



NMEA External Heading with TRANSECT & VmDas

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Abstract

TRANSECT and VmDas do **not** rotate the velocities based on the NMEA heading input if Earth coordinate data (EX11xxx) is received from the ADCP.

Instrument/Program Affected

Workhorse, Rio Grande, Long Ranger, Ocean Surveyor, and BroadBand DR/SC/VM ADCPs using *TRANSECT* (2.xx, 3.xx, and 4.xx series) or VmDas.

Please note that this notice is also true when you are using a BroadBand or Workhorse ADCP with the Deck Box and you will output the RDI NMEA heading data format from the Deck Box to the computer.

Description

When using RDI's software *TRANSECT* (2.xx, 3.xx, and 4.xx series), and VMDAS in conjunction with the NMEA external heading input then you must be sure to have the ADCP set to Beam, ADCP (or Instrument), or Ship Coordinates. These software programs will **not** rotate the velocities based on the NMEA heading input if Earth coordinate data is received from the ADCP.

Additionally, we recommend that you collect single ping ensembles (i.e. one water profile ping (WP1) and one bottom track ping (BP1)). This recommendation is true for all moving applications but especially true when using an NMEA input for the heading. Averaging data in the ADCP can cause vector summation errors as the vessel turns.

Solution/Action

Short-Term Solution

Use the following settings for the EX command in any configuration or command files used by VmDas or *TRANSECT*.

EX00xxx = Beam coordinates

EX01xxx = Instruments coordinates

EX10xxx = Ship coordinates

Where xxx = 0 or 1

Long-Term Solution

No software corrections are planned at this time.



NOTE. This FSB supercedes Workhorse FAQ #30 and all other documentation that recommends using EX11xxx with *TRANSECT* or VmDas.