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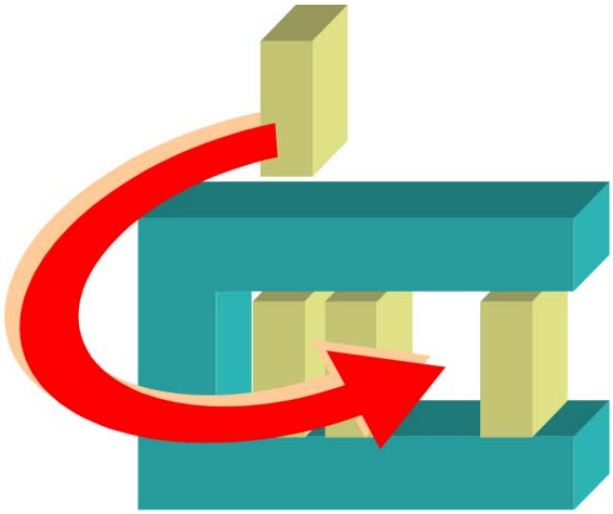


MM8000 MP4.xx

CDDL/CDSF Control Units Add-on module

Installation

Configuration

Building Technologies

Fire Safety & Security Products

Table of Contents

About this document

Purpose

This manual is intended as a guide to the installation and configuration for the MM8000 management stations that includes control units supporting the CDDL/CDSF protocol. It presents the MM8000 Add-on module for the CDDL/CDSF 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.

Copyrights and registered trademarks

Brand or product names mentioned in this document may be names protected by copyright law or registered trademarks of other companies. These are mentioned only for identification purposes and have no recommendatory character in regard to the product or manufacturer, unless otherwise stated.

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.	**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	● 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 `Definition successfully renamed` displays in the status bar.
Italics are used to emphasize a term.	The Open Processor continuously executes a user-defined set of instructions called the *control program*.
	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
A6V10067787_a_en	06.2013	DMS8000 4.60. Installation procedure for versions older than version 4.15 has been removed.
A6V10067787_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

CDDL/CDSF protocol

Some of the FS-DMS legacy subsystems and a number of 3rd party units have applied the CDDL/CDSF protocol suite to exchange application messages with LMSmodular management station.

The CDDL (Cerberus Dati Data Link) is a data-link protocol specifying the data exchange across a serial RS232 point-to-point connection.

- For more information about CDDL, please refer to document CDI-135-017-E.

The CDSF (Cerberus Dati Data Format) defines the data structure of application messages transferred into CDDL frames. CDSF is designed to model the control unit conditions into a flat list of multi-state objects that can be easily mapped into the process image memory of central stations.

- For more information about CDSF, please refer to document CDI-130-017-E.

CDSS subsystems

Control units that can communicate via CDDL/CDSF are generally called **CDSS** subsystems. CDSS is an acronym for Cerberus Dati Standard Subsystem.

Each unit type applies the CDSF standard according to a specific model, including a point and command map.

CDDL/CDSF add-on module

⚠ WARNING

It must be made clear that the MM8000 add-on module documented here **is not a ready-to-use solution** and is intended as an open toolkit that allows for integrating CDSS subsystems via NK82xx. Each subsystem requires in fact that a specific CDSF application model that is defined and configured using the CDSS Meta Subsystem Tool utility.

In fact, depending on the modelling solutions, multiple applications of the protocol may exist for the various control units. A customisation tool is provided in the MM8000 add-on, along with the communication and configuration software, in order to adapt each system to the actual installed units.

Version supported

In general, CDDL exists in a unique version, whereas there are two implementations of CDSF: one is fully compliant to the standard (document CDI-130-017-E), whereas a variant (e.g. CP100 gas unit) specifies a different format for the first byte of commands (00 hex instead of the standard 80 hex).

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

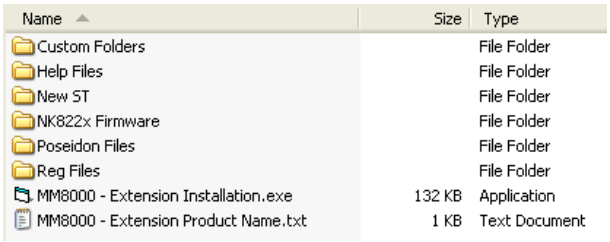
The MM8000 software for the control unit support is distributed as an add-on package, to be installed on the stations including the Composer tool (client-only and FEP stations are therefore excluded) after the standard MM8000 Setup.

The package is named **MM8000 MPx.xx.xx - System Extension N.06 (CDSS Vy.yy)** and is made up by an installation kit of a few files.

Installation kit

The installation kit includes:

- **Custom folders**, containing the customisation tool for the specific application.
- 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**.



Installation kit

3.1.1 Installation checklist

Items needed for the installation

- The MM8000 Setup DVD
- The **MM8000 MPx.xx - System Extension N.06 (CDSS 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 [→ 12].
4. Customise the model [→ 13] according to the modelling solution.
5. Update the NK8000 firmware [→ 19].

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 Model customisations

The CDSF standard (refer to document CDI-130-017-E, edition 01.1994) defines a general message structure which can be applied to any data communication involving a set of multi-state variables.

In MM8000 applications, the protocol can be used using a 3-step approach:

1. **Meta-model definitions**
   A general set of *meta-model* definitions have been defined in the web-based Poseidon modelling environment (refer to FS-DMS document 2004-0217-00-Eng). The meta-models, typically organised per discipline (e.g. fire units meta-model), comprise a superset of all the applicable objects.
   Note: The Poseidon's meta-models are the base for any further steps. If the available meta-models are somehow not sufficient for a specific application, please contact the customer support in order to define new requirements.
2. **CDSS Customisation tool**
   The *meta-models* can be applied in the CDSS customisation tool, which is included in the add-on package, whose task is to define applicable Composer models for the CDDL/CDSF compatible units, i.e. creating *CDSS subsystem models*.
   The Composer models can make use of the meta-model objects, freely allocate them in the CDSS subsystem model structure and finally link the objects states to the actual protocol messages. The result of this task consists of data files for Composer and NK8000 devices.
3. **Composer**
   In Composer, once the model data file is available, the *CDSS subsystem model* can be applied in the MM8000 projects: the model objects are instanced as data-points for mapping the corresponding states (or CDSF messages) of a real control unit.

Note that this document does not discuss the step 1, which requires a specific training.

Instead, step 2 is presented in the next section, whereas step 3 is a typical Composer configuration [→ 22].

Depending on the specific installation, the CDSS subsystem model may be already available for your specific requirements. In this case, just proceed directly to the Configuration [→ 22] section.

3.3.1 Customisation tool

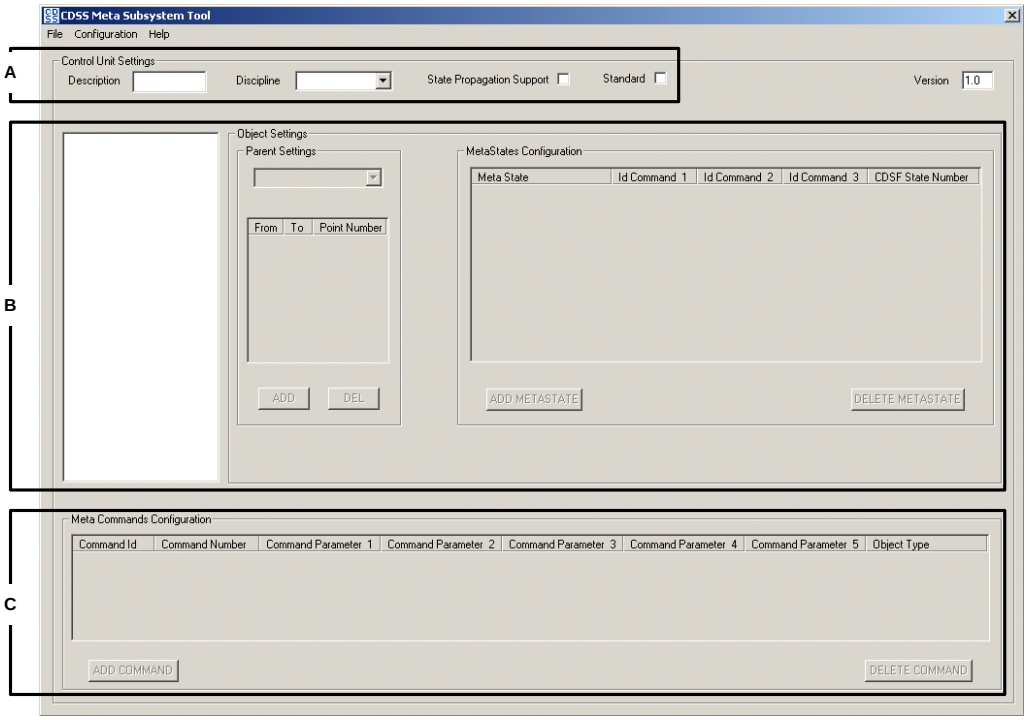
The tool is a Windows program named **CDSS Meta Subsystem Tool.exe**, which is available in the folder:

<Installation folder>\DMS8000\Composer\Configuration Data\OTD_Files
Note: <Installation folder> is usually **C:\Program Files**

3.3.1.1 User Interface

Starting the program, the following window appears. The tool interface is organised in three parts:

- On the top, an area where name and type of the selected model are shown; also, some general configuration flags are present here.
- In the middle, the objects list is defined and the states of each object can be associated to protocol messages.
- In the lower part of the window, the control commands can be associated to equivalent protocol commands.



CDSS tool interface

A	Model general data
B	Object list and CDSF association rules
C	Command list and CDSF association rules

3.3.1.2 Configuration fields

Control Unit Settings

Description	Name of the model currently opened: a free text
Discipline	Application discipline, which defines the meta-model that is applied and the correspondent superset of object list. Note that, after you define a specific object to be part of the model, the discipline can no longer be modified.
State Propagation Support	If set, this checkbox enables the propagation of states along the tree structure of objects. **Note:** This state propagation is implemented in the NK82xx. When used for the MM8000 management station, which can also provide the same propagation function, this option should not be set. Instead, solutions including the MK800 OPC server or other host systems may benefit of this feature.
Standard	If set, it enables the standard CDSF command formatting, which defines the first byte of commands being = 80 Hex), else the first byte is set = 0. Refer to CDDL/CDSF add-on module [→ 8] section.
Version	Field available to store a model version number; no check is executed on the value.

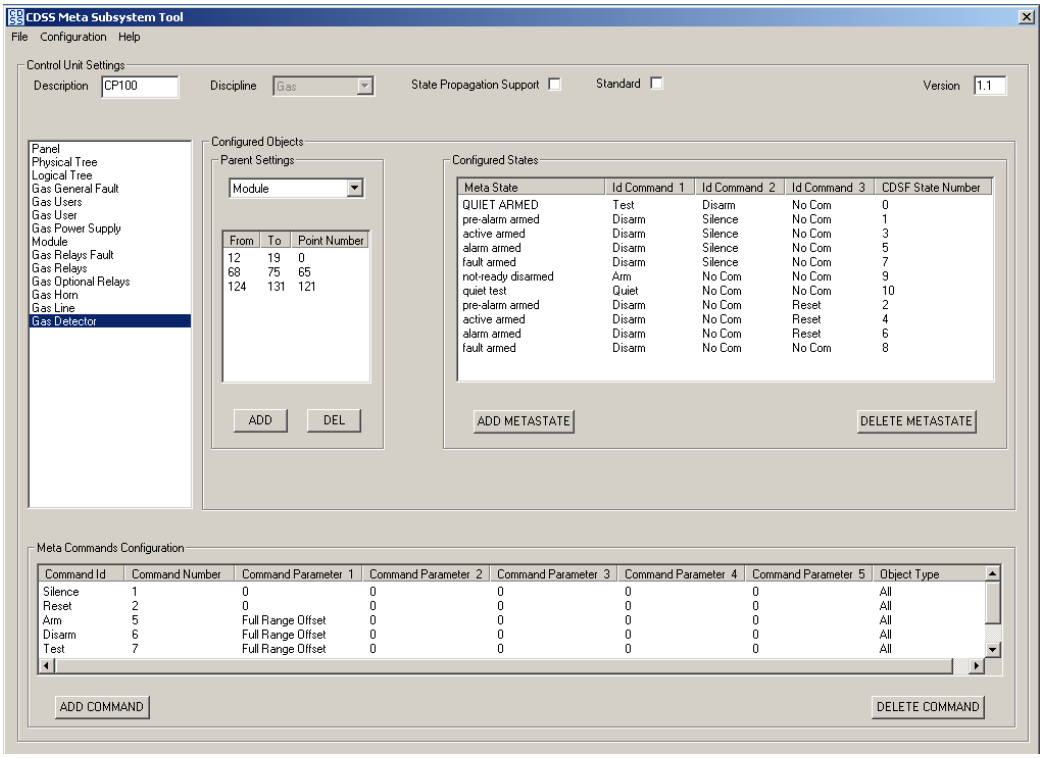
Object List

This is the large white space on the left part of the window. It lists the meta-model objects available for the given discipline; any subset of the list can be actually applied in the model.

Object Settings

Parent settings	Referring to the object type currently selected in the Object List, select here the parent node for the specified range of CDSF points.
From/To/Point Number	Referring to the object type currently selected in the Object List, enter the point range and the related parent point number according to the CDSF point list.
MetaStates Configuration	Referring to the object type currently selected in the Object List, enter here the information about the available states: State definition (Meta State), Associated Command (ID Command 1 to 3), and CDSF State Number (a number ranging from 0 to 15). This table creates the actual conversion table between CDSF states and DMS8000 states (CNAP protocol).
Meta Commands Configuration	Enter here the information about the available commands: Command Definition, Command Number, Command Parameters (up to 5), associated Object Type. Command parameter can be: ● Fixed: Select this option and then specify the fixed value you want to set. ● Point Address: The involved point index is used as parameter (absolute point addressing; e.g. the value 25 is used to command CDSF point 25). ● Single Range Offset: The point index referred to the type offset is used as parameter (relative addressing; e.g.: the

	value 5 is used to command **Zone 5** corresponding to CDSF point 25, assuming the zone type starts at index 21). ● Full Range Offset: Same as previous, but capable of handing multiple offset ranges (relative addressing; e.g.: the value 15 is used to command **Zone 15** corresponding to CDSF point 55, assuming the zone type ranges from 21 to 30 and then from 51 to 60). ● Parent Point: The parent of the involved point is used as parameter (absolute point addressing). Associated Object Type can be: ● All: All points can be affected by this command. ● <Specific Object Type>: The command can only affect the specified type.



Example of configured unit

3.3.1.3 Main menu

The tool menu includes the following commands:

File

Open	Open one of the existing models, which are stored in .CUB files, located in the same folder as the tool program. Note that a new model can be added by simply typing its name in the **Description** field, filling in the information, and then saving it.
Save	Save the model into the .CUB file on disk.
Exit	Close the tool program.

Configuration

Show tree	In the object list field, display the hierarchical structure of the list.
Hide tree	In the object list field, display the plain list.

Help

About CDSS tool	Show general information about the program.
Help page	Show the help page.

3.3.1.4 Configuration procedure

To configure a model, you should proceed as follows:

Preparing the model

1. Get the detailed point and command list for the specific control unit, including the possible states and the command parameters.
2. Study the possible relationships between CDSF points and the objects available in one of the Poseidon meta-models (see Annex A [→ 27]).

Configuring the model

1. Open the **CDSS Meta Subsystem Tool**.
2. Define a new model entering the name in the **Description** field.
3. Select the **Discipline**, thus setting the meta-model.
4. If the model should have a tree structure and propagation is required along the tree, check the **State Propagation Support** option.
5. Depending on the CDSF compatibility [→ 8] of the specific unit, select or not the **Standard** option.
6. Enter the version number, e.g. **V1.0**.
7. Select the **Panel** object (whose configuration is mandatory) in the **Object List**.

8. Select the CDSF point range (**From/To**) associated to the **Panel** object.
   Typically, this is a single CDSF point (**From** = **To**) representing a general summary of the control unit status. Leave the (parent) **Point Number** = 0.
9. In the **Configured States** list, add the required lines according to the possible conditions of the CDSF point.
10. For each state, define the associated commands (**ID Com**) and the **CDSF Value**.
    Note that **CDSF Message Type** is usually =0.
11. Enter the required commands and related parameters.
12. In the **Object List**, select the next applicable object type.
    Note that the points named **Physical Tree** and **Logical Tree** cannot be associated to CDSF messages as they are only used for collecting other objects into a physical or logical oriented structure.
13. Select the CDSF point range (**From/To**) associated to the object type.
    It may be one or more points. Also, if a tree structure is used, enter the parent **Point Number** for this object range (e.g.: the point associated to the **Panel** object) as well as the parent object (**Parent Setting**). Note that consistency is required between the parent settings.
14. Define states and commands (see step 8 and 9 above).
15. Repeat steps 12 to 14 for all the necessary object types.
16. Save the model (menu **File > Save**).

When a new model is defined, new files (*.CUB and *.BIN) are available for handling the new CDSS unit in Composer and NK82xx, respectively.

Installing the model

At this point, Composer is ready to operate with the new model, whereas the NK82xx devices require a download, as described in the Downloading NK82xx firmware [→ 19] section.

⚠ WARNING

Be aware that any subsequent change in the model is taken into account by Composer in any further configuration step.

3.3.2 Control unit icon

A specific icon can be defined for representing the control unit in the Composer (and MM8000) tree. The configuration tool provides for a default icon, which is named after the Description name of the new model.

A customised file can replace the standard ICO file. We recommend the following format:

- ICO file; resolution 48x48: colour depth 32.

3.4 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.

3.4.1 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

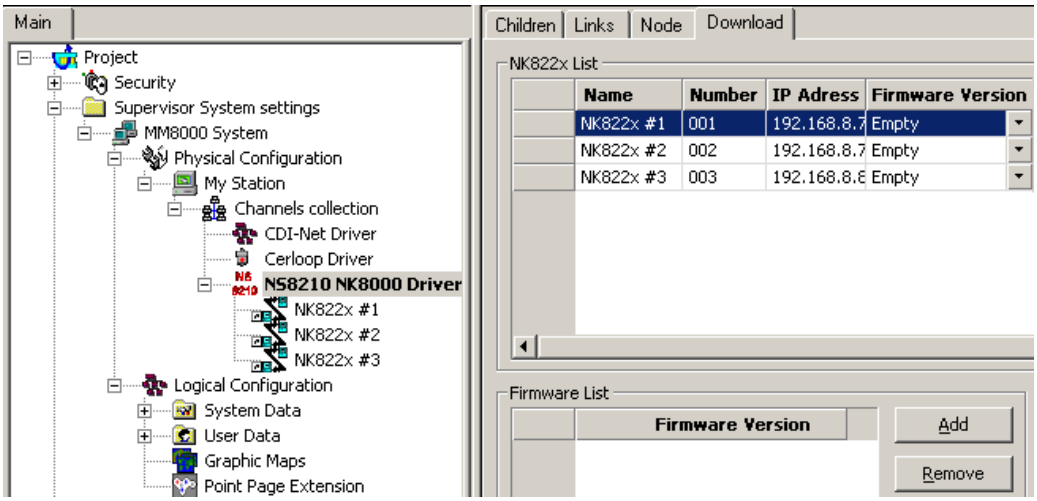
- **Reply from n.n.n.n: bytes=… time … TTL=…**
  If the IP connection is not working for any reason, different messages may appear (Request timed out, Destination net unreachable, etc.) In these cases, verify the network settings and cabling and try again.

Downloading the NK82xx firmware

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

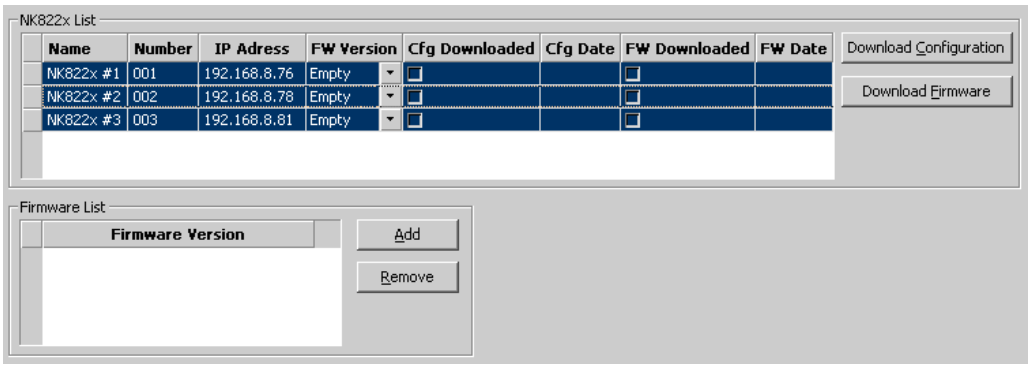
2. Expand the **Channel collection** folder in:
Supervision System Settings > MM8000 System > Physical configuration > Station (or FEP) > Channel collection

3. Select the **NS8210 driver** node and then the **Download** tab.



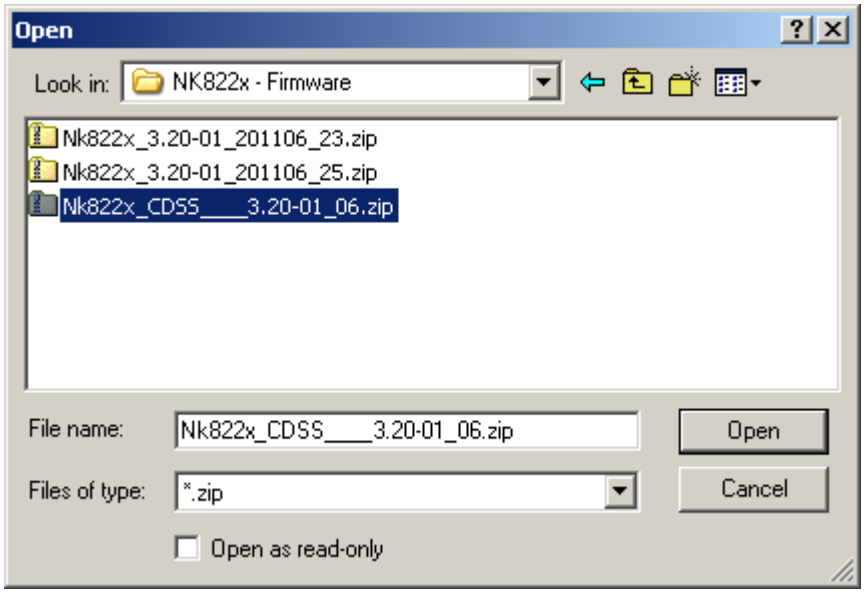
Download tab

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:

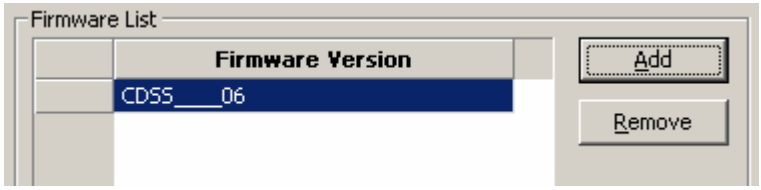


Selecting the NK82xx

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 and model of CDSS systems.
- The local address (0 to 65535) for each unit.
- Exact information on the CDSS internal configuration.
- The exact connection to the NK8000 unit (NK82xx).
- Plug-ins needed:
  - Plug-in #356201

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 CDSS in the project structure tree.
3. Add the CDSS control unit node to the new folder.
4. Set the Local Address.
5. Configure the objects manually.
6. Link the CDSS to the communication network.
7. Set the communication baud rate.
8. Repeat steps above for all the CDSS units in the project.
9. Download the configuration.

4.2 Configuration procedure

The following are the configuration procedures for the CDSS control unit:

Adding the folder for the CDSS system

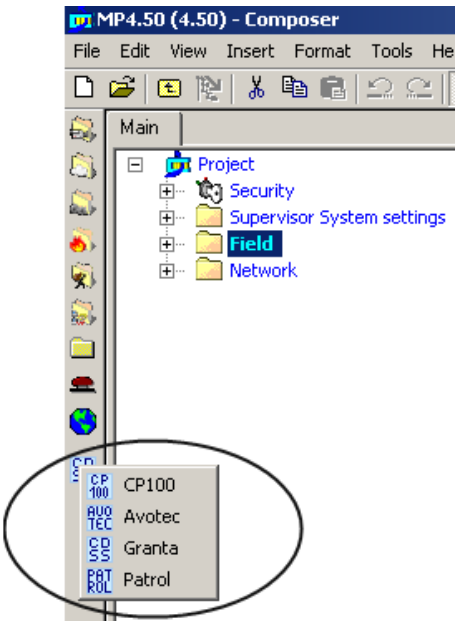
1. Open the Composer project.
2. Create a folder for the control unit.

Adding the CDSS node

1. Select the new folder.
2. Select the CDSS icon and select the model, which can be one of the customised models currently available.

⇨ The new node is added to the project structure.

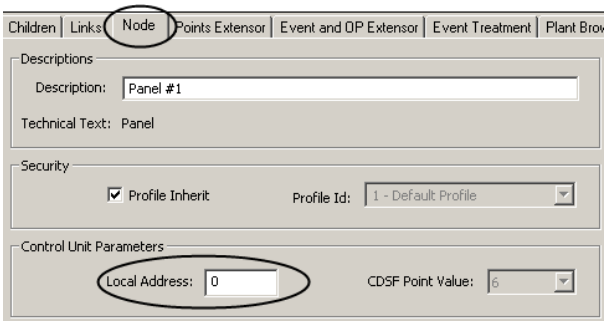
Note: You can customise the default name of the new node typing in a new name in the **Description** field of the **Node** tab.



Adding an CDSS subsystem

Setting the CDSS Local Address

1. Select the **CDSS** node.
2. Click the **Node** tab.
   ⇨ The Node form page shows.
3. In the **Node** tab form, you can find:
   - **Description** text: the node name you also have on the project structure tree.
   - **Technical Text**: the technical name of the node (read-only).
   - Unit **Local Address**: the CDSS address, ranging from 0 to 65535.
4. Set the unit **Local Address**.
   Note: The Local Address should match what is set in the control unit.



Setting CDSS mode (subtype) and the unit Local Address

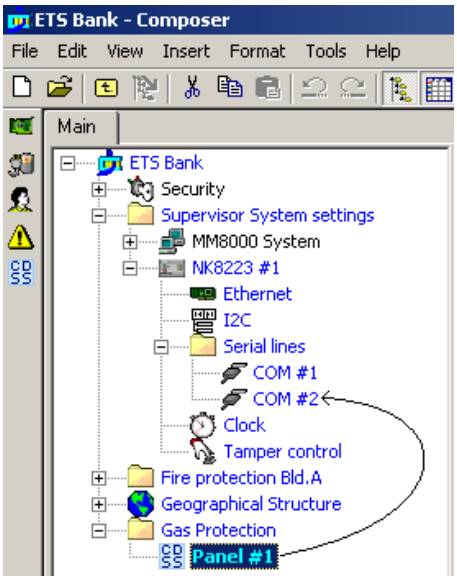
Manual configuration

You can configure the CDSS unit to reflect the actual field configuration. Object types and ranges depend on the model definitions.

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 ⊘.

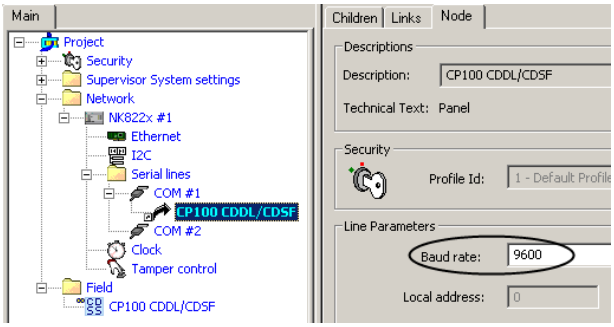


Linking CDSS to the NK8000 network

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.

Setting the communication baud rate

1. Select the new link node just below the NK82xx serial line node.
2. In the **Node** tab, set the communication baud rate, which must match the corresponding setting in the control unit.



Setting the baud rate

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**.

4.3 Configuration backup and restore

The standard Backup and Restore functions in Composer provide for saving the CDDL/CDSF customized models [→ 14] along with all the project data.

Note that the entire folder **OTD_Files** is actually restored in
<installation folder>\Composer\Configuration Data
and this also includes the model customisation tool (CDSS Meta Subsystem Tool.exe).

Annex A – CDDL/CDSF meta-models

The following meta-models are provided for direct use or further customisations:

- CP100 gas detection unit
- AVOTEC fire alarming unit
- PATROL intrusion detection unit

Issued by
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