



# Motion Control Company

Xtrol develops, manufactures, and sells Control Systems.

Xtrol has been specialized in the motion control systems for more than 30 years and was one of the International pioneers in that field.

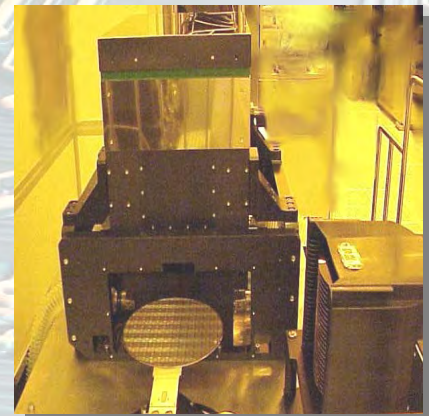
Thousands of our Motion Control Systems have been sold since 1974 in the USA, Europe, Middle and Far East.

The modular programmable control system components and the controllers manufacturing today are general-purpose controls directed at the high end and most demanding motion control applications.

Controls are based on the true real-time high-speed DSP utilizing for complicated multi-axis motion and multi-tasking PLC combined.

Controls are either Stand Alone and/or on-line connected to PC by server technology.

Xtrol has customers in a variety of industries, including Microelectronics, PCB Assembling, Wide Format Printing, Inspection, CMM, Packaging, Engraving, CNC for Machine Tools and Machining Centers, Water Jet, Plasma, Punch, Laser Cutting machines and more.



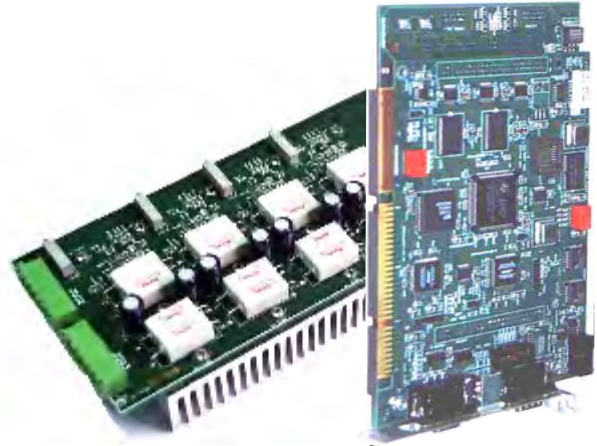
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**Xtrol** LTD  
Motion Control Systems

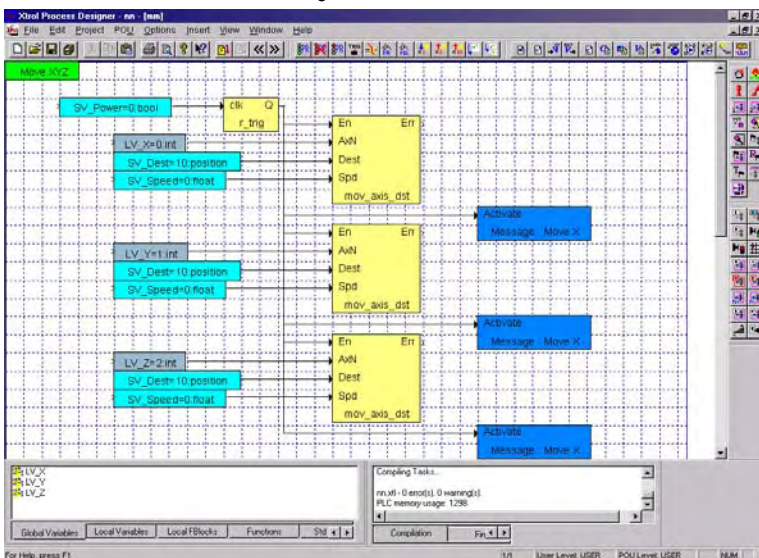
## Software & Utilities

- Perfect synchronization of Motion and Logic controls
- Full PLC software for simple creation of logic using Function Block Diagram (multitasking and object oriented language – based on IEC-1131 standard)
- Win98/NT/2000/XP/Vista multitasking environment for motion configuration and PLC design and debugging
- Software package allowing easy system setup, tuning and configuration
- Debugging software for real time execution of the process machine logic



## Controller Specification

- “Stand Alone” or connected to PC control platform with state of the art processors.
- USB, RS232, RS485/422 and Fast Serial communication channels for data exchange between control system devices and components.
- Modular system including a Main Processor board, up to 4 System Interface boards different I/O and extended software package
- Up to 32 servo axes motion control
- High speed DSP (TI) with 32-bit Floating Point Architecture for real-time operation
- Up to 512 Digital Inputs and/or Outputs and up to 64 Analog Inputs and 32 Outputs
- Position, Velocity, Torque and Software Commutation control with advanced and sophisticated loops for motors and drivers
- Single and Dual Feedback motion control (Optional)



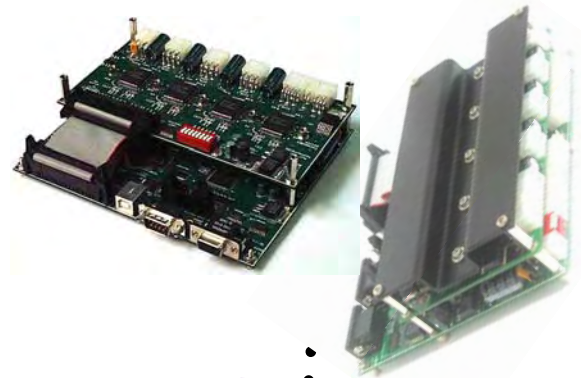
## Customized products

- Customized hardware control solutions
- Operation Panels
- Complete CNC control system packages for 3, 4 and 5-axes Machine Tools and Proc. Centers
- Electronics hardware design and manufacturing
- Software and firmware design projects
- Linear Drivers for precise motors (2-, 3-ph)
- Encoder signal converters (multipliers)



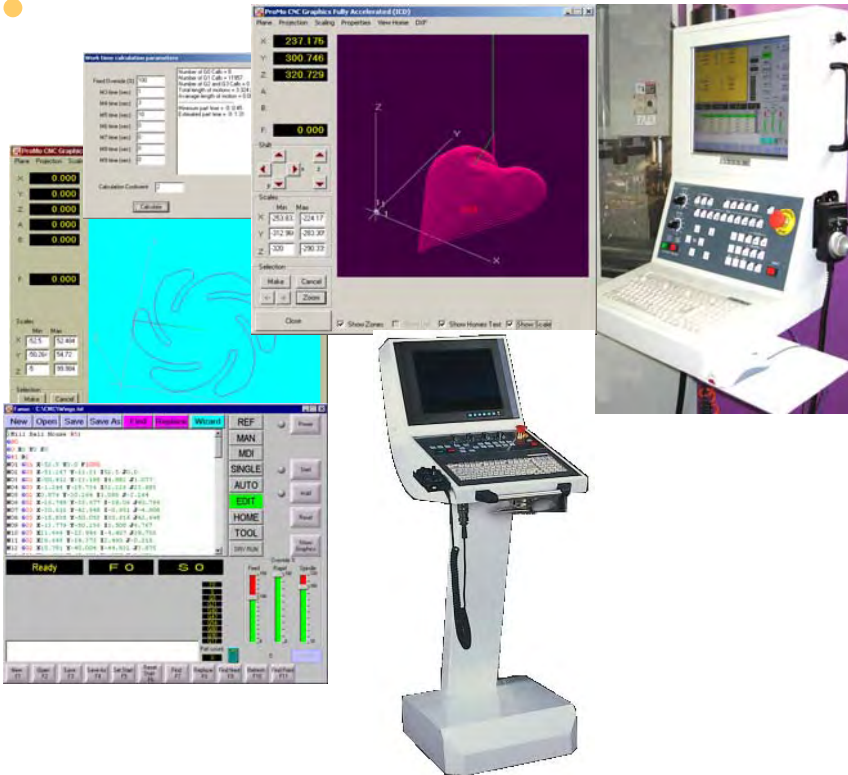
### 5 axis CNC systems

- Extremely High Speed Machining of 3-D shapes using 3, 4, and 5-Axis simultaneous motion.
- **Collision** verification and prevention.
- Easy Set-up procedures for 5-axis cutting.
- Win98/NT/2000/XP/7 Graphical tool-path and part presentation.
- Software package allowing easy system setup, servo tuning and machine configuration
- Communication and networking,
- On-line Remote support and monitoring through Internet
- Advanced Program Editor with Macro Wizard
- **Solid** Graphical presentation of Machine, Motion and Material Removal



### “Simple” Controller Specification

- Compact, reliable, robust design.
- USB, RS232, RS485 and Fast Serial communication channels for both “Stand-alone” and PC-based versions
- Position (pulse and direction) signals for 4 motor drivers (stepper or other type), 2 high current outputs, 1 input and 16 digital I/O (8 In and 8 Out).
- High speed DSP (TI) with 32-bit Floating Point Architecture for real-time operation
- Up to 19 Digital Inputs and/or Outputs (9 In and 10 Out), up to 2 Analog Inputs and 16 Outputs, optional extension of 62 I/O.
- 4 stepper motor drivers board or interface board for control of servo motors/drives in position control mode.
- Cost-effective.



### CNC features

- Complex machine kinematics transformations.
- Full hardware & software package available.
- Operation Panels.
- Motors and Drivers with Commutation Control.
- Encoder converters.
- Measurement probes and software.
- Dual feedback (scales) and thermo compensation, ball-screw and cross-axes compensation.
- Milling, Punch, Plasma, Laser, Water Jet, PCB drilling machines versions available.



# MOTOR DRIVERS Products.

The full range of high performance machine control products and accessories includes Motor Drivers for almost all types of motors available in the market.

DC Brush, AC Brushless, Linear, Stepper, etc. motors are controlling using our control systems.

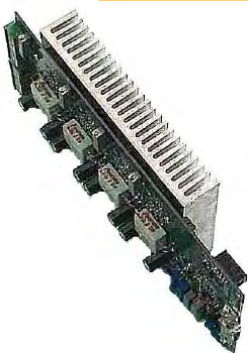
4 Stepper Motor Drivers with Cooling plate



Sin/Cos Encoder Converter-Multiplier (up to 2048 folds).



Precision 2-phase or 3-phase Linear Motor Drivers



DC-brush Motor Driver - Controller Sensor-less (190 Amps)

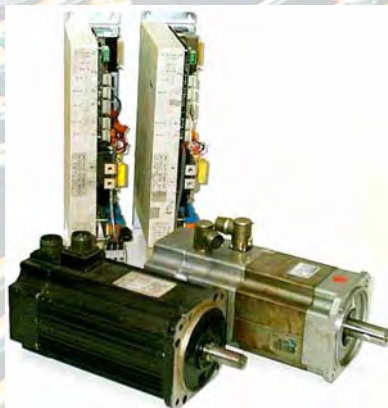


DC-brush Motor Driver (150 Amps)



## Drivers

for Yaskawa, Siemens, Kollmorgen etc. brushless servo motors.



## Commutation Controller

for Siemens SINUMERIC, Single and Dual Drivers and power stages.



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