Updates and fixes

v212f08

Some bug fixes to the depth shifting module for logarithmic/core data plotting.

v212f04

Some additional options have been added to the Command Interpreter:

Petrophysical %Constants can now be followed by {unit} to force them to be returned in the specified units. e.g. if %TDAT=100degC then %TDAT{DEGF} will return 212.0.

A new function "TRANSFER" will force the transfer channels to be populated, which can be useful when only running the CI i.e. not running a full analysis.

v212f01

A bug that prevented the reading of "old" well files has been fixed.

A bug that caused the second Pickett plot to crash has been fixed.

A new image wizard has been implemented as a beta release, comments and issues encountered welcomed!

v212e01

Component analysis in NMR: bugs fixed include: components going to clay when reading in the model; losing user defined components on a refresh or when saving the model; saving the model from the t2D or T1T2 pop-up window.

Auto-interactive dip picking now allows selection of source dips to be a dip channel, a centreline group channel or dip/azimuth pairs from vector channels.

v212d05

In NMR, making a saturation channel: the calculation proceeds in bad hole whereas previously it set Sw=null. You can also now use the equation Swa = (PHIT-FFV) / PHIT.

Thin bed analysis using 3D resistivity ("Tensor resistivity") has been tidied up and debugged.

v212d02

In interval summary (ISM) files you can now save and retrieve ISM specifications (channels and reported statistic). There is no upper limit on the number of channels that can be reported.

In Log-plots, when your cursor is over the edge of a track in the scale area it will change to a "move line" shape. If you press the Ctrl key and drag the line the track width gets adjusted. Note (a) do not press the ctrl key until the cursor shape has changed, (b) it's not an absolute adjustment but relative to the other tracks and total width and (c) make sure you are on the required side of the track boundary (the track number is reported in the plot message bar) otherwise instead of making one track wider you'll make the other track narrower.

v212d01

DLIS writing could fail due to excessive constants or array channels. We believe this now fixed but if you still experience issues, please send us a dataset to test.

Various minor bug fixes.

v212c11

When displaying NMR inversion results there are some new display options. These concern the amplitude (y-axis) scale.

v212c08

In the command interpreter the run command "CI only" has been split into "CI only - all zones" which runs the interpreter from the top of the top zone to the bottom of the lowest zone and "CI only - zoned" which runs it zone by zone according to the command interpreter setting in the geo file - parameters tab. In the former case any geo file settings (pre-, post-, don't run) are ignored; in the latter they are honoured.

v212c06

Log-plotting: You can now page up/down by using the keyboard arrow keys. If the ctrl key is also pressed, the plot moves half a page.

Dip picking: a new interactive mode has been added - "auto". If "Autoazi" and "Autodip" curves exist from a previous run of the automatic dip picking option (or "DPAZ/DPTR" if available) then as you hover the mouse over the current image, the calculated sinewave/tadpole will be displayed. Hold the mouse down to go into "adjust" mode: drag to change the depth/azimuth, shift-drag to change the amplitude. Double click to save the pick.

v212c01

Log-plotting: Curve help strings have been extended from 32 to 200 characters. NOTE: this means that any FM2 file written/updated by this version may not be readable by earlier versions of LogIC.

Minor bug fixes.

v212b14

Log-plotting: Curve descriptions can be ordered by plot, number or name (default) by setting "curve_description_order" in the Logic.INI file.

Minor bug fixes.

v212b01

Minor bug fixes

v212a03

In the command interpreter hte special function @NAME is used to declare a channel and give it a name. It now can be used to specify tool, group, alias etc.. Click to see more.

v2.12a02

There's a new option in the bitmap channel creation: 'Library'. This option opens up a list of "pre-sized floating bitmaps" which can be displayed, centred and scaled, in the current logplot by selecting the pre-set channel number.

The TVD module has been re-designed.

A bug in crossplots that failed to take account of the specified units when auto-scaling has been fixed.

v2.12a01

The plot format (FM2) file has been changed. **Please note that files created with this version may not be read correctly by previous versions.**

v2.11o10

There's a new option in sidewall core data - to pick (or type in) proposed coring points. It is identical to proposed pressure test depths. The graphical entry has also been improved. You can load the proposed depths (both sidewall core and pressure test) into the "screen snapshot" table see Multiple bitmaps.

As part of the principal components dialog you can also look for independent components. You can also look for them in T2 distributions.

v2.11o09

In NMR:

There's a new coefficient in 1D T2 inversion to prevent spurious amplitudes at short T2. See T2 inversion - advanced.

The T2 analysis pop-up window now shows the applicable cut-offs (so if you using a variable cut-off it will show that).

v2.11o08

In images:

Options added in pad statistics table to calculate and update fixed image generation min/max values and to ignore bad buttons.

Faster generation of prepared images.

v2.11o06

NMR: Echo train extraction from MRX, undoing the phase angle correction (Un-rotation) and redoing it have all been upgraded. This has been in response to the recognition of how important checking the contractor's phase calculations can be, especially in low signal reservoirs.

v2.11n20

Bug in multi-zone crossplots fixed.

v2.11n18

A number of bug fixes, including:

Better memory management

TVD station data report table blanked out negative numbers - fixed

Hardcopy failed to plot all the core data - fixed

Occasional crashes drawing logplots - fixed

Problem reading very old NDK files fixed.

"Stripes" in logplot hardcopy shading fixed.

Multiple array channel stats can now be calculated in one operation - time for a coffee!

High resolution time-indexed data supported.

v2.11m11

In log-plots, The multiple screen-shot facility has been upgraded, especially to allow you to load in core depths and pressure point depths.

v2.11k07

A number of NMR updates, including:

Checks on multiple acquisitions as input to T2 inversion are reinstated.

Permeability optimisation is back online.

In the simulator/planner the depth stacking option has been temporarily disabled.

SMR/FMR users:

Conventional curves are now recognized.

Temperature channel FMR_FTEMP is now used for fluid map temperatures.

v2.11h01

In log-lots you can plot array data as "Data curves". Each array element is plotted as it it was a data vector, with the same scale for each curve. It is useful for data "packed" into array channels - a technique beloved of Schlumberger and Weatherford for representing multiple versions of the same curve - noise curves by measurement shell, for example.

In NMR:

There's an "autocalc" check box in 2D and 3D interactive inversions. If checked, a new inversion will be done on any change in the dialog. If not checked, a new inversion will only be done when you click the Try button.

In T1 inversion you can now "turn off" acquisitions by using the right mouse button in the polarisation plot.

Several bug fixed in HI corrections and DMRP.

You can now enter a stacking level in phase rotations.

A "lock scales" toolbar icon has been added to all maps. This fixes the amplitude to colour mapping according to the current map. It's best to lock the scales at a high porosity measurement.

In 2D maps, there is a "best" button for acquisition input choice. It's a good start for acquisitions designed for both T1D and T1T2 calculations.

Model components can now be grouped, and saturations/volume fractions reported by group rather than by component.

v2.11f01

ASCII/clipboard loading now allows for channel descriptions.

New options in the event of a crash allow for just saving parameter files and associated files.

Importing channels from another NDK file now works for array channels as well.

Bug fixes:

Decoding DLIS files. Previous versions did not completely identify the spacing information stored in the DLIS file for all array channels - fixed. Existing DLISX files should be deleted before re-decoding existing files.

v2.11e02

Bug fixes:

Decoding DLIS files > 2Gb. Under certain circumstances, Decode failed to read past 2Gb of a large DLIS file, resulting in duplicated curve values - fixed.

v2.11e01

In logplots, you can now depth shift prepared images, either using tie lines or a floating bitmap. You have to:

a) have the depth shift dialogue open

b) have the source array image data channel selected as a curve to be shifted in the current set.

v2.11d08

In NMR, SBVI was not being saved - it is now. But the same SBVI is used for all acquisitions and calculation sets - a weakness to be addressed in a future release. You can paste into the SBVI table

v2.11d07

In Channel filtering, there is a new option to write out the results at a specific depth increment. This is useful for upscaling results in conjunction with the modal filter for example.

Various bug fixes including a fix to the importing of array channels from other NDK files.

v2.11d06

In NMR you can now merge station files taken at the same depth. First extract the echoes and do the phase corrections in each input file, and then use "Other data | Station data | Merge another measurement".

When you "Run" T2D and T12 calculations the program will now plot the results (if you say yes at the prompt). By default, the map will be plotted at regular depth intervals. If nothing shows, it's probably because the intterval is either too small or too large, check the dialog. You may also want to change the colour map from RGB (the default) to Rainbow-1.

v2.11d01

3D plots!

Some modules now have 3D capabilities 3D Crossplots.

For Crossplots, you need to go into Env|user options|Advanced and set the "Use ZW" checkbox. (Note that this also changes the way that ordinary crossplots are drawn, so uncheck it to return to "normal").

When you then draw a crossplot, the "setup" button has an extra tab called "Z". Choose an appropriate curve to display and click "Redraw", then under the "view" menu, select "3dView".

For NMR inversion windows and planner displays, there is a button  .

In the 3D window:

Using the LH button, drag the mouse Left/Right to rotate the view, up/down to zoom out/in.

Additionally, hold down both buttons and drag up/down to rotate the view up/down.

Click the RH mouse button to reset the view to its initial state.

F7 makes a copy to the clipboard.

v2.11c04

NMR:

T1 processing: you can now calculate PHIT (but watch out! it can be unstable). You can also use burst echoes in the T2 inversions which are run to construct the polarisation curve. This can improve stability but is not a panacea. You can limit the maximum PHIT from T1 to be the maximum polarisation observed. See T1 inversion

The 1D distributions (T2, T1, Diffusion) derived from 2D maps are now smoothed, and reflect any minimum amplitude you may have specified. This smoothing is done to the map. You can control how much is done - this is a user option in preferences

You can calculate and store PHIT from 2D maps.

2D maps can be corrected for hydrogen index. Just tick the box in the controlling dialog. You should check the HI values for each component by going to the simulator/planner. We are using a new (well, fairly new) correlation for oil HI from NMR Properties of Reservoir Fluids, by George Hirasaki, Matthias Appel and Justin Freeman - figure 38.

v2.11c02

New feature:

Command Interpreter can now call the 9 user programming routines:

IR = USERn (comma separated parameter list), reals have a decimal point, integers don't, non-numeric treated as string.

v2.11c01

New features

More support for comments in exported LAS files has bee implemented:

To insert the relevant comment field, add a line starting with the @code to the NDK comment field (or @ALLC to add all of them)

@ANAC	Analysis comments
@CORC	Core comments
@CSTC	Sidewall core
@DSCC	Discriminators
@DSTC	Drill Stem Test
@PETC	Petrophysical Comments
@RFTC	Fluid tests
@TVDC	Survey comments
@GEOC	Zonal comments
@WDTC	Well Header

Also, text files can be inserted, if they exist in the same folder as the NDK file, specified by starting the line with ".\".

ISM (interval Summary) analysis result files now have comment fields

Well listings now have an option to include the data source channels that are used in the analysis.

Bug fixes

CGM files now take account of the margins set in the "CGM-BIN.PSP" file.

In logplots, there was a bug when trying to switch from plotting as colour to plotting as pattern - fixed.

v2.11b14

A number of changes in the NMR simulator/planner - mostly concerning user defined components ("UComps"). These are defined in the "Full/Advanced" tab. Each user component is assigned to a porosity space ("free", "bound" or "other") and it's volume fraction in that space is a user input. There is no restriction at all on the combination of a user component's T2, T1 and D.

Volume fractions of these and other components can be calculated in 2D maps (either T1T2 or T2D). You calculate the volume fractions, the saturations (of any "free" component) or both.

v2.11b13

Dips can now be imported from LAS files.

Modifications to the depth shifting method to help prevent "double shifting" when individual curves have been manually edited.

v2.11b03

New CMR+ mode for shale analysis added.

Added functionality for open fracture/partial picking analysis in dip displays.

Added "RUNMID" command to Command interpreter to force a call to Mineral Identification routine even if no Analysis flag is set.

v2.11a03

SMR stationary measurements are now recognized, and the correct flags set when phase correcting.

Multi-component porosity is now correctly calibrated.

v2.10e21

Various bug fixes wrt font sizes in Collage and multi-zone crossplotting.

A Bitmap image can be auto displayed on the screen logplot by leaving its top depth blank and specifying the physical length as the base depth. This is useful for displaying tool strings "in situ".

"Go to depth" logplot option has some extra functionalilty to centre the view at the selected depth and to create a set of bitmaps for a list of depths.

Cross plot map function wasn't using the "=colours" setting correctly - fixed.

Some extra "hide channel" functionality added.

Join was "double dipping" at zone boundaries - fixed.

More support for Groups in channel details screens.

Archive function failed if plot formats had been deleted from the FM2 file - fixed.

v2.10e10

Array channel values can now be edited manually in the channel view table (up to 24 elements)

Cumulative shading used to fill across large null datagaps - fixed.

Advanced DLIS decoding was forgetting the last folder used when opening a new file - fixed.

Merge wasn't copying the channel group from the input files - fixed.

v2.10e05

Log-plots generated via PDF printers can now go to the maximum length supported by the printer driver (may still be limited to 224"?)

Well header temperature plots have been improved.

Channel manipulation - normalise option updates curve min/max when depth range changes.

Improved handling of null data in image plotting

v2.10e01

A new 'report' feature has been added in the event of a program crash that will generate an email for you to send to us.

v2.10d11

A memory leak when two logos are in use has been 'plugged'.

Maximum number of zones in a well has been increased to 1000 (esp. useful for "joined" wells).

In Xplots:

Triggered symbol labels can now be plotted at various angles.

v2.10d08

In logplots:

Dipstick tracks can now be spread across multiple tracks, first create an individual track, then edit the dipstick track definition and amend the "to track".

In channel details, two new functions have been added: SetAlias and SetGroup. to use these, set the value in one channel, highlight the other channels to update, then select relevant function.

in Command interpreter, there are new functions: CNX_GET and WH_GET.

v2.10d01

In logplots:

The mouse-controlled manual curve editing function was incorrect for "reverse" scales - fixed

Hardcopy of long, paginated plots resulted in a mismatch between images and picked dip sinewaves, fixed.

Copying/pasting cells using Ctrl-c/v in some tables was not functioning correctly - fixed.

The CORE_AMD data column, when set, now overrides the depth-shifted CORE_OMD values.

A new option in image generation allows previous channels to be re-used.

Well header temperature plots were mis-plotting the colours of the various run types - fixed.

A new module "User programming" is available for beta testing - see here for more details.

v2.10c07

In logplots:

The mouse-controlled shift scale operation was incorrect for "reverse" scales - fixed

Under some circumstances, saved standard tracks could not be reloaded - fixed

Some minor bugs in the Clustering function have been fixed.

in Channel Details, holding the Down arrow key down resulted in a "tight loop" - improved.

v2.10b07

In NMR:

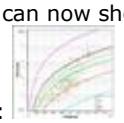
In 1D inversion with burst echoes, you can show a reconstruction of the composite echo train based on the final T2D inversion. In fact this is now the default. Previously, confusion arose because the final inversion with two trains is automatically polarised, so - especially with short TW in the main train (<8ms, say) -the reconstruction showed above the main train. Now the inversion result is not polarisation corrected which (a) makes it consistent with a single train calculation and (b) reins in the reconstruction curve. Note that even with a very long TW cmr+, for example, you can still see an offset, but this is due to the influence of the burst echoes and is of course is dependent on the shape if the train and the T1T2 ratio.

These changes are reflected in the planner/simulator.

Where the burst echoes do not decay to zero (which they should, in ordinary circumstances) you are likely to see some influence on the dual inversion. You can alleviate this by a new switch in the "advanced burst options" which forces the train to decay to zero by shifting the whole train down (based on the final amplitude in the reconstructed train). This procedure has questionable technical validity.

v2.10a07

In hydraulic flow units:

You can now show facies lines on a standard k-phi cross-plot as well as an FZI histogram and RQI/void ratio plot: 

It is now more robust at handling core data with mixed units.

After running a printed report the program would sometimes hang.

In NMR:

Component saturations were mislabelled "VF" - now it is "SAT".

The T2 apparent from T2D was incorrectly scaled. If you feed it into standard T2 analysis it should now give correct PHIT, PHIE etc.

T2 intrinsic from a T1/T2 map was wrongly labelled T2 apparent.

When loading previously saved porosity bins definitions, the channel names weren't being displayed - fixed.

Several fixes and improvements in Projects (still beta)

In logplots,

Waveforms and VDLs were ignoring the x-axis units - fixed.

New feature, to quickly delete a selected curve from the plot, click F12, and Shift+F12 to delete the current track, also, Ctrl+F12 will hide a curve and Shift+Ctrl+F12 will hide a track.

v2.10a02

In log-plots:

There is a new way to vary waveform colour fill - "x-distance". This simply varies the colour along the x (time) axis. 

In NMR:

You you can now load models into the 2D maps (bug fix).

You can show the reconstruction of the final inversion in the inversion plot panel (top right plot). The option is under display options.

The inversion sensitivity is now itself less sensitive to the T2 distribution porosity unit.

In "view all echoes" the filter control now affects all trains, not just the current one.

A number of changes and fixes in the simulator include:

You can enter a restricted diffusion component for the matrix, and this means you can drag wetting fluids below the diffusion line. It is also defined for shale and silt.

You can specify T1/T2 ratios for each fluid.

v2.10a01

We are introducing a better way to manage data - projects. Currently under beta, you can try it out by going to Env | User options: Advanced tab and checking Projects. Read about it here.

The new feature sits on top of the usual LogIC workflows and should have no effect at all apart from making your life a little easier. New aspects of projects will be introduced on a regular basis. Feedback very welcome!

v2.02c16

Bug fixes:

Importing vector data from a LAS file was using the fundamental depth increment of the existing well for the imported curves. This has been changed to use the depth increment specified in the LAS file.

In Xplots, under some circumstances, there was a mismatch between a background frequency map and the plotted data - fixed.

Various minor bug fixes in Pickett plots and adjustment of pet points in Xplots.

v2.02c13

New Features:

in log plotting, selected "vectors" from an array can be plotted as curves, by setting the element number to a negative value, for example, -1 will plot every vector, -3 will plot every third "vector", spread across the track width. Additionally, setting the element number to zero will plot all the vectors on the same scale.

Bug fixes:

Plotting text channel data wasn't handling all the wrapping/justification options correctly and was limited to 120 characters per entry - now increased to 900.

Pickett plots weren't updating the screen displays of Salinity when the temperature was changed - fixed.

There was an error in the function for saving and retrieving standard log plots and tracks - fixed.

The clipboard copy/paste tracks function didn't always copy the shading parameters correctly - fixed.

v2.02c01

Bug fixes:

Well Header temperature plots failed to save changes to the line style also regression coefficients weren't reported when hovering over the line - fixed.

VDL shading between curves was recalculating any specified data range for the colour map when the well was reloaded - fixed.

LAS file export was writing out values up to 99999 f/m if any of the active zones had set this as a base depth - fixed.

Template usage in "advanced" decode wasn't being updated correctly for the last subfile of a multi-file DLIS - fixed.

There was a possible corruption if Decode was run while the Single Well Analysis window was open - fixed.

New Features:

Vector import from NDK file now supports array data as well.

Channel interpolation of array channels now does a 2-dimensional interpolation - to remove "empty levels" as well as "holes".

v2.02b05

NMR:

You can now save a particular set of echoes at a clicked depth as a simulator model. (File | Save as model.)

Saving and loading models in the simulator uses a new dialog.

v2.02b01

Bug fixes:

Saving a new NDK using a high resolution (0.1 inch) alternative depth channel failed - fixed. Also fixed memory leak during this process.

DLIS decoding of irregular spaced frames in one subfile would ignore other subfiles, fixed.

Logplotting of symbol 110 (arrow) came out at the wrong orientation on screen - fixed.

Use of the matrix inversion analysis method deleted results of other methods due to a reversion in the code, fixed.

Cursor position and reported depths were slightly out of alignment on screen logplots - fixed.

v2.02a04

Bug fixes:

A potential memory error under Windows 10 in the Command Interpreter function has been fixed.

Various minor fixes in NMR processing.

v2.02a03

Bug fixes:

DLIS write was failing to output the OCN values for parameters - fixed.

Logplotting: a mismatch between the cursor position and the reported depth has been fixed.

New options:

Logplotting: An option to clip rather than interpolate nulls and non-positive values for log scales has been added. This is useful for some gas curve data when plotted cumulatively.

v2.02a02

In NMR:

If the wrong tool is recognized, you can change it form the NMR main dialog, either on the acquisitions tree or in the acquisitions task.

There could be confusion between the accompanying menus for MagTrak and MRIL-WD tools (which can be fixed using the preceding option).

v2.02a01

Bug fixes:

DLIS decoding failed to process files > 2Gb, the limit has been extended to 4Gb.

Writing out a new NDK file on a different index (e.g. TVD) was incorrect under some circumstances - fixed. There may be an outstanding issue where the written channels are removed from the source file, the workaround is to save the NDK file before writing out the TVD version.

New Features:

under Array Channels -> View | tools, there is a new option to do a bulk update of the channel specs, useful for changing linear to logarithmic.

v2.02

In acoustics: a number of small bug fixes, especially in SFA processing.

In NMR:

A new option in the NMR core window allows you to split loaded core data (where various experiments may be loaded on the same sample) into separate data channels. This allows you to plot the data with more clarity.

There is a new analysis tool that allows you to see the effect of various processing parameters on the final results (PHIT etc) at a level of a level stack. See Inversion analysis.

In Standard Analysis:

The Clay fraction (GR Linear) calculation can now take curves as its endpoints.

Bug Fixes:

NMR binning operation failed to set the "group" for the output curves, it now does.

The size of the labels for user defined lines in Crossplots were inconsistent when the y-axis was logarithmic - fixed.

In Interactive depth shifting, core points weren't able to be visually "dragged" - fixed.

New features:

If you have a lot of plot windows open, it can be difficult to find a "hidden" one, you can now press F5 to display a list of them, double click to pop a window to the top...

v2.01V02

Bug Fixes:

In NMR binning, the group naming preference wasn't being applied to the new channels - fixed

In crossplots user-defined line naming font size was inconsistent for logarithmic y-scales - fixed

In depth shifting, core data points weren't able to be interactively overlaid - fixed.

in log plotting, time pips weren't being labelled correctly - fixed.

v2.01V01

NMR:

Phase rotation: You can cut the first echo (or echoes) when calculating the phase angle of a train. The histogram of phase angles in the pop-up panel now shows two distributions: in blue, all the phase angles satisfying the "best percentage" criteria (as before); in red (but only if you are using the moving average window option) those points from the blue set which actually lie in the window.

Viewing all echo trains: this is now available from the main NMR window menu. Go to "Actions | View | All echo trains". In the view window there are two extra toolbar icons: one allows you to plot the reconstructed trains rather the the actual data, and the other to toggle the legend off, on, or on but outside the plot.

1D Inversion: the pop-up panel display has changed. The top right plot used to show the main echo train, filtered. It now shows both the main and the burst echo (if the latter is being used). More importantly, if you are stacking echoes, it shows the result of the stack - in other words, the data that goes into the inversion (or at least the pre-pruned version of it).

Core data: normally plotted as "overlays" - i.e. pointers on which you click to produce the core T2 distribution. If you change the log curve specification to "waveform" they will show the T2 distribution on the log-plot. You can control the height using the scale height option in the plot control.

v2.01U46

NMR:

You can plot all the echo trains at a given depth in a dedicated window. Go to "View/filter/reconstruct echoes" and click the "View all trains" button.

"Pseudo-saturation" is set to null in bad hole sections.

v2.01U40 - released version 24th March 2016

Bug fixes:

Waveform manually aided peak tracking failed if the VDL was plotted on a reverse scale - fixed.

A bug was introduced in an earlier version which caused the crossplot symbol definition dialogues to be corrupted - fixed.

v2.01U36

Bug fixes:

In logplotting, clipped VDLs failed to plot in hardcopy under some circumstances - fixed.

in NMR core data module, pasting (Ctrl-V) from the clipboard to the data listing table did not work - fixed.

in TVD entry, loading from clipboard didn't always automatically recognise default channel names/numbers - fixed.

Changed function:

In crossplotting of array channels, the default used to be to plot all the elements, now it defaults to element 1 - use 0 to plot all.

v2.01U34

Bug fixes:

In waveform analysis, increasing the number of DT steps in the coherence dialogue caused a crash - fixed.

v2.01U33

Bug fixes:

Clipboard entry of data was disabled - fixed.

v2.01U32

Bug fixes:

In crosplotting, vector masks were mis-sizing rotated strings and limited their length - fixed

In crossplotting, there was a mismatch between saved symbol axis tables and when they were read back in - fixed.

v2.01U28

Bug fixes:

in Batch processing, listing files could end up anywhere! - They now go to the well folder.

In crossplotting, the bin statistics for logarithmic data was not reporting the plain arithmetic mean - fixed.

v2.01U26

Bug fixes:

In crossplotting, under some circumstances, the "box and whiskers" plot failed - fixed.

New Features:

In crossplotting, especially for joined wells, if the symbol channel has discrete values and associated labels, the label can be "triggered" on a change of value - useful for labelling well IDs.

In image displays of ADN tools, some modern tools (e.g. Ecoscope) aren't "ADN" aligned, so a new alignment flag channel can be used to override the default, use channel manipulation to set it to 1 for "standard" ADN alignment, 0 for "mid sector" alignment.

v2.01U24

Bug fixes:

New Features:

In Logplotting, some new options have been added to the "print->QSnap" menu to automatically set the output dimensions to a particular paper size. Also two "quick full print" icons have been added to the toolbar, one for a plotter and one for CGMs.

In Crossplotting a switch has been added to force the onscreen plot area to be square.

v2.01U23

Bug fixes:

DLIS write failed if there were more than 1000 parameters in the constants file, this has been increased to 5000.

In NMR:

CMR stationary measurements have been recoded, and provide a better result.

On the T2-D and T1-T2 maps there is a new control to allow you to display only amplitudes above a percentage of maximum. This means you can get rid of "smears" of noise in unwanted places. Beware you do not remove valid signals!

v2.01U17

Bug Fixes:

Save As NDK using a different depth index channel was failing to write curve values - fixed.

In logplots, newly created array channels weren't displaying as VDLs until the NDK file was closed and reopened - fixed.

Temperature plots in pets/well header failed to correctly display the Temp vs Time graph - fixed.

New features:

Logplotting VDLs: An extra option has been added to enable overlaying of min/max-clipped VDLs.

v2.01U13

Bug Fixes:

DLIS decoding: under some circumstances, the advanced template option did not work - fixed

New features:

A new environmental "DLIS_Discard_Unrecognised=yes" forces template use not to load curves that aren't in the template. To set the flag, save your work, go to "Env-Licensing", click the INI button and add the line to the file, save it then restart LogC.

v2.01U10

Bug Fixes:

Logplotting : Hardcopy of a lithology track caused unwanted line to also be drawn - fixed.

New features:

in logplotting on screen, the arrow up/down keys can now be used to page up/down the plot in the currently focussed window.

v2.01U06

Bug Fixes:

Log-plotting hard copy, some inconsistencies in the track titling and scale bar options between screen and hard copy have been fixed.

Depth Shifting - under some circumstances, array channels were being "double-shifted" - fixed.

LAS file reading failed if the LAS file contained more than one parameter that started with "STOP" - fixed.

v2.01U05

Bug Fixes:

DLIS Decoding: If the source DLIS filename contained a ".", under some circumstances, this was interpreted as the start of the extension - fixed.

v2.01U01

Bug Fixes:

Sums and averages: Under some circumstances, uninitialised TVD values were being reported when the results table was pasted into XL - fixed.

Crossplots: Improved reporting of multi-histogram stats.

PET points: When adjusting them in the PET modules with multiple zones using the same set, multiple warnings were generated - fixed.

New Features:

In merge, an option to prefix the toolname with a user-defined string has been added. This makes finding a coherent set of curves easier, especially in borehole image plotting.

In image interpretation, a facility to pick "partial" features has been added, (see Partial Picking) this is still being tested so any feedback would be appreciated.

v2.01T24

Bug Fixes:

In Decode, some new DLIS files had more than the anticipated maximum number of attributes which caused errors - this limit has been increased.

v2.01T23

Bug Fixes:

In Copy/Archive function, under some circumstances, FM2 files weren't transferred - fixed.

In Logplots, DST reports in the hardcopy footer were using too much space - fixed.

In the Temperature plots, it was unclear whether TVD or MD was being used, so a checkbox to select TVD has been added.

Colour 99 (dark green) was coming out dark red on hardcopy text - fixed.

v2.01T21

New Features:

In Crossplots | Histograms, you can now get the "pLevels" plotted as a table.

In Crossplots with 2 y-axes - you can now get the stats displayed for both y-axes.

v2.01T20

New Features:

In Crossplots | Histograms, you can now edit the matrix and clay Pet points and a warning will appear if the change will affect other zones.

In Crossplots with 2 y-axes - if a background histogram is selected for the second one, it will be drawn on the RHS.

Bug Fixes:

In Well Header, the temperature plot failed to show the gradient line and the legend colours were incorrect - fixed.

In Prepared Image creation, the "LWD (ADN)" option has been changed so that it closes the dialogue to avoid confusion.

v2.01T19

New Features:

In the File | Constants option, if none exist you can now load the constants from another CNX file, - this is useful after merging if a new NDK file was created.

In logplots | image plotting, an option has been added to allow a transducer angular offset to be applied, mainly for UBI images where the offset (=ANGO in the constants list) may be -17 or +4 degs.

In merge, an option to add a prefix to the tool name has been added, this is useful where two different image-based files have different orientation curves but with the same name.

in RFT plots, an option has been added to turn on/off the full cursor.

Bug Fixes:

In merge, the re-sequence option has been tidied up to prevent corruption of the channel table display.

In File | Copy/Archive, the auto-dip picking parameter file was not saved, it now is.

v2.01T18

New Features:

In the File | Constants option, you can now modify the values and units. This is particularly useful before writing a DLIS file where blank units can be problematic!

In logplots, symbol 91 has also been re-purposed to be a filled circle, the outline colour being defined by the "symbol colour" (as with the option in crossplots - see v201T16 below)

Bug Fixes:

in crossplots, when editing the colour table, the insert option caused corruption if there were more than 20 "classes", this limit has been increased to 100.

v2.01T17

Bug Fixes:

Plotting of some CST channels failed in logplots - fixed.

v2.01T16

New Features:

Importing dips from CSV files has been extended to cope with class names and numbers, error checking also improved.

Importing vector data from clipboard has a new option to completely delete a destination channel, especially useful where the imported data is to be loaded at a different depth increment to the existing target channel..

Cross plots: When using lithology code channels (212/213) as the colour axis, the colour is taken from the fill colour of the relevant pattern.

When using a channel that contains a standard colour number (0-99) as the colour axis, a new setting "=colours" has been added to the list of colour maps.

Symbol 91 is now being used to draw a filled,outlined circle - to aid the identification of "yellow" data points.

v2.01T14

New Features:

DLIS output now writes "-999.25" for array null data values to allow other software packages to cope!

it is now possible to have multiple Lithology tables, in the well folder (or parent, or grandparent folder) and the program will use the first one it finds.

Bug Fixes:

Unwanted "curve scale highlight" boxes when curve scales turned off - fixed.

Curve splicing output curve name being overwritten by "_SPL" curve - fixed.

Channel details screens used to prevent editing of curve numbers on some screens, this is now allowed.

v2.01T13

New Features:

Modification made to allow XRMI 8-pad images to be recognized and processed - for beta testing.

Bug Fixes:

DLIS decode routine failed if source filename+path was >200 characters, now set to system limit of 256.

NMR processing of some CMR+ datasets caused a crash in the phase angle calculations - fixed.

Analysis progress message has been moved so as to not disappear behind the active logplot.

v2.01T10

New Features:

NMR T2 results assignment screen now has a "save/load" feature to enable quick retrieval of edited channels.

Image creation: ADN-style image data can now be pre-smoothed before creation of "quick display" pre-normalised images.

Bug Fixes:

Quick channel deletion didn't always work - fixed.

Mismatch between maximum DST label entry and plot - fixed

v2.01T06

Bug Fixes:

DLIS Writing failed to encode multi-element parameter arrays cleanly in some circumstances - fixed.

In merge, templates had to specify channel numbers, this has been amended so that numbers are unnecessary.

In advanced DLIS decoding, an option to add the stored "File ID" for multi-subfile DLIS files has been added.

v2.01T05

New Features:

TVD enquiry screen can now take a column of depths from the clipboard and convert them, see Directional Surveys (TVD Calculations).

Bug Fixes:

in logplots, the full depth range button didn't add the "bottom buffer" if the plot units didn't match the well units - fixed

In logplots, labelling of log runs could be truncated - fixed.

in Decode, an unnecessary prompt appeared after doing a scan, this has been removed

v2.01T04

In NMR, making a capillary pressure curve from a T2 distribution now has the ability to adjust for Swirr. See Capillary pressure from NMR T2. The Altunbay model has been temporally suspended.

A bug when calculating a T2 cut-off from a T2 distribution, causing the limits to be the distribution bin edges rather than the entered limits, has been fixed.

v2.01S08

New Features:

Improvements to the logplot hardcopy "snap" option:

ability to "set" the number of rows to be used for curve scales and track titles to allow more consistent comparisons between plots.

headers are now plotted at the top regardless of how they are set for the full plot.

Bug Fixes:

Interactive conventional analysis was mis-setting neutron porosity units in some circumstances, this has been fixed.

In LAS output, well comments were being clipped to 260 characters, this has been corrected to 800.

in LAS output and other file creation routines, templates with blank names don't overwrite output curve names.

in depth shifting, there was a limit of 500 curves that could be shifted in one set, this has been increased to 1000

in analysis, "not assigned" discriminators in zones were defaulting to use set 1, this has been fixed. Also, some screen refresh issues in discriminations have been fixed.

in merge, channel names/tools and descriptions were being taken from the last loaded file, this has been changed to use the first file. This may become an option in future releases.

in logplotting, VDLs weren't swapping when "rev-auto" was set, this has been fixed. Also, some text right-justification settings were being ignored, now fixed.

in Clipboard-based curve loading, a spurious warning about potentially overwriting channels has been removed.

in Pickett plots, changing zones didn't update the plot, now fixed.

v2.01S05

Bug fixes: in acoustics, the option to create filtered waveform channels now does so.

in NMR, the permeability optimisation cross-plot is sensibly scaled and the Timur Coates and SDR output channels now have the correct units.

v2.01S04

New Features:

In PET Histograms, an option to use fixed scales has been added for consistency as you move between zones.

In Channel details, a new option has been added to the File menu to delete curves that are highlit in the tables, selected using Ctrl/Shift-click as in XL.

v2.01S02

Bug fixes:

In logplots, a bug in the filtering caused errors in the shading algorithm - this has been fixed

In templates, if your template didn't have a channel number associated, the channel was ignored, even if the selection was "by name" - fixed.

In Well listings, the "Browse" button took you to the top level of the PC, this has been changed to the current default folder.

v2.01R17

Bug fixes:

In logplots, a bug caused by requesting a TVD depth track when no TVD channel exists has been fixed - MD is used instead

In merge, the comments field for the resulting output NDK file was being clipped to 260 characters, the new limit is 800.

In NMR, inversion/advanced, the ">" button to update the channel name was permanently disabled, this has been fixed

In NMR, the T2 porosity bin option has been added to the menus for all tools.

In NMR, deselecting some acquisitions caused other acquisitions not to be calculated, this has been fixed.

In Single channel statistics, changing, then setting, zone depths was not being reflected in the statistics tables when refresh was pressed, this has now been fixed.

v2.01R16

In Logplots, you can now plot a value from the PET file, just enter %petname (e.g. %grcl) for the channel name. Note that the values are plotted "Zone by zone" so you may get more than one line if you have overlapping zones pointing to different PET values. The program *should* automatically select default scales but if not, use the manual scale setting and let us know which parameter(s) failed to get the correct scale values.

v2.01R15

In DLIS output, an extra option to check the contents of the CNX file has been added
In channel listings, an option to output the table to XL has been added

Bug fixes:

In DLIS output, the CNX data was not being written out, this has been fixed.

v2.01R13

FFT options in channel manipulation are reorganised. Under the Array channels category, "Fourier transform" is now a proper FFT on the array signal. What was "Frequency analysis" is done on vector channels and is under

the Advanced category and is called "Frequency (1/depth) content. The Wavelet energy spectrum has been added here too (help available next release).

In NMR, you can do an FFT on the noise data. You must have a noise channel, or have created one from the echo quadrature components). Double click the noise plot in the NMR pane, and from the resulting stand-alone window click the FFT icon. You can also remove the smoothed noise curve from the plot - use the Options menu item.

When you decode a LIS/DLIS file or batch convert LAS files to NDKs, an option to generate multi-well channel statistics has been added.

In logplots, the text sizes of track titles has been optimised. Some more work may be needed so if you find that they aren't being plotted to your taste, let us know.

Also in logplots, on some monitors, the base depth of the well couldn't be reached, so a 4% "buffer" has been added to try to address this.

Bug fixes:

In logplots, a crash after multiple uses of the "range" option has been fixed.

In logplot hardcopy, some additional information regarding analysis methods has been added.

In NMR T2 Analysis output curve definitions - the last screen button was not working, this has been fixed.

in NMR phase angle calculations, if a specific phase angle channel was selected, the program stopped working, this has been fixed.

In curve splicing, the "shift and scale" entries were reset if the table was "sort"ed. This has been fixed.

Known bugs:

DLIS decoding fails (with "unrecognised rep code" errors) if the filename + path length exceeds 200 characters, to workaround this, copy the file to a shorter folder, decode, then copy the NDK fileset back to the original location.

v2.01R05

Bug fixes:

Merge options window was closing on selection - it now stays open until closed manually.

Log plot autohide option enhanced to take better account of zone labelling override.

Various small bugs in new NMR stacking echo trains option fixed.

v2.01R04

In NMR:

Some RIDAT files (Maran core data experiments) were incompletely read. We believe this was due to an incorrect "number of echoes" entry in the file, but it may have been a misunderstanding on our part. Anyway, we now read to the end regardless. Mostly the echo train was fully decayed by the time LogIC stopped reading it, which was why it was not spotted earlier, but this is not the case with some bulk signals.

A new way of stacking echo trains prior to inversion is introduced. See Advanced stacking for main echoes and Smart stacking.

Merge now has logarithmic interpolation options.

Bug fixes:

Merge was failing to honour the "force common depth increment for LAS files.

Occasionally, "popup" plot windows were failing to appear in the NMR module.

Pre-existing "BITSIZE" curves (e.g. from DLIS files) were preventing correct processing of well header-sourced bit run information - a "save" button has been added to force use of the well header values.

PHI-MAX analysis method was generating "zeroes" under some circumstances.

A delay before plotting some logplots (due to multiple blank curvenames) has been resolved.

A bug in the DLIS output facility that occasionally caused unreadable files to be written has been removed.

v2.01R

In NMR:

There is a new task "T2 distribution statistics", where things like skew and kurtosis can be calculated, and cumulative T2 distributions made. Get there from the NMR drop-down menu, or the "More tasks" option of the "T2 domain" task.

You can use multiple trains in ID inversion, either for the main or the burst echoes.

Some changes in clustering - mostly to the cluster centre plotting, where you can now also show the input data.

Log-plots: You can now make multiple annotation tracks

Bug fixes:

A bug causing bit size and other control channels to "go AWOL".

PHI-MAX method was incorrectly reported on log-plots.

Tab separated LAS files: compiler default setting prevented TABs being correctly interpreted.

Merge screen refresh bug: manual entries in merge tables being ignored.

Help window on server: Microsoft security prevented display of helpfile stored on server.

Cumulative NMR bin porosity summing > NMR_PHIT.

Unit-based entries: e.g. "70(%)" used to generate an error

logarithmic interpolation: used to use linear interpolation - corrected

v2.01

Cross-plot user line functions increased to 160 characters. Please be aware that FM2 files written by this version might not be readable by earlier versions of LogIC.

v2.00

New Acoustics and NMR workflows introduced.