Product Announcement

CTC Releases EtherCAT Master M3-41A for the Model 5300 Controller

HOPKINTON, MA, June 4, 2013 – Control Technology Corp., a leading manufacturer of automation controllers that integrate motion control, I/O, user interfaces, and enterprise connectivity, has released its EtherCAT Master for the model 5300 controller.

EtherCAT is supported in the CTC model 5300 series of control systems in the form of an EtherCAT Master module (model M3-41A), offering high-performance control of networked servos, stepping motors and I/O devices. This Master module can coexist in the same system with Modbus®, DeviceNet® and BACnet® interfaces, allowing for multi-vendor configurations with the CTC system acting as a protocol bridge as well as a control system.

Unlike other implementations, CTC has fully integrated EtherCAT into its programming environment, QuickBuilder, by pre-engineering support for the most popular EtherCAT slave devices. Through auto-discovery, the system automatically determines what specific devices are on the EtherCAT network and automatically configures the master to talk to them. This eliminates the time-consuming and potentially error-prone step of having to use a configurator to manually set up the network.

EtherCAT-based drives and I/O points appear in the programming environment along with any other drives and I/O on the system, and are programmed as though they were local devices. This means users can freely and transparently intermix local and remote servos and I/O, or change a device from local to remote without extensive programming changes.

The EtherCAT Master is programmed with CTC's QuickBuilder programming environment, which includes high-level motion controls as part of its basic structure. Commands for segmented, geared/cammed, position, and velocity moves are pre-programmed in QuickBuilder with Motion Sequence Blocks (MSBs). Multi-master and virtual master are supported, and Quickbuilder also includes an interactive motion control debugger with a built-in status/error data logger utility.

Basic features and motion modes include:

- Cyclic Sync Position
- Interpolated Position
- Profile Velocity
- Profile Position
- Any motor can track / gear / cam off any other motor

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- Distributed Clock by default
    - syncs master to slaves
    - provides simultaneous motions
- 1 mS control loop for all axes

CTC prides itself on providing users with a broad selection of technologies available for its basic control platforms, so that OEMs, control systems integrators, and end users can develop systems that are optimized for their specific projects. “We designed our EtherCAT implementation to provide all the benefits that EtherCAT has to offer with the advantage of autodiscovery and autoconfiguration to make this powerful technology easy to use,” said CTC CEO Tom Schermerhorn.

The devices currently supported include:

- Yaskawa Sigma 5
- Copley Accelnet
- Kollmorgen AKD
- Sanyo Denki
- Control Techniques (Emerson)
- Beckhoff I/O
- Wago I/O
- SMC Valve Stacks and I/O

Additional devices will be added as needed or requested by customers.

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