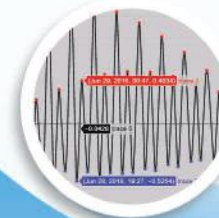




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A customized solution for  
**Tidal Analysis & Prediction**

**TRIDEL TECHNOLOGIES**  
Geoscience | Geoinformatics | Geoengineering

# ATtide

ATtide is a tidal analysis and prediction software. Along with the usual analysis and prediction tools, it comes with a number of features, including:

- ☑ DataQA module for editing data to remove spikes, gaps, and datum shifts.
- ☑ Versatile software for viewing tidal water levels or currents as spatial or temporal charts.
- ☑ Ability to create tidal calendars in user-specified format.
- ☑ Optional tidal model for the user's region of interest.
- ☑ User friendly Windows-based tools for harmonic analysis of tides.
- ☑ QA/QC tool for tide gauge or current meter data.
- ☑ Tidal analysis of water levels (scalar) or currents (vector) time series.
- ☑ Tidal prediction (water level or streams)
- ☑ Production of harmonic constituents for tide tables.
- ☑ Spatial interpolation and sea surface generation.
- ☑ Derivation of standard tidal levels (LAT, MSL, MHHW etc.)
- ☑ Built-in hydrographic tidal connection package.
- ☑ Numerical model viewer (animations of tidal maps, ellipses, much more).
- ☑ Tide gauge spatial triangulation.

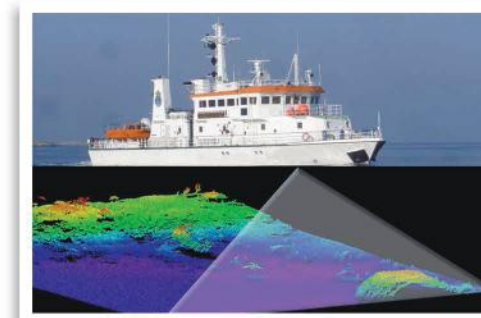


# Users

Designed for users responsible for monitoring and predicting tidal water levels and currents, particularly in critical applications such as minimal under-keel clearance, spatial tidal corrections, critical offshore operations which is impacted through tidal variations and tidal streams.

Designed for professionals:

- ☑ Oceanographers.
- ☑ Meteorologists.
- ☑ Hydrographic surveyors.
- ☑ Environmental engineers, planners and managers.

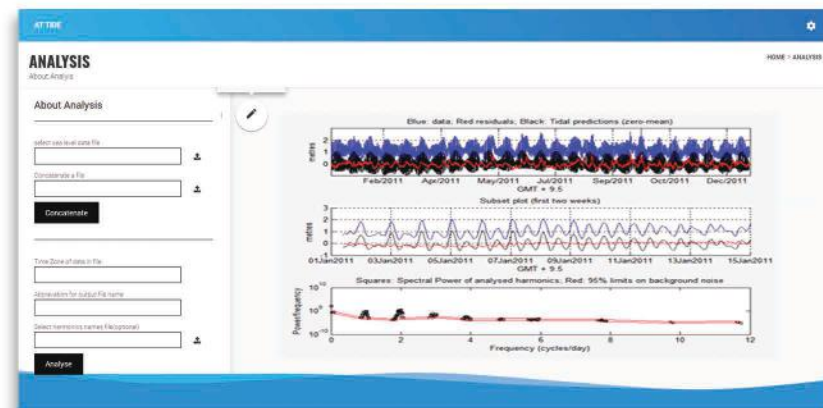




# ATtide

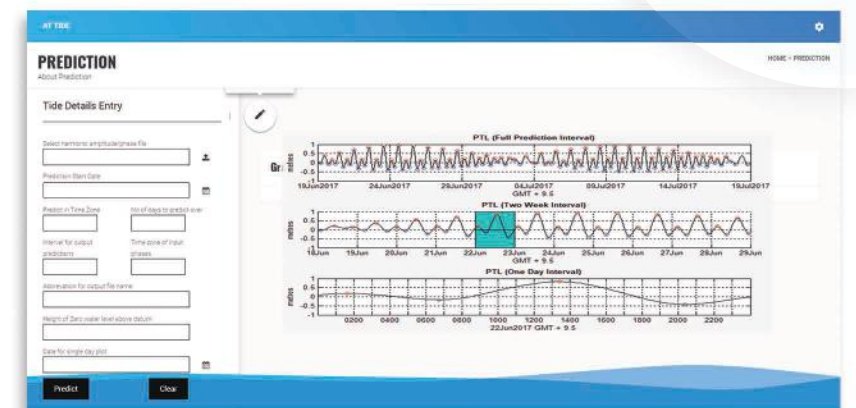
## ANALYSIS

Tide analysis reads in sea level data, analyses to find the amplitude and phase of the "harmonics", and save the results to a file, which contains all the information required to do tidal predictions.



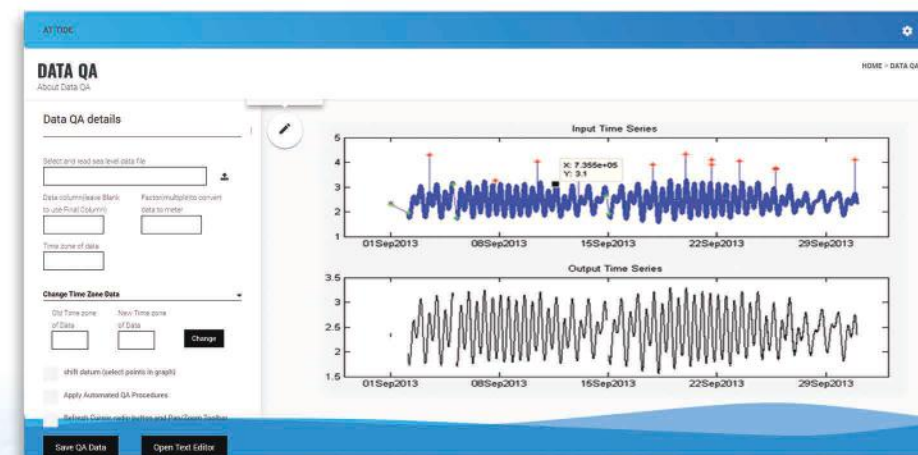
## PREDICTION

A tidal prediction reads in a harmonics file and does a tidal prediction. All it needs are the harmonics, the times for which predictions are required, the time zone of the harmonics, and the time zone for the prediction.



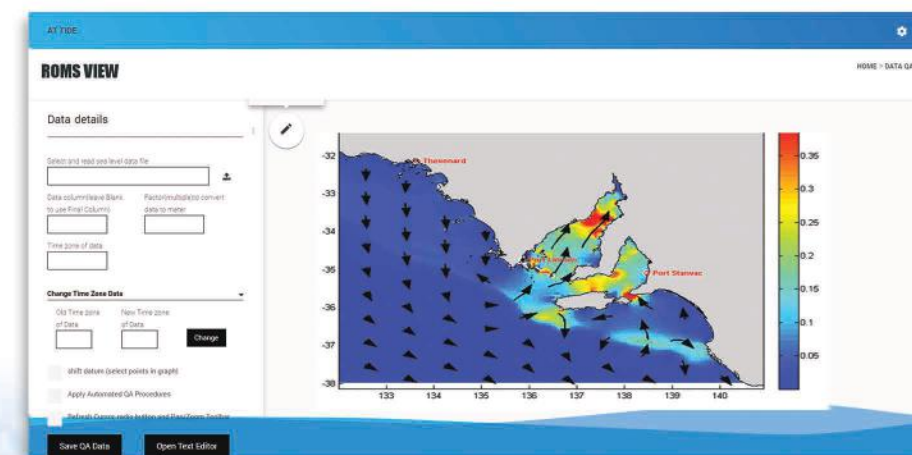
## DataQA

Sea level data sets can contain spikes, jumps, and gaps. DataQA can interpolate across gaps, de-spike, adjust for datum shifts, and more. The DataQA Module performs automated checks and saves a file of "clean" data, along with a complete history of changes.



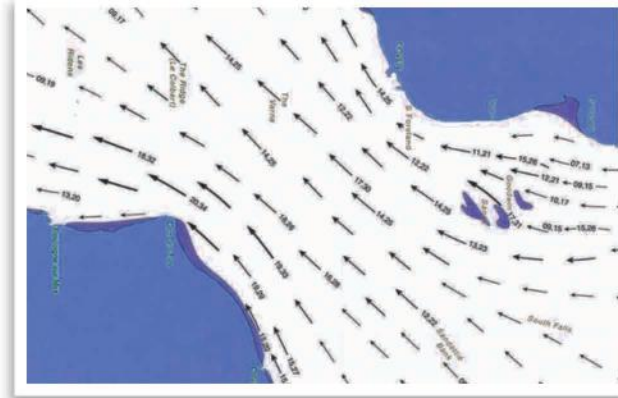
## ROMSview

ROMSview is a viewer for netcdf files specifically tailored for viewing currents and sea levels from a ROMS tidal model. The model results can be viewed as an animation of a map of sea level or water currents, as a time series over the model period, or as a transect.



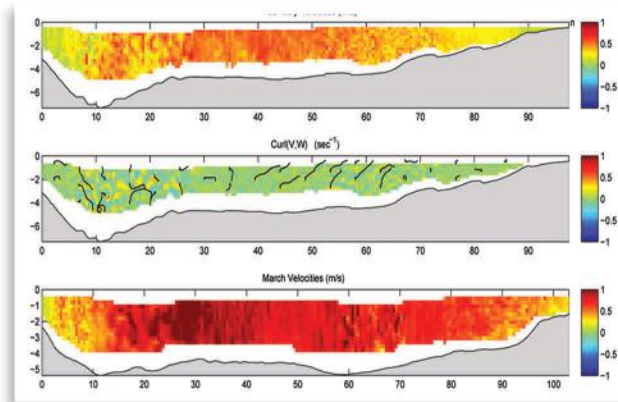
# Tidal Streams

The tidal streams module analyses currents and plots eastward and northward components of velocity. It also plots the "principle axis velocity", if the currents are sufficiently polarized (back and forth, as opposed to around in circles).



# HydroSurvey

Hydro Survey uses both tide gauge data and tide model results. The area of the tide model defines the "domain" of Hydro Survey. Hydro Survey predicts tidal water level and currents any space in the domain. If the point clicked is within boundary limits of a tide gauge, it will also make a water level prediction based on the tide gauge harmonics.



# Tide Tables

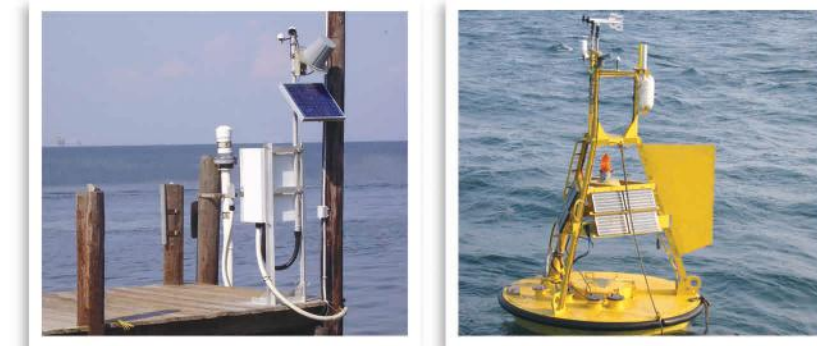
The Tide Table (or "Tide Calendar") module creates a "one week at a glance" tidal calendar.

		Monthly distribution of wave height (m)											
lower	upper	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
17	18	0	0	0	0	0	0	0	0	0	0	0	0
16	17	0.1	0	0	0	0	0	0	0	0	0	0	0
15	16	0.1	0	0	0	0	0	0	0	0	0	0	0
14	15	0.1	0	0.0	0	0	0	0	0	0	0.0	0	0.1
13	14	0.1	0.0	0.1	0	0	0	0	0	0	0	0	0.2
12	13	0.3	0.3	0.3	0	0	0	0	0	0	0.0	0.0	0.3
11	12	0.4	0.7	0.4	0	0	0	0	0	0	0.1	0.1	0.6
10	11	0.9	1.4	0.5	0.0	0	0	0	0	0	0.2	0.5	0.8
09	10	2.1	2.1	1.3	0.2	0	0	0	0.1	0	0.4	0.9	1.8
08	09	3.2	3.5	3.3	0.3	0.1	0	0.0	0.1	0.2	1.2	1.8	2.5
07	08	6.3	7.4	5.5	0.9	0.3	0.1	0.0	0.1	1.0	1.6	3.8	4.8
06	07	11.3	12.3	7.6	2.1	1.0	0.2	0.1	0.3	2.1	3.8	7.0	9.1
05	06	17.4	16.6	11.8	6.4	3.4	1.2	0.8	1.3	5.0	7.7	12.0	14.5
04	05	21.1	19.8	19.8	15.5	8.7	4.1	3.6	3.7	11.7	17.0	20.0	18.0
03	04	21.8	20.9	20.5	27.5	19.1	14.7	11.7	11.8	23.1	26.3	28.7	24.9
02	03	12.6	11.5	19.1	32.5	32.5	32.8	31.2	33.3	30.7	28.5	21.8	18.3
01	02	2.3	3.8	6.1	14.4	32.4	40.2	45.3	45.6	19.5	13.0	5.3	3.9
00	01	0	0.2	0	0.2	2.4	6.7	7.3	3.8	0.7	0.0	0	0



# Equipment & Data Format

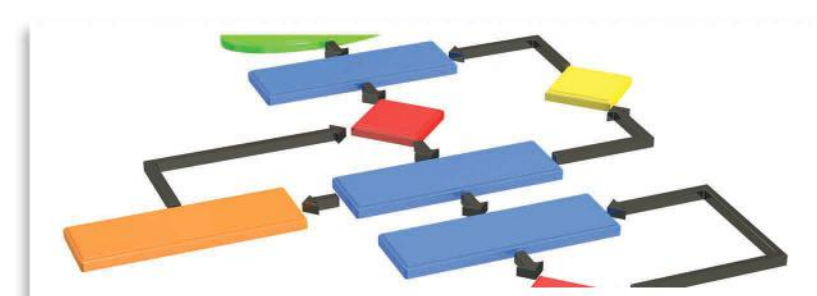
ATtide supports multiple data formats from manufacturer of tidal water level and current equipment.



ATtide supports binary formats, ascii, excel, csv, NMEA, mat-files, and many others.



ATtide's intelligent design tests the incoming data and chooses the appropriate algorithm automatically.



Failsafe mechanisms are built in to prevent errors.

# Additional Modules

- ATRANS
- Oil Spill Modelling

