



# GeoTide 3

Tidal Analysis & Prediction

## **The Integrated Tidal Solution**

### **Harmonic Tidal Analyser**

Tidal Heights or Currents from 1 month to 18 years

Fast & Accurate

Data Import & Glitch Removal

Tidal Levels: MSL, LAT, HAT, etc

Harmonic Constants Encryption

Exceedance Analysis

### **Tidal Predictor**

Clear and Easy-to-Use Tidal Plots

Tide Tables: Hourly, High & Low, in "HO Style"

Locations Map



## **Simplicity in Analysis**

Whether your need is to create accurate tidal predictions or to establish precise tidal levels, this unique tool offers you a comprehensive, easy-to-use and flexible solution.

Designed for the professional tidal hydrographer and surveyor, GeoTide utilizes the time-proven technique of tidal harmonic analysis to produce highly accurate results from tidal height or stream data.

The GeoTide package provides everything you need to create high quality tidal predictions and tidal levels from your tidal data resources - and to distribute them to your end-users as professional looking documents, both on paper and in digital form.

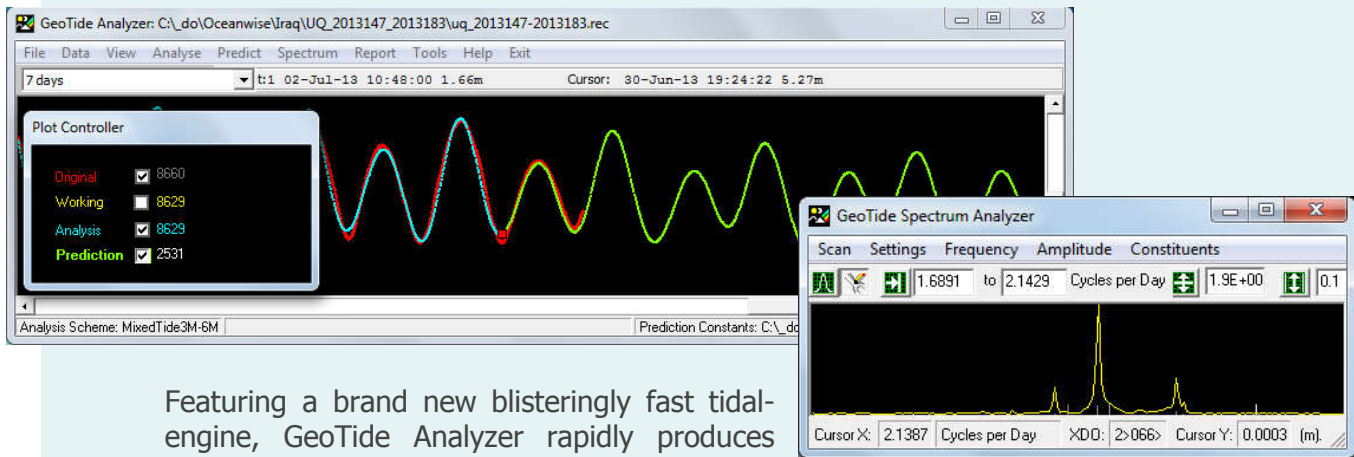
GeoTide is used worldwide by Port Authorities, Naval Departments, Hydrographic Offices and Offshore Industries, providing reliable tidal information for all types of marine operations.

The tightly integrated system comprises two modules:-

- The Tidal Analyser, which converts tidal data into accurate harmonic constants - the essential ingredient for producing accurate tidal predictions.,
- The Tidal Predictor, which uses the harmonic constants to create and distribute tidal predictions - as formatted tables, graphs or in digital form.

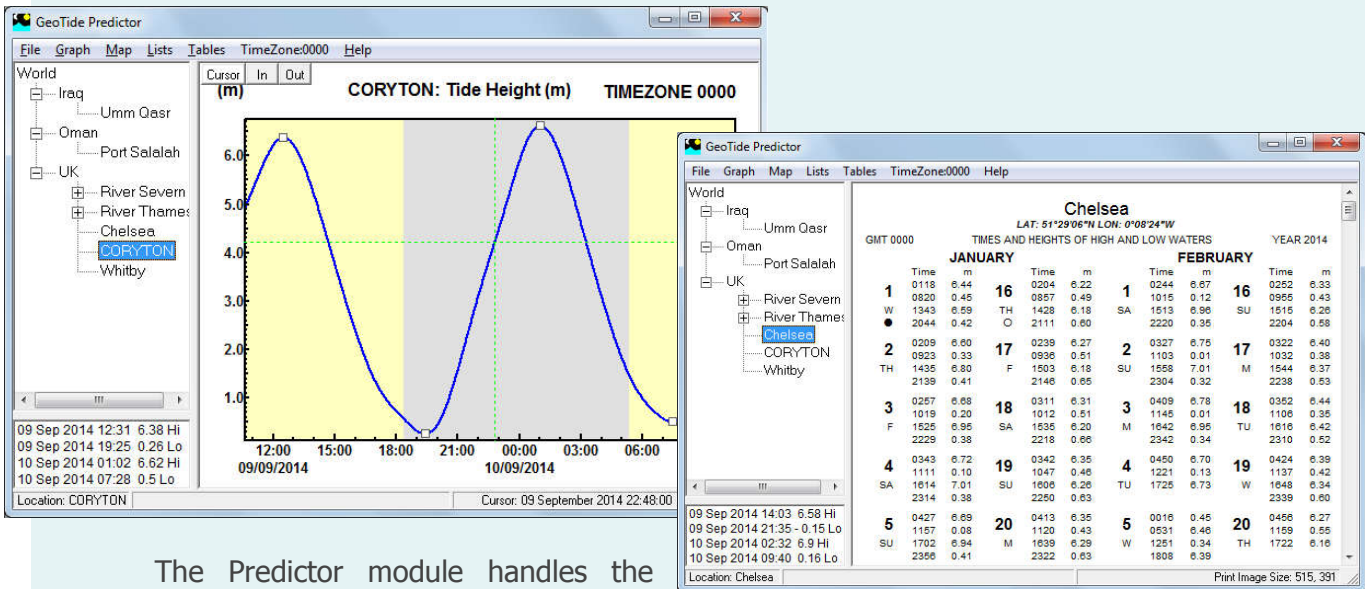
Optional on-site training is also available.

# GeoTide Analyzer



Featuring a brand new blisteringly fast tidal-engine, GeoTide Analyzer rapidly produces harmonic constants from your source tidal data - even analysing up to 18 years of data in just minutes. Once the harmonic constants have been produced, the door is opened to producing highly accurate tidal graphs, tide tables and tidal levels. GeoTide Analyzer produces harmonic constants compatible with the UKHO's Simplified System, UKHO TotalTide and NOAA. And with its integrated tidal spectrum display, you can search for and add other constituents, further improving the accuracy of your tidal predictions. GeoTide Analyzer incorporates a comprehensive log of user actions throughout - enabling audit of source data quality and of all operator actions. And now in Version 3 you can also encrypt your harmonic constants for secure distribution to end-users.

# GeoTide Predictor



The Predictor module handles the generation, display and formatting of tidal predictions to produce great looking graphs, tide-tables and listings. Designed for the hydrographer and mariner, its graphical interface is user-friendly and intuitive, incorporating full zoom, resize, drag, cursor readout and output facilities. GeoTide effortlessly creates Tide Tables in "Hydrographic Office" style of both High & Low Tides and Hourly Tides and offers numerous other outputs, with exports as ASCII listings. These features are all highly configurable enabling you to rapidly create decent looking tide tables in your own house style<sup>1</sup>. Additionally GeoTide incorporates a lunar phase, and sunrise/sunset almanac and a tidal location map. The GeoTide Predictor module is also available to end-users as an optional stand-alone Windows application.



# Specification

## Source

Duration: 1 Month to 18 Years

Intervals: Regular / Irregular (may include gaps)

Source: Automated Tide Gauge / Spreadsheet / Text File

1D Height / 1D Current / 2D Current Tidal Data

ASCII User Definable Input Format

Points Editor: Graphical with zoom, resizable window, mouse point selection.

Data Filtering & Glitch Removal: By value, slope, block, interval, averaging.

Number of input points: Over 1 million.

## Analysis

Harmonic Constituent Analysis: By Matrix Inversion or Least Squares Iteration

Constituent Sets:

- UKHO: Simplified, TotalTide
- NOAA: 1 to 6 Month, NOAA 6 Month+
- GeoTide: 1 to 3 Months, 3 to 6 Month, 6 Month to 1 Year, 1Year+
- User Definable

Shallow Water Coefficients: Algebraic or Harmonic Methods

Number of Tidal Constituents: Unlimited

Encryption of Harmonic Constants

Power Spectrum Display

Tidal Exceedance Tables

Tidal Levels

## Prediction

Graphics: Height or Current, Resizable, Zoomable, Draggable, Configurable<sup>2</sup>

Tables: HO Style, High & Low Tides, Hourly Tides, Configurable<sup>2</sup>

Day & Month names: User Definable<sup>2</sup>

Tidal Location Names: Support for non-Western Scripts (e.g. Arabic).

Tide Table Formats: HTML, PDF<sup>1</sup>

List or Export: High or Low Tides, Tide at Regular Intervals, Highest and Lowest 'N'

Exceptional Tides, Lunar Phases, Sunrise-Sunset Times

Location Map<sup>2,3</sup>

## Documentation

User Manuals

Interactive Help File

## System Requirements

Computer: 4Ghz Processor (3M Cache) 4GB RAM

Operating System: Microsoft Windows Versions 7 (32/64), 8 (32/64), 10 (32/64)

1. Requires 3rd Party PDF Printer Driver e.g. Adobe, Foxit, etc.

2. Configurations can be hidden from the general operator.

3. Requires access to internet map provider e.g. Google, Open Street Map, Bing, etc.

## Contact

Local Agent

