Data Highway Plus Network Analysis using the 1784-U2DHP with the NetDecoder Software

Quick Start Guide

MINIMUM SYSTEM REQUIREMENTS

- PC with Windows XP (Service Pack 2 or higher), Windows 7 (32-bit/64-bit)

- Intel Core 2 Duo 2.2 GHz Processor or Higher

- RAM Requirements: 1GB minimum, 2GB recommended

- 50 MB free Hard Disk Space (for the analyzer software)

- One USB 2.0 Port

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INTRODUCTION

The 1784-U2DHP lets you connect a computer to a Data Highway Plus (DH+) network via an unused USB port on the computer.   This Quick Start Guide contains setup information for using Frontline's NetDecoder analyzer with the 1784-U2DHP.

Figure 1 - 1784-U2DHP

Instructions Contained In This Quick Start Guide

In order to use the 1784-U2DHP with NetDecoder, you need to perform the following steps:

1. Install the 1784-U2DHP on your analysis PC
2. Update the firmware version on the 1784-U2DHP to version 1.7
3. Shutdown RS-Linx completely before using NetDecoder
4. Configure Hardware Settings in NetDecoder

This Quick Start Guide contains information on these four steps.

INSTALL THE 1784-U2DHP ON YOUR ANALYSIS PC

The first step is to install the 1784-U2DHP to the PC where you will be doing the analysis.

Please follow the installation instructions provided by Rockwell Automation to install your 1784-U2DHP. An instruction booklet is included in your 1784-U2DHP shipping box. The instructions are also available on Rockwell Automation's website: http://samplecode.rockwellautomation.com/idc/groups/literature/documents/in/1784-in045_-en-p.pdf.

UPDATE THE FIRMWARE VERSION ON THE 1784-U2DHP TO VERSION 1.7

The next step is to update the firmware.

1. If you bought the 1784-U2DHP from Frontline, then the device is already updated with firmware version 1.7. You do not need to do anything else.

2. If you bought your 1784-U2DHP from some other source, then you must update your firmware.
   a. Please go to http://www.rockwellautomation.com/support/pccards/get/1784-U2DHP-V1.007.ZIP and download the ControlFlash upgrade kit from Rockwell Automation.
   b. Extract the zip file and run 'ControlFLASH.msi'. This will install the ControlFLASH utility.
   c. Run ControlFLASH and follow instructions on the wizard to update your firmware to version 1.7.

SHUTDOWN RS-LINX COMPLETELY BEFORE RUNNING NETDECODER

The 1784-U2DHP installs itself as a serial port (COM port) on your PC. To prevent port conflict, RS-Linx must be completely shut down before starting NetDecoder. It is not sufficient to simply close the RS-Linx window.

1. Right click on the RS-Linx icon on your system tray and select Shutdown RS-Linx.

CONFIGURE HARDWARE SETTINGS IN NETDECODER

Once you shut down the RS-Linx, now you have to configure the hardware settings.

1. Start *NetDecoder.*
2. In the start-up wizard, choose *Rockwell Allen Bradley -> Data Highway Plus using 1784-U2DHP*.
3. Click *Run.*

This brings up the NetDecoder Control Window.

4. Select *Options-> Hardware Settings.*

5. Enter the *COM Port* number.

6. Select the *data rate* from the drop-down list.
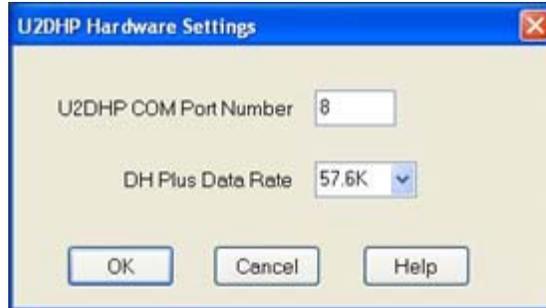
Figure 2 - Hardware Settings Dialog for the 1784-U2DHP

7. Click *OK.*

You are now set to use the NetDecoder analyzer software with the 1784-U2DHP.

Tip: To identify the COM port number used by the 1784-U2DHP, open your PC's Device Manager and look under the **Ports (COM & LPT)** section.
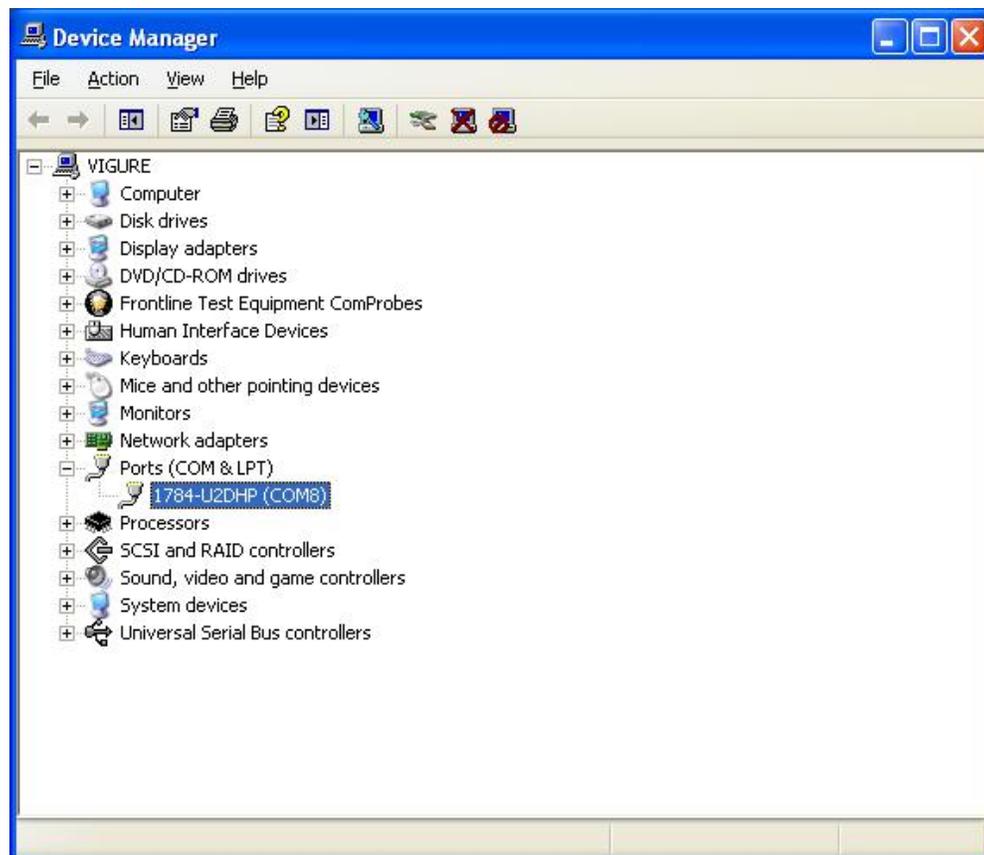
Figure 3 - Device Manager showing COM Port number for 1784-U2DHP

CONFIGURE CAPTURE FILTERS IN I/O SETTINGS DIALOG

The DH Plus analyzer, using the 1784-U2DHP, allows users to select what type of packets are captured. This type of filtering eliminates capturing unnecessary frames and allows the user to quickly pin-point the source of the network problem. You select which frames to capture using the I/O settings dialog.
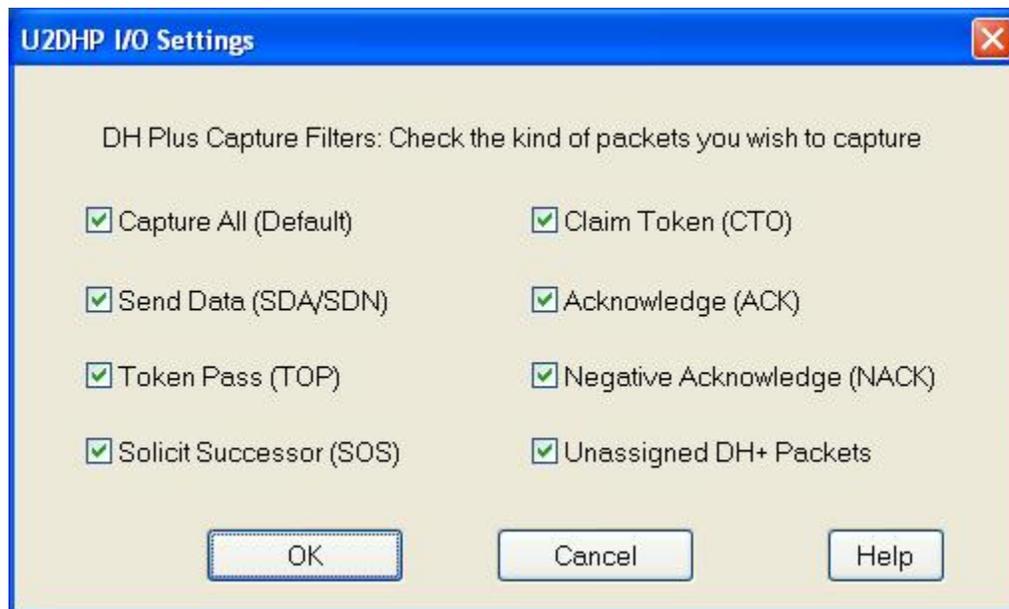
Figure 4. I/O Settings for the 1784-U2DHP

1. Select *Options > I/O Settings* on the NetDecoder Control window.

2. Select the kind of *DH+ frames* you need to capture by clicking the appropriate check boxes.

   - If more than one box is checked, then the selection is treated as a logical AND condition.
   - The default setting is to capture all traffic.
   - If none of the items are checked on the dialog, the program defaults to a 'capture-all' state.

3. Select *OK* to accept the values and close the dialog or Cancel to disregard the settings and close the dialog.

TECHNICAL SUPPORT

Technical support is available in several ways. The online help system provides answers to many user related questions. Frontline's website has documentation on common problems, as well as software upgrades and utilities to use with our products.

Web: http://www.fte.com, click **Support**

Email: tech_support@fte.com

If you need to talk to a technical support representative, support is available between 9am and 5pm, U.S. Eastern time, Monday through Friday. Technical support is not available on U.S. national holidays.

Phone: +1 (434) 984-4500

Fax: +1 (434) 984-4505