

Communicating With ERS 500

Using Kepware OPC/DDE Server, allowing a direct DDE link to Microsoft Excel 97

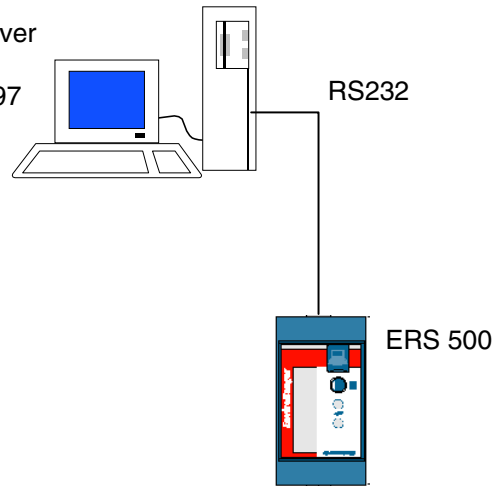
This application guide describes how to set up a PC host computer to read information from the ERS 500 through Kepware OPC/DDE Server application, which allows a direct DDE link to Microsoft Excel

This application had a computer running the Windows 95 operating system and a server application supplied by Kepware (www.kepware.com). The Kepware OPC/DDE Server contains a Modbus RTU driver, which links the server to the serial port of the PC.

This application Guide assumes that the reader has a working knowledge of the ERS 500 and is familiar with its register map (see the EnviroRanger ERS 500 Communications Reference PL-558).

In this test, one ERS 500 was connected directly to the PC via COM1. The Server was configured to pole the holding registers from the ERS 500 and dynamically link the tagged registers to Excel.

PC Running Kep Server
and Microsoft Excel 97



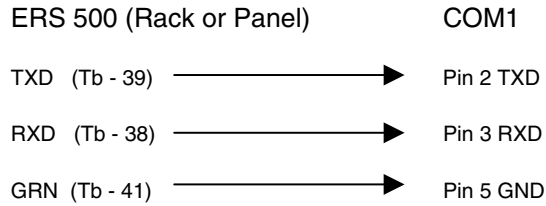
Keywords:

ERS 500, Kepware, KepServer, OPC, DDE, Microsoft Excel, Modbus RTU, RS-232, HMI, EnviroRanger

Details

Connections

The RS-232 link from the ERS 500 to COM1 on the PC was connected with no hardware flow control links.



Configuring the EnviroRanger

The ERS 500's communication parameters are left at their factory settings:

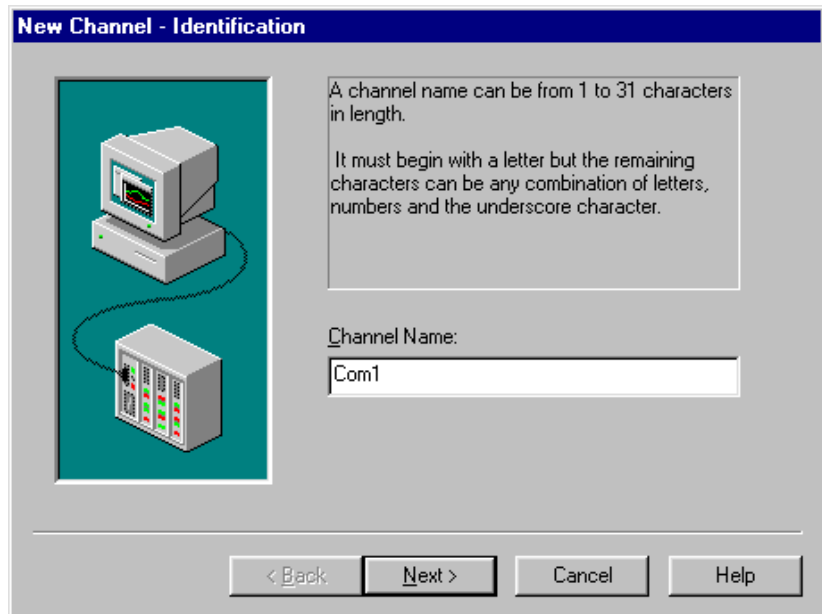
P770, index 2:	3	(Modbus RTU slave)
P771, index 2:	1	(network address)
P772, index 2:	19.2	(19200 baud)
P773, index 2:	0	(no parity)
P774, index 2:	8	(8 data bits)
P775, index 2:	1	(1 stop bit)
P776, index 2:	0	(no flow control)
P777, index 2:	0	(no key-up delay)
P778, index 2:	0	(modem not connected)

Configuring the Kepware Server.

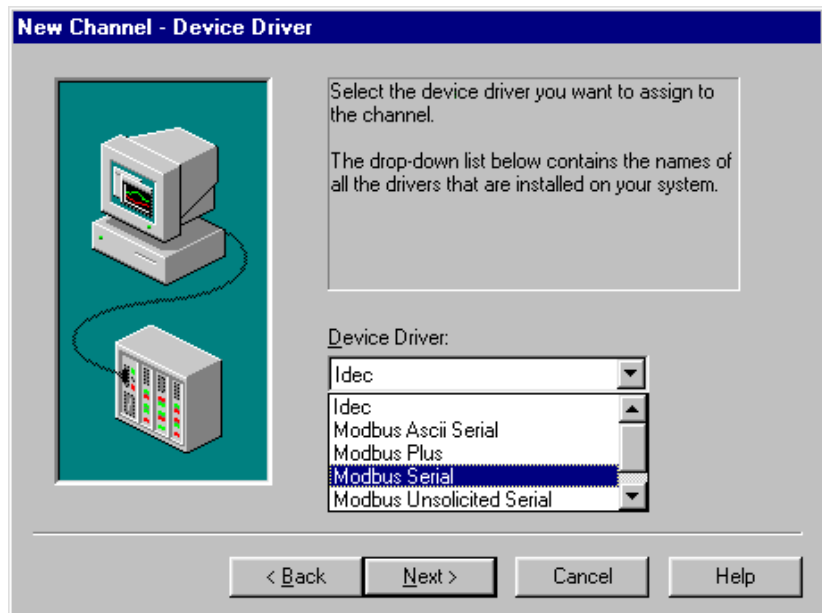
After installing the Kepware server application, a new connection needs to be made to enable the server to gather the data from the ERS-500.

Add Channel

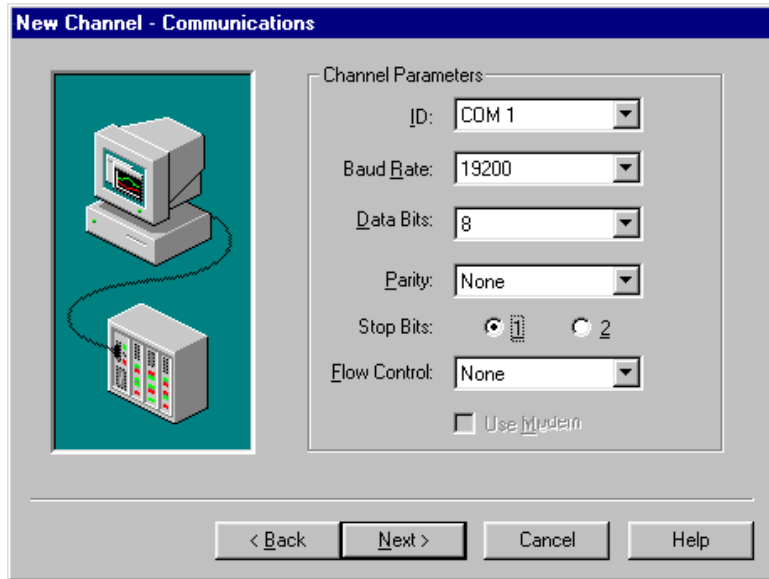
1. Start the KepServer and go to channel/add channel on the menu bar, the following screen appears.



2. Enter a name for your connection, and click Next. In this example, 'Com1' was used.
3. The next screen prompts you for the device driver, select modbus serial and click Next



4. Set the communications properties as shown on the screen below and click Next.

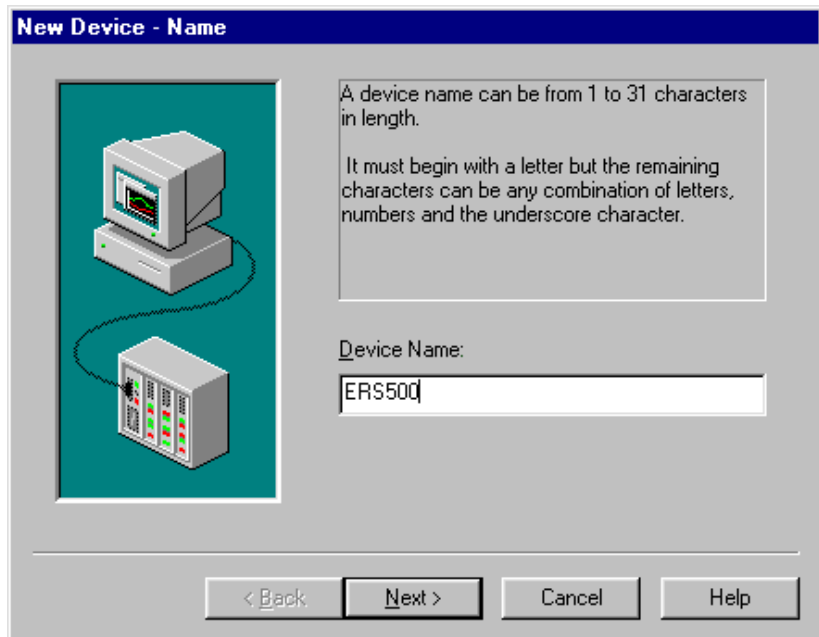


The next screen shows a summary of your connection details for COM 1, if all is correct click finish.

Now you have made a connection to Com1 on the PC. You need to add a device to the Modbus driver to enable communications with the ERS 500.

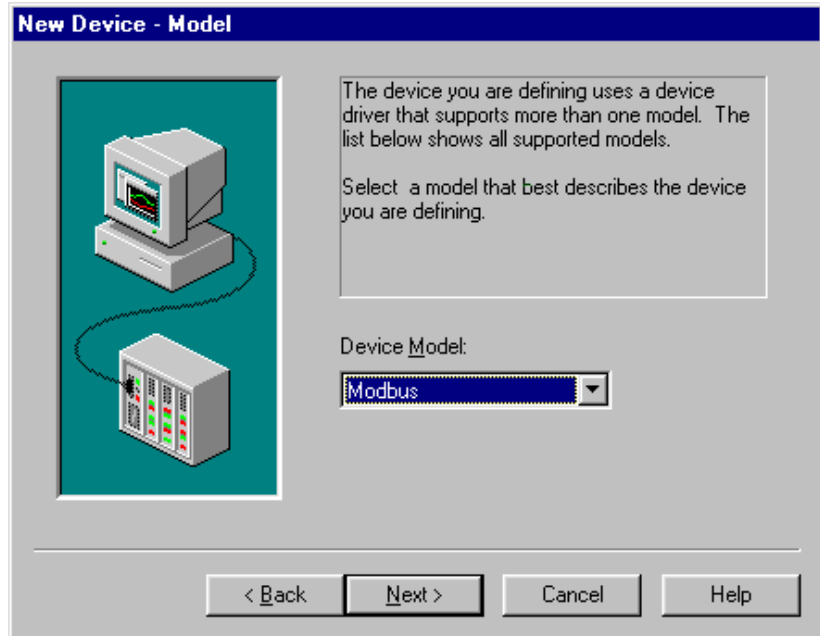
Add Device

1. Click on Devices menu and then Add device, the following screen is displayed.

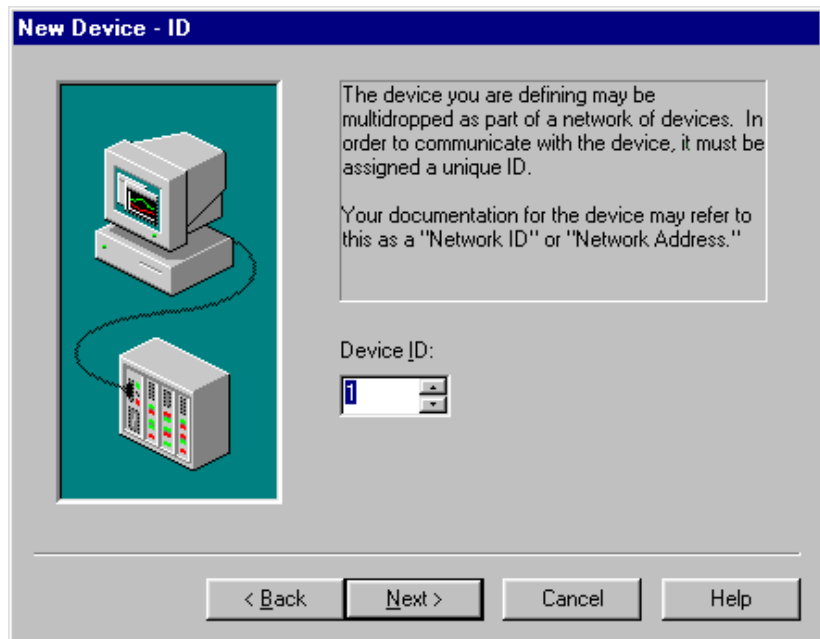


2. Enter a name for your device, which will be connected to Com1 and click Next. In this example, ERS500 was used.

3. On the Model screen, select Modbus and click Next.



4. On the ID screen enter the ERS 500 address (P771) and click next.



5. On the setting screen click Next and the Block size screen appears.

- In the block sizes screen make the settings as shown below and select Next.

- The summary screen is shown for your device, click Finish if the information is correct.

You are now back at the main screen and ready to configure your tags. These are the tag names that Excel uses to collect the data from the KepServer's DDE link.

Entering Tags

- With the device highlighted, move the mouse to the white area under the tag and click the right mouse button, add tag will appear.
- Click Add Tag and fill in the Tag properties as shown below and click OK.

3. Save the application and then run the project by clicking on the green circle.

Excel Setup

This application Guide assumes that the user is familiar with Microsoft Excel.

1. Choose new from the file menu to create a new sheet
2. move the cursor to cell A.1 and enter the following into the formula bar =KepDDEIERS500!POINT_READING_1

This will tell Excel to pick up the current POINT_READING_1 value from the server through the DDE link.

You will see that the cell is updated to read the current reading (POINT_READING_1)

You can configure as many tags as required and read them into Excel.

See ERS 500 Communication Reference (PL-558) for a complete list of available data.

Note: The information in this document is intended as a “guide” only. Milltronics assumes no responsibility for its application.