Remote Access Services (RAS)
Configuring an External 56K Modem

1. INTRODUCTION

This document provides instructions for connecting several Creo qualified external 56K/ISDN modems and telling Windows of their existence. The details of RRAS configuration are covered elsewhere and are not within the scope of this document.

These modems are certified to operate on the phone systems of all major countries, and many lesser-known countries, around the world. You must configure the modem with the appropriate country code. How to do this is described in Configuring the Modem for a Particular Country.

Note: There are currently two versions of the Diamond SupraExpress 56e PRO modem being used (SUP2311 and SUP2312). Ensure that you use the correct driver for the modem version you have. We have found problems with some version SUP2312 modems that were installed with incorrect drivers. You can check which version of the modem you have by looking at the label on the back of the modem.

2. INSTALLING THE MODEM UNDER WINDOWS 2000

1. With the system powered down, connect the modem to the appropriate serial port for the platform and turn it on.
2. Power up the server and Windows 2000 will auto-detect and start the Add/Remove Hardware wizard for loading the driver for the installed modem
3. Select **Don't detect my modem**, and then click **Next**. For the ZyXEL ISDN modem, accept the default drivers installed by W2K and then go to step 5 (Creo EMEA only).
4. Click the **Have Disk** button, and place the driver CD/floppy for the modem into the drive. Point Windows to the appropriate location. If you did not receive a driver disk, the drivers are available on TechPlanet: Windows 2000/NT drivers.

   Note: Ensure that you use the correct driver for the modem version (SUP2311 or SUP2312) that you have.
5. Select or make sure that the appropriate modem name was installed:
   - **U.S. Robotics 56K FAX EXT PnP** (For US Robotics 56K Faxmodem modem)
   - **Diamond SupraExpress 56e PRO** (For Diamond SupraExpress 56e PRO modem)
   - **MultiTech MT5634ZBA-V92** (For MultiTech MT5634ZBA-V92 modem)
   - **Omni.net D DSS1 PnP (For ZyXEL Omni.net D ISDN modem – Creo EMEA)**
6. Select **COM1,** and then click **Next**.

7. Select the following, and then click **Next**.
    - Country = <whichever country you're in>
    - Area Code = <if applicable>

Note:

- Be sure to complete the section Configuring the Modem for a Particular Country – not applicable for ZyXEL ISDN modems (Creo EMEA only).
- Please consult the appropriate integration documents for the remaining details of RAS configuration.
- Remove any extra modems showing up in Device Manager, which are not physically connected to the system.

3. INSTALLING THE MODEM UNDER NT 4.0

1. With the system powered down, connect the modem to the appropriate serial port for the platform and turn it on.
2. Power up the server.
3. Open the Modems control panel.
4. Select Add New Modem.
5. Select **Don't detect my modem**, and then click **Next**.
6. Click the **Have Disk** button, and place the driver CD/floppy for the modem into the drive. Point Windows to the appropriate location. If you did not receive a driver disk, the drivers are available on the TechPlanet: Windows 2000/NT drivers.

    Note: If the Diamond SupraExpress 56e PRO modem is installed, ensure that you use the correct driver for the modem version (SUP2311 or SUP2312) that you have.
7. Select:
    - **U.S. Robotics 56K FAX EXT PnP** (For US Robotics 56K Faxmodem modem)
    - **Diamond SupraExpress 56e PRO** (For Diamond SupraExpress 56e PRO modem)
    - **MultiTech MT5634ZBA-V92** (For MultiTech MT5634ZBA-V92 modem)
8. Select the appropriate COM port, and then click **Next**.
9. Select the following, and then click **Next**.
    - Country = <whichever country you're in>
    - Area Code = <if applicable>

Note: Be sure to complete the section Configuring the Modem for a Particular Country. Please consult the appropriate integration documents for the remaining details of RAS configuration.

4. CONFIGURING THE MODEM FOR A PARTICULAR COUNTRY

Use one of the following procedures to update the SupraExpress Pro 56e's NVRAM with the appropriate country code for the country in which the modem will be used. The procedure you use depends on whether your modem is version SUP2311 or SUP2312. You can check which version of the modem you have by looking at the label on the back of the modem.

4.1 Configuring The U.S. Robotics 56K FAX EXT PnP Modem

This modem is qualified for use in North America ONLY. No country code setting required.

4.2 Configuring The ZyXEL Omni.net D ISDN Modem

This modem is qualified for W2K and use in EMEA ONLY. No country code setting required.

Before testing the connection with the European Support Center, please add the customer phone number (without country code) in the modem's Properties window, ISDN tab, **First Number** field.

4.3 Configuring The Diamond SupraExpress 56e PRO Modem

4.3.1 Modem Version 2311

Note to field engineers: The modem may come from Production with the country code set to USA (North America).

You must complete the below procedure for the modem to function in the country where it will be used.

1. Open Hyperterminal, connect to the port the modem is on (if Hyperterminal complaints about COM port access denied, you will have to removed the modem from the installed list, change the country code, then re-install the modem driver again), and then enter `<ATi6>`. This displays the current country setting. If your country's code is not displayed, you need to reset the country code.

2. To display a list of all of the country codes that your modem supports, enter <AT*NC?>. The list may vary depending on the firmware revision, but it will look similar to the list below:

   Note: For our purposes, the column on the left is the only one that matters.

Code	Country	Code	Country
022 US 011	United States	014 SWE 009	Sweden
001 AUS 00	Austria (Slovenia)	015 SWI 00	Switzerland
002 BLG 00	Belgium	016 UK 010	United Kingdom
003 DEN 009	Denmark	017 GRE 030	Greece
004 FIN 990	Finland	018 ISR 00	Israel
005 FR 19	France	019 CZE 00	Czech Republic
006 GER 00	Germany	023 HUN 00	Hungary
007 IRE 353	Ireland	024 POL 00	Poland
008 IT 00	Italy	025 RUS 00	Russia
010 NL 09	Netherlands	026 SLO 00	Slovakia
011 NOR 095	Norway (Island)	040 AST 011	Australia (New Zealand)
012 POR 351	Portugal	047 SG 00	Singapore (Malaysia)
013 SPA 034	Spain	060 SAF 027	South Africa

3. To set the country code, enter < AT*NCnZ>, where n is the country code. For example, to select Italy, you would enter <AT*NC8Z>.

   The country code is set permanently in the modem's NVRAM. You only need to do this procedure once, unless the modem is physically moved to another country.

4. To finish the procedure, you must re-initialize the modem by entering <AT&F2&W>.

5. Your modem is now ready for operation with the new country settings.

4.3.2 Modem Version 2312

Note to field engineers: The modem may come from Production with the country code set to the United Kingdom (B4).

You must complete the below procedure for the modem to function in the country where it will be used.

6. Open Hyperterminal, connect to the port the modem is on (if Hyperterminal complaints about COM port access denied, you will have to removed the modem from the installed list, change the country code, then re-install the modem driver again), and then enter <AT+GCI?>. The currently selected country code is displayed.

7. Use the following table to set the appropriate country code:

Country	Code	Country	Code	Country	Code
Australia	09	Hong Kong	50	Norway	82
Austria	0A	Hungary	51	Philippines	89

Country	Code	Country	Code	Country	Code
Belgium	0F	India	53	Poland	8A
Brazil	16	Ireland	57	Portugal	8B
Bulgaria	1B	Israel	58	Russia	B8
Canada	20	Italy	59	Singapore	9C
China	26	Japan	00	South Africa	9F
Czech and Slovak Federal Republic	2E	Korea	61	Spain	A0
Denmark	31	Luxembourg	69	Sweden	A5
Finland	3C	Malaysia	6C	Switzerland	A6
France	3D	Mexico	73	Taiwan	FE
Germany	42	Netherlands	7B	United Kingdom	B4
Greece	46	New Zealand	7E	United States	B5

8. To set the country code, enter < `AT+GCI=n>`, where `n` is the country code. For example, to select the United States, you would enter `<AT+GCI=B5>`.

   The country code is set permanently in the modem's NVRAM. You only need to do this procedure once, unless the modem is physically moved to another country.

9. Your modem is now ready for operation with the new country settings.

4.4 Configuring The MultiTech MT5634ZBA-V92 Modem

Note to field engineers: The modem may come from Production with the country code set to the Euro/NAM (Hex 34 or Decimal 52).

You must complete the below procedure for the modem to function in the country where it will be used.

1. Open Hyperterminal, connect to the port the modem is on (if Hyperterminal complaints about COM port access denied, you will have to removed the modem from the installed list, change the country code, then re-install the modem driver again), and then enter `<AT9>`. The currently selected country code is displayed.

2. Use the following table to set the appropriate country code:

Country	Code (Hex)
Australia	01
Czech Republic	25
Hong Kong	30
Hungary	30
India	30
Indonesia	30
Japan	10
Korea	30
New Zealand	09

Country	Code (Hex)
Philippines	30
Poland	30
Singapore	30
South Africa	35
Slovenia	30
All others (Euro/NAM)	34 (Default)

3. To set the country code, enter < `AT%T19,0,n` >, where `n` is the country code. For example, to select the United States, you would enter < `AT%T19,0,34` >.

   The country code is set permanently in the modem's NVRAM. You only need to do this procedure once, unless the modem is physically moved to another country.

4. Your modem is now ready for operation with the new country settings.