

FREWARE SOFTWARE

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All ECL programs have been developed to assist the ECL field QC's in their work.

The major ECL software has been developed and improved over the years by dedicated programmers. These are available only as licensed software.

Other small utilities have been developed by ECL employees or ECL Field QC's, as useful programs to fit specific tasks. These often use coding available free from other sources on the Internet. These utilities are in turn available as freeware, on the understanding that ECL does not assume any responsibility for problems that arise out of the use of these utilities.

Currently there are ten programs available. Each program will install with all associated files to within one subdirectory on the users computer. This will mean that there should be no possibility for shared files (such as *.DLL files) to be overwritten within the users operating system.

Each of the utilities was developed to allow the user to complete a simple task, not easily accomplished by any other available means. These are normally associated with data handling, data analysis, and reporting.

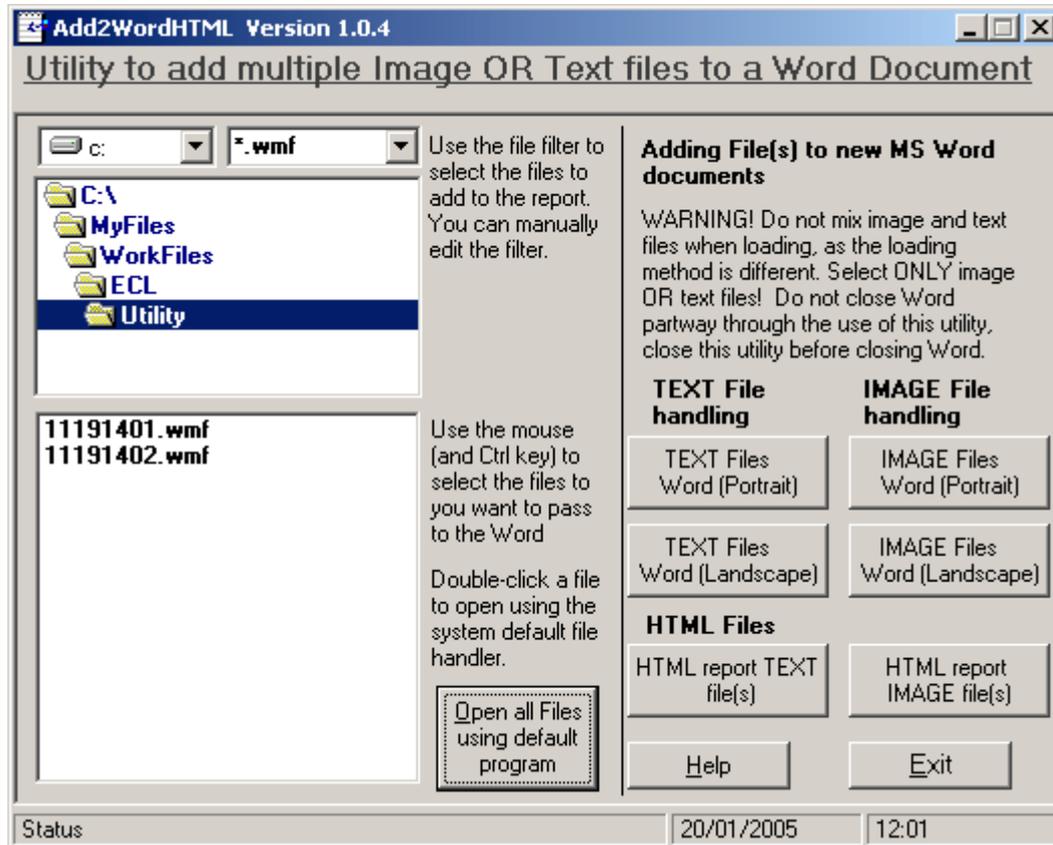
In case of problems and "bugs" please send a report of the problem to [Alec Crawford](#). Please give as much information as possible, and when time allows, the problem will be investigated.

If you find the software useful, and may like extra options to increase usability, please contact [Alec Crawford](#). Options may be added if considered suitable for general use, and sufficient time is available for development.

Except where stated otherwise, the **Freeware** may be used completely free of charge but note that "completely free of charge" must not be confused with "completely free" - the **Freeware** is copyrighted software, not public domain software.

Add2Word

A utility that allows multiple image or text files to be added to a MS Word document. This assumes that the user has a version of MS Word installed on the computer as files are passed only to MS Word.



Screenshot. - Image files selected ready to load to a new document.

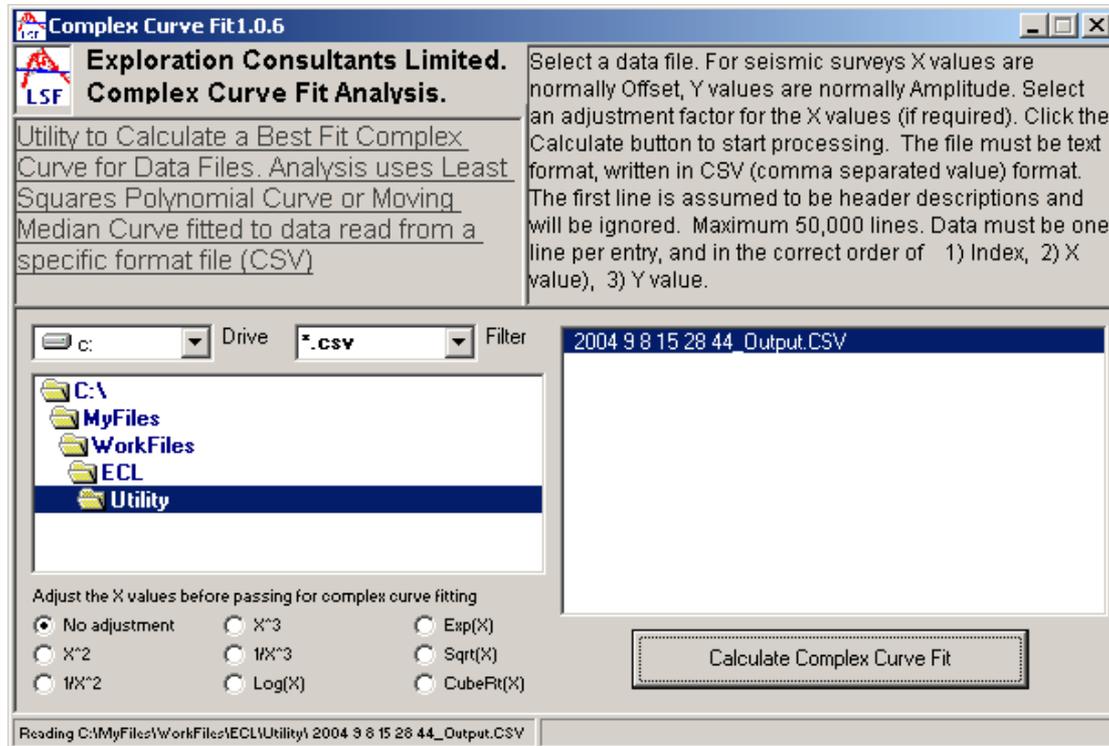
The user selects the files to add to the new document, then selects the page layout type (portrait or landscape). Each image or text file will be loaded to a new page. Large text files will be loaded across pages.

This utility was written to allow ECL QC's to quickly add many image and text files to a document for reporting purposes without the need to open and add each individual file. Typical use is to add tens or even hundreds of image files into an appendix for a report.

Note that due to a problem with Word, there is one remaining bug that needs to be fixed, where, if the user closes Word between different actions adding files, the program will crash. This is proving difficult to correct.

ComplexCurveFit

A utility developed from LeastSquaresFit. The utility reads data written to a CSV format file as X and Y value pairs, and calculate either a least squares fit or filtered moving average fit.



Screenshot. - Data input screen.

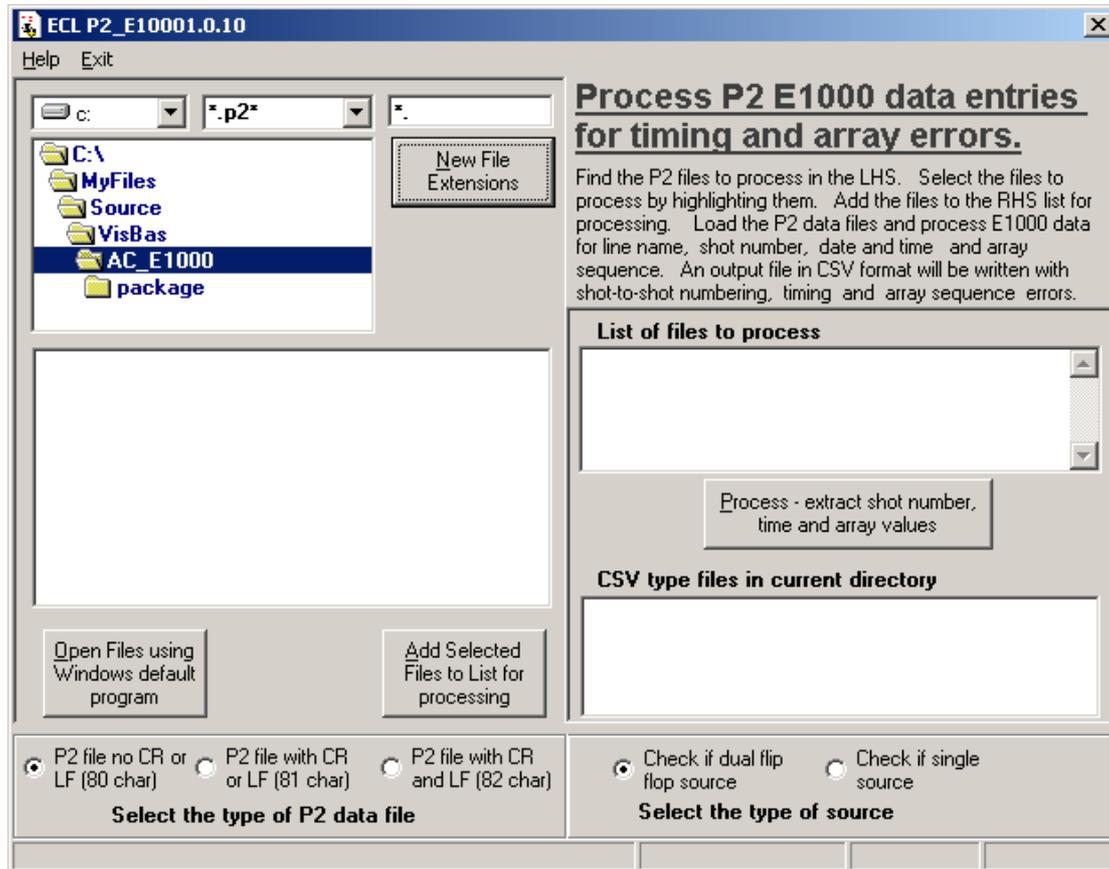
There are two windows. The first allows selection of a data file, for input from a data file created by the user, and selection of an adjustment to the X values. The data file must be in CSV (comma separated value) format with each line three values, and index (text or numeric), then a data pair as X then Y values, with a comma separating the values. The first line from the data file is ignored, and presumed to be headings. Example data files are provided.

The second window shows calculated results. The results for the complex curve fit are automatically saved to a data file named from the original data file. Each time a calculation is performed, the variables are appended to the results file.

A separate output file can be created where each original X and Y value will have an additional calculated Y value. This is useful for import into analyses, etc.

E1000

A utility to read data written to UKOOA/SEG P2 data files, and extract the E1000 lines which are generated every source point (shot).

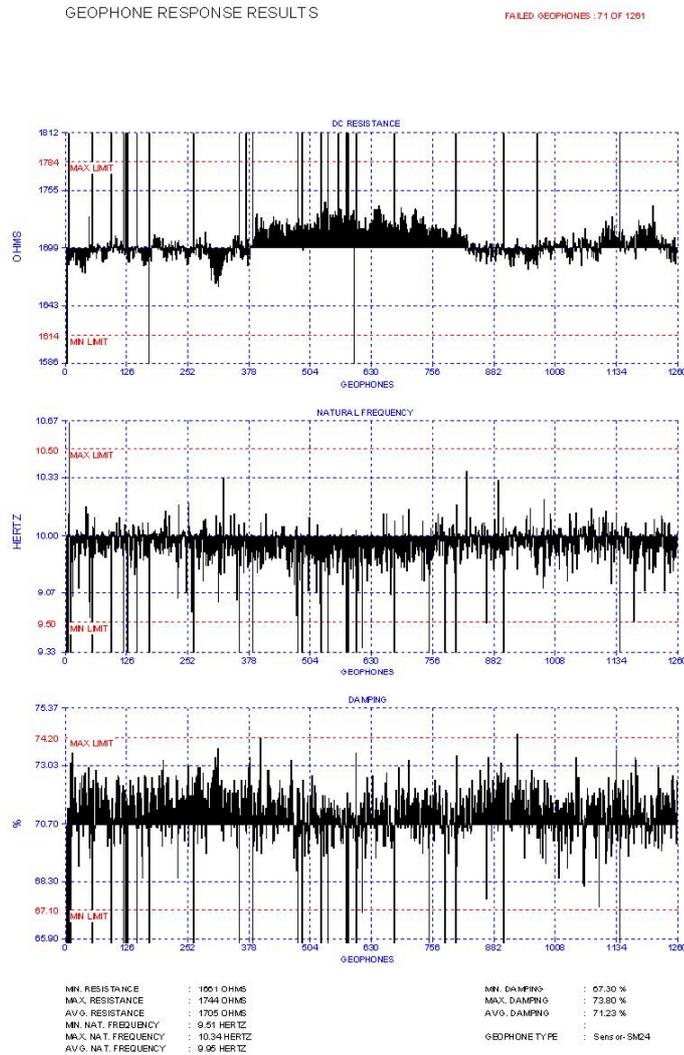


Screenshot. - Data read from a file with the calculated results.

This utility was written to allow ECL QC's to easily QC P2 positioning data files. The output file will report timing intervals greater than +/-10 seconds compared to the previous interval, and source sequencing errors. Output file is a CSV (comma separated value) file for import into spreadsheets. Time from shot to shot is calculated, allowing a simple QC of positioning.

GeoGraph

A utility written by Alun Gwyther to read data written by the SMT200 geophone tester and plot the results to WMF format image files for inclusion in reports.



PROCESSED BY : GEO-GRAPH : 12:11:00, 20/01/2005

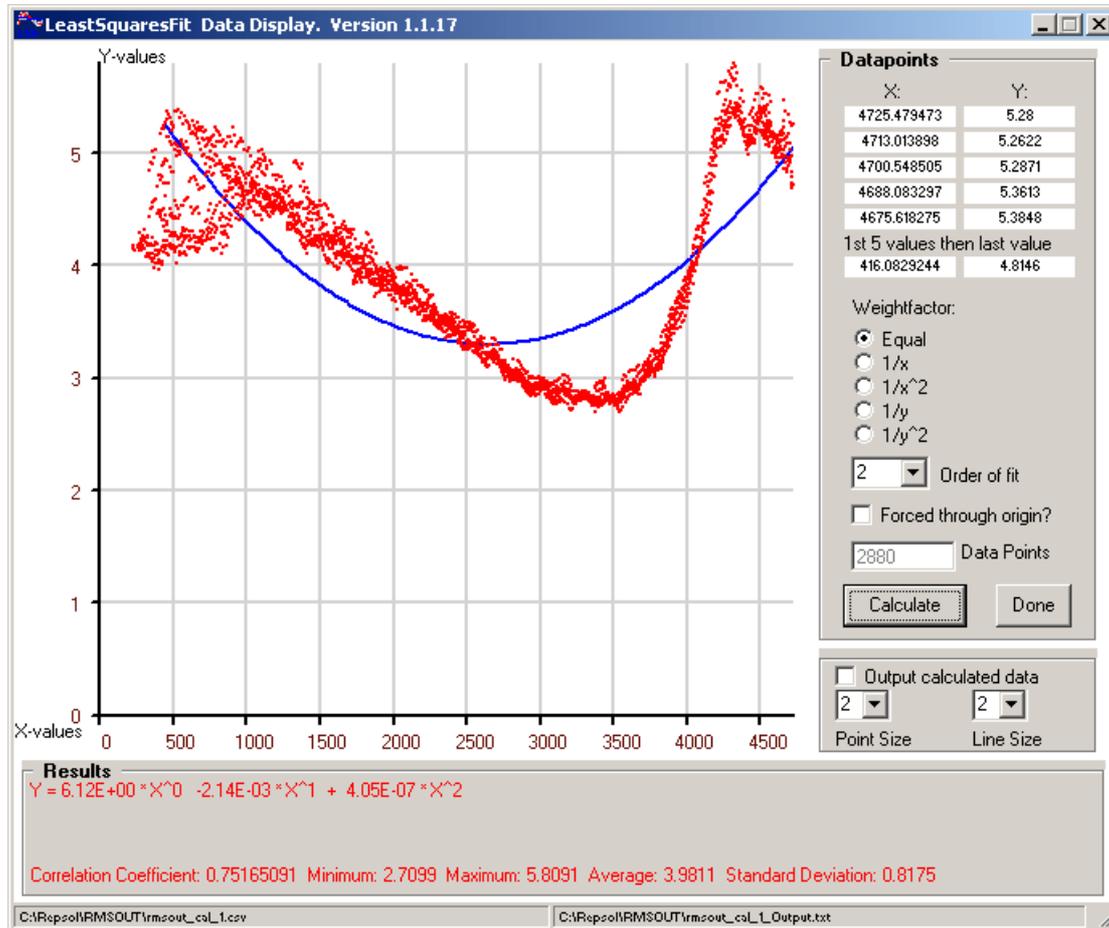
DATA FILE : 2206TFLPRN

Screenshot. - Data read from a file with the calculated results.

This utility was written to allow ECL QC's to graph the results downloaded from SMT200 geophone testers. The graphed results can be included in reports.

LeastSquaresFit

A utility to read data written to a CSV format file as X and Y value pairs, and calculate a least squares fit. The user can select the order of polynomial equation. Maximum 24th order polynomial equation.



Screenshot. - Data read from a file with the calculated results.

There are two windows. The first allows selection of a data file, for input from a data file created by the user. This must be in CSV (comma separated value) format with each line a data pair as X then Y values, with a comma separating the values. The first line from the data file is ignored, and presumed to be headings for the X and Y values. Example data files are provided.

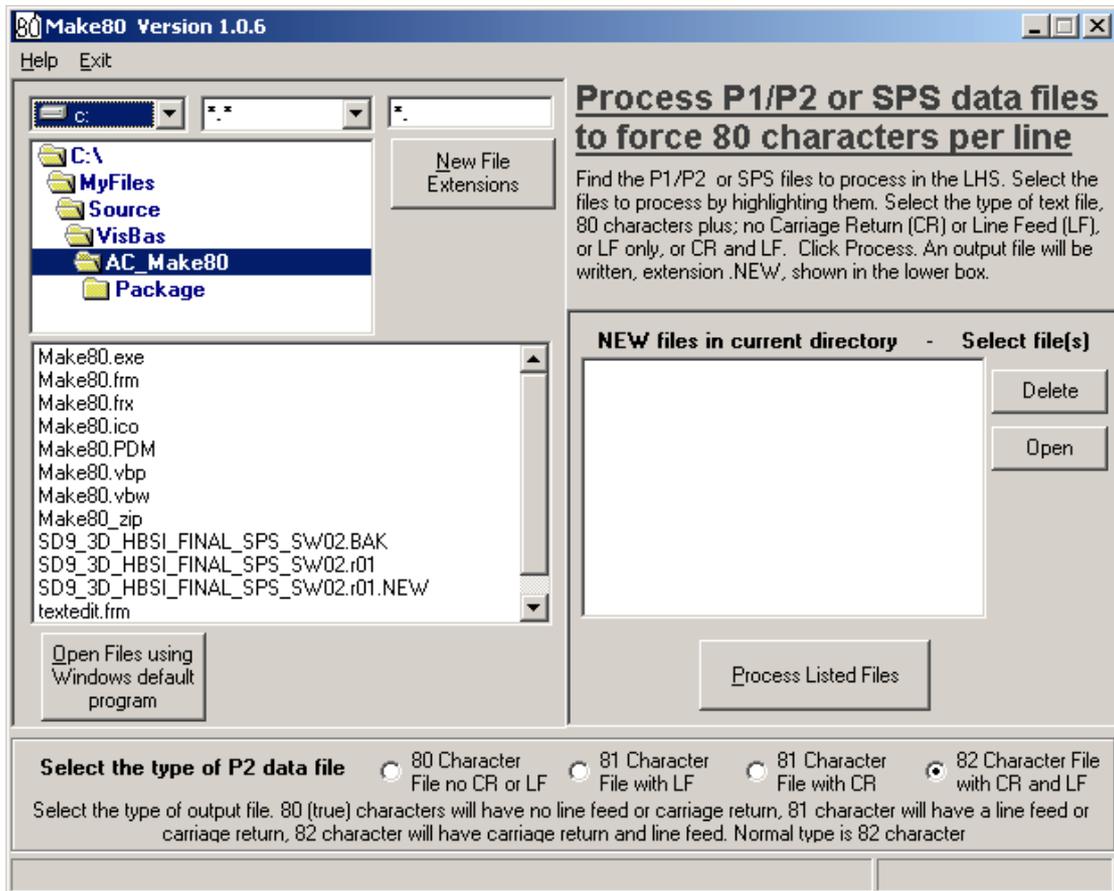
The second window shows calculated results. The results for the polynomial variables are automatically saved to a data file named from the original data file. Each time a calculation is performed, the variables are written to the results file. A separate output file can be created where each original X and Y value will have an additional calculated Y value. This is useful for import into analyses, etc.

This utility was written to allow ECL QC's to fit theoretical curves to real-world data. It used a lot of Visual Basic coding kindly provided on the Internet by P. Wester of the Netherlands.

Typical use is to match X and Y data sets to predicted curves.

Make80

A utility to read data from any text file expected to have a line length of exactly 80 characters, and correct formatting problems.



Screenshot. - Make80 ready to read data files

The data files are typically SEG standard positioning data files used in seismic surveys, such as the SPS or P1 or P2 data files.

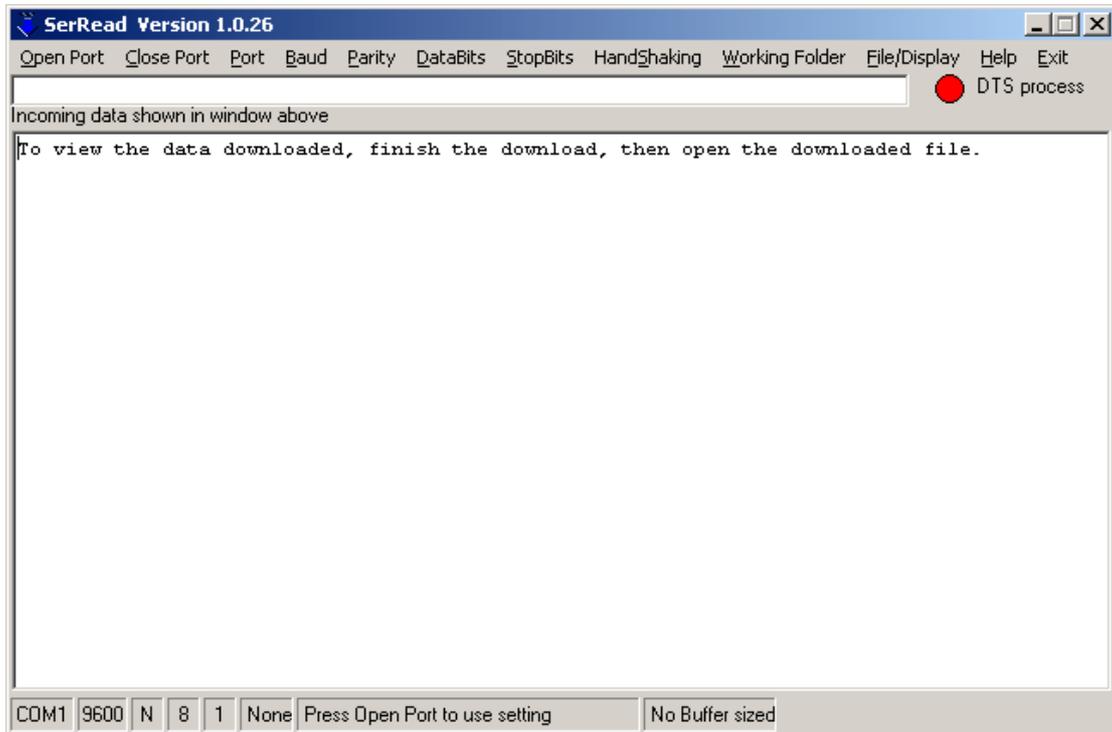
User editing of these files can result in corruption, or loss of formatting. The Make80 utility ensures the data files match the type of file specified, without carriage return (CR) or line feed (LF), or with any variation of these control characters.

Short lines will be expanded with spaces, long lines will be truncated.

Typical use is where a large file has several errors in format and a "quick and dirty" fix is required so the file can be used.

SerRead

A utility to read data sent to a serial communications port (such as COM1) and record the data to a file.



Screenshot. - SerRead ready to read data

The data is automatically saved to a data file named from the date and time. The file name and location will be shown in the status bar at the bottom of the window. The data read from the serial port will be displayed to the larger window so the user can edit the data, and save to a specific file name and location.

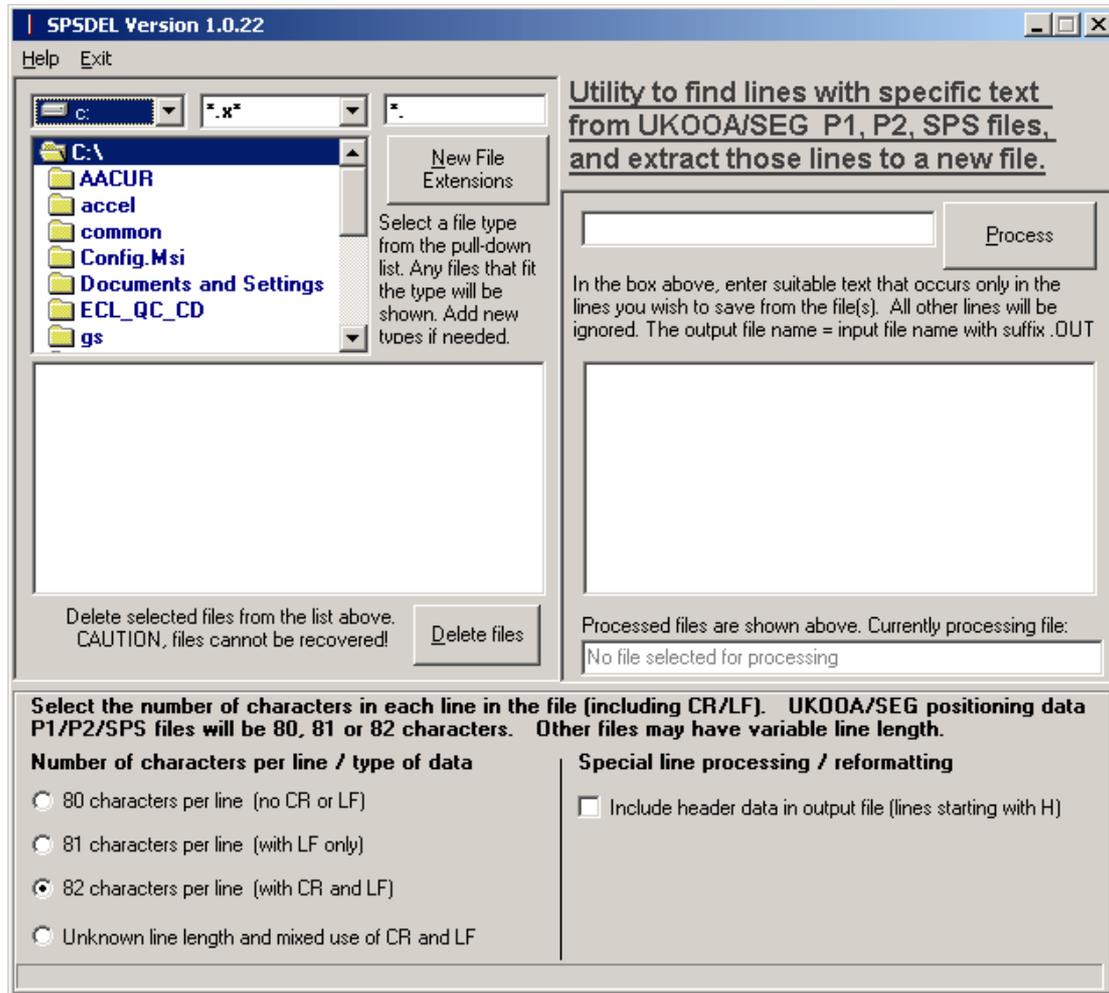
This utility was written to allow ECL QC's to read data from field acquisition devices, such as the Sensor SMT200 geophone tester. It may be useful for reading data from other serial devices.

Typical use is for field logging from serial devices during seismic acquisition.

Another utility caller SMT200Read has been designed specifically to complement the Input Output Sensor SMT200 geophone tester.

SPSDEL

A utility to read data written to UKOOA/SEG P1, or P2, or SPS data files, and extract only those lines required by the user. UKOOA/SEG P1, or P2, or SPS data files are positioning files used in geophysical surveys.



Screenshot. - Data file selection, then search string entry by the user.

The user selects a suitable file. Select the number of characters per line for the file (Unix files do not use CR or LF). Select a string to search for in the entries (lines) in the file. An output file will be created with only those lines where the search string is found.

This utility was written to allow ECL QC's to decimate or reduce SEG standard SPS data files to only those lines required by the user, for import into binning software such as the ECL Vega software, or for analysis in spreadsheets. Multi-component survey SPS data sets have positioning data for all sensor components. These can be decimated to limit the data to one sensor, for binning purposes. If one data set is created for each sensor, then comparison between coverage for the different sensors can be derived.

SMT200Read

A utility to read data sent to a serial communications port (such as COM1) from the Input Output Sensor SMT200 geophone tester, and record the data to a file.



Screenshot. - SMT200Read ready to read data

The data is automatically saved to a data file named from the date and time. The file name and location will be shown in the status bar at the bottom of the window. The data read from the serial port will be displayed to the window so the user can monitor the download. A subsidiary RTF editor is available to allow the user to edit the data, and save to a specific file name and location.

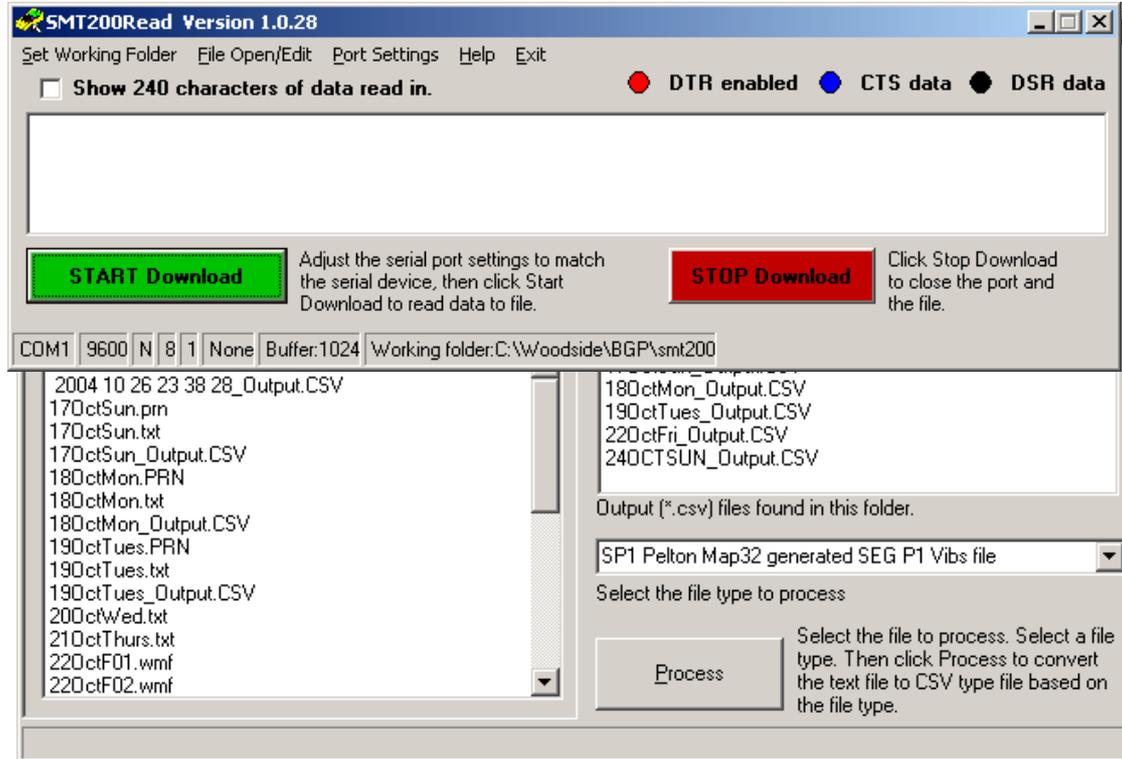
This utility was written to allow ECL QC's to read data from the Sensor SMT200 geophone tester. It may be useful for reading data from other serial devices.

For general serial data read capability, the user may like to use the SerRead utility.

VibroisFileQC

A utility designed to read data files produced during land seismic survey work, and create new comma separated value (CSV) files from the data.

This allows the user to quickly import data into spreadsheets for additional analysis or reporting, or for output to contouring / plotting software such as Surfer or QuickGrid.



Screenshot. - VibroseisFileQC

The output files are named from the original file with the suffix `_Output.CSV`. The same file name will be used for subsequent passes, so the user must beware output files can be over-written.

Data format files currently accepted are:

- RPS Receiver SPS file - SEG SPS positioning file
- SPS Source SPS file - SEG SPS positioning file
- XPS relational SPS file - SEG SPS positioning file
- SP1 - Pelton Map32 generated SEG P1 file
- ATT Vibrator Attribute (VE416) - Sercel field QC file
- APS short Vibrator Attribute (incl. stiffness, viscosity) - Sercel field QC file
- VAPS verbose Vibrator Attribute (incl. all attributes) - Sercel field QC file
- VPA short Vibrator Attribute (no stiffness, viscosity) - Sercel field QC file
- COG Vibrator Centre of Gravity positioning file - Sercel field QC file
- FDU Instrument Test results file - Sercel field QC file
- FIELD Field Test results file - Sercel field QC file
- REP Observer Report file - Sercel field QC file
- SMT200 geophone tester data file - Sercel field QC file
- HIS Station Unit Position Historical Record SN388 - Sercel field QC file

This utility was written to allow ECL QC's to quickly access data from field QC files for analysis and QC checks, plus graphing for reports.