WinFrog Device Group:	**OUTPUT**
Device Name/Model:	**C&C Technologies**
Device Manufacturer:	
Device Data String(s) Output to WinFrog:	NONE
WinFrog Data String(s) Output to Device:	See Telegram Specification section below.
WinFrog Data Item(s) and their RAW record:	Data Output 450

DEVICE DESCRIPTION:

This driver outputs the described data on a serial port. All the linear units will be output in the same units as chosen for the map projection (configured in Configure>Geodetics> Map Projection Parameters>Edit), not what is individually selected for display under Configure>Units.

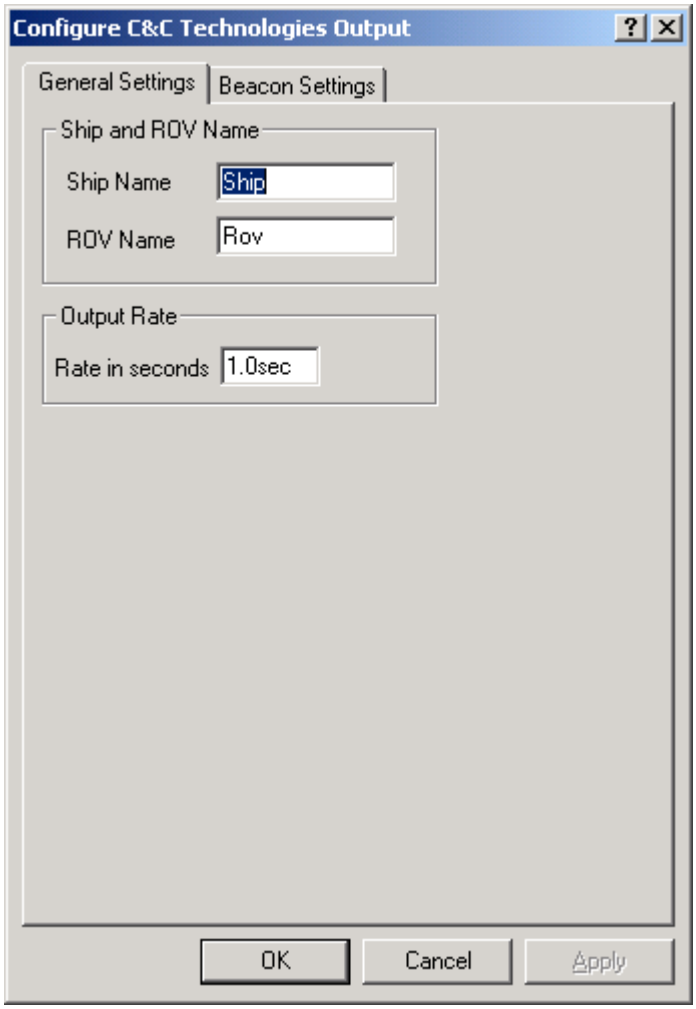
DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O:

Serial
Configurable Parameters

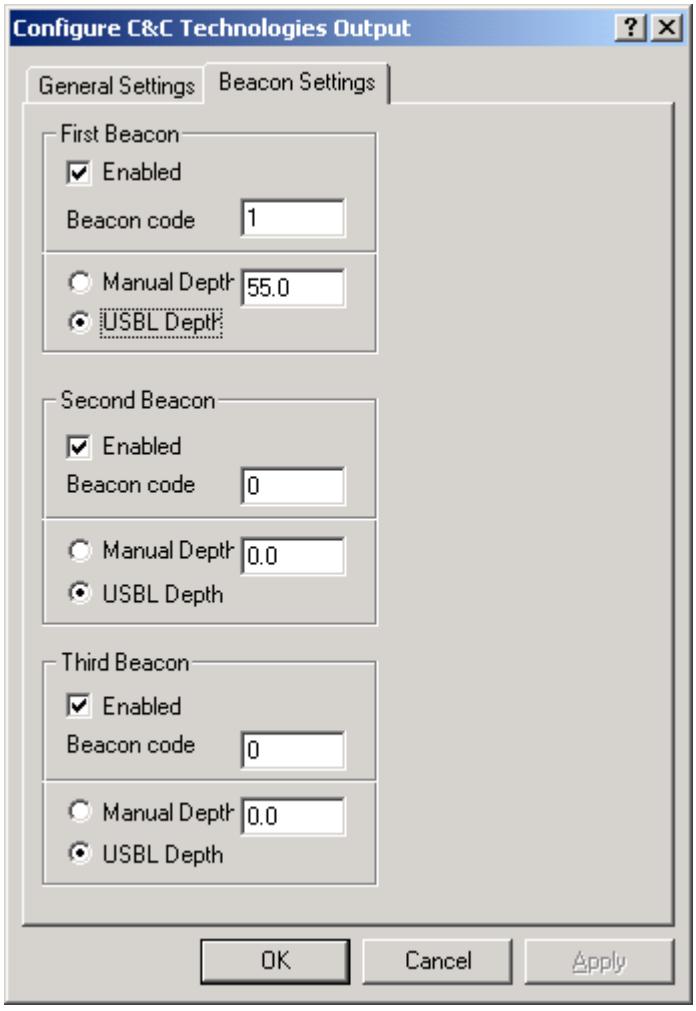
WINFROG I/O DEVICES > CONFIGURE DEVICE:

This 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 Configure C&C Technologies Output dialog box appears, as seen below.



The first tab of the dialog allows you to enter the ship name and ROV name. These must be entered so WinFrog can place their coordinates in the correct location in the telegram. Also enter the output rate. The data will be output at this rate regardless of whether new beacon data has become available. However, data will only be output if there are valid positions for both the vessels – i.e. neither vessel has a position alarm.

The Beacons Settings tab of the Configure C&C Technologies Output dialog box is shown below.



This tab is used for setting up the transponders. The telegram outputs the coordinates of up to three beacons. They will appear in the telegram in the same order as shown above. Enter the appropriate beacon code for the desired location in the telegram. If a beacon is disabled, its coordinates will be 0.0. If Manual Depth is selected, the value entered in the edit box will be output with no conversion.

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

Adding the C&C Output device creates the DATA OUTPUT data item.

Data item: OUTPUT, C&C Output, DATA OUTPUT

There are no Edit or configuration options available for this data item. However, the DATA OUTPUT data item must be added to the device lists of any vehicle in WinFrog for which data is to be output. In addition, if any of the vehicles do not have valid positions, no data will be output from this data item. The output coordinates are of the current reference (offset) position for both vehicles.

The beacon coordinates transmitted are of the beacon itself. The beacons are found by their code, not their vehicle. However, each beacon must be attached to a vehicle for coordinates to be computed for that beacon.

TELEGRAM SPECIFICATION:

If the units of the map projection are feet or US Survey feet then:

$PSCI,H 0.0,P 0.0,R 0.0,D 0.0,A 0.0,Vx 0.0,Vy 0.0,Vh 0.0,Rx 0.0,Ry 0.0,T1x 0.0,T1y 0.0,T1z 0.0,T2x 0.0,T2y 0.0,T2z 0.0,T3x 0.0,T3y 0.0,T3y 0.0*59

Where the order of the data is as follows:

- Heading Rov
- Pitch Rov
- Roll Rov
- Depth Rov
- Altitude Rov
- Vessel X
- Vessel Y
- Vessel Heading
- Rov X
- Rov Y
- Transponder 1 X
- Transponder 1 y
- Transponder 1 Z
- Transponder 2 X
- Transponder 2 Y
- Transponder 2 Z
- Transponder 3 X
- Transponder 3 Y

Transponder 3 Z

If the map projection units are meters, then the header will be $PSCM. The linear units will be in meters.

The X,Y coordinates are the grid coordinates of the chosen map projection.