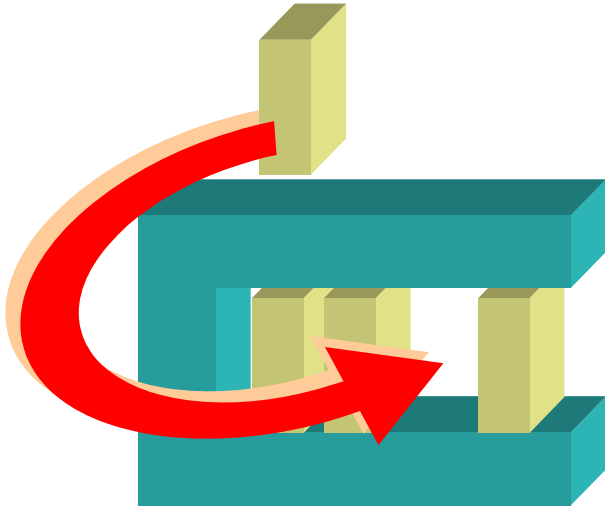


# SIEMENS



**MM8000 MP4.xx**

**RCO R-Card M5 Access Control**

Add-on module

Installation, Configuration,  
and Operations guide

**Building Technologies**

Fire safety & Security Products

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# About this document

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## Purpose of this document

This manual is a guide to the installation, configuration, and operations for the MM8000 Management Stations that includes the OPC-based RCO R-Card M5 Access Control. It presents the MM8000 Add-on module for this type of subsystems.

## Scope

This document applies to the MM8000 Management Station MP4.10 and higher.

## Target readers

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 have prior expertise and training in the field of safety and security, a good level of familiarity with the Siemens Building Technologies product line, and experience with the installation, configuration, and commissioning of security management systems. Also, a good knowledge of the OPC standard, as applied to the specific applications, is required for performing the configuration steps.

## Reference documents

The **DMS8000 Documentation Resource Information Guide** document assembles in one place important information regarding documentation resources. It contains the following:

- Comprehensive definitions of the target audiences for 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 STEP Documentation Repository System
- 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 Guide** (STEP #A6V10089056), go to the link and follow the instructions below:

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



1. Click on the **STEP WEB Client** image:
2. Choose **04 Fire -3F** from the **Product Segment** box and select **Activate filter**.
3. Select **All** in the **Documents** section of the **Quick Search** page and then select **Advanced Search**.
4. Enter the document number in the **Brochure No.** field (e.g. A6V10089056) and press **Enter**.

## Operational and safety regulations



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Before beginning work on the MM8000 Management Station, you must have read and understood the Operational and Safety Regulations included in the document no. A6V10062413 'MM8000 Installation, Configuration, and Commissioning'.

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### 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 included in subsequent editions. Suggestions for improvement are welcome.

### Modification index

Document index	Date	Notes
A6V10064742_b_en	11.2009	Includes proper documentation of the installation procedure with MP4.20 software.
A6V10064742_a_en	06.2009	Corresponds with version MP4.20 of the MM8000 software
A6V10064742_a_en	06.2007	Corresponds with version MP4.10-01 of the MM8000 software

# 1 Introduction

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## 1.1 R-Card M5 Access Control

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R-Card M5 access control system can be integrated in MM8000 systems via OPC server.

Acting as OPC client according to OPC Data Access 2.0 specifications, MM8000 can connect to the R-card OPC server in order to receive field information and transmit control commands.

The integration of the R-Card M5 access control system is based on the standard OPC connectivity of MM8000. Also, a specific subsystem modelling has been developed so as to provide a predefined mapping of the OPC items into MM8000 objects.

→ For information about the R-Card M5 settings for MM8000 integration, please refer to the manual "Installation R-Card M5", chapter "Configure OPC".

## 2 Installation

### 2.1 Distribution package

The M8000 software for the R-CARD 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 MP4.10 Setup.

The package is named: 'MM8000 MP4.10 - System Extension N.08 (R-CARD V.1.00)' and is made up by an installation kit of a few files.

#### Installation kit

The installation kit includes (Fig. 1):

- A 'Custom folder', containing the CDSF customisation tool for the specific application.
- The new help files, describing the R-CARD configuration procedures.
- The new Composer Subsystem Tool (ST) for the R-CARD models.
- The firmware for the NK822x units, i.e. an additional DLL module supporting the R-CARD protocol.
- The 'Poseidon' files, including the definitions of the R-CARD data structures.
- The registry file folder, containing a command for registering the add-on package.
- The installation utility: the 'MM8000 – ST extension Installation.exe' program.
- The extension name text file; e.g.: 'MM8000 – ST extension Product Name'.

Name	Size	Type
Custom Folders		File Folder
Help Files		File Folder
New ST		File Folder
NK822x Firmware		File Folder
Poseidon Files		File Folder
Reg Files		File Folder
MM8000 - Extension Installation.exe	132 KB	Application
MM8000 - Extension Product Name.txt	1 KB	Text Document

Fig. 1 Installation kit

#### 2.1.1 Installation checklist

##### ITEMS NEEDED FOR THE INSTALLATION

- The MM8000 MP4.10 Setup CD
- 'The 'MM8000 MP4.10 - System Extension N.08 (R-CARD V.1.00)' installation kit
- The MM8000 hardware key (dongle)

The MM8000 license PAK code(or the REG file that contains it), including the R-CARD support

##### INSTALLATION CHECKLIST

- 1. Install the MM8000 MP4.10 Software and the required license key and PAK  
→ MM8000 MP4.10 Installation, Configuration, and Commissioning manual
- 2. On the station(s) with configuration capability (Composer tool),  
install the R-CARD add-on ..... p. 5



## 2.2 Software installation

### 2.2.1 Requirements

The support for R-CARD does not add any special requirements to the standard MM8000 MP4.10. Therefore, software and hardware requirements are the same as for the base MM8000 MP4.10 software, as described in the document no. A6V10062413, MM8000 Installation, Configuration and Commissioning (ICC).

MM8000 MP4.10 must be properly installed before the add-on can be installed. For more information on the MM8000 installation, please see the mentioned ICC document.

This R-CARD add-on package is designed to work with MM8000 MP4.10. If you are working with another version of MM8000, please contact FSP-DMS support to verify its compatibility or the availability of a compatible package.

### 2.2.2 Software License

An additional license is required to run the R-CARD module. On top of the base MM8000 MP4.1 license codes, a specific PAK is therefore needed.

Therefore, the required license includes:

- WW8000 Composer (project configuration and download): Composer License or Service key.
- MM8000 core, no. of subsystems.  
This license should include the number of R-CARD control units.
- MM8000 core, no. of devices.  
This license should include the number of R-CARD physical objects (readers, doors, auxiliary I/O).
- R-CARD add-on license.  
→ Check detailed sales policy for your country

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

### 2.2.3 R-CARD add-on installation

#### 2.2.3.1 Installation on MM8000 MP4.10

##### 1. Copying files

The installation kit MP4.10 includes the **MM8000 – ST extension Installation.exe** utility (Fig. 2 below). Just run this program and the add-on files will be copied onto the local hard disk in the appropriate folders.

Name	Size	Type
Custom Command Timeout		File Folder
Default Project		File Folder
Help Files		File Folder
New ST		File Folder
NK822x Firmware		File Folder
Poseidon Files		File Folder
MM8000 - ST extension Installation.exe	56 KB	Application
MM8000 - ST extension Product Name.txt	1 KB	Text Document

Fig. 2 Starting the add-on installation

##### 2. Installing the Subsystem Tool I

Composer requires that the tools are installed using a specific procedure.

Therefore, a small utility is also launched in order to add the R-CARD Subsystem Tool (ST) in to the Composer tool set.

The utility shows as illustrated in Fig. 3. Click 'Install' to proceed.

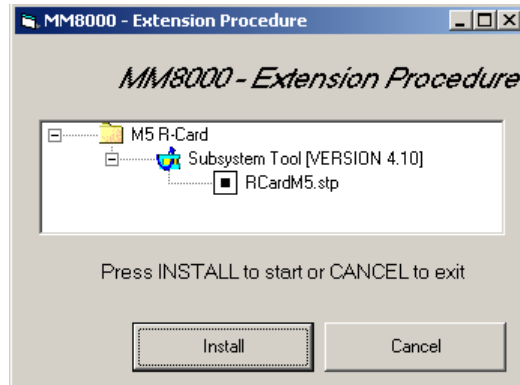


Fig. 3 Installing the R-CARD Subsystem Tool

In few seconds, the tool is installed in Composer. The name of the new tool appears in the list (Fig. 4). At this point, click Exit to quit.

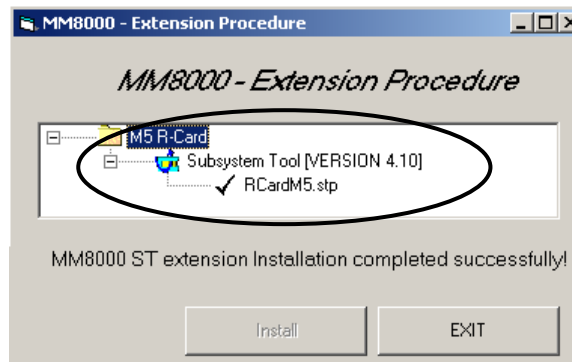


Fig. 4 Closing the installation tool

### 2.2.3.2 Installation on MM8000 MP4.15 and later

A specific application, the Add-on manager, is provided in MM8000 MP4.15 and later, and allows installing and updating the add-on modules. The application supports the installation of add-ons developed for all MM8000 versions starting from MP3.20.

The following describes the installation procedure.

1. Start Add-on Manager.

From the Windows Start menu, select the following:

**Start → DMS8000 → Tools → Add-on Manager**

The Add-on Manager window appears (Fig. 5).

2. In the list of add-ons, select the name of the module that you wish to install

OR (if the name of the add-on is not in the list on the screen):

click the **Browse ...** button, locate the installation files of the add-on module and select the text file (**Extension Product Name.txt**) in the root folder (Fig. 6).

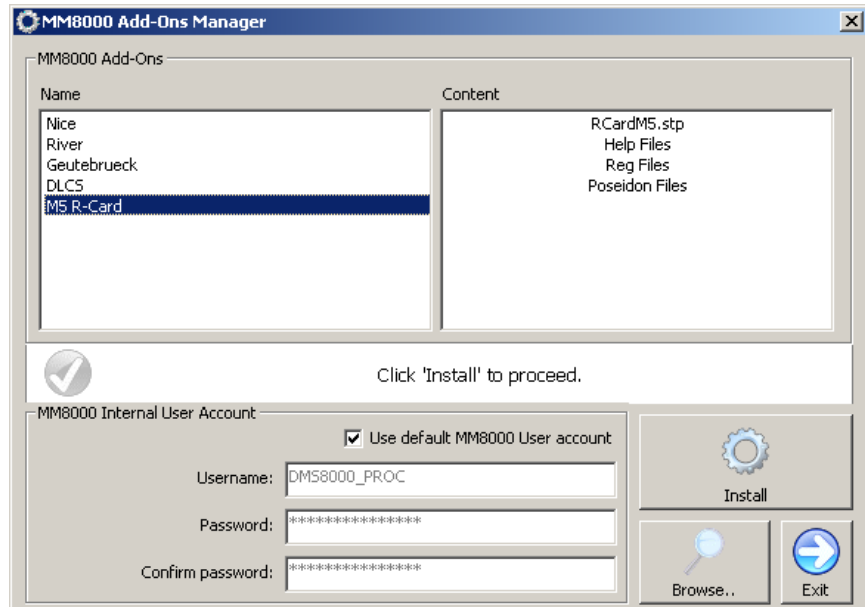


Fig. 5 Add-on Manager Window

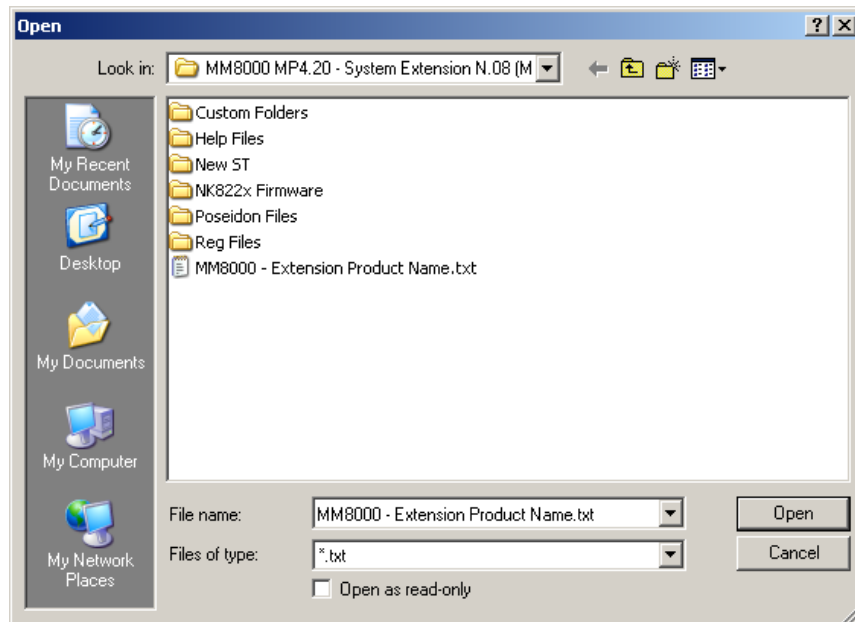


Fig. 6 Selecting the MM8000 Extension Product Name file

3. If your MM8000 installation includes a customized MM8000 internal account, then deselect the checkbox **Use default MM8000 User account** and specify the customized username and password.
4. Click **Install** (or **Update** if a previous version is detected).

### 2.2.3.3 Multiple add-on's installation

It is possible to install multiple add-on packages - for the same MM8000 version (e.g. 4.20) - and benefit of their combined functionalities.

### 2.2.4 Add-on uninstall

The add-on module cannot be uninstalled.

## 2.3 OPC Communication

The R-CARD is connected to the MM8000 system via OPC.

OPC is a widely accepted industrial communication standard that enables the exchange of data between multi-vendor devices and control applications without any proprietary restrictions. OPC is a Client / Server technology. One application acts as the server providing data, and another acts as a client using data.

In this specific case, MM8000 is an OPC client and it connects to the OPC server that, in turn, handles the direct communication with the access control units.



In case of network-distributed solutions, DCOM security must be configured in order to enable the correct communication over the network.

→ For more information about DCOM settings, please refer to the MM8000 OPC Connectivity Configuration guide, doc. A6V10065253.

# 3 Configuration

## 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

- OPC server  
The OPC Server name (ProgID ).  
The PC name or IP address of the machine where the OPC server runs.
- Configuration metafile (XML-format)
- Plug-ins needed:  
Plug-ins #357701 (OPC driver) and #355601 (R-Card M5), which must be installed before you can configure your system.

### CONFIGURING AN R-CARD M5

- 1. Add the OPC Driver NS8019 ..... p. 10
- 2. Add the folder(s) required for identifying the location of the R-CARD in the project structure tree..... p. 10
- 3. Add the R-CARD control unit node to the new folder ..... p. 10
- 4. Link the R-CARD to the OPC Driver ..... p. 11
- 5. Configure the OPC server ..... p. 11
- 5. Import the XML metafile ..... p. 12

## CONFIGURING AN R-CARD M5

- 6. Download the configuration  
see ..... MM8000 Installation, Configuration, and Commissioning)

## 3.2 Configuration procedure

The following are the configuration procedures for the R-CARD control unit:

### Adding the OPC driver

1. Open the Composer project.
2. If not already done, add the OPC driver. You need to select the Station node in the path:  
Supervision System Setting → MM8000 System → Physical configuration → server Station (e.g. 'My Station')

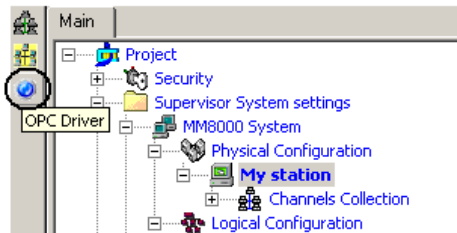



Fig. 7 Adding the OPC driver

3. Click on the OPC driver icon  in the icon toolbar (Fig. 7)  
→ *The new OPC driver node appears in the station folder*  
**Note:** By default, the node will be named "OPC Driver #1", you can customise the Description text typing in a new name. For instance, you can remove "#1".

### Adding the folder for the R-Card subsystem

Optionally, create a folder for the unit connected via OPC server.

### Adding the R-Card subsystem node

1. Select the destination folder.
2. In the menu Access Control (Fig. 8), select the 'R-Card M5' subsystem to add the new node (Fig. 9).

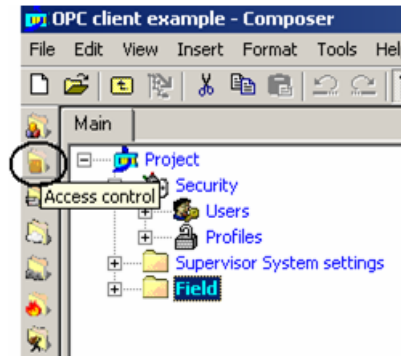


Fig. 8 'Access control' icon

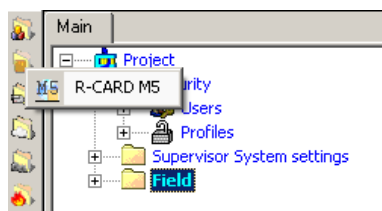


Fig. 9 Adding a generic OPC subsystem

→ *The new R-Card unit node appears in the destination folder*

**Note:** By default, the node will be named “R-Card M5 #1”. The name will be automatically changed during the import procedure.

### Linking the new subsystem to the OPC driver

1. Select the new R-Card subsystem node.
2. Expand the Management Station folder until you reach the ‘OPC Driver’ node:  
‘<MM8000 System> → Physical Configuration → <Station name> → OPC Driver
3. Drag the R-Card subsystem node to the ‘OPC Driver’ node (see Fig. 10).

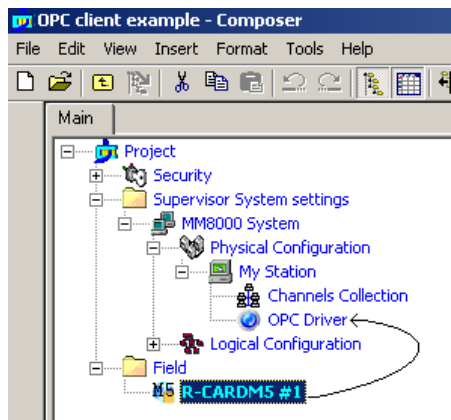


Fig. 10 Linking the R-Card subsystem to the corresponding driver

→ When the link is established, a new node appears on the structure tree, just below the driver node, and it takes the same name as the subsystem node.

### Configuring the OPC server

The link node between the subsystem and the OPC driver allows defining the OPC server parameters.

1. Click the link node and select the ‘Node’ tab.  
→ On the right, the OPC configuration form appears (Fig. 11).

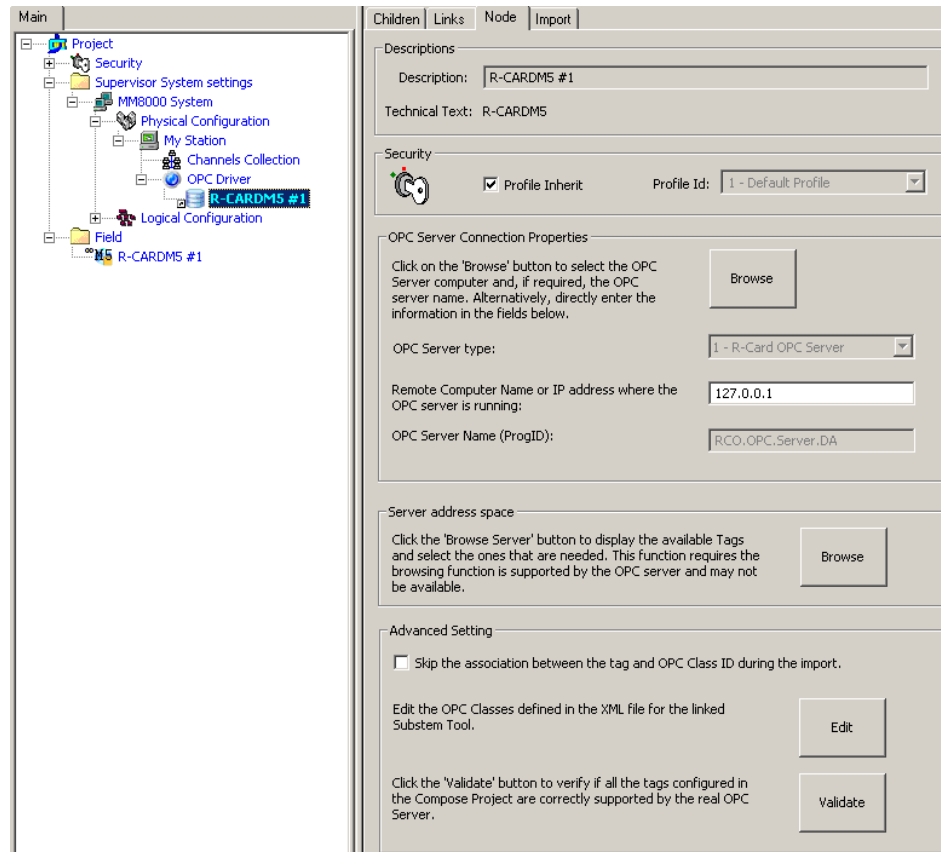


Fig. 11 Accessing the OPC configuration form

In the form, the 'OPC Server Connection properties' section permits to define the computer where the OPC server runs. Note that the OPC server name (ProgID) is fixed to 'ROC.OPC.Server.DA'.

2. Click the button "Browse" to show the server selection window (Fig. 12).

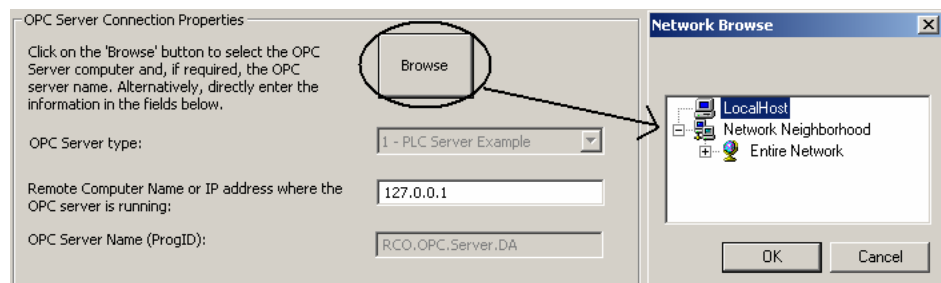


Fig. 12 Selecting the OPC server

The server can run both on local PC (click Local Host) or networked computers (click Network Neighborhood and then navigate until you reach the server computer).

3. Select the computer name in the list and then click OK.  
Note that you will not see the actual OPC server but only the computer names.



Alternatively, you can directly enter the PC's name or IP address in the corresponding field.

**Configuring the OPC items and MM8000 objects: import the XML metafile**

The entire configuration of OPC items as well as the definition of the data points in MM8000 is performed by importing the XML metafile containing the complete data of the R-Card access control subsystem.



To import the file:

- Select the R-Card subsystem node and then the menu: Tools → Import (Fig. 13)

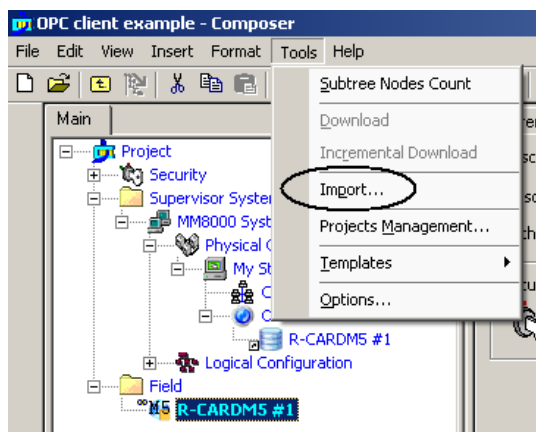


Fig. 13 Importing OPC items and associated points

- In the file browsing window that appears, select the XML file to import and click 'Open'

In a short while, the OPC items and the associated data points will be imported, thus populating the Composer tree below the OPC driver link node and the R-Card subsystem node (Fig. 14). Also, the two sets of objects will be appropriately linked.

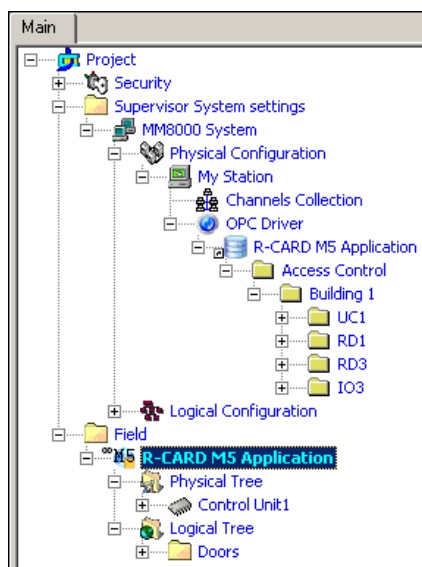


Fig. 14 OPC items and data points after the import procedure

The XML metafile can be imported again after a configuration change. Note the behaviour of the import procedure:



- New items and objects in XML (not configured in Composer) are added to the config.
- Old items and objects in XML (already configured in Composer) are updated.
- Removed items and objects in XML (configured in Composer) are removed.

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