

# 20.0 SOFTWARE TROUBLESHOOTING

Error messages may be displayed on the screen if there are problems with memory, disks, or databases. This section describes some actions you can take to correct these problems.

## 20.1 Memory Errors

Some errors are caused by insufficient memory. An error message will indicate if this occurs. The Executive software requires 8MB of RAM. When one of these errors occurs, exit the Executive, make more RAM memory available and re-start the application.

Memory can be freed by:

- closing other Windows applications
- removing any terminate and stay resident (TSR) programs (e.g., Sidekick)
- removing any network drivers or moving them to high memory
- removing any other drivers or moving them to high memory
- reducing the memory reserved for environment variables
- reducing the number of files and buffers reserved in CONFIG.SYS (Windows requires at least 30 files and 10 buffers).

The *Microsoft Windows User's Guide* provides additional information on configuring your personal computer's memory.

## 20.2 Disk Errors

Some errors are caused by problems with the disk on which files are stored. An error message will indicate if this occurs. When one of these errors occurs, check for problems with the disk or disk drive and re-start the application.

Disk problems include:

- a write-protected disk
- lack of sufficient disk space
- protection on the disk or directory (for a drive on a network server)
- hardware problems with the disk drive

## 20.3 Database Problems

Errors can be caused by inconsistent, invalid, or missing data and/or index files. An error message will indicate if this occurs.

One source of problems with the data and index files is changes made outside the AutoMax Programming Executive software. These changes can be made with DOS (e.g., renaming or deleting files) or using a dBASE (or compatible) software package to write to the file. If any of these changes were made, verify that the changes were made correctly and that the index files are current.

Recovering the data and index files from a valid backup copy should correct the problem. In addition, it is possible to repair data and index files using a dBASE (or compatible) software package. However, this requires an understanding of dBASE and of the databases used in the AutoMax package. See section 4.3 or Appendix E for information on the AutoMax database organization.

If the application task files for a rack are deleted or become corrupted, you may be able to recover them by saving them from the Processor back to your personal computer. The procedure that follows can recover only the reconstructible application tasks.

- Step 1. From the System Configurator, create a temporary rack (e.g., TEMP) in the desired system and section by using the Add command from the Rack menu (See section 5.3.1).
- Step 2. Access the Task Manager and go online by selecting the Online Task Manager command (See section 8.19.1).
- Step 3. Enter "S" (Save) at the Transfer menu to bring up a list of all the tasks in the rack. Write down the task names. You will need these names later in order to recover the utility tasks (See section 14.4).
- Step 4. Enter the name of the rack configuration object file (\_CONF.CNF) and use the /All option to save all the tasks in the rack to TEMP (See section 14.4). Then press F3 to exit the On Line menu and return to the Task Manager.
- Step 5. Access the System Configurator. Use the Import command from the Rack menu to import the tasks in TEMP to the new rack. Enter the appropriate Disk:\library\system\TEMP in the source directory for Imported Rack dialog box (See section 5.3.12).
- Step 6. Access the Task Manager. Select Add from the Task menu and use the New option to copy the utility tasks to the task list (See section 8.1). All of the application tasks should now be listed for the rack.
- Step 7. Select Generate Configuration from the Commands menu to re-create the configuration object file for the rack (See section 8.17.4).
- Step 8. Return to the System Configurator and use the Remove command from the Rack menu to delete the temporary rack (See section 5.3.4).

## 20.4 Module/Variable Compatibility Problems

If registers defined in an AutoMax V2 module cannot be configured in the current version of the Executive software, or the database is somehow corrupted, an error message will be displayed (invalid/incompatible data type) when you try to configure the module. This error can occur because the current Executive software treats duplicate status registers, e.g. "Interrupt Enable," differently than in version 2. If one register is read only (R) and the other read/write (R/W), the current software allows you to configure just the read only register. Note that for duplicate status registers, R/W refers to the operating system's ability to write to that register, not the application task's. An error message will be displayed for each of the affected registers.

To fix this error, write down the variable name and address displayed, then delete the variable. You will not be able to configure the module unless you delete the offending variable. When you have deleted all offending variables, configure the module as desired. You will have to edit your application tasks to reflect the new configuration.

## 20.5 Printing Problems

The Executive software will print all tasks and files 132 characters per line. It does not, however, change page orientation and will not use soft fonts. Printers must be set up in the Windows Setup procedure (see section 5.5.1) and the AutoMax Printer Setup procedure (see section 5.5.4). See the AutoMax Ladder Editor online Help file for more information on printing Ladder tasks.

If you experience problems with printing AutoMax files, try printing a file from the Windows Notepad to determine if the problem is with the Executive software or with the Printers Setup. See the *Microsoft Windows User's Guide* for additional information.

## 20.6 System Errors

Errors that indicate a problem with the Executive software will cause the application in which they occur to close. If this type of error occurs, write down the error message; then contact Reliance.