

Imagenex Manufacturer Raw Files

Data files for Imagenex Multibeam And Rotary Sonars are described here.

[Oceans 3.0 API filter](#): dataProductCode=IMF

Revision History

1. 20120911: Manufacturer .837 format released
2. 20140729: Documentation updated to include ROV-mounted Imagenex data products
3. 20150601: Additional products added for Imagenex rotary sonars

Formats

This data is available in the manufacturer wave packet format (extensions .837, .83p, .81a depending on the instrument).

DeltaT Multibeam Manufacturer Format (.837)

This binary wave packet format is specific to the manufacturer and to DeltaT multibeam sonars. When using Imagenex data acquisition software, data is normally stored in this way and can be post-processed for derived parameters using Imagenex software.

To produce the file, the following requirements apply:

- A new .837 file is started for cabled Imagenex sonars at the beginning of each day or each scan (if rotating)
- A new .837 file is created by the sonar operator for ROV mounted Imagenex sonars at the start of each survey and at desired intervals. These files have had navigation data (latitude, longitude, heading, pitch and roll) added in a post-processing step. The raw files, prior to navigation being added, are also available. Data may be post-processed and gridded using software such as CARIS HIPS and SIPS. A step-by-step guide is available upon request "Processing the Imagenex Files.pdf" to help with this process. Surveyed offsets for the creation of a vessel file are attached to this page: [ROPOSImagenexSurveyMay2012.xls](#). Sound speed profile data may be obtained from the Valeport miniSVS (device23326)

In addition to post-process hydrographic 3rd party software such as CARIS HIPS and SIPS, users may find the manufacturers' software useful as well. Here is the normal software from Imagenex for processing and viewing DeltaT bathymetric multibeam data: [DeltaT.exe](#), [DeltaT Supporting Documents.pdf](#), [DeltaT.INI](#). Please note that this software is provided without warranty; it could easily be out of date (check the manufacturer's website: <https://imagenex.com/interior-page/software-download>). Please [contact us](#) for assistance as needed. For the rotating DeltaT multibeam sonars (devices 22100 and 23122), otherwise known as the 'Bubble Sonar', we have a special version of the software: [DeltaT_600_to_700kHz.exe](#). Again, this software is provided with warranty and is specific to the rotating sonars (it won't work properly with the bathymetric DeltaT sonars).

Refer to the [manufacturer user manuals](#) for more information. For instance, the documentation for the stationary profiling DeltaT at Barkley Canyon POD 4 (device 11104) is here: https://imagenex.com/assets/images/downloads/837B_Delta_T_120_kHz_Profiling_Specs_rev5.pdf.

[Oceans 3.0 API filter](#): extension=837

DeltaT Multibeam Processed Format (.83p)

This is a processed binary format produced by processing by Imagenex software, primarily from DeltaT multibeam sonars onboard ship for hydrographic survey. In the future, .83p files may be available for the 'Bubble Sonars', for now, [contact us](#) if you're interested in this data.

[Oceans 3.0 API filter](#): extension=83p

Imagenex 881a Rotary Raw Files (.81a)

This binary raw format is specific to the manufacturer and 881a rotary sonars. When using Imagenex data acquisition software, data is normally stored in this way and can be post-processed for derived parameters using Imagenex software. To download the 881a software visit the manufacturer's website: <http://imagenex.com/interior-page/software-download>. Note: the software displays some of the metadata in hex format (preceded by a '0x'). Therefore, unless you convert to decimal first, these values won't agree with the metadata included in the [processed imagenex data products](#) (Data.scanMeta.sonarHeadId in particular).

To produce the file, the following requirements apply:

- A new .81a file is started for cabled Imagenex rotary sonars at the beginning of each day
- Daily and hourly files are available. Scans are started on each hour and last approximately 6 minutes, so each hourly .81a file contains one scan.

[Oceans 3.0 API filter](#): extension=81a

.81a Data Product Options

Daily or Scan-Separated Files

Data Product Options

Data file breakdown ☒ Daily ☐ Hourly

For .txt and .81a data, this option determines whether a specified time range of downloaded data will be split into files by day or by scan. An Imagenex rotary sonar will perform one scan every hour.

- Daily
[Oceans 3.0 API filter: dpo_datafilebreakdown=0](#)
- Hourly
[Oceans 3.0 API filter: dpo_datafilebreakdown=1](#)

File-name mode

'-daily' or '-hourly' will be appended to the file-name.

Discussion

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