Runtest Options

File

Open

This option, located under the **File** menu in the Runtest Program screen, is the method used for loading standardized test setups, typically located in the **Setup files** directory. Highlighting and opening the proper setup file readies the testing operation for a specific test. This directory hierarchy can be customized to suit the user.

Setup files can be stored locally on the 1500 system or on another machine on the network. Lehighton Electronics provides a default setup files directory (**Setup Files**), which contains a set of basic default files. The organization and maintenance of these files is strictly under the user's control.

New

This option, located under the **File** menu in the Runtest Program screen, allows the user to generate standardized tests for consistent, repeatable testing of specific samples. The Test Setup Info frame can be completed and saved in advance of testing; the General Info and Wafer Info frames are to be completed at the time of testing.

Save

This option, located under the **File** menu in the Runtest Program screen, allows the user to save changes made to an existing file, and is activated only when an existing setup file is loaded.

Save As

This option, located under the **File** menu in the Runtest Program screen, allows the user to save a setup file under a new name, and is activated when an existing setup file is loaded, or a new one created.

Print

This option, located under the **File** menu in the Runtest Program screen, allows the user to print a setup file. It is activated when an existing setup file is loaded, or a new one created.

compared at the end of the test with the actual results in the box just to the left of it. If the measured results are below the spec, then the machine is working properly.

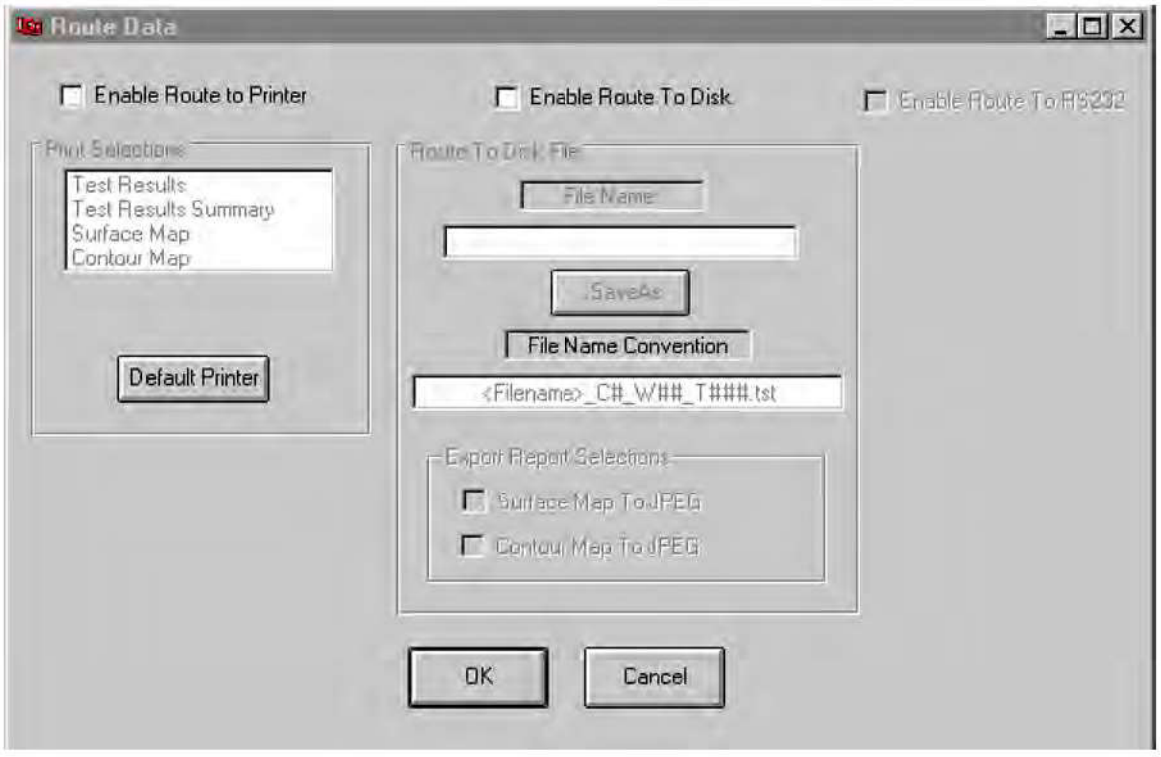
Exit

This option, located under the File menu in the Runtest Program screen, will terminate the RUNTEST application. A cautionary note will appear to the user to confirm the desire to terminate the application. Clicking the 'X' in the upper right-hand corner of the Runtest Program screen will perform the same operation, but selecting File then "Exit" is preferred.

Route Data

Route Data Window

This window allows the user to distribute test data either on paper or in electronic format at the time of test.



Enable Route to Printer

The option, located in the Route Data window, allows the user to route test data to a file or, in this case, a printer. Clicking the Enable Route to Printer check box enables the selection of predefined reports, which are printed at the end of each test cycle. The Default Printer button should be clicked to verify that the proper printer has been set as the default. When all appropriate selections in the Route Data window have been made, click OK to save this selection for this test run.

Enable Route to Disk

This option, located in the Route Data window, allows the user to route test data to a printer or, in this case, a file. Clicking the Enable Route to Disk check box enables the route Route to Disk File frame. Clicking the SaveAs button opens the routing path to subdirectories on this or any other computer connected to the network. Once the subdirectory where the test results are to be saved has been selected, a name for that test's results should be entered in the File Name field. Click the Save button when finished (***Note:*** Do not click the Open as read-only check box). When all appropriate selections in the Route Data window have been made, click OK to save this selection for this test run.

Enable Route to RS232

This check box, located in the Route Data window, allows the user to send test data and test summary results to a remote computer linked to the 1500 via a COM port at the completion of each test cycle. The RS232 option is setup and defined in the **RS232** tab in the **System Configuration** application. Information sent out to the COM port follows a predefined format, and each record (line) has an ENDL terminator string.

Note: The ability to use this feature is dependent on the options purchased with this instrument. If the About dialog box does not indicate that this option is installed on your machine, and you would like to purchase it, contact Lehighton Electronics for upgrade price and delivery.

Exporting to JPEG

Clicking these boxes will select the map (if installed). The map will be saved as a JPEG file inside the JPEG folder. There is no way to route the JPEG's to another location. Once saved there, they can be moved through normal windows functioning.

NOTE: JPEG's are used to make the map files smaller for email or electronic storage capabilities. The JPEG will only include the map, not any of the point measurement data.

box is enabled in the Runtest Options frame, the **Robot** menu option is activated. Selecting this menu option brings up the Robot Setup window with the **Criteria Setup** tab showing. Clicking the **Assignment Summary** tab will bring that window forward. This tab shows the Current Wafer Diameter Range, which refers to the pin locations selected in the SYSTEM CONFIGURATION application. This is software that is selected using the spread of wafer diameters shown in that application. Also shown are the robot stations with limits - if any are selected under the **Criteria Setup** tab - for the sortation process. These cassette stations are dependent on the wafer diameter for robot control. This information is also determined in the SYSTEM CONFIGURATION application.

RunTest

File

Save As

This option, located under the **File** menu in the Run Test window, opens the routing path to subdirectories on this or any other computer connected to the network. Once the user selects a subdirectory where the test results are to be saved, a name for that test's results should be entered in the File Name field. ***Note:*** The user need not add the '**.tst**' file extension to the filename. It will be added automatically when the test is saved.

Print

This option, located under the **File** menu in the Run Test window, allows the user to print test results. It is activated when a test is performed.

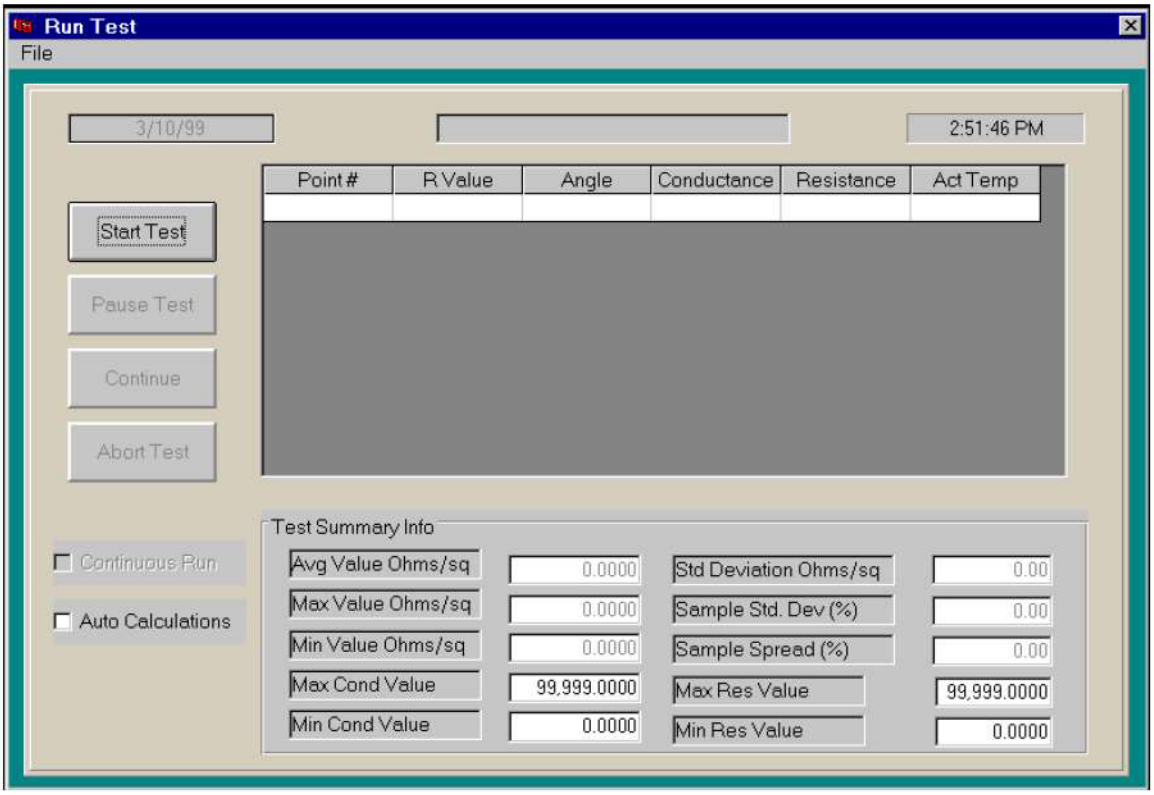
Exit

This option, located under the **File** menu in the Run Test window, will terminate the Run Test window and bring the Runtest Program screen back. Clicking the '**X**' in the upper right-hand corner of the Run Test window will perform the same operation, but selecting **File** then "Exit" is preferred.

Running a Test

Run Test Window

This window is the primary interface during testing. It contains buttons used to start/pause/stop testing, as well as display fields to update the user as the test progresses.



Start Test

Clicking this button initiates a test cycle according to the setup file in the Runtest Program screen.

Pause Test

Clicking this button will pause a test. Be aware that the pause will not be instantaneous; the 1500 will only pause after a software command cycle, such as wafer flat alignment or robot Home, has finished.

Continue

Following a Pause command, clicking this button will resume testing.

Abort Test

Clicking this button will end a test. Like the pause command, the test will only end after a software command cycle, such as wafer flat alignment or robot Home, has finished. ***Note:*** This is a permanent end to the test; it is not possible to continue a test following an abort command.

Continuous Run

This check box is located on the Run Test window. If the number of test cycles specified in the Test Setup Info frame is greater than one, the Continuous Run check box is activated. If the user clicks this box, testing will continue until all wafers or test cycles have been completed.

Auto Calculations

This check box is located on the Run Test window. If the test plan selected calls for more than one measurement per wafer and the user clicks this check box, the Test Summary Info frame is updated as the test progresses.

Test Summary Info

This frame, located in the Run Test window, contains summary information for each test run on each wafer. In addition, if the Auto Calculations option is selected, the information is updated as each measurement is taken. Data displayed are minimum, maximum and average sheet resistance values (resistivity if testing in bulk mode), minimum and maximum conductivity values, sample standard deviation (in both Ω/square (Ω-cm if bulk mode) and percent), and sample spread (in percent). There are also two fields that can be used to assign minimum and maximum resistance values (resistivity if bulk mode). Data falling outside of the specified range will be displayed in red on the screen. This is a visual flag only; the system will continue to take measurements normally even if the data is out of range.

Data Display

This area, located in the Run Test window, gives the user a visual display of data taken as a test progresses. The field located above the data display window indicates the name of the test, the cassette number, (if cassette testing is selected), and the test cycle (if multiple test cycles have been selected). The columnar data shows the point number, radius value, test plan wafer angle, conductance/resistance (conductivity/resistivity and thickness if bulk), and measured temperature at the time of that test point measurement.