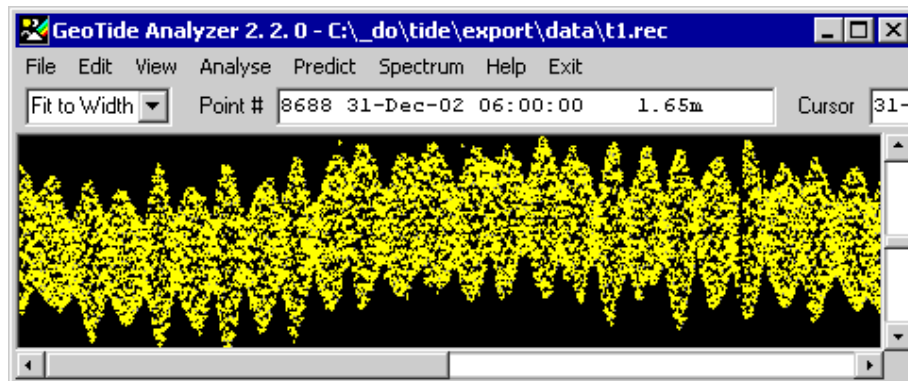




GeoTide Analyzer



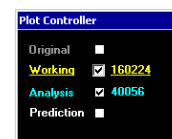
GeoTide Analyzer converts source tidal data into harmonic constants - the essential ingredient for making tidal predictions. This flexible and easy-to-use tool has been specially designed for the professional hydrographer and tidal surveyor.

The Analyzer provides facilities for:

- Import of tidal height or tidal stream data
- Identification of individual points for edit or deletion
- Data averaging and sampling
- Tidal harmonic analysis
- Comparison of observed and predicted data
- Identification of points with the greatest difference from the prediction.

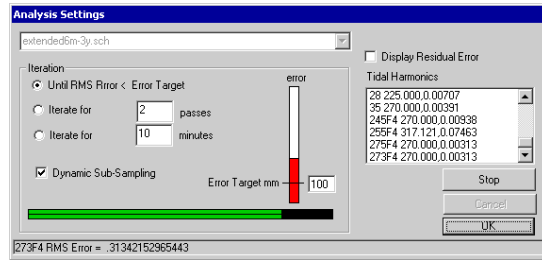
Its data import facility enables you to import data, such as listings of tidal heights or stream flow velocity, from tide gauges directly - using point and click field identification. Similarly, legacy ASCII data can be imported with a minimum of fuss.

Once the tidal data has been imported, the tide graph is displayed in the graphics window. This window can be re-sized and scrolled - and incorporates full graphic scaling and plotting facilities, incorporating up to four plot layers simultaneously. This, together with the dynamic cursor readout, makes it easy for the operator to identify and edit or delete data points in an intuitive and precise fashion. Additional options for sampling and carrying out a moving average are provided.



For tidal harmonic analysis, there is a choice of standard constituents sets, such as the UKHO simplified or IHO extended schemes. Advanced users may create their own tidal scheme for use with GeoTide-Analyzer which can include a virtually unlimited number of tidal components. In common with tidal theory, constituent lines can be grouped into constituent groups such as S2, M2 if desired - thereby reducing the number of mathematical operations, (and the number of independent variables) required for analysis. The harmonic constituents within GeoTide Analyzer may be grouped, or they can be entered individually, as desired.

During the analysis process, a continuous display of residual RMS error is provided, so that the quality and progress of the analysis can be monitored on a point-by-point basis. Facilities are also provided for comparing the predicted with the observed data so that the most errant points can be identified and, if necessary, can be corrected or removed.



Shallow Water Components can be incorporated as sum, difference and overtone components. In the simplified method, the shallow water coefficients can also be handled algebraically.

GeoTide Analyzer can be used with one dimensional (1D) tide height or depth data, 1D tidal stream data, and it can also be used for 2D vector flow analysis by combining two orthogonal 1D tidal streams.

Its sister programs, GeoTide Predictor and Publisher, fully integrate with the Analyzer and should be used to format and layout tidal predictions in graphical or tabular form.

GeoTide Analyzer also incorporates comprehensive user management and password facilities, and comprehensive logging of individual actions - enabling data quality audit.

Specification

Source

- 1D or 2D Tidal Data
- ASCII User Definable Input Format
- Automated Tide Gauge Data / Spreadsheet / Text File

Analysis

- Least Squares Harmonic Constituent Analysis
- Schemes: Simplified (UKHO), Extended, User Definable
- Individual Constituents or Lumped Constituent Groups
- Definable Sum & Difference Frequency Constituents
- Shallow Water Coefficients: Algebraic or Harmonic Methods
- Maximum number of tidal constituents - unlimited
- Maximum number of input points - unlimited

Export

- Source graph export
- Harmonic constituents scheme & Harmonic constants
- Operations audit log

Documentation

- User Manual
- Interactive Help File

System Requirements

- Windows 98SE, ME, NT4SP4+, 2000, XP, VISTA
- 2.66 Ghz 512MB RAM