MotionDesk™ Development Kit

ORMEC's MotionDesk™ Development Kit provides a complete *motion programming environment* on any IBM-PC or compatible computer running Windows 95, 98, NT or 2000. The MotionDesk™ Development Kit provides software tools to simplify the configuration, development and maintenance of ORMEC motion control systems.

MotionDesk™ is a fully integrated, Windows-oriented "desktop" for motion control. It utilizes drop-down menus, toolbars and dialog boxes and presents a graphical user interface (GUI) to ORION® controllers that is both intuitive and powerful.

Multi-Window Development

The MotionDesk™ Development Console provides an elegant multi-window development environment that includes multiple local windows on your PC as well as a multi-window interface to your motion controller.

MotionDesk™ uses TCP/IP (Transmission Control Protocol/Internet Protocol) to implement high speed serial communications with ORION® motion controllers. TCP/IP enables the MotionDesk™ to simulta-

MotionDesk™ Development Kit	
Project Navigator incorporates "wizards"	✓
Automatic screen-oriented system configuration	✓
Development Console Windows	✓
Direct mode window for on-line program execution	✓
Program debug tools with multithread source line tracing	✓
Axis Tune facility for matching servo system response to motion profile	✓
ORION® file management utilities	✓
Integrated with Windows Explorer as FTP folder for user files	✓
Upgrade Director to manage MotionBASIC® system files	✓
ORION® Help System	✓
Full on-line reference volume for MotionDesk and MotionBASIC®	✓
Built-in TCP/IP communications software	✓
Interface to the ORION® motion controller's serial port or utilize Ethernet	✓
MotionPad editor	✓
Full-featured program and text editor	✓
MotionBASIC® program development/management utilities	✓
Libraries of Operator Interface Development Tools	✓
QuickPanel programming example files	✓
Error Logging and Handling programming example files	✓
QuickDesigner 2 Touchscreen Development Tool	Optional

neously open multiple communication channels with ORION® and provide windows to modify, control and view program operation.
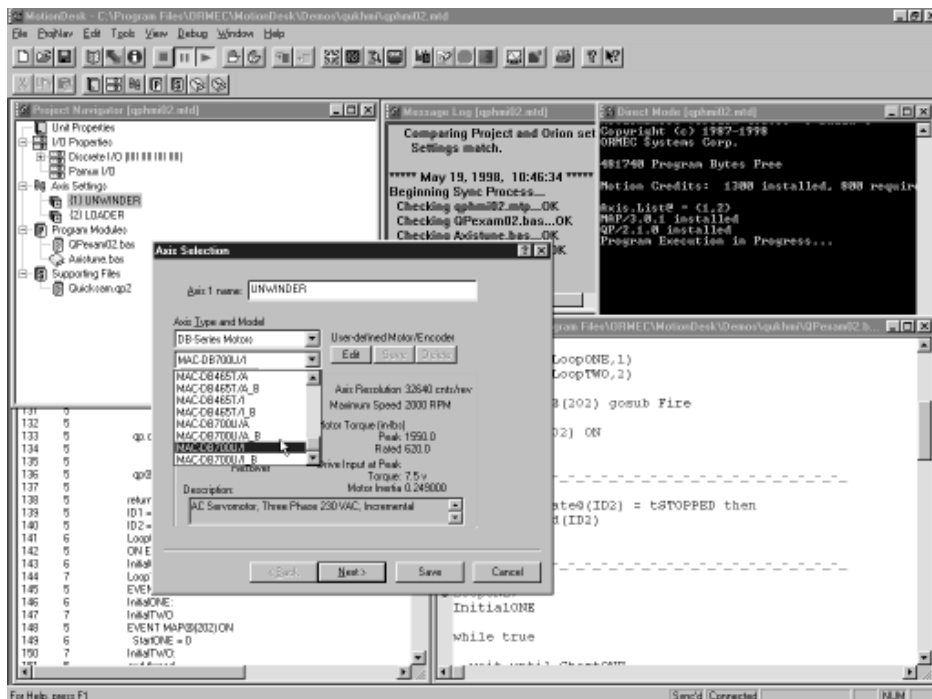
Project Navigator

A key element of MotionDesk™ is the ORION® Project Navigator that simplifies the process of configuring your motion control system. It includes multiple screens for unit and axis parameters as well as servo gearing and I/O configurations.

The "wizard" approach leads the user through a series of screens that simplify configuration. You are then led through only the pertinent screens based on your prior choices.

MotionPad Editor

The MotionPad editor provides powerful program editing tools and macro capabilities to speed the process of developing your program. Key features of MotionPad are:
- ► context-sensitive help on menus, toolbars and MotionBASIC® keywords
- ► colored emphasis of MotionBASIC® keywords helps highlight programming problems while editing
- ► complete text editing and file management capabilities

The MotionDesk™ Project Navigator provides effective tools for managing motion control projects. Set-up wizards lead you through a process of matching your software with the configuration of your machine.

- ability to edit one or multiple files in multiple windows
- multi-level undo capability
- MotionPad activates whenever a programming error is detected in the ORION® controller during system testing. Reported errors are presented to the developer through a MotionPad window with the proper module open and pointed to the source line causing the error.

Windows Help

The ORION® Help System utilizes the latest Windows-based tools to provide access to MotionBASIC® and ORION® information. Full text searching capabilities and multi-level folders provide a graphical interface for exploring topics using dynamic links and hypertext tools. The MotionPad editor is linked to the Help System making it simple to initiate searches from the editor by highlighting a word and invoking the Help System.
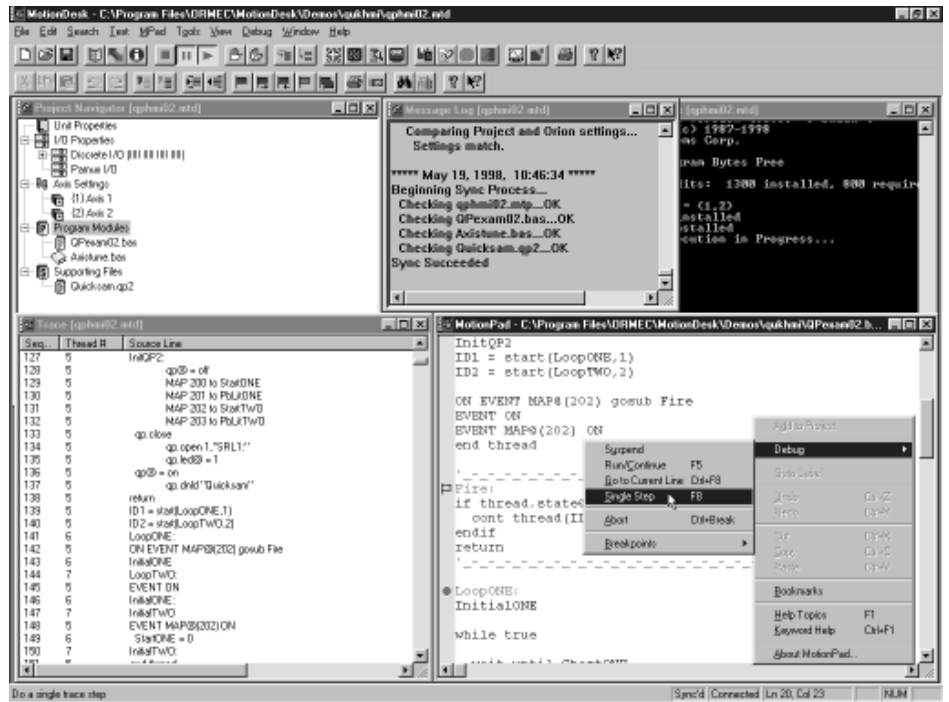
File Management

MotionDesk™ provides a full set of file management features that are fully integrated into the Windows Explorer as an FTP folder using TCP/IP communications for managing user files on the ORION® controller.
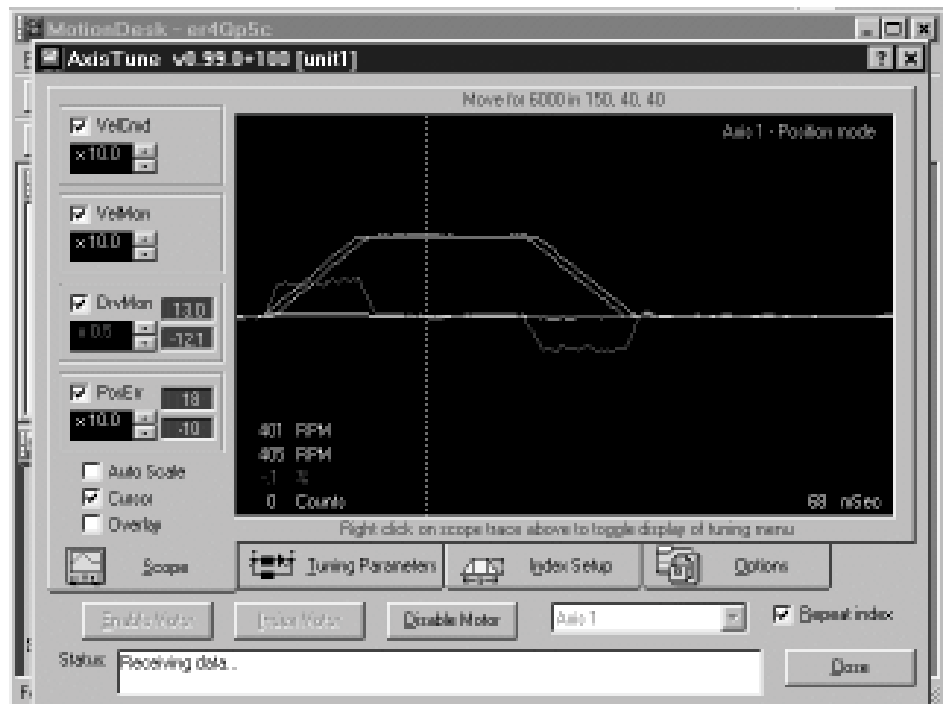
Upgrade Director

Installing the latest version of MotionBASIC® or a new MotionBASIC® Extension, along with the appropriate Help files, is easy with the Upgrade Director. Integrated into the Motion-Desk™ environment, the Upgrade Director presents a complete menu allowing you to install only what you need for your application. In addition to upgrades, all MotionBASIC® extensions are available on the ORMEC User web site (password required).

Axis Tune

No programming is required to get the motor/drive systems tuned to your system load. Built-in and user modifiable motion profiles with default parameters are automatically adjusted to meet your system inertia load requirements for quick and easy fine tuning of your system's loop response. All modifications to loop parameters are implemented dynamically with visual feedback displayed on the integral color scope. Final adjustments can be stored in the configuration file of your project.

The MotionPad Editor combines sophisticated text editing capabilities with context sensitive help, bookmarks, error reporting, program execution control featuring single step and setting breakpoints. Provides realtime display of data variables and program label information with one mouse click.

MotionDesk™ provides a system tuning facility called AxisTune which allows modification of the control system parameters to provide the proper response to motion profiles specific to your application with a realtime record of position error, velocity command, actual velocity and torque response.

ORDERING GUIDE
MotionDesk™ Development Software and Accessories

MDK-SW/C*	MotionDesk™ version 3.x for use with MotionBASIC© 5.x, CD-ROM
CBL-SER-AT	Serial Coil Cord, 6-wire modular, 3/12 ft, 9-pin D, IBM-AT
CBL-SER-PC	Serial Coil Cord, 6-wire modular, 3/12 ft, 25-pin D, IBM-PC
CBL-MOD6/15	Cable, 6-wire modular, 15 ft ($1/ft for other lengths)
CON-MOD6-AT	Connector from CBL-MOD6 to IBM-AT (9-pin D)
CON-MOD6-PC	Connector from CBL-MOD6 to IBM-PC (25-pin D)

*Note: MotionDesk™ kits include coil cable and connectors to communicate to either IBM-PC or IBM-AT styles.