I/O Transfer configuration for E2 modules

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Getting Started with E2 I/O Transfers

- **Add E2 I/O module to Tool Kit Project, and select product type.**

- **Setup Ports**

- **Check Virtual register allocation**

- **Add IO Transfer configuration option in the E2 Configuration**

  -**Select Add new Transfer**

  -**Select the Remote Station**

  -**Name the Transfer**

  -**Select Transfer Type (Read or Write Modbus I/O)**

  -**Select port (RS-485 or Ethernet)**

  -**Set Scan Options**

  -**Select I/O Options (I/O Type, Register count, Local Reg #, Remote Reg #)**

I/O Transfer complete, OK and Save

Add Module to Station

- **Configure Menu > Add New Station…..**

Setup Ports details

- **E2 Modules have jumpers in the base to assign the Ethernet port mode. Assign the jumpers accordingly.**

    - Modes are Switch, Dual Network, & Ring. See manual for more details.

- **In the configuration set Dual Ethernet Mode to "Follow Jumper" (see next slide)**

- **In switch, and ring modes the module supports only one IP address**

- **Setup IP address, and or RS-485 port.**

- **Use USB port for basic setup and maintenance (loading, test I/O, verify).**

Setup Ports

Check Virtual register allocation

- **The E2 module supports the onboard physical IO registers, as well as the ability assign additional register to store values. Users can read and map data to these registers, or a master can write/map data to these registers.**

- **Increase the number of registers to support the application accordingly (see next image).**

- **Analogs support up to 256 IO registers per type**

- **Discretes support up to 512 registers per type**

- **Use the I/O Transfers to read in I/O (map) and store the data locally into these registers.**

- **Use the IO Transfers to write the physical or any additional registers to another station.**

Check virtual expansion registers

Add I/O Tranfer to Station

- **Select I/O Transfers in the Tree view, Then Add New**

- **For Modbus Station select Specify by Station number.**

- **Select Internal Block move to copy a block of registers to a different location.**

- **Uncheck Specify by station number and select Remote station name for E2 stations already added to the Tool Kit project.**

  -Note: Use this option for the E2 or RTUs and many of the parameters will be available by default as the transfer is configured (recommended for easy setup for SIXNET devices).   It is not required. Users can also poll SIXNET devices via the Specify by Station Number option above.

Select the Remote Station

I/O Transfer Wizard - Select Remote Station

Select the Remote Station

Identify the station that you wish to transfer I/O with. Specify the station by it's name if it exists in this project file. If the station is made by a different manufacturer, or is just not in this project file, specify it by station number.

☐ Internal "Block Move"
☑ Specify by station number

Remote station number: 4
Remote station name: --N/A--
Remote station type: --N/A--

< Back   Next >   Cancel   Help

- **Next to setup Transfer Name….**

Name the Transfer

Select Transfer Type

- **Read using SIXNET or Read Modbus protocol**

- **Write using SIXNET or Write Modbus protocol**

Select Port

- ## RS-485 and/or Ethernet

Set Scan Interval

- **Transfer scan time is selectable per transfer**
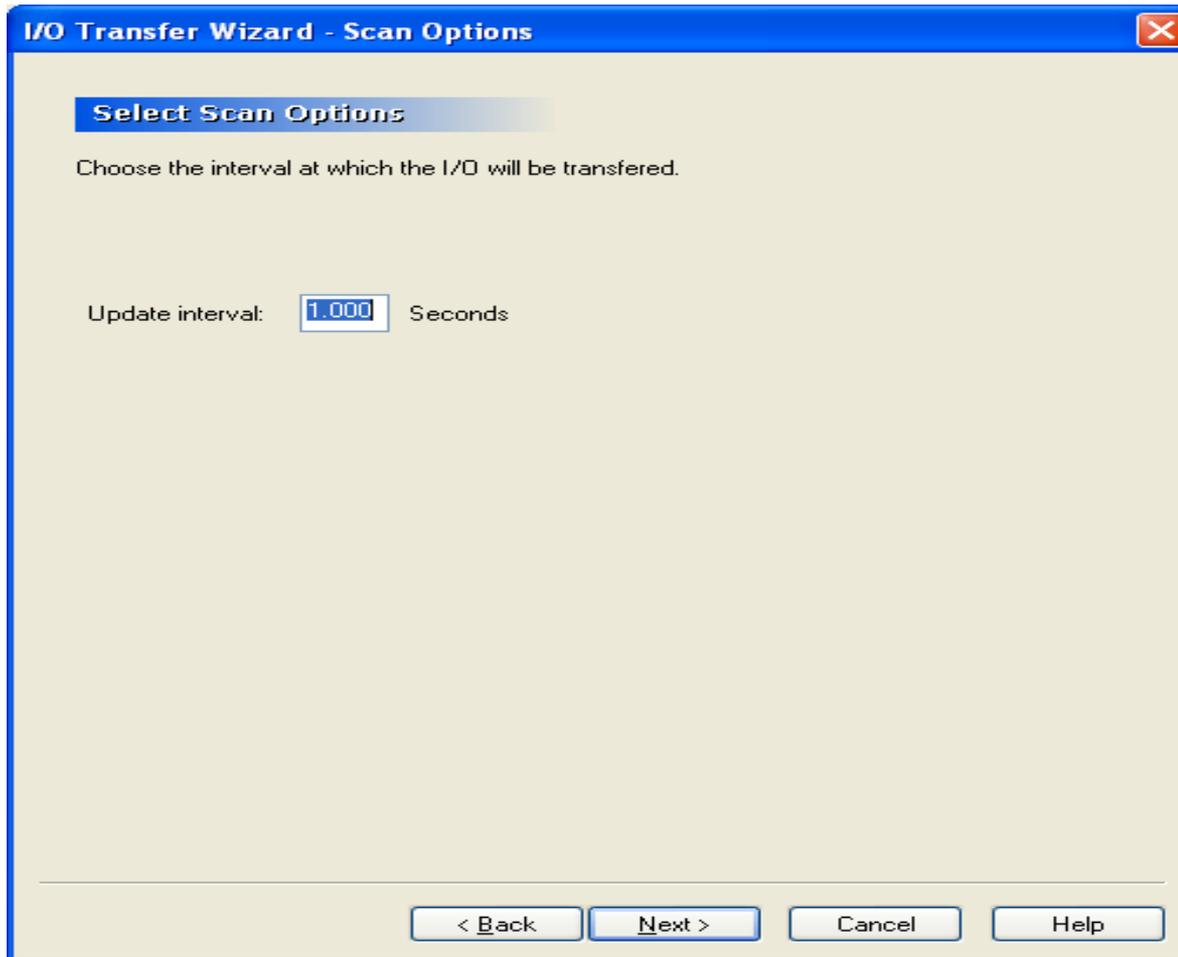
Select I/O Options

- **Select I/O type, Register Count**

- **Select the Local (E2) first register for this transfer**

- **Select the first remote register number**

IO Transfer complete

- **Once completed the configuration must be loaded to the E2 module and the transfer will being running.**

- **Repeat to add the number of transfers to the E2 module configuration as needed. The limiting factor is the number of I/O available to hold registers in the E2 module (256 for Analogs, 512 for Discrete per type)**

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