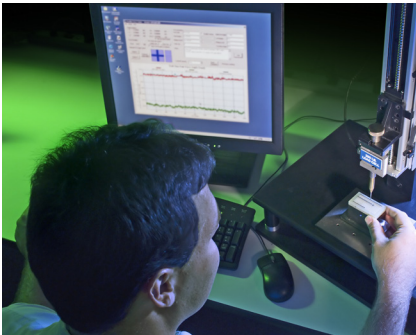


SAFETEST 2000



MANUAL

Main menu of the program:

Safetest 100B program is made by National Instruments LabVIEW 6.1 program. With Safetest 100B program is possible to control all Finero's FST-series safety testing equipment.

Program starts by pressing Safetest 100B shortcut (create first shortcut, if it doesn't exist; NEW -> SHORTCUT -> Browse C:\Safetest 2000\Safetest.exe or C:\Safetest 2000\Main-main.vi in source code version).

All files must be located under C:\Safetest 2000 folder. (Source code version or .exe-version).

In main screen of the program there are five different buttons:

- TESTING
- EXIT
- PROGRAMS
- RELAYS
- CONFIGURATION

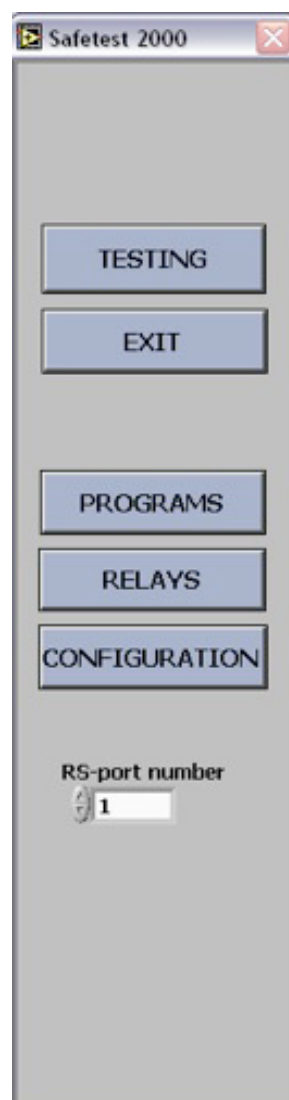
By pressing TESTING-button starts real testing process, first the name of the test program and serial number of the DUT are asked. Program executes all tests, which were written on the testparameters of the test program; as a result is PASS or FAIL information given.

By pressing EXIT-button program is closed.

By pressing PROGRAMS-button is possible to edit programs (EDIT) or create new programs (NEW).

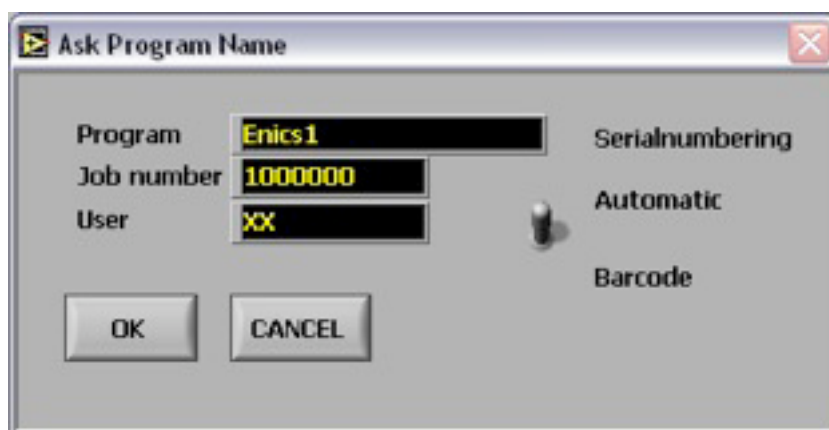
By pressing RELAYS-button is possible to edit relays. Relays is typically used with relay matrix (FST-150) as creating different relay combinations in automated testing.

By pressing CONFIGURATION-button is possible to edit configuration of the test equipment.



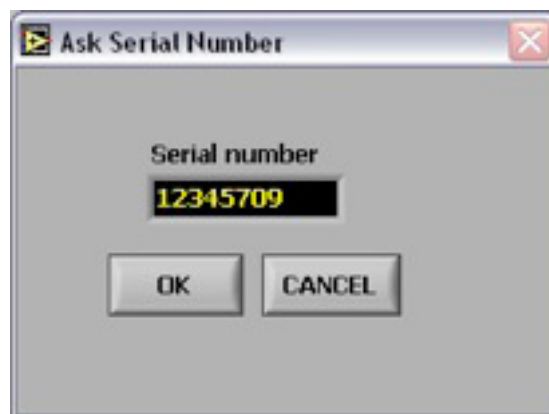
By pressing TESTING-button is possible to execute all tests with these testparameters, which were earlier edited in PROGRAMS-menu. By choosing TESTING-button, program asks name of the test program on the next window. Program is selected by double-clicking or with OPEN-button. Selected program name is written into the field Program on the Ask Program Name-window. In same window is also possible to write Job Number and initials of the operator (User). By pressing OK-button program continues to next step (asking serial number) and by pressing CANCEL-button program returns back into the main screen.

Ask Program Name-window:



Ask Serial Number-window:

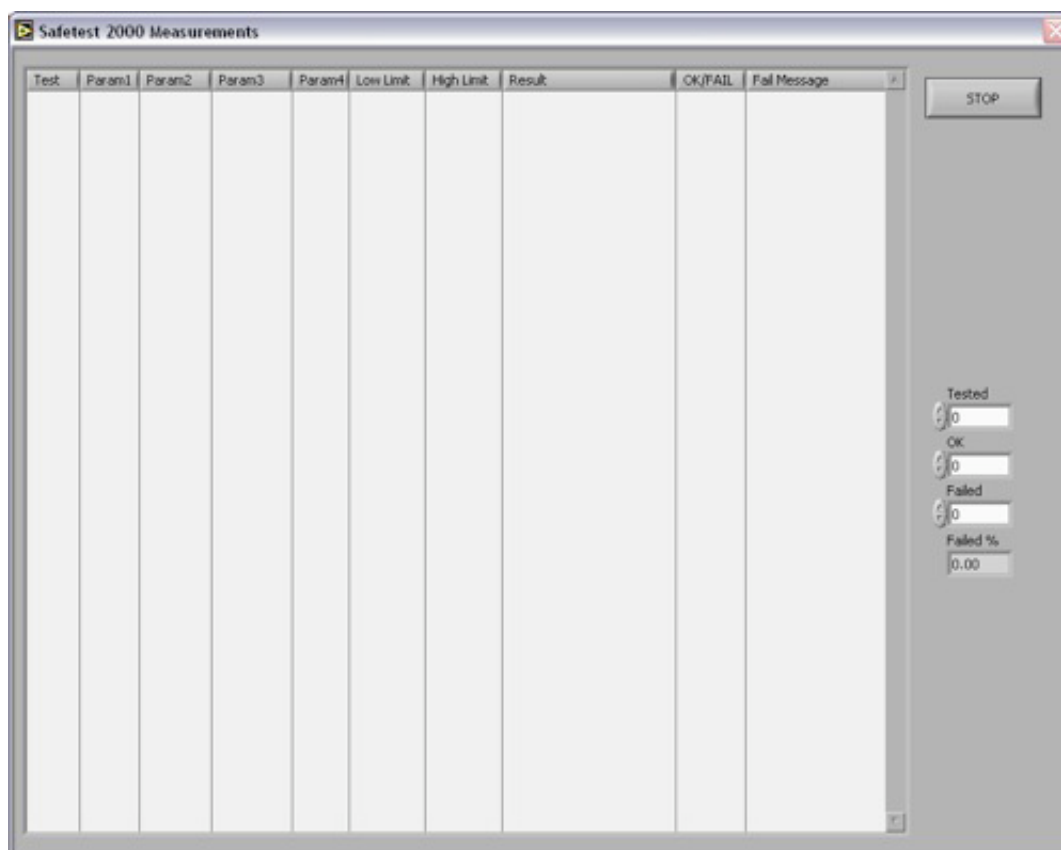
By pressing OK-button in Ask Program Name-window appears Ask Serial Number-window on the screen. Serial number (Automatic) is unic for each test program and when making the very first test with new test program must the initial value given into the field; when testing again with same test program is serial number increased automatically, If Barcode is selected, program assumes, that serial number is given by barcode reader (or by keyboard). By pressing OK-button testing starts; by pressing CANCEL-button program returns back into the main screen.



Real measuring window appears on the screen after getting starting signal (by pressing OK-button on the previous window). Testlines appear on the screen simultaneously as program continues testing according to the testparameters of the test program. On the screen is possible to see, which testline is currently under test, current testparameters, low- and high-limits of the actual test, measured value and fail, if exist. At the end program informs, whether the product was passed or failed. Testing is possible to interrupt by pressing STOP-button.

After program has executed the whole test routine, program returns to ask serial number of the next product, after pressing OK-button testing of the next product is started. If product is wanted to be changed, pressing CANCEL-button in Ask Serial Number-window, program returns back into the main screen. After that by pressing TESTING-button again appears Ask Program Name-window on the screen. New product is possible to select and by pressing OK-button program continues again into the Ask serial Number-window with this new program. Starting procedure is stopped by pressing CANCEL-button in Ask Serial Number-window, then program returns back into the main screen and by pressing EXIT-button on main screen is program closed totally.

Measuring-window:



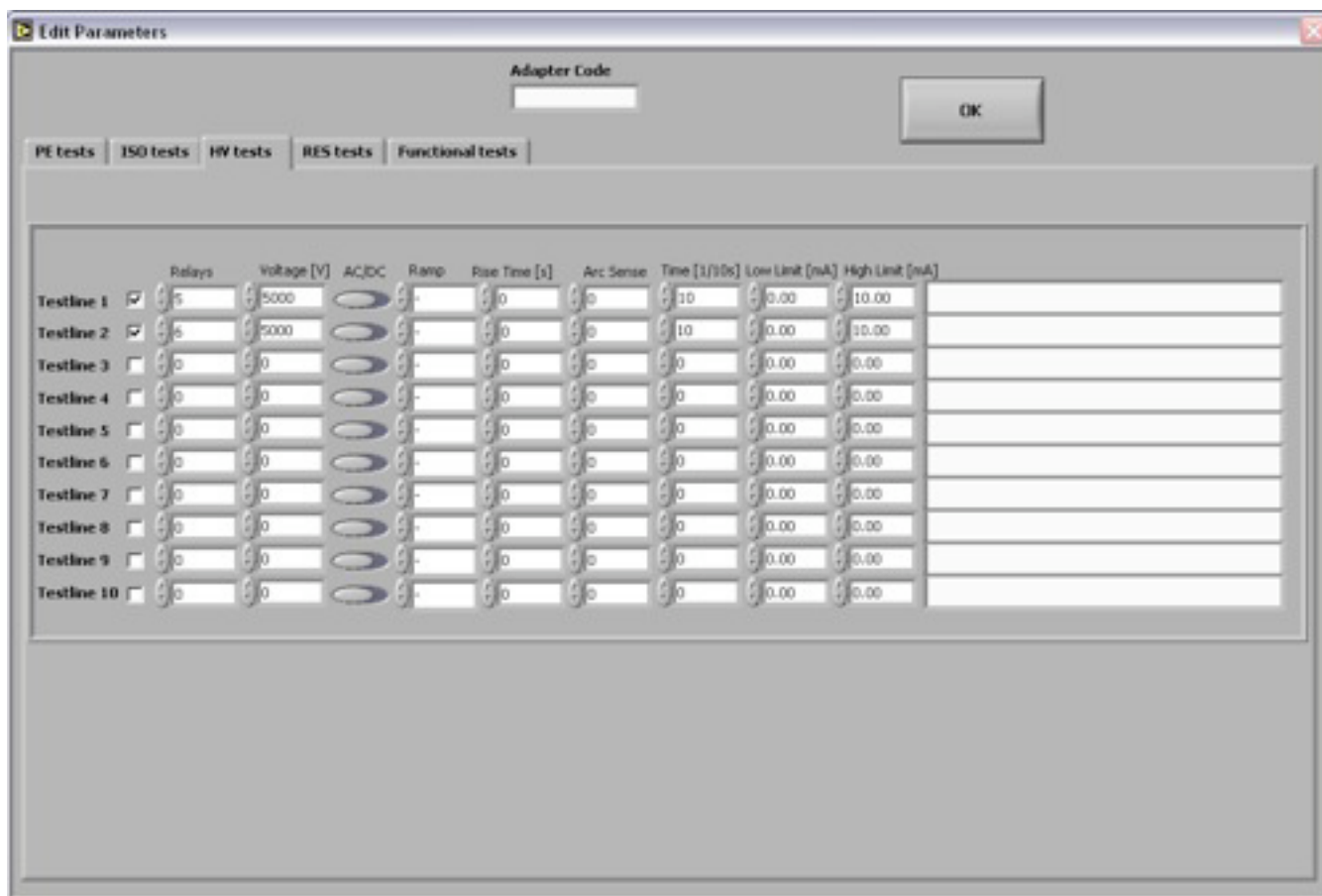
By pressing PROGRAMS-button appears a new window, where is possible to choose, whether new program is created (NEW) or earlier written program is edited (EDIT). You must choose NEW or EDIT to continue the program. If NEW is selected, appears Program editing-window, where testparameters of test program are written. Before saving by pressing OK-button, name of the test program must be written into the field Program.

If EDIT is selected, appears first a window, where edited program must be selected and after that you get into editing-window. In editing-window is possible to write testparameters for the test program. In editing-window appears only testlines of those testing equipment (PE tests, HV tests, ISO tests, RES tests), which are configured in configuration window (by pressing CONFIGURATION-button); other parts stay grey coloured.

Actual programming actions are the same when creating a new program or editing the old program. When writing a program testline must first to be activated by marking a cross into most left-sided box of the current testline. If relay matrix is used, into the Relays-field is written the line number, which is linked to relay combination of this testline in relay table (lines 1-40). Not used in Sweden/Enics version! See below! After that other test parameters must be written. In the window there are special parameters for each tester; for instance in PE tests 10A/25A current, 6V/12V voltage, testtime as 1/10 seconds and low- and high-limit of the measured value as milliohms. In HV tests testvoltage, AC/DC-choice, ramp (off, up or up/down), rise time in seconds, Arc Sense 0-99 (0=not in use), testtime as 1/10 seconds and low- and high-limit of the measured value as milliamperes. In ISO tests testvoltage, resistance area (1 = 10 Mohm, 2 = 100 Mohm, 3 = 1000 Mohm, 4 = 10000 Mohm, 5 = automatic choice of the resistance area), NPLC (sample rate), testtime as 1/10 seconds and low-limit of the measured value as Mohm.

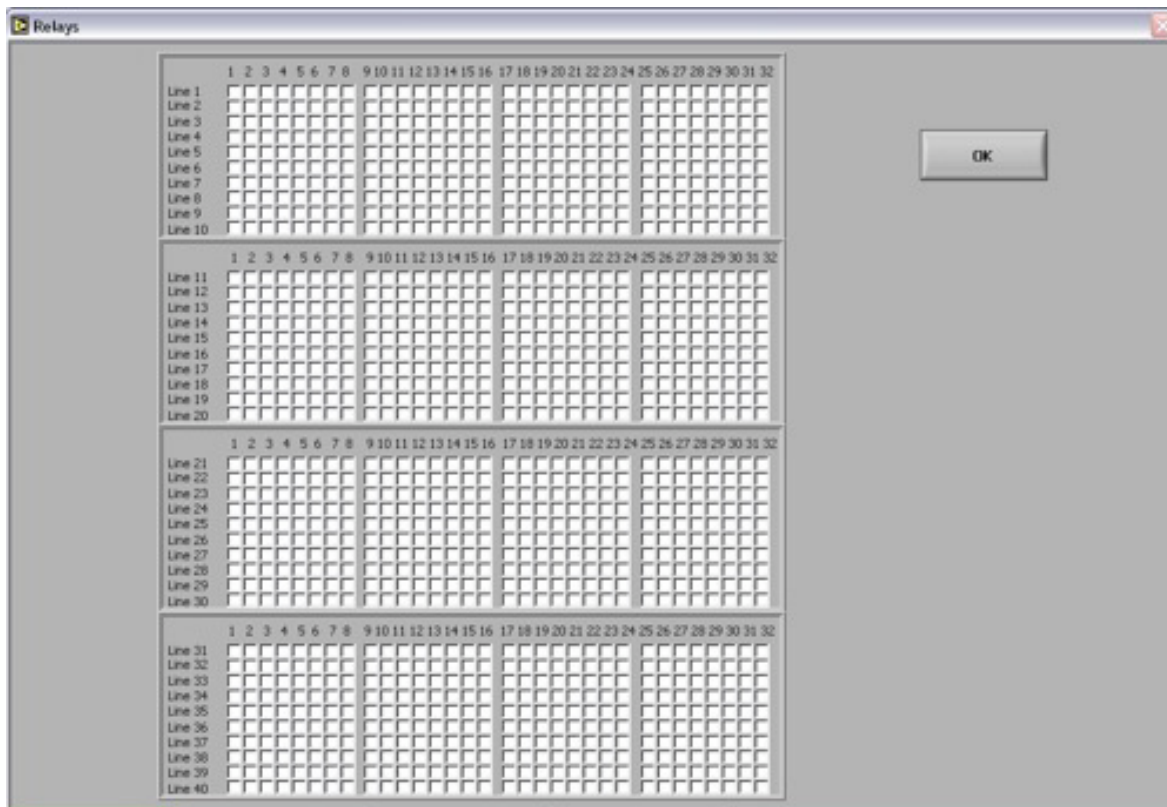
Program is saved by pressing OK-button.

Editing-window of the testparameters:



By pressing RELAYS-button is possible to edit relay table, which is typically used with relay matrix (FST-150) when creating different relay combinations used in automatic testing. In the relay matrix is 32 pcs outputs, which are possible to control separately ON or OFF. To make a relay combination is for instance in the line number 1 marked those relays by cross, which are wanted to to be closed in the actual test. This relay combination line number 1 is activated in the testparameters-window for instance on HV-test line 1 by writing in Relays-field number 1, which now in this example is linked into relay combination line number 1 of the relays table. After all relay combinations are written, saving is done by pressing OK-button.

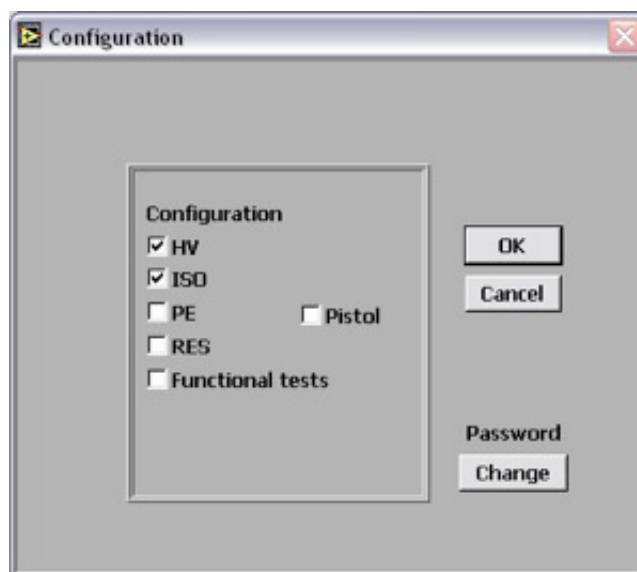
Relays-window:



Configuration-window:

By pressing CONFIGURATION-button is possible to edit configuration-table, where is configured all test equipment used.

In the configuration-table is possible to choose HV-, ISO-, PE-, RES- and functional tests. In PE-tests is possible to connect also test pistol.



Results are saved on the hardisk of the computer into the folder C:\Safetest 2000\Results.

In this folder is a file named Results.txt, where all the test results are saved. Together with this file, program is saving test results sorted by job number and program name into the own files. For instance all tested results with Job Number 1000 are saved in \1000 folder under \Results folder. Under \1000 folder is for instance folder \Test1 (Program Name). Under this folder are test results as own files sorted by serial number.

Programs, which is no more used, are deleted in Windows from folder C:\Safetest 2000\Programs\. Same way is possible to delete unnecessary result files from folder C:\Safetest 2000\Results\.

How to install RunTime-version:

Start installation from Safetest CD - Setup.exe in exe folder.

Installation procedure asks to confirm installation folders, answer OK to these questions.

After installation copy from Safetest CD folders (Filet, Programs, Results) under the folder C:\Safetest 2000.