Automation Products
AC500
Product News AC500 Motion Control Library PS552-MC-E

21.03.2014

PS552-MC-E Motion Control Library was extended significantly and is now the most complete PLCopen package on the market. The MC-E library covers a wider range of applications, from entry level up to Coordinated Motion.

Features

The enhancements of the new AC500 Motion Control library are in terms of:

- Including Coordinated Motion blocks according PLCopen specification part 4
- Integration of the new AC500-eCo FM562 Pulse Train Output (PTO) module
- New blocks added according PLCopen specification part 2
- More functionality e.g. new ABB specific blocks
- Improved documentation

Applications

- The library is suited for all kinds of motion applications from simple motion and positioning applications to complex multi or coordinated axes motion solutions. Typical applications range from small machines or sub-units with PTO simple motion, to complex machines or lines with different kinds of axes, motion types and drives.

Examples are:

- Packaging machines e.g. Vertical Form Fill and Seal (VFFS) machines, labeling machines, cartoners, folding units
- Material Handling, e.g. handling & assembly equipment, conveyors, pick and place machines, warehouse applications
- Machine Tools e.g. metal cutting, electrical processing/line cutting, laser processing

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Advantages for the customers

- Complete Package from ABB – can be used with a wide variety of drives, ranging from Servo to standard Machinery drives
- Easy and quick to program, based on well-known PLCopen motion control function blocks
- For use with the entire scalable family of AC500 PLC controllers, depending on the number of axes, required speed and connectivity
- Integration of the AC500-eCo FM562 PTO module for simple positioning solutions
- Easy and fast connectivity for ABB Drives
    - Central motion control with profiling in PLC or
    - Drive-based motion control with profiling in drive, with access blocks for ABB Motion Drives and FM562 PTO module
- Supports single-, multi- and coordinated motion commands for axes
- High connectivity capabilities for analog/digital-I/O or fieldbus connected drives
- Analog axes combinable synchronized with EtherCAT axes
- Use of external reference for position control as master axis

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- Capability to use customer kinematics, e.g. transferring axis coordinates from mechanical construction into Cartesian coordinate system and vice versa

- Package contains several documented examples for central and drive-based motion control

The MC-E Library is currently the most complete PLCopen offering on the market. Allowing for a mixed setup of complex machines with all kinds of different motion applications and programmed in a standardized methodology. The new coordinated motion extension supports grouped axes functions, with the same comfort as known from PLC open single/multi-axis blocks.

PLCopen Standard part 4 defines grouped axis, assigns kinematic transformations and different coordinate systems, to simple programming of movements. Together with ABB specific extensions, this library provides the basis for 3D path movements as used in robots or CNC machines. Grouped axes can also be used beneficially for administrative functions on several single axis, e.g. several conveyors working together as a group.

Product description of the software library required for programming

The Library Package is delivered on an USB stick in a DVD-package with booklet and License code. The licensing uses the same approach as Safety, Solar, Water or the HMI-package with 3S-License Manager and is available as a single engineering license to be used on one PC. Registered Users of the PS552-MC Motion Control library, who sent back the registration form, will get an update.

Product Type	Order code	Description
PS552-MC-E	1SAP192100R0002	PS552-MC-E: AC500 Motion Control library Engineering license, PLCopen with Coord. SW libraries USB Stick with documentation, license.

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