



DigiTrace Supervisor™

FIELD DEVICE SIMULATOR VERSIONS
UP TO 1.0



SECTION 1 – DIGITRACE SUPERVISOR™ FIELD DEVICE SIMULATOR

1.1 Overview

The DigiTrace Supervisor (DTS) Field Device Simulator provides the capability to simulate interactive communications with certain DigiTrace field devices. This allows the DigiTrace Supervisor Software to be demonstrated without the need to physically connect to actual field devices.

Note: You must have DigiTrace Supervisor software installed on your computer in order for the simulator to work. The DigiTrace Supervisor Field Device Simulator is for demonstration purposes only.


1.2 Installing the DigiTrace Supervisor Field Device Simulator

1. The installation for DigiTrace Supervisor Field Device Simulator contains 3 files. These files are DTSTFieldDeviceSimulator.exe, setup.exe, and setup.lst.
2. Once you've located these files, double click on the setup.exe file. The installation program begins.



Figure 1-1 Installation screen

3. Click the OK button when the installation screen appears (Figure 1-1). Follow the remaining on screen instructions to complete the installation.

 **Note:** If you have a previous version of the Simulator installed, you must uninstall it first. To uninstall the previous version, use the Add or Remove programs applet in the Control Panel.


1.3 Starting the DigiTrace Supervisor Field Device Simulator

1. Click the Windows Start button, then All Programs, and select the DTS Field Device Simulator.
2. When the Simulator program is running, the main screen will be displayed (see Figure 1-2).



Figure 1-2 Main screen

3. The default communication mode for the Simulator emulates a LAN (network) connection to field devices using TCP/IP. Make note of the IP Address shown on the Simulator's main screen, as you will use this later when installing simulated field devices into DigiTrace Supervisor. This IP address will be unique to your computer (it is 10.133.5.34 in the example above – see Figure 1-2).
4. Click the Start Simulator button to start the Simulator. (Note: The Simulator must be in the Run mode to function).

 **Note:** The Simulator should be running before DigiTrace Supervisor is started, or communications failure alarms may occur.

1.4 Installing a Simulated NGC-UIT into DigiTrace Supervisor

1. Using DigiTrace Supervisor, choose the Add UIT menu item.
2. Fill in the Tag, COM Port, IP Address, and Modbus Address field. In the Modbus Address field, you must enter an address of 11. This address is fixed in the Simulator as the identifier for an NGC-UIT (see Figure 1-3). Remember to use the IP Address obtained from the Simulator main screen as the IP Address (see Section 1.3 above).
3. Click OK to install the NGC-UIT.
4. DigiTrace Supervisor will now be able to communicate with the simulated NGC-UIT.



Figure 1-3 Add a new NGC-UIT

1.5 Installing a Simulated AC2000+ GCC into DigiTrace Supervisor

1. Using DigiTrace Supervisor, choose the Add GCC menu item.
2. Fill in the GCC Tag, COM Port, IP Address, and Modbus Address field. In the Modbus Address field, you must enter an address of 1. This address is fixed in the Simulator as the identifier for an AC2000+ GCC (see Figure 1-4). Remember to use the IP Address obtained from the Simulator main screen as the IP Address (see Section 1.3 above).
3. Click OK to install the GCC.
4. DigiTrace Supervisor will now be able to communicate with the simulated AC2000+ GCC.

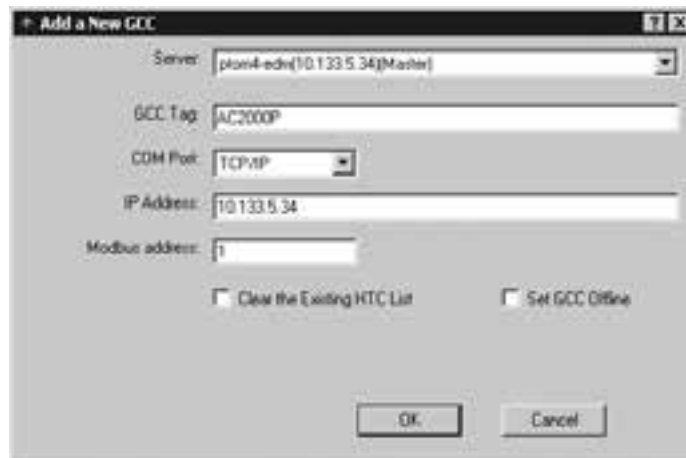


Figure 1-4 Add a new GCC

1.6 Installing a Simulated 920HTC Controller into DigiTrace Supervisor

1. Using DigiTrace Supervisor, choose the Add HTCDirect menu item.
2. Fill in the HTC Tag, COM Port, IP Address, and Modbus Address field. In the Modbus Address field, you must enter an address of 6. This address is fixed in the Simulator as the identifier for a 920 HTC direct-connected controller (see Figure 1-5). Remember to use the IP Address obtained from the Simulator main screen as the IP Address (see Section 1.3 above).
3. Click OK to install the 920 HTC controller.
4. DigiTrace Supervisor will now be able to communicate with the simulated 920 HTC.



Figure 1-5 Add a new HTC

1.7 Configuring a UIT Loop using DigiTrace Supervisor

Once you have installed a simulated NGC-UIT into DigiTrace Supervisor, you can perform configuration changes to the pre-installed UIT Loop.

1. Using DigiTrace Supervisor, expand the NGC-UIT item on the treeview window. Select the UIT Loop 'ID 1'.
2. Click the configure icon button on the top tool bar menu, or right click on the selected UIT Loop and choose Configure.
3. The UIT Loop Configuration screen will appear.



Figure 1-6 UIT loop configuration screen.

1.8 Configuring a 920HTC or CM2000+ using DigiTrace Supervisor

Once you have installed a simulated 920HTC or AC2000+ into DigiTrace Supervisor, you can perform configuration changes to the 920HTC or CM2000+.

1. Using DigiTrace Supervisor, choose the 920HTC or a CM2000+.
2. Click the configure icon button on the top tool bar menu, or right click on the selected 920HTC or CM2000+ and choose Configure.
3. The HTC Configuration screen will appear.



Figure 1-7 HTC configuration screen

1.9 Monitoring a NGC Loop using DigiTrace Supervisor

Once you have installed a simulated NGC-UIT into DigiTrace Supervisor, you can monitor real time data from a NGC Loop.

1. Using DigiTrace Supervisor, choose the NGC Loop 'ID 1'.
2. Click the Monitor icon button on the top tool bar menu, or right click on the selected NGC Loop and choose Monitor.
3. The Loop Monitor screen will appear.



Figure 1-8 Loop monitor screen

1.10 Monitoring a 920HTC or CM2000+ using DigiTrace Supervisor

Once you have installed a simulated 920HTC or AC2000+ into DigiTrace Supervisor, you can monitor real time data from the 920HTC or CM2000+.

1. Using DigiTrace Supervisor, choose the 920HTC or a CM2000+.
2. Click the Monitor icon button on the top tool bar menu, or right click on the selected 920HTC or CM2000+ and choose Monitor.
3. The HTC Monitor screen will appear.



Figure 1-9 HTC monitor screen.

1.11 Additional Information

1. The NGC-UIT simulation includes a pre-installed Loop and a number of devices such as CRM, CRMS, 5GF, and RMM2.
2. The AC2000+ GCC simulation includes a number of pre-installed CM2000+ controllers.
3. For all simulated field devices, the following functionality is supported in the Simulator:
 - A. Configuration settings may be read and written (i.e.: a control setpoint may be changed).
 - B. Real-time data is static (i.e.: temperature, current, etc. values do not change).
 - C. Some alarms have been automatically created. These may be reset only once, after which they will not return. To re-create them, you must stop the Simulator, exit the program and restart it again. Note that this will also reset all of the changes that you may have made to settings in the simulated devices.
4. Should you encounter any problems, simply stop the Simulator, exit the program and restart it again.
5. The Simulator includes "Device Settings" and "Miscellaneous" tabs. These are reserved for Factory use and their contents should not be changed.
6. Future versions of the Simulator software will support new DigiTrace field devices. The address assignments of new field devices are displayed in the Simulator's main screen (See Figure 1-2). Please check this screen when you have installed a newer version of the Simulator. Follow the same installation procedure as described in Sections 1.4 to 1.6 to install the new devices.

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