

TECH/OPS



Gen4 Application Note

Title	Adding PDOs
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1. Introduction

PDOs are the communications items that are sent or received by the Gen4. You can configure these items using DVT.

Note – the pictures in these documents might not reflect the latest version of DVT.


Note – any changes to PDOs must be done in preoperational mode. This app note assumes that the controller is in preop.

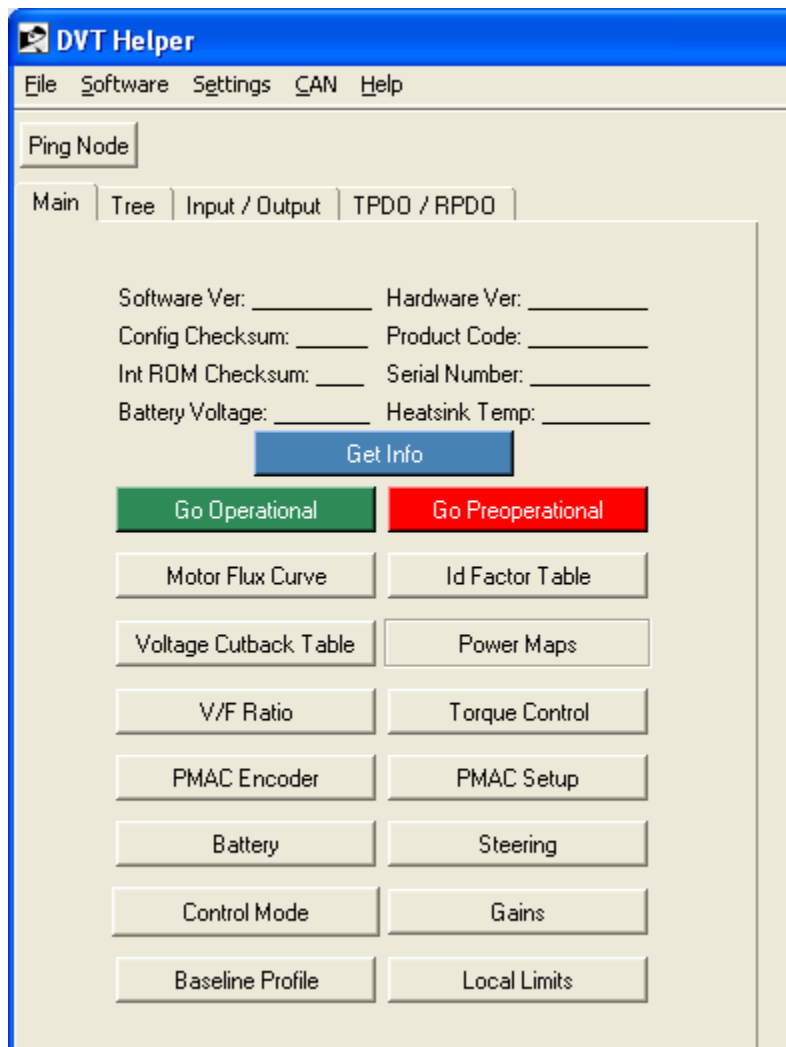
Note – this app note is applicable for DVT and DVT customer.

Footnotes¹.

¹ Footnote text.

2. Configuring Default PDOs

- Open the helper by clicking the  icon on the DVT tool bar.
- You should see the helper window.



- Click the TPDO/RPDO page in the helper.

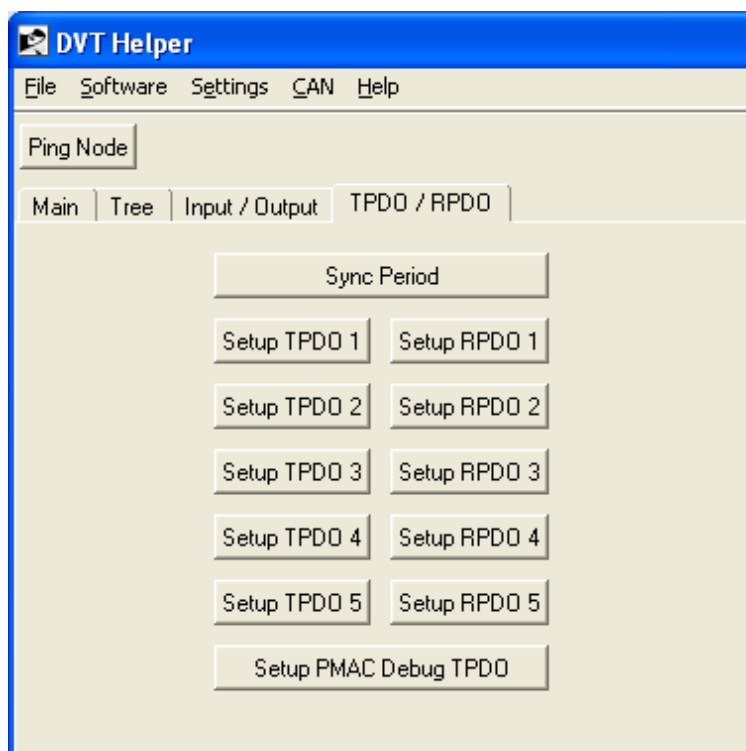


Figure 1 Click the "Setup PMAC Debug TPDO" button to set PMAC pdo default communications

- Click the setup PMAC Debug TPDO button or use the can pull down menu to set up induction motor default pdos.

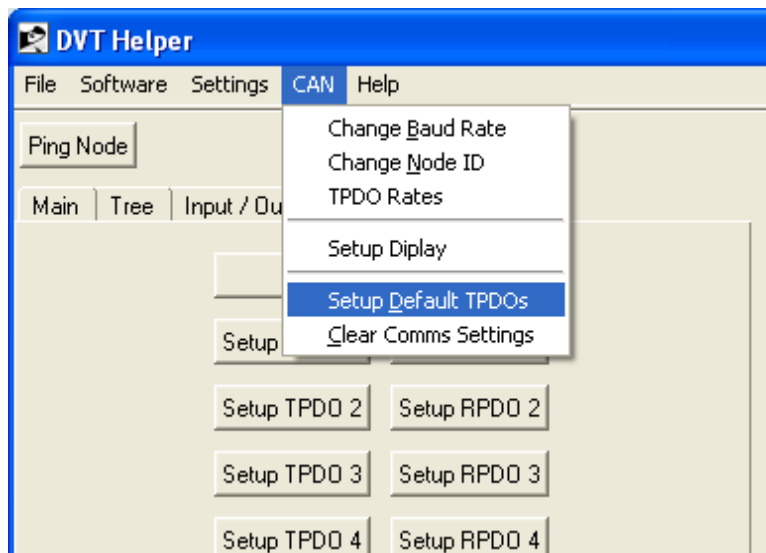



Figure 2 - Induction motor pdo defaults

- Key recycle the power to the unit.
- Verify that the settings have taken place by clicking the  icon on the DVT toolbar.
- In preop the values will display as -100000 but will be real values when the vehicle is operational.

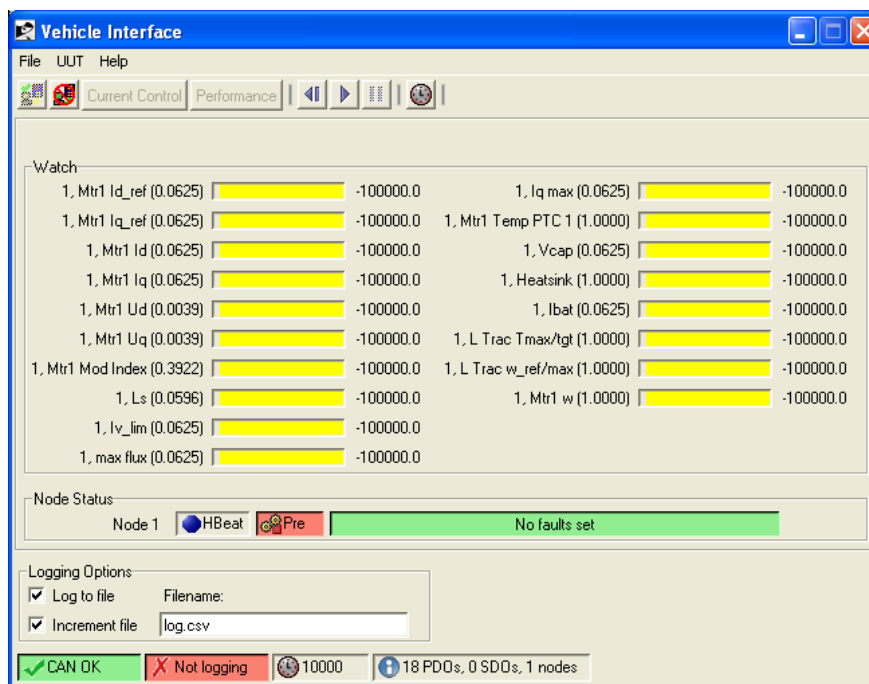


Figure 3 TPDOs show as -100000.0 in pre-operational mode.

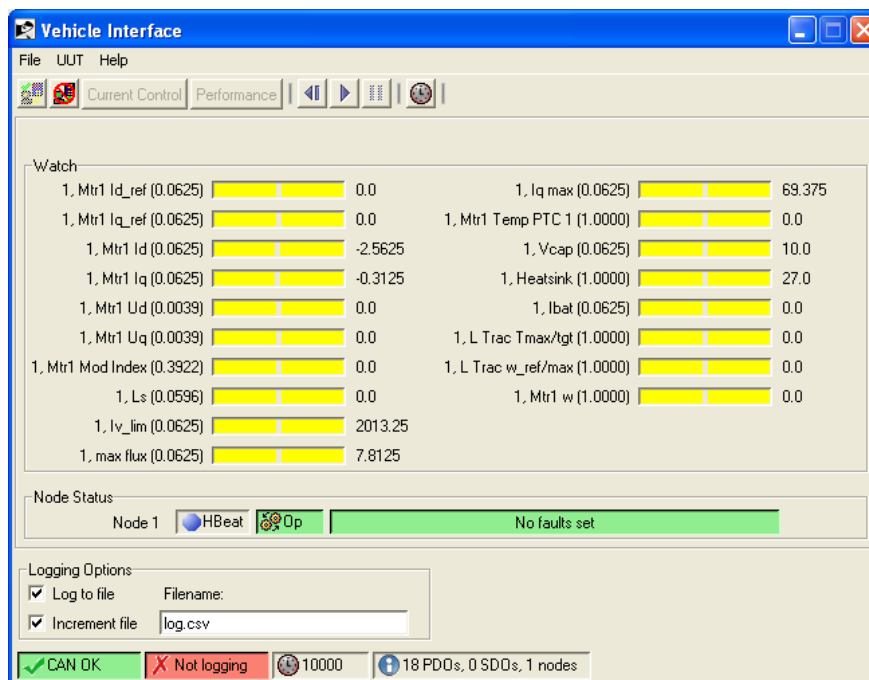
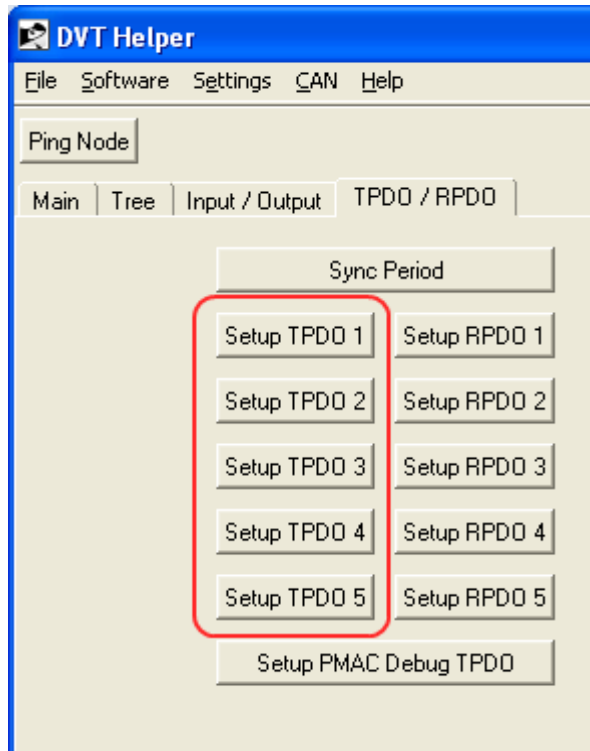


Figure 4 Items will show actual values in operational mode.

3. Configuring specific TPDOs

- Open the DVT helper and go to the TPDO/RPDO pane.
- Click the “Setup TPDO #” button for one of the five available TPDOs.



- Edit the tpdo to transmit what you'd like
 - Select an item by left clicking the row
 - Click “remove – item” to remove the item from the pdo.
 - Click “move item up” to have the item transmit at the top of the pdo.
 - Click “move item down” to have the item transmit at the bottom of the pdo.
 - Click “read pdo” to undo the changes you're making and read in the settings on the controller
 - Click “write pdo” to confirm your changes and write the settings to the controller – you will not be able to undo this command.

tpdo 1

Cob-ID for this TPDO:

Syncs Per Transmit:

Bits: 16 |Adr: 0x4600,5 | Target Id
Bits: 16 |Adr: 0x4600,6 | Target Iq
Bits: 16 |Adr: 0x4600,7 | Id
Bits: 16 |Adr: 0x4600,8 | Iq

Bits Used: 64
Bits Left: 0

- To add items to a pdo there must be bits left in the pdo – you may have to remove items from the pdo to put in what you want.

tpdo 1

Cob-ID for this TPDO:

Syncs Per Transmit:

Bits: 16 |Adr: 0x4600,5 | Target Id
Bits: 16 |Adr: 0x4600,6 | Target Iq
Bits: 16 |Adr: 0x4600,7 | Id

Bits Used: 48
Bits Left: 16

Figure 5 You must have free bits in the pdo to add new items

- Click add item

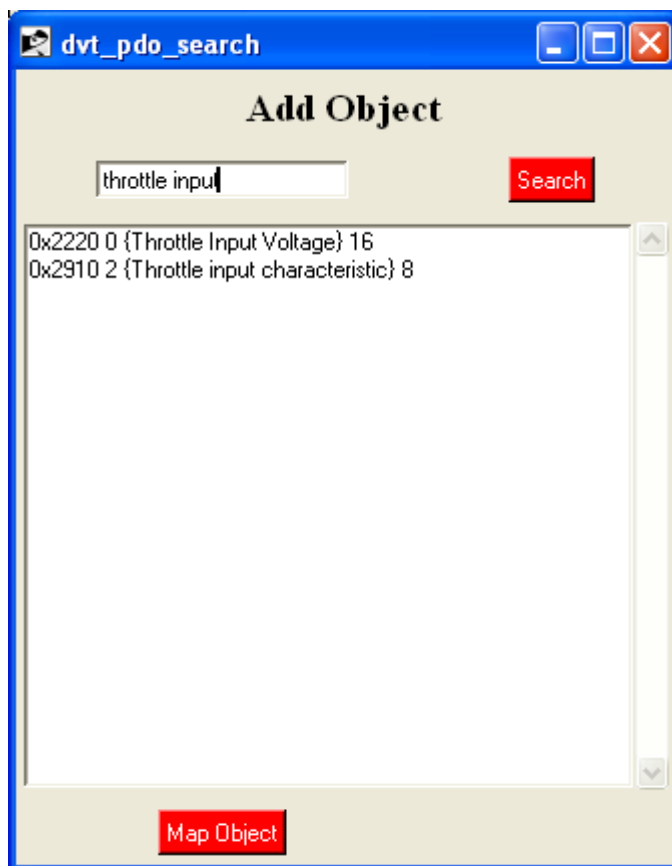


Figure 6 Search for the item you want to add to the pdo

- You must search for the item you want to add to the pdo using the search pane that pops up after clicking “add item” – certain items will cause an error when you try to add them. Only certain items can be transmitted on a pdo. Double clicking the item will place it in the pdo.
- Click write pdo to confirm the settings.

4. Extras



A NOTE indicates important information that helps you make better use of your computer system.



A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



A WARNING indicates the potential for bodily harm and tells you how to avoid the problem.
