

4.0 GETTING AROUND IN THE AutoMax EXECUTIVE

Keyboard Keys

In this manual, keynames are capitalized (ESC, ENTER, CTRL). A plus sign (+) used between two keynames indicates that those keys must be pressed at the same time. For example, "Press ALT+ESC" means you should press the ALT key and hold it down while you press the ESC key and release it. Then release the ALT key. A comma between two keys indicates that those keys must be pressed sequentially. For example, "Press ALT,SPACEBAR" means you should press the ALT key and release it; then press the SPACEBAR and release it.

The DIRECTION keys are the four arrows on the keyboard that are used to move the selection, pointer, or cursor on the screen. The keys are written as UP, DOWN, LEFT and RIGHT. When using the keyboard, you usually use the DIRECTION keys to move the cursor. ENTER is usually used to execute a chosen command.

Mouse Buttons

When using a mouse, you use the left mouse button for most functions. (It is possible to swap the left and right button functions.) To point, move the mouse until the pointer rests on what you want. To click, press the button and release it. To click-and-drag, press the button and hold it down while moving the mouse. To double-click, press and release the button twice in rapid succession.

4.1 Making Selections

A basic concept in the Programming Executive is that you must first select an item before you can perform an operation. For example, you select a window and then work in it, or you select an item, e.g., an application task, and then do something to it, e.g., delete it.

4.2 Directory Structure

The library is the base directory under which all the AutoMax systems are stored. The default drive and library name are specified as part of the Setup procedure for the AutoMax Executive software. If you want to create a new library or change the default (selected) library or drive, you must use Setup. See section 5.5.2 for more information.

The system database files are stored as follows:

d:\library\system

where:

d is the disk drive

library is the name of the library

system is the name of the system

The system database files define the system and the sections, racks, and network-wide variables in the system. The \system subdirectory includes the documentation files for the system and for the sections and racks within the system.

The rack database files are stored in d:\library\system\rack, where "rack" is the name of the rack. The rack database files define the modules, tasks, and variables in the rack. The \rack subdirectory includes the source code, object code, cross reference files, and documentation files for the application tasks in the rack.

Backup of the AutoMax Executive software library directory and all its subdirectories should be done on a regular basis using the DOS XCOPY command.

4.3 Database Files

The AutoMax Executive software stores the data for AutoMax systems in dBASE III-compatible database files. There are four databases for each system and five databases for each rack in a given system. Database files are designated by a dollar sign (\$) as the first character of the filename and a .DBF extension. Index files (which contain pointers to where in the database information is stored) also have a dollar sign (\$) as the first character of the filename, but they are assigned a .NDX extension.

For each system:

\$SYSTEM.DBF	
\$SYSTEM1.NDX	defines the system
\$SECT.DBF	
\$SECT1.NDX	defines the sections in the system
\$RACK.DBF	
\$RACK1.NDX	
\$RACK2.NDX	defines the racks in the system
\$NET.DBF	
\$NET1.NDX	
\$NET2.NDX	
\$NET3.NDX	defines the network-wide variables in the system

For each rack in a system:

\$CARD.DBF	
\$CARD1.NDX	defines the modules in the master rack and any remote racks
\$IORACK.DBF	
\$IORACK1.NDX	defines any remote racks connected to the rack
\$TASKS.DBF	
\$TASKS1.NDX	defines the tasks in the rack
\$SWVAR.DBF	
\$SWVAR1.NDX	
\$SWVAR2.NDX	
\$SWVAR3.NDX	defines the variables configured in the rack
\$PARAM.DBF	
\$PARAM1.NDX	defines parameters for UDC module

See Appendix E for a description of the relevant fields for all of the AutoMax Executive databases.

4.4 AutoMax File Types

In addition to the files described in section 4.3, the following file types may be created when you use the Programming Executive. The file type is determined by the file extension. AutoMax uses the file extension to determine the particular editor (text editor or Ladder editor) to be used. When you create a file, the Executive appends one of the following file extensions to designate the file type:

.BAS	BASIC tasks
.BLK	Control Block tasks
.CNF	Configuration files
.PC	PC/Ladder Logic tasks
.INC	Include files (see BASIC statement INCLUDE)
.SDC	System documentation files
.CDC	Section documentation files
.RDC	Rack documentation files
.TDC	Task documentation files
.IDC	Include documentation files
.DBF	Database files
.NDX	Database index files
.XRF	Cross-reference files
.LOG	Log files
.LST	Task list files
.OBJ	Object files (BASIC, Control Block, or Configuration)
.POB	Drive parameter object files
.OS	System files
.EXE	" "
.BAT	" "
.INI	" "
.ERM	" "
.HLP	" "
.IMA	" "
.DAT	" "

After you edit and save an existing file using the Ladder Editor, AutoMax renames the original file by adding the at character (@) at the beginning of the file extension and dropping the third letter in the file extension. This makes it possible to edit a file once without losing the original. For example, editing and then saving the task SPD.PC would result in the edited version of the task being saved as SPD.PC and SPD.@PC as the backup.

Note that if you choose a different text editor in AutoMax Setup (see section 5.5.2), the character used to designate backup files, if any, may be different than described above. If your text editor creates backup files by attaching a .BAK file extension, be sure that you give all task files unique names to avoid writing over an existing backup file. For example, if you create a BASIC task and an Include file with the same name (TASK1.BAS and TASK1.INC), and then edit TASK1.BAS, the backup file will be named TASK1.BAK. If you then edit the Include file, its backup would write over, and you would lose, the backup for the BASIC task.

The Executive software maintains a maximum of two versions of any task file. Backup copies of the database files are not maintained. If more than two versions of any file need to be maintained, the file should be copied under another name using the COPY command from the Windows Explorer.

4.5 Text Editor

Microsoft WordPad is the default text editor used to create and edit Control Block and BASIC tasks, BASIC “include” files, and documentation files. The text editor is called up automatically whenever the task to be edited is a BASIC or Control Block task. See your Windows documentation for instructions on using WordPad.

If you do not want to use WordPad as your text editor, you can designate a different text editor.

- Step 1. Verify that the text editor is in your DOS PATH.
- Step 2. If it is a DOS-based editor, you must also create a .PIF file for it. This is done with the Windows PIF Editor.
 - a. Access the Windows Program Manager.
 - b. Choose the Accessories Group.
 - c. Choose the PIF Editor.
 - d. Select Open from the File menu, and specify NE.COM.
 - e. In the Program Filename field, change NE.COM to the name of your text editor (as it appears in your DOS PATH).
 - f. In the Window Title field, enter the descriptive name of your text editor.
 - g. Save the file.

See the *Microsoft Windows User's Guide* for more information on the PIF Editor.
- Step 3. Enter the name of your text editor during AutoMax Setup. See section 5.5.2 for the AutoMax Setup procedure.

4.6 Graphical Ladder Editor

The Graphical Ladder Editor is used to create, edit, and view PC/Ladder Language tasks. The editor is included with the AutoMax Executive. It is called up automatically when you edit a ladder task, or can be accessed by selecting the Ladder Editor icon from the AutoMax group window. It is also called up when you choose the Monitor PC Program command from the Online menu in the System Configurator or the Task Manager. Refer to J2-3094 for more information on AutoMax Graphical Ladder Language. Refer to the AutoMax Graphical Ladder Editor Manual (J2-3093) for information about the Graphical Ladder Editor.