

SIEMENS



Access Control

SiPass integrated

ACC and FLN Field Service Tool

MP 2.80

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Table of Contents

1	Overview	5
2	Installation	6
3	Downloading Firmware and Testing Devices.....	7
4	Configuring the FLN Bus.....	8
5	Detecting Devices on an FLN Bus.....	9
6	Selecting an Image File to Download	10
7	Downloading an Image File to a Single Device.....	11
8	Performing a Batch Download.....	12
9	Changing a Device Unit Number	13
10	Configuring a Single Device.....	14
11	To Configure Multiple Devices	15
12	Network Search	16
12.1	Prerequisites of Network Search.....	16
12.2	Performing a Network Search	16
13	Testing Devices	17
13.1	Testing a Device.....	17
13.2	Setting Testing Parameters.....	18

1 Overview

The FLN Field Service Tool has been designed to assist in the installation of Field Level Network devices for use with the SiPass integrated Access Control and Security System. This includes:

- Dual Reader Interfaces (DRI)
- Single Reader Interfaces (SRI)
- Eight Reader Interface (ERI)
- Output Point Modules (OPM) Input Point Modules (IPM)
- Intrusion Arming Terminals (IAT-010)
- Multi-Function Interface (MFI)

For devices in an access control and security system to function as intended, they must be programmed with the correct instruction set, or “firmware”. It is also important to test your selected settings on a device before the device goes live.

The *ACC and FLN Service Tool* can also assist in discovering Access Controllers in the local Ethernet segment, and configuring the network parameters of these discovered controllers.

2 Installation

Installation can be performed by launching the FLN Field Service Tool's Setup.exe file. This action will install the Visual C++ 2019 redistributable package automatically. On machines that do not have the .NET Framework 4.8, it should install the .NET 4.8 automatically.

3 Downloading Firmware and Testing Devices

Devices must be connected to a COM Port on a PC running the Field Service Tool via a RS232 – RS485 Bus converter.

The process to download firmware and test devices is as follows:

1. Configure the FLN Bus.
2. Select an image file for download.
3. Detect all devices on the FLN Bus.
4. Download firmware to a device.
5. Configure the device.

4 Configuring the FLN Bus

The process of configuring the FLN Bus is as follows:

1. Open the ACC and FLN Field Service Tool dialog.
2. Select FLN Bus on the left hand tree menu of the dialog. The FLN Bus information will be displayed on the adjacent panel on the right.
3. From the Communication Port drop down menu, select the COM port on the PC to which the FLN bus is connected.
4. Select the Settings button from the toolbar of this dialog.
5. Select the Advanced tab.
6. Tick the following checkboxes that apply:
 - **NT Series RIMs:** This option must be selected if you have NT Series RIM devices connected to the FLN bus. Otherwise, they will not be detected.
 - **Check IDs above 64:** Select this option if any unit IDs for connected devices are greater than 64. Most devices will have an ID less than 64.
 - **Upgrade Only if Image Newer:** If this option is selected during global downloads, the FLN tool will not download firmware to any device with a version equal, or newer than the selected version.
7. Click **Apply**.
8. Click **OK**.

5 Detecting Devices on an FLN Bus

1. Ensure that the FLN bus has been configured.
2. Select the Search button.

The field service tool will detect all the RIM devices connected to the FLN bus. Any units found will be displayed in the tree view under the FLN bus.

6 Selecting an Image File to Download

The process for selecting an image file to download is as follows:

1. Ensure that the FLN bus has been configured, and all the connected devices have been detected.
2. Select the **Settings** button. The *Settings* dialog will appear. The *Global* tab will be open by default.
3. Select the tab corresponding to the device you want to select a firmware image file for.
4. Select the **Browse** button. Use the *Open* dialog to search for the firmware image file you want to download.
5. Select **Open**.
6. Select **OK**.
7. Repeat steps 3-6 for each device type that you will be configuring for the FLN tool.
8. Click **Apply**.

7 Downloading an Image File to a Single Device

The process to download an image file to a single device is as follows:

1. Ensure that the FLN bus has been configured.
2. Ensure that an image file for download has been selected.
3. From the menu tree on the left of this dialog, select the device you want to program with the selected firmware. The device details will appear in the adjacent right-hand pane.
4. Click the **Download Firmware** button. The firmware will be downloaded to the device.
 - **Note:** If the **Download Firmware** button is disabled, this means that you have not selected an appropriate DRI or SRI image file.
 - You can stop the download process by selecting the **Cancel** button on the *Flash Download* dialog. The device will remain unconfigured.

The new configuration details for the updated device will be displayed in the information pane.

8 Performing a Batch Download

Ensure that you have selected an image file for each type of device connected to the FLN bus. A warning dialog will appear if you have devices connected without a firmware image file selected.

1. Select **FLN Bus** from the tree menu on the left panel of this dialog.
2. Click **Download Firmware**. The FLN tool will download the selected image file/s to each corresponding device.

You can save time by selecting the **Upgrade Only if Newer Image** checkbox in the *Advanced* tab of the *Settings* dialog.

9 Changing a Device Unit Number

1. Ensure that the FLN bus has been configured, and that all devices connected to the FLN have been detected. The field service tool will automatically assign a unit number to any devices that do not have one.
2. From the tree menu on the left, select the device for which you want to change the unit number. The device details will appear on the adjacent right-side panel.
3. Enter the new unit number in the **New Unit ID** field.
4. Select **Change Unit ID**.

Note: Once installed, all field units connected to an FLN channel must be issued with a unique ID number.

10 Configuring a Single Device

Once you have downloaded firmware to a device, you can configure a device with the card technology to be used for access. Further, you can also decide whether input points should be configured for supervision.

The following steps explain how a single device can be configured:

1. Select the device from the tree view on the left panel of this dialog.
2. Select the card format to be used from the **Card Technology** drop down box.
3. Select whether inputs on this device are to be supervised for tampering, by ticking or unticking the **Monitored** checkbox.
4. Select **Download Configuration**. The device settings will be downloaded.

11 To Configure Multiple Devices

1. Select **FLN Bus** from the left side panel of this dialog.
2. Select the Card Technology to be used by Single Reader Interfaces (SRIs) from the **SRI Card Technology** drop down box.
3. Select the Card Technology to be used by Dual Reader Interfaces (DRIs) from the **DRI Card Technology** drop down box.
4. Select whether inputs on SRIs and DRIs are to be monitored for tampering, by ticking the **SRI / DRI Inputs** checkbox.
5. Select whether inputs on IPMs are to be monitored for tampering, by ticking the **IPM Inputs** checkbox.
6. Select **Download Configuration**. The details will be downloaded to every device connected to the FLN bus.

12 Network Search

The *ACC and FLN Field Service* tool has a Network Search functionality. It allows the tool to broadcast to the Ethernet port and discover all the ACCs on the local Ethernet network that have never communicated with a SiPass integrated server.

Release builds of firmware will continue to run the SiPass integrated Quick Start service until the first connection to the SiPass integrated host. Once connected, the Quick Start service will be disabled. Users can re-enable the service by simply changing the host address.

12.1 Prerequisites of Network Search

Before beginning a network search to begin ACC discovery, ensure that the following prerequisites have been fulfilled:

- The ACC is in the same Ethernet segment as the PC / laptop that runs the ACC Discovery tool.
- The ACC is running the latest version of firmware (Version 2.50.10 or higher) or is running AppLoader Version 1.00.01.
- The Quickstart service has not been disabled from the ACC console.
- The PC/laptop has a configured Ethernet interface with a valid IP address. A disabled Ethernet port will not send broadcast packets.
- Microsoft Firewall may block the broadcast packets used to discover the ACCs. This may need to be temporarily disabled to allow for correct operation.

12.2 Performing a Network Search

To launch a search for all the ACCs on the network, the user will need to follow these instructions:

1. Click the Network Search button on the ACC and FLN Field Service Tool. This action will display all the ACCs on the left-side panel of this dialog.
2. Click on one ACC to configure.
 - ⇒ **Hint:** do not click Network Search until all the ACCs have been configured, because units that have been configured will not respond to a Discover command if they have connected to SiPass integrated.
3. Set the configuration of the ACC by entering the *IP Address*, *Host Address*, *Subnet Mask*, *Gateway Address* and *Host Address* under the **Proposed Values** field of this dialog.
4. Click the **Download Configuration** button to download the *IP Address*, *Host Address*, *Subnet Mask*, *Gateway Address* and *Host Port of the ACC*.

Note: If the unit does not connect to SiPass integrated after clicking the Download Configuration button, the user can still configure the ACC with different values until connection is successful. This may happen if the SiPass integrated server is not yet running, or network connectivity is not yet available.

To ease the configuration of multiple ACCs, a set of default network parameters can be configured in the Default Controller Network Configuration. Any value typed in this section will be automatically propagated into the Controller Configuration Proposed Values fields. This will be saved into the registry, and will be available to each ACC as it is selected.

If the laptop / PC has an IP address configured to be part of the local IP subnet, then its parameters can easily be viewed and copied to the Default Controller Network Configuration panel from the PC Network Configuration panel.

Users can still plug in a serial cable to the DIAG port on the ACC, or they can telnet to the ACC on the default IP address of the ACC to configure the network parameters.











13 Testing Devices

The FLN tool contains a testing suite to help you ensure your devices are configured and operating correctly. You can verify the behaviour of output points, input points and access control events like Card Badging, Daily Code Entry, etc.

You must first set the parameters to be used for testing.

13.1 Testing a Device

1. Ensure that you have configured the FLN bus and detected all connected RIM devices.
2. Ensure that you have downloaded the correct image file and configured all devices.
3. Select the device you want to test from the tree menu view on the left pane of this dialog.
4. Select the **Start Test** button.
 - ⇒ The field service tool will enter test mode, and respond to activity that occurs at the device and connected input and output points; for example, badging a card at a reader. All events will be reported to the Test Audit Trail.
 - ⇒ To the right of the Audit Trail is a list of all inputs and outputs, to and from the device, and their current status.

Type	Status	Display
Input Points: (Passback, Door Frame, Auxiliary 1, Auxiliary 2 and Auxiliary 3)	Normal	
	Alarm	
	O/C	
Door latch output	Normal	
	Access allowed	
	Access denied	
Auxiliary Output	Normal	
	Alarm	
Communication Status Display	Enabled	
	Offline	

- ◆ To stop the testing, select **Stop Test**.

You can change certain details during testing, by modifying the settings in the *Settings* dialog, to simulate different events.

13.2 Setting Testing Parameters

1. Select **Settings**. The **Global** tab contains the settings that you will use for access control testing on any DRI or SRI.
2. Select a card format from the appropriate **Card Technology** drop down box.
⇒ **Note:** The card format selected in this dialog is only used for testing. The actual card format used at your site will be determined by your access control system.
3. Enter the **Facility Number** of the card to be used for testing.
4. Enter the **Card Number** to be used for testing.
5. Enter the **Daily Code** to be used for testing.
6. Click **Apply**.
7. Click **OK**.

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