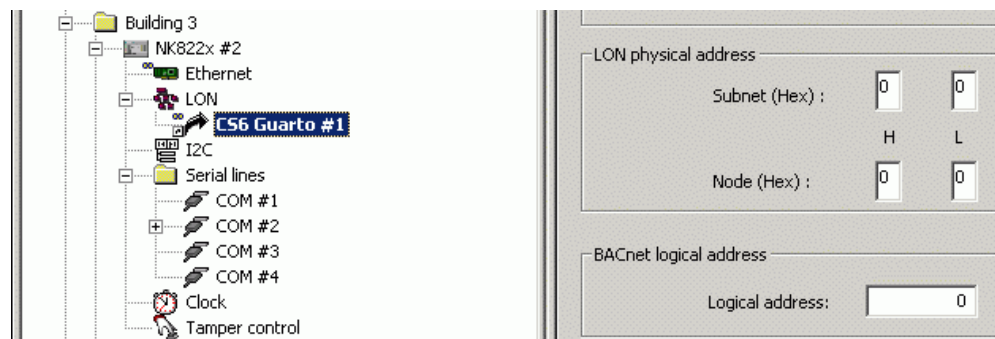
Linking CS6 to NK823x

Setting CerCom/LON bus addresses (NK822x only)

1. Select the CS6 link in the **LON** node.
2. Set the CerCom/Lon addresses associated to the CS6 unit:
 - LON Subnet (high and low hex digit)
 - LON Node in the Subnet (high and low hex digit)
 - Logical address (integer number)



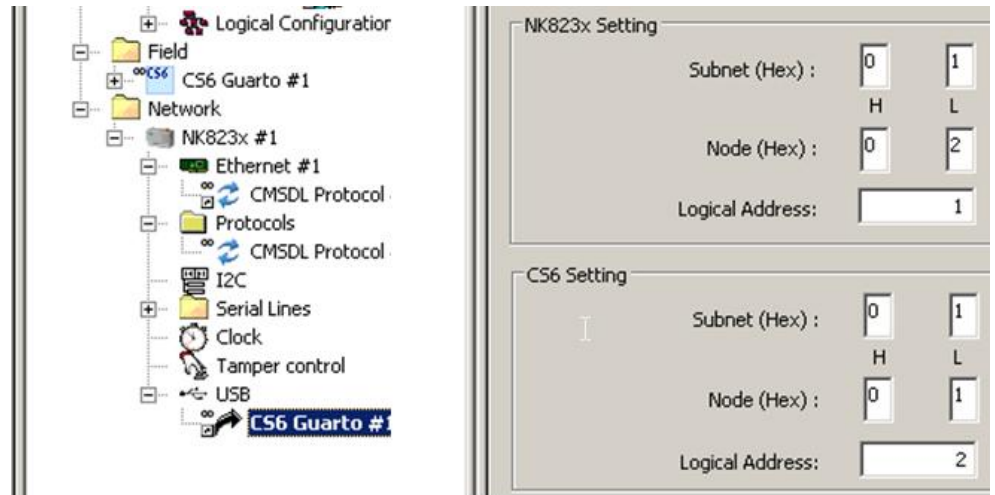
Note: These values should match what has been set on the CS6 control unit configuration.



Setting CerCom/LON addresses for NK822x

Setting CerCom/LON bus addresses (NK823x only)

1. Select the CS6 link in the **USB** node.
2. In the **NK823x Setting** section, configure the LON addresses (Subnet, Node) and the Logical Address with values that are unique in the CS6 LON network.
3. In the **CS6 Setting** section, configure:
 - the LON addresses (Subnet, Node) associated to the CS6 unit.
 - the Logical Address with a value that is unique in the CS6 LON network.



Setting CerCom/LON addresses for NK823x

2.3.3 Commissioning tips

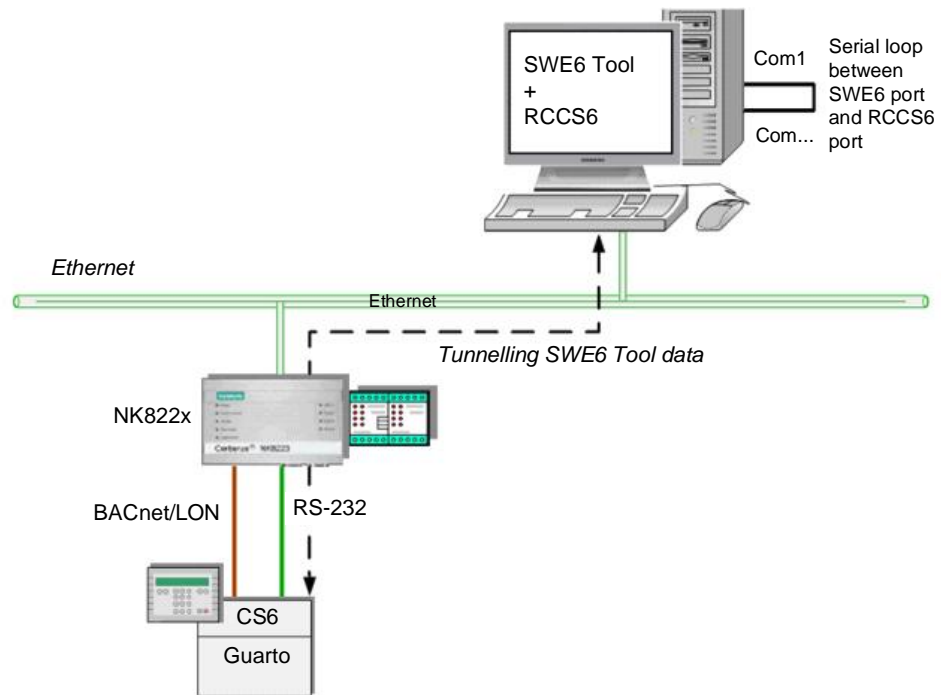
Commissioning procedure

To assure that the Logical Address is correctly assigned to the CS6 control unit, we recommend the following procedure:

1. Switch off power of the CS6 control unit(s).
2. Connect the CS6 unit(s):
 - (NK822x only) Connect the CS6 unit(s) to NK822x over the LON network.
 - (NK823x only) Connect the CS6 unit over the LON network to the USB network interface and the USB network interface to the USB Port of NK823x.
3. Switch on power of the CS6 control unit(s).
 - ⇒ After power-up, CS6 has no Logical Address.
4. Reset NK822x or download the configuration to NK823x.
 - ⇒ Upon starting up, NK822x/NK823x assigns the Logical Address(es).

2.3.4 SWE6 tunnelling for remote CS6 configuration

The NK822x can support a tunnelling function for remote CS6 configuration, which is usually performed locally on a PC equipped with SWE6 software and serially connected to the service port of the CS6. The tunnelling function permits to run the SWE6 tool (along with the RCCS6 network communication application) on the central management station and let the LAN/WAN network tunnel the data traffic from the tool software, via NK8000, down to the CS6 serial line.



Tunnelling for remote CS6 configuration

Hardware and software prerequisites

1. Install SWE6 and RCCS6 software on a central PC connected to the LAN/WAN.
The PC must be equipped with two serial ports.
Note that RCCS6 is provided on the DMS8000 CD as one of the NK8000 support tools.
2. Connect the COM1 port used by SWE6 to another serial port used by RCCS6. A crossed serial cable should be used to enable the serial communication between SWE6 and RCCS6. Note that SWE6 always require the COM1 port, whereas RCCS6 can operate on any available port.
If convenient for a specific case, two separate PCs may also be used for the two applications with a serial connection between them. The PC running RCCS6 must be networked have IP access to the NK8000 units where the CS6 are connected.
Note that only one CS6 unit per NK822x is supported for remote configuration.
3. On each NK822x unit, connect the reserved COM port to the CS6 service port ST2.

NK822x configuration procedure

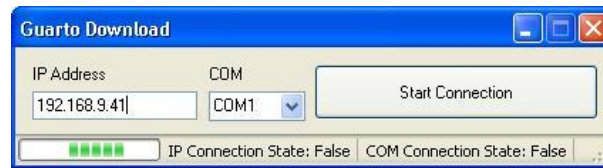
1. Configure the NK822x port (see *Network Connectivity Guide*, document no.A6V10359485).
2. Download the NK822x (see *Network Connectivity Guide*, document no.A6V10359485).

Remote CS6 configuration

To configure the SWE6 traffic tunnelling via NK822x you need to:

1. Run RCCS6 and select the IP address of the NK8000 whose CS6 you want to configure.
2. Run SWE6 and configure the CS6 unit as it was locally connected.

- When finished, stop SWE6 and then disconnect and close RCCS6.



RCCS6 tool



Note: - When the remote tunnelling technique is used, the CS6 download time can be significantly longer than the local download time.
 - During the CS6 configuration download, the communication over the LON bus stops functioning. It then restarts automatically when the download completes.
 - After the CS6 configuration change, do not forget to generate and import the new CS6 metafile in Composer, and then download DMS8000 and NK8000 configurations.

2.4 Configuring a CS4

The CS4 is an intrusion detection system with individual addressing. It consists of the CC4 control unit, and the CT4 operating units. The ADI addressing elements transmit the detector signals to the control unit.

The structure of the CS4 is divided into logical system levels, and planning and parameterisation determines its allocation to software and hardware. The logical system levels include:

- Area (max. 1): Switchover level for the total alarm organisation (UNSET/SET) of a building or part of a building.
- Sections (max. 32): Operating level for switching ON/OFF a single or several zones. Within the control unit's configuration, a section can allocate unlimited zones.
- Zones (max. 128): Lowest level to which the user has access. Zones must be allocated to the ADI detector loops. A zone can be a single detector or a group of detectors. Each zone has its own alarm organisation, and alarm signals are indicated according to specific zones.



Note: There exists a special CS4 version (actually a preliminary CS440), consisting of a CC440+CK4, that can support 256 zones.

The physical and logical configuration for a CS4 is first defined for the hardware unit set-up, and then ported to the Composer environment using an export or "List" file, generated by the CS4 tools.

2.4.1 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 CS4s in the system.
- The local address (111, 112, etc.) for each unit.
- The list file generated by the CS4 tools for printed reports for each unit.
- The connection to the DMS: Cerloop, CDI-Net, or NK8000.



Note: The CDI-Net/NK8000 requires a serial line available on the gateway.

- Plug-ins needed:
 - #350301




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. Add the folder(s) required for identifying the location of the CS4 in the project structure tree.
2. Add the CS4 system node to the new folder.
3. Set the CS4 Local Address, Vitality Timer, and Sub type.
4. Import the CS4 List file.
5. Link the CS4 to the Co0mmunication device line, according to communication links.
6. Repeat steps above for all the CS4s in the project.

2.4.2 Configuration procedures

Adding the intrusion system folder

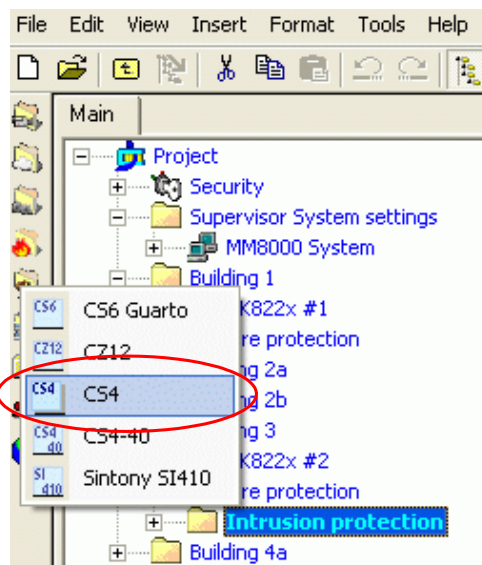
1. In the left-hand bar, click the **Generic Template** icon .
 - ⇒ A new node is added to the project structure.
2. Select the new folder and name it in the **Description** field of the **Node** tab.

Adding the intrusion system node

1. Select the new folder.
 2. In the left-hand bar, select the **Intrusion** folder icon .
 3. In the menu that appears, select the appropriate icon to add a new intrusion system node.
- ⇒ A new node is added to the project structure.



Note: You can customise the default name of the new node typing in a new name in the **Description** field of the **Node** tab, but do not customise it now since it will be renamed during the metafile import.



Adding a new CS4 node

Setting the CS4 Local Address, Vitality Timer and Sub type

1. Select the CS4 node.
2. In the **Node** tab, set the **Local Address**, **Vitality Timer** and **Sub type**.

Please note that:

- The address value should range from 111 to 248 according to the DMS7000 addressing scheme (last digit cannot be 0 or 9), and it should match what is set in the configuration of the CS4 unit.
- The Vitality Timer is related to the frequency of the heartbeat message periodically transmitted by the control unit. This value is the maximum tolerated delay in seconds, and should be 3 to 6 times as long as the heartbeat message. For example, if the heartbeat message is 30 seconds, you set the Vitality Timer to 90 to 180 seconds.
- Subtype can be *Decimal* or *Hexadecimal* according to the numbering option selected in the CS4 configuration.



Note: The value to set in the Vitality Timer depends on the type of network. The following rule applies:

- In Cerloop network, the MK7022 already handles the vitality check, and the DMS host does not receive the heartbeat messages. In this case, set the timer value = 0.
- In NK8000 and CDI-Net networks, if the connection also includes the MK7022 Cerloop interface, leave the value = 0. In the case of a link without MK7022, the vitality check is required and the timer should be set to a value > 0.

Importing the CS4 List file

1. Select the CS4 node.
2. Select **Tools > Import** in the Composer menu to start CS4 import.
 - ⇒ The software presents a browsing window to search for the file to import (the CS4 List file is expected).
3. Using standard Windows controls, do the following:
 - Locate the file.
 - Select it and click **Open**.

⇒ In a few moments, the CS4 structure is imported, and the node is represented in the Composer tree.



Note: The node is renamed to match the metafile name. To customise the name, click the node text, type in a new name, and press **ENTER**.



Note: After the import procedure, by selecting the **Import** tab, a report page displays. It contains the detailed logs of the latest import procedure, including any added or removed objects.

Linking the CS4 to the Communication network



Link the CS4 node to the Cerloop, CDI-Net, or NK8000 network.

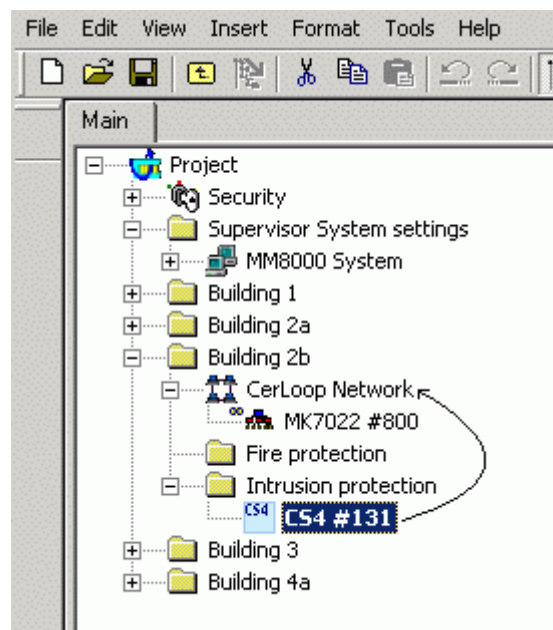
1. Expand the network folders until you reach the node that represents the network that is physically connected to the CS4.
 2. Select the CS4 node.
 3. Drag and drop the CS4 node to the network node.
- ⇒ When the link is established, a new node appears on the structure tree, and its properties can be seen on the Node tab.



Note: The valid link position for Cerloop is always the same main node, representing the entire loop. The valid link positions on CDI-Net/NK8000 units are distributed along the subsystem lines.



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



Linking CS4 to a Cerloop network

2.5 Configuring a CS440

The CS440 is a large intrusion detection system with individual addressing. It consists of the CS440 control unit and the CT411 operating units. The ADI addressing elements transmit the detector signals to the control unit.

The structure of the CS440 is divided into logical system levels, and planning and parameterisation determines its allocation to software and hardware. The logical system levels include:

- Area (max. 1): Switchover level for the total alarm organisation (UNSET/SET) of a building or part of a building.
- Sections (max. 99): Operating level for switching ON/OFF a single or several zones. Within the control unit's configuration, a section can allocate unlimited zones.
- Zones (max. 512): Lowest level to which the user has access. Zones must be allocated to the ADI detector loops. A zone can be a single detector or a group of detectors. Each zone has its own alarm organisation, and alarm signals are indicated according to specific zones.

The physical and logical configuration for a CS440 is first defined for the hardware unit set-up, and then ported to the Composer environment using an export or metafile, generated by the CS440 tools.

2.5.1 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 CS440s in the system.
- The local address (111, 112, etc.) for each unit.
- The metafile generated by the CS440 tool for each unit.
- The connection to the DMS: Cerloop, CDI-Net, or NK8000.



Note: The CDI-Net/NK8000 requires a serial line available on the gateway.

- Plug-ins needed:
 - #350401




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. Add the folder(s) required for identifying the location of the CS440 in the project structure tree.
2. Add the CS440 system node to the new folder.
3. Set the CS440 Local Address and Vitality Timer.
4. Import the CS440 metafile.
5. Link the CS440 to the network (Cerloop, CDI-Net, or NK8000).
6. Repeat steps above for all the CS440s in the project.

2.5.2 Configuration procedures

Adding the intrusion system folder

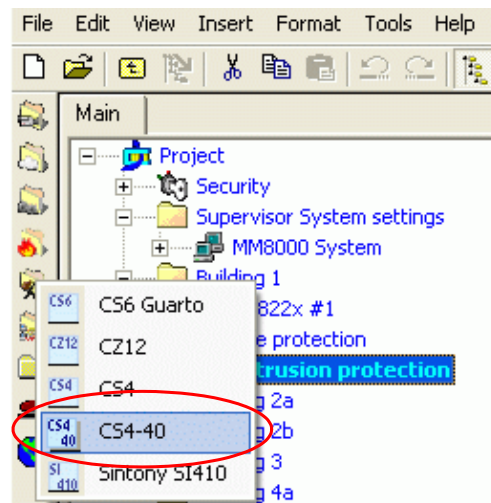
1. In the left-hand bar, click the **Generic Template** icon .
 - ⇒ A new node is added to the project structure.
2. Select the new folder and name it in the **Description** field of the **Node** tab.

Adding the intrusion system node

1. Select the new folder.
2. In the left-hand bar, select the **Intrusion** folder icon .
3. In the menu that appears, select the appropriate icon to add a new intrusion system node.
 - ⇒ A new node is added to the project structure.



Note: You can customise the default name of the new node typing in a new name in the **Description** field of the **Node** tab, but do not customise it now since it will be renamed during the metafile import.



Adding a new CS440 node

Setting the CS440 Local Address and the Vitality Timer

1. Select the CS440 node.
2. In the **Node** tab, set the **Local Address** and the **Vitality Timer**.

Please note that:

- The address value should range from 111 to 248 according to the DMS7000 addressing scheme (last digit cannot be 0 or 9), and it should match what is set in the configuration of the CS440 unit.
- The Vitality Timer is related to the frequency of the heartbeat message periodically transmitted by the control unit. This value is the maximum tolerated delay in seconds, and should be 3 to 6 times as long as the heartbeat message. For example, if the heartbeat message is 30 seconds, you set the Vitality Timer to 90 to 180 seconds.



Note: The value to set in the Vitality Timer depends on the type of network. The following rule applies:

- In Cerloop network, the MK7022 already handles the vitality check, and the DMS host does not receive the heartbeat messages. In this case, set the timer value = 0.
- In NK8000 and CDI-Net networks, if the connection also includes the MK7022 Cerloop interface, leave the value = 0. In the case of a link without MK7022, the vitality check is required and the timer should be set to a value > 0.

Select the CS440 node

1. Select **Tools > Import** in the Composer menu to start CS440 import.
 - ⇒ The software presents a browsing window to search for the file to import (the CS440 metafile is expected).
 2. Using standard Windows controls, do the following:
 - Locate the file.
 - Select it and click **Open**.
- ⇒ In a few moments, the CS440 structure is imported, and the node is represented in the Composer tree.



Note: The node is renamed to match the metafile name. To customise the name, click the node text, type in a new name, and press **ENTER**.



Note: After the import procedure, by selecting the **Import** tab, a report page displays. It contains the detailed logs of the latest import procedure, including any added or removed objects.

Linking the CS440 to the Communication network



Link the CS440 node to the Cerloop, CDI-Net, or NK8000 network.

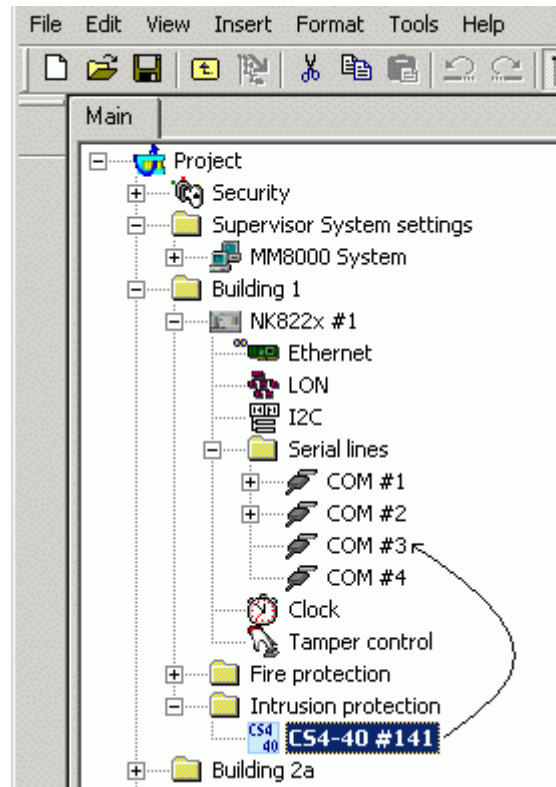
1. Expand the network folders until you reach the node that represents the network that is physically connected to the CS440 (Cerloop, CDI-Net, or NK8000).
 2. Select the CS440 node.
 3. Drag and drop the CS440 node to the network node.
- ⇒ When the link is established, a new node appears on the structure tree, and its properties can be seen on the Node tab.



Note: The valid link position for Cerloop is always the same main node, representing the entire loop. The valid link positions on CDI-Net/NK8000 units are distributed along the subsystem lines.



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



Linking CS440 to NK82xx (NK8223, COM3)

2.6 Configuring a CZ12

The CZ12, the predecessor of the CS4, is a control unit for intrusion detection. It was developed as part of the DMS7000 system.

The CZ12 is physically composed of a central module, which is housed inside a cabinet, and connected to detection lines and alarming devices. The system can be operated locally on a CT12 terminal by a restricted number of authorised users. Remote operations are performed via the serial interface, using Cerloop, CDI-Net, or NK8000 connections.

The intrusion system is logically organized as follows: the CZ12 Application area is divided into a maximum of 64 Sections. Each section is divided into zones. The CZ12 supports a maximum of 96 total zones. Since commands can be performed on entire groups of detectors within these groupings, the hierarchical structure of Application-Sections-Zones allows for flexible control of the detector states, as well as for easier location of the intrusion events.

The arm/disarm switching is defined at the Application or Section level. The arm/disarm commands are sent via local or remote manual operations, or time-based programs. System limits are:

- Area: 1
- Sections: 64
- Zones: 96

The physical and logical configuration for a CZ12 is first defined for the hardware unit set-up. In the Composer environment, the configuration structure must be either imported or entered again to match perfectly what was defined physically and logically in the unit.



Note: The CZ12 configuration structure does not need to be entered again in Composer when there is an existing DMS7000 or LMSmodular configuration. In this case, you can import:

- Export metafile from DMS7000, a text file including all the DMS7000 point texts.
- LMSmodular database, specifically DB_PUL.DBF and a DB_SUB.DBF files.

2.6.1 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 CZ12 parameter settings, which can be provided in three ways:
 - The DMS7000 metafile to import
 - The LMSmodular databases DB_PUL.DBF and DB_SUB.DBF to import
 - Complete information about the CZ12 configuration for Intrusion sector, as well as the Groups and Addresses organisation, and parent/child relationship.
- The local address (111, 112, etc.).
- The connection to the DMS: Cerloop, CDI-Net, or NK8000.



Note: The CDI-Net/NK8000 requires a serial line available on the gateway.

- Plug-ins needed:
 - #350201




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. Add the folder(s) required for identifying the location of the CZ12 in the project structure tree.
2. Add the CZ12 system node to the new folder.
3. Set the CZ12 Local Address and Vitality Timer.
4. Do one of the following:
 - Import the DMS7000 or LMS database, if available.
 - Link the CZ12 to the communication network (Cerloop, CDI-Net, or NK8000).
5. Repeat steps above for all the CZ12s in the project.


2.6.2 Configuration procedures

Adding the intrusion system folder

1. In the left-hand bar, click the **Generic Template** icon .
 - ⇒ A new node is added to the project structure.

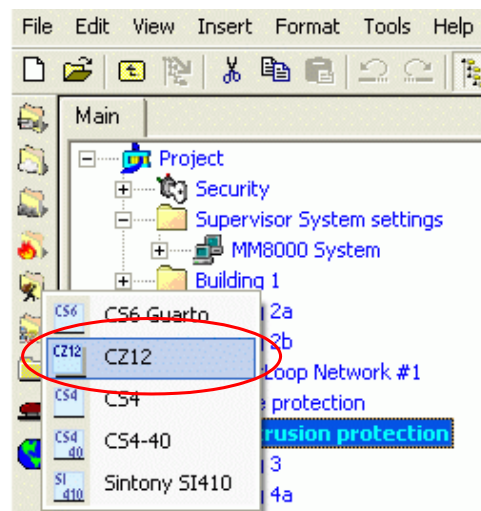
2. Select the new folder and name it in the **Description** field of the **Node** tab.

Adding the intrusion system node

1. Select the new folder.
 2. In the left-hand bar, select the **Intrusion** folder icon .
 3. In the menu that appears, select the appropriate icon to add a new intrusion system node.
- ⇒ A new node is added to the project structure.



Note: You can customise the default name of the new node typing in a new name in the **Description** field of the **Node** tab.



Adding a new CZ12 node

Setting the CZ12 Local Address and the Vitality Timer

1. Select the CZ12 node.
2. In the **Node** tab, set the **Local Address** and the **Vitality Timer**.

Please note that:

- The address value should range from 111 to 248 according to the DMS7000 addressing scheme (last digit cannot be 0 or 9), and it should match what is set in the configuration of the CZ12 unit.
- The Vitality Timer is related to the frequency of the heartbeat message periodically transmitted by the control unit. This value is the maximum tolerated delay in seconds, and should be 3 to 6 times as long as the heartbeat message. For example, if the heartbeat message is 30 seconds, you set the Vitality Timer to 90 to 180 seconds.



Note: The value to set in the Vitality Timer depends on the type of network. The following rule applies:

- In Cerloop network, the MK7022 already handles the vitality check, and the DMS host does not receive the heartbeat messages. In this case, set the timer value = 0.
- In NK8000 and CDI-Net networks, if the connection also includes the MK7022 Cerloop interface, leave the value = 0. In the case of a link without MK7022, the vitality check is required and the timer should be set to a value > 0.

Importing the DMS7000 configuration

1. Select the CZ12 node.
 2. Select **Tools > Import** in the Composer menu to start CZ12 import.
 - ⇒ The software presents a browsing window to search for the files to import.
 3. Using standard Windows controls, do the following:
 - Look for DMS files, selecting the extension TXT in the browsing window.
 - Locate the DMS7000 text metafile.
 - Select the file and click **Open**.
 - When prompted, select the language of the text file.
 - If more than one CZ12 unit is present in the metafile, the software presents a list. Select the one you want to import.
- ⇒ In a few moments, the CZ12 structure is imported, and the node is represented in the Composer tree.

Importing the LMSmodular configuration

1. Select the CZ12 node.
 2. Select **Tools > Import** in the Composer menu to start CZ12 import.
 - ⇒ The software presents a browsing window to search for the files to import.
 3. Using standard Windows controls, do the following:
 - Look for LMS files, selecting the extension DBF in the browsing window.
 - Locate the **DB_SUB.DBF** file.
 - Select the file and click **Open**.
 - When prompted, select the language of the DBF file.
 - If more than one CZ12 unit is present in the metafile, the software presents the complete list. Select the one you want to import and click **OK**.
- ⇒ In a few moments, the CZ12 structure is imported, and the node is represented in the Composer tree.

Defining the CZ12 physical configuration

If you were not able to import the configuration, you will need to configure the CZ12 by hand to reflect the actual hardware configuration. The following list shows where different items are located in the physical and logical trees in Composer.

- Logical tree:
 - Intrusion sections
 - Sections
 - Burglary zones

- Door monitoring zones

- Users
- Time programs

Linking the zones to the sections

- Drag and drop the zones to the sections where they belong.

Linking the CZ12 to the Communication network



Link the CZ12 node to the Cerloop, CDI-Net, or NK8000:

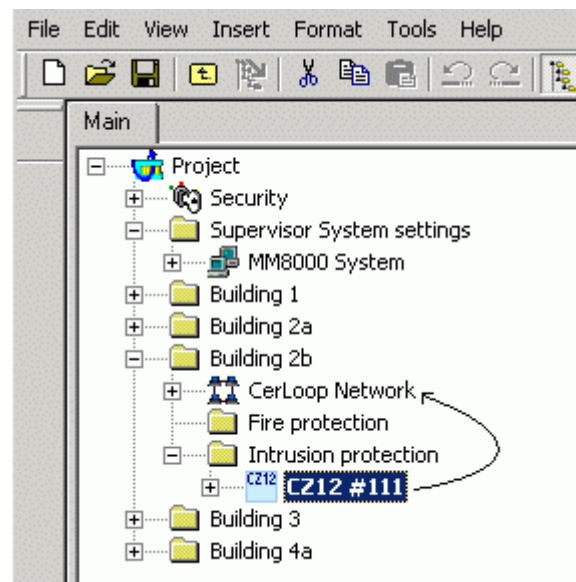
1. Expand the network folders until you reach the node that represents the network physically connected to the CZ12 (Cerloop, CDI-Net, or NK8000).
 2. Select the CZ12 node.
 3. Drag and drop the CZ12 node to the network node.
- ⇒ When the link is established, a new node appears on the structure tree, and its properties can be seen on the Node tab.



Note: The valid link position for Cerloop is always the same main node, representing the entire loop. The valid link positions on CDI-Net/NK8000 units are distributed along the subsystem lines.



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



Linking CZ12 to a Cerloop network

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