



ELE DataSystem Software

- **Windows® compatible programs available for Triaxial, Consolidation, Direct/Residual Shear and CBR tests.**
- **Tests are run with step-by-step instructions selectable between ASTM/AASHTO and British standards.**
- **Automatic Report Generation in accordance with ASTM/AASHTO and British standards (MS Word required)**
- **Real-time graphical outputs both to screen and printer as required during test**
- **Tests can be performed using SI, imperial or metric units.**
- **Test stages have built-in functions to aid on-the-fly calculation of set-up parameters where appropriate.**
- **Minimum data entry — machine and transducer data held on system disk.**
- **Comprehensive 'Help' screens**
- **Facility to enlarge on-screen transducer readings during test monitoring**
- **AGS (Association of Geotechnical and Geoenvironmental Specialists) file compatibility for electronic exchange of data**

With the growing demand for automated testing ELE offer DataSystem 7, a completely new suite of geotechnical data acquisition, analysis, and reporting software replacing the very successful and widely used DS6 range of programs.

DataSystem 7 is designed to record, analyze and report test data per ASTM, AASHTO, and British Standards for Quick-Undrained Triaxial, CU/CD Triaxial, Consolidation, Direct/Residual Shear and CBR tests.

The software runs on a personal computer connected to the ELE ADU data logger with transducers and has been designed and written for use by engineers and technicians.

Each package is user-friendly and guides the user through the test procedure in accordance with the selected Standard (ASTM/AASHTO or BS). Standard screen layouts present sample details, test stage, menu options and data entry.

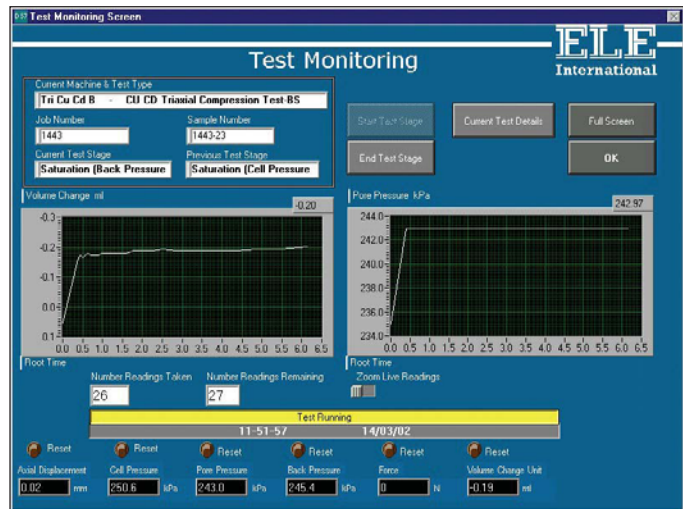
The engineer has total control over those areas of analysis where an engineering judgement is required. The test techniques and methods follow generally accepted geotechnical engineering practice.

All test data and reports are automatically filed in a logical folder structure based on Job Number, Test Type & Sample Number. Files for each test are given a unique name, based on sample i.d., date and time. This system allows easy identification of historical test data and ensures that test data will never be accidentally over-written.

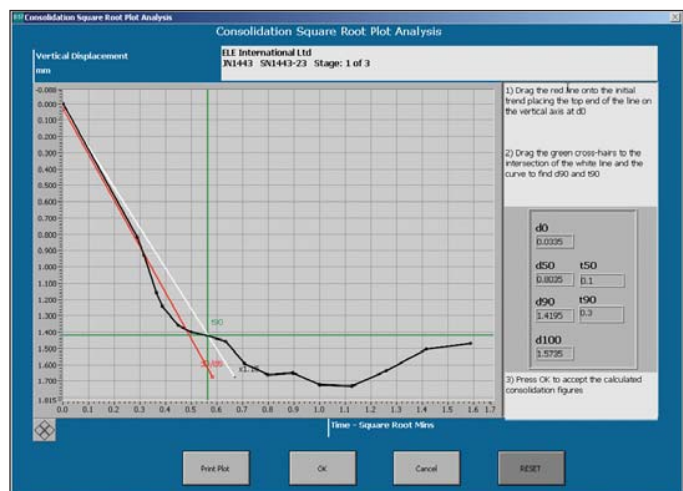
To take full advantage of the extensive reporting facility the package provides, Microsoft Word (Version 97 or later) should be resident on the system. This facility will allow reports to be generated automatically.

The packages of software required are accessed by an activation code, supplied by ELE, allowing the customer to build up a suite of software on an 'as required' basis. Each program is complete in its own right and can be integrated into the system at any time.

Please refer to the following page for a detailed listing of the packages available.



Test Monitoring Screen showing CU/CD Triaxial test in progress.



Test Analysis Screen, Consolidation Square Root Plot.

DS7 Benefits over DS6

DS7 has significant advantages over DS6. These include:

- **Up-to-date Windows User Interface. Compatible with all variants of Windows operating systems from Windows 95 onwards.**
- **Conformance to ASTM, AASHTO & BS standards (user selectable).**
- **Intelligent analysis and automatic report generation using MS Word.**
- **Easier monitoring of tests, with all relevant information on a well-laid out screen.**
- **Useful built-in calculators (eg for determining rates of strain, weights for consolidation etc)**
- **Three international engineering units systems**
- **5-slope transducer calibration facility for higher accuracy (or simple entry of single slope from certificate if preferred).**
- **AGS (Association of Geotechnical and Geoenvironmental Specialists) file compatibility for electronic exchange of data.**

Special Note:

IBM or compatible systems and the ADU are required for software operation.

DS7 Quick Undrained Triaxial Software

- Tests are run with step-by-step instructions selectable between ASTM/AASHTO and British standards.
- Automatic Report Generation in accordance with ASTM/AASHTO and British standards (MS Word required).
- Real-time graphical outputs both to screen and printer as required during test.
- Compatible with Windows operating systems from Windows 95 onwards.
- Options for single or multi-stage testing on one sample.
- Mohr circles produced for graphical analysis.

Options are available for a single test on one sample, standard three-sample procedure with linking of the results or for a multi-stage test on one sample. Load and strain are monitored through transducers.

Various printouts and graphical plots are available including basic sample data, moisture content, and density. The program tabulates shearing data and plots stress against strain. Mohr circles are produced for graphical analysis.

Ordering Information
EI27-1750.

DS7 CU/CD Effective Stress Triaxial Software

- Tests are run with step-by-step instructions selectable between ASTM/AASHTO and British standards.
- Automatic Report Generation in accordance with ASTM/AASHTO and British standards (MS Word required).
- Real-time graphical outputs both to screen and printer as required during test.
- Compatible with Windows operating systems from Windows 95 onwards.
- Complete package for consolidated drained and consolidated undrained triaxial tests.

This advanced package includes procedures for consolidated drained and consolidated undrained tests. Standard options are available for saturation, consolidation and shearing with automatic monitoring of the various parameters through transducers linked to the system. Load, strain, volume-change, pore-pressure, cell pressure and back pressure can all be monitored.

Various prints and graphical plots are available to the engineer and include saturation data such as pore pressure build-up and B values, consolidation, volume change against time, shearing load versus strain with pore pressure monitoring.

Ordering Information
EI27-1760.

DS7 One-Dimensional Consolidation Software

- Tests are run with step-by-step instructions selectable between ASTM/AASHTO and British standards.
- Automatic Report Generation in accordance with ASTM/AASHTO and British standards (MS Word required)
- Real-time graphical outputs both to screen and printer as required during test
- Tests can be performed using SI, imperial or metric units.
- Automatic compensation for frame deformation.

DataSystem Consolidation Software provides all basic functions needed to record and analyze consolidation test data. Options are available for monitoring settlement on a log time or square-root time basis. Printouts and graphical plots are available for all stages including Mv and Cv moisture content, voids ratio plots, and initial sample conditions.

Ordering Information
EI27-1770.

DS7 Direct/Residual Shear Software

- Tests are run with step-by-step instructions selectable between ASTM/AASHTO and British standards.
- Automatic Report Generation in accordance with ASTM/AASHTO and British standards (MS Word required).
- Real-time graphical outputs both to screen and printer as required during test.
- Compatible with Windows operating systems from Windows 95 onwards.
- Options for both quick undrained and drained shear tests.
- Single or Multiple stages
- Automatic compensation for frame deformation.

This unique package provides test options for quick undrained or drained shear tests with the user selectable option of residual testing. Individual test results can be linked together to produce the Coulomb Envelope. Printouts and plots are available for sample description and basic test data such as moisture content, etc. Real-time plots of settlement, shear versus displacement and vertical displacement during shearing is readily available via the computer screen or printer.

Ordering Information
EI27-1790.

DS7 CBR Penetration Software

- Two tests can be combined under the summary report for top and base of sample test results.
- Tests are run with step-by-step instructions selectable between ASTM/AASHTO and British standards.
- Automatic Report Generation in accordance with ASTM/AASHTO and British standards (MS Word required).
- Real-time graphical outputs both to screen and printer as required during test.
- Compatible with Windows operating systems from Windows 95 onwards.

This program provides the classical data for the CBR test. Load and penetration are monitored simultaneously. The program tabulates the results and provides a graphical presentation report.

Ordering Information
EI27-1795.