WinFrog Device Group:	OUTPUT			
Device Name/Model:	**OPC Server**			
Device Manufacturer:	**Honeywell Australia**			
Device Data String(s) Output by WinFrog:	Network OPC Interface			
	Data	Units	Point Name	Comments
	Plough Depth	m	WinFrog.Depth_Of_Plough	
	Depth To Seabed	m	WinFrog.Depth_To_SeaBed	
	Ship Latitude (Degrees)	deg (whole)	WinFrog.Lat_Ship_Degrees	
	Ship Latitude (Decimal Degrees)	deg (decimal)	WinFrog.Lat_Ship_DecDegr	
	Ship Longitude (Degrees)	deg (whole)	WinFrog.Lon_Ship_Degrees	
	Ship Longitude (Decimal Degrees)	deg (decimal)	WinFrog.Lon_Ship_DecDegr	
	Ship Heading	deg	WinFrog.True_Heading	
	Date	Julian date	WinFrog.WinFrog_Date	
	Time of Position	second UTC	WinFrog.WinFrog_Time	
	Ship Speed	Knots	WinFrog.Ship_Speed	
	Plough Tension	kN	WinFrog.Plough_Tension	
	Desired Cable Speed	m/s	WinFrog.Cable_Speed_SP	
	Desired Cable Tension	kN	WinFrog.Cable_Tension_SP	
	Plough Heading	deg	WinFrog.Plough_Heading	
	Confirmed mode of operation		WinFrog.Confirmed_Mode	0 = Stopped 1 = MSM 2 = ASM 3 = BTM 4 = BSM 5 = Error
WinFrog Data Item(s) and their RAW record:	OUTPUT 450			

DEVICE DESCRIPTION:

An Output device used to send data to the *PLANTSCAPE* cable machinery control system developed by Honeywell.

Data transfer via this interface utilizes the *OPC* network protocol, which is based on a client server relationship. In this case, the Plantscape cable machinery control system acts as the client while an independent application, OPCWFServer, acts as the server. The OPCSERVER device provides the OPCWFServer application with the data that is then read by the Plantscape cable machinery control system. The OPCWFServer application is started automatically by WinFrog when the OPCSERVER I/O is configured (refer to the WINFROG I/O DEVICES > EDIT I/O section below). This

interface requires that the computers acting as the OPC Server (WinFrog) and the OPC client (Plantscape) are connected via a Local Area Network (LAN) and are members of the same workgroup.

DEVICE CONFIGURATION INSTRUCTIONS

**WINFROG I/O DEVICES > EDIT I/O:**

Initiating this device (via the I/O Device window/Edit I/O dialog) will launch the OPCWFServer application on the desired computer. WinFrog will then write data to this application, which can then be read by the Plantscape cable control system. The OPCWFServer application can be installed and run on any computer on the Plantscape network; it is recommended that this application be installed on the primary and secondary WinFrog computers. The Device I/O Setup dialog shown below allows you to select the computer on the network on which to launch the OPCWFServer application (this computer must have the OPCWFServer application installed on it).
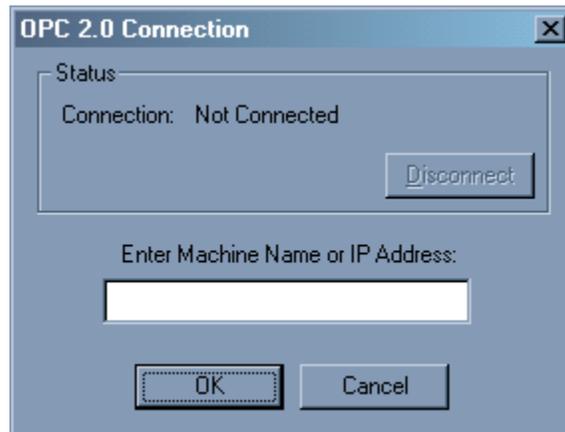
To launch the OPCWFServer application, enter the computer name or IP address of the desired computer and click OK. This will cause WinFrog to look for all the OPC servers available on the computer indicated. To launch the OPCWFServer application on the local computer (i.e. the computer running the WinFrog currently being configured) leave the Machine Name edit box blank and click OK.

> Note: it is recommended that the OPCWFServer be run on the local machine.

The dropdown list in the following dialog will list all the OPC servers available on the desired computer.
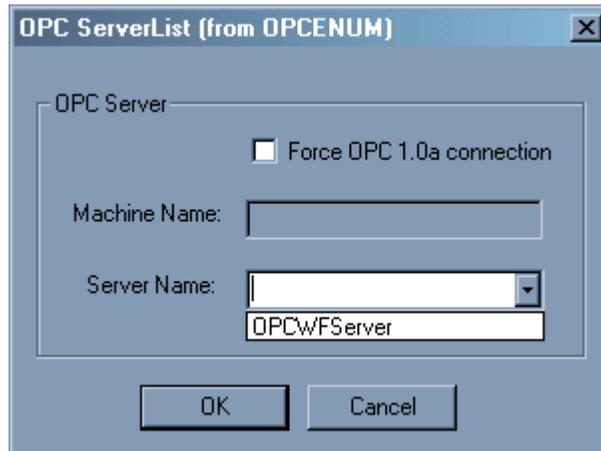
Select the OPCWFServer from the dropdown list and click OK to start the OPCWFSever on the selected computer. If OPCWFServer does not appear in the Server Name dropdown list but the OPCWFServer application has been installed on the machine (computer) being queried then the OPCWFServer application must be manually registered on the machine. To do this complete the following steps:

1. Manually start the OPCWFServer application by double-clicking on the OpcWFServer.exe file that is located in the Program Files\Fugro Pelagos\OPCWF Server directory.
2. Once the application is started, go to the Server menu and select the Register item, then close the application.

Once these steps have been completed, repeat the steps to initiate this device (via the I/O Device window /Edit I/O dialog).

WINFROG I/O DEVICES > CONFIGURE DEVICE:

Adding the OPCSERVER Device to WinFrog creates one data item, Data Output. Refer to the *I/O Devices* figure below.
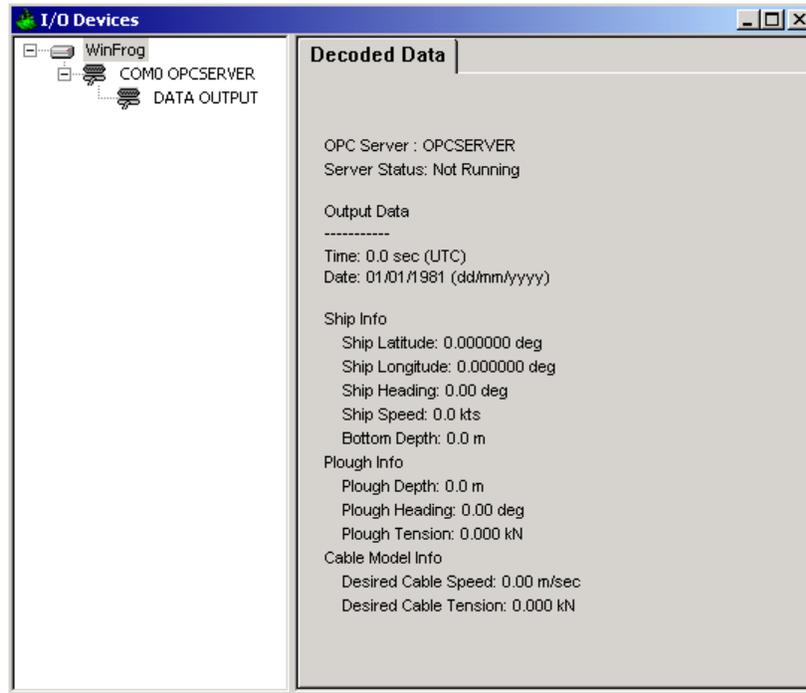
The OPCSERVER device must be configured at the I/O Device window level. In the I/O Devices window, click the device name to select it, then right-click and select Configure Device. The OPCSERVER Configuration dialog box appears. Select the plow vehicle from the dropdown list.
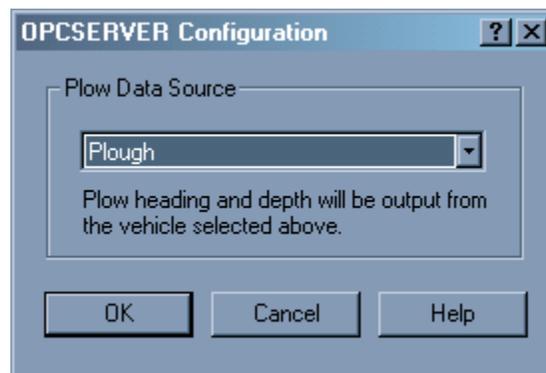
Plow heading and depth will be output from the vehicle selected in the above dialog.

OPCServer Functionality Notes

The OPCWFServer application (which is initiated by the *OPCServer* output device) must be run on both the primary and secondary WinFrog computers. The Plantscape cable control system is configured to automatically switch between the primary and secondary OPCWFServer application in the event that the current connection is lost.

WINFROG VEHICLE > CONFIGURE VEHICLE DEVICES > DEVICE DATA ITEM > EDIT:

The OUTPUT,OPCSERVER, DATA OUTPUT data item must be added to both the main vessel and the plough for all the required data to be output. If no plough vehicle is currently being used, ensure that "none" is selected in the OPCServer device configuration setup dialog.

The OUTPUT,OPCSERVER, DATA OUTPUT data item is added to the vehicles' device list and must be edited to suit the application. The data item can be added to multiple vehicles (e.g. primary and secondary positioning vehicles), with the output. When the OUTPUT,OPCSERVER, DATA OUTPUT data item is edited from the Configure Vehicle Devices dialog box, the Configure Output Offsets dialog box appears. The content of the dialog box is based on the offsets attached to the vehicle in question.
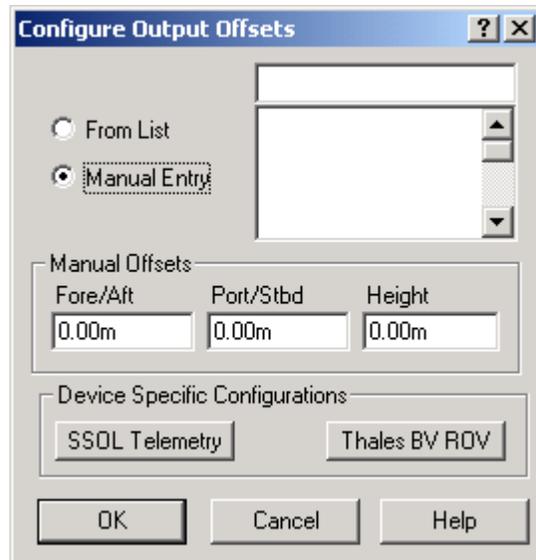
Configure Output Offsets:
Normally the position that is to be output will be the position of the CRP of the vehicle. However if another position is required, the offset to be applied to the output position for the DATA OUTPUT data item can either be taken from the list of vessel offsets or a manual offset entry can be input. Select the appropriate radio button (From List or Manual Entry). The offset can now be highlighted from the list, or if Manual Entry is chosen, the offset values can be input. The position data output will now be referenced to the offset location chosen.

Device Specific Configurations:
Under the Device Specific Configurations section, there are two buttons that access dialog boxes, SSOL Telemetry and Thales BV ROV. These dialog boxes are only to be modified for specific applications. You should not modify these items unless you are completely familiar with the outcome.