Changes between Claritas 2025.2.1 and 2026.1.1

29th July 2025 to 26th February 2026
(Revisions 17850:17950, libclaritas 1660:1695, python 2400:2470)

We are pleased to announce the release of **Claritas 2026.1.1**. This version delivers enhancements to processing performance, workflow efficiency, and usability, and marks an important milestone as GLOBEClaritas transitions to the Petrosys Group brand and is now known as **Claritas**.

While the name and visual branding have been updated, the functionality, workflows, and processing capabilities remain unchanged. Claritas continues to deliver the reliable seismic processing environment our users depend on.

Please note going forward, technical support enquiries should be directed to **support@petrosysgroup.com**, and general enquiries to **info@petrosysgroup.com**. These addresses replace previous @globeclaritas.com contacts.

We appreciate your support of Claritas and welcome your feedback as we continue to develop and strengthen the software.

Follow Claritas on LinkedIn to keep up to date with the latest news and information.

Release Highlights

- **New UHR Water Bottom Picking Application:** The new PROBPICK module uses AI/ML methods to estimate and pick the water bottom on HR and UHR seismic datasets.
- **Enhanced Data Visualisation & QC:** SeisViewer is now released as a full production version (no longer Beta), with support for 3D volume visualisation including Inline, Crossline, and Timeslice displays, along with enhancements to analysis tools and header handling.
- **Improved Velocity Model Export from Tomo3D:** Enhanced export of near-surface velocity models, enabling their use as part of an initial depth velocity model.
- **Expanded QC Capability in AREAL Module:** The AREAL module can now calculate and output peak frequency attributes for display in AREAL or Condor, supporting additional field QC requirements.
- **New SEG-Y to Claritas NMO Conversion Utility:** A new utility enables conversion of SEG-Y velocity models to Claritas NMO3D ASCII format for display in Isovels and use as input to IMAGE_K3D.
- **Branding Update:** This release reflects the transition from GLOBEClaritas to Claritas under the Petrosys Group brand, including updated in-application branding, email domains, and website location. Legacy links continue to redirect automatically.

Supported platforms

Supported platforms for 2026.1.1 are:

- Rhel8/9, AlmaLinux8/9
- Ubuntu 22.04/24.04,

and on Windows via,

- Windows Subsystem for Linux (WSL1/WSL2)

New UHR Water bottom Picker solution

PROBPICK is the beta version of the new probabilistic picking method.

It is designed for UHR seismic data (but may work equally well for non-UHR) for picking the water bottom. The module uses seven different probability models to determine the most likely location of the WB in each trace along with the uncertainty bounds for each pick.

This beta version has been “trained” on a limited range of seismic data so far, meaning that it may have degraded precision (larger uncertainty bounds) in some cases where it is less familiar with the waveforms. The big advantages to this method, where it recognises the waveforms, are that it is much more robust to noise than the usual picking methods and it outputs the uncertainty bounds on the pick.

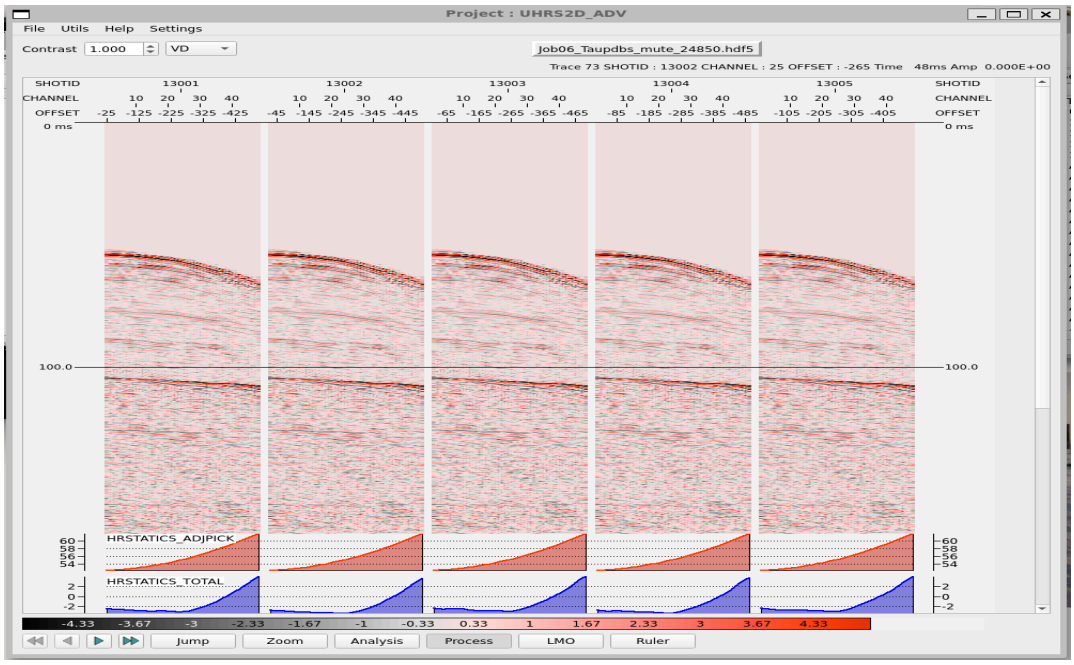
The algorithm will eventually form the first processing step in an integrated UHR processing flow, the aim of which is to improve the performance and automation of our current UHR modules, e.g. deghosting and static correction.

Improved Data Visualisation and QC

Development continues at pace on the new Qt based seismic viewer, building on the functionality from the last release which allowed for comparison of pre and post stack gathers. In this release we have enabled the following capability:-

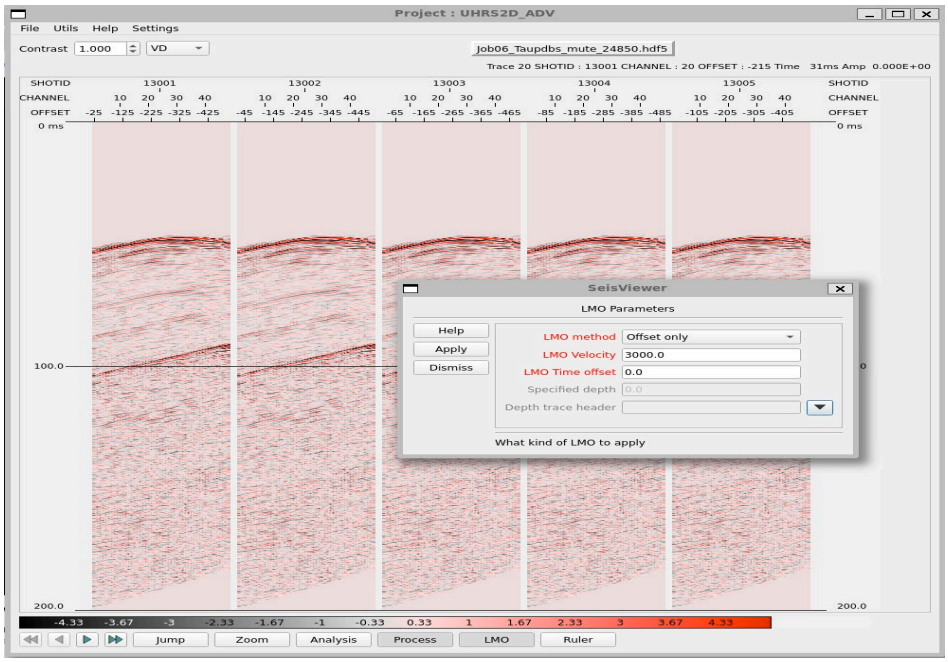
- Graph headers.
- LMO Functionality
- Ruler – Linear, parabolic and Hyperbolic rulers.
- Inline/Crossline and Timeslice of 3D Volumes.
- Compare multiple 3D volumes.
- Plot summed trace of certain analysis types – Autocorrelation/Amplitude decay curves etc
- Seisviewer documentation added.
- Allow variable trace lengths for datasets being compared.
- Allow interactive zoom/analysis windows to grabbed and moved in main display.

Header display capabilities have been further improved, users now have the option to graph the headers below the seismic this can be particularly useful for display statics, source and receiver heights, and some of the QC headers created by the HRSTATICS/HRDEGHOST modules and the HIRESQC applications.



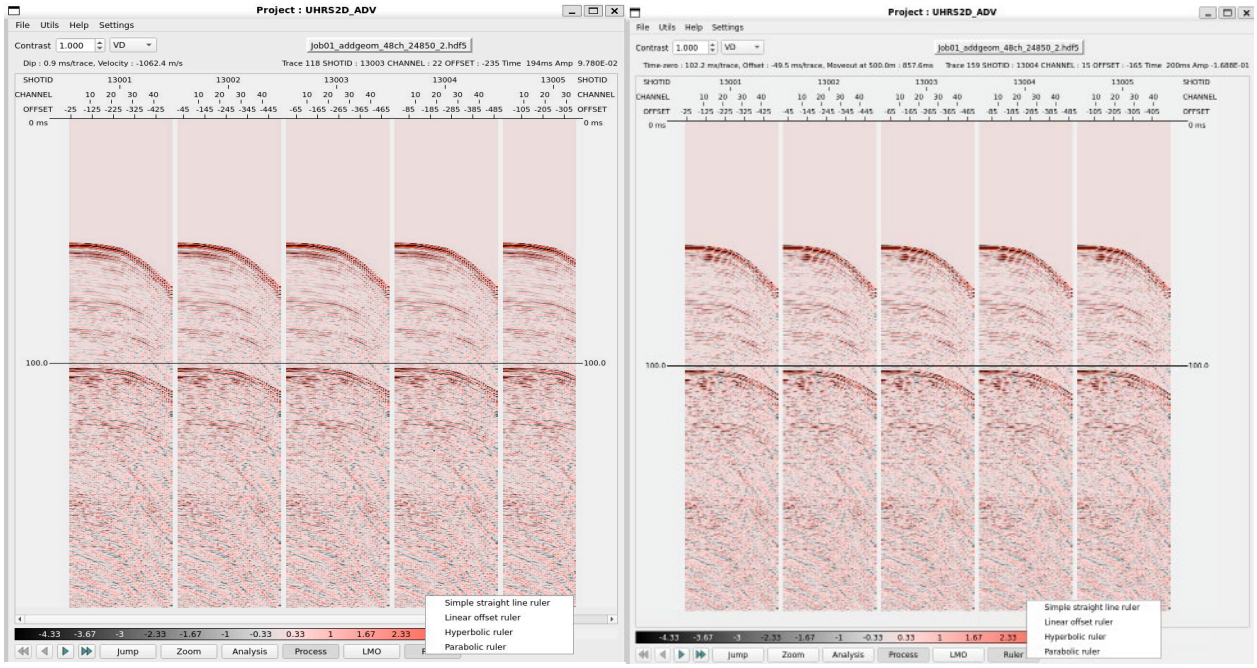
Seisviewer - Trace header Graphs display

As part of this update we have also incorporated the capability to apply a Linear Move Out (LMO) correction to seismic gathers with geometry and offsets in the trace header, supports application of LMO based on Offset only, Full source/rec xy and height/depth, Offset and used defined depth and Offset and depth from header.



Seisviewer – LMO Functionality

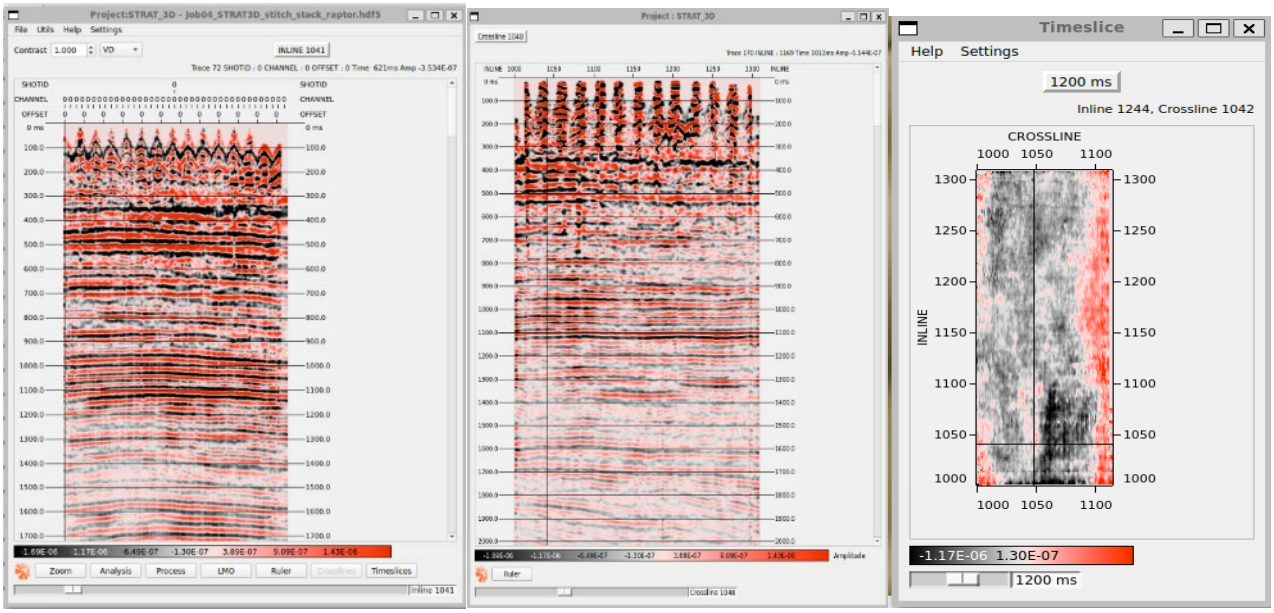
The ability to measure Linear dips, parabolic and hyperbolic moveout is available in this update to the Seisviewer application supporting a Simple linear ruler, linear offset ruler, hyperbolic and parabolic ruler, this allows users to interrogate gather datasets and use the linear ruler options to examine and identify the dip and velocity of any linear noise so you can better target it in the FK or Tau-p domain for example, once the user has drawn the linear across the targeted dip the dip in ms/trace and it's apparent velocity is displayed top right of the display below the contrast/gain and display type parameters.



Seisviewer – Ruler functionality

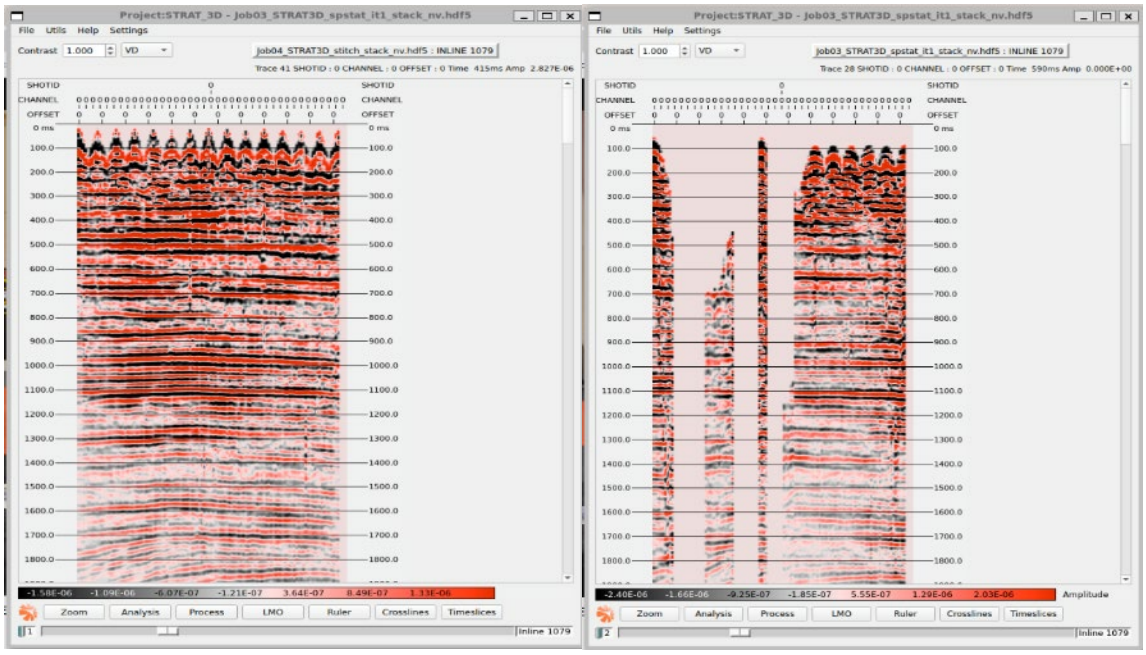
The Hyperbolic and Parabolic rulers allow the user to draw curved ruler, for the parabolic ruler it will measure the amount of moveout at the user specified far offset.

When reviewing 3D volumes users can now in addition to displaying the Inlines, you can also view the data in Crossline and Timeslice order, the application brings up individual windows to display the crosslines or time slices and the user can select the desired time slice increment to display.



Seisviewer – Left : Inline Display, Centre : Crossline, Right : Time slice display

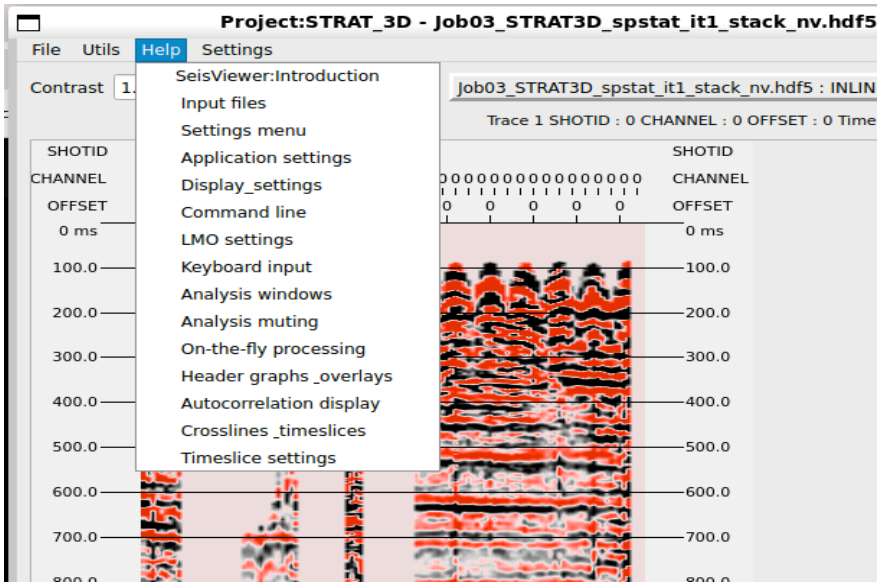
The new Seisviewer also supports displaying and comparing multiple 3D Volumes, a panel selector allows the to toggle between the different volumes and the slider bar allows you to move between different inlines/crosslines or timeslices.



Seisviewer – Left : Panel1 Stack after 5D Interp, Right : Panel2 – Stack after SPSTAT

Selected analysis windows are now able to display a summed/averaged trace of the entire window these include Autocorrelation, Amplitude Spectra traces, Amplitude Decay curves, and the Instantaneous Amplitude/Phase/Frequency and Cosine (Instantaneous Phase) also plot display with or without overlaying XT domain traces in VAWG.

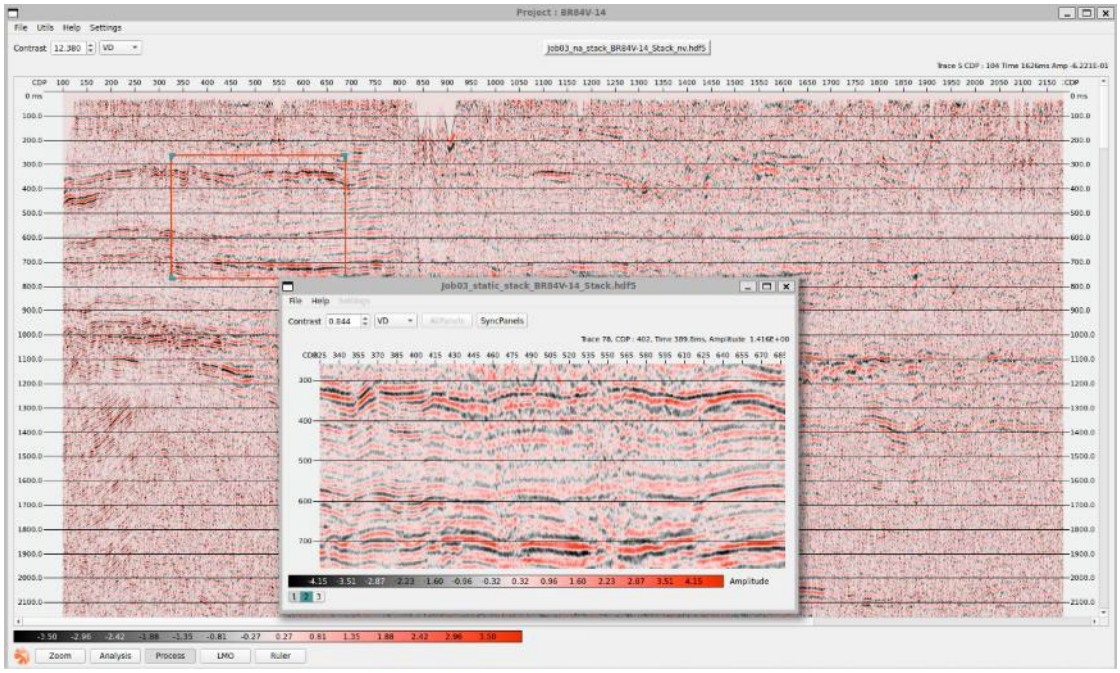
As part of this release we have added documentation to the application which can be accessed from the Help drop down menu.



Seisviewer – Help documentation

The Seisviewer application can now display and compare datasets of different trace lengths, no need truncate or pad out datasets to display and compare if they have different data lengths.

We have added the capability for the user to grab and move an analysis or zoom window to a new location without needing to close the window and redraw, if you have multiple datasets open and All panels selected then when you grab the corner of the analysis window it and move it will redraw all panels.



Seisviewer – Grab and move zoom/analysis window

If a situation occurs where the display parameters are set such that it causes an issue with the Seisviewer application and you need to reset everything back to the application defaults you can do this from the command line as follows :-

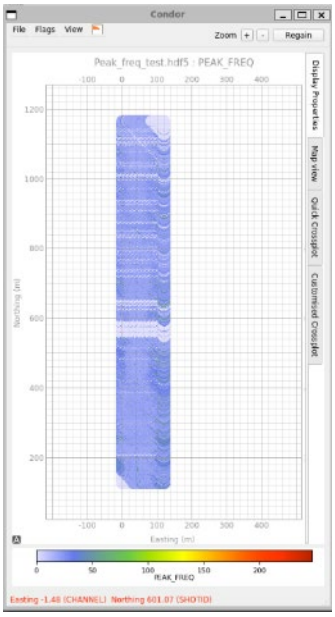
SeisViewer -reset -proj HELPDESK inputfilename.hdf5

or

SeisViewer –resetSettings -proj HELPDESK inpufilename.hdf5

Enhanced QC capability – Areal module generates a peak frequency attribute

As requested by one of our clients who are engaged in Land seismic acquisition asked for the capability to extract the peak frequency from the data , this can be for the entire trace length or a user defined window, the resulting peak frequency value can be written to the seismic trace header or to an ASCII text file, and this information can then be displayed by either the AREAL or CONDOR applications.



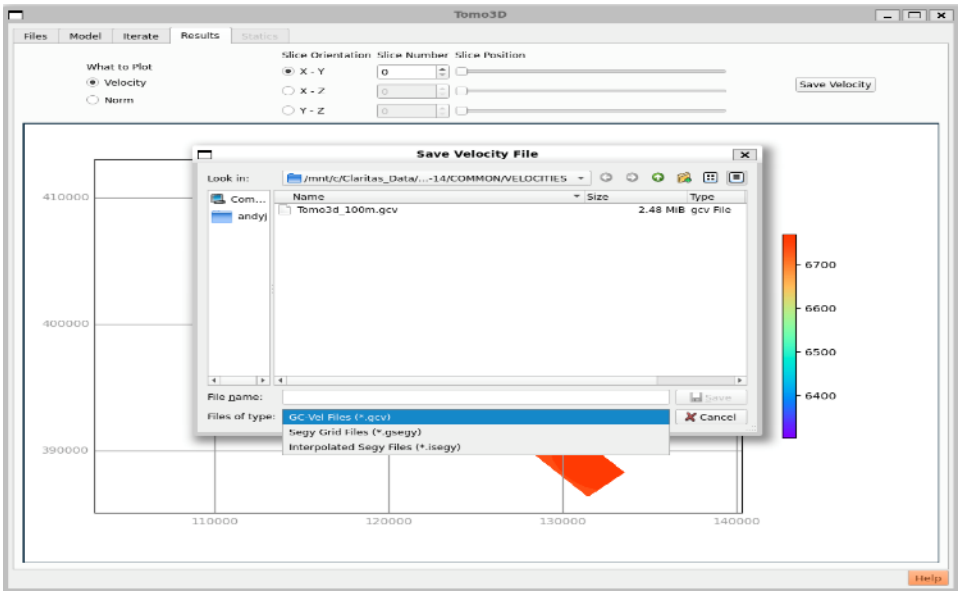
CONDOR – Dominant Frequency QC display.

Improved velocity model export from Tomo3D

After feedback from clients it highlighted a weakness in the export of the velocity in Seg-Y format, whilst it was fit for purpose in terms of import and use within the TOMO3D application itself i.e. you had run Tomo3D on a sparse grid and them wanted to run on a finer grid the sparse gridded velocity model could be exported and then reimported for the next run of the Tomo3D application.

However, it became apparent that using the Seg-Y velocity model outside of the Tomo3D application for instance if you wanted to integrate the resulting model into a depth velocity model for migration, and this was particularly a problem for 2D lines.

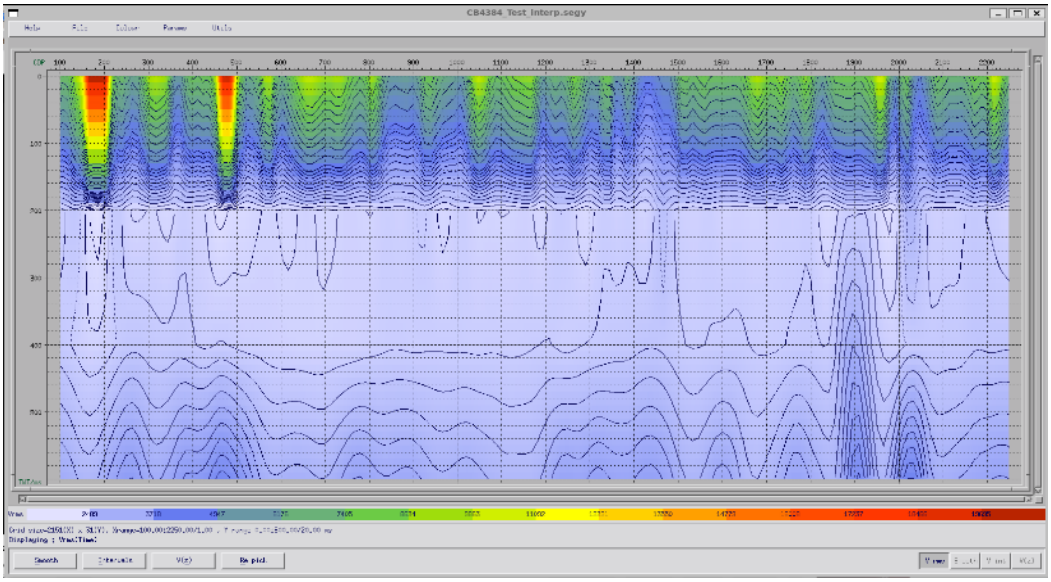
As part of this release, we have added an option where the Tomo3D developed velocity model can be output from the application interpolated onto the 2D Line or the 3D Inline/Crossline grid, with the key headers being populated making the resulting Seg-Y velocity a better input to other applications.



TOMO3D – Velocity model export.

Users now have three options when exporting the velocity model from the Tomo3D application:-

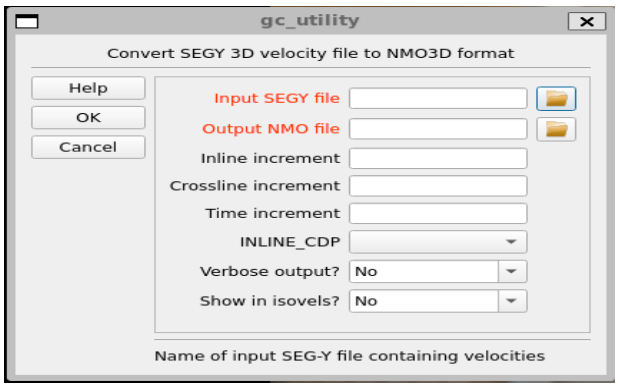
- A *.gcv format file which is a structured 3D grid file format used for exchange of velocity models
- A .*.gsegy format which outputs a gridded velocity model as an alternative to the gcv format file.
- A *.isegy format segy file which outputs an interpolated Seg-Y velocity model. This velocity model is interpolated onto the 2D CD line or the 3D INLINE/CROSSLINE grid. With key headers correctly populated.



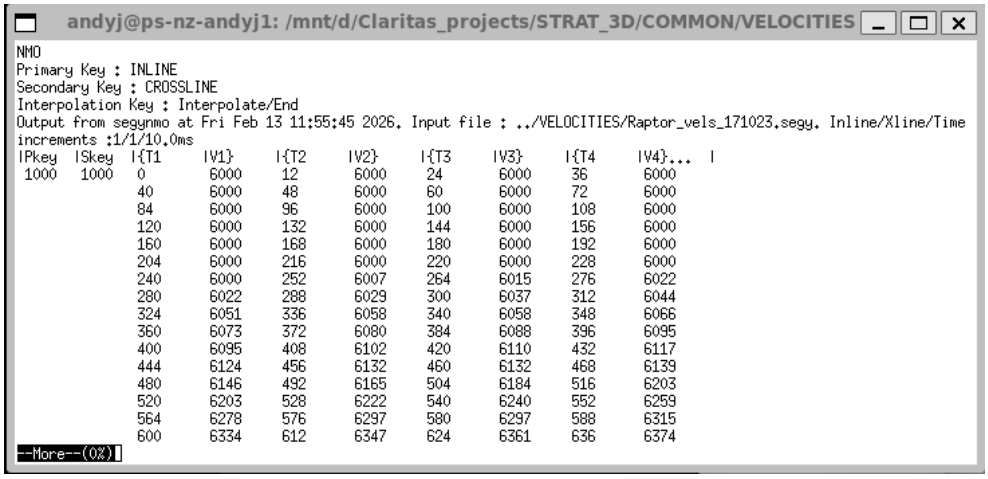
TOMO3D – Velocity model exported and displayed in the ISOVELS application

New SegY to Claritas NMO conversion utility

Whilst working with a client to assist their understanding of the IMAGE_K3D depth migration module, we developed a new velocity utility as the Seg-Y velocity model they were using was large and so could not be displayed easily in the ISOVELS application, whilst we had tools to convert to the NMO format ASCII velocity files, that format was not acceptable to the IMAGE_K3D module, we therefore created a simple utility available from the Utils->Velocities drop down menu of the Launcher to convert Seg-Y velocity models to the NMO3D format required by the IMAGE_K3D module that can then be displayed/reviewed in the ISOVELS application.



SegY_to_NMO3D – Parameter form for utility



Example output from the SegyNMO conversion utility

Updated branding and name

As part of the transition to the Petrosys Group brand, GLOBEClaritas is now known simply as **Claritas**.

This release includes updates to product branding throughout the software, including:

- Updated Claritas logo
- Refreshed visual styling in line with Petrosys Group brand guidelines
- Updated copyright and company references
- Updated contact details and email domains

There are **no changes to product functionality, licensing, file formats, or workflows** as a result of this rebrand. Claritas continues to deliver the same processing capabilities and project compatibility as previous versions.

The Claritas website content is now hosted within the Petrosys Group website at **petrosysgroup.com**. Existing web addresses will automatically redirect to the new site, and no action is required from users.

Please direct future enquiries to:

- support@petrosysgroup.com
- info@petrosysgroup.com

Emails sent to previous addresses will be monitored during the transition period to ensure continuity of support.

Bugs found and fixed

CLARITASBUGS-2814 - GEOMETRY: Issues with Crooked line binning if hitpoints more closely sampled than the CDP spacing.

CLARITASBUGS-3359 - XSJE job editor attempting to check tags from an HDF5 file in SEISREAD when using the list file parameter.

CLARITASBUGS-3814 - JobEditor – One line help not updating when user clicks inside a new parameter.

CLARITASBUGS-3848 - COMMENT module not working as expected in the new Job Editor.

CLARITASBUGS-3889 - RAPTOR – Change application to use offset rather than source/receiver XY coordinates.

CLARITASBUGS-3911 - FBQC: Disable “SelectFile” and Stop button should be disabled once it has been clicked.

CLARITASBUGS-4334 - SV application – resolve issue with FB picking & LMO and displaying Variable Density mode.

CLARITASBUGS-4366 - STORE1/STORE2 – allow them to work wit the SEISREAD module.

CLARITASBUGS-4368 – SEGD:V3 – Fix issue with a SEGD file that had a large number of extended headers.

CLARITASBUGS-4371 – GEOMETRY – not loading parameters from pervious application of wiggly line CDP gather.

CLARITASBUGS-4378 – Claritas Browser not working due to missing packages.

CLARITASBUGS-4379 – Tomo3D– Issues with SciPy interp routines

CLARITASBUGS-4381 - CDPSORT module wasn’t setting the SORT/PKEYIDX and SKEYIDX binary headers.

CLARITASBUGS-4382 - READSEGD – increase the SEGD_MAX_CHAN_SETS to 960

CLARITASBUGS-4389 – READSEGD – Change default for TRAILERS_OK set to No.

CLARITASBUGS-4391 – Geometry better handles SPS output for data with no Receiver information.

CLARITASBUGS-4414 – IMAGE_K3D seg faults when running on more than three compute nodes.

CLARITASBUGS-4426 – ADDP190 – Improved error messaging, ADDP190 fails if input nav file doesn't contain the correct character string in the defined header line. Also added a user override option to force module to read nav file as P1/90 or P1/11 format.

CLARITASBUGS-4427 – NAVHDR – Mdule fails when header it creates already exists, module now checks if headers exists and only fails if the headers are not the correct format.