SIEMENS

Advanced Central Controller

AC5102

Installation Addendum

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1 Software Configuration

The network settings of the AC5102 Controller can be configured using a Windows application, and an appropriate USB cable. This configuration needs the USB RNDIS driver (an Ethernet-over-USB driver) to be installed.

The pre-requisites required for this configuration are listed below.

Prerequisites

1. AC5102 Controller
2. Host PC with a spare USB port (running the Windows Operating System)
3. A-B USB Cable
4. AccG2UsbClient application for the Windows host
5. USB RNDIS driver Installation CD

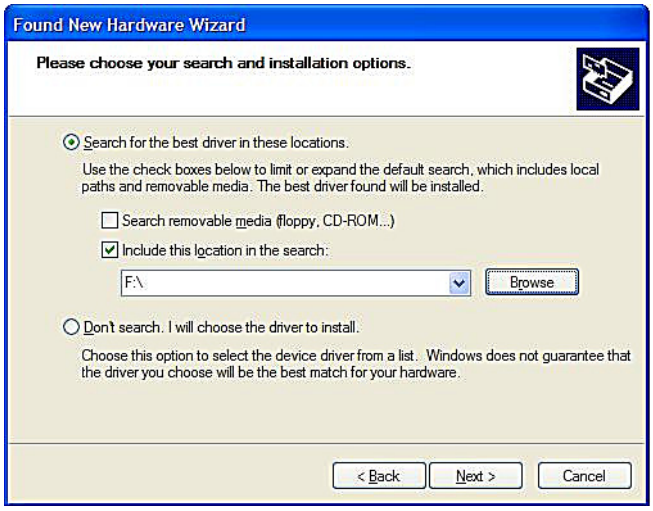
1.1 Installing the USB RNDIS Driver

▷ Ensure that the power for the AC5102 controller unit is connected and ON.

1. Insert the B plug end of the A-B USB cable into the USB PC port of the AC5102 unit.
2. Insert the A plug end of the A-B USB cable into the USB port of the host PC.
   ⇨ If the USB RNDIS driver is not available on the host PC already, it will prompt you to install the same. You can choose to install the USB RNDIS driver either from an Installation CD (if available), or from a specific location.
3. If you wish to install the driver from a specific location, please follow the instructions provided below.
4. A **Found New Hardware Wizard** dialog will pop-up prompting the user to install the USB RNDIS driver if has not been previously installed on the host PC.
5. Select the **No, not this time** option, and click the **Next** button.

6. **Select the install from a list, or specific location (Advanced)** option.

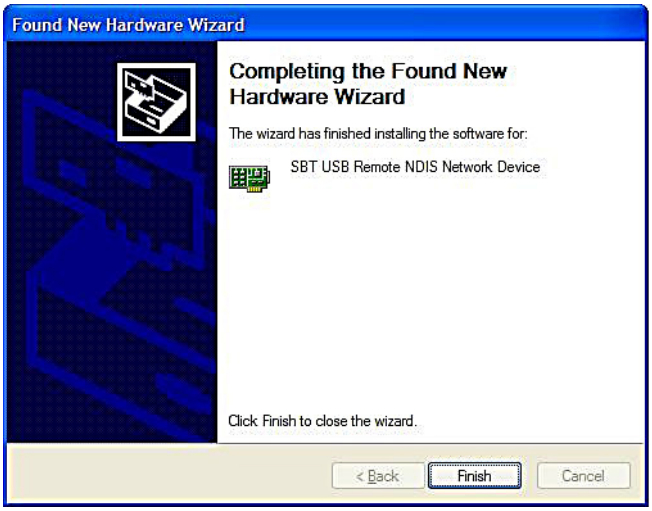
7. Click **Next**.
8. Select the **Search for the best driver in these locations** radio button.



9. On the same dialog, tick the I**nclude this location in the search**: checkbox, and click the **Browse** button.
10. Navigate to the location of the driver, and click **OK**.
11. Click **Next**.

    ⇨ The wizard will now proceed to install the software.

12. When the installation is complete, click **Finish**.

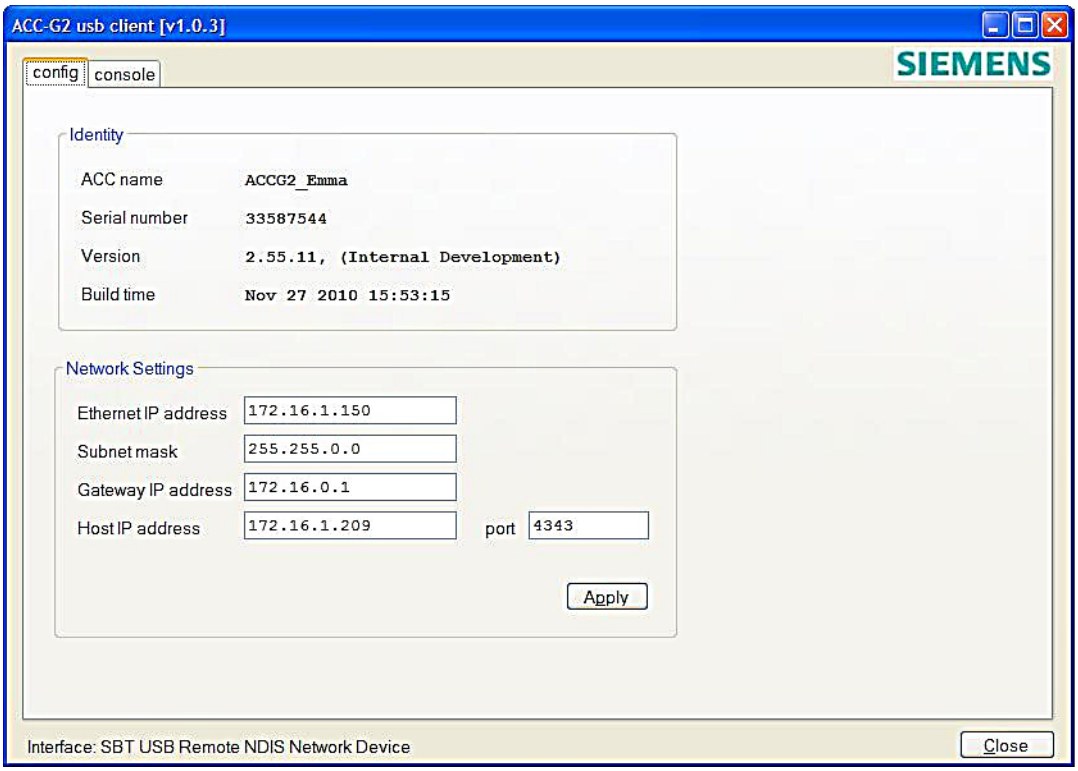


⇨ The USB RNDIS Driver should now be installed on the host PC.

1.2 Configuring the USB Interface

1. Access the appropriate link to access the **G2UsbClient.exe** client application from ...
2. When the *File Download* dialog appears, click **Save** and save the application to your preferred location on the host PC.
3. Click **Run** when the download is complete.

⇨ After the USB interface is configured, the ACC-G2 USB client application will be displayed.



1.3 Configuring the ACC-5102 USB Client Application

First time that the ACC-G2 is plugged in via the USB-B port, it make take a minute or 2 to configure the USB to Ethernet interface. This is normal, and the delay should not occur again.

1. Run the AC5102 USB client application.
2. Select the *config* tab.
3. Set the following parameters for the AC5012 in *Network Settings* section:
   - Ethernet IP address
   - Subnet mask
   - Gateway IP address
   - Host IP address
   - Port
4. Click **Apply**.

1.4 Network Discovery of the ACC-5102

It is possible to configure the ACC-5102 via Ethernet, without prior configuration of any settings.

The ACC / FLN Configuration Tool uses UDP Broadcasts to identify ACC controllers that have their Quickstart feature enabled. Once identified, the network parameters can be configured such that the controller can now connect to the SiPass server.

CAVEAT ! This can only work in the local Ethernet segment as UDP Broadcasts cannot cross routers.

Make sure that the SiPass server is running before using the Network Discovery tool.

Installation of the ACC / FLN Configurator:

The current version is 2.4.7.

Unzip the files and copy to a convenient directory.

Attempt to run the executable ACC_Configurator.exe.

If it fails with a cryptic message, run vcredist_x86.exe to install a Visual Studio C runtime library.

Using the tool:

Make sure Ethernet cable is plugged in, and the PC/laptop is on the same physical Ether network as the ACCs that are to be discovered.

Click the Network Search button – a list of not yet configured ACCs should appear.

Select one unit, and examine its network settings.

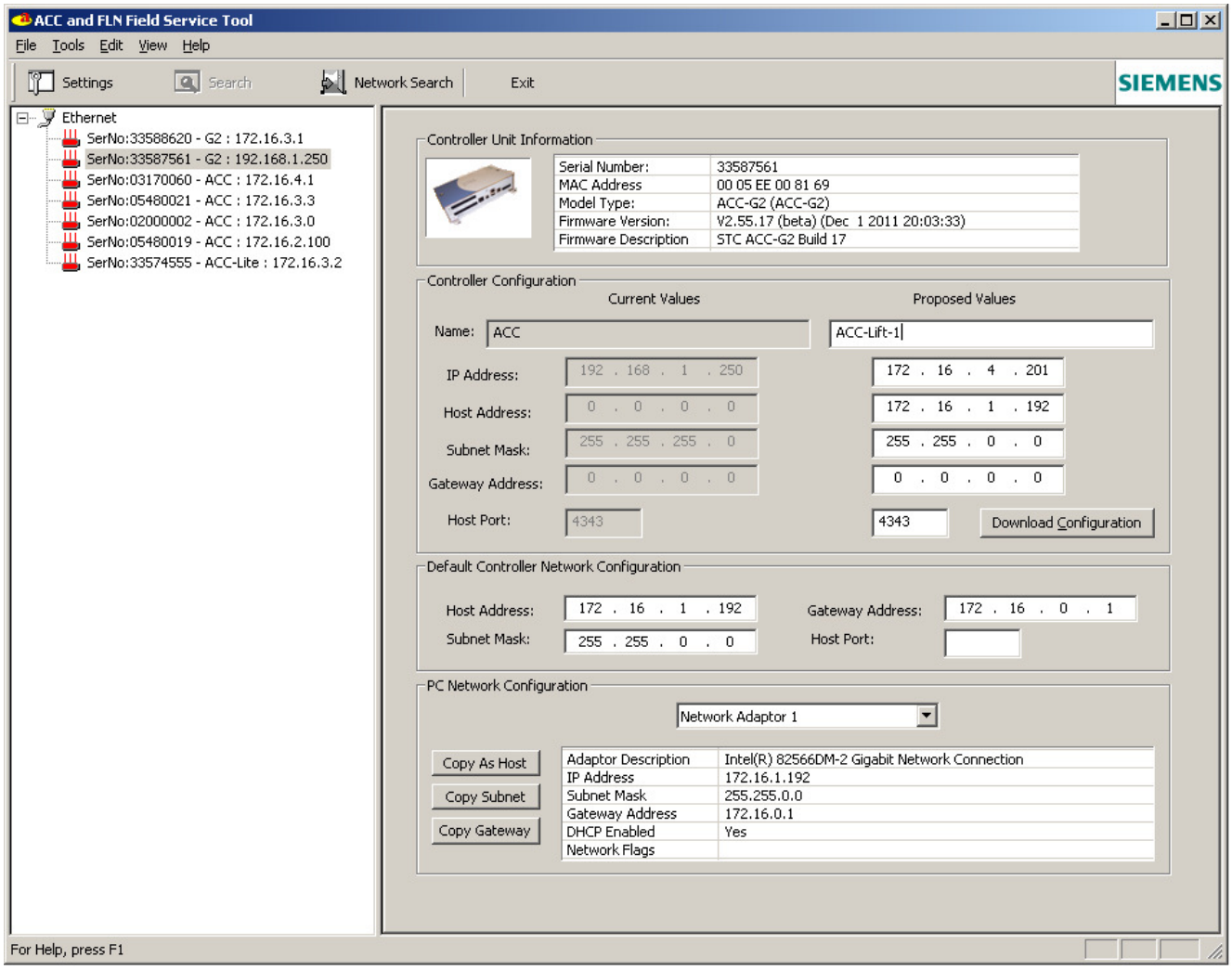
If the tool is being run from the SiPass server, select the correct network interface and then use the Copy As Host, Copy Subnet and Copy Gateway settings.

If the tool is just being run from a laptop, configure the host network settings in the Default Controller Network Configuration pane.

Choose a unique IP address for the controller (consult with your IT if required).

Finally, click the Download Configuration button, and the controller is configured.

See below for an example screen shot showing a range of controllers, including one ACC-G2 being configured to operate on the local network.



ACC and FLN Field Service Tool

Note: the IP addresses are for example only, be sure to use values applicable to your network.

1.5 Configuring the ACC-5102 Port Mapper

Port mapper is needed when configuring an ACC-5102 with SiPass MP2.5 or earlier. If you are using MP2.6, be sure that the ACC-5102 port mapper has been disabled with the console command “portmap default” followed by a “reboot” or a “portmap restart” command.

The primary purpose of the Port Mapper is redirect a logical port, like the IS port or a FLN – to a different physical port. This is needed specifically when replacing an ACC and the IS port is being used for connection to a Gateway service, like a Sintony panel, a Securitel Alarm dialler, or is being used to connect to a HLI (High level Lift Interface).

It is also possible to redirect logical FLN ports to different physical ports, e.g. FLN 3b (which does not exist on the ACC-5102). This is not normally needed since SiPass allows renumbering a FLN (it will work after an initialise).

To modify the port mapping: telnet to the controller, or use the USB Config tool.

Login as user SIEMENS.

Type the following:

portmap

```
- the output should look as follows:
1 FLN1 = 1
2 FLN2 = 2
3 FLN3 = 3
4 FLN4 = 4
5 FLN5 = 5
6 IS = 6
```

- Note that the first digit on each line is the line number.

To swap the IS port and FLN 2, such that the logical IS port is connected to the FLN 2 physical port and the logical FLN2 is routed to port 6, type the following:

portmap replace 6 IS = 2

portmap replace 2 FLN2 = 6

- Type **portmap** again to list the changes:

```
1 FLN1 = 1
2 FLN2 = 6
3 FLN3 = 3
4 FLN4 = 4
5 FLN5 = 5
6 IS = 2
```

And finally, apply the changes by rebooting the application:

reboot

1.6 RS232 mode on FLN 2 and FLN 3.

Using FLN 2 or FLN 3 in RS232 mode (for Securitel or Sintony integration) requires that the **EOL** jumpers be set to **OFF**. This entails powering down the G2, removing the FLN expansion module and then setting all the jumpers for the appropriate ports to OFF.

A torx screwdriver bit of size T10 is required to remove the FLN expansion module.

A magnifying glass and a small screwdriver are useful for setting the EOL dip switches.

1.7 Restoring Default Network Settings

The X992 jumper is near the battery for the Real Time Clock (RTC)

Short the pins of X992 for 3 seconds (using a jumper), until the orange ERROR led is blinking quickly. Remove the short, and wait about 10 seconds for application to restart and reset the network settings.

The default network settings are:

IP Address : 192.168.1.250

Subnet Mask : 255.255.255.0

All other settings are zeroed, including the SiPass host address and modem configuration is disabled. The SSH server is re-enabled as well as the Telnet server.

Use either Telnet, the USB Client Application or the Network Configurator tool to restore the network settings.

1.8 Recovering a Non-responsive Board

Try the X992 jumper option first.

If this does not work, it is possible to restore a board completely to factory settings,

Note: this requires that the cover be removed from the ACC-G2 and a SD card.

The SD card must be a plain SD card, 2GBytes or less. SDHC cards will not work.

1. Unzip the ZIP file – e.g. SD_Card_2.55.17.zip into its own directory.

2. Copy ALL the files to a good quality SD card of at least 32 Megabytes in size. SanDisk and Lexar have both been tested and found to be good. A no name brand was mostly OK, but would sometimes fail. Make sure a file called “boot.bin” is present in the top directory of the SD Card.

3. Plug the SD card into the ACC-G2, while it is powered off.

4. Place a jumper on Jumper X-120, and power up the ACC-G2.

   4a. – If the G2 was manufactured before 2012, Press the reset button once for at least a second and then release.
   4b – If the G2 was manufactured in 2012 or later, the reset button need not be pressed.

5. Watch the LEDs at the base of the SD card socket. The orange Error and green COM and USB LEDs should be flashing in a cycle while the board is being reprogrammed. When the LEDs stop flashing, programming is complete.

6. Power off the board, remove jumper X-120 and remove the SD card.

Note 2: SD Card reprogramming will not modify the MAC address or other manufacturing data.

Note 3: the IP address will be set to the default value of 192.168.1.250, and that the SSH server will be running on port number 10022.

1.9 Network Security

The ACC-G2 uses Linux as an operating system, which provides both an increased level of security and reliability, but also requires some extra care in security.

Summary: disable both SSH and telnet for maximum security, and set a root password.

SSH

A SSH server is by default running on the ACC-G2. This allows for access to the linux shell console for maintenance purposes and trouble shooting, but in normal operation should be disabled so that it is not bound to the Ethernet interface, but instead restricted to just the local USB Ethernet interface.
Disable external access to the SSH server with the console command:

“ set ssh usb “

SSH access can be enabled with the console command:

“ set ssh all “

The TCP port number that the SSH server listens on us 10022.
This can be changed with the console command:

“set ssh port xyz “

Where xyz is a valid and unique TCP port number.
The standard port number for SSH is port 22, but many network probing tools attack port 22 by default.

Root Password

The username for gaining access to the linux shell is “root”, the password is the default root password – “spirit”.
The root password can be changed within the application via telnet, using the command:

“ set rootpassword Large_String “

where Large_String should be long phrase that meets the requirements for a strong password. Use double quotes if the string contains spaces, but don’t use double quotes when entering the password via SSH login.

Telnet

The ACC-G2 still offers a simple telnet server for allowing user access to the application.

Telnet is not encrypted, so any password used to gain access to the ACC-G2 can be “seen” on the network.

We recommend that telnet should be disabled from SiPass after the initial setup of the ACC-G2.

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