

IP Address Assignment Using Serial Interface and Access to the Web Based Management (WBM)

OSM (Optical Switch Module) / ESM (Electrical Switch Module)

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Question

How do you assign the IP address to an Optical Switch Module or Electrical Switch Module using the serial interface and how do you access the Web Based Management?

Answer

The instructions and notes listed in this document provide a detailed answer to this question.

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1 Introduction

This document supports you in assigning the IP address for an OSM (Optical Switch Module) and ESM (Electrical Switch Module) and how to handle the Web Based Management (WBM) of the OSM and ESM.

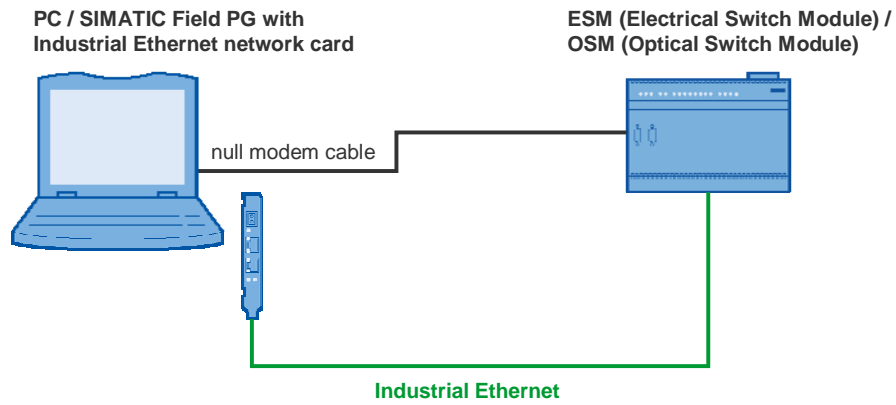
This document contains

- An overview of the plant configuration.
- Information about installing and configuring an OSM/ESM.
- Information about how to use the sample programs.

2 Overview of the Sample Program

Plant Configuration

Figure 2-1



In this example the PC is connected to the OSM/ESM via the serial interface and a zero modem cable. The PC is also connected to the same Industrial Ethernet network as the OSM/ESM via a network card (CP1613, for example).

3 Plant Configuration

This chapter gives you an overview of the configuration and the hardware and software components used to create the sample program.

3.1 Overview

Table 3-1 gives an overview of the configuration used to create the sample program.

Table 3-1

Bus system	Industrial Ethernet Serial interface
Communication protocol	Hypertext Transfer Protocol (HTTP)
Communication partners	PC station, OSM or ESM
Communications processor	CP1613

In this example the serial interface is used to assign an IP address to the OSM or ESM. Then the Web Based Management of the OSM or ESM is run from the PC via Industrial Ethernet using the Hypertext Transfer Protocol (HTTP).

3.2 Hardware and Software Components Used

Hardware components

The following modules were used to create the sample program.

Table 3-2

Communication partners	Module	Order number
PC	CP1613	6GK1161-3AA00
Network component	OSM	6GK1105-2AB10
	alternatively: ESM	6GK1105-3AB10
Miscellaneous	Zero modem cable	
	Industrial Ethernet cable	

Notes

The sample project has been created with a specific hardware configuration. This must be maintained to ensure proper functioning.

If you use another network card instead of the CP1613 for the sample program, you do not need to make any changes.

The OSM and ESM are switch modules.

The ESM has an electrical interface and is connected to the Industrial Ethernet network via copper wires.

The OSM has optical interfaces in addition to connect fiber-optic cables. This permits you to achieve long transmission paths of up to 3 km with multimode fiber-optic cables and up to 26 km with single-mode fiber-optic cables.

Software requirements

- Microsoft Windows XP Professional SP1 or higher as operating system

- HyperTerminal
- Internet browser IE 6 or higher

4 Installation and Configuration


This chapter describes how to assign the IP address to the OSM or ESM and how to make the settings for using the Web Based Management in the Internet Explorer.


4.1 Assign IP Address to the OSM/ESM

You need a serial zero modem cable and the "HyperTerminal" configuration tool included in Windows to assign the IP address to the OSM/ESM.

Follow the instructions below to assign an IP address to the OSM/ESM.

Table 4-1

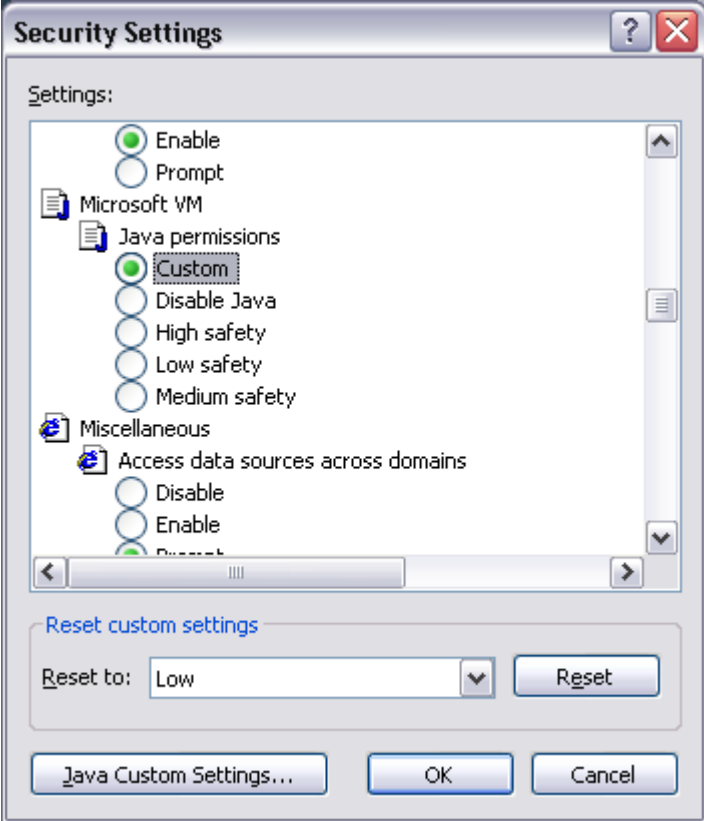
Step	Description
1.	Connect the PC to the ESM via the serial interface using a zero modem cable.
2.	In Windows start the "HyperTerminal" program via the menu "Start → Programs → Accessories → Communication".
3.	If you are queried about your location, proceed with Step 5. Otherwise continue with Step 8.
4.	Enter your location in the selection list (Germany, for example).
5.	Enter the prefix for your location in the relevant field and where necessary the number to access an outside line.
6.	Click "OK" to close this and the dialog that follows.
7.	Specify a name for the connection (OSM Connection, for example) and select an icon.
8.	Acknowledge the entries with "OK".
	
9.	In the next dialog you select the interface to which the zero modem cable on the PC is connected, for example: COM1. Then click "OK" to close the dialog.
10.	In the "COM 1 Properties" dialog you select the value 115000 for "Bits per second:".
11.	Select "None" for "Flow control:".

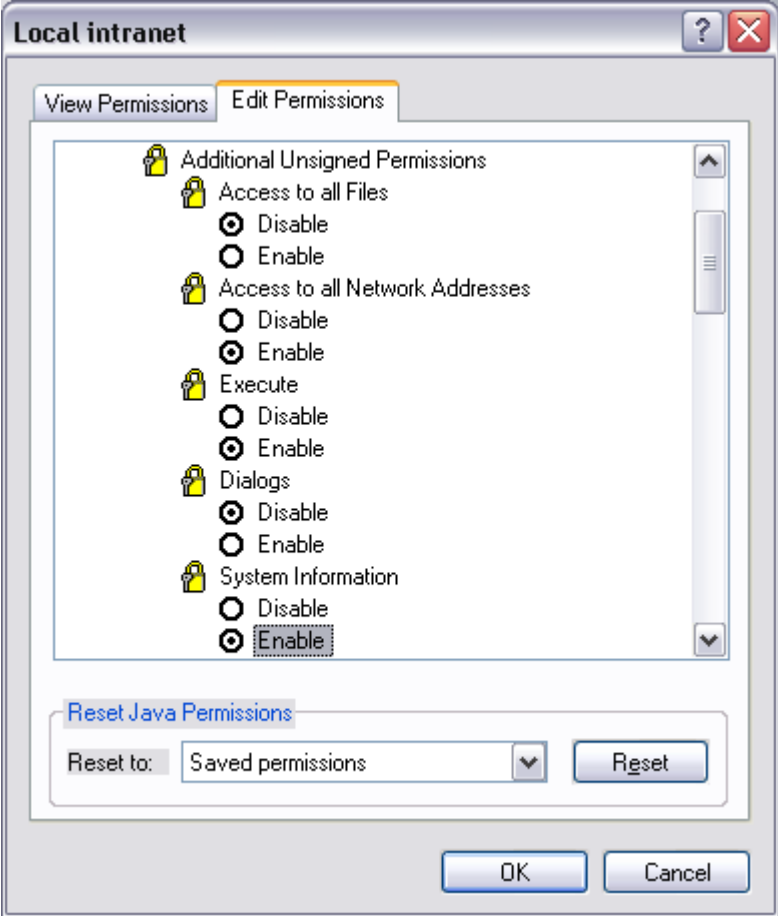
Step	Description
12.	Click "OK" to close the dialog. 
13.	Enter "admin" and confirm the input with <Enter>.
14.	Also enter "admin" for the password. Confirm the password with <Enter>.
15.	Enter "Agent" and confirm the input with <Enter>.
16.	Enter the "ip <IP address of the ESM>" command and confirm the input with <Enter>.
17.	Enter the "restart" command to conclude the configuration and confirm the input with <Enter>.
18.	For the query that follows press <Y> to restart the switch.
19.	Select the "File → Close" menu.
20.	Acknowledge the next two queries with "Yes".

4.2 Settings in the Internet Explorer

You must change the default settings in the Internet Explorer in order to be able to use the functions of the Web Based Management (WBM). Change the default settings in the Internet Explorer as described below.

Table 4-2

Step	Description
1.	Start the Internet Explorer
2.	Select the "Options → Internet Options" menu.
3.	In the "Internet Options" dialog you select the "Security" tab. In the "Security" tab you select the "Trusted sites" option.
4.	Click the "Sites" button.
5.	Enter the IP address of the ESM and disable the "Require server verification (https:) for all sites in this zone" option.
6.	Click the "Add" button. Apply the settings with "OK".
7.	In the dialog "Internet Options" → "Security" tab you click the "Custom Level..." button.
8.	<p>In the "Security Settings" dialog you enable the "Custom" option for the "Microsoft VM" setting.</p> 
9.	Then click on the "Java Custom Settings..." button.
10.	Change to the "Edit Permissions" tab.

Step	Description
11.	<p>For the "Additional non-signed access permissions" entry you select the options below:</p> <ul style="list-style-type: none"> • Access to all Files → Disable • Access to all Network Addresses → Enable • Execute → Enable • Dialogs → Disable • System Information → Enable 
12.	Apply the settings with "OK".
13.	Click "OK" → "Yes" → "OK" to return to the Internet Explorer.

5 How to Use the Sample Program

The OSM/ESM is configured via the Web Based Management (WBM).

To configure the OSM/ESM you access the Web Based Management of the OSM/ESM using one of the standard browsers like the Internet Explorer, for example. Among other things you can read out information about the current status of the OSM/ESM.

Table 5-1

Step	Description
1.	Connect the PC to the network in which the ESM is located with an Industrial Ethernet cable.
2.	Start the Internet Explorer
3.	Enter the IP address of the ESM in the address bar of the Internet Explorer and confirm the input with <Enter>.
4.	The login screen of the ESM is displayed.
5.	Enter the login ID below: "admin".
6.	Enter the "Password" below: "admin".
7.	Confirm the "Login ID" and "Password" entries with "OK".
8.	Via the menu in the Web Based Management of the ESM you can read out information from the ESM and also make changes.