



The OrmAppXD library allows you to integrate multiple ORMEC SAC-XD Programmable Indexer Drives into an SMLC project using Modbus/TCP communications.

SAC-XD drives and ORMEC's ServoWire drives can coexist in your project. This allows you to use ServoWire drives where highly coordinated motions are required and the SAC-XD drives for axes where high performance coordination is not required. This allows you to select the optimum drive for each axis reducing your overall costs.

The library includes the following function blocks:

### **Motion Function Blocks**

- OaXD\_OpenConnection Opens a Modbus/TCP connection to a SAC-XD drive.
- OaXD\_Power Enables and Disables a SAC-XD axis.
- OaXD\_ExecuteHome Executes a pre-configured homing sequence on a SAC-XD axis.
- OaXD\_ExecuteMotion Executes any of 31 pre-configured motions on a SAC-XD axis.
- OaXD\_ExecuteStop Stops any motion in process on a SAC-XD axis.
- OaXD\_JogAxis Can be used to Jog a SAC-XD axis

### **Motion Configuration Function Blocks**

- OaXD\_SetGearAtRatio Configures any of 31 motions to gear a SAC-XD axis at a ratio to a pacer (master) axis.
- OaXD\_SetGearRelativeAtRatio Configures any of 31 motions to gear a SAC-XD axis for relative distance at a ratio to a pacer (master) axis.
- OaXD\_SetGearRelativeInMasterDist Configures any of 31 motions to gear a SAC-XD axis for relative distance in a set distance on a pacer (master) axis.
- OaXD\_SetJog Configures normal and fast jog speeds for a SAC-XD axis.
- OaXD\_SetMoveAbsoluteAtSpeed Configures any of 31 motions to move a SAC-XD axis to an absolute position at a set speed.
- OaXD\_SetMoveAbsoluteInTime Configures any of 31 motions to move a SAC-XD axis to an absolute position in a set time.
- OaXD\_SetMoveAtVelocity Configures any of 31 motions SAC-XD axis to move at a set speed.
- OaXD\_SetMoveRelativeAtSpeed Configures any of 31 motions to move a SAC-XD axis a relative distance at a set speed.
- OaXD\_SetMoveRelativeInTime Configures any of 31 motions to move a SAC-XD axis a relative distance in a set time.

### **I/O and Status Function Blocks**

- OaXD\_ForceInput Forces a single SAC-XD drive input ON or OFF.
- OaXD\_ForceOutput Forces a single SAC-XD drive output ON or OFF.
- OaXD\_MasterForceEn Enables or disables SAC-XD input and output forcing.
- OaXD\_GetAxisStatus Returns the status of a SAC-XD axis.
- OaXD\_GetIOStatus Returns the state of all the SAC-XD drive inputs and outputs.
- OaXD\_Read16BitReg Reads the value of any SAC-XD drive 16 bit register.
- OaXD\_Read32BitReg Reads the value of any SAC-XD drive 32 bit register.
- OaXD\_Write16BitReg Sets the value of any SAC-XD drive 16 bit register.
- OaXD\_Write32BitReg Sets the value of any SAC-XD drive 32 bit register.