



Adding ADTRAN ISDN Products to FreePPP version 2.5v2 for Apple Macintosh®

Introduction

This document was designed to assist in setting up Adtran ISU® products with FreePPP software for Macintosh systems.

- It is assumed that your ADTRAN unit has SPID and ISDN phone numbers or that Local Directory Numbers (LDNs) have been correctly entered into the unit.
- It is assumed that you already have FreePPP installed on your Macintosh. FreePPP is a Freeware product available on the Internet.

Initial Setup

Although the initial setup of ADTRAN units is not covered in this Technical Support Note, the following settings are required:

- Set Dial Options to AT commands (applies to ISU Express, 2x64, or ISU 128®).
- Select RS-232 as Connector Type (applies to ISU Express, 2x64, or ISU 128®).
- Select V.35 operation on older ISU 128 units - part number 1200029 (see Cable Requirements).
- Set DTE Bit Rate = 57.6k or 115.2k (Set DIP switch 1 up on the Express XR/XRT or 3000 when using 230.4k).

Initial Setup

1. Go to the **System Folder** in the **Control Panels** folder and open the **TCP/IP** control panel. See Figure 1.

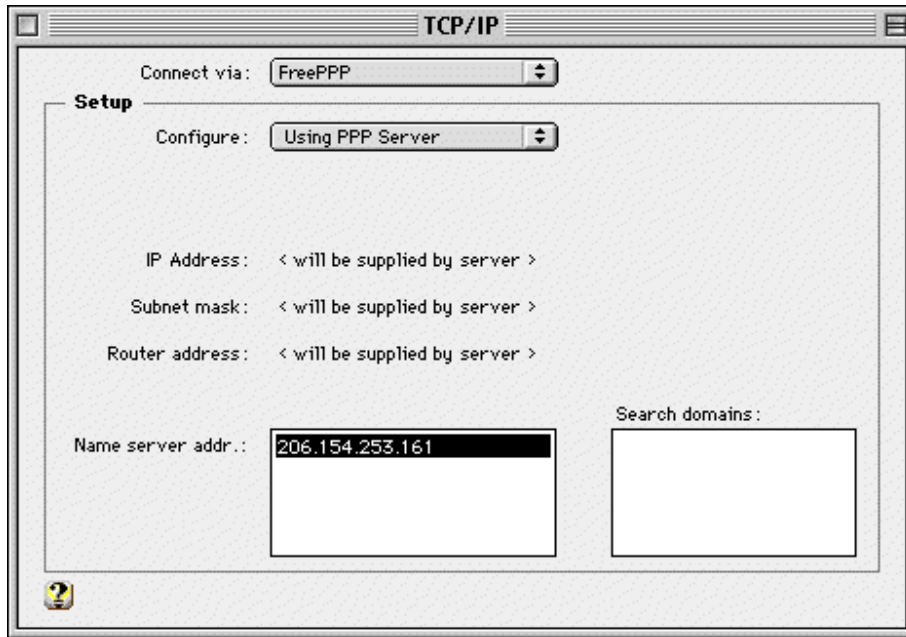


Figure 1

2. Set **Connect via:** to **FreePPP**.
3. Set **Configure:** to **Using PPP Server**.
4. Enter the two **Name Server addr.:** and the **Search domains:** provided by your ISP.
5. Close the **TCP/IP** control panel and save the changes when prompted.
6. Open the **Modem** control panel.
 - a. Select the port your modem is attached to (usually the **Modem Port**).
 - b. Select your ADTRAN model from the **Modem:** list.
 - c. Close the **Modem** control panel and save the changes when prompted.

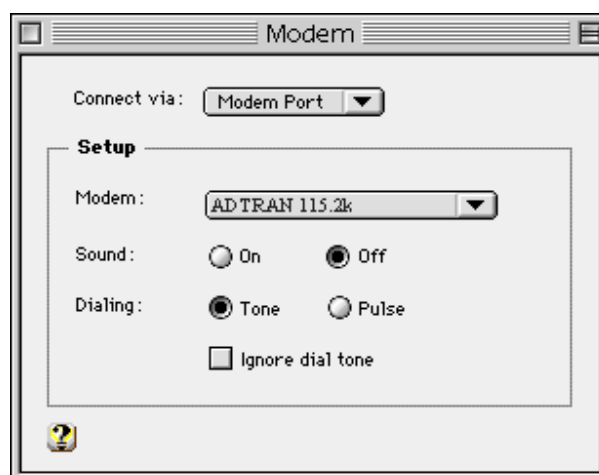


Figure 2

Configuration of FreePPP

1. Open the FreePPP Setup application by double clicking the FreePPP Setup icon in the FreePPP folder or from the FreePPP menu and selecting **Open FreePPP Setup**. Figure 3 will appear.

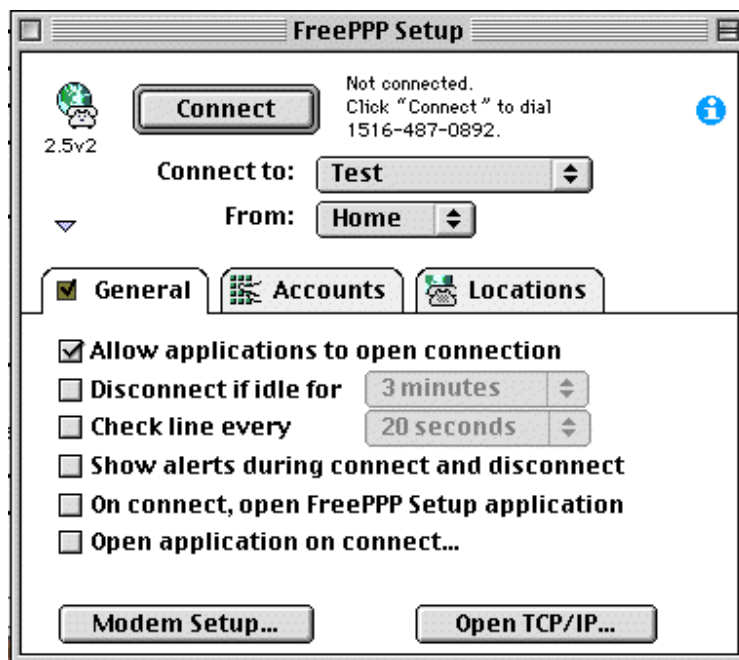


Figure 3

2. Check the **Allow applications to open connection** box.
3. Click the **Modem Setup...** button to open the **FreePPP Modem Setup** screen. See Figure 4.

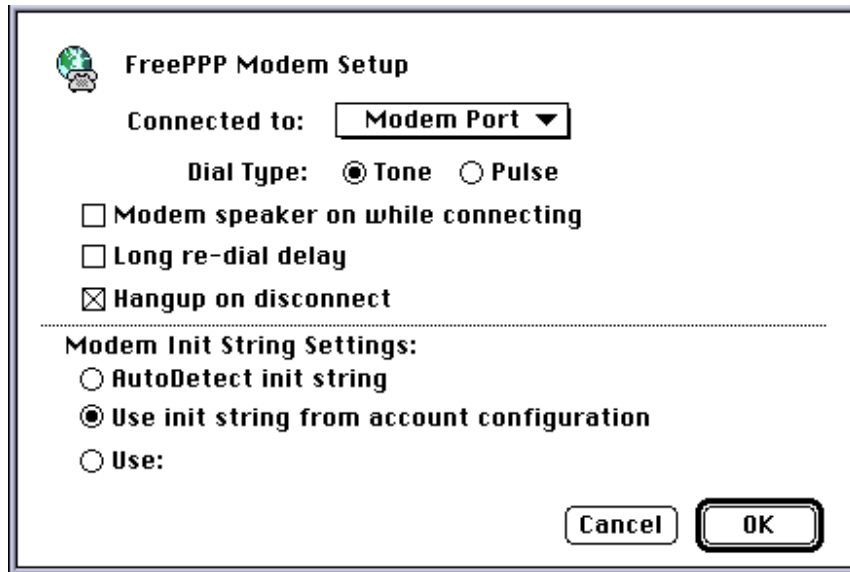


Figure 4

3. Select the port your modem is **Connected to**.
4. Check **Hangup on Disconnect**
5. Uncheck **Modem speaker off while connecting**.
6. FreePPP is not able to **AutoDetect init string** with the ADTRAN products. Select either **Use init string from account configuration** or **Use:**

Example init strings:

ATS54=12 S27=1 S53=3 (Dual channel Multilink PPP call)

ATS54=12 S27=0 S53=3 (Single channel PPP call)

ATS54=6 S53=3 (Single channel V.120 call)

7. Click the **OK** button to return to the **FreePPP Setup** screen.
8. Click the **Accounts** tab. See Figure 5.

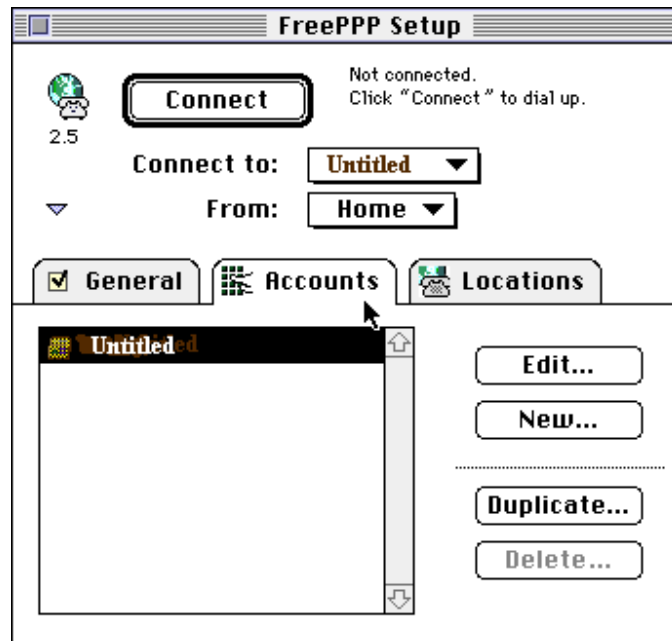


Figure 5

10. Select the **Untitled** account by single clicking on it.
11. Click the **Edit** button and Figure 6 will appear.

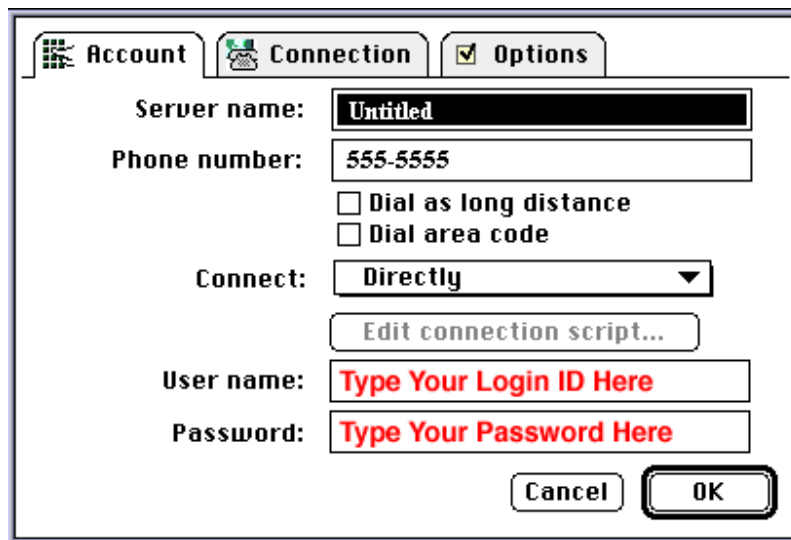


Figure 6

12. Type the name of your ISP into the **Server name:** box.
13. Type the phone number of your ISP into the **Phone number:** box..
14. For the **Connect:** setting choose **Directly**.
15. Type your Login ID and Password into **User name:** and **Password:**.
16. Click the **Connection** tab. See Figure 7.

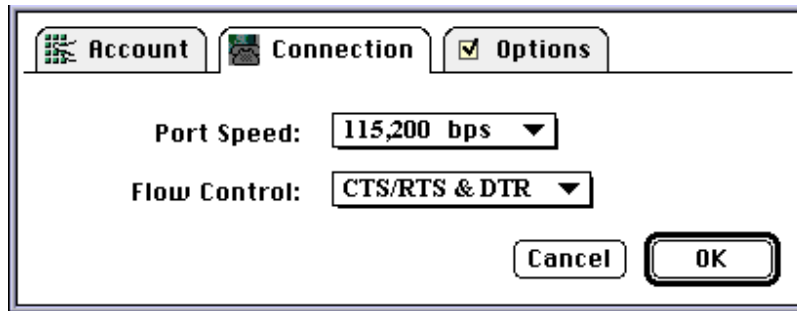


Figure 7

17. Set the **Port Speed**: to 57600, 115,200 or 230,400 bps (for 230,400 bps, DIP switch 1 on the ADTRAN Express XR/XRT/3000 must be in the UP (OFF) position. Most of the newer Macs support DTE speeds of 230.4k on the serial ports).
18. Set **Flow Control**: to CTS/RTS & DTR.
19. Click the **OK** button.

For additional AT commands and S-registers see your manual.

TIP: If you are using Multilink PPP and cannot connect to the remote site, try using a single-link PPP connection. If you are still unsuccessful, use the Express Configuration Wizard or S-registers to change your call type to **Data 56k**. Also, if you are dialing long distance try using a different long distance carrier code (i.e. 1010333, 1010222, or 1010288) before the actual number to be called (i.e. 101022212055551212). For additional assistance look at your Status Buffer Messages on the unit. A brief description of these messages is supplied in the manual.

Cable Requirements

Care must be taken to select the proper cable when using high-speed communications devices with your Macintosh computer. When connecting to an ADTRAN ISU Express, Express XR/XRT/3000 or ISU 2x64 unit, a Macintosh high-speed EIA-232 cable must be used (defined below). When connecting to an ISU 128 unit, a special mini-DIN-to-V.35 cable is required.

Following are cable diagrams recommended by Apple and ADTRAN for Macintosh-to-RS232 (Table 1) and Macintosh-to-V.35 (Table 2) connectivity. These cables are generally available where Apple products are sold. The Macintosh-to-V.35 cable is available through Belkin Electronics (800-223-5546), Belkin part number A3M922-08.

MAC DIN-8	EIA-232 DB-25P (MALE)
1 (HSK0)	4, 20 (RTS, DTR)*
2 (HSK1)	5 (CTS)**
3 (TxD-)	2 (TD)
4 (SG)	7 (SG)
5 (RxD-)	3 (RD)
6 (TxD+)	not connected
7 (GP1)	8 (DCD)
8 (RxD+)	7 (SG)

Table 1

*RTS must be asserted. This may be done by connecting RTS to DTR or by connecting RTS to DSR on the DB-25. Do not connect to both DSR and DTR!

** Normally pin 2 (CTS) is connected to pin 6 (DSR) on other Macintosh cables.

MAC DIN-8	V. 35 PIN Connections (MALE)
1 (HSK0)	H (DTR)
2 (HSK1)	D (CTS)
3 (TxD-)	P (TD-A)
4 (SG)	B, A (GND)
5 (RxD-)	R (RD-A)
6 (TxD+)	S (TD-B)
7 (GP1)	F (DCD)
8 (RxD+)	T (RD-B)
-	C-> E (RTS -> DSR)

Table 2

If you experience any problems using your ADTRAN product, please contact ADTRAN Technical Support.
