



Controller Software

YG5000 and YG-PM Software for LS Electric Controllers

YG5000 is a powerful software suite for programming and configuring the XMC programmable motion controller and the XGB PLC.

YG5000

Offers four languages from the IEC61131-3 PLC programming standard.

- Ladder Diagram (LD): includes many versatile function blocks, including advanced motion control specific blocks, for convenience when programming complex systems.
- Structured Text (ST): a text based language which is a powerful tool for advanced motion programming and data handling.
- Sequential Function Chart (SFC) and Instruction List (IL) are also supported by the XGB PLC.

The software uses Symbolic (also called Automatic) variables created by the user. These can be created as global or local task variables, and can be aliased to direct variables. Variables can be imported/exported for quick editing in spreadsheet format.

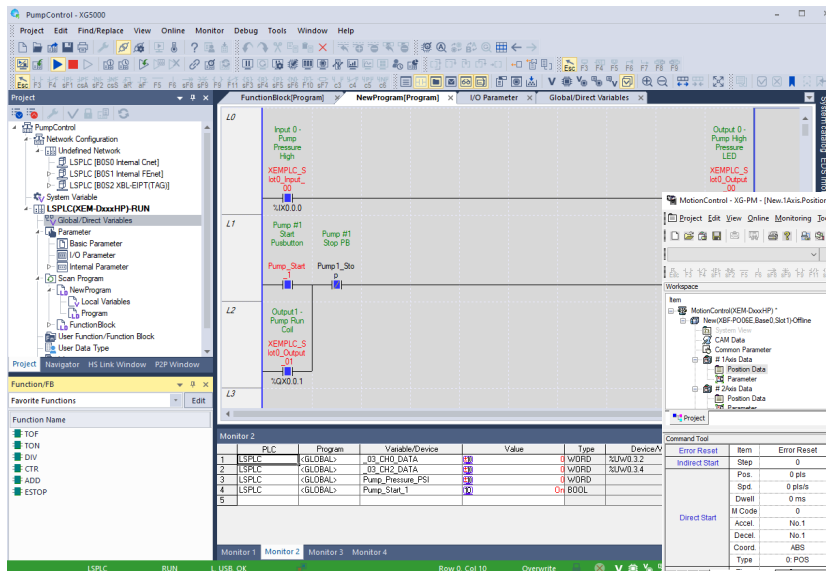
Other features include User data types/function blocks, XY Trend for motion visualization, online system information, simulator, EDS file library for EtherNet/IP communications, ESI file library for EtherCAT device configuration, and much more.



Motion Control Functions	
XGB PLC	Uses LS Electric's custom XPM motion function blocks.
XMC Motion Controller	Uses PLCopen compliant motion function blocks and some custom LS Electric function blocks.

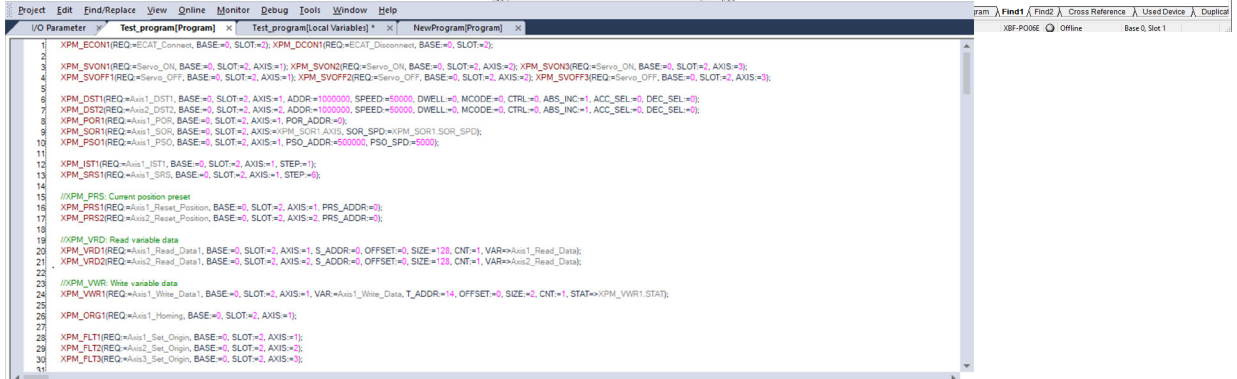
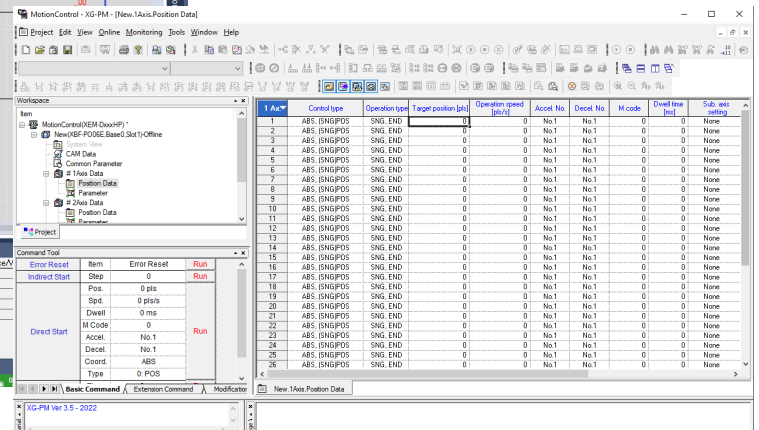
YG-PM (for XGB PLC only)

YG-PM Position control software is used to configure the axis parameters of the XGB PLC. The Command Tool allows for quick testing, and online edits make maintenance changes quick and easy. Access YG-PM from the YG5000 Main menu-> Tools -> Position Control.



YG5000 Main Screen

YG-PM for XGB PLC Motion Configuration



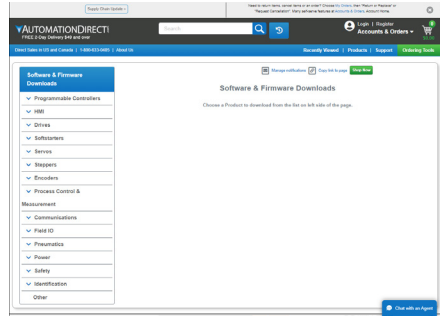
Structured Text Editor

XG5000 Software Setup

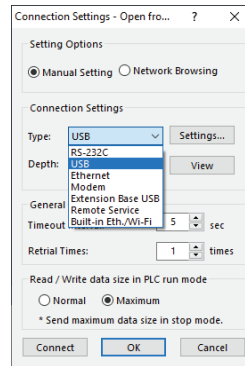
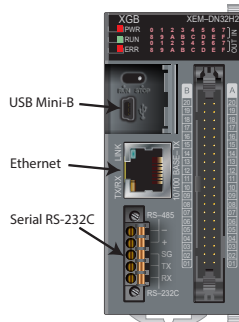
If using an XGB PLC, view the XG5000 overview topic in the LS PLC Interactive Guide here: [Starting an XG5000 Project](#)

If using an XMC Motion Controller, view the XG5000 overview topic in the XMC Interactive Guide here: [Starting an XG5000 Project](#)

- Download and install XG5000 software:
Download Software



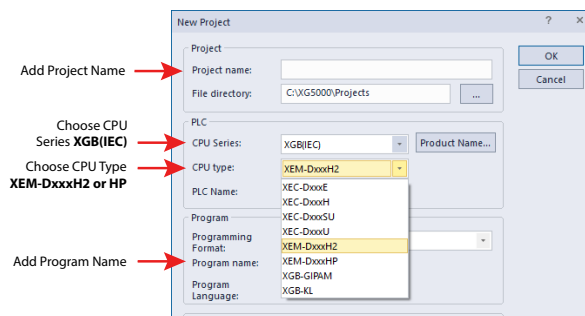
- Connect your processor to a laptop using USB or Ethernet (XGB or XMC), or Serial cable (XGB only). Default IP address in the processor is 192.168.250.120.



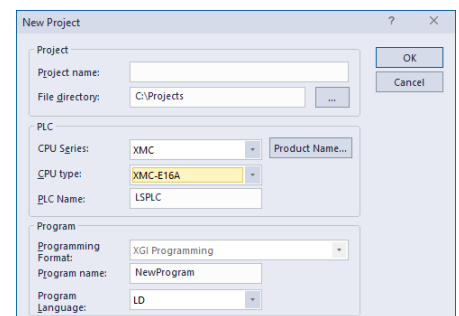
Example shown for XGB PLC setup.

- Open XG5000. From the top menu select **Project** → **New Project**.

Enter a project name, choose your CPU Series XGB(IEC), choose CPU Type XEM-DxxxH2 or HP, Add Program Name



Example XGB Setup



Example XMC Setup

- (XGB Only) Choose **Parameter** → **I/O Parameter** from the project menu bar.

Select a slot from the bottom menu, then use the drop down under **Module** to add modules.

See the video under [Adding Modules](#) for going online and uploading I/O configuration from your rack.

