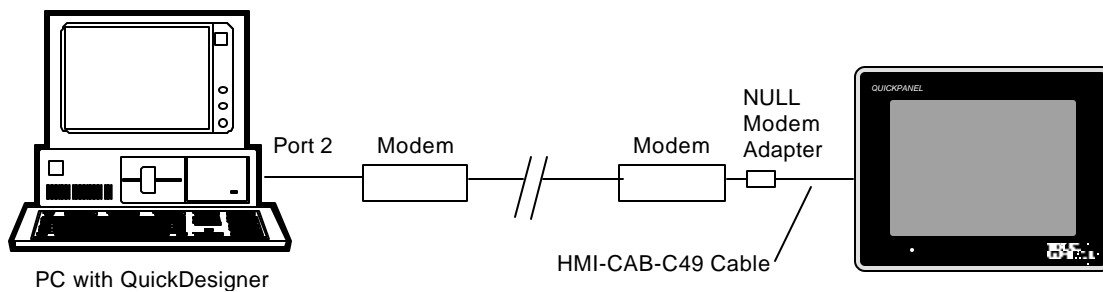


APN-001

QuickPanel

Downloading QuickPanel Files with a Modem!

This application note describes a method of connecting a QuickPanel to a modem so that files can be downloaded from a remote location. A diagram showing the configuration is shown below.



On one side of the modem link, a PC is connected to the modem through a serial port. In this example Port 2 is used. A communications program called HyperTerminal is used to establish modem connections. Other programs such as ProComm Plus may be used to establish modem communications. QuickDesigner Panel Editor Software, version 3.4, is used to send the project file to the modem.

On the other side of the modem link, a QuickPanel is connected to a modem with a HMI-CAB-C49 cable and a Null Modem adapter. You may also need a 25-pin to 9-pin adapter since the HMI-CAB-C49 cable has a 9-pin header. Depending on your modem, you may also need gender changers.

Software Requirements

HyperTerminal is used to connect and configure the modems. This allows changing modem parameters, and dialing the remote modem, while in the command mode. Once HyperTerminal connects the modems, the program is disconnected to leave the modems ready for communications.

QuickDesigner uses a program called Courier to communicate with QuickPanels. Courier must be forced to a fixed baud rate. This is done by editing the COURIER.INI file found in the Quick folder. Change the AutoBaud setting to 9600. See the sample file below. Note that the Port setting is set to serial port 2.

[Settings]

```
CourierWindow = 16 63
Port=2
AutoBaud=9600
```

Running HyperTerminal

- Start the HyperTerminal Program.
- The Connection Description dialog appears. Enter a name and select an icon for the connection.
- When the Phone Number dialog appears, select 'Direct to Com 2' in the Connect using list box.
- When the Com2 Properties dialog box appears, set the parameters as:

9600 Baud
8 Data Bits
No Parity
1 Stop Bit
Flow control=None

Click Ok to enter parameters.

HyperTerminal is now in command mode. If your modem does not have dipswitches, you can enter AT commands to change the settings of the modem.

Modem Setup

The next step is to setup the modems so that they will respond properly when Courier starts the download process. The modems used in this application note are from Multi-Tech Systems, Model MT1932ZDX. These modems are capable of 19.2Kbps. Many other modem vendors can be used in place of the one listed in this note.

The modems must be set to:

9600 Baud
Auto Answer
DTR Forced High (Ignore DTR)

The modem used in this note required sending command codes to the modem using HyperTerminal. Your modem may have dipswitches for changing parameters. Here is a list of the commands used in setup. These commands may be different for your brand of modem.

AT\$MB9600 Originate call at 9600 bps.
AT\$SB9600 Set serial port to 9600 bps.
AT&S1 Let DSR follow CD.
AT&D0 Modem ignores DTR signal

Dial the remote modem using an AT command such as:

ATDT9,4862807

Once the modems are connected, a message similar to the following one should appear.

CONNECT 9600 LAPM COMPRESSED

Use the Disconnect button on the HyperTerminal tool bar to disconnect HyperTerminal. The modems should stay connected. If they do not, you must use modem commands to change the communication parameters.

Run QuickDesigner

Start QuickDesigner. Select the project and click the download button. The file will be sent through Port 2 to the local modem, then to the remote modem to the QuickPanel. Once the project is loaded, the QuickPanel should restart with the new project.

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