MiCOM S1 Studio

Getting started

Schneider Electric

Introduction to MiCOM S1 Studio

MiCOM S1 Studio is compatible with Windows 2000, XP and Vista operating systems and is compliant with Windows 7.

MiCOM S1 Studio provides:

- Support for Schneider Electric devices, allowing users' access to device settings and commands.
- A unified approach to Courier, Modbus, and IEC 870-5-103 based relays.
- Access to the following device types:

Courrier	ModBus	IEC 870-5-103
Px40	Px10	Px30
Px20	Px20	Px30C
	Px20C	Cx30
		PG88
		PG89

The program allows you to build a list of devices and organise them in the same manner as they physically exist in a system. Settings parameters can be created for each device and uploaded; devices can be supervised directly from MiCOM S1 Studio.

MiCOM S1 Studio caters both to users seeking basic functionality as well as advanced users requiring a broad range of options.

Features include:

- Sending settings to a device.
- Extracting settings from a device.
- Event and fault record management and analysis.
- Real-time measurement visualisation.
- Programmable Scheme Logic Editor.
- User programmable curves.
- Bay Type Configurator.
- IEC 61850 IED configurator.
- Goose Editor.

MiCOM S1 Studio enables you to manage the MiCOM devices on your system

Open Studio Windows

1. Select View on the menu bar to select the window you wish to display.

Open Studio Explorer

1. Select **View** from the menubar.
2. From the resulting drop-down menu select **Studio Explorer**.

This can also be done by clicking the Studio Explorer icon on the Main Menu Toolbar. The Properties Panel can be opened in the same manner.

The **Studio Explorer panel** displays a virtual system of your managed devices. The system is graphically displayed as a tree with different nodes, referred to as elements.

There are **seven main element types**: systems, substations, voltage levels, bays, devices, folders and files.

MiCOM S1 Studio also provides enhanced browsing within Studio Explorer. Users can search through element names and descriptions or navigate using the interactive address bar.

Quick Connect Guide

1. Click on the **Quick Connect** button at the top left of the application.
2. Select a device type from the presented options.
3. Select a port from the presented options.
4. Upon a successful connection a dialog will be displayed showing device type, model number and plant reference. Options for language, device name and comment are also available.
5. The device will be displayed in the Studio Explorer panel.

Quick Connect is used to connect directly to an IED, for example to send configuration parameters to an IED or perform commissioning tests.

This may be a connection to the front or rear port of a single device, or a link to a multi-drop system of many devices.

Quick System Guide

In MiCOM S1 Studio a System provides a root node in the Studio Explorer from which all subsequent nodes are created.

You may add substations, bays, voltage levels and devices to the system.

If a system is no longer needed, it can be permanently deleted using the delete command.
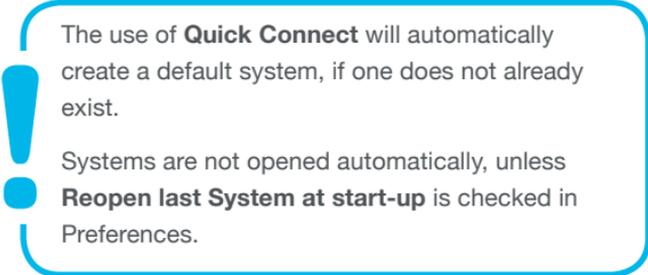
The use of **Quick Connect** will automatically create a default system, if one does not already exist.

Systems are not opened automatically, unless **Reopen last System at start-up** is checked in Preferences.

How to - Create a New System

1. Open Studio Explorer.
2. Right-click on the Studio Explorer panel background and select **New System**.
This can also be done using the icons on Studio Explorer's toolbar.

1. In the **New System** window select the path for the system file and provide a system name and description.
2. Click **OK** to attach the system.

How to - Open an Existing System

1. Open Studio Explorer.
2. Right-click on the Studio Explorer panel background and select **Open System**.
This can also be done using the icons on Studio Explorer's toolbar.

1. In the **Open System** window select the path for the system file.
2. Click **OK** to open the system.

How to - Export a system

1. From the menu bar select **File** then **Export System**.
2. In the Export System dialog, select a destination path and enter a file name.
3. Click on **Save**.

How to - Import a System

1. From the menu bar select **File** then **Import System**.
2. In the Import System dialog select a system archive to import and click **Open**.
3. In the **Browse For Folder** dialog select/create a folder to import the system then click **OK**.
4. If the folder you have selected is not empty you will be asked if you wish to continue.
5. Choose **Yes** in the resulting dialog box if you wish to open the imported system.

How to - Copy/Paste an Element

1. Right-click on an element in a system in Studio Explorer and select **Copy**.
2. Right-click on a destination element or folder and select **Paste**.

How to - Delete an Element

1. Right-click on an element in a system in Studio Explorer and select **Delete**.
2. Confirm deletion in the Delete dialog by clicking **Yes**.

How to - Move an Element

1. Right-click on the desired element and select **Cut**.
2. Right-click on a destination element or folder and select **Paste**.
3. Select **Yes** in Move data dialog to confirm the move.

There are restrictions to cut and paste, for example; a system may not be moved into a device folder.

How To - Add a Device

1. Create or open a system.

2. Right-click the system in Studio Explorer and select **New Device.**

3. Select a device series.

4. Click on a **Type name**, these may be filtered by entering the first few characters of a device name in the filter box. Click **Next**.

5. Enter or select the model number of the device, click **Next**.

6. Select the required settings file language from the drop-down list and click on a Model. Click **Next**.

7. Type a Name and Comment for the device and click **Finish**.

MiCOM S1 Studio is an intuitive and versatile interface with integrated file management facilities

How to - Add a Substation, Voltage Level or Bay

1. Open Studio Explorer and create or open a system.
2. To create a Substation right-click on the system name and select **New Substation**.
3. Type a name and comment for the new substation and click **OK**.
4. To create a Voltage Level right-click on a substation and select **New Voltage Level**.
5. Type name and comment for a new voltage level and click **OK**.
6. To create a Bay right-click on a voltage level and select **New Bay**.
7. Type a name and comment for the new bay and click **OK**.

!

To create a Substation, a System must exist in Studio Explorer:

- Voltage levels can be created off Substations
- Bays can be created off Voltage levels.

Quick Default Settings File Guide

> Default settings files opened with Open Default
> Setting File cannot be sent to a device.
> If you wish to create a settings file to send to a
> specific device, you should first create a device
> using Quick Connect or add a device. You are
> then able to create a new settings file for the
> device.

Use the following method to open any default settings file
installed with S1 Studio that will not be sent to a device:

1. Click on **File** from the menu-bar.
2. Select **Open Default Settings File**.
3. Select a device type from the Select Device Type dialog.
4. Select a relay type from the Select Type dialog and click
   Next.
5. Select a language and model from the Select Model dialog
   and click **Finish**.
6. The default settings file will be displayed in the main
   window area.

How To - Open a Settings File

1. Expand a device in Studio Explorer.
2. Expand the Settings folder.
3. Right-click on a setting file and select
Open.

How To - Compare Settings Files

! To compare settings files there must be at least two setting files in a system in Studio Explorer.

1. Expand a device in Studio Explorer.
2. Right-click on the first settings file and select **Compare - First File.**
3. Right-click on the second settings file and select **Compare - Second File.**`

How To - Send Settings to a Device

! To send settings to a device there must be at least one setting file in a settings folder for a device.

1. Right-click on the device name in Studio Explorer and select **Send...**
2. In the Send to... dialog select the setting files and click **Send**.
3. Close the Send to... dialog by clicking **Close**.

Quick Access Control Guide

1. Right-click on the System name in Studio Explorer and select **Login**.
2. Login to the System by typing the Login and Password and click **OK**.

> When logging in to the system for the first time use
> • Login: admin
> • Password: admin

3. Right-click on the System in Studio Explorer and select **Access Control**.
4. In the Access Control Panel enable the Enable access control option.
5. Click **Yes** in the Access Control Confirmation Dialog.
6. Click **Close**.

> **CAUTION:**
> It is strongly recommended that the default password is changed

Quick Connection Guide

> To add connections, there must be at least one device in the system.

1. Right-click on a Connections folder in Studio Explorer.
2. Select **New Connection...**
3. In the Select Type dialog, select the required port.
4. Set the parameters as required.

How to - Make a Default Connection

When more than one connection for a device has been added, the connection to be used as default can be set as follows:

1. Right-click on a desired connection in Studio Explorer.
2. Select **Set as default**.

How to - Use Predefined Connections

To enable the use of pre-defined connections select **Menubar > Options > Preferences > Application > General**.
Enable the Support prede-fined connections option.
Then predefined connections will be made available.

1. Right-click on a Connections folder in Studio Explorer.
2. Select **Add predefined connection** and choose a connection.

Data Model Manager Guide

The Data Model Manager handles the installation of support files for new devices for use by MiCOM S1 Studio.

For example, when new device types are made available by Schneider Electric, you can install their default configuration files or data models into MiCOM S1 Studio by launching the separate Data Model Manager application.

You are automatically prompted to launch the Data Model Manager following installation of MiCOM S1 Studio. You can launch it at any other time by selecting the option from the Windows 'Programs' menu.