

XPress Communication Engine Configuration

The XPress Communication Engine supports data communications through the use of modems and network devices. The engine must be told how to use these devices before the application can be used. This configuration normally takes place when the application is installed. In the event the hardware configuration changes, this utility allows you to adjust the software configuration to match the new hardware settings.

Select one of the following:

[Configuring Port Options](#)

[Configuring a modem or serial port connection](#)

[Configuring a network connection](#)

Configuring a modem or serial port connection

For a modem connection, set the Port Type to Modem. This brings up a list of options for configuring your modem. If you're unsure of which settings to use, select the SEARCH button near the bottom-right corner of the configuration screen. This will attempt to find your modem by scanning all available communication ports to see which one your modem is attached to. If it finds a modem, it determines the most efficient BAUD rate to communicate at.

The Lock BAUD option is used to tell the engine whether to stay at the selected BAUD rate or to switch to the BAUD rate specified by the modem when a connection is made. Most high-speed modems (9600 BAUD or greater) operate at two different speeds. One between your computer and your modem and the other between your modem and the other computers modem. Normally, the modem assumes you want to stay at the same speed between you and it disregarding the speed it actually connected at with the other modem. For this, check the box for Lock BAUD.

The Dial Method simply specifies whether your phone system supports touch tone dialing or not. Select which one matches your phone system.

The Init String is used to tell your modem how to respond to certain events. The default init string works for almost any modem. For advanced users, other initialization commands can be set to optimize performance from your modem. Because the engine uses its own technology to move information through the phone line, the modem should be configured to use NO compression. However, no harm is done if the modem is not configured this way.

For a direct serial port connection, you must know the communication port and BAUD rate you wish to use. Since the engine is unaware of what device might be connected to the serial port, it cannot use the search capabilities described above. Also, notice that the other options for Init String, Dial Method and Lock BAUD are not present as these do not apply to direct serial connections.

Configuring a network connection

For a network connection, set the Port Type to the protocol you are using on your local network. The only options that need to be set for network connections are covered by the [Port Options](#) items.

Configuring Port Options

The port options include your unique user name, your password (if required), your encryption key, and the desired compression level.

Your username is used to identify you on most connections. Although this is usually not used when making connections over a serial port, some XPress Communication Servers require a user name and password before the logon process can complete and all network devices require it. You set your name here and click on the Set Password button to select or change your password. After selecting the Set Password button, type your old password in the top box and your new password in the other two boxes. Since you cannot see what you type, you need to type your password in both boxes to confirm that you typed it correctly.

Setting your encryption key is identical to setting your password. Your encryption key can contain any letter or number. It is used to secure your transmissions with other parties you may contact. This prevents other people who might be using the XPress Engine from connecting to your system.

The compression level is set based on how well you wish to compress the information going through the engine. Low compression uses a compression technique which is very fast but does not get very good compression overall. (Average of 1.2:1 with a maximum of 64:1) High Compression takes more time to compress but gets much better compression ratios. (Average of 2:1 with a maximum of 683:1) The compression level is usually related to the speed of your connection. If you are configuring for a 10Mbps network, you would most likely turn compression completely off since the engine would spend more time trying to compress the information rather than just sending it over uncompressed.. For modem connections, you would set it to High Compression.

A computer peripheral which allows two devices (usually two computers) to communicate with each other.

BAUD rate or BPS means the number of bits per second that are being transmitted or received over a serial connection. One character is usually represented in 10 bits.

A technique used to remove redundancies from a block of data thus decreasing the size of the block of data. One type of compression, called lossless, can rebuild the original block of data without any loss of data integrity. The other type, called lossy, loses a certain amount of information in the compression/decompression process. This type is primarily used for audio and video data.

1 million bits per second.

