

KellyDown

Software Release Notes

Version 4.01.02.12 – December 2022

A. Software Description

KellyDown is a well-planning and survey monitoring application designed specifically for use by well-planners and/or directional drilling coordinators at the rig-site or in the drilling office. It comprises an advanced multi-well relational database, sophisticated well-planning and survey data entry interfaces with smart data import and export modules, intuitive correction run and project-ahead modules, a comprehensive anti-collision module and full reporting capability. Its main advantage over similar products is its comprehensive list of features coupled with its user-friendly interface.

In the well-planning office, it is used to import or create multi-structure projects, configure multi-well slot templates, design simple and complex well plans, define casing programs, survey tool programs etc. and test for collision avoidance.

During the drilling stage, it is used by the directional drilling coordinator to achieve the optimum well path to one or more targets while also testing for proximity against adjacent wells in the drilling project and produce customised and professional looking reports right at the rig site.

KellyDown has been tested on Windows[®] XP (SP3), Windows[®] Vista, Windows[®] 7, Windows[®] 8, Windows[®] 10 and Windows[®] 11.

B. System Requirements

To use KellyDown, you need:

- The Microsoft[®] Windows[®] XP (SP3) through Windows[®] 11 operating system.
- An Intel or Intel-compatible processor.
- At least 4 GBytes of installed memory (8+ GBytes recommended).
- At least 200 MBytes of free disk space.

C. Installing KellyDown

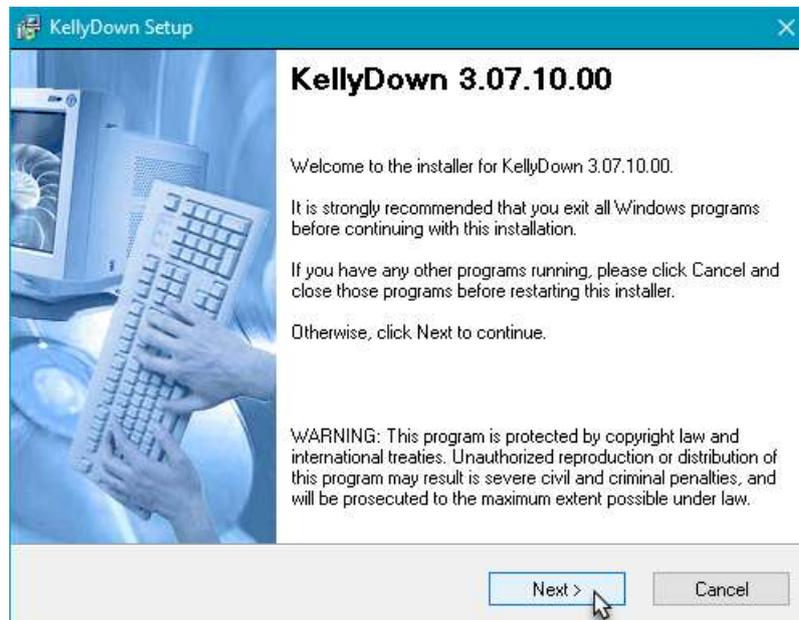
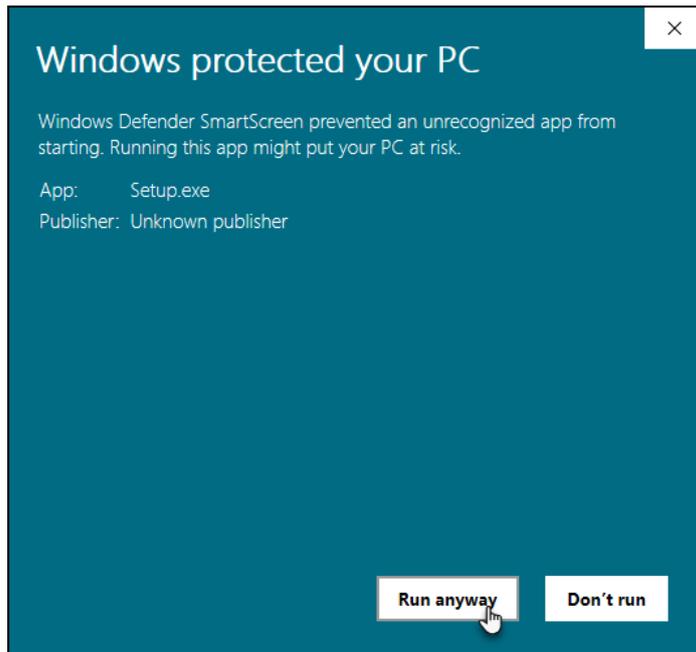
Click [here](#) to go to the KellyDown website.

Download the KellyDown Setup file from the KellyDown website to your computer. To do this, simply click on the two red **Download Setup.zip** button. By default the files will be downloaded to your **Downloads** folder. After the download has completed, click on the **Open Folder** button to go to the **Downloads** folder.



Open the *KellyDown_Setup_3.07.10.00.zip* file (or whichever version was downloaded), right click on the *Setup.exe* file and select **Copy** from the popup menu. Return to the **Downloads** folder, right click anywhere in the folder and select **Paste** from the popup menu to copy *Setup.exe* to the **Downloads** folder.

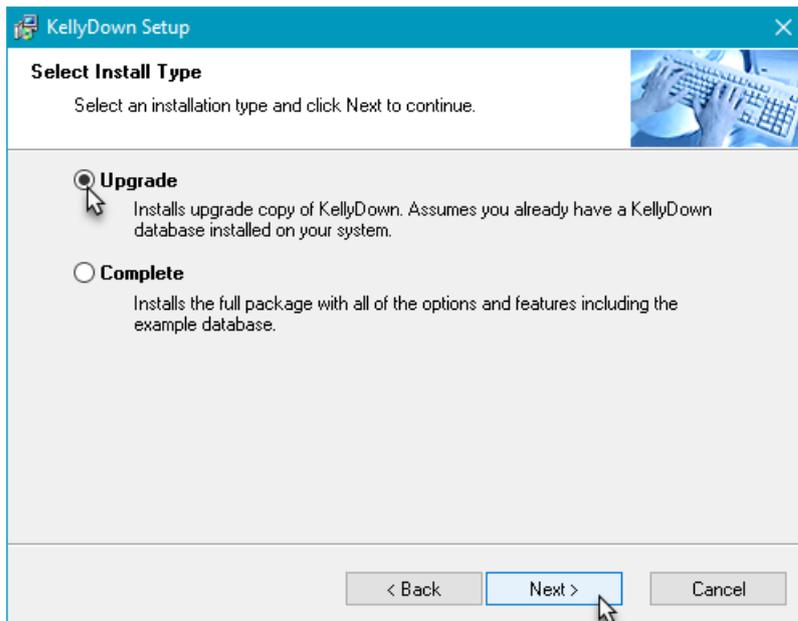
Next double click on *Setup.exe* file to launch the KellyDown Setup routine. If Windows asks if you want to allow the program to continue and/or to make changes to your hard drive, click **Yes** or **Run this program anyway**. If Windows tells you that **Windows protected your PC**, click on the **More Info** link and then click on the **Run anyway** button.



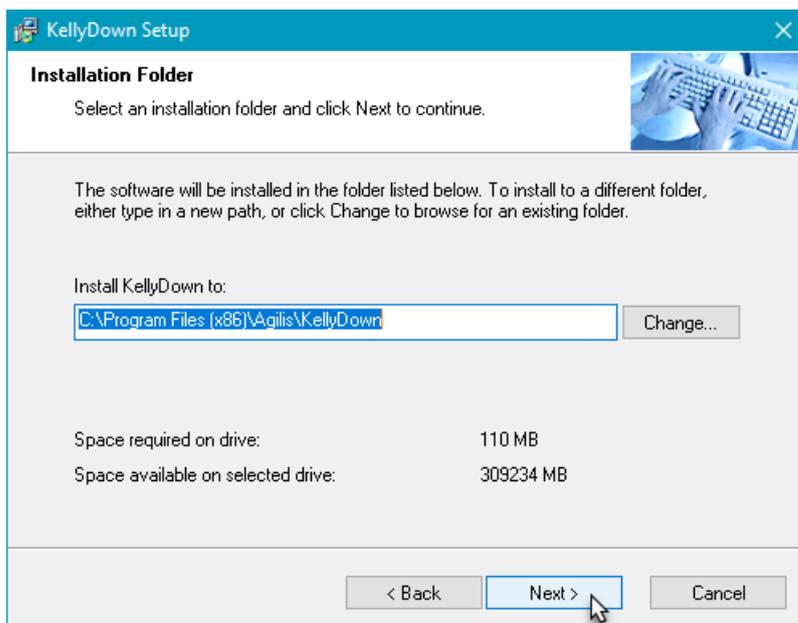
Follow the instructions shown in the KellyDown Setup. When asked to select an **Install Type**, decide whether you want to install the *Example Database* or not.

If this is the first time that KellyDown has been installed on your computer, you should select the **Complete** option, which will install KellyDown and the KellyDown **Example Database** onto your computer.

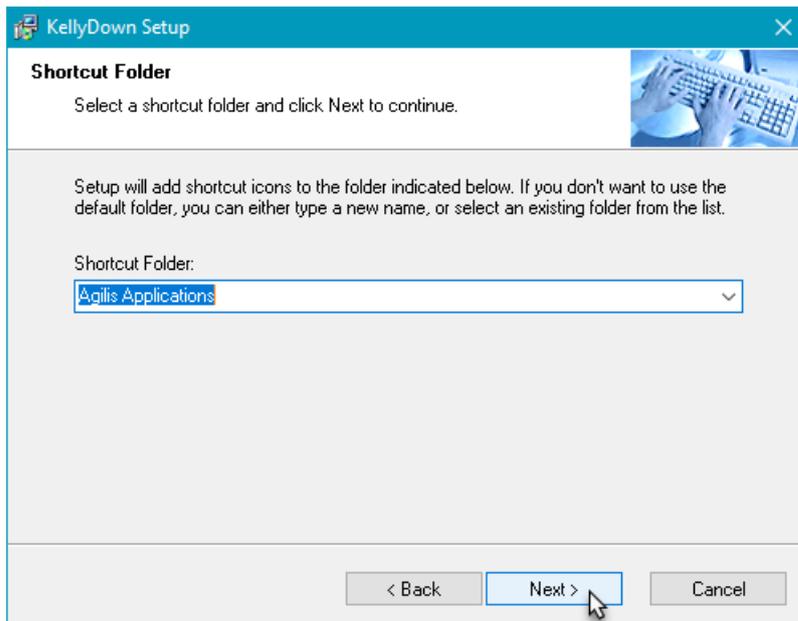
If KellyDown was already installed on your computer, select the default **Upgrade** option. This will install the new version of KellyDown without overwriting you existing KellyDown database.



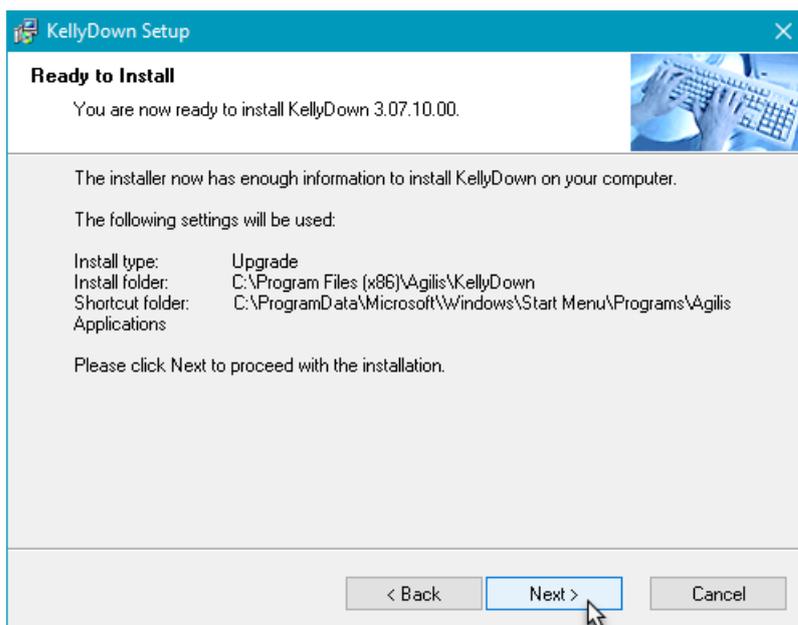
KellyDown Setup will ask where you want to install the software. It is recommended that you install the software in the default location.



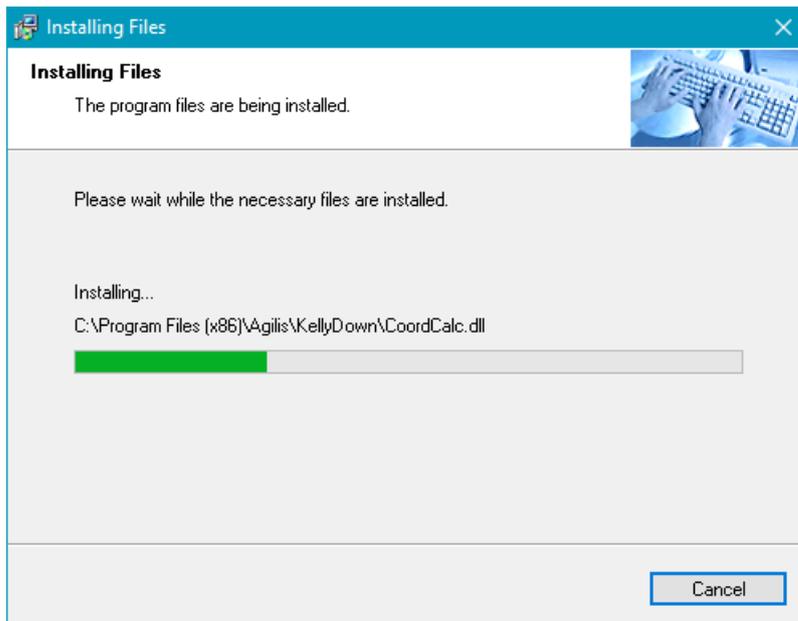
Next, KellyDown Setup will ask where the shortcut icons are to be installed. If you prefer to install the shortcut icons into a different location, select it from the drop-down list. KellyDown Setup will install icons for the software, the User Manual, the QuickStart Guide and for the Uninstall routine. A shortcut for the software will also be installed on your desktop. Delete it afterwards if you do not want it on your desktop.



When KellyDown Setup has enough information to install the software, you will be prompted for final confirmation before the software is installed. Click on the **Next** button to proceed with the installation.



Wait while KellyDown Setup installs the software onto your computer.



After the software has been installed, a message will tell you how to start the KellyDown application. Click on the **Finish** button to close KellyDown Setup.



Tip: if you already have KellyDown installed on your computer, you just need to open the **Help, Check for updates** menu in KellyDown and after confirming; KellyDown will download and install the latest version automatically.

If you have any problems installing KellyDown, please contact *KellyDown Support* at the following email address:

support@kellydown.ca

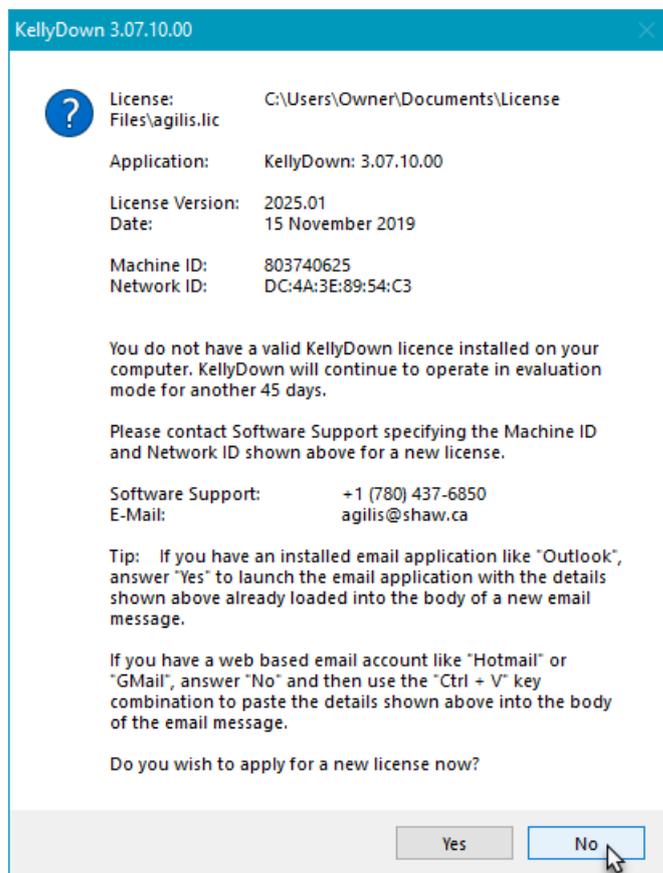
D. Starting KellyDown

To start KellyDown, double click on the **KellyDown** shortcut icon on your desktop or select **All Programs, Agilis Applications, KellyDown** from the Windows® **Start** menu.

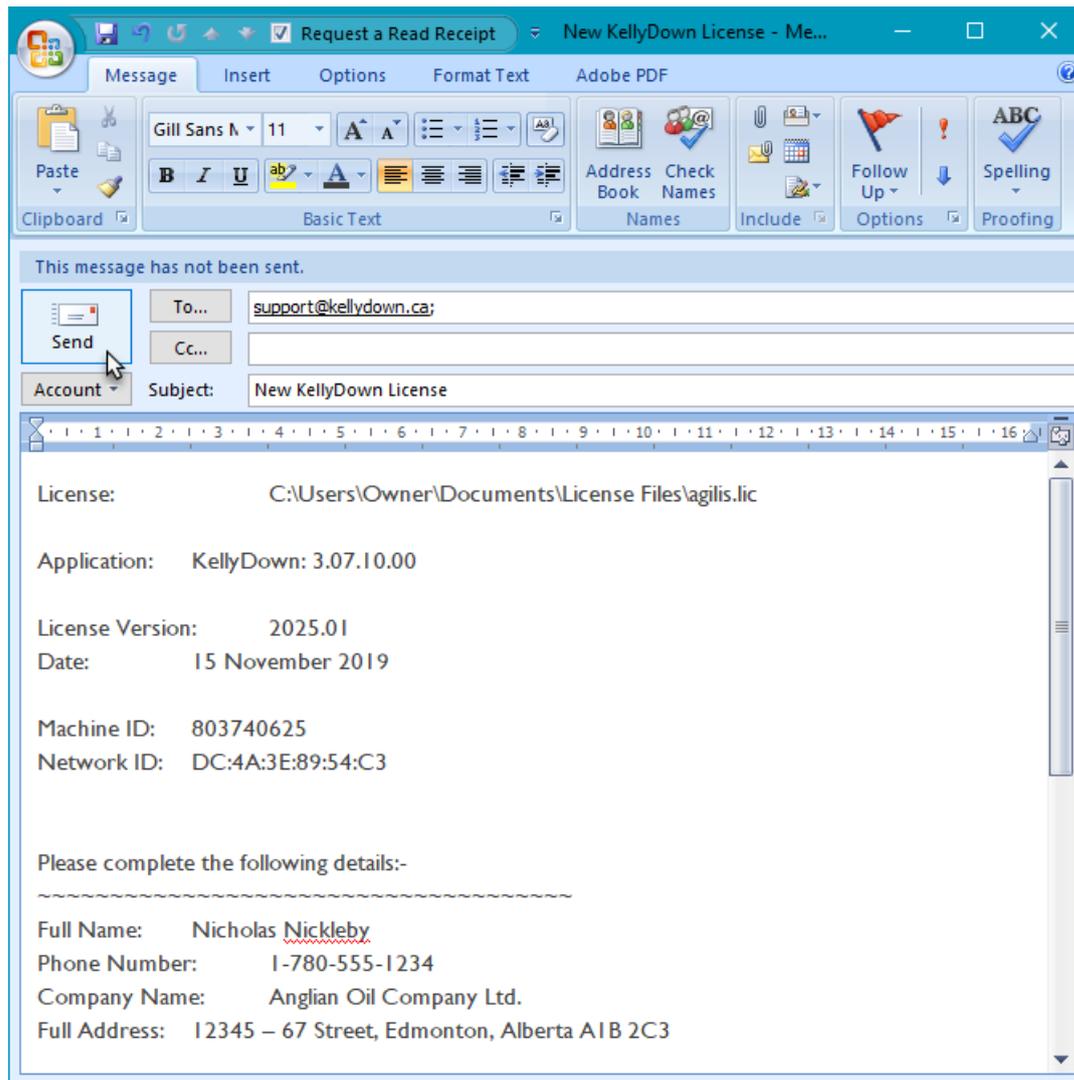


When KellyDown loads for the first time, a message will inform you that you do not have a valid KellyDown license installed on your computer. KellyDown will continue to operate in limited evaluation mode even though you do not have a valid license.

Limited evaluation mode allows you to perform all of the functions in the licensed version except save proposal data and/or survey data to the database.



To unlock the software or to apply for a Fully Functioning Evaluation License, send an email to **KellyDown Support** at support@kellydown.ca (or to your local or company designated KellyDown support person), quoting the information displayed on the message. If an email application (like Microsoft Outlook) is installed on your computer, click on the **Yes** button to launch the email application with the **Agilis** email address and license information filled in for you. Complete the rest of the information shown in the email message...



If you have a web-based email account (like Hotmail or Gmail or a web-based company email account) answer **No** to the question and use the **Ctrl-V** key combination to paste the license information into the body of a new email message.

Send the email to support@kellydown.ca or to your company's designated KellyDown support person and Agilis Software Solutions (or your company's KellyDown support person) will send you a license within two (2) business days. You may continue to use KellyDown in evaluation mode until you receive the KellyDown license. When you receive the license, copy it to the folder shown in the email message. If you need to be reminded of the folder location, simply run KellyDown again to display the message.

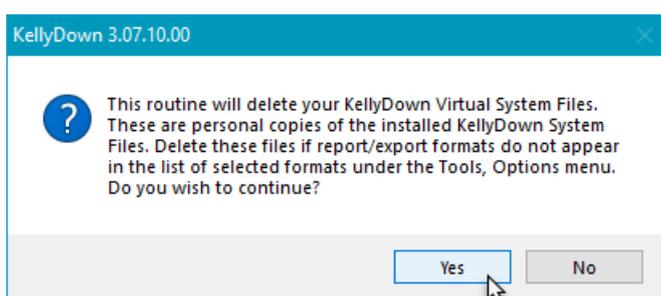
KellyDown will then prompt you for a password for the **Admin** account in the **Example Database**.



Enter a password of at least six characters. Try to use a password that contains upper and lower case characters, numbers and special characters, e.g. & or \$. An indicator next to the password shows you how strong your password is. Red indicates a weak password and green indicates a strong password.

Confirm the password and then enter a hint to remind you of the password in case you forget it at a later date. Use a password and hint combination that only you understand. Click on the **Continue** button to start using KellyDown.

Important: If you are installing KellyDown on a computer running Windows 7 or later on which a previous version of KellyDown was installed, you may need to **Reset the KellyDown Virtual System files**. Virtual System Files are part of the Windows security system and prevent older files from being overwritten. However, this may prevent some important KellyDown system files from being updated to the new version. To allow these to be updated, we have added a function to KellyDown that deletes the old versions of the files; simply open the **Administration, Utilities** menu and click on **Reset KellyDown Virtual System Files**.



Click on the **Yes** button to delete the files.

When you run KellyDown for the first time with a valid license, depending on your company and regional location, KellyDown will be configured with the appropriate company branding and preferred options. If however, you wish to change these options, simply open **Administration, System Settings** and adjust the options to suit your requirements. Please refer to the **User Manual** and **Getting Started Guide** for more detailed instructions.

If you have any comments about using KellyDown, if you discover any bugs, or if you would like to suggest improvements or enhancements, please contact *KellyDown Support* at the following email address:

support@kellydown.ca

E. History

Version 1.00.00.00 – released on 1st March 2012

Version 2.00.00.00 – released on 24th May 2013

Version 3.00.00.00 – released on 19th June 2015

Version 3.01.00.00 – released on 25th March 2016

Version 3.02.00.00 – released on 8th July 2016

Version 3.03.00.00 – released on 14th October 2016

Version 3.04.00.00 – released on 2nd December 2016

Version 3.05.00.00 – released on 17th March 2017

Version 3.06.00.00 – released on 18th August 2017

Version 3.07.00.00 – released on 1st June 2018

Version 4.00.00.00 – released on 24th August 2020

- Added option to show grid lines on printed plots.
- Added option to specify a Scan Radius for the Closest Well function, thereby improving the speed when scanning for the closest well in very large projects.
- Added ability to launch multiple instances of KellyDown to facilitate using KellyDown to monitor several jobs in a Remote Operating Centre (ROC). Hold down the Shift key and click on the KellyDown icon in the Windows Taskbar to launch another instance⁹.
- Removed the Job Personnel tab from Drill Records and added a button to open the Job Properties dialog where the Job Personnel tab has been relocated for consistency.
- Added Alerts tab to the Job Properties dialog that allows the user to enter an unlimited number of customer and/or company contacts that are alerted by email and/or SMS message when the current well approaches an offset well by a predefined pseudo clearance factor⁸. The contact's SMS and email address are edited by clicking on the corresponding Edit button⁸.
- Added a Persist column to the list of Personnel on a job, which if checked will update the End Date for the associated person to the end of the current slide sheet whenever a slidesheet is saved or whenever a drilling report is created⁸.
- Modified the KellyDown Visualiser whereby a saved .kdvis file now contains information that allows the standalone Visualiser to be updated with new survey data. Also modified the standalone Visualiser that allows the View to be updated with new survey data, thereby facilitating continuous viewing of the drilling progress remotely. The standalone Visualiser is updated by specifying a Watch File which when updated, causes the current well data in the Visualiser to be refreshed. The Watch File may be updated from KellyDown by exporting the current survey data to an MWD Watch File.
- Added Edit Properties menu to Proposal Editor, Survey Editor and Slidesheet Editor.
- Added function to define a maximum distance between the current well and its associated proposal, which if exceeded, the data in the proposal reference columns in the survey editor and slidesheet editor are coloured red and if alerts are switched on, text messages and/or email messages are sent to the specified recipients.
- Modified User Accounts whereby the options for the current user are copied to a new user account when one is created.

- Added new option under Tools, Options General Options called Copy option settings to all user accounts, which will copy the current options to all other user accounts in the database.
- Added sub-menu under the edit menu to allow the user to edit the current customer's properties from within the proposal editor, survey editor and slidesheet editor.
- Modified Interpolations module whereby forward projections are now also included in the interpolations⁸. The Interpolation module may now also be called from the Correction Run, Ouija Board and Build/Drop/Turn modules⁸, and will interpolate depths from surface down to the end of the forward projection no-matter how many parents lead back to surface.
- Added Sub-Sea Depth to Watch File export.
- Added Formation Tops Opacity and Hardlines Opacity to Tools, Options, Plot Options⁸.
- Rearranged the concept of the Link File/Watch File scenario. KellyDown may now be configured as a Client or a Server. Configure as Client to automatically receive survey data in the form of either a binary Link File or an ASCII Watch File. Configure as a Server to automatically send survey data in the form of a Link File or Watch File. The type of file is defined by its extension.
- Added ability in the Formation Tops Editor to define a Dipping Plane having a start distance, and end distance and a width. The Dipping Plane is updated regularly as drilling progresses and enables the driller to continually monitor the distance of the survey above and/or below the plane⁸.
- Added a function whereby formation tops (and Dipping Planes) in the KellyDown Visualiser are continually updated while they are being modified in the Formation Tops Editor.
- Added function whereby the Distance above or below Formation Tops is updated in the Proposal Editor, Survey Editor and Slidesheet Editor whenever formation tops are updated.
- Added Distance to Plan and Highside Direction to Plan to the Proximity Watch File.
- Added Motor Yield module.
- Added High and Low to Dipping Planes, which allow the user to define a vertical corridor in which to drill.
- Made Closest Well and Formation columns auto-size.
- Updated standalone Visualiser so that it can be opened with predefined Link file and Watch file. Also enabled borderless Visualiser so it may be opened inside a webpage.
- Real-time proximity watchfile now includes proximity data for all survey records in current run.
- Linked Motor Yield module to Slidesheet Editor, Correction Run and Ouija Board modules. Added Motor Yield Report and ability to interpolate Motor Yield.

Version 4.00.01.00 – released on 2nd September 2020

- Fixed bug in proximity scan where the centre-to-centre distance was incorrect when scanning against interpolated inclination-only surveys.
- Minor enhancements to the Motor Yield Calculator.

Version 4.00.01.03 – released on 11th September 2020

- Added optional columns showing relative position to offset well to custom export columns and custom report columns.
- Added ability to select Offset Well in Proposal Editor so custom export and custom reporting modules can show relative position of offset well (useful for planning relief wells and intercepts).

Version 4.00.01.04 – released on 18th September 2020

- Fixed bug where all Profile IDs in a project were recreated after an individual well or profile was imported from a Compass transfer file instead of just the profiles that were actually imported.
- Fixed bug in Hydraulics module where the Hole Diameter for a Casing Section wasn't persisted when the Hydraulics module was closed and then reloaded.
- Fixed bug in Hydraulics module where KellyDown complained that the bit wouldn't fit inside an Open Hole section if the ID for the Open Hole was set to zero.
- Fixed bug where the number 1 was automatically prepended to the beginning of ten-digit phone numbers because this caused some problems with some cellular providers.
- Fixed bug where you couldn't edit the call address of cellular providers.

- Modified MWD Watch File module whereby the depth units in the watch file are treated as US Feet if the column header contains the letters “US” or “us” and international feet if the column header contains the letters “FT” or “ft”.
- Modified Visualiser module whereby the units and conversion factor are now saved with a .kdvis file so that the Visualiser is now able to convert MWD Watch Files appropriately irrespective of units in the watch file.
- Modified the KellyDown Visualiser whereby a saved .kdvis file now contains information that allows the standalone Visualiser to be updated with new survey data. Also modified the standalone Visualiser that allows the View to be updated with new survey data, thereby facilitating continuous real-time viewing of the drilling progress remotely. The standalone Visualiser is updated by specifying a Watch File which when updated, causes the current well data in the Visualiser to be refreshed. The Watch File may be updated from KellyDown by exporting the current survey data to an MWD Watch File or is automatically updated using the server functionality in KellyDown.
- Updated the KellyDown Standalone Visualiser to read the units from a .kdvis file and convert the data to the correct units when reading an MWD Watch File.

Version 4.00.01.05 – released on 2nd October 2020

- Fixed bug in Hydraulics and Torque & Drag modules where KellyDown couldn’t calculate a result when there was only one component in the drillstring.
- Fixed bug in Slidesheet Editor where changing an activity didn’t trigger a change event to the slidesheet so the slidesheet wasn’t saved on exit unless another change was made.
- Fixed bug when creating New Database routine that caused the custom user settings to be reset in the new database.
- Modified Slidesheet Editor whereby the Tools, Convert to Slide/Rotate Configuration menu now corrects situations where a Drilling activity was selected in error.
- Modified Slidesheet Editor whereby the editor now remembers when a Drilling or Rotate activity is selected and will automatically assume that same activity for new records.

Version 4.00.01.06 – released on 16th October 2020

- Added button in Quick Well Wizard to paste the information from the summary page of a Compass Planning Report. Select all the information in the Planning Report and copy it to the Windows clipboard and then click on the Paste from Compass Planning Report button to paste the project, structure, well and proposal data into the Quick Well Wizard in KellyDown⁸.
- Added ability to read a Microsoft Excel Watch File. KellyDown prompts for the name of the Excel worksheet and the row and column from which to import the data.
- Added ability to read a comma separated file (CSV) Watch File.
- Added option under Tools, Options, Display Options to automatically format or not format a phone number after it has been entered in KellyDown.
- Added button to Survey Editor toolbar to immediately read the survey data from a preselected watch file.
- Consolidated Repair Database and Update Database menus and added Access Database Engine repair utility to a single function under the Administration, Utilities, Repair Database menu. Run this utility if KellyDown is running particularly slowly or if it is displaying other unusual tendencies (which may be evident after a Microsoft Office 365 update).

Version 4.00.01.07 – released on 10th November 2020

- Fixed bug in Target List module where polygon tabs duplicated themselves when focus shifted to a different application and then back to KellyDown.
- Fixed bug in Slidesheet Editor where the bit-sensor distance was being read incorrectly when importing a slidesheet from the .kdsst file.
- Modified Repair Database routine by adding function to repair the connection between a Projects database and System database.
- Moved the Repair Database routine from the Administration, Utilities menu to the Help menu so it may be called from within modules other than just the main KellyDown screen.

Version 4.00.01.08 – released on 17th November 2020

- Added option to Tools, Options, Proximity Options to exclude all proposals associated with surveys.

Version 4.00.02.00 – released on 15th January 2021

- Fixed bug that caused a “path not found” error message when closing KellyDown if the license was due to expire within 28 days.
- Fixed bug in well-planning where HCH projection failed when dogleg rate format contained “#” characters.
- Fixed bug introduced in 4.00.01.08 in Slidesheet Editor where KellyDown crashed when clicking on the cancel button on the prompt for a Bit to Sensor Distance when opening the editor.
- Fixed issue where you couldn’t back up a KellyDown database directly to a DropBox or OneDrive folder.
- Fixed bug in LAS file export where the colon character was missing from lines containing units of measurement.

- Added ability to configure KellyDown to send and receive slidesheet/drill records between one instance of KellyDown and any number of other instances of KellyDown, i.e. for remote monitoring⁸.
- Modified Visualiser module whereby records are only plotted if they are more than five metres away from the previous plotted record if the profile contains more than 5,000 records, to increase performance.
- Added option in Invoice module to create an Intermediate Invoice for charges incurred between two dates.
- Added Remote Monitoring Simulator that sequentially reads records from one .txt, .kdlnk or .kdsst file and incrementally writes each individual record to a KellyDown watchfile that may then be monitored by another instance of KellyDown, thereby simulating remote monitoring of survey data or slidesheet data⁹.
- Modified the Visualiser whereby the Bit to Sensor Distance is recorded in a .kdvis file, thereby allowing the Bit Projection to be updated when new Watchfile data is received by the standalone Visualiser.
- Modified Forward Projection modules whereby they are only updated after valid data has been entered into the Survey Editor and Slidesheet Editor, i.e. after valid inclination and azimuth values have been entered.
- Added Cancel option to dialog when KellyDown prompts to perform a backup when exiting KellyDown that cancels the exit command.
- Modified Ouija Board whereby the projection to target is reset so the projection hits the target centre when a new survey record is added to the Survey Editor or Slidesheet Editor.
- Added option under Tools, Options, Plot Options to not load lease lines into the KellyDown Visualiser. This speeds up refresh of the Visualiser when a project contains thousands of lease lines.
- Modified Search Database module whereby you may now change the colour of all the profiles shown in the search results.
- Added option whereby the whole of the survey data is overwritten from a watchfile if the user holds down the Ctrl key whilst also clicking on the Read Watch File button on the Survey Editor toolbar even when the option to only append data is set.
- Modified Visualiser whereby the tie-on information for the current survey is saved to a .kdvis file so that the survey data in the standalone Visualiser may be updated when reading from a watch file if the survey data in the watch file does not originate at surface. Also modified standalone Visualiser whereby it reads tie-on information for the current survey from a .kdvis file, thereby allowing it to correctly update with watchfile data that does or does not originate at surface.
- Modified remote monitoring functions whereby the depth and date and time of the last updated record are shown on the status bar after a new record is received.

Version 4.00.03.00 – released on 12th March 2021

- Fixed bug where you couldn’t export from a KellyDown database directly to a DropBox or OneDrive folder.
- Fixed bug where you couldn’t use Ctrl + C or Ctrl + V to copy or paste text into any of the fields in dialogue boxes in KellyDown (I can’t believe this escaped our notice for so long).
- Fixed bug in Torque & Drag and Hydraulics modules where components were deleted from the drillstring if the bit depth was such that the components weren’t actually run into the hole.
- Fixed bug in survey data import routine where KellyDown wouldn’t import survey data if the lines of data contained non-ascii characters, i.e. Chinese characters.

- Modified Slidesheet Editor whereby survey data is automatically updated with corrected surveys when an associated MWD Watch File is updated and the user tabs off a field in the slidesheet editor. A message is displayed on the status bar whenever data is ready for updating from a survey buffer.
- Modified slidesheet editor whereby shallower survey records are checked and updated after new slidesheet data is updated from a .kdsst watch file.
- Added calculation of Earth's Gravity Field to North Reference page on profile reports.
- Added function to Remote Monitoring modules that checks that the data in a watch file matches that of the current profile in KellyDown into which the watchfile data is being imported.
- Added option when printing a drillstring to specify whether the top component should be extended up to or trimmed back to surface. If the component type is a drillpipe or a collar and the user checks the box, the component that is at surface when the bit is on bottom, will be extended up to or trimmed back to the surface, otherwise the components will be printed as they are defined in the drillstring editor.
- Added the Downlink RSS activity to slidesheet/drilling modules that essentially behaves the same as the Rotating activity except it is handled separately in reports but still contributes to the sum of Rotary depth drilled and Rotary hours drilled.
- Added option to Target List module to show distance from profile to target centre when the filter is set to show targets associated with current profile.
- Modified Drill Run Reports whereby if a bit is run into the hole more than once, the accumulated hours and accumulated footage are shown in brackets after the values for the individual run.
- Modified Drilling Records dialog by adding an option to select and copy a Bit and/or a Motor from a parent drill run. If the bit is copied from a parent, the Bit Run number is incremented by one.

Version 4.00.03.01 – released on 28th March 2021

- Fixed bug introduced in 4.00.03.00 in Drillstring Report where string components weren't included in the report unless the bit depth was deeper than the cumulative length of the string.
- Fixed bug in Units Editor where a user was able to add a new unit to a Unit System when the selected Unit System was locked, which essentially allowed them to change the Unit for a locked Unit System.
- Added option to show profile comments for current profile in the Visualiser.
- Modified the Slidesheet Editor whereby the residual Slide Ahead, Motor Output and Toolface Orient values from a parent slidesheet is displayed on the first line of a new child slidesheet.

Version 4.00.03.02 – released on 12th April 2021

- Fixed bug introduced in 4.00.03.00 in Drilling Run Report where the bit, motor and drillstring details for all runs were included at the beginning of the report instead of just those for the current run.
- Fixed bug where recent file list wasn't persisted to the new version when the option to "check for new version when KellyDown starts" was set.
- Fixed bug in reports module where the vertical section was not calculated along the correct azimuth in custom reports if the azimuth had been changed in Print Options.

Version 4.00.03.03 – released on 19th April 2021

- Fixed bug in Slidesheet Editor introduced in 4.00.03.01 where you couldn't open a slidesheet that started at surface.

Version 4.00.03.04 – released on 14th May 2021

- Fixed bug in Trend Analysis module where the forward projection wasn't shown correctly in the Visualiser if the Build Rate or Turn Rate was very small (but not zero).
- Added option to define the minimum allowable distance to the closest hardline, lease line and driller's line, which if infringed, will trigger alerts to predefined company and/or customer personnel.
- Added option in Visualiser module to show lease lines when a single well is loaded, instead of just when multiple wells are loaded.
- Added option under Tools, Options, Plot Options to show lease lines in the Visualiser at the bottom survey depth.

- Updated the Help Documentation and Guided Tour.
- Other minor enhancements.

Version 4.00.03.05 – released on 28th May 2021

- Fixed bug in Forward Projection Proximity Reports where the section headers weren't always shown in the correct location when the Forward Projection module was called from a Slidesheet where there was no Slide Ahead value.

Version 4.00.03.06 – released on 4th June 2021

- Fixed bug in Visualiser where formation tops, lease lines and hard lines weren't shown in the correct location when setting the horizontal origin or vertical origin to Global.
- Modified Ouija Board whereby the projection is always adjusted to hit the target centre when the survey editor or slidesheet editor is configured as a client to automatically receive data from an MWD computer or a remote KellyDown server.
- Modified Scan Options whereby if a Proximity Scan is called from a forward projection module and Scan range is set to Section of Profile, by default, the Start Measured Depth is set to the bottom survey depth minus 5 x the scan interval, which causes a proximity report on forward projection data to begin with five lines of interpolated survey data.
- Modified Invoice module whereby the Invoice Comment is now included when invoice items are exported and imported.
- Added red alert indicator on left side of Survey Editor and Slidesheet Editor to alert user if data in any of the columns to the right (which might be out-of-sight) breach previously set criteria.
- Modified Visualiser whereby the distance between points is now shown directly against the dimension line in the Visualiser.
- Updated the standalone Visualiser to show comments and dimensions.

Version 4.00.03.07 – released on 29th June 2021

- Fixed bug in Magnetic Calculations module where KellyDown reported a File not found error when setting the magnetic model to WMM 2020.

Version 4.01.00.00 – released on 24th August 2021

- Fixed bug in Custom Report module where dogleg rates were not reported correctly in a custom report after switching from an interpolated survey report to a non-interpolated custom drilling report in Report Options.
- Modified Custom Export and Custom Report modules, whereby the export and/or report is formatted as a slidesheet if the list of columns to be exported/reported does not include the Activity column.
- Added KellyDown Dashboard that displays drilling parameters and proximity information on a collection of gauges and text boxes¹⁰.
- Added option whereby holding the Ctrl key down whilst clicking on a Node in the Database Explorer will uncheck all the other nodes in the Database Explorer before checking the selected node. This is useful when exporting a single structure, well or profile to a .kdex file.
- Added Rotate Comments button to Visualiser module, which if clicked will repeatedly rotate the comments by 45° in a clockwise direction. Holding the Ctrl key down whilst clicking on the button will rotate the comments by 45° in an anticlockwise direction.
- Modified Visualiser whereby clicking on a profile or target in the list of elements will cause the profile or target to flash briefly in the Visualiser making it easy to locate.

Version 4.01.00.01 – released on 27th August 2021

- Fixed bug in Custom Export module where Object not Found error was thrown when the export format contain drilling columns.
- Added option to select Formation Tops and/or Dipping Planes in Visualiser. Previously, you could select only both or neither.

Version 4.01.00.02 – released on 10th September 2021

- Fixed bug in Compass Import routine where the Hemisphere wasn't set correctly when importing a project located south of the equator.
- Modified the Formation Tops Editor whereby the Formation Tops and Dipping Planes are now edited in their own respective editors called from the main KellyDown menu, the proposal editor menu, the survey editor menu and the slidesheet editor menu.

Version 4.01.00.03 – released on 24th September 2021

- Fixed bug in Visualiser when switching to an elliptical target in the Target Editor.
- Fixed bug in System Settings dialog when editing the name of a Magnetic Model.
- Updated Visualiser whereby you may now traverse down the current profile including its parents by centering the view over the Visualiser origin and holding down the Ctrl key whilst clicking on the Follow Last Survey button. Click on the Follow Last Survey button again to pause the animation and again to continue. Press the Esc key to terminate the animation.
- Added button in Target Editor which locates the centre of a circular target at the location of the target centre offset position if one has been entered.

Version 4.01.00.04 – released on 29th October 2021

- Added option under Administration, Utilities to copy current pump selection to all other profiles under the current well where no pump selection has already been defined. Hold the Ctrl key down to overwrite already defined pump selections under the current well.
- Modified Torque & Drag and Hydraulics modules whereby the user may now copy the drillstring from any that exist under the current well instead of only those that exist under the current profile.
- Added Magnetic Ranging Interface module, which is used for entering the locations of survey records in one well relative to the position of a magnetic coil in another well. The user either enters or imports the measured depth of a magnetic coil in the Coil Well and the relative position of a sensor in the Drill Well, from which KellyDown calculates the survey coordinates for the Drill Well. The relative offsets may be based on either of three different methods: coils axes, absolute offsets or gradient and azimuth. When used in conjunction with the KellyDown Visualiser, the coil and sensor are shown on the respective wells and dynamically updated as magnetic ranging data is entered or automatically updated via a MWD link file¹⁰.
- Changed the Rotate button in the KellyDown Visualiser to Animate and added three new animation modes. Centre the view by zooming to and clicking on the focal point where you want the animation to start and then click on the Animate button to rotate the Visualiser view. Hold down the Ctrl key and click on the Animate button to traverse down the current well with the camera at a constant distance and direction from the current profile. Hold down the Shift key and click on the Animate button to traverse down the current well with the camera in a static position and pointing at the current profile. Hold the Alt key and click on the Animate button to traverse down the current well with the camera following the profile at a constant distance behind but slightly and above each record. Hold the Ctrl and Shift keys and click on the Animate button to have the camera traverse down the current well while constantly pointing at the select focal point in the view¹⁰.

Version 4.01.00.05 – released on 5th November 2021

- Fixed bug in Magnetic Ranging module where Coil Depths weren't correctly imported from a magnetic ranging link files where the units in the file were in feet.
- Added Merge Jobs function to Job Properties whereby notes, job personnel and invoice items from several jobs under the current well that have the same job number may be merged into the current job, which is then assigned to the other profiles under the current well. Use this function after importing individual profiles from .kdex files where a new job having the same job number is created under the current well so that existing job information isn't overwritten by the imported job.
- Modified the routine that checks for a new version of KellyDown starts so that it now only alerts the user that there is a new version and directs them to use Help, Check for updates to download and install it.

- Added function whereby the current configuration is saved to a configuration file in the KellyDown backup folder whenever the user modifies the settings in Tools, Options or System Settings. A new configuration file is created for each new version of KellyDown allowing configurations that were saved prior to installing the current version to be restored.
- Added a new menu item under the Administration, Utilities menu named “Restore custom configuration file” that directs the user to restore a previously saved configuration file from the KellyDown backup folder.
- Modified the Visualiser’s Animation function whereby it will use the last or next azimuth where the inclination is greater than six degrees if the inclination is less than six degrees, thereby preventing the survey plane and direction of view from jumping about at low inclinations¹⁰.

Version 4.01.01.00 – released on 15th November 2021

- Added additional columns to Proposal Editor that show the perpendicular distance and direction etc. to the selected offset well.
- Added additional columns to Interpolation module that show the perpendicular distance and direction etc. to the selected offset well.
- Added function to Interpolation module whereby the user may select two rows and click on the Edit, Consolidate menu to insert a range of depths at a specified course length between the two selected depths. When used with the previous enhancement, this is useful for checking the distance between a wellplan and an offset well over a specific range since the interpolations are updated as the wellplan is modified.
- Added option to show a derrick outline at the current well location in the KellyDown Visualiser.

Version 4.01.02.00 – released on 4th February 2022

- Fixed bug in database export and import modules where drillstring wasn’t exported/imported correctly when the export database contained the same drillstring components as the import database.
- Fixed bug in HDGM2022 magnetic calculations module where magnetic parameters were not calculated if the longitude value was between 180° and 360°.
- Fixed bug in drilling reports where the names of the active directional drillers were not shown on the reports.
- Fixed bug in Torque & Drag module where casing sections were not computed correctly when the casing setting depth was defined by vertical depth.
- Fixed bug in well-planning module where you couldn’t extrapolate to defined inclination, dogleg rate and toolface values.
- Fixed bug in well-planning module where you couldn’t extrapolate to defined vertical depth, dogleg rate and toolface azimuth.
- Fixed bug in well-planning module where the most logical solution wasn’t always selected by default when more than one solution was possible.
- Modified Torque & Drag module whereby the Standpipe Pressure and applied tortuosity are now shown on Torque & Drag reports.
- Added ability to export any of the predefined custom export formats to a tab-delimited text (.txt) file, as well as to an Excel (.xls) spreadsheet or to a WITSML (.xml) file¹⁰.
- Added function where holding down the Ctrl key whilst clicking on the Export button in the Proposal Editor, Survey Editor or Slidesheet editor will automatically export the current data to the previously defined export file using the previously defined export options and file name.
- Updated Visualiser by adding ability to slow down or speed up the animation speed by using the “[“ and “]” keys respectively.
- Added option under Tools, Options, General Options whereby the user may enter a number of rows that are subsequently used by the forward projection modules when launched from the survey editor to calculate the current trend in dogleg rates and toolface values for the first line in the Bit Projection.
- Added ability to open the Pumps Editor from the main KellyDown menu.

Version 4.01.02.01 – released on 11th February 2022

- Fixed bug introduced in 4.001.02.00 in custom export module where extra header information prevented exported Excel file from being imported into OASIS database.

Version 4.01.02.02 – released on 25th February 2022

- Modified Plot module whereby the list of options is shown at the left edge of the plot window instead of in a separate floating window.
- Added ability to specify inclination and azimuth values as radians.
- Other minor bug fixes and modifications.

Version 4.01.02.03 – released on 6th April 2022

- Fixed bug in Compass import routine where interpolations failed when inclination values in Compass were very small but not zero.
- Fixed bug in Dipping Plane module where KellyDown incorrectly used the closure distance of the survey to determine whether the survey was under/above the dipping plane where it should have been using the azimuth of the dipping plane.
- Fixed bug in Structure Properties where user couldn't enter a negative Ground Level value for an onshore structure.
- Added option to show wellheads in Visualiser.
- Modified Visualizer and Plot module whereby the rig outline is rotated to the associated structure axis.

Version 4.01.02.04 – released on 22nd April 2022

- Improved Drillstring Editor and Drillstring Components Editor whereby adding, deleting, exporting and importing drillstring components is more intuitive.
- Added function to Visualiser where clicking on a profile or target in the Visualiser will cause the corresponding item in the list of profiles/targets to flash briefly, making it easier to locate in the list.
- Modified Drilling Records Editor whereby you may now record drilling parameters for reaming, back reaming, drill cement float equipment, circulating, gamma log, and well control.
- Added ability to enter and display the "Radius of Curvature" in the Proposal Editor, Survey Editor, Slidesheet Editor, Interpolations, custom exports and custom reports. The "Radius of Curvature" is the corresponding radius of curvature associated with a dogleg rate and is sometimes used in river crossing applications.
- Changed function whereby selecting a minimised form from the Window menu or using Ctrl + Tab to cycle through forms will automatically restore the form to its normal size.

Version 4.01.02.05 – released on 10th May 2022

- Fixed bug in Slidesheet Editor where changing a record from a Sliding activity to any other non-drilling activity did not reset the Slide to zero.

Version 4.01.02.06 – released on 27th May 2022

- Fixed bug in ROC database logic where loading another instance of KellyDown sometimes caused an error when the database initially displayed on the logon screen was that of the already opened database.
- Fixed bug in import/export routines where you couldn't import/export from one database, open another database and then import/export from that database.
- Fixed bug in import/export routines where personnel weren't imported/exported correctly under certain circumstances.
- Fixed bug in Visualiser where the measured depth of profiles and projections shown on the status bar was slightly in error when the north reference was set to True North.

Version 4.01.02.07 – released on 9th September 2022

- Fixed bug in uncertainty calculations where KellyDown was unable to evaluate an IPM file where a formula contained either a min or max function if they were imbedded inside other functions in the formula.
- Added function to reporting module whereby if the option to separate pages is set, the drillstring section of a drilling report is started on a new page if it wouldn't otherwise completely fit within the remaining space on a page.

- Added warning message when importing or pasting corrected survey data into a slidesheet when depths in the corrected survey data do not match those in the slidesheet. Surveys that are updated with corrected survey data are also now identified by a yellow status indicator at the left side.
- Added option under Tools, Options, Plot Options to show well paths in Google Earth when exporting selected wells to Google Earth¹¹.
- Added ability to enter start and end dipping offsets and depths making it easier to define dipping planes.
- Added option under Company Properties, Company Options to enter and show inclinations relative to the horizontal plane as is often used in River Crossing applications, i.e. horizontal is zero degrees of inclination, sloping down from horizontal is positive and sloping up from horizontal is negative¹¹.
- Added function to Dipping Planes Editor to modify selected Dipping Planes as a group where the user may modify the colours, text, direction, width, offset and high and low values¹¹.
- Modified the Proposal Editor whereby you may now enter a curve section as a radius of curvature instead of a dogleg value¹¹.
- Modified the Proposal Editor, Survey Editor and Slidesheet Editor so that the Vertical Section is updated for all records if the Vertical Section Direction is set to closure and a new record is added, which causes the closure direction to be updated.
- Added Vertical Section offset columns to the Proposal Editor, Survey Editor and Slidesheet Editor, which shows the positive or negative distance from each survey record to the vertical section line¹¹.

Version 4.01.02.08 – released on 7th October 2022

- Fixed bug in Visualiser where dipping planes were not shown in correct place when horizontal or vertical origins were not set to well.
- Modified the Ouija Board, Correction Run and Build/Drop/Turn modules whereby the three extrapolation rows at the bottom of the Bit Projection section are now preceded by check boxes, which if checked, changes the corresponding row to Measured Depth, Inclination and Azimuth variables instead of Course Length, Dogleg Rate and Toolface variables, which persist the Measured Depths instead of the Course Length values. Previously, this function was available but wasn't so obvious. Checking one or more of the boxes allows you to enter a series of virtual surveys beyond the bit that remain consistent as new data is received or entered into the survey editor or slidesheet editor, essentially allowing you to project ahead to the landing point without having to enter the same values after each update.
- Added checkbox to Ouija Board named “Automatically centre new survey data”, which when checked will automatically reset the projection to target centre whenever the slidesheet or survey editor is updated, thereby forcing the Ouija Board to automatically calculate the best solution based on a given dogleg rate to hit the target centre as new survey data is entered or received.
- Added buttons to System Settings whereby the user may now export all personnel to, and import selected personnel from an export file thereby allowing collections of personnel to be easily transferred between databases. The import routine allows users to individually select the personnel they want to import into their database¹¹.
- Added buttons to System Settings whereby the user may now export all companies to, and import selected personnel from an export file thereby allowing collections of companies to be easily transferred between databases. The import routine allows users to individually select the companies they want to import into their database¹¹.

Version 4.01.02.09 – released on 28th October 2022

- Fixed bug in Slidesheet section of Drilling Reports where KellyDown didn't populate the Depth Drilled column.
- Fixed bug in Forward Projection modules where a magnetic toolface azimuth orientation, (i.e. *120.00 M*) in the slidesheet was not converted to a highside toolface when transferring the toolface to the bit projection in forward projection modules.
- Modified Projection modules whereby setting the course length of an extrapolation to zero will delete the extrapolation.
- Modified System Settings whereby the user may now import selected export formats and report formats from export files instead of importing all the formats from the file. The import routine allows users to individually select the formats they want to import into their database.

- Added Chinese translations for licenses issued to China.

Version 4.01.02.10 – released on 11th November 2022

- Fixed bug in Magnetic Ranging module where deleting a row from the worksheet caused an error.
- Fixed bug in detailed Closest Approach proximity scan where depths were omitted from the report when the end of the reference well was detected.
- Fixed bug in Dipping Planes Editor where the Dipping Plane End value was copied to the Dipping Plane End Depth field after editing the Dipping Plane End field.
- Added new drilling Activity named Clock Adjust that allows the user to enter a negative Hours value into the slidesheet to handle the autumn daylight savings time adjustment.

Version 4.01.02.11 – released on 18th November 2022

- Fixed bug introduced in 4.01.02.10 in the Invoice module where you weren't able to save the invoice to the database.
- Introduced function to handle Windows 11 changing Network IDs, which sometimes caused the KellyDown licensing mechanism to fail when connecting to a foreign network.

Version 4.01.02.12 – released on 20th November 2022

- Fixed bug in custom Excel export routine where magnetic field strength was exported as an incorrect value if the format for magnetic parameters in KellyDown included a comma thousandths separator.
- Added Chinese Beijing 1954, 3TM coordinate systems to list of KellyDown coordinate systems.

¹available with licenses 2014.07 or later

²available with Magnetic Ranging licenses

³available with licenses 2015.06 or later

⁴available with licenses 2016.03 or later

⁵available with licenses 2017.06 or later

⁶available with licenses 2018.06 or later

⁷available only with licenses issued by Agilis

⁸available with licenses 2020.04 or later

⁹available with ROC Edition licenses

¹⁰available with licenses 2021.08 or later

¹¹available with licenses 2022.08 or later