

Expert User Interface

Expert, the Tritex user interface software, provides you with a simple way to select all aspects of configuration and control required to set up and operate a Tritex actuator. Easy-to-use tabbed pages provide access to input all of the parameters necessary to successfully configure your motion application. Application files give you a convenient way to store and redistribute configurations amongst multiple computers, and Drive files allow the same configuration to be distributed to multiple Tritex actuators. Motion setup, homing, teach mode, tuning parameters, jogging, I/O configuration, and local control are all accomplished with ease using Expert software.

Protocol Options

The standard communication protocol for Tritex is an RS485 connection using Modbus RTU. The Modbus protocol provides a simple and robust method to connect industrial electronic devices on the same network. The Expert software acts as a Modbus Master and the Tritex II acts as the slave device, only responding to requests commanded from the software. The Expert software allows full access to commissioning, configuring, monitoring and controlling the Tritex II.

In addition to Modbus RTU communications, the following protocol options are available by selecting communication option boards. Exlar requires initial commissioning of a Tritex II actuator to be performed with the Modbus protocol.

Modbus TCP

Modbus TCP couples Modbus communication structure from Modbus RTU with EtherNet connectivity. The Modbus TCP option is fully supported by the Expert software and offers seamless use for commissioning, configuring, monitoring and controlling the Tritex II. A Modbus mapping table allows you to map all of the parameters you wish read and modify into a register bank of up to 100 registers. This will allow a PLC program to perform a single read operation and a single write operation to all the parameters.

To maintain standard connectivity, we offer the EtherNet connection through a sealed M12 connector.

EtherNet/IP

Ethernet/IP allows you to change, monitor and control the Tritex II through implicit or explicit messaging initiated from your Rockwell PLC. Tritex parameters are set up through the Expert software using a Tritex II parameter to EtherNet/IP parameter mapping table. Up to 100 input and 100 output, 16 bit registers can be mapped to Tritex II parameters.

To maintain standard connectivity, we offer the EtherNet/IP connection through a sealed M12 connector.

PROFINET IO

PROFINET IO allows you to change, monitor and control the Tritex II from your Siemens PLC. Tritex parameters are set up through the Expert software using a Tritex II parameter to PROFINET IO parameter mapping table. Up to 100 input and 100 output, 16 bit registers can be mapped to Tritex II parameters. Connection is made through a sealed M12 connector.

CANopen (future option)

The Tritex II implementation of CANopen follows the DS402 device profile for motion control distributed through CAN in Automation (CiA). CANopen protocol specifies which identifier is used for predefined purposes.

HART (future option)

The HART protocol is the global standard for sending and receiving digital information across analog wires between smart devices and the control or monitoring system.

Motion Setup

Exlar configuration provides several templates for various applications. These can serve as your configuration, or as a starting point for your configuration. You can also begin by selecting configuration details specific to your application. You can configure a move to position, move to switch, or move to force motion at the click of a button. The Tritex II products offer absolute and incremental motion, as well as moves ending on a condition such as a specific force or torque.

Control Page

The Expert control page gives you the ability to operate or initiate all motion functions from one single, simple screen. This screen provides you very easy system start up and testing without all the inconvenience of machine wiring.

The control page offers the capability to enable and disable the drive and perform fast and slow jogs. This gives you the ability to verify motion before needing any I/O wiring.

Monitoring and Diagnostics

All input functions can be monitored and activated from the Expert Monitor Page, and all output functions can be monitored. Information on critical fault and status data is available as a separate page, or as a fixed window on the bottom of each page of the software.

Configuring I/O

A pull down menu allows all I/O to be set up in minutes. Inputs can be configured to be maintained or momentary, depending on the application requirements. Input and output logic can also be inverted with a simple click.

Homing

You can home to an input, by using a proximity or limit switch, or home to a specific force or torque.

Homing to a force or torque is ideal for setting up applications that require motion referenced to a hard stop, like the closed position of a valve, or the final position of a press.

Teach Mode

In this mode, you can jog the actuator to the desired position, and activate an input, or click a button in the Expert software and the current position of the actuator becomes the defined distance or absolute position associated with a particular move command.

Scope

The Expert software includes a 4 channel digital oscilloscope feature. The user can select up to 4 Tritex drive parameters to be monitored simultaneously.

For high speed requirements the data can be captured in the drive's memory at an adjustable rate down to 100 micro seconds, then uploaded for plotting. The plots can be saved or printed and the captured data can be saved as a comma separated file for further analysis with Excel.

Valve Software

Tritex actuators provide a perfect solution for your valve actuation needs. Small hysteresis and dead band, quick response to small signal changes and stable dynamic responses are all key parameters that the Tritex delivers. Our valve software is simple to use, featuring a teach mode

for foolproof configuration. Included is a settable valve cut-off position feature that enables a firm valve seat on either new valves, or retrofitted valves.

Available in both rotary and linear versions, Tritex actuators can be mounted on any valve from any manufacturer.