Using the Eclipse Terminal View

The EMAC distribution of Eclipse has a plugin which allows the developer to connect to a remote machine from within Eclipse. This feature supports multiple types of connection including SSH, telnet, and serial. These connections can be established within any of the Eclipse Perspectives.

Open the Eclipse Terminal View

To open the Eclipse Terminal View from within any Perspective:

1. Click *Window → Show View → Other...* to open the *Show View* dialog.
2. Select *Terminal → Terminal* then click *OK* in the *Show View* dialog. See Figure 1 below for an example of a newly-opened Terminal View, outlined in red. The example assumes that the View is opened from within the default C/C++ Perspective.

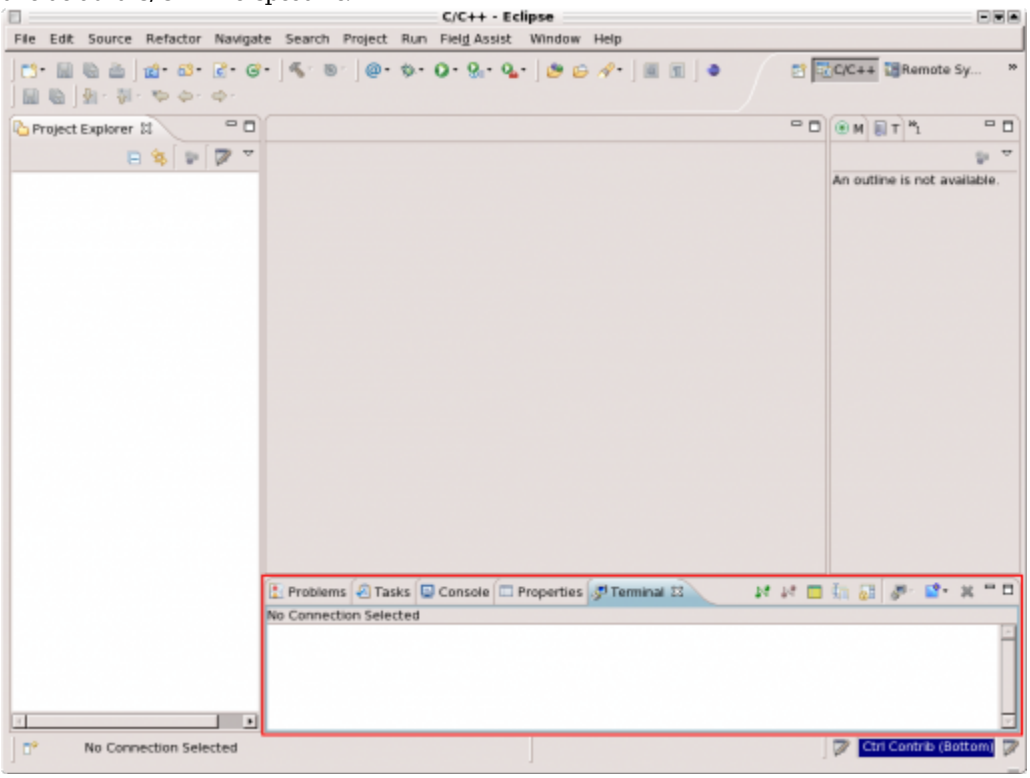

Figure 1. New Terminal View

3.

Establish a Terminal Connection

There are three ways to establish a Terminal Connection from within the Terminal View. First, it is possible to initiate a New Connection when disconnected using the Connect button, . Second, it is possible to change the settings of the current Connection which then automatically changes the current Connection to reflect the new settings. This method uses the Settings button, . The third method for initiating a connection preserves the present connection settings while establishing a new one within the same Terminal View, enabling multiple connections to be open at one time. This method uses the New Terminal Button, , to create the new connection and the Display Selected Connections button, , to move between the two.

The next section describes the different connection types that are available when using one of these three methods to establish a Terminal Connection.

Connection Types

This guide covers three different remote connection types: SSH, Serial, and Telnet. EMAC recommends using SSH rather than Telnet on shared ethernet or wireless connections since SSH uses encryption at the application layer to prevent the use of packet analysis to read passwords sent in plaintext over Telnet and other insecure protocols. This guide covers the use of Telnet under the assumption that customers will not use it over a public network.

The first step for any of the three connections types is to initiate a New Terminal Connection dialog as described above. Any of the three methods will produce the same result, the only difference being the name of the resulting dialog window.

SSH

SSH, or Secure Shell, is a protocol by which encrypted data is exchanged between two applications over a network connection. From the Eclipse Terminal View, SSH can be used to send commands to and receive output from a remote machine. The following procedure references Figure 2 to configure SSH settings:

1. Choose *SSH* from the *Connection Type:* drop-down menu.
2. Enter the target machine's IP Address in the *Host:* text field.
3. Enter one of the target machine's user names in the *User:* text field and the associated password in the *Password:* text field. The **default username and password** for EMAC products are root and emac_inc, respectively.

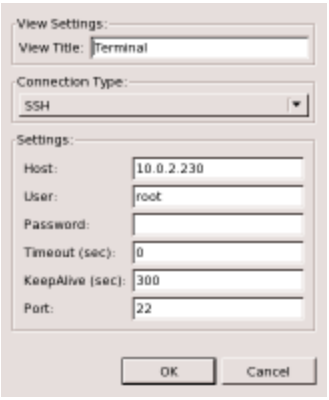

Figure 2. SSH Settings Dialog

Serial

Most EMAC products have a serial port available for accessing a login terminal. The following procedure references Figure 3 to configure Serial settings:

1. Choose *Serial* from the *Connection Type:* drop-down menu.
2. Fill in the information for your target EMAC product according to the Initial Connections section of the EMAC OE Getting Started Guide. Different EMAC products have different default serial port settings as described on the above linked page.

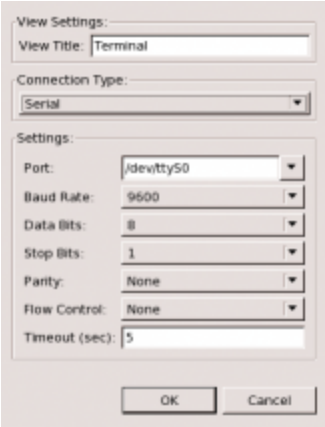

Figure 3. Serial Settings Dialog

Figure 4 below shows an expanded Terminal View connected to an EMAC embedded board.

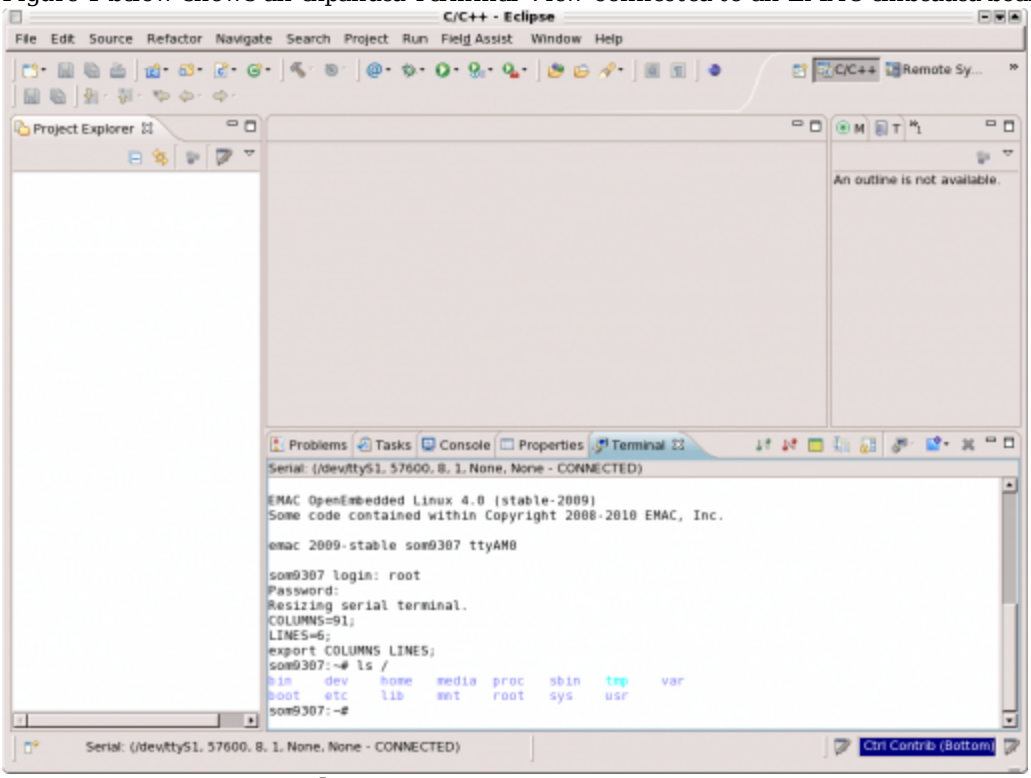

Figure 4. Active Serial Connection

Telnet

While not recommended by EMAC, it is possible to establish a telnet session over an Ethernet connection between the development and the target machines. This setup is similar to that used for SSH, except the username and password are passed to the target machine in plaintext form *after* the Telnet session has been initiated. As shown below in Figure 5, the only setting that needs to be specified is the *Host:* field.

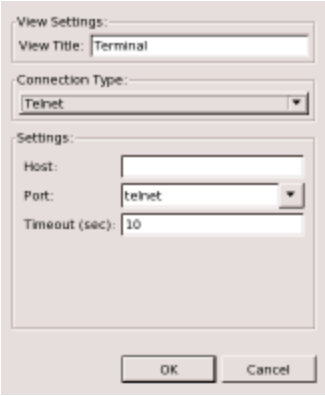

Figure 5. Telnet Settings Dialog

Next Steps

Once a Terminal Connection has been established with the target machine, use that connection to interact with the target machine while continuing with the Linux Development Guides listed below.

See Also

- Eclipse IDE
  - Install
  - Development System Configuration
  - First Time Using Eclipse
  - Import EMAC OE SDK
  - Eclipse Terminal View
  - Using the EMAC OE SDK Examples Projects
  - Create New EMAC OE SDK Projects
  - Using the EMAC OE SDK Eclipse Plugin
  - Remote System Explorer Configuration
    - RSE Setup
    - RSE SFTP Setup
    - Remote Shell/Terminal Setup
  - Execute Remote Applications
  - Debug Remote Applications
