

Flout is an authorised reseller of Task Manager

Task Manager GUIDE

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Quick Start Guide

If you don't have time to read the entire manual, here are some quick guides to using the main features. If you need more information on a particular subject there will be links to the main section of the manual.

Load Data

Load the drill holes you want to work with either through the File/Open menu or the Database button on the toolbar. Load LAS files (if you want to view geophysics) via the LAS button on the toolbar. For more information refer to <u>Loading Data</u>

Table Window

Need a quick hole summary? Just select New Table Window from the Windows menu or click the button on the toolbar. Select your filter options and click ok to see the table. Click the Choose Columns button to select the columns you want to view or to add custom columns. For more information refer to <u>Table Window</u>

Map Window

Want to see the spatial relationship of your drill holes? Select New Map Window from the Windows menu or click the button on the toolbar. Select your filter options (as above) and click OK to see the map. Zoom and Pan around the map using the provided tools . Make hole selections by drawing a rectangle around the desired holes. Add other layers to the map such as lease boundaries, select different values to post instead of the hole name, create contours from various parameters including custom columns. For more information refer to <u>Map Window</u>

Graphic Log Window

Want to see all the hole information and detailed graphic plots? Select the hole from the list and either right click and select Show Graphic Log, select New Graphic Log Window from the Windows menu or click the button on the toolbar. Click anywhere to navigate around the hole, everything is synchronised. Right click to select various display options. Expand the list of LAS curves from the holes list to select or customize the curves. Try the View menu to see different graphic log styles, change the vertical scale or turn various display options on/off. Right click and change the edit mode to edit the data. For more information refer to <u>Graphic Log Window</u>

Section Window

Would you like to see a cross section (fence diagram) of some drill holes? Either select the holes from the list on the left or use the section tool in the map window to draw a cross section line. Use the mouse scroll wheel to change the buffer size. Right click and select "New Section Window" or choose it from the Windows menu or click the button on the toolbar to see the new cross section. Use the View menu to change horizontal and vertical scaling, change the depth mode or other display options. Use the move tool to click and drag objects around the screen, right click to hide objects, turn correlations on/off, separate holes that are bunched together or rename a seam in a hole. For more information refer to <u>Section Window</u>

What is Task Manager 2014?

Task Manager 2014 (TM2014) is an integrated suite of software tools for the Coal Mining Exploration industry. Designed with the field geologist in mind as the primary user, the tools include data entry, validation, depth correction plus English log, graphic log and cross section generators. Data can then be exported for modelling and mine planning.

History of Task Manager

Task Manager started life somewhere around 2000/2001, it's hard to put an exact date on it. Originally called the LG&A Task Manager as a collection of tools for Lance Grimstone & Associates, it consisted of a number of individual modules brought together by a simple menu system. The first module was the LAS Converter which converted standard ASCII LAS files into CSV files. Later modules included a Brightness Profile Generator, Strat Log Generator, Coal Quality Processing and Database tools. The original tools were written in a combination of Visual Basic 5.0 and Excel VBA.

In around 2007 most of these modules were completely re-written in VB.NET and renamed Task Manager 2008 (TM2008). This was mainly driven by the fact that newer versions of Windows at the time were dropping support for the old Visual Basic 5.0 language runtime. TM2008 features were similar to the previous version with the main programs functions still quite distinct and separate although some steps were removed and/or automated to improve efficiency.

In 2013 the entire product was re-written again to take advantage of new technologies, lessons learned from the previous re-write and to conform to the new Coal Log standard. This version was called Task Manager 2014 (TM2014)

Functionally TM2014 and TM2008 are very similar. TM2014 was completely re-written from the ground up based on the CoalLog logging standard. The main differences for logging are things like the additional of a Lithology Qualifier column for coal brightness and sandstone grain size which were previously housed in a Lithology Adjective column.

TM2014 is also more tightly integrated than TM2008 so changes to a hole in one part of the program are now automatically reflected elsewhere. TM2014 includes integrated GIS functionality to allow more accurate mapping of boreholes and overlaying of common file formats such as SHP & DXF files. Finally, unlike TM2008, TM2014 does not require any third party applications such as Microsoft Excel to read/write Excel files or Adobe Acrobat to create PDF files.

Future of Task Manager

Task Manager is continuously evolving and we release updates on an almost weekly basis, some are minor bug fixes but many are new and/or improved features. We strongly encourage and welcome feedback, suggestions, bug reports and anything that will help improve the product and the experience for our customers.

Installation

Task Manager 2014 can be installed from different locations depending on the user. For internal Peabody staff using Peabody equipment on the corporate network, Task Manager can be installed from the following link:

\\brspfp02\MapInfo Data\SOFTWARE\TM2014

For all other users, the public version of Task Manager can be installed from the following link:

http://www.epsoft.net.au/tm2014/publish.htm

The two versions are identical with the exception that the public version requires .NET 4.5 instead of .NET 4.0

System Requirements

The Peabody version of Task Manager 2014 requires Microsoft .NET 4.0 which is already installed on Peabody equipment. The public version requires .NET 4.5 and will be installed on demand.

Windows 8 and Windows 10 both come with .NET 4.5 pre-installed. Windows 7 comes with .NET 3.5. You can install 4.5 but this may require admin rights.

Unlike previous versions of Task Manager, no other third party applications are required such as Microsoft Office, MapInfo*, Adobe Acrobat etc.

* Note MapInfo is required in order to use any of the MapInfo related functions

The installer utilises Microsoft Click-Once deployment and installation does not require administrator privileges. Essentially anyone should be able to install the software easily.

For installation problems refer to Installation Errors

Installing Program Updates

Program updates are released periodically and you will be prompted to install them when available. It is recommended that you install updates as soon as possible as they may include important bug fixes and/or new features.

Restore a Previous Version

If you have problems after installing an update you can temporarily restore the previous version via Control Panel, Programs and Features. Select TM2014 from the list and select Uninstall/Change, then select "Restore the application to its previous state"



Restore previous version

Dictionary Updates

Custom dictionary updates may be released from time to time depending on customer requirements. By default Task Manager is configured to prompt you to update your dictionaries every 30 days. You can change this setting to zero if this becomes annoying but this is not recommended.

If you are managing your own custom dictionaries we recommend sending a copy to Epsoft for uploading to our server. Alternatively you can email dictionary updates to any team members that may require them. You can also copy dictionary updates to a shared network folder and configure TM to retrieve dictionary updates from that folder.

For more information about custom dictionaries refer to Dictionary Editor

Licencing

On initial installation you will be granted an automatic free 30 day trial period. Task Manager 2014 will be fully functional for this period after which it will revert to "read only" mode and you will not be able to save any changes. To obtain a licence number and continue using Task Manager you will need to pay a licence/subscription fee and request a licence number from the Help/Licencing screen. When you receive your licence number, enter all details into this screen and click OK. All features will then be unlocked until the licence/subscription expires.

When your licence expires you will be granted an additional grace period (currently 30 days) to allow for any delays in obtaining your licence renewal. After the grace period Task Manager will revert to "read only" mode.

In "read only" mode you can continue to use Task Manager to view and print, you can also make changes but your changes cannot be saved or exported except as a printed graphic log or English log.

Licences are generally issued to an individual and renewed annually. Shorter periods can be accommodated such as quarterly or even monthly for special circumstances i.e. a short term project. Please refer to our web site for the latest pricing information.

Licence renewals are effective from the previous expiry date unless a period of 90 days or more has passed in which case the new licence will be effective from the date of purchase or other agreed period.

Please note that the 30 day trial and grace periods, and 90 day renewal window, are subject to change without notice and are provided as a courtesy to prevent any potential down time. Furthermore, the functionality available in "read only" mode is subject to change without notice.

We understand that staff come and go, equipment changes and sometimes staff share equipment. Our licence conditions are therefore very flexible and allow easy transfer and sharing of licences in approved circumstances. Please discuss your situation with us and we can come up with a licencing configuration that suits your requirements.

Dependencies

Parts of this software are included and distributed under separate licence arrangements. No action is required by the end user with the exception of Interop.MapInfo which requires a licenced copy of Pitney Bowes MapInfo be installed only if using TM's "Export to MapInfo" functionality.

Component	Licence
DotSpatial	MIT
	https://github.com/DotSpatial/DotSpatial/blob/master/
	LICENSE
GemBox.Spreadsheet	Licenced to Epsoft by GemBox Ltd
Interop.MapInfo	MapInfo must be installed on end users PC (optional)
KellermenSoftware.NET-FTP-Library	Licenced to Epsoft by Kellerman Software
netDxf	LGPL-3.0
	https://opensource.org/licenses/LGPL-3.0
PdfSharp	MIT
	https://en.wikipedia.org/wiki/MIT_License
SocialExplorer.FastDBF	BSD 2-clause "Simplified" License
	https://github.com/SocialExplorer/FastDBF/blob/maste
	<u>r/LICENSE</u>
Svg	Microsoft Public Licence (Ms-PL)
	https://svg.codeplex.com/license
wContour	Unknown
WebEye.Controls.WinForms.WebCamera	Code Project Open License (CPOL) 1.02
Control	https://www.codeproject.com/info/cpol10.aspx
ZipForge	Licenced to Epsoft by ComponentAce

Requesting a licence

To request a new licence or renewal, locate the Licencing screen under the Help menu.



Licencing Menu Option

icence			×
Your Name	Robert Epps		Enter your details then click the Request button to request your
Email Address	robert@epsoft.com.au		licence via email.
Licence Expires	Saturday , 31 December 2016		When you receive your new or renewed licence via email, either
Licence Number	30528	st Licence Number	click the Request button again to download it or copy the entire
Paste			licence from the email and click the Paste button. Then click OK
C-Auron Linnering A	01	Cancel	
Software Licensing A			

Licence Screen

Enter your name and email address then click the Request Licence Number button.

If a licence has already been generated it should download immediately, otherwise an email screen will pop up with a pre-written licence request. Simply append any additional information if required and hit send.

🛐 🛃 🧐 😈 🔶 File Messag	 	icence Request - N format Text Revi	lessage (HTML) ew Adobe PDF		× □ ×
Calib	ri v 12 v A* A*	Address Check Book Names	 Ø Attach File Ø Attach Item ▼ Ø Signature ▼ 	 Follow Up * High Importance Low Importance 	Zoom
Clipboard 🕞	Basic Text 5	Names	Include	Tags 🕞	Zoom
Send Bcc TM2014 Licence Request					
Username:Robert Epps					
Licence Request Email					

Installing a licence manually

Once you are advised that your licence has been generated, repeat the above process. When you click the Request button your licence should download automatically. If not you can install the licence manually as follows:

If you receive your licence via email simply highlight and copy the entire licence text and paste it into the Licencing screen using the Paste button.

si 🔒 🤊	(ð 🍝 🇇 ╤ TM2014 Licen	ce - Message (HTML)		. O 🗙			
File	Message Insert Options Format Te	xt Review Adobe PDF		۵ (3		
Paste 🛷 Clipboard 🕞	Calibri 12 A A B I U IE IE W ▲ IE IE IE B I U IE IE B I U IE IE B I U IE IE B IE IE IE B </td <td>I I I I I I I I I I I I I I I I I I I</td> <td> Follow Up × High Importance Low Importance Tags Is </td> <td>Zoom Zoom</td> <td></td> <td></td> <td></td>	I I I I I I I I I I I I I I I I I I I	 Follow Up × High Importance Low Importance Tags Is 	Zoom Zoom			
Send	To Cc					Licence	
Bcc Your Name Robert Epps							
Hi Rober Below is	rt Epps 5 your new Task Manager 2014 licence.	Please enter this under H	Help, Licencing eith	ier 🗧		Email Address	robert@epsoft.
manuall window	ly or by highlighting and copying the tex	t below and clicking the	Paste button in the	licence		Licence Expires	Saturday , 31
TM2014	Licence	Calibri - 12 - A A				Licence Number	30528
Your Name: Robert Epps Your Email Address: robert@epsoft.com.au Licence Expires: Saturday, 31 December 2016							
Licence	Number: 30528	Cut Copy Paste Ontions:				Software Licensing Ag	reement

Highlight and copy the licence text from the email then hit the Paste button

Configuration

The configuration setting screen is accessible from the Tools, Settings menu option or from the

Settings button on the toolbar ²²² and is used to configure various aspects of the application such as data folder locations, display preferences, default values etc. The settings are broken down into groups described below.

Settings can be imported and exported using the buttons in the lower left hand corner of the settings screen. The Settings Wizard can be used to assign specific settings and/or download specific files such as custom dictionary files. A settings wizard file must be provided by your administrator/provider in order to use this feature.

Settings can be exported in three different file formats. Each has a slightly different use:

.csv

Exports all settings in a .csv file which is easiest to read however this format cannot be re-imported. This format is used by our developers to maintain the tool tip text that appears when you hover the mouse over a setting. This may also be used to prepare documentation.

.wizard

Exports all settings in a .wizard file format which is easier to read and modify than .xml and can be re-imported. This is useful for setting up new users where you may not want all settings. Export a .wizard file then use a text editor to remove settings that aren't required.

.xml

Exports all settings in an .xml file format. This is best for exporting/importing all settings for a single user (backup/restore), either to revert to an earlier configuration or to move settings to another pc.

For copying settings from one user to another, use the .wizard format as some settings may not be appropriate and can be removed via a text editor.

Creating a Settings Wizard file manually

In addition to the existing settings exported above, the Wizard file can also contain commands to include additional settings from another file, download custom dictionaries and copy/unzip files. Using these settings the Wizard file can be used to fully configure a new installation.

SETTING (Individual Settings) SETTING=settingcategory.settingproperty.value

SETTING=Database.DatabaseType=GeoCore SETTING=Database.Server=BRSPGEOSQL01 SETTING=Database.Catalog=GEO_CORE

SETTINGS (Download and import a settings file) SETTINGS=settingsfilename.xml

SETTINGS=Peabody_Settings_2016.xml

DICTIONARY (Download a custom dictionary file)

DICTIONARY=dictionaryfilename.csv

DICTIONARY=Peabody_dictionary.csv DICTIONARY=Coppabella_Dictionary.csv

DOWNLOAD (Download a specific file from the Epsoft TM Server) *FILE=filename=path (filename on server, path=local path to save)*

FILE=EPCs.shp={My Documents}\Data\Lease Boundaries FILE=Demo_Data.zip={My Documents}\Data\Demo Data

COPYFILE (Copy a specific file (or files) from a given path) COPYFILE=sourcefile=targetfile

COPYFILE=\\SERVER\Data Folder\Demo_Data.zip={My Documents}\Data COPYFILE=\\SERVER\Data Folder\xyz*.*={my documents}\Data

UNZIP (Unzip a specific file) UNZIP=filename.zip=path

UNZIP={My Documents}\Data\Demo_Data.zip={My Documents}\Data\Demo Data

General

This section contains general settings not specific to any particular part of the program

Close Active	When you click the Close button in the top right hand corner of the application,
Child Window	Task Manager will attempt to save any un-saved changes, close all windows then
Only	exit. This option will prevent this behaviour and instead only close the active child
	window. If you wish to exit the application you will need to close all windows first
	using the Windows/Close All menu option.
Save	When this option is ticked, Task Manager will save the current workspace
Workspace on	including a list of holes and any windows open. When you next launch the
Exit	program you can select "Last Workspace" from the File menu to restore this
	workspace. The workspace does NOT contain any data, merely a list of holes and
	windows. Any un-saved changes must be saved prior to exiting the program or
	they will be lost.
Dictionary	This setting specifies the number of days that can pass before you are prompted
Update Check	to check for dictionary updates. Setting this to zero will disable the reminder.
Company Code	Holes with these company codes are shown in a different colour on maps
Double Click	Double clicking on a hole in the holes list opens a graphic log window. Otherwise
Opens Graphic	double clicking just expands/collapse the tree node.
Log	
Show What's	Display the What's New window on launch when a new update is installed.
New When	
Updated	
Track Changes	When this option is enabled a log of lithology depth/thickness changes, lithology
	row insert/delete and seam name changes is kept. This log can be displayed from
	the Reports menu and exported to Excel/CSV if required.
	Note: Making depth/thickness changes can trigger a large number of depth change
	events which may reduce performance. You may want to disable event logging
	while making these types of changes.
Show Photos in	Shows Core Photos and Rehab Photos in the Holes list when expanded
Holes List	

Database

This section is used to configure the database connection. In some cases merely the database type is required but in other cases more information may be needed. Generally your database administrator or technical support will provide these settings and they should not be changed unless instructed to do so.

Database	
Database Type	Refer to <u>Database Types</u>
Server	Server name where the database engine is running. For Peabody Australia
	users this is BRSPGEOSQL01
Catalog	Database name on the server. For Peabody Australia users this is
	GEO_CORE
Secondary Database	Same as Database Type– See Secondary Database
Туре	For Peabody Australia users this is GeoCore
Secondary Server	Same as Server – See <u>Secondary Database</u>
	For Peabody Australia users this is BRSPGEOSQL01
Secondary Catalog	Same as Catalog– See <u>Secondary Database</u>
	For Peabody Australia users this is GEO_CORE_LAS
Time Out	Database connection time out in seconds
Database Filename	Filename for Internal database file
Root Path	Root path used by Internal database to search for files
Connection String	NOT USED (contact support for more information)
Auto Sync Dictionary	NOT USED
Read Only Mode	Disallows write access to the database (disables "Save to Database"
	function)
Analysis Results Import	Template file used for importing and exporting coal quality data with
Export Filename	GeoCore
Show Advanced Save	This option displays advanced options when saving holes to the database.
Options	In most cases these should not be changed unless instructed to do so. (See
	below)
Internal	
Ignore Folders With	When updating internal database ignore folders containing these terms
Ignore Files With	When updating internal database ignore files containing these terms
Quick Load	
Rehab Date	Include rehab date when quick loading
Drill Dates	Include drilling dates when quick loading

Note: When using the <u>Quick Load</u> function, including additional data such as Rehab and Drill Dates will affect performance. This will still be significantly quicker than a normal load but if this information is not critical, don't include it for maximum load speed.

Settings				×
i General ⊛- <mark>Database</mark>	Database Type	GeoCore	•	
Folders	Server	BRSPGEOSQL01		
Core Photos	Catalog	GEO_CORE		
Email Map	Secondary Database Type	GeoCore	•	
Cross Section	Secondary Server	BRSPGEOSQL01		
⊞- Graphic Log English Log	Secondary Catalog	GEO_CORE_LAS		
- Charting	Time Out	60	×	
Validation	Database Filename			Browse
i∰ - Non Coal Log	Root Path			Browse
	Connection String			
Debug Mode	Auto Sync Dictionary			
	Read Only Mode			
	Include C Q Data			
	Analysis Results Import Export Filename			Browse
	Show Advanced Save Options			
	Upload Defects			
	Load L A S Data			
	Custom Exports Prefix	VW_TM_		
Import Export Reset				OK Cancel

Database Settings

Database Types

Internal	Task Manager can use an internal cache to store information about drill log files in your file system. This pseudo database can be used to locate files more efficiently but does not store any actual lithology data
GeoCore	GeoCore is a proprietary SQL database developed internally by Peabody Energy.
TMDB	TMDB is a database structure based on the CoalLog standard and is closely tied to TM's
	internal data structure. Refer to <u>TMDB</u> for more information.

Secondary Database

A secondary server can be configured for supplemental data. For GeoCore the secondary database is used to store LAS data.

TMDB

TMDB is a database structure based on the CoalLog standard and is closely tied to TM's internal data structure. TMDB can be deployed on a Microsoft SQL Server or a local instance of SQL called (localdb).

The default settings for TMDB are as follows but can be changed to suit your configuration:

Server: (localdb)\v11.0

Database/Catalogue: TM2014

The primary and secondary database type, server and catalogue can also be configured via the Configuration menu option under the Database menu.

Select Database	×
Туре	GeoCore 👻
Server	BRSPGEOSQL01 -
Database/Catalogue	GEO_CORE
Secondary Type	GeoCore 👻
Secondary Server	BRSPGEOSQL01 -
Secondary Catalogue	GEO_CORE_LAS
	OK Cancel

Database Configuration Window (GeoCore)

Select Database	×
Туре	TMDB
Server	(localdb)\v11.0
Database/Catalogue	TM2014 -
Secondary Type	None
Secondary Server	(Select)
Secondary Catalogue	(Select)
	OK Cancel

Database Configuration Window (TMDB)

Folders

These settings determine where Task Manager looks for and/or saves specific files. To select a specific folder (rather than using tokens), first clear the existing entry then click the Browse button to select a folder. If you are only working on a small project this may be the simplest way to configure your folders. If you are working on multiple projects, use tokens to define your folder configuration as this will enable Task Manager to locate files very quickly and save you a lot of time and frustration. This does require a consistent folder setup and naming convention and can be a bit tricky to setup initially but it's well worth the effort. If you have trouble getting this right, let us know what your folder setup looks like and we can supply you with the best settings to use. Also refer to the Folder Settings Wizard for help with these settings.

Task Manager Files Folder	This is the parent/root folder for all Task Manager Settings. Most of
Custom Distignary Folder	Colder location where system dictionary files are sound. Defer to the
Custom Dictionary Folder	Polder location where custom dictionary mes are saved. Refer to the
	Dictionary section for more information about dictionaries.
Graphic Log Layouts Folder	Folder where custom Graphic Log Layouts are saved. Refer to Graphic
	Log Layouts for more information. This can be the same as the Custom
	Dictionary Folder if required.
Table Layouts Folder	As above but for Table windows
Section Layouts Folder	As above but for Cross Section windows
	The above folders must be direct paths without tokens and typically all
	point to the same "Task Manager Files" folder or a sub-folder.
Patterns Folder	Folder that contains the CoalLog V2.0 pattern/plotting symbol files.
	This feature is not fully implemented yet and should not be used.
Custom Patterns Folder	Folder that contains custom pattern files
LAS Curve Display Settings	Folder that contains LAS curve display settings
Folder	
Coal Quality Display	Folder that contains CQ display settings.
Settings Folder	
Reporting Templates	This is the folder that contains reporting templates for custom exports.
Folder	
Logging Templates Folder	This is the folder that contains template logging sheets for creating
	new logs with some data pre-populated
Import Export Mappers	This is the folder that contains mapping files for custom
Folder	import/exports
Root Folder	This is the root data folder for all data files (i.e. C:\Data).
The	above folders must be direct paths without tokens
Holes Folder	
Holes Folder Raw	
Holes Folder Corrected	
	These fields are be divised with a boot it is some with means we ful to use
Holes Folder Final	I nese folders can be direct paths but it is generally more useful to use
LAS Folder	tokens to determine the exact path for a specific hole.
Core Photos Folder	1
Rehab Photos Folder	

English Logs Folder	
Graphic Logs Folder	
Map Layers Folder	Default folder for map layer files (i.eSHP, .DXF files)
Backup Folder	Folder where backups of drill log files are saved.
Workspaces Folder	Default folder where workspace files are saved.
Settings Folder	Default folder for saving settings files (i.ecsv, .wizard, .xml)
Event Log Folder	This is the folder where Event Log files are saved (when enabled)

Folder Tokens

The following tokens can be used:

Token	Meaning	Example
{root}	Root Data Folder	C:\Data
{hole}	Hole Name (from hole status sheet)	AB4567C
{site-id}	Site Id (from hole status sheet)	AB4567
{lease_no}	Lease_No (from hole status sheet)	1234
{lease_name}	Lease Name as translated from the dictionary	EPC1234
{project}	Project Code (from hole status sheet)	XX
{project_name}	Project Name as translated from the dictionary	My XX Project
{company}	Company Code (from hole status sheet)	XX
{company_name}	Company Name as translated from the dictionary	My XX Company
{start_date}	Drilling start date (from hole status sheet)	(See below)
{complete_date}	Drilling completion date (from hole status sheet)	(See below)

Additional/Advanced folder tokens

With the exception of {my documents}, the following tokens refer to Folder Settings values as described above.

Note: there would generally be few cases where these would be useful and are listed for information purposes only.

{my documents}	Current users Documents folder
{custom_dictionary_folder}	Custom Dictionary Folder
{task_manager_files_folder}	Task Manager Files Folder
{backup_folder}	Backup Folder
{patterns_folder}	Patterns Folder
{custom_patterns_folder}	Custom Patterns Folder
{graphic_log_layouts_folder}	Graphic Log Layouts Folder
{reporting_templates_folder}	Reporting Templates Folder
{section_layouts_folder}	Section Layouts Folder
{table_layouts_folder}	Table Layouts Folder

You can also use the <u>Folder Settings Wizard</u> to determine folder settings by using an existing hole as an example.

In the case of {lease_name}, {project_name} and {company_name}, if the code description does not match the folder name you can use the Folder parameter in the dictionary to define the correct folder name. For example, if your project is called "ZZZ Joint Venture" but the folder is just "ZZZJV" then set the Folder value in the dictionary to "ZZZJV".

Date Values

Date values can be formatted using standard windows formatting conventions such as "yyyy" for just the year component. This is useful if your data is broken up into different folders by year.

I.e. {root}\drillogs\corrected\{complete_date,yyyy}

Assuming the root was C:\Data and the complete_date was 01/01/2014, would return C:\Data\drillogs\corrected\2014

Alternate Folders

Multiple alternate options can be used separated by a semicolon. Each option will be tested and the first one that exists will be used.

Example:

{root}\{lease_name}\drilgeophys\las files\{hole};{root}\{lease_name}\drilgeophys\las files\

Will first check:

{root}\{lease_name}\drilgeophys\las files\{hole}

Then

{root}\{lease_name}\drilgeophys\las files

Sub-folders should be tested first as the parent folder will always exist and will be selected if it appears earlier in the list.

Example:

This:

{root}\{lease_name}\drilgeophys\las files\{hole};{root}\{lease_name}\drilgeophys\las files\

Is preferable to this:

{root}\{lease_name}\drilgeophys\las files\;{root}\{lease_name}\drilgeophys\las files\{

As the "las files" parent folder will always exist if the {hole} sub-folder exists so you need to test for that first.

See also Folder Settings Examples

Wildcards

The asterix (*) wildcard can also be used to search for folders matching a given specification. For example if LAS files could be in any folder beginning with "LAS" you could use "LAS*" and Task

Manager will try the first folder starting with LAS. Task Manager will stop searching if/when it finds what it's looking for.

Default Settings

The default settings for these folders match the structure used by Task Manager 2008 and are as follows:

Holes Folder: {root}\{lease_name}\drillogs\corrected\{project_name}

LAS Folder: {root}\{lease_name}\drilgeophys\las files\{project_name}\{hole};{root}\{lease_name}\drilgeophys\las files\{hole}

Core Photos Folder:

{root}\{lease_name}\drillogs\core photos_drillers depths\{project_name}\{hole};{root}\{lease_name}\drillogs\core
photos_drillers depths\{hole}

Using the above examples, Task Manager would search the following folders for LAS files:

C:\Data\EPC1234\drilgeophys\las files\My XX Project\AB4567C

If the above folder was not found, Task Manager would then try:

C:\Data\EPC1234\drilgeophys\las files\AB4567C

Files

This section is mainly concerned with how files are named, in particular the suffixes used for various file types.

If you use a standard naming convention for differentiating between raw, adjusted and final logs, define the suffixes here and enable the option to enforce them. This will ensure that the raw file is not overwritten when you change the data status to A.

Coal Log Raw Suffix

Suffix for logs with Data_Status R. Default is "_FIELD"

Coal Log Adjusted Suffix

Suffix for logs with Data_Status A or S. Default is "_CRX"

Coal Log Final Suffix

Suffix for logs with Data_Status F. Default is none.

Enforce Coal Log Suffix Usage

Enabling this option will not allow files to be saved unless they are using the correct suffix above.

Graphic Log Suffix

Default suffix for graphic logs bulk generated from the reports menu

English Log Suffix

Default suffix for english logs bulk generated from the reports menu

Number of Recent Files

This value determines the number of recently open files that are saved in the "Recent" list under the File menu. The default is 10 and maximum is 30.

LAS Files

These settings determine how LAS files are located and displayed.

Auto Load

TM will attempt to auto load the LAS files whenever a hole is loaded. This is convenient but may take some time when a large number of holes are loaded

General logs are geophysical logs usually of the entire well but might be recorded at a lower depth frequency or "Step" (i.e. 10cm). Detail logs are usually geophysical logs of specific coal seams but might be recorded at a higher depth frequency (i.e. 1cm) and hence more detailed than the general logs. This was common practice in the past when file size was an issue. These days in many cases only a high frequency (1cm) general log is available. When both General and Detail logs are available you can switch between them depending on whether you are viewing the entire hole or a detailed section of it.

Suffixes

The suffix settings are used by Task Manager to determine the type of LAS file being loaded. The suffixes are used in the filename to enable Task Manager to quickly determine the file type. Examples are AA1234_GN.LAS or AA1234_DA.LAS, AA1234_DB.LAS

If the logging tool was used with casing in place (logged through rods) then sometimes the suffix _RN is used in place of _GN and _RA,_RB in place of _DA,_DB. This method falls short when you have a large number of detail logs as you eventually hit _RN, however this situation is rare.

Refer to LAS File Naming Convention

Default Curves

This is the default set of curve mnemonics displayed by Task Manager. Any number of mnemonics can be listed separated by commas.

Reverse Curves

This is a list of curve mnemonics that should be plotted in reverse by default. I.e. GAMMA & CADE

True Depth Mneumonic

List of curve mneumonics that can be used for True Depth

Search Sub Folders

This setting determines whether Task Manager should search sub-folders of the selected LAS file folder when looking for LAS files.

Search All Folders

This setting determines whether Task Manager should continue searching sub-folders even after locating a LAS file

Use Well Name

This setting determines whether Task Manager should open the file and read the Well Name from the LAS header or just go by the LAS filename itself. Using the well name is significantly slower than just using the filename.

There is a "Rename LAS Files" tool under the Tools menu that will renamed all loaded LAS files based on their well name.

Load From Database

Indicates if TM should load LAS from the database if LAS files cannot be found in the specified folder(s)

Load From Database Only

Indicates that TM should only load LAS from the database and ignore the file system

Default LAS Load Types

Determines which types of LAS files should be loaded by default

Sync LAS Curves

Enable/Disable syncing of LAS curve display across all loaded holes. Hold down SHIFT to reverse this feature.

Detect CPS

Detect CPS and convert mnemonics from SSD to DENR(SS) and LSD to DENR(LS)

Overwrite Geophys Tools

When loading LAS files, overwrite the Geophys tools in the Hole Status sheet

Core Photos

The Core Photo Renaming tool can be used to quickly rename and resize core photos. These settings affect how this tool functions.

Core Photo Increment

This setting determines the depth increment when renaming photos. The default is 0.5m. If you are using Core Boxes you will want to change this to say 3.0m for example.

Round to Increment

This setting determines whether depths should be automatically rounded to the nearest increment

Resize Width

This setting determines the image size when resizing photos. The default is 1024 pixels wide. A higher value will create higher resolution images. A lower value will create small file sizes. The default setting is usually sufficient to retain image quality at the smallest file size.

Rotate According to EXIF

Some cameras record the camera orientation rather than actually rotating the image. With this setting enabled, TM will rotate the core photos according to this EXIF information.

Rehab Photos

The rehab photo editor allows you to add attribute data to your rehab photos quickly and easily. These settings affect how this tool functions.

LogoFilename (optional)

Specify a filename to use as a logo in the top right corner of the rehab photo

Title

Default title (i.e. REHABILITATION)

DateMode

FromEXIF – Date taken is extracted from EXIF data in the photo itself if available

FromFileDateCreated - Date taken is assumed to be the file creation date

None – No date taken is assumed and must be entered or left blank

Font

Font style to use for attribute labels

Default Camera

Default camera used by Rehab and Core Photo tools. Best to set this via the individual tool rather than via Settings.

Email

This section is used to configure your email settings but these are only required if using particular functions within the software that send emails. In most cases these settings can be ignored.

Мар

Default Projection

Sets the default projection for new Map Windows.

Use Plugins

This setting determines whether plugins should be used. Plugins provide support for additional file types when loading Map layers.

Plugins Folder

When using plugins you must specify where the plugin files are to be saved. You will then need to go into Tools, Plugins to download the plugins from our server. It is recommended that plugins be saved in a separate folder, preferably under your existing "Custom Dictionary Folder"

Grid Shift Filename

Grid shift file used for datum conversion

Average Cost Per Hole

Used to calculate approximate drill planning cost

Cross Section

Save Default Layout on Exit

This setting determines whether the cross section layout should be saved as the default layout when exiting. Otherwise you can manually save the default layout from the View menu.

Include Horizons

When this option is enabled, the horizon name is combined with the seam name in order to distinguish seams of the same name in different formations

Default Buffer Width

Sets the initial buffer size for the cross section hole selection tool in the map window

Correlation Offset

Gap between lithology and correlations

Include Ply

Include the seam ply when generating seam correlations

Graphics Quality

Compromise between graphics quality and drawing performance

Default Title 1-5

Default values for the title block when creating a new section

Values can use tokens as below

Token	Value
{Company_Name}	Company name from hole status sheet
{Project_Name}	Project name from hole status sheet
{Holes}	List of hole names
{Date}	Today's Date
{Username}	User name (from licence)
{Center}	Centers text within block
{backcolour}	Define background colour of text block
{forecolour}	Define text/font colour

Fonts

Defines default fonts for Hole labels and Seam labels
Graphic Log

Depth Column Mode

The Depth Column Mode setting switches between two options and affects the way depths are displayed in the Lithology tab. The two options are:

1. FromToRecoveredThick

This is the default setting that displays three columns labelled "From_Depth", "To_Depth" and "Recovered_Thick". This is the default CoalLog format.

2. DepthToBaseThickness

This setting emulates the previous version of Task Manager and displays two columns labelled "Depth to base" and "Thickness".

The latter setting simply hides the "From_Depth" and renames the other two columns. Functionally they are identical.

This option can also be changed from the View, Options menu in the Graphic Log Window.

L .			
Image	This setting determines the image quality when saving to an image file or PDF. Lower		
Scaling	values reduce image quality (and file size), larger values improve quality. Default is		
	2.5, values below 1 or above 5 are not reco	ommended. This does not affect the image	
	quality when printing to a PDF printer driv	er such as Adobe PDF, only when using Task	
	Manager's internal PDF driver.		
Show Seam	Different colours can be assigned to seam codes using the seam hierarchy editor. This		
Colours	setting determines whether those colours are used in the graphic log or ignored.		
Horizontal	This setting displays a horizontal guide in the graphic log screen as you move the		
Guide	mouse. However this can cause poor perfo	ormance on slower computers and is	
	therefore disabled by default. If you are us	ing a modern PC you can probably enable	
	this option without affecting interface per	formance.	
Weathering	The cross section generator can display we	eathering as a jagged line instead of the	
Code	typical seam/horizon correlation style. This	s will also enable the display of weathering	
	correlation by default whereas normally here	orizon correlation is disabled. This setting	
	determines the horizon code(s) that you u	se to denote weathering. Multiple alternate	
	codes can be listed separated by commas		
Tertiary	This is used to identify the Tertiary horizor	and validate lithology codes that should	
Code	not be used above/below Tertiary	-	
Other	Other markers are used to draw lines on the	ne cross section for significant marker	
Markers	bands. Multiple markers can be listed sepa	arated by commas.	
Logo	Selected an image file here will display that image on the graphic log. The position of		
Filename	the image can be set by editing the layout	in the graphic log view. The image must be	
	sized appropriately as it cannot be scaled v	within this application.	
Show	This option enables multiple lithology type	s at the same depth to be displayed on the	
Percentages	graphic log proportional to their percentage.		
Retain	When switching between graphic log layouts, the default scale is determined by the		
Layout	layout type. Selecting this option forces the scale to remain constant regardless of the		
Scale	layout type.		
Use CoalLog	Use CoalLog V2.0 lithology plotting pattern	ns for Graphic Logs and Cross Sections.	
V2 Patterns	Note: This feature is still in development a	nd may produce odd results.	
Graphics	Tweaks internal graphics settings to impro	ve quality or performance. Use High Quality	
Quality	unless you encounter issues in which case	you can try the other settings but they may	
	cause problems on some systems.		
	High Quality	Default	
	High Performance	Best performance increase	
	Good Performance	Minor performance increase	
Include	Determines whether hole status information	on is displayed in the graphic log	
Hole Status			
Headers			
Include	Determines whether lithology & LAS head	er information is displayed in the graphic	
Lithology			
Headers			
Header	Determines the height of the graphic log h	eader	
Height			
Headers Header Height	Determines the height of the graphic log h	eader	

User Interface

Enter Key Behaviour

This setting determines what happens when you press the ENTER key on a table in the Graphic Log Window. There are four settings available that are fairly self-explanatory:

1. Enter Key Moves Right

The cursor moves to the cell immediately adjacent and to the right unless you have reached the last column in which case the cursor moves to the first column on the next row.

- 2. Enter Key Moves Down The cursor moves down to the cell immediately below
- 3. Enter Key Next Row The cursor moves down to the first column on the next row
- 4. Enter Key Do Nothing The cursor stays on the current cell

Allow Sample Thickness Change

This setting determines whether the user is allowed to change the thickness of a unit that has been assigned a sample number.

Allow Sample Thickness Change If Broken Core

This setting allows the user to change the thickness of a unit that has been assigned a sample number only if the core is broken. This setting is superfluous if the above setting is enabled.

Fonts

These settings allow you to change the default font settings used by the graphic log display. The names are generic and are grouped by size. This feature may be expanded in future to allow further customization.

English Logs

Include Header	Includes the header section
Include Comments	This setting includes comments per lithology row when generating English Logs.

Charting

Default Chart	This setting determines the default chart type when creating a new chart
Туре	window.

Data Entry Defaults

These settings are used to configure various data entry and display options

Use Custom	This setting determines whether the drop down lists are populated from the
Dictionaries	standard Coal Log dictionary or from any custom dictionaries. This can be used to
	display a subset of the standard Coall og codes and/or sorted in a different order.
Use ROD	This setting determines whether the ROD columns are displayed in the drilling
column	sheet
Decimal Places	This setting determines the number of decimal places displayed for numeric
Decimarraces	values. The default is 3. Recommend values are 2 or 3.
	Note: Reducing the decimal places for existing data may result in rounding errors
Drag Decimal	This setting determines the number of decimal places used when dragging
Places	lithology or lithology houndaries in the graphic log. The default is 2. Recommend
1 10005	values are 2 or 3
Coallog	This setting determines whether continuation rows are displayed as the same
Continuations	From/To/Thickness as their parent row. The default setting is off and continued
continuations	rows are displayed as a zero thickness with both the From Denth and To Denth
	being the same as the previous rows To Depth Note: This is against the Coall og
	standard to maintain continuity from previous versions of Task Manager
	The Coall og standard offers a recommend data entry sheet and also a maximum
Max Sheets	data entry sheet. In most cases the maximum sheet simply has wider columns but
Wax Sheets	in the Defects sheet there are also some additional columns. By default Task
	Manager only uses the recommended columns, this setting enables the
	additional defect columns to be used
	Default format is Coall og V2 x, otherwise V1 x is used
Auto Eix Dopths	When this option is enabled TM will attempt to correct depth errors when you
Auto IIX Deptilis	change a thickness. Otherwise a validation error will occur that you will have to
	fix manually
Auto Save	This option will save the drill log automatically every <i>n</i> minutes. A setting of zero
	disables auto save. You can also pause this feature by clicking on the AUTOSAVE
	label in the status bar. Auto save only applies when editing drill logs loaded from
	Excel format, not loaded from a database or via an import/export file.
Auto Backup	This option creates a "Backup" folder in the same folder as the original Excel file.
	Whenever you activate one of the edit modes a copy of the file is saved in the
	backup folder.
Auto Convert	This setting applies any auto convert codes when a hole is loaded. (See Auto
On Load	Convert Codes below)
Auto Convert	This setting applies any auto convert codes during data entry.
On Data Entry	
Auto Convert	Auto Convert Codes can be useful where incorrect codes have commonly been
Codes	used and exist in old logs or where loggers have trouble remembering the new
	codes. (See below for further information)
Auto	Causes the focus to move to the next cell once the maximum number of
Progression	characters have been entered.
V Notch Weir	Used to calculate Flow Rate from Flow Height
Multiplier	
Touch Friendly	Makes TM more useable with touch screen devices
Header Defaults	These settings allow you to set default values for some header sheet (hole status)
	values.

Auto Convert Codes (further information)

Auto Convert Codes are a list of old and new codes that are applied according to the above settings. When Task Manager encounters an "Old Code" it replaces it with the "New Code".

Auto Convert Codes should be listed in a csv file named "Auto_Convert.csv" and saved in the Custom Dictionary folder. This file should contain four columns as follows:

Category, Old Code, New Code, Description

The description column is optional.

Note: Auto Convert is currently only available for Header, Lithology, Drilling and Casing.

Contact us if you need more information or assistance setting up Auto Convert codes.

Coal Ash	When validating raw coal quality data, this setting determines the limit where
Threshold	the Ash content is deemed high enough that the lithological unit can no longer
	be considered Coal. Any Coal units with a higher Ash value higher will
	highlighted.
Base of	Some modelling applications require that the base of weathering is shown on a
Weathering on	separate row with a zero thickness. This option enforces that requirement.
Separate Row	
Zero Thickness	This setting generates a validation error if a horizon is not entered on a
Horizons	separate row with zero thickness. This is a requirement for some systems but is
	not a CoalLog standard.
Auto Validate	This setting determines whether a hole is validated every time a value is
	changed. This setting was added in an earlier version when validation
	performance was slow. Later improvements in validation performance have
	rendered this setting obsolete.
Invalid Lithology	List of lithology type codes that should not appear above Tertiary horizon.
Above Tertiary	These will appear as validation errors.
Invalid Lithology	List of lithology type codes that should not appear below Tertiary horizon.
Below Tertiary	These will appear as validation errors.

Validation

Non Coal Log

Activities Sheet	This is an additional worksheet for recording other drilling related activities
Coursely Discoursely	outside the scope of the CoalLog standard.
Sample Dispatch	This is an additional worksheet for generating a sample dispatch advice
Sheet	that can be sent to the lab and appended to the drill log.
Sample Dispatch	This is an alternative Sample Dispatch Sheet format
Sheet B	
Sample Dispatch	Use the Sample Dispatch sheet defined by CoalLog 2.1 standard
Sheet 21	
Defects Sheet	This option replaces the standard CoalLog Defects sheet with an alternate
	layout.
Lithology Sheet	This option replaces the standard CoalLog Lithology sheet with an alternate
	layout which includes six additional columns.
Default Lab	This is used in equivarian with the Comple Dispetch Chest and estaths
Default Geotech Lab	This is used in conjunction with the sample Dispatch Sheet and sets the
Default Gas Lab	
Master Sample	This is the filename of the Master Sample Progression sheet which can be
Progression Sheet	appended to when generating sample advices.
Conversion Dictionary	This setting determines the conversion matrix to use when the dictionary is
	unknown.
Equip Abandoned	Provides an additional column in the header sheet to flag when equipment
	has been abandoned downhole. This is not a CoalLog standard column.
Auto Detect	TM attempts to auto detect when any of the above sheets are in use
Sample Dispatch	Default values for Sample Dispatch sheet
Default Lab	Default lab for Coal samples
Default Geotech Lab	Default lab for Geotech samples
Default Gas Lab	Default lab for Gas samples
Master Sample	Spreadsheet which maintains a list of all samples
Progression Filename	
GeoCore Settings	Settings for GeoCore database
	These additional Non CoalLog Settings are only for use with the GeoCore
	database
Non Coal Log	Settings for using non Coal Log format files
Worksheet	
Mapping Filename	Mapping file used to map worksheets/columns to Coal Log
Template Filename	Blank template for saving logs in a custom format

These settings allow additional functionality outside of the CoalLog standard.

Reports

Strip Ratio

These settings determine how strip ratios are calculated

Exclude Seams Above BW	Exclude seams which occur above the BW horizon
Exclude Non Coal Seams	Exclude seams which do not contain coal

Limits

Limits determine minimum and maximum allowable values for various fields. Values outside this range are highlighted as a validation error or warning.

Default limits are as follows:

Sheet	Column	Range
Defects	Infill_Thickness	0 to 100
Drilling	Recov_Length	0 to 3.05
Lithology	Bedding_Dip	1 to 89
Quality	Max Seam Core Loss Percent	5
Raw Coal	Ash	0.1 to 100
	FC	0 to 100
	RD	1.2 to 3.6
	SE	0 to 40
	VM	1 to 95

Coal Quality

WTDAVG Mode	Auto	RD mode is used if available otherwise Mass mode is used
	Mass	Value = SUM(Value * Mass) / Sum(Mass)
	RD	Value = SUM (Value * RD * Thickness) / Sum(RD * Thickness)
Fix Proximate Analysis		Adjusts proximate analysis values to sum to 100%
Mode		
Fix Proximate Analysis		Maximum value for FC when adjusting values
FC Max		
Comula Comunacita		
Sampla Composito	Auto	
Sample Composite	Auto Simple	Use a simple fromsample – tosample naming convention
Sample Composite Mode	Auto Simple Detailed	Use a simple fromsample – tosample naming convention Use a detailed convention that enumerates all samples
Sample Composite Mode Sample Range	Auto Simple Detailed	Use a simple fromsample – tosample naming convention Use a detailed convention that enumerates all samples Characters that indicate a sample range (i.e. underscore,
Sample Composite Mode Sample Range Identifiers	Auto Simple Detailed	Use a simple fromsample – tosample naming convention Use a detailed convention that enumerates all samples Characters that indicate a sample range (i.e. underscore, hyphen, period)
Sample Composite Mode Sample Range Identifiers Multiple Sample	Auto Simple Detailed 	Use a simple fromsample – tosample naming convention Use a detailed convention that enumerates all samples Characters that indicate a sample range (i.e. underscore, hyphen, period) Characters that indicate multiple, separate samples (i.e.

External

MapInfo

Universal	To convert CSV files to MapInfo tables, Task Manager requires access to MapInfo's
Translator	Universal Translator. This is part of the MapInfo product and is not supplied with
Path	Task Manager. If you do not have MapInfo installed you will not be able to use this
	function within Task Manager.
KML	

Elevation	Elevations in KML files are raised by this value to make underground elements
Offset	appear above ground in Google Earth

Debug Mode

These settings are only to be used when attempting to identify issues with the software or data. They should not be used unless instructed by technical support.

Debug Mode /	Displays various information to assist with testing and debugging.
Developer	These should not be enabled unless instructed to do so.
Mode	
Event Log	Creates a log file during certain operations to assist with testing and debugging. This can affect performance so should only be enabled when necessary. You can also enable the Event Log temporarily by holding down the SHIFT key while TM is starting.
Always Save As	Forces the File Save operation to always create a new file from a blank template even when saving over an existing file.
Safe Mode	Prevents background loading of settings at start up. This is slightly slower and should only be enabled if advised by support.

Introducing the interface

Task Manager 2014 uses a fairly standard MDI (Multiple Document Interface) layout meaning you can have multiple windows open at one time. When launching Task Manager for the first time you will be presented with a fairly stark screen consisting of a large grey area taking up most of the screen and a thin white strip (hole list) down the left hand side. Along the top is a fairly standard looking menu strip following by a toolbar strip with various buttons.



Multi-Screen Mode

The multi-screen mode allows you to quickly switch between single and multi-screen views. In multiscreen mode, Task Manager expands to fill all available screens. This is particularly useful when working on cross sections.

Reports	Windows Help
i 🖪 🗐	📲 🖬 • 📃 🎯 🎟 🎫 👪 🦯 👬
	Switch between Multi Screen and Single Screen

Holes List

The holes list displays a list of all holes loaded in Task Manager. This list is used to select holes, load and select geophysics curves and show other information. The holes list has four modes:



- Off Hides the holes list leaving more space for other windows
- Minimal Displays just the hole name and a check box for selection using the least possible space whilst remaining usable. You must double click on the hole name to expand the tree and display LAS curve information.
- Normal Displays the hole name with a plus-minus box that you can use to expand/collapse the LAS curve information
- Expanded Displays the hole name including LAS files not not curves
- Full Displays all available information include LAS curves



Full Holes List View

Creating a New Hole

Creating a new hole from scratch

To create a new hole from scratch, select File, New or click the New button on the toolbar. This will create a brand new drill log. If you hover the mouse over the New menu item, a sub menu will appear with additional options including blank templates for both V1.x and V2.x CoalLog versions.

You can provide a few default settings via Tools, Settings, Data Entry Defaults, Header Defaults but these options are limited. For a better option see Templates below.

Note: The default CoalLog version is 1.x, if you prefer 2.x tick this option under Tools, Settings, Data Entry Defaults before you begin.

You can also create new holes from a Map Window or Cross Section. Creating a hole from a Map Window will give the hole approximate coordinates. Creating a hole from a Cross Section will give the hole approximate coordinates, elevation and lithology with seams based on existing correlations.

Creating a new hole from an existing hole

You can "clone" an existing hole using the "Save as" function to save the file with a different name. You can then change the Hole_Name and any other details in the hole status sheet. This method is not recommended due to risk of contaminating the new hole with information from the original hole. However it may be useful when logging a redrill or core hole in the same location.

Creating a new hole from a template

To create a new hole from a template, select File, New then select a template from the list. If you don't see a list it's because you haven't created any templates yet.

Creating templates

To create a template, simply load any existing drill log or better yet create a new one from scratch and enter any data which is common to most of your drill holes. Then select File, Save Template. This will save a copy of the current drill log as a template which can be used later to create new logs.

You should avoid putting too much data into templates as you will have to change or delete it later. Restrict it to header information such as Company, Project, Lease_No, Datum, UTM zone etc. I.e. things that are likely to be common to most holes.

Note: If the Save Template option is disabled you will need to check the folder location under Tools, Settings, Folders, Logging Templates.

Loading Hole Data

Loading Drill Logs (CoalLog format)

This is Task Manager 2014's primary file format for drill logs. To open one or more logs simply select

File, Open from the menu or click the 🔎 "Open" toolbar button. Select the log(s) you wish to open and click OK. The holes will appear in the holes list on the left hand side.

Task Manager currently supports CoalLog V1.x and V2.0 log formats plus some variations.

Load from Clipboard

If you have a list of holes in a spreadsheet, you can copy this list then select File, Load from Clipboard. TM will attempt to find the selected holes using the current Settings, Folders, Holes Folder configuration. Alternatively, you can used a <u>Workspace</u>

Converting Drill Logs (Task Manager 2008 format)

Task Manager 2014 can convert Task Manager 2008 format drill logs to the new CoalLog format including translating the dictionary. You cannot save logs in the old format or overwrite the old files, you must save the converted log to a new file, preferably in a different folder to avoid confusion.

If there are any issues during conversion a Conversion Log window will be displayed for each hole. You can save this conversion log to a CSV file for review. If you have a number of conversion log windows you can combine them into a single window then save that to a CSV file. To combine windows refer to <u>Combining Windows</u>

Conversion Issues

Conversion issues arise when a code cannot be translated for some reason. In each case the code will need to be manually translated into the new file. You should review all conversion issues to determine what action (if any) should be taken. You can then close the conversion log(s) and continue.

Code Errors

Code Errors are usually due to a code in the original log that doesn't have a corresponding translation available. This could be because the original code was invalid to begin with, doesn't have a direct translation in Coal Log or simply one that we haven't come across before and haven't constructed a translation for it.

Conversion Warnings

Conversion warnings are generally for information purposes. A common conversion warning is related to joint frequencies as they are converted to defect spacings. As there is no direct conversion an approximation must be made and therefore a warning is generated.

Importing Data

Drill logs can be imported from a CoalLog standard import/export file. These are a defined set of CSV files and can be contained within a zip file. Task Manager 2014 can import either the zip file or the CSV files.

Load from Database

Holes can also be loaded from a database, refer to Database for more information

Loading LAS (Geophysics) Files

Once you have some drill logs (holes) loaded, you can load the associated LAS files. There are two options, manual and automatic.

Loading LAS files manually

In manual mode you simply right click on the hole name and select "Load LAS Files (Manual)". You will be presented with the standard file open dialog where you can locate and select the LAS files you wish to load for that hole.

Loading LAS files automatically

In automatic mode you can right click on the hole as above and select the automatic mode or you can click the "LAS" button in the toolbar. This will present you with the "Load LAS Files" dialog window which gives you several options for locating and selecting LAS files to load.



Load LAS Files window

Load LAS for...

In this section you select whether you want to load LAS files just for the highlighted hole, all selected holes or for all holes.

LAS file types to load

In this section you select whether you want to load General Logs, Detail Logs and/or other LAS file types. LAS file types are determined by a suffix on the filename which can be configured in the <u>Settings</u>.

Options

Keep existing files

This option tells Task Manager to retain any LAS files already loaded rather than replacing them with the new files.

Search sub folders

This option tells Task Manager to search within any sub folders of the selected LAS file folder (also refer to <u>Folder Settings</u>). This can be slow if the folder contains a large number of files in sub-folders.

Use Well Name

This option determines whether Task Manager should read the Well Name from the LAS header rather than just using the filename. (See <u>Use Well Name</u>). This option can be very slow, especially when searching a large number of files, as each LAS file must be opened and read to determine the well name from the header. It may be preferable to load the files manually or use the <u>drag/drop</u> <u>method</u>.

Load from database

If the LAS files cannot be located using the above criteria, TM can look for LAS data in the database. If the database contains a file link to a LAS file TM will attempt to load that file directly. If the file link is not valid TM will load the actual LAS data from the database. However this is done as a last resort as it is considerably slower than loading the LAS file directly.

Choose your options then click OK. Your LAS files should load and appear in the Holes window under each Hole name. If your LAS files do not load you may need to check your <u>folder settings</u> and/or <u>LAS</u> <u>suffix settings</u>.

Importing LAS in CSV format

LAS data can also be loaded/imported from a CSV file. Refer to file formats for more information

Dragging and Dropping Files

You can also load data by dragging and dropping files from Windows Explorer onto the main Task Manager screen. Virtually any supported file type can be loaded in this manner and is equivalent to loading via the File/Open menu. It is particularly useful for loading Geophysics (LAS files) when the auto load LAS function is not working due to incompatible file naming conventions or folder structure.

When loading LAS files, Task Manager tries three methods to identify the hole:

- 1. WellName The WellName specified in the LAS header is used to identify the hole.
- 2. Filename The LAS filename excluding any suffix is used to identify the hole.
- 3. If neither of the above is successful, or the hole is not currently loaded, if the active window is a graphic log window you will be given the option to load the LAS into that.

Workspaces

A workspace is merely a list of holes and windows which enables Task Manager to re-create your work environment if you need to close the program and return to it later. The workspace does not contain any actual data nor does it save any unsaved changes.

When you re-load a workspace, Task Manager re-loads the holes from the original locations either from files or the database. Windows are then re-created based on the original hole selections but may not appear exactly as they were before. Map windows may not be zoomed or labelled as they were, Table windows may not be arranged or sorted as they were.

Imported data cannot be saved in a workspace , holes must be exported to individual log files and re-loaded from those files if they are to be saved as part of a workspace.

Task Manager can be configured to save the current workspace on exit. When you next launch Task Manager you can restore the workspace by selecting "Last Workspace" from the File Menu.

Multiple workspaces can be loaded consecutively. For example, you could create several workspaces with different hole selections, then pick and choose one or more of those workspaces to load in a later session.

Database

Task Manager can work "offline" with no database connectivity or can be configured to work with a database.

Database Configuration

Please speak with your database administrator or contact us for assistance with database configuration. Also refer to the <u>Database</u> section under Settings

Load From Database

The "Load From Database" function is available from the Database menu or via the 📕 icon on the toolbar.

From this screen you can obtain a list of holes in the database filtered by project as a list and also a

map view. You can then is filter the list further before selecting holes to be loaded.

Selected holes can be loaded in full by clicking the 🤗 icon. Alternatively, holes can be "Quick

Loaded" using the ⁶ icon. This loads only the header information, other data such as Lithology is loaded later on demand. Quick Load is useful for loading a large number of holes almost instantly, then when you select holes for viewing the remaining data is loaded at that time.

Use the "Find" window Find to find all holes matching a partial hole name. I.e. the search value "123" will return AB123, AB123C, BB123, BB1234 etc

Click the "Paste" icon to paste a list of hole names and find them in the database. This is useful if you have a list of holes in a spread sheet that you want to load. There are two paste options, exact match and partial match. A partial match will include holes that begin with the same hole name. I.e. AB123 will include AB123, AB123C, AB123CR, as well as AB1234, AB1235 etc

Click the "Configuration" icon to configure your database connection

Validate With Database (GeoCore)

This function will validate the selected holes with the database by "pretending" to save the holes but not actually proceeding. This is enough for the GeoCore validation rules to be applied and any errors reported back to the user.

Select the holes you wish to validate by ticking the boxes in the holes list. Click Database, Validate with Database, OK.

Task Manager will upload the holes into the GeoCore buffer tables and run the validations. A status window will appear showing the number of successful and failed hole validations. Individual validation error windows will also appear for each hole. Finally a Database Validation Summary window will appear which contains an abbreviated version of the individual validation error windows.

The individual validation error windows can be closed. Review the Database Validation Summary window for any errors that require attention. Repeat the process until all holes validate successfully.

Save To Database

This function will attempt to save the selected holes to the database after first running a validation check. Holes that fail validation will not be saved and the errors will need to be dealt with before attempting to upload those holes again.

There are some options in the Save to Database window to assist with this process.

Save changes to file first

If this option is ticked and the hole is loaded from an Excel log file, any unsaved changes will be saved to the file before saving. This ensures that the file copy matches what is actually uploaded

Remove hole if successful

If this option is ticked and the hole is successfully validated and saved to the database, it is removed from the hole list. Therefore you know that whatever remains afterwards was not saved to the database and you can avoid re-uploading holes that were already successfully saved.

Perform validations only

This option is the same as running "Validate with Database" from the Database menu.

LAS (Geophysics) data in Database (GeoCore)

LAS files can be uploaded into the GeoCore database and retrieved from there as an alternative to manually loading from the file system. This can be an advantage when the LAS files are not organised in a rigid file structure that can be defined in the folder settings.

Uploading LAS files

LAS files can be loaded and linked to existing holes using the existing methods then uploaded to GeoCore or they can be uploaded directly by jumping straight to step 3 below.

- 1. Load holes
- 2. Load LAS files
- 3. Select Database, Upload LAS Data

From the **Upload LAS files** screen, click the Browse button to select additional LAS files to upload.

Note: Holes must already exist in the database prior to uploading LAS files

Click Upload to upload the files

Downloading LAS files Refer to <u>Loading LAS files</u>

Database Reports

Database reports are reports that can be run directly from the database without first loading the holes into TM.

Hole Summary

A brief hole summary of borehole counts sorted by project, hole type and hole reason

Seam Summary

A summary of seams including location, depth, thickness etc

Database Dump

Enables a direct dump of GeoCore database tables with optional code translation and pivoted coal quality data.

Templates

Exports data using a pre-defined template.

Custom Exports

Exports data using custom queries in the GEO_CORE_LAS database.

MapInfo Holes Table

Generates a MapInfo table for selected predefined filters.

Note: The MapInfo product must be installed on the same PC as Task Manager for this function to worik. MapInfo is not provided with Task Manager and must be purchased separately if required.

Selecting Holes

Once you have some holes loaded you can start working with them. Typically you might want to view a hole summary table or a map view of selected holes or a graphic log view of a particular hole.

To select holes simply tick the box next to the hole name.

To quickly select multiple holes use the select functions under Edit menu. You can also select holes geographically via a <u>Map Window</u>.

Select UnSaved Select all holes that have un-saved changes

Select UnChanged

Select all holes that have not been changed/edited

Select Holes from Current Window

If the active window is a Map Window, Table Window or Cross Section window, this option selects all the holes in the active window.

Select Holes from Clipboard

If you have a list of holes in a spreadsheet, you can copy that list then select Edit, Select Holes from Clibpoard to select those holes.

Select Holes by Filter

You can also select by filtering the current holes list via Edit, Select Holes by Filter

Table Window

A table window is used to view data in a tabular format much like Excel. Typically this is used to display a list of holes with hole type, location, completion date, total depth etc.

To create a new table window select the "New Table Window" option from the Windows menu or click the table button on the toolbar.

You will be presented with a "Filter Holes" dialog where you can select what data to display in the new table window (see <u>Filter Holes Dialog</u> for more information).

Once you have made your selection from the Filter Holes window your new table window will appear. In the table window you can sort by a column by clicking on it. You can sort by multiple columns by holding down the CTRL key when clicking on subsequent columns. I.e. to sort by Hole_Type then Total_Depth, first click the Hole_Type column heading to sort by that column, the hold down the CTRL key and click on the Total_Depth column heading.

You can also re-arrange the column by clicking on a column, holding down the mouse button and dragging it to the new position.

You can select which columns to display by clicking the "Choose Columns" button in the toolbar. This will show you all the available columns and you can turn them on/off by ticking the appropriate boxes. Click the right mouse button for some quick selections and/or to manage custom columns.

Custom columns can be used to display additional data generally derived from special functions.

Generic Table View

Any Excel or CSV file can be opened in a generic table view. From there you can map columns to fields in the hole status sheet and import or export data between the two.

When opening Excel or CSV files you will be given the option to allow TM to open the file automatically or use the generic table view

TM2	2014
Fi C C C	ile recognised as TRBSurveyData lick Yes to let TM openm the file automatically lick No to use the generic table viewer lick Cancel to do nothing
	Yes <u>N</u> o Cancel

Click No to use the Generic Table Viewer

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А		В	С	D	E	F
Pro	oject:	HDR Peabody E	HDR Peabody E	HDR Peabody E		
Clie	ent:	HDR				
Job	b No:	1149				
Che	ecked:	TB1				
Wo	ork Performed:					
Bor	rehole ID	MGA56 East	MGA56 North	AHD RL	Date Surveyed	Surveyor
BC	:017C	314822.8	7234930.292	272.11	17/09/2016 12:0	AS1
BC	:220C	315075.761	7235183.27	252.113	17/09/2016 12:0	AS1
BC	:250C	314863.68	7235666.742	244.583	17/09/2016 12:0	AS1
BC	:381C	314957.209	7236293.984	253.529	17/09/2016 12:0	AS1
BC	445	315018.343	7234780.905	269.426	17/09/2016 12:0	AS1
BC	445C	315011.465	7234779.798	269.406	17/09/2016 12:0	AS1

Define the column mapping by right-clicking on any cell in each column

🖳 11	.49-X9-16091	9-AS1	- Generic Table (0 h	oles)				
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	А		В	С		D	E	F
	Project:		HDR Peabody E	HDR Peab	ody E	HDR Peabody E		
	Client:		HDR					
	Job No:		1149					
	Checked:		TB1					
	Work Perfo	med:						
	Borehole ID BC017C		MGA56 East	MGA56 No	rth	AHD RL	Date Surveyed	Surveyor
			314822.8	7234930.2	92	272.11	17/09/2016 12:0	AS1
•	BC220C	V	215075 761	7225102 27		252.113	17/09/2016 12:0	AS1
	BC250C	ð	Cut		2	244.583	17/09/2016 12:0	AS1
	BC381C	1	Сору		4	253.529	17/09/2016 12:0	AS1
	BC445		Paste		15	269.426	17/09/2016 12:0	AS1
	BC445C		Save Table as		18	269.406	17/09/2016 12:0	AS1
		÷	Set First Data Row					
		÷	Set Last Data Row					
			Map Column					
		~	Validate with table					
			Import from table					
		4	Export to table					
		0	Load Column Map	ping				
			Save Column Map	ping				

At a bare minimum you must match the Hole_Name column in order for TM to associate the row with a hole.



You will also need to map at least one other column to be of any use.

	Elevatio	n		E	F		Elevation	1	E	F	
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						56 North	AHD RL		Date Surveyed	Surveyor	r
						330.292	272.11		17/09/2016 12:0	AS1	
lorth	AHD RL			Date Surveyed	Surveyor	183.27	252.113		17/09/2016 12:0	AS1	
292	272.11	$\mathbf{\nabla}$	<u> </u>	17/00/2010 12.0	1001	666.742	244.583		17/09/2016 12:0	AS1	
27	252.113	8	Cut		- 1	293.984	253.529		17/09/2016 12:0	AS1	
742	244.583)	Сор	у	1	780.905	269.426		17/09/2016 12:0	AS1	
984	253 529		Past	te	- 1	779.798	269.406	X o	17/09/2016 12:0	451	
005	269.426		Sav	e Table as	-	-		ക്	ar apy		
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		~	LXP					III III	nort to table		
		\geq	Loa	d Column Mappin	g						
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		_			_		L	Sa	ve Column Mappin	9	

Define the data rows either by selecting the first data row and last data row separately...

... or by selecting all the data rows at once.

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	Hole_Name	В	С	Elevati	on		E	F	
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	Client:	HDR							
	Job No:	1149							
	Checked:	TB1							
	Work Performed:								
	Borehole ID	MGA56 East	MGA56 North	AHD RI	-		Date Surveyed	Survey	or
	BC017C	314822.8	7234930.292	272.11			17/09/2016 12:0	AS1	
	BC220C	315075.761	7235183.27	252.113			17/09/2016 12:0	AS1	
	BC250C	314863.68	7235666.742	244.583			17/09/2016 12:0	AS1	
	BC381C	314957.209	7236293.984	253.529			17/09/2016 12:0	AS1	
	BC445	315018.343	7234780.905	269.426			17/09/2016 12:0	AS1	
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					0	Load	d Column Mapping		
						Save	Column Mapping		

The column mapping can be saved for reuse at a later date.

Then load the holes either from files or the database. If loading from the database you can copy the hole list from the table and use the paste select option in the database.

7 🦈 🦺 🕯	P 8		Q			
Hole_Name		В	С	Elevation	E	F
Project:		HDR Peabody E	HDR Peabody E	HDR Peabody E		
Client:		HDR				
Job No:		1149				
Checked:		TB1				
Work Perform	ed:					
Borehole ID		MGA56 East	MGA56 North	AHD RL	Date Surveyed	Surveyor
BC017C		314822.8	7234930.292	272.11	17/09/2016 12:0	AS1
BC220C		315075.761	7235183.27	252.113	17/09/2016 12:0	AS1
BC250C		214002-00	7335000 743	244.583	17/09/2016 12:0	AS1
BC381C	Ж	Cut		253.529	17/09/2016 12:0	AS1
BC445	0)	Сору		269.426	17/09/2016 12:0	AS1
BC445C		Paste		269.406	17/09/2016 12:0	AS1
		Save Table as				1
	÷	Set Data Rows				
		Map Column				
	~	Validate with tak	ole			
		Import from tab	le			
	₽	Export to table				
	ø	Load Column M	lapping			
		Save Column M	apping			

Select the holes and copy...

Opti	ons Rep	orts				
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Proje	ct BAI	RALABA		Past	e list	i 💿 😑 📹 🔯 🍲 o 🔹 • • of holes and find them in the database (Exact ma
	Selected	Hole_Name	Lease_No	Project	F	
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		BC220C	MDL445	MT	P	
		BC250C	MDL445	MT	Ρ	
		BC381C	MDL445	MT	P	
		BC445	MDL445	MT	N	
		BC445C	MDL445	MT	Ρ	

Paste list in database screen. Use quick load as only hole status information can be updated with this method currently.

👔 Task Manager 2014										
File Database Edit View To	ols	Repo	rts Windows I	Help						
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			Project:	HDR Peabody E	HDR Peabody E	HDR Peabody E				
⊞- ⊟			Client:	HDR						
			Job No:	1149						
			Checked:	TB1						
			Work Performed:							
			Borehole ID	MGA56 East	MGA56 North	AHD RL	Date Survey	/ed	Surveyor	
			BC017C	314822.8	7234930.292	272.11	17/09/2016	5 12:0	AS1	
			BC220C	315075.761	7235183.27	252.113	17/09/2016	5 12:0	AS1	
			BC250C	314863.68	7235666.742	244.583	17/09/2016	5 12:0	AS1	
		•	BC381C	314957.209	7236293.984	062.620	17/09/2016	12:0	AS1	
			BC445	315018.343	7234780.90	Con		12:0	AS1	
			BC445C	315011.465	7234779.79	Copy		12:0	AS1	
						Paste				
						Save Table as				
						Set First Data Row				
						Set Last Data Row				
						Map Column				
						Validate with table				
						Import from table				
						Export to table				
					2	Load Column Mar	ning			
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						save column map	·P····9	J		

You can now validate the data in the table against the holes you just loaded

Data that doesn't match is highlighted in red

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	Hole_Name	В	С	Elevation	E	F
	Project:	HDR Peabody E	HDR Peabody E	HDR Peabody E		
	Client:	HDR				
	Job No:	1149				
	Checked:	TB1				
	Work Performed:					
	Borehole ID	MGA56 East	MGA56 North	AHD RL	Date Surveyed	Surveyor
	BC017C	314822.8	7234930.292	272.11	17/09/2016 12:0	AS1
	BC220C	315075.761	7235183.27	252.113	17/09/2016 12:0	AS1
	BC250C	314863.68	7235666.742	244.583	17/09/2016 12:0	AS1
•	BC381C	314957.209	7236293.984	253.529	17/09/2016 12:0	AS1
	BC445	315018.343	7234780.905	269.426	17/09/2016 12:0	AS1
	BC445C	315011.465	7234779.798	269.406	17/09/2016 12 17/	/09/2016 12:00:00 AN

You can then update the holes from the table or go the other way and update the table from the holes.



Import from table

This will update your holes in TM with any changes from the table

👔 Task Manager 2014						
<u>File Database Edit View T</u> ools <u>R</u> e	ports <u>W</u> indows	<u>H</u> elp				
: 🗋 💕 😂 🗔 🧊 🚉 🖻 🧇 🛱 🗇	🔍 🗐 📲 🗊 - 💻	🗠 📰 📰 👫	/ 🙀 🖙 🚎			
Holes 🔽 🗆						
BC017C	1149-X9-160919-AS1 -	Generic Table (0 h	oles)			
■	i 💎 🤣 🥼 🕆 🤋		Q			
EC250C [™]	Hole_Name	В	С	Elevation	E	F
	Project:	HDR Peabody E	HDR Peabody E	HDR Peabody E		
⊞	Client:	HDR				
	Job No:	1149				
	Checked:	TB1				
	Work Performed:					
	Borehole ID	MGA56 East	MGA56 North	AHD RL	Date Surveyed	Surveyor
	BC017C	314822.8	7234930.292	272.11	17/09/2016 12:0	AS1
	BC220C	315075.761	7235183.27	252.113	17/09/2016 12:0	AS1
	BC250C	314863.68	7235666.742	244.583	17/09/2016 12:0	AS1
•	BC381C	314957.209	7236293.984	253.529	17/09/2016 12:0	AS1
	BC445	315018.343	7234780.905	269.426	17/09/2016 12:0	AS1
	BC445C	315011.465	7234779.798	269.406	17/09/2016 12:0	AS1

Changed holes will be highlighted as having unsaved changes.

Export to table

This will update the table with values from your holes. This can also be used to populate an empty sheet.

Note: You cannot save changes back to the original source but you can save the results as a new Excel or CSV file.

Populating an empty sheet

Open an existing Excel or CSV file with the holes required as a generic table view:

	Sheet1 - Generic Tabl	e (0 holes)					
	i ヤ 🧇 ቤ 🕆 🖗		Q				
BC250C ⁺	Α	В	С	D	E	F	
BC367C	Hole_Name	В	С	Elevation	E	F	
	Project:	HDR Peabody E	HDR Peabody E	HDR Peabody E			
	Client:	HDR					
	Job No:	1149					
	Checked:	TB1					
	Work Performed:						
	Borehole ID	MGA56 East	MGA56 North	AHD RL	Date Surveyed	Surveyor	
	BC017C						
	BC220C						
	BC250C						
	BC381C						
	BC445						
	BC445C						

Set the column mapping (or load the mapping from a file) and load the holes as before.

	neet1 - Generic Table	e (0 holes)					
	7 🤣 🥼 🕆 🦉		Q				
⊕	Hole_Name 🔻	Easting	Northing	Elevation	Survey_Date	Survey_Company	
BC445 *	Work Performed:						
	Project:	HDR Peabody E	HDR Peabody E	HDR Peabody E			
	Job No:	1149					
	Hole_Name	В	С	Elevation	E	F	
	Client:	HDR					
	Checked:	TB1					
	Borehole ID	MGA56 East	MGA56 North	AHD RL	Date Surveyed	Surveyor	
	BC445C						
	BC445						
	BC381C						
	BC250C						
	BC220C						
	BC017C						

Right click and select Export to table

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Eile Database Edit View Iools Reports Windows Help								
: 🗋 💕 🗐 🖩 🧖 🏹 🖬 🧇 👸		🗐 📲 💶 – 💻	🖗 🔳 🖬 🖬	{ / 👬 🖙 📾				
	🖳 She	eet1 - Generic Table	(0 holes)					
		7 🧇 퉵 👉 🖲		Q				
⊕		Hole_Name 🔍	Easting	Northing	Elevation	Survey_Date	Survey_Company	
BC445*		Work Performed:						
		Project:	HDR Peabody E	HDR Peabody E	HDR Peabody E			
		Job No:	1149					
		Hole_Name	В	С	Elevation	E	F	
		Client:	HDR					
		Checked:	TB1					
		Borehole ID	MGA56 East	MGA56 North	AHD RL	Date Surveyed	Surveyor	
	•	BC445C	315,011.465	7234779.798	269.406	17/09/2016	TRB	
		BC445	315,018.343	7234780.905	269.426	17/09/2016	TRB	
		BC381C	314,957.209	7236293.984	253.529	17/09/2016	TRB	
		BC250C	314,863.680	7235666.742	244.583	17/09/2016	TRB	
		BC220C	315,075.761	7235183.270	252.113	17/09/2016	TRB	
		BC017C	314,822.800	7234930.292	272.110	17/09/2016	TRB	

Save the table as an Excel or CSV file

Map Window

A map window is used to display holes spatially according to their geographical location. This can be used simply as a selection tool but can also be used to post various values and create contours based on those values.

To create a new map window select the "New Map Window" option from the Windows menu or click the map button on the toolbar.

You will be presented with a "Filter Holes" dialog where you can select what data to display in the new table window (see <u>Filter Holes Dialog</u> for more information).

Once you have made your selection from the Filter Holes window your new map window will appear. Then use the various tools to navigate around the map, select holes, add layers, draw cross sections etc.

Information can be found in the status bar at the bottom of the main screen. This includes the coordinates under the mouse cursor and the distance from the mouse cursor to the last selected object.



Current map projection

Hole Selection 🗟

Use the selection tools to select individual holes or groups of holes. Hold down the CTRL or SHIFT keys to append the selection to any existing selection you may have made previously.

Polygon Select 🗅

Use Polygon Select to draw a rough polygon around a number of holes to select all holes within that polygon. Click the select or polygon select button again to clear the polygon.



Zoom & Pan 🔎 🍓

Use the zoom tool to zoom in on a specific area of the map. You can also use the mouse wheel to zoom in/out. Use the pan tool to move the map.

Cross Section /

Use the cross section tool to draw a line through a series of holes. Adjust the buffer size of the section corridor using the mouse scroll wheel. When you're happy with the selection, right click and select "New Section Window" or click the button on the main toolbar.

Layers

By default a new map starts with a "Holes" layer but you can add your own layers by importing SHP or DXF* files. Click the green plus button to add one or more layers. Click the layers button to manage existing layers including the display order (vertical position), labels, colours etc.

Support for additional file types can be obtained by installing the DotSpatial GDAL plugin.

* Support for DXF is currently limited to simple polygons

😼 Map 1 - (382 holes)						
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(Layers					
	i 😳 🤤 🍲 🛅 Visible	Selected F	Properties	Label	Order	
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MB1 CX0734 CX0400 CX0400 CX040						
Ğx369\$ CX36	53 6 6 6 6 C X0471 • C X0747 • C X0747 C X0603	D				
	EPC 676	3				
Selection Layer Peabody_EPC_regi 👻 🛛	Edit Layer (None)	• G	DA_1994_MGA_Z	one_55 Section	n Buffer: 🚽	

Map Window with Holes Layer and Tenement Boundary Layer

ayer Properties	×
Symbol	Layer Title
Open Hole 🔹	Holes
Shape Ellipse 💌	
Outline Colour Colour	
Outline Width	
Fill Colour V No Fill Colour 6	
Label	Label Colour
Hole	Font Font
Label Position	Font Colour
Distance	Font Size 10.00
Prevent Collisions	Background Colour Colour No Background
	OK Cancel

Layer Properties Window

Posting Values

The default label for a new map window is the hole name from the holes layer. However you can post almost any value from the header sheet (i.e. Project, Lease, Hole Type, Elevation) and/or a calculated (custom) value such as baseofseam, coalthick, interburden, stripratio etc. Refer to <u>Appendix A – Lithology Functions</u> for a complete list.

In addition to the above header values, the following tokens can be used:

Company_Name	Dictionary Translation of Company code
Lease_Name	Dictionary Translation of Lease_No code
Project_Name	Dictionary translation of Project code

Contours

Click the contours button to create simple contours based on various data such as elevation, total depth, seam depth/elevation, seam thickness etc.

For example, to produce elevation contours, load your boreholes and create a map covering the area of interest then:

- 1. Click the Create Contours button.
- 2. Select "Elevation" from the "Value column from layer" drop down list.
- 3. Review the Start and End values (they will default to the existing data range)
- 4. Adjust the increment as desired. Smaller increments means more contour lines.
- 5. Select appropriate colours (i.e. red for high values, green for low values)
- 6. Click Apply
- 7. If you're not happy with the results, go back to step 3 and repeat.
- 8. When you're happy, press OK

Results will vary depending on the data and your selections above. You may need to experiment.

To remove the contours, click Layers, then the red minus button to remove a layer.

Flags

Flags can be used to hold temporary selections / groups of holes.

Select one or more holes using any of the selection tools then click one of the flag buttons in the toolbar or right click menu. There are three colours to choose from, Red, Green and Yellow and the selected holes will be flagged/tagged with that colour. Additional holes can be assigned the same flag colour. Any given hole can only be assigned one flag colour at a time.

You may find using flags is easier than trying to perform multiple selections without losing previous selections. I.e. select a few holes, assign a flag colour, and just keep repeating the process until all the required holes have been selected. Then simply select by flag colour and load.

Flags are set at the hole level and will carry across multiple map windows. I.e. changing a flag in one map window will be reflected in other map windows (after a refresh).



Hole Planning

You can create a hole plan (or grid of evenly spaced holes) as follows:

- 1. Use the section tool to select an area and determine the orientation
- 2. Use the section buffer size to adjust the width of the area
- 3. Click the Hole Plan button in the toolbar



- 4. Select the hole spacing, hole prefix and first hole number
- 5. Enter a "Cost Per Hole" if you want a quick cost calculation
- 6. Click the Preview button to generate the holes
- 7. Adjust the hole spacing if required and repeat as required



8. Click OK to save the new holes



Save/Export Map layers

You can save the map window as an image or export a map layer as a file in various formats.

Click File, Save Map As...

Save Map As		×
Save current map view as an im	age file	
Save as image fileipg	1 •	
Save selected layer as		
Layer to save	Holes	•
ESRI Shape file (.shp)		Elevation Offset
Google Earth file (.kml)	(None) 🔹	1000
Autocad DXF file (.dxf)		
Comma Separated Values	(.csv)	
Excel File (xls, xlsx)		
Objects		
All Objects		
O selected objects		OK Cancel

Save current view as an image file

Select the file format (.bmp, .jpg, .png, .tif etc) then click OK.

Save selected layer as

Select a layer from the drop down list then select the desired output format

Google Earth file (kml)

Select an attribute to use as the place mark label and adjust the elevation offset if required. The elevation offset allows objects to float above the ground rather than underground where they cannot be seen.

Comma Separated Values / Excel File

Save the attributes only to a .csv or Excel file

Objects

Save either all objects or selected objects from the selected layer

Graphic Log Window

The graphic log window is used to generate graphic plots of your drill logs but is also the main place for editing your data. All aspects of the drill hole can be edited in this window including headers (hole status, geologists, casing), drilling, lithology, defects etc.



The graphic log window consists of four main areas:

Preview/Overview Window

Starting on the far right is a preview window where you can see a graphical representation of the entire log. This is primarily an overview window for selecting sections to view, it also contains additional information such as Total Depth, Casing Depth & Type, depths and elevations. Moving the mouse around will update the depth & elevation displayed in the bottom left corner of the main screen. Clicking on the preview window will update the main display window to show that depth.

Main Graphic Log Window

On the other side of the screen (far left) is a more detailed view of a section of the hole. The default scale is 1:50 and can be adjusted depending on the layout or as required.

The central part of the screen is broken vertically into two. The upper portion contains most of the main data sheet tables and the lower portion contains additional information and tools.

Data Sheets

The data sheets contain the main data tables for hole status, drilling, lithology, defects etc. This is the primary data entry and viewing area. Data can be entered directly into the cells or selected via pick lists where available by double-clicking on a cell or hitting the F3 key.

Selecting Lithology

You can select lithology from almost anywhere in this screen, the lithology data sheet, the samples data sheet, directly on the graphic log display or even the overview display. Wherever you click, the other screen will synchronise and display the same depths.

You can select multiple rows on the data sheets simply by holding down the mouse button and dragging. You can select multiple rows on the graphic log by holding down the SHIFT key and clicking on the log. When selecting multiple rows on the graphic log you can only select/deselect the first or last rows as selections are from/to inclusive (i.e. you can't leave gaps in the middle).

Edit Mode

There are four edit modes:

- Read Only No data can be changed
- Raw/Uncorrected Entered depths are raw/uncorrected depth
- Adjusted/Corrected Entered depths are adjusted for geophysics or other method
- Final Non depth related changes, any depth changes are assumed to be corrected

When creating a new drill log you are automatically placed in Raw/Uncorrected edit mode. When loading an existing drill log the default mode is "Read Only".

The available edit modes are determined by the Data Status flag in the Hole Status sheet. The Data Status flag R is the only flag which will allow the Raw/Uncorrected edit mode. All other flags will only allow Corrected and Final modes.

Depth changes made in Raw Edit mode are not recorded as a depth change and do not affect depths anywhere else (i.e. Defects, Point Loads etc).

Depth changes made in Corrected or Final mode are recorded as a depth change and will affect other depths when depth corrections are applied

Changing the Interval Status on any lithology row from R to A will automatically change the Data Status to in the Hole Status sheet to A.

One you enter Adjusted Edit Mode you cannot go back to Raw Mode. However, if you enter Adjusted mode by mistake you can reset the hole back to Raw mode via the Tools menu. This will reset the Data Status back to R and change the edit mode to Raw. Any depth changes will be retained and will be treated as raw/uncorrected depths.

Validation

Data is validated as it is entered, serious errors are highlighted in red, warnings are highlighted in orange. You can also force a refresh/re-validation by right-clicking and selecting Validate.

Auto Validation can be disabled by clicking on the label in the status bar. It will turn red when disabled. Click it again to re-active it.
AUTOSAVE AUTO VALIDATE AMG

Validation errors are also listed under the Validation tab in the lower half of the screen. Clicking on a row in this table will take you to that cell on the relevant data sheet.

	23.000	23.000	0.000 E	8					А	20	55	FМ	В
	23.000	23.980	0.980						А	0	SS	FM	В
	23.980	24.610	0.630						А	0	ST		D
	24.610	26.330	1.720 /	A					А	70	SS	MM	A
	26.330	26.330	0.000 E	В					А	30	ST		D
	26.330	26.380	0.050						А	0			
•	26.380	26.570	0.190				QP	456458	А	0	ST		D
	26.570	26.630	0.060	LL2			QP	456459	Α	0	CO	BD	
	26.630	26.660	0.030	LL2			QP	456459	Α	0	со	DB	
	26.660	26.910	0.250	LL2			QP	456459	А	0	СО	DD	
	26.910	26.970	0.060	LL2			QP	456459	Α	0	СО	DB	-
•		III											P.
Info	Core Photo	Rehab Photo	Quality	Composites	Validation	Files [Data Entry						
	Sheet	Row	Column	Depth	Code	Catego	ory Val	lidationCate	gory	Me	essage		
Þ	'8c Litholog	y 22	21	26.38		Litho_T	Type Cod	leWaming		Lith	о_Тур	e cannot	be blank!
*		1											

Lithology Data Grid showing validation warning (orange cell)

Information & Tools

The lower section consists of the following tabs:

Info

This tab contains an English translation of the current lithology row, information about current cursor depth & elevation and thickness of the current selection as well as LAS curve values for both the cursor depth plus an average for current selection. You can also obtain average LAS curve values for any arbitrary thickness by holding down the ALT key and the left mouse button and dragging the mouse down the hole.

Depending on the current selection, it will also display coal and core loss as both a thickness and a percentage. There is also a tool for artificially adjusting the LAS curve display which we will cover more in <u>depth corrections</u>.



Depth – Depth at mouse cursor location

Elevation – Elevation at mouse cursor location

To top – Distance from mouse cursor to top of lithology selection

To base – Distance from mouse cursor to base of lithology selection

Thickness – Total thickness of current lithology selection

Coal – Total coal thickness within current lithology selection

Core Loss – Total core loss within current lithology selection

Core Photo

This tab displays the core photo for the selected depth assuming that the photos are correctly named and available. You can also cycle through the photos by clicking the Next/Previous buttons or right click for more options. See <u>Core Photo Renaming Tool</u> for more info.



Rehab Photo

This tab displays the rehab photos for the hole. Click the Next/Previous buttons to cycle through the photos.



Quality

This tab is used for the display and management of coal quality information. This is covered in more detail in the Coal Quality section of this manual.



Validation

This tab displays a list of any validation errors. Click on a row to display the relevant section in the data sheet area above.



Files

This tab displays the folder locations of various files accessed for this hole such as LAS files, Core Photos etc.

Right click anywhere in the files window to active the <u>Folder Settings Wizard</u> which can help you configure the folder settings.

Data Entry

This tab provides buttons for selecting codes when using a touch screen device.

Codes can be displayed either in alphabetical order or dictionary order. Additionally, a dynamic dictionary mode can be enabled via Settings which will display the most commonly used codes first as shown below:

Info Core Photo Rehab Photo Quality Composites Validation Files Data Entry											
F3 F5 F10 F12 CLR Sort											
COSS	ST MS	CL	XM	NR	KL	SA	SO	LC	TM	RK	Â
CF TD	SI GV	BO	AL	CV	DE	DI	FI	FC	LO	M1	
M2 M3	MD LG	BC	PC	PE	OS	TS	ZC	ZM	ZS	ZH	E
ZT XC	XS XH	XT	CG	CS	BR	FB	SU	SH	TI	СС	
СВСК	СНКК	DM	FK	FW	IS	KA	LA	LS	LI	SC	
TN IG	VB VR	IN	AV	IV	BV	AI		BI	AN	BS	Ŧ

Folder Settings Wizard

The Folder Settings Wizard can be accessed by right clicking anywhere in the Files tab in the Information section of the main graphic log window.

Info	Core Photo Rehal	b Photo Quality Composites Validation Files						
	Folder Path							
	Root	S:\Macarthur	\Macarthur					
	Holes Folder	es Folder S:\Macarthur\EPC676\drillogs\corrected\Codrilla South\CoalLog						
Þ	LAS Folder	S:\Macarthur\EPC676\drilgeophys\las files\Codrilla						
	Backup Folder	S:\Macarthur\EPC676\drillogs\corrected\Codrilla So	Folder Settings Wizard	1V				
	CorePhotos Folder	S:\Macarthur\EPC676\drillogs\core photos_drillers d	Macarthur\EPC676\drillogs\core photos_drillers dSave sheet as					

The wizard uses information from the displayed hole to determine the appropriate folder settings.

Select the folder setting you which to change. This will display the current setting in the top window and all the interpretations of that setting in the lower window.

Folde	er Sett	ings Wizard			×				
S	Select Setting to Change								
	Custom Graphic Cable La Section Pattems Reportin Root Fol Holes Fol	DictionaryFolder / froot/\dease_name}\dnigeophys\as LogLayoutsFolder LayoutsFolder EngletssFolder TemplatesFolder Jaler	iles\{project_name}}\fole};{root}\{ease_name}\drilgeophys\as files\{h no}\drilgeophys\as files\{hole}	ole};{root}\{lea:	se_no}\drilgeophys\las files				
	ASFold CorePho	der otosFolder ▼			Save Browse				
F	older Ir	nterpretations							
		Folder	Interpretation	FolderExists					
	•	{root}\{lease_name}\drilgeophys\las files\{project_name}\{hole}	S:\Macarthur\EPC676\drilgeophys\las files\Codrilla South\CX1937C						
		{root}\{lease_name}\drilgeophys\las files\{hole}	S:\Macarthur\EPC676\drilgeophys\las files\CX1937C						
		$\label{eq:coot} $$ \root} \ e_n \ hole \$	$\label{eq:simple} S:\label{eq:simple} S:\lab$						
		{root}\{lease_no}\drilgeophys\las files\{hole}	S:\Macarthur\EPC676\drilgeophys\las files\CX1937C						
					OK Cancel				

If the correct path is not listed, click the Browse button and manually select the correct folder. The Wizard will attempt to tokenise the selected folder based on information in the drill log and add it to the list.

To remove a folder, right click on the folder interpretation and select "Remove folder".

Note that just because an interpretation is incorrect for this hole, it may be correct for other holes. The wizard is using the current hole as a guide in order to tokenise the folder setting. Only remove folders if you're sure they are incorrect for all holes.

Depending on your setup you may need multiple alternate folder settings. Every time you encounter a situation where folders are not located correctly, repeat the above process to append a new alternative folder location.

See also Folder Settings Examples

Geophysical Curves

The display of geophysical curves can be customised extensively including horizontal scale (range), colour, line style, line thickness etc. You can also apply various smoothing functions to smooth out the appearance of noisy curves such as gamma. To customise the curve display, right-click on the curve mnemonic in the holes list. You may have to expand the hole and/or las filename in the tree view to see the curve mnemonics.

When you select a Curve from the list, that curve is also selected for all other holes (where LAS is loaded and the curve exists). To disable this feature go to Tools, Settings, LAS, SyncLASCurves. Holding down the SHIFT key will temporarily reverse this setting. I.e. when syncing is disabled, holding SHIFT will enable it. When syncing is enabled, holding SHIFT will disable it.

Customise Curve



Right click on the curve to customize it

Customize Ci	urve	×							
Plot Range									
Minimum	0	Oefault							
Maximum	200	Manual							
	Reverse	Auto							
Guide	60.00 🚖								
Plot Style									
Р	ot line colour								
PI	ot line style	lid 🔻							
PI	ot line width 1	×							
Histog	gram								
Smoot	Smoothing MovingAverage9								
Apply changes to all curves of this type in this hole									
6	OK Cancel Apply								

Customize Curve window

Plot Range

The plot range defines the minimum and maximum values to be plotted. Values outside of this range will be cropped.

Default – Use the pre-defined range for this curve type (if applicable, otherwise Auto values are used)

Manual – Override the default values and define your own range. This can be used to focus on a particular subset of values to gain more visual resolution.

Auto – Range is defined by the minimum and maximum values contained in the current data set. This is useful if you have unusual values that fall outside the default range but can create inconsistent plots as each hole may be using a different range.

Guide – Draws a vertical line on the graphic log at the specified value. Used as a guide for picking lithology types from geophysics.

Note: To display LAS guides the option must enabled under View/Options and the guide value must be greater than zero.

Plot Style

Plot line colour – Common curve colours are predefined, unknown curves will be grey. This can be used to override the default colours.

Plot line style - I.e. solid line, dotted, dashed etc. Default is solid

Plot line width - Number of pixels (default is 1)

Histogram – Plots the curve as a histogram rather than a single line.

Smoothing

There are two types of smoothing, the check box performs a cosmetic smoothing whereby the curve is plotted as a cardinal spline rather than a series of line segments creating a less jagged appearance. The second type of smoothing generates a series of moving averages. The two smoothing options can be applied separately or combined. Smoothing can be applied to any curve if required but is particularly useful for Gamma curves which tend to be quite noisy.





Display Options

Vertical Scale

In any layout the vertical scale can be adjusted to suit your specific requirements but changing layout will revert to the default for that layout. You can also adjust the vertical scale by holding down the CTRL key and moving the mouse wheel.

Layout Options

There are 3 standard layouts plus a "Data Entry" layout which simply hides the graphic plots and maximises the data entry table window. You can also create your own custom layouts. The three standard layouts are listed below.

Graphic Log Layout

This is the default layout and provides a detailed view at 1:50 vertical scale. This is the best view for looking in detail at coal seams or individual samples or lithological units. Geophysical curves are overlaid on top of each other in this view.

Strat Log Layout

The strat log layout moves the lithology plot over to the far left and maximises the space available for the geophysical curves. The curves are still overlaid as in the graphic log layout but expanded horizontally. The vertical scale defaults to 1:200 and is useful for looking at the general stratigraphy of the hole rather than detailed samples or lithological units.

Stacked Layout

The stacked layout is similar to the strat log layout except that the geophysical curves are stacked side by side rather than overlaid on each other. The vertical is the same and is useful for looking specifically at geophysics.

Custom Layouts

You can arrange the graphic log window the way you like for a particular task then save that layout (View, Layout, Save Layout). You can then recall this layout by selecting it from the Layout menu (under the standard layouts). You can also save a layout as "Default", this layout when then be used when opening a new graphic log layout.

Layout preferences saved include:

- Window size and state (i.e. maximized)
- Grid column positions, widths and visibility
- LAS curve selection and customisation
- Vertical scale and other options

Custom Header Labels

You can optionally turn off the default headers (via Tools, Settings, Graphic Log) and provide your own custom labels. To do this, enable edit mode via View, Layout, Edit Layout. The header area will change to a grey background and blue vertical lines will appear on the main graphic log. You can move the blue lines to adjust the position and width of various components although the order of those components is fixed. You can also add/edit/move custom labels in the header section by right clicking on it. Custom labels can be any text or hole status fields in square brackets.

Refer to Posting Values for more information

Additionally the following tokens can be used in graphic log custom header labels

[page]	Current print page
[pages]	Total number of print pages
[scale]	Vertical scale

Example:

PAGE [page] OF [pages]

SCALE 1:[scale]

You can also provide a background image or logo via Tools, Settings, Graphic Logs, Logo Filename. You can then adjust the position of the logo while in layout edit mode.

Once you are happy with the layout, remember to save it as a custom layout and/or the default layout.

Options

The graphic log layout has some additional display options selectable from the View menu:



View Options Menu

Depth Column Style

This option switches between From Depth/To Depth/Recovered Thickness and Depth To Base/Thickness modes (see also <u>Settings, Graphic Log, Depth Column Mode</u>)

Descriptions

An English translation of the lithological codes can be displayed alongside the lithology. These can be short, long or none.



Show Bedding Dip (Angle)

Bedding dip can be displayed in the form of "tad poles" consisting of a red dot with a black "tail" indicating the approximate dip angle.



Show Casing

This option displays a vertical line on the main graphic log from the top of the hole down to the cased depth. The casing is always visible on the preview window



Show Coal Only

This option removes all lithology plotting except for coal which is displayed full width.



Show Core Runs

Drilling runs (core runs) can be displayed on the right of the graphic log, just left of the right have scale.



Show Core Photos

Displays core photos rotated and arranged vertically down the hole alongside the corresponding lithology/depth. Suitable for 0.5m core photos.



Show Core Photo Frame

Displays core photos in the lower half of the screen. Suitable for 5.0m core box photos.

Show Core State

This option displays the core state as a coloured bar where blue is solid core and green is broken or crushed core.



Show LAS Grid

Display a grid beneath the geophysics curves to resemble a typical geophysical plot.



Show Lithology Depth & Thickness.

Displays the depth for every lithology (except very thin bands) where the sample depth is usually displayed, and the thickness where the description is usually displayed

Show Root Beds & Marine Fossils

This is a custom option which requires additional pattern files. Please contact us if you need this option.

Show Sample Thickness

Displays the sample thickness instead of the sample depth in the depth column.

Show Sample Types

This option allows you to enable/display the display of sample labels by sample type. This is useful when different sample types coincide and the labels overlap. This setting is also used when creating composite samples to determine the type of composite sample.



Show Seam Colours

Seams can be coloured (if defined in the dictionary) for easy recognition.

Show Seam Description

Displays the seam description (as translated via the dictionary) as opposed to the seam code.



Show Seam Parent

Displays the seam parent to the left of the seam name. This requires that the parent/daughter seam relationship has been defined in the Seam Hierarchy editor.

Show Horizons

Displays horizons such as base of weathering.



Show Uncorrected Depths

If available, uncorrected depths can be displayed alongside the existing lithology and any differences highlighted so they can be clearly seen.



Horizontal Guide

Displays a horizontal dotted line at the mouse cursor depth as you move the mouse. This is useful for visually aligning lithology & geophysics but can affect performance.

Additional Guides

Displays some additional horizontal lines in cored sections and vertical lines for geophysics to assist with visual alignment.

Go to errors

When this option is enabled, clicking on a row in the validation tab highlights the corresponding row in the associated data sheet/tab.

Generate Sample Dispatch Advice

The samples sheet displays a summary of the samples in your log, however you can also generate a separate Sample Dispatch Advice sheet which can be appended to the log and/or saved as a separate Excel file for sending to the lab. Additionally, the sample information can be appended to a master sample progression sheet. To enable these features you may need to adjust some settings:

1. You must have the Sample Dispatch Sheet option enabled under Tools, Settings, <u>Non-Coal Log</u>, Sample Dispatch Sheet

2. While you're in there you can also set the Master Sample Progression Sheet (if you have one, otherwise see step 5 below)

3. The graphic log must be in edit mode to generate the sample advice (right click on the Lithology sheet and select Generate Sample Dispatch)

4. From the Sample Dispatch Sheet, right click and select "Save Sample Dispatch as..." to save as a separate Excel file

5. To create/append to Master Progression sheet, right click and select "Append to Master Sample Progression sheet"

6. If you don't have one, select "Create" otherwise select "Append".

7. Once created, repeat step 2 above to set the master sample progression sheet. Fyi there's no browse option, you need to type or copy/paste the entire path.

Generate Point Load Sheet

While the point load sheet can be entered entirely manually, this function can simplify/automate much of the data entry required.

Point Load testing generally requires splitting a core sample in two then splitting each of those samples in two again. Depth, length and sample number information is then entered into the point load sheet along with the test results.

To automate the data entry process, simply enter a sample in the main lithology sheet at the appropriate depths and using the sample type GF (Geotech Field Sample). Then right click and select "Generate Point Load Sheet".



Generate Point Loads

This will take each GF sample and generate appropriate rows in the point load sheet. One for the whole sample, one each for the two halves, and one each for the four quarters. If you only test one of the final quarters, click the appropriate button in the screen above to omit the others.

If you use the same procedure for each GF sample, tick the box in the bottom left corner. Otherwise you will be asked for each sample.

Each sample will have the associated depth, sample number, test id and test type pre-populated.

Due to the nature of the test, the final depths/lengths may require minor adjustment. This function also assumes a standard sampling regime. Other configurations are not currently supported but we welcome feedback in this area.

This feature can also be used to update existing PL data but be aware that any existing depth information will be overwritten. This also assumes that you have used the same Test_ID naming convention, otherwise new rows will be created and the existing rows will be left unchanged.

Generate Mass from Density

Once you have generated the sample dispatch sheet, you can optionally calculate an estimated sample mass from the density curve in your LAS file.

- 1. Ensure the density curve is visible in the graphic log
- 2. Right click on the Sample Dispatch sheet and select "Generate Mass from Density"
- 3. Select the density curve from the list
- 4. The "Calculated Mass" column should be populated

You can also enter actual Mass values and the "Mass Difference" column will populate automatically.

If multiple LAS files are loaded, the first file that contains the required sample depth is used.

Note: The core size is required to calculate the mass. This is derived from the drilling sheet. If the core size is not available a default core size is used. This can be configured via Tools, Settings, Non Coal Log, Sample Dispatch, Default Core Size for Calculating Mass

Coal Quality

Coal Quality data can be loaded from the database or from a spreadsheet and displayed on the graphic log or on cross sections. You can also combine samples to create composites and generate testing/laboratory advices.

Once loaded, the data will appear in the Quality tab in the bottom right hand corner of the graphic log screen. To display values on the graphic log, right click on a suitable column (such as ASH) and select "Show values as numbers"

fo	Core Photo Quality Composites Validation Files								Edit Quality Column/Band			
					50				-	Value Column	ASH 🗸	
	м	FM	ASH	VM	FC	SE	RD	CSN	15	Value Minimum	0	
_	900		74.500	12.000	10.600		2.320	0.000		Value Maximum	100	
	200		77.700	12.800	6.300		2.410	0.000		Colour	Colour	
•	000		20.900	40.500	05.000		4 400	1.000				
	900		10.500	Show	values as n	umbers		1.000		Colour Column		
	900		18.500	Create	Composite	e		1.500		Colour Minimum	0	
	700		80.100	Load [Data Summ	ary		0.000		Colour Maximum	100	
		1	-	Transf	er from Dat	ta Summai	ry -			Colour Maximum		
-	000		20 900	Valida	te			1 000		Visible		
_			20.000	Transf	Transfer from Drill Log				VISIDIE	OK Cancel		
	UpdateE			eData Sumi	mary]		

Adjust the parameters as required. The default range of 0-100 is probably suitable for ASH but other parameters may require different ranges. The parameter will be displayed on the graphic log



Select another such as RD. RD values are typically smaller so change the maximum value to 5 or 10. Change this on both the value and colour maximum. This will become important later. You might also want to pick a different colour.

Edit Ouality Column/	Band	84			
				84.02	Siltstone, ASH RD
Value Column	RD ▼	85 -=	151901	85.30	Carbonaceous Mudstone.50 2.32
Value Minimum	0		151902		Carbonaceous Mudstone.70 2.41
Value Maximum	5 ≑	86-		85.99	Coal,
Colour	Colour		151903	86.75	Coal, 20.90 1.48
Colour Column		87 LL2T	151904		Coal, Coal, 10.50 1.39 Coal,
Colour Minimum	0	88	151905	87.48	Coal, Coal, Coal, 18.50 1.45
Colour Maximum	5 🚖		151906	88.32	Coal, Sandstone, 80.10 2.36
Visible	OK Cancel	89 -		55.02	Sandstone, Sandstone, Sandstone, Carbonaceous Shale,

To change these setting	gs later, go to	Tools, Coal Quali	ty Display Settings
TO Change these setting	gs latel, go to	Tools, Coal Quali	ly Display Settings



Q	uality D	isplay Settings					×
	Display	Mode	SimpleNumbers		•		
		ValueColumn	Colour	ValueMinimum	ValueMaximum	Visible	
	Þ	ASH	255, 0, 0	0	100		
		RD	0, 0, 255	0	5	V	
	Loa	ad Sav	ve 🖸 😳		OK	Cancel	Apply

Here you can add/remove parameters or simply hide them (invisible), adjust their position or change the display mode.

Coal Quality Display Modes

Simple Numbers



Simple Histogram



Stacked Histogram



Range Histogram

With the Range Histogram, you can specify different colours for different ranges of the same parameter. For example, ASH 0-15% green, 15-25% blue, 25-100% red.



Multi Histogram

With the Multi Histogram you can combine values from different parameters. Using one parameter to determine the bar width and another parameter to determine the colour. For example using the same ASH values as above for colour but using IM for the bar width.



Depth Corrections

There are a number of tools available for correcting hole depths. Before using any of these tools you may need to set a roof and/or floor of corrections. This confines the depth adjustments to the units between these limits, otherwise depth adjustments will flow down to the end of the hole.

Define Roof and Floor of Corrections

Click on a lithology unit in the graphic log to select it then right click and select Corrections Roof. The selected unit will be nominated as the "Roof Adjustment Unit". Any units above this unit will remain unchanged. Ideally you want to select a unit with reasonable thickness to allow sufficient compression for the required adjustment. Furthermore, the unit's core state should not be solid core or sampled. You cannot change the thickness of sampled units unless you override this safety feature under Tools, Settings, Graphic Log, User Interface.



Setting the corrections roof



Now select a similar lithology unit below the area of interest. Right click again and select Corrections Floor. The selected unit will be nominated as the "Floor Adjustment Unit". Any units below this unit will remain unchanged.



Corrections floor set

Lithology Drag

With this method you must first nominate the roof and floor adjustment units as described above. These two adjustment units are where thickness changes will be applied. You then "drag" the units in between up or down to align with the geophysics by holding down the CTRL key and dragging the mouse. Movement is limited to the thickness of the nominated adjustment units:



Before: Seam does not correctly align with density curves



After: Seam now correctly aligned with density curves

Lithology Boundary

With this method you simply drag the boundary line between two units adjusting the thickness of the units either side accordingly. Place the mouse cursor on the boundary line between two lithology units, then hold down the CTRL key and drag the boundary line up or down. The thicknesses of the units either side of the boundary line will be adjusted accordingly. It is not necessary to set the correction roof/floor in this case as only the units either side of the boundary are affected.

LAS Offset

Use the LAS offset tool to artificially move the curves up or down until the lithology lines up with the geophysics. Then choose the unit where you would like to apply the adjustment, right click and select "Adjust thickness by LAS offset". This will adjust the thickness of that unit by the offset amount then reset the offset to zero. Correction roof/floor are optional with this feature, if they are not set you will be given the option to adjust the last lithology unit to retain the same TD.

Manual Adjustment

You can also adjust the thickness of individual units or multiple units (shifting below units up or down accordingly), split rows into two or more units or manually adjust depths and thickness in the data sheets using the <u>manual editing tools</u>.

Related Tools

While performing depth corrections the LAS curve values and average values can be used to assist you. The LAS curve values displays the point values of each visible curve at the cursor depth. The average LAS values displays the average values for the selected lithologies. You can also manually select any depth regardless of lithology and see the average curve values. Simply hold down the SHIFT key, click the first depth then hold the button down and drag down to the second depth.

Show Depth Adjustments

You can visualize any depth/thickness adjustments using the "Show Uncorrected Depths" option.

Apply Depth Corrections

After making depth corrections you may wish to apply these adjustments to other data in the log such as Defects, Point Loads, Water Observations etc. These will be applied automatically when you save the log but if you want to see the changes prior to saving you can apply them at any time via Tools, Apply Depth Corrections.

Manual Editing Tools

Insert/Delete rows

You can manually insert or delete rows in the lithology grid, however the depths of the units below will not change. If you want to insert/remove rows and shift the units below, use the Insert Lithology/Remove Thickness tools.

Insert Lithology

This function is available from both the lithology grid and the graphic log and has several different implementations. Right click and select Insert Lithology. A window will appear where you can nominate the depth and thickness to insert and select the lithology type and qualifier for the inserted unit. All units below the selected unit will shift down accordingly subject to any <u>roof/floor</u> <u>adjustment units</u>.

You can insert a new unit immediately before the selected unit, or you can split an existing unit and insert a new unit at a specific depth.

If you haven't <u>nominated any specific depths</u>, the default depth will be the top of the current selected unit.

Select the lithology type and qualifier for the inserted unit and confirm the depth/thickness then press OK. The new unit will be inserted at the specified depth. If necessary the existing unit will be split to accommodate the new unit.



Insert lithology at specific depth



Insert lithology using nominated depths

Remove Thickness

This function is available from both the lithology grid and the graphic log. Right click and select Remove Thickness. All units below the selected unit will shift up accordingly subject to any <u>roof/floor</u> <u>adjustment units</u>.

Change Thickness

Right click on any unit and select Change Thickness. Enter either a new thickness or a thickness change value (i.e. to reduce the thickness by 10cm enter -0.10, to increase the thickness by 5cm enter 0.05). The selected unit will be changed and any units below shifted up/down accordingly (subject to <u>roof/floor adjustment units</u>). You can also change the thickness of multiple units as a group. The thickness of each unit will be adjusted proportionally to the new combined thickness.

Split Rows

This function can be used to split an existing lithology row into two or more rows. If you select this option from the graphic log then the split will be determined by the cursor position on the log. Otherwise the unit will be evenly split. In the Split Rows dialog window you can then choose to split into more than two rows but the split will reset to an even distribution. Once you have split the rows you can use the other tools to adjust the thickness of each new unit. You can also <u>nominate depths</u> prior to using this function to define the desired thickness splits.



Method 1: Split row at specific depth



Method 2: Split unit at nominated depths

Rounding Errors

When performing depth adjustments it's possible that small gaps can form due to rounding. After each depth adjustment session, validate the hole then fix any depth errors using the F12 fix tool. Highlight the cell that requires "fixing" then press F12. The depth/thickness will be calculated based on the cells around it.

Nominating specific depths

You can nominate specific depths prior to executing the functions. This will pre-populate the functions with the specified depths/thicknesses. To nominate depths, hold down the ALT key and click on the graphic log. A dotted line will appear at the nominated depth. You can nominate as many depths as you want using them as temporary markers. When you click on the graphic log without holding down the ALT key all nominated depths are removed.

Nominated depths are especially useful in conjunction with the <u>Insert Lithology</u> and <u>Split Rows</u> functions for setting default depths and thicknesses.



Nominating Specific Depths

Printing

Graphic Logs can be printed and/or saved as a PDF file. Individual pages can also be saved as an image file. Depending on the scale it may be desirable to only print specific pages, such as pages that show coal seams. You can nominate these pages in two ways, either by right clicking on the main graphic log window or preview window and selecting "Add Page" or double-clicking on the preview window. You can remove pages or clear all pages by right clicking on the main graphic log window.



Right click on main graphic log to Add, Remove or Clear print pages

Pages can be added in any order, the page numbers will update automatically according to depth.

Note: While you can use the top, middle or bottom of the page to adjust the page position, you cannot crop or print part of a page. The printed page will always be a full page at the nominated depth. Similarly, if you change the vertical scale after selecting pages you may need to review/adjust the page positions for best results as the base depth for each page will have changed to match the new scale.

If no print pages are selected, all pages will be printed/exported.

When one or more print pages are selected they are displayed with a white background where the rest of the log is displayed with a gray backround. On the main graphic log window, the mid point of the page is indicated by a blue dashed line. You use this to align the page with the coal seam nicely centred.


Preview window showing four print pages selected

You can then adjust the position of each page either by dragging the page in the preview window or dragging the top, bottom or mid point (centre line) of the page in the main graphic log window.



Page centre line and adjustment arrow

Once you are happy with the page selections you can preview the results via the Print Preview function under the File menu. You can then either print the pages or save as PDF.

Note: Print pages are NOT saved with the log. If you close the Graphic Log window you will lose any print page selections.



Print page show top and centre with adjustment arrows

Keyboard Shortcuts

There are a number of keyboard shortcuts available to make data entry easier and/or more efficient. Unless specified, most work on all data entry sheets.

Copy/Paste/Insert/Delete (Ctrl-C, Ctrl-V or right-click or Edit menu)

For copy/pasting, the main issue is copy/pasting the correct value types into the cells. The grid is not like an Excel spread sheet where every cell can take any type of value. You can copy/paste a range of cells, you just need to be careful where you paste them. You can also copy a single cell and paste it to multiple cells, again being careful where you paste them.

Depths and thicknesses should not be copy/pasted. We provide several methods for either inserting rows (depths below are NOT changed) or inserting lithology (depths below are shifted down). The same is true of deleting rows/removing lithology. TM also calculates depth/thickness as you go so you generally only need to enter one or the other, not both. If you generally work in thickness, just enter that down the page as you go and the depths will be calculated, or you can just as easily work in depths and the thickness will be calculated.

If you need to create space (i.e. for chipping to be inserted later), just enter a dummy row (i.e. 0 to 123m with 123m thickness). You can come back later and either split this row or insert/delete as required.

To insert multiple rows just highlight two or more cells vertically before right-clicking and selecting insert lithology/row(s)

Ctrl E – Edit mode on/off

Switches Edit Mode on/off

Edit mode is dependent on data status. I.e. Data Status: R = Edit Mode: Raw, Data Status: A = Edit Mode: Adjusted/Corrected etc

Dictionary Lookup (F3 or double-click)

F3 pops up the dictionary code selection window for the current cell.

Data Entry (F4)

F4 pops up a data entry window with the current row arranged vertically with drop down boxes for dictionary based codes.

Refresh (F5)

In the rare case that the display does not show the correct/current values, press F5 to refresh the screen.

Next Sample (F6)

Populates the selected rows Sample Number column with the next consecutive sample number.

The next consecutive sample number is derived by scanning all the sample numbers in the hole and adding 1 to the last number.

	From Depth	To Depth	Recovered Th	Record Seque	Seam	Seam_Confide	Fault	Ply	Horizon	Horizon_Confi	Sample Type	Sample Numb	Interval_Statu:	Lithology %	Lithology	Lithology Qual	Lith_Modifier	Shade	From Depth	To Depth	Recovered Th	Record Seque	Seam	Seam_Confide	Fault	Ply	Horizon	Horizon_Confi	Sample Type	Sample Numb	Interval_Statu	Lithology %	Lithology	Lithology Qual	Lith_Modifier	Shade	Hue
	0.000	2.000	2.000										R						0.000	2.000	2.000										R						
	2.000	4.000	2.000										R						2.000	4.000	2.000										R						
	4.000	6.000	2.000										R						4.000	6.000	2.000										R						
	6.000	8.000	2.000										R						6.000	8.000	2.000										R						
	8.000	10.000	2.000										R						8.000	10.000	2.000										R						
	10.000	12.000	2.000								QP	654654	R		со	BR			10.000	12.000	2.000								QP	654654	R		со	BR			
•	12.000	14.000	2.000								QP		R		со	BR			12.000	14.000	2.000								QP	654655	R		со	BR			
	14.000	16.000	2.000		Α						QP		R		со	BB			14.000	16.000	2.000		А						QP		R		СО	BB			
	16.000	18.000	2.000		Α						QP		R		со	DD			16.000	18.000	2.000		А						QP		R		со	DD			
	18.000	20.000	2.000		A						QP		R		со	DD			18.000	20.000	2.000		A						QP		R		СО	DD			
	20.000	22.000	2.000		A						QP		R		со	BR			20.000	22.000	2.000		А						QP		R		со	BR			
	22.000	24.000	2.000																22.000	24.000	2.000																
*																																					

If the sample comprises multiple lithology units, select them all before pressing F6

From Depth	To Depth	Recovered Th	Record Seque	Seam	Seam_Confide	Fault	Ply	Horizon	Horizon_Confi	Sample Type	Sample Numb	Interval_Statu:	Lithology %	Lithology	Lithology Qual	Lith_Modifier	Shade	From Depth	To Depth	Recovered Th	Record Seque	Seam	Seam_Confide	Fault	Ply	Horizon	Horizon_Confi	Sample Type	Sample Numb	Interval_Statu:	Lithology %	Lithology	Lithology Qual	Lith_Modifier	Shade
0.000	2.000	2.000										R						0.000	2.000	2.000										R					
2.000	4.000	2.000										R						2.000	4.000	2.000										R					
4.000	6.000	2.000										R						4.000	6.000	2.000										R					
6.000	8.000	2.000										R						6.000	8.000	2.000										R					
8.000	10.000	2.000										R						8.000	10.000	2.000										R					
10.000	12.000	2.000								QP	654654	R		со	BR			10.000	12.000	2.000								QP	654654	R		со	BR		
12.000	14.000	2.000								QP	654655	R		со	BR			12.000	14.000	2.000								QP	654655	R		со	BR		
14.000	16.000	2.000		A						QP	654656	R	_	со	BB			14.000	16.000	2.000		A						QP	654656	R		со	BB		
16.000	18.000	2.000		A						QP		R		со	DD			16.000	18.000	2.000		A						QP		R		со	DD		
18.000	20.000	2.000		A						QP		R		со	DD			18.000	20.000	2.000		A						QP	654657	R		со	DD		
20.000	22.000	2.000		A						QP		R		со	BR			20.000	22.000	2.000		A						QP		R		со	BR		
22.000	24.000	2.000		_									_					22.000	24.000	2.000															
						-	-										-																		

Using the F6 feature helps to keep sample numbers consecutive and avoids typos. However, if you are using sample books be sure to check that the generated sample numbers match the tags!

Copy Cells/Rows (F7/F9/F10/F11)

Кеу	Function	Description
F7	Copy Depths	Copy drillers depths to geologists depths or vice versa (Drilling Only)
F9	Copy Cells	Copy selected columns from above row to selected rows
SHIFT-F9	Copy Cells	As above but overwrites existing cells
F10	Copy Rows	Copy all columns from above row to selected rows
SHIFT-F10	Copy Rows	As above but overwrites existing cells
F11	Copy All	Copy all columns from current row to all rows below (Drilling Only)
F11	Copy/Append	Copy and append selected rows to end of log (Lithology Only)
ALT-I	Copy/Append	As above

These functions are similar but subtly different. Each are explained in detail below but in short:

Drillers/Geologists Depths (F7) - Drilling

F7 copies drillers depths to geologists depths or vice versa in Drilling sheet. For example, enter the Drillers depths then move across to any of the Geologist depth columns and press F7 to copy the drillers depths.

Copy cell(s) above (F9 / SHIFT-F9)

F9 copies the cells immediately above the current row to the selected columns except depth/thickness or where the existing cell is already populated.

SHIFT-F9 does the same but overwrites any existing cells.

Example: Enter sample type and number a row, select the cells below then press F9

	0.000	2.000									
6.000	8.000	2.000					R				
8.000	10.000	2.000					R				
10.000	12.000	2.000			QP	1	R		CO	BR	
12.000	14.000	2.000				2	R		CO	BD	
14.000	16.000	2.000	A			3	R		со	BR	
16.000	18.000	2.000	A		S	ample t	ype is reco	mme	ended	D	
18.000	20.000	2.000	A								
20.000	22.000	2.000	A								
22.000	24.000	2.000									
						_			_		
8.000	10.000	2.000					R				
10.000	12.000	2.000			QP	1	R		СО	BR	
12.000	14.000	2.000			QP	2	R		CO	BD	
14.000	16.000	2.000	A		QP	3	R		СО	BR	
16.000	18.000	2.000	A		QP	4	R		СО	DD	
18.000	20.000	2.000	A								
20.000	22.000	2.000	A								
22.000	24.000	2.000									

Copy row above (F10)

F10 copies everything from the previous row except depth/thickness or where the existing cell is already populated.

SHIFT-F10 does the same but overwrites any existing cells.



	Sample Type	Sample Numb	Interval_Statu:	Lithology %	Lithology	Lithology Qual	Lith_Modifier	Shade	Hue	Colour	Adjective_1	Adjective_2	Adjective_3	Adjective_4	Bivalves
			R												Γ
			R												
			R												
			R												
			R												
			R		SS	FF				В					
			R		SS	FM				В					
			R		SS	FF				В					
þ			R		SS	FG				В					
н.															

Repeat (F11) - Drilling

For the Drilling sheet only, F11 repeats all columns except depths for all subsequent rows. I.e. generally the drilling company, driller, rig_no etc would all be the same. So just enter the first row then F11 to copy down. Then where there's a change, i.e. change of bit size, edit the cell then F11 to copy down from there.

Bun_No	Drillers_From_Depl	Drillers_To_Depth	Cored	Geologists_From_[Geologists_To_De	Geologists_Recov.	Geologists_Gain_L	Drill_Date	Drill_Company	Rig_No	Rig_Type	Driller	Bit_Type	Drill_Fluid	Drill_Size_Name	Reamed	Core_Size	Comments	Hole_Size
	0.000	3.000		0.000	3.000			28/06/2018	ACE	1	BNE1000R		В	Α					
1	3.000	6.000	3.000	3.000	6.000	3.000	0.000												
2	6.000	9.000	3.000	6.000	9.000	3.000	0.000												
3	9.000	12.000	3.000	9.000	12.000	3.000	0.000												

Enter first row details then F11 to copy down

Run_No	Drillers_From_Der	Drillers_To_Depth	Cored	Geologists_From_	Geologists_To_D	Geologists_Reco ^r	Geologists_Gain_	Drill_Date	Drill_Company	Rig_No	Rig_Type	Driller	Bit_Type	Drill_Fluid	Drill_Size_Name	Reamed	Core_Size	Comments	Hole_Size
	0.000	3.000		0.000	3.000			28/06/2018	ACE	1	BNE1000R		В	Α					
1	3.000	6.000	3.000	3.000	6.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		В	Α					
2	6.000	9.000	3.000	6.000	9.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		В	Α					
3	9.000	12.000	3.000	9.000	12.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		В	Α					
Run_No	Drillers_Fror	Drillers_To_	Cored	Geologists_	Geologists_	Geologists_	Geologists_	Drill_Date	Drill_Compa	Rig_No	Rig_Type	Driller	Bit_Type	Drill_Fluid	Drill_Size_N	Reamed	Core_Size	Comments	Hole_Size
	0.000	3.000		0.000	3.000			28/06/2018	ACE	1	BNE1000R		В	А					
1	3.000	6.000	3.000	3.000	6.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		С	А					
2	6.000	9.000	3.000	6.000	9.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		В	Α					
3	9.000	12.000	3.000	9.000	12.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		В	Α					

Change Bit Type then F11 to copy down

Run_No	Drillers_From_	Drillers_To_D	Cored	Geologists_Fr	Geologists_T.	Geologists_R	Geologists_G	Drill_Date	Drill_Company	Rig_No	Rig_Type	Driller	Bit_Type	Drill_Fluid	Drill_Size_Na	Reamed	Core_Size	Comments	Hole_Size
	0.000	3.000		0.000	3.000			28/06/2018	ACE	1	BNE1000R		В	Α					
1	3.000	6.000	3.000	3.000	6.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		С	Α					
2	6.000	9.000	3.000	6.000	9.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		С	Α					
3	9.000	12.000	3.000	9.000	12.000	3.000	0.000	28/06/2018	ACE	1	BNE1000R		С	Α					

ALT-I – Lithology

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Copies selected rows to the end of the log

Copies the selected row and adds them as new rows at the end of the log.

	From Depth	To Depth	Recovered Thickness	Record Sequence Flag	Seam	Seam_Confidence	Fault	Ply	Horizon	Horizon_Confidence	Sample Type	Sample Number	Interval_Status	Lithology %	Lithology	Lithology Qualifier	Lith_Modifier	Shade	Hue	
	0.000	2.000	2.000										R							
	2.000	4.000	2.000										R							
	4.000	6.000	2.000										R							
	6.000	8.000	2.000										R							
	8.000	10.000	2.000										R							
	10.000	12.000	2.000																	
	12.000	14.000	2.000																	
	14.000	16.000	2.000																	
۱.	16.000	18.000	2.000										R		SS	FG				
	18.000	20.000	2.000																	
	20.000	22.000	2.000																	
	22.000	24.000	2.000																	
	24.000	26.000	2.000																	

	From Depth	To Depth	Recovered Thickness	Record Sequence Flag	Seam	Seam_Confidence	Fault	Ply	Horizon	Horizon_Confidence	Sample Type	Sample Number	Interval_Status	Lithology %	Lithology	Lithology Qualifier	Lith_Modifier	Shade	Hue
	0.000	2.000	2.000										R						
	2.000	4.000	2.000										R						
	4.000	6.000	2.000										R						
	6.000	8.000	2.000										R						
	8.000	10.000	2.000										R						
	10.000	12.000	2.000																
	12.000	14.000	2.000																
	14.000	16.000	2.000																
۱.	16.000	18.000	2.000										R		SS	FG			
	18.000	20.000	2.000																
	20.000	22.000	2.000																
	22.000	24.000	2.000																
	24.000	26.000	2.000																
	26.000	28.000	2.000										R		SS	FG			

CTRL-I – Drilling, Defects, Lithology

Insert empty rows

Fix (F12, Shift F12)

F12 by itself will "fix" the current cell. Shift F12 will fix selected cells (if more than one is selected) or the current cell and all subsequent cells in that column (if only one cell is selected).

"Fix" means updating the cell based on other values depending on the sheet & column:

Column	Fix Action
Lithology	
Record_Seq_Flag	Fixes ALL record sequence flags depending on the percentage column.
(Shift F12 only)	
Litho_Perc	Fixes ALL percentages based on existing percentages. I.e. if the first row is 60%
	and the second row is blank, it updates to 40%
From_Depth	Calculates depths based on previous depths and current thickness/length
To_Depth	
Thickness	Calculates thickness based on from/to depths
Recovered_Thick	
Drilling	
Run_No	Calculates next run number in sequence
Geologists Depths	Same as Lithology From/To Depths
Drillers Depths	Same as Lithology From/To Depths
Recov_Length	Same as Lithology Thickness
Water	
Observations	
Flow_Rate	Calculates V-Notch Flow_Rate based on Flow_Height
(Water	
Observations)	

Other Tools

Create Composite

This function is used to combine individual samples to create a composite sample for further testing. Select the samples you wish to combine then right click and select "Create Composite"



You can edit the seam and working section names then click OK to accept.

Composite	x
Sample(s)	182203-4
From Depth	222.930
To Depth	224.360
Thickness	1.430
Core Loss	0
Recovery	100%
Seam	LL1
Working Section	LL1
Lithology	CO,NR,XM
Data Dispatched	Thursday , 24 November 2016
Comments	✓ Test Y/N
	OK Cancel

The new composite sample will then appear in the Composites table.

Info	Core Photo Quality	Composites Val	idation Files				
	Hole	Sample	SampleType	Seam	WS	DepthFrom	DepthTo
•	CP3541GC	182203-4	QP	LL1	LL1	222.93	224.36

Right click to generate a lab advice (Excel file) or save samples to the database.

Info	Core Photo	Quality	Composites	Valida	tion Files	
	Hole		Sample		SampleTyp	e
•	CP3541GC	G S R	Senerate Lab ave to Datab Semove Com	Advice ase posite		1

Section Window

The section window allows you to quickly create cross section views of your drill holes. Coal seams are automatically correlated and the presentation can be manipulated before being exported to an external application for final publication.

Hole Selection

There are several ways to select holes for your cross section. The simplest is to manually selected holes from list, however in order to select holes along a particular line it is usually better to use a Map Window to select the holes.

Manual Hole Selection

Use any of the available selection tools to select a number of drill holes. Then click the "New Section Window" button on the main toolbar or the "Windows", "New Section Window" menu option.

Select Holes From a Map Window

Refer to the <u>Map Window</u> section for information on using the Map Window to select holes for a cross section.

Display Options (View Menu)

Once you have your holes selected and section window open, there are a number of tools and options for manipulating the cross section display.

Horizontal Scale

The horizontal scale determines how the holes are spaced horizontally on the cross section. There are two modes. True Spacing and Fixed Spacing

True Spacing

True Spacing is where the holes are spaced proportionally according to their real world distance from each other. The default spacing is 100%, choose from one of the provided scale factors or select Custom to enter a value manually.

Projection Modes

There are four true spacing/projection modes. When all the holes lie on a straight line the four modes should look more or less the same. When the holes do not lie on a straight line there can be significant differences between the modes so it is worth experimenting to see which gives you the desired result.



Point to Point

In Point to Point mode, the horizontal distance between each hole on the section is proportional to the actual distance between the two holes. This creates a jagged line following the path of the holes rather than taking a straight line from the first to last holes. I.e. the line of sight distance from the first to last holes will be less than the sum of the distances between each pair of holes. This mode is useful when your holes are not in a straight (or near straight) line and you want to follow the path from hole to hole.

Distance from Origin

In Distance from Origin mode the horizontal distance between each hole is proportional to the distance from the first hole in the cross section. In this mode, holes can be some distance apart but can appear closer if they are a similar distance from the origin. This mode has little practical use and may be discontinued in a future release. Better results can be obtained from the other available projection modes.

Project onto line

In Project onto Line mode, each hole is projected onto a virtual line. An imaginary line is drawn between the first and last holes, all other holes are projected at right angles onto this line.

Best Fit

In Best Fit mode, TM attempts to find a line of best fit using a "Least Squares" formula. It then attempts to plot the holes along this line.

Fixed Spacing

Fixed Spacing is where the holes are spaced at regular intervals regardless of their real world distance from each other. This mode is useful when the distance between holes is not relevant such as when checking seam correlations or when visual aesthetics are more important.

Flip Horizontally

This option reverses the image as if to view the cross section from the opposite side.

Vertical Scale

The vertical scale applies a vertical exaggeration which can make it easier to see more detail in the lithology. Use a combination of different horizontal and vertical scale settings to find the ones that give you the best view of your data.

Aspect Ratio

Be aware that different horizontal and vertical scales will yield varying aspect ratios. Some examples are shown in the table below:

Horizontal True Spacing%	Vertical Exaggeration	Aspect Ratio	Comments
100%	1	1:1	
200%	2	1:1	
400%	4	1:1	
100%	4	1:4	Depth is 4 x width
400%	1	4:1	Width is 4 x depth

Depth Mode

The depth mode determines how the holes are arranged vertically on the cross section.

Elevation (Collar RL)

Elevation mode plots the holes vertically from their elevation (or collar RL) creating an artificial topography (ground level) or height above sea level.

Depth

Depth mode plots the holes vertically from the same depth creating a flat artificial topography.

Seam

Seam mode plots the holes vertically aligned on the base of a selected seam.

Horizon

Horizon mode plots the holes vertically aligned on the base of a selected horizon/formation.

Custom

Custom mode allows you to manually align the holes vertically on any arbitrary depth. When selecting Custom mode you will be prompted to reset the custom depths to the current view. If you select Yes the custom depths will be reset to match the current view. If you select No, the previous custom depths will be used. Once in Custom depth mode you can freely moving holes vertically as well as horizontally. In all other modes you can only move holes horizontally.

LAS Curve Spacing

LAS curve spacing can be set from 0 to 10 where 0 means all curves overlap each other and 10 means all curves are spaced as far apart as possible.

Seam Correlations

This option allows you to quickly turn all seam correlations on/off or set them to wireframe mode. In wireframe mode the correlations are not filled in which makes other details easier to see. Individual seam correlations can also be turned on/off by right-clicking on the cross section.

Horizon Correlations

This option allows you to quickly turn all horizon correlations on/off or set them to wireframe mode.

Grid Lines

This option allows you to turn the grid/scale on/off and/or set the scale interval value.

Show Coal Only

This option replaces the standard lithology plotting symbols with a simple black & white symbol (black for coal, white for non coal).

Show Seam Boundaries

This option displays a horizontal dashed line representing the top and base of each seam

Keep Hole Names Visible

Hole name labels are usually displayed at the top of each hole. However, if you zoom in and pan down, the hole names can be lost. This option forces the hole name labels to remain at a constant position at the top of the screen regardless of the view. When turning this option off you may need to re-correlate or manually move the labels back to their default position.

Save Default Layout

This option saves the current layout settings (scaling, display options etc) as the default. When you open a new section window the default layout settings will be used.

Show/Hide Hidden Objects

You can hide objects on the section by right clicking and un-ticking the "Visible" option. The object is not removed from the section, just hidden. To make it visible again, select this option to show

hidden objects, you will then be able to select the object and tick the visible option. You can then hide hidden objects again.

Remove Hidden Objects

This option removes any hidden objects from memory. It serves no real practical purpose for the user apart from freeing up some memory. It would only be beneficial if you have hidden a large number of objects.

Correlation Seam Level

This option allows you to select different correlation levels using the Parent/Daughter relationship defined in the Seam Hierarchy editor. The default level is All Seams, available options are:

- All Seams Shows all child seams/splits
- Parents Only Shows only the top level/parent seams
- ChildLevel1 Shows only the first child level seams
- ChildLevel2 Shows only the second child level seams
- ChildLevel3-5 as above





This can also be used to force parent seams to correlate with child seams and vice versa:

Cross Section Tools

A number of functions are available by right-clicking on the cross section

New...

The "New" menu contains a number of options to add new components to the cross section. In most cases the component is added at the point where the mouse button was clicked.

Hole

This option creates a new hole on the cross section and attempts to insert seams at the appropriate depths. This is useful for hole planning to give you approximate depths where you can expect to hit specific seams. Note that depths are only approximate and assume flat terrain, consistent seam dip and no faulting. This feature is still under development and may produce unexpected results. Your feedback would be most welcome.

Label

This option creates a new label. Labels can contain any text and can be formatted as required. If a title box is selected then the new label will be appended at the bottom of any existing labels in the title box. Otherwise the label can be freely moved anywhere on the section.

Legend

This option creates a new legend window. The legend window contains a symbol and description for each unique lithology/qualifier combination used in the current section. If you subsequently add or remove holes from the section you may need to remove and re-create the legend.

Inset Map

This option inserts a new inset map window. The map window is based on and linked to an existing map window. If the linked map window is changed, the inset map updates accordingly, i.e. changing view, zoom, layers, labels etc.

Shape

This option is currently not available. Once implemented it will allow you to add arbitrary shapes such as rectangles, circles etc for cosmetic purposes. They may also be able to be used as containers for other objects.

Title Box

This option creates a new title box. Title boxes can contain one or more labels. You can have multiple title boxes.

Scale Bar

This option creates a new scale bar. Scale bars indicate the true distance horizontally regardless of horizontal scaling. Scale bars are only visible when using True Spacing mode.

Fault

This option attempts to create a fault zone on the section. This effectively breaks any correlations between holes either side of the fault zone. TM attempts to project any existing seam correlations, this works best when there are two or more holes either side of the fault zone. This function is still under development and may produce unexpected results.

Editing Objects

Double click on any object to edit it. Most objects are editable such as all labels, correlations etc. Holes are not editable directly but double clicking will open a graphic log window where you can edit it.

When editing a label, the font and colour can be applied to all labels of the same type by ticking the box before clicking OK or Apply.

Edit Label		x
VL2		
A		
Visible		
Apply to all	labels of this type fault	OK Cancel Apply
Edit Correlation		x
Label	GIR	 Dip:0.19
	Correlate	
	Colour	OK Cancel

Align

This option allows you to select multiple labels and align them. This function is still under development and does not always perform as expected.

Seam Correlations, Horizon Correlations, Other Correlations

These options allow to enable/disable individual seams, horizon and other correlations

Correlation Hole Skip

This option will allow correlations to jump across one or more holes where the target is not found. For example, if holes 1 and 3 contain an A seam but hole 2 does not, normally TM would not correlate across from hole 1 to hole 3. With correlation hole skip enabled, TM will correlate across hole 2

Correlations Overlap Geophysics.

This option will plot correlations so they overlap the space occupied by geophysics. Turning this option off will create a buffer space between the lithology and the correlations so they do not overlap the geophysics.

Correlations Behind Geophysics

This option can be used when the above overlap option is disabled to plot a horizontal correlation behind the geophysics



Correlations Overlap Geophysics – Enabled



Correlations Overlap Geophysics – Disabled



Correlations Overlap Geophysics – Disabled And Correlations Behind Geophysics - Enabled

Rename Seam

If you select a seam label, this option will allow you to rename the seam. You can either rename just the occurrence in the selected hole, or rename the seam across all holes in the section. I.e. if the seam appears to be incorrectly correlated in the hole, just rename this occurrence. If you want to rename the seam entirely, select the option to rename it in all selected holes. The cross section will re-correlate after you apply the change so you can see the effect.

Follow Me

This option allows you to use the current section window as an overview and all other section windows will "follow" when you click on the overview window.

To use this effectively, open two section windows with the same hole selection. Set both windows to the same horizontal and vertical scaling. Size the first window to be fairly small and zoom to show all holes. Size the second window to be as large as possible and zoom in so you can comfortably see as much detail as you require. Right click on the first window and select "Follow Me". Now when you click anywhere on this window, the second window will display that area of the section. This feature can be tricky to setup and we are working on ways to improve it.

Zoom Max Width, Zoom Max Height

These options zoom the current view to fit the entire section either horizontally or vertically.

Previous View

This option reverts to the previous view after zooming or panning

Toolbar Functions

A number of tools are available as buttons on the section window toolbar. Some of these are duplicates of functions mentioned previously so I will not elaborate on those.

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Show/Hide Hidden Objects

See Show/Hide Hidden Objects

Seam Correlation Level

This option allows you to step up through the parent/daughter relationship levels to correlate anything from the top level parent seam down through to the smallest ply. For this to work successfully you must first configure the parent/daughter relationships using the seam hierarchy editor.

Flip Section Horizontally

See Flip Section Horizontally

Re-Correlate

This tool will re-correlate the seams & horizons in the current section. This may be necessary if you have changed seam/horizon names in any logs and the section has not updated automatically.

Furthermore, if you manually re-order the position of one or more holes, re-correlating will re-sort the holes in the new sequence so that correlations appear correctly.

Zoom Max Width/Height

🐡 💲 See Zoom Max Width/Zoom Max Height

Output

Sections can be saved as an image file or PDF. They can also be exported to MapInfo or Google Earth.

Export to MapInfo

Select File, Export, MapInfo and select a filename. A series of MIF (MapInfo Interchange Format) files will be created. If you have the MapInfo Universal Translator tool installed on your system and configured in Task Manager's settings, the MIF files will then be converted to TAB files and a workspace (WOR) file created. The various components of the section will be represented as different layers (.tab files) in the workspace. I.e. one for lithology, one for labels, one for the grid etc. You can then use MapInfo to further enhance your section.

Export to Google Earth

Select File, Export, KML and select a filename. This will generate an image of the section geographically located in Google Earth. The image size and location may vary depending on your section settings. For best results use Horizontal Scale - True Spacing, 100% with projection "Distance from origin". Vertical Scale 1. If you find the section difficult to see in Google Earth try using higher vertical scales but remember that this won't be a true representation. To verify position, export your map view to KML also and check that the hole locations are roughly aligned with the holes on your section.

Note: This is not intended as a true, accurate 3D model, it is a quick and simple way to visualise multiple cross sections of your boreholes to get a feel for the structure.

Multi-Log View

The multi log view can be thought of as a cross between a graphic log and a cross section. It is essentially multiple graphic log views stacked side by side with seam correlations. This essentially gives you a zoomed in pseudo cross section with the detail of a graphic log. It is very useful for correlating seams from geophysics where a high level of detail is required.

You can manually pan around the screen moving between holes. You can also move individual holes around to align on a given seam or depth by holding down the SHIFT key.

Seam correlations can be turned on/off or set to wireframe mode if they are too obtrusive.

Right click to select a seam to align all holes on, or to rename a seam in a specific hole.

Reports

Reports offer a quick summary of loaded hole information. Some reports will not produce the expected results if one or more holes have been "quick loaded" as only header information will be available for those holes. For accurate results ensure all holes are fully loaded before running reports.

Borehole Summary (NSW Dept)

Generates a hole summary in a specific format for the NSW department.

Drilling Summary

The drilling summary report lists the hole location, total depth, hole type, core size and whether the hole was geophysically logged.

English Log

Generates a table with English Log style descriptions of the lithology.

Geophysics Summary

The geophysics summary report lists the hole location and which geophysics tools were run.

Geophysics Pseudo Log

Generate a calculated coal thickness for each hole using geophysics to estimate lithology types.

Hole Statistics

Generates general statistics such as number of holes by type and seam min/max/average thickness,

Horizon Depths

The horizon summary report lists every horizon including depth and elevation with one row per hole and each horizons in a separate column

Horizon Summary

The horizon summary report lists every horizon including depth and elevation with each horizon on a separate row.

Seam Statistics

Thickness Cross tabulation of hole vs seam thickness

Depth Cross tabulation of hole vs seam depth

Summary

Summary report for each seam (min/max/average depth & thickness)

Seam Summary

The seam summary report lists every seam including depth, elevation, thickness, loss and parting

Strip Ratio

The Strip Ratio report calculates total thickness, overburden, interburden and strip ratio for selected seams.

Sample Summary

The sample summary reports lists every sample including depth, thickness and elevation

File Reports

File Summary Summary report showing file dates and LAS file count

Missing LAS File Lists all holes missing LAS files

MapInfo Reports

Generate Holes File Generates a MapInfo TAB file containing hole locations symbolised by hole type

Generate English Logs Generates English Logs in PDF format

Generate Graphic Logs

Generates Graphic Logs in PDF format using the selected layout & scale

Generate Well Completion Reports

Generates Well Completion Reports which combine English Logs, Graphic Logs, Core Photos and Rehab photos in a single PDF for each hole.

Generate Hole Summary Sheets

Generates a hole summary sheet for each hole.

Tools

Dictionary Editor

This section allows you to view and edit the installed coding dictionaries. This includes the default CoalLog dictionary plus any custom dictionaries that have been installed.

The CoalLog dictionary cannot be edited however you can supplement or replace categories of the CoalLog dictionary via custom dictionaries.

Custom dictionaries are used to add codes and/or categories not included in the CoalLog standard such as Project codes, Company codes, Geologist names etc.

In most cases you can provide all your custom codes in a single custom dictionary. In some cases it may be necessary to split codes into multiple custom dictionaries. A common example of this is where the same seam code has a different meaning in another project area. In this case you could create a generic custom dictionary for most of your custom codes, then a separate custom dictionary for each project area. Each project specific dictionary should contain the project code(s) plus any other codes (i.e. seam codes) specific to that project/dictionary. You can separate out other codes by project as well but generally it's only necessary where there is a conflict, it's generally easier to keep global/common codes in a single dictionary.

Dictionary codes have the following parameters, most of which are optional.

Code (Required) – Short code representing item, length varies between categories and is generally an abbreviation of the description.

ParentCode (Optional) – Used to define hierarchy for Seam codes only. For example, the parent code for LU1 might be LU

Short Description (Required) – Short description of item. Used in English Log generation and display on graphic logs

Long Description (Optional) – Long description of item. Used for reference only.

DBCode (Optional) – Used only with databases where the database code differs from the above code

ValidationOnly (Yes/No) – Indicates that the code is only for validation of historical codes and should not be used for new data

Folder (Optional) – Used when translating codes for <u>folder settings</u> where the description does not match the folder name. Applies only to Lease_No, Project and Company categories.

Seam Hierarchy Editor

This section allows you to create a seam parent/daughter relationship and set seam colour coding which can then be used in the cross section generator to correlate seams.

You can setup seam parent/daughter relationships in two ways:

1. Set the ParentCode in the dictionary editor.

2. Use the Seam Hierarchy Editor

You can use either method interchangeably as they both do the same thing under the hood.

To use the dictionary method simple create the parent and daughter seam codes separately then set the ParentCode in the daughter to the parent seam code.

I.e. create a V code for Vermont Seam, then create a VL code for the Vermont Lower seam and set its parent code to V. Then create a VL1 code for Vermont Lower 1 (if required) and set its parent to VL.

You can also include splits and rider seams setting the parent code to the appropriate seam code.

The seam hierarchy editor does the same thing visually. It's usually easier to create the codes first in the dictionary editor then use the hierarchy editor to move them into the appropriate parent/daughter relationship. You can do this by either dragging the daughter seam into the appropriate parent or using the arrow keys in the tool bar to move the seams up/down/left/right etc.

Lithology Plotting Legend Editor

View/Edit lithology plotting legend

The Lithology Plotting Legend Editor allows you to change the way lithology is plotted on graphic logs and cross sections.

olog	y Legend Editor							
) 🗉 🧔							
	Litho_Type	Litho_Qual	Description	Filename	ImageScale	ImageWidth	ImageHeight	Style
•	BS		Basalt		1	-1	-1	22222
	CO		Coal		1	-1	-1	
	СО	DD	Coal, dull (<1%)		1	-1	-1	
	CO	DM	Coal, dull with minor bright bands (1-10%)		1	-1	-1	
	СО	SY	Coal, stony		1	-1	-1	
	C5				1	-1	-1	
	СО	C5	Coal, dull with minor bright bands		1	-1	-1	
	CO	DB	Coal, mainly dull with frequent bright bands (10-40%)		1	-1	-1	
	C4				1	-1	-1	
	CO	C4	Coal, mainly dull with frequent bright bands		1	-1	-1	
	СО	BD	Coal, interbanded dull and bright bands(40-60%)		1	-1	-1	
	C3				1	-1	-1	
	СО	C3	Coal, interbanded dull and bright bands		1	-1	-1	
	со	BB	Coal, bright with dull bands (60-90%)		1	-1	-1	
	C2				1	-1	-1	
	со	C2	Coal, bright with dull bands		1	-1	-1	
	СО	BR	Coal, bright (>90%)		1	-1	-1	
	C1				1	-1	-1	
	CO	C1	Coal, bright		1	-1	-1	
	SA		Sand		1	-1	-1	
	SO		Soil		1	-1	-1	
	SH		Shale		1	-1	-1	
	CL		Clay		1	-1	-1	
	XH		Carbonaceous Shale		1	-1	-1	
	CS		Claystone		1	-1	-1	
	MS		Mudstone		1	-1	-1	

Double-click an entry or click the Edit button in the tool bar to edit an existing pattern.

The Reset button in the bottom right hand corner will restore the factory default legend.

OR

Edit Lithology Legend Item	×
Lithology Type	BS Example
Lithology Qualifier (optional)	213.45
Symbol Width	6 🚔 Basat
Hatch Style	42 213.63 33333
Foreground Colour	
Background Colour	
Pattern File (optional)	
Scale, Width, Height	

Choose the Lithology Type and Qualifier (if required) then set the symbol width, hatch style and colours.

Ignore the pattern file and scale/width/height options for now, these are reserved for the CoalLog V2.0 Plotting Patterns which are not yet fully supported.

	Style	Example
►	None / Solid	
	Horizontal	======
	Min	
	Vertical	
	ForwardDiagonal	
	BackwardDiagonal	
	Cross	
	LargeGrid	
	Max	
	DiagonalCross	
	Percent05	
	Percent10	
	Percent20	
	Percent25	-

Note that some hatch styles are not supported in all export formats such as MapInfo

Coal Quality Display Settings

The Coal Quality Display Settings determine how coal quality information is displayed on graphic logs and cross sections. There are several modes available and multiple parameters can be displayed in each mode.

uality	Display Settings				
Displa	ay Mode Si	impleNumbers		•	
	ValueColumn	Colour	ValueMinimum	ValueMaximum	Visible
Þ	ASH	255, 0, 0	0	100	
	Phos	0, 255, 0	0	1	
	VM	0, 128, 64	0	100	
	CSN	128, 128, 255	0	10	
	FC	255, 128, 255	0	100	
L	.oad Sav	e 💽	9 🔒 🕹	OK Car	ncel Apply

The available modes are:

None

In this mode all coal quality information is hidden

For the following modes, each parameter must be assigned a column label, colour and range of values (min/max).

Simple Numbers

In this mode, coal quality parameters are displayed as simple numerical values arrange horizontally in the order they are selected



Simple Histogram

In this mode, coal quality parameters are displayed as a simple histogram arranged horizontally in the order they are selected. The bars are evenly spaced.



Stacked Histogram

This is the same as the Simple Histogram above except that the bars are stacked horizontally on top of each other rather than evenly spaced.



For the following modes, each parameter must be assigned additional colour values.

Range Histogram

In this mode, multiple entries are made for different ranges of values with different colours. For example:

ASH 0-30 Green ASH 31-60 Yellow ASH 61-100 Red

This creates a "traffic light" effect where high ash values are show in red and low ash values shown in green.



Multi Histogram

In this mode you can plot two parameters together. One parameter determines the width of the histogram bar (as with a simple histogram), the other parameter determines the colour (as with a range histogram). For example the bar width could represent the IM value but the colour could represent the ASH value as in the Range Histogram example.



Custom

In custom mode you can combine both Simple Numbers and Simple Histogram in the same display. This is useful if you want to show both the histogram to give a visual representation but also show the actual value for accuracy.

uality D	isplay Settings					×			
Options									
Displa	y Mode Custom			•	Spacing 40	<u>*</u>			
	ValueColumn	DisplayMode	Colour	ValueMinimum	ValueMaximum	Visib			
Þ	ASH	SimpleHistogram	255, 0, 0	0	100	V			
	ASH	SimpleNumbers	255, 0, 0	0	100	1			
	IM	SimpleHistogram	0, 0, 255	0	10	v			
	IM	SimpleNumbers	0, 0, 255	0	10	~			
	RD	SimpleNumbers	0, 128, 0	0	100	V			
	CSN	SimpleNumbers	128, 0, 64	0	100	V			
< •									
) ок (Cancel Ap	ply			

	199.65		4	ASH	ASH	IM	IM	RD	CSN
72273	100.00		Carbonaceous Clays	stone,	40.00		2.00	4 77	
72274	199.81				49.90		3.00	1.11	
	199.89								
72275			Claystone,		77.60		2.60	2.26	
	200,18			_					
70070						_			
/22/6			Coal,		9.40	-	3.30	1.34	
70077	200.47	_	Clavstone.	_	02.20		2.40	2.50	
12211	200.58	L			03.30		2.40	2.50	
72278	200.60		Coal,		13.90		3.20	1.37	
GT-00	200.09		Siltstone,						
	200.82								

x **Quality Display Settings Options** Spacing 40 Display Mode Custom Ŧ * ValueMinimum Vis ValueColumn DisplayMode Colour ValueMaximum ASH 255, 0, 0 Þ Simple Histogram ASH 255, 0, 0 0 100 SimpleNumbers IM 0 10 SimpleHistogram IM SimpleNumbers 0 10 Sink 255, 0, 0 0 100 SimpleNumbers 0 100 Float SimpleNumbers 255, 0, 0 CumMass 0 100 Simple Histogram 0, 128, 0 128, 128, 128 0 CumAsh Simple Histogram 100 Ш Þ ₹. \odot Û OK Cancel Apply 197.68 72216 Claystone, 197.82 72271 197.89 198 Cost Sink Float CumMassumA 1.25 1.30 1.30 1.40 Coal 1.40 1.50 1.50 1.60 1.60 1.70 WHB3 1.70 72272 1.80 1.80 1.90 1.90 2.00 Coal, 199 2.00 2.20 Coal Float CumMassumAs Sink Coal 1.25 1.30 1.30 1.40 1.40 1.50 199.65 1.60 1.70 1.80 Carbonaceous Claysto 60 1.60 72273

1.70

1.80

1.90

This is also useful for displaying Washability data

199.81

199.89

Π

72274

Coal Quality Viewer

Load coal quality data, transfer coal quality data to graphic logs, view washability curves, create composites, and save to database.

>			PROGRAMUPI RAWCOAL WASHABILITY	PROGRAMUPDATE		VI CX0414C CX0417C CX0701C4 CX0703C4 CX0707C4 CX0708C4 CX0708C4 CX0708C4			Refresh Wash Curves Show Selected Show All	
Results G	raph			Select A		Select All		Se	lect All	
	SeamTo	WS	Sample	SampleType	DepthFrom	DepthTo	Si	nk	Float	Thickness
•		LL2T	252048		106.1	106.21	0		0	0.11
		LL2T	252049		106.21	106.54	0		0	0.33
		LL2T	252050		106.54	106.91	0		0	0.37
		LL2T	252051		106.91	107.12	0		0	0.21
		LL2T	252052		107.12	107.43	0		0	0.31
							-		_	

Coal Quality data is notoriously complex and difficult to read, interpret, validate and view. TM2014 provides some basic abilities to do this.

Firstly, the Coal Quality Viewer provides the ability to read/import most data in Excel format. Some formats are recognised automatically, others may require some assistance.

Table Mapping

After loading an Excel file via the Open button, if data does not appear in the second column you may need to adjust the Table Mapping. This defines the header and data rows of the worksheets and maps column headers to internal parameters.



Table Mapping

Once the table mapping is configured correctly, the data should appear in the subsequent columns and can be selected and viewed. Data can be viewed as a table, two parameters can be selected and graphed or washability data can be plotted as Wash Curves.







Washability Curve Plot

Additionally, basic raw coal results can be viewed on graphic logs either as numeric values or as histograms. Refer to <u>Coal Quality Display Settings</u> for more information.
Weighted Average / Composites

Results	Graph			Se	iect All	Select Al		Select All			
	SeamTo	WS	Sample	SampleType	DepthFrom	DepthTo	Sink	Float	Thickness	Product	MassAR
			151907		95.82	96	0	0	0.18	RAWCOAL	1.283
		LL2TSK	151908		96	96.38	0	0	0.38	RAWCOAL	1.503
		LL2TSK	151909		96.61	97.06	0	0	0.45	RAWCOAL	1.114
		LL2TSK	151910		97.06	97.44	0	0	0.38	RAWCOAL	1.309
		LL2TSK	151911		97.44	97.52	0	0	0.08	RAWCOAL	0.409
			151912		113.58	114.24	0	0	0.66	RAWCOAL	3.962
			151913		114.24	114.48	0	0	0.24	RAWCOAL	1.106
			151914		114.48	114.52	0	0	0.04	RAWCOAL	0.32
		LL2B	151915		114.52	114.98	0	0	0.46	RAWCOAL	1.602
		LL2B	151916		114.98	115.4	0	0	0.42	RAWCOAL	1.384
		LL2B	151917		115.4	115.83	0	0	0.43	RAWCOAL	1.742
		LL2B	151918		115.83	116.03	0	0	0.2	RAWCOAL	0.641
		LL2B	151919		116.03	116.42	0	0	0.39	RAWCOAL	1.376
		LL2B	151920		116.42	116.74	0	0	0.32	RAWCOAL	1.420
•		LL2B	151921		116.74	117.5	0	0	0.76	RAWCOAL	2.809
		VU	151922		117.5	118	0	0	0.5	RAWCOAL	1.671
		VU	151923		118	118.69	0	0	0.69	RAWCOAL	2.418
		VU	151924		118.69	119.36	0	0	0.67	RAWCOAL	2.538
		VU	151925		119.36	120.14	0	0	0.78	RAWCOAL	3.005
		VU	151926		120.14	120.84	0	0	0.7	RAWCOAL	2.298
4											
Þ		LL2B	151915-21		114.52	117.5	0	0	2.98		10.974

If you select multiple rows in the main table, a weighted average result for the selected samples can be viewed in the lower table.

Similar functionality can be found in the graphic log screen where you can combine samples to create raw coal composites. These can then be used to generate testing advices for further analysis.

Core Photo Renaming/Resizing Tool

The core photo renaming tool can be used to rename photo files with the hole name and depths. It can also resize the photos to a predefined size to ensure consistency and minimum file size.

Core Photo Renaming Settings

Before launching the Core Photo Renaming Tool, first check a couple of settings:

Under Tools, Settings, Core Photos check that the Core Photo Increment is appropriate for your photos. Common settings are either 0.5 for half meter intervals or 3.0 for 3m core box style intervals. If you wish to use the image resizing option as well, set the resize width to suit your needs. 1024 pixels is the default and usually sufficient for most needs. This creates a small file with enough detail to be readable.

Launch the Core Photo Renaming Tool either from the Tools menu or by right clicking on the Core Photo in the graphic log window.



Core Photo Renaming/Resizing Tool

If the photos are not already loaded, either because of a configuration problem or because you launched the tool independently from the main tools menu, select the folder via the File menu or the folder icon in the toolbar.

You should then see the core photos displayed sequentially across the page. Assuming the files have not already been renamed they will generally be named with sequential numbers.

Four arrow buttons allow you to select the first, previous, next and last photos.

A preview window/scale bar appears at the bottom of the screen. This can be used to show your position and/or select a photo anywhere in the sequence.

Renaming Core Photos

As a safety feature, the renaming and resizing options are disabled by default. This allows you to browse the photos without fear of making any accidental changes. Enable these features as required from the Options menu.

File	Options
	Enable Renaming
	Enable Resizing
	 Auto Advance

Enable renaming/resizing features

Select the first photo either by clicking the "Select First" button or clicking the first small blue square in the scalebar/preview window.

Enter the hole name in the box provided and the from/to depths for this photo.

Click the Rename button. The current photo will be renamed (and resized if this option is enabled) using the recommend naming convention. The tool will then automatically move to the next photo and add 0.5m (or the pre-defined increment) to the depths. In most cases you can simply keep clicking the Rename button until you reach the end of the core run where you may need to make a slight adjustment to the depths. Repeat for the next core run until you reach the end of the sequence.

If all goes well you should be able to rename dozens of photos in a few minutes.

Taking Photos

If your device is equipped with a forward-facing camera you can take photos and name them with the appropriate depths automatically. After taking each photo, the depths automatically increment by the pre-set amount and you can take the next photo. You may need to tweak the depths at the end of each core run as per the renaming method.

Rehab Photo Editor

The rehab photo editor allows you to place labels on the rehab photos to show Lease, Project, Location, Date etc.



Launch the Rehab Photo Editor either from the Tools menu or by right clicking or double clicking on the Rehab Photo in the graphic log window.

If launched from the graphic log window the attributes will automatically be populated from the hole information. If launched directly from the Tools menu the attribute will need to be entered manually although the Date Taken will be extracted from the image EXIF information or file date/time stamp.

Modify the attributes as required and select a different colour if the default is not appropriate. This will depend on the colours within the photo itself. I.e. if the photo includes lots of white clouds then white text may not be clearly visible. Choose one of the preset colours or click the Colour button to pick your own.

Un-tick the "Show" check box to temporarily hide the attributes and view the original image.

Un-tick the individual attribute check boxes if that information is not required on the photo.

When you're happy with the result, click the Save button in the toolbar to save the image as a new file. We do not recommend overwriting the original file unless you already have a backup or do not wish to keep the original.

Note: The attributes are written directly onto the image and cannot easily be removed once saved.

Taking Photos

If your device is equipped with a front-facing camera you can take a photo and have it annotated automatically.

Obtaining Location

If your device is equipped with a compatible GPS (or similar location device) you can click the "Get Current Location" button to obtain the current coordinates.

Note: Accuracy of location and conversion to current coordinate system cannot be guaranteed. These should be treated as approximate and should not replace proper surveyed coordinates.

Other Tools

Repair Tools

The repair tools menu contains a number of functions for dealing with common data problems.



Compare Holes

This will compare two holes and list any differences.

Fix Seam Gaps

This will fill any single row seam gaps with the seam name above or below the unit where those units are the same (except UN)

Fix Lithology Gaps Fix lithology gaps by inserting NR records

Fix LAS Files (Rename Wizard)

Provides various options for renaming LAS files and updating the WellName.

Fix LAS Files (Split Lines)

This will re-format a LAS file where the columns spill over onto the next row.

Fix rounding errors and decimal places

This will round all lithology depths and thicknesses to the current decimal place setting and fix any rounding errors. This will not proceed if there are any depth gaps/overlaps greater than 0.01m

Insert BW

This will insert a zero thickness row for BW. This is not CoalLog recommended practice but is required by some systems/organisations.

Reset LAS Curves

Reset LAS curves to default selection

Set GeoPhys Tools from LAS

This function will update the GeoPhys tools in the hole status sheet based on the curve information in the LAS header.

Swap Seam/Ply

This function simply swaps the values in the Seam and Ply columns.

Update TD

Updates the TD (Total Depth) in one of several ways:

Updates the header TD to match the lithology or LAS TD, or appends an NR record to lithology to match the header TD

Auto (LAS/Lith) - Use the greater of LAS or Lith TD

LAS – Update header TD to match LAS TD

Lith – Update header TD to match Lith TD

Header - Retain header TD (used in conjunction with Insert NR function below)

Force – Update the TD even if the header TD is greater

Insert NR's – Append an NR record to lithology to match the new TD

Tidy up Task Manager Files folder

This function will re-organise your Task Manager Files folder and related Folder settings. The default folder settings place a lot of customisation related files into the Task Manager Files folder. This can get quite messy so this function will break these files up into separate folders for things like Dictionary Files, Settings, Logs, Layouts etc.

This process cannot be reversed automatically, if you decide to go back you will have to manually change the folder settings and move the related files.

MapInfo Tools

Uses the MapInfo Universal Translator to convert various file types

DXF to TAB

SHP to TAB

More Tools

The More Tools menu contains various functions for importing and converting data.



Convert to CoalLog V2.0/V2.1

This function will convert selected logs from CoalLog V1.x to CoalLog V2.0 or V2.1.

This is a one way conversion and cannot be reversed, we therefore recommend backing up your original V1.x files prior to conversion and/or saving the resulting V2.x files to a different filename or location.

The main difference between the two versions is additional drilling sheets in V2.x. Most of our internal testing has been with V1.x so some TM functionality may not function as expected with V2.x logs.

To convert logs:

- 1. Load your V1.x logs as normal
- 2. Click Select All from the Edit menu
- 3. Go to Tools, More Tools, Convert to CoalLog V2.x

This will convert all the logs but doesn't save them immediately.

You then have a few options:

- 1. Click Save All to overwrite your existing logs with the new V2.x versions (make sure you have a backup of the original logs)
- 2. Click File, Save as to save each log individually to a new filename/folder.
- 3. Click File, Export, CoalLog Excel Logs to save all logs to a new folder

Encode English Logs

This function attempts to encode lithology from English log descriptions. It is currently designed for a specific format but may be expanded later to support other formats.

Image to KML

Plots a 2D image in 3D space using a series of XYZ coordinates.

Image can be plotted as a single segment or multiple segments in order to follow a given path.

Useful for dropping seismic images into Google Earth for quick visualization.

See also Exporting Cross Sections to Google Earth

Lookup CH Sites

Rename Seam Bulk rename a seam in selected holes

Rename Horizon Bulk rename a horizon in selected holes

Import DrillSum tba

Import JBLith Percentages Tba

Import JBLith Seams Tba

Import Cementing Tba

Find Closest Holes

The function will find all holes within a given radius for the selected holes. This is useful for finding nearby holes for seam correlation/comparison.

FTP Download

Simple tools for downloading files from an FTP server

Plugins

Enable/Disable third party plugins for the DotSpatial mapping component. Specifically the GDAL plugin to enable loading of additional file types.

Plu	ugins						×
	Plugins installa	s provide ation. Click	addition: below to	al functionality that is not include o select/install plugins.	d in the st	andard	
		Туре	Name	Description	Installed		Install
	►	Dot Spatial	GDAL	Geospatial Data Abstraction Library	V		
							Close

Enabling the GDAL plugin does incur some performance cost so only enable it if you need to open a specific file type that it supports. See <u>Performance Tips</u>

Setup Wizard

Configure TM settings and files by running a script (wizard) file.

The Setup Wizard allows you to provide a text file which configured specific settings and installs files for the end user. This is preferable to using the settings import/export which changes ALL settings as some settings are user specific and ideally should not be changed.

To create a Wizard file, use Notepad or your favourite text editor and enter commands as follows:

SETTING=SettingName=SettingValue

Examples:

SETTING=LASFiles.DefaultCurves=BRD,DENB,DENL,GRDE,GAM,BRDU,DEN(LS),DEN(SS) SETTING=Files.GraphicLogSuffix=_detail SETTING=Folders.GraphicLogLayoutsFolder=Z:\TM\Layouts SETTING=CrossSection.SaveDefaultLayoutOnExit=true SETTING=GraphicLog.WeatheringCode=BW,BHWE SETTING=DataEntryDefaults.HeaderDefaults.UTMZoneHemisphere=S SETTING=DataEntryDefaults.HeaderDefaults.UTMZone=55 SETTING=DataEntryDefaults.HeaderDefaults.State=QLD SETTING=NonCoalLog.ActivitiesSheet=false SETTING=NonCoalLog.SampleDispatchSheet=true

SETTINGS=filename

Download a settings file from the server and install it

Note: You will need to supply us with the file to upload to our sever

DICTIONARY=filename

Download a custom dictionary file from the server and install it

Note: You will need to supply us with the file to upload to our sever

DOWNLOAD=sourcefile=targetfolder

Download an arbitrary file from the server and save it in the target folder.

Target folder can include tokens

Note: You will need to supply us with the file to upload to our sever

COPYFILE=sourcefolder=targetfolder

Copy all files from sourcefolder to targetfolder

SourceFolder and TargetFolder may contain tokens

UNZIP=*sourcefile*=*targetfolder*

Unzip the sourcefile to the target folder

Available tokens are:

{root}	Root Data Folder
{custom_dictionary_folder}	Custom Dictionary Folder
{patterns_folder}	Patterns Folder
{graphic_log_layouts_folder}	Graphic Log Layouts Folder
{reporting_templates_folder}	Reporting Templates Folder
{section_layouts_folder}	Section Layouts Folder
{table_layouts_folder}	Table Layouts Folder
{my documents}	Current user's Documents folder

Settings

Configure TM settings manually.

Filter Holes Dialog

The filter holes dialog window is used in many areas to make hole selections including <u>Table</u> <u>Windows</u>, <u>Map Windows</u> and also <u>exporting data</u>.

There are several options in this window, some are obvious, others require a little more explanation.

- All Holes All loaded holes (all holes loaded in Task Manager and displayed in the holes list)
- Selection
 Selected holes (all holes selected with a tick in the holes list)
- Filters
 Hole selection based on an existing saved filter (see below)
- Table Windows Selection based on an existing table window
- Section Windows Selection based on an existing section window
- Map Windows
 Selection based on an existing map window
 - \circ $\,$ Can also be restricted to the holes currently in view

Additional Filters

After making the base selection above, additional filters can also be applied to further refine the selection. Currently these filters are restricted to a few basic parameters but this list will be expanded to include all data fields.

To save these additional filter settings, enter a title in the box provided and tick the "New Filter" box. This filter will then be saved and appear in the Filters selection above the next time to need to make a selection.

Exporting Data

Data can be exported in various forms the most common being the CoalLog Transfer File:



CoalLog Transfer File

Exports one or more holes to a collection of CSV files as specified by the CoalLog standard. I.e. one csv file for headers, one for lithology, one for drilling etc. Refer to the CoalLog standard for more details. Some additional columns can also included that are not part of the standard and their column headings can be prefixed with the default/recommended prefix being "Custom_"

Export CoalL	Log Transfer File			×
Hole Select All 1191 2 select 119 filte	tion loaded holes ted/checked holes ered holes Select	Options Include Custom Columns Prefix Exclude holes based on model flag Include un-corrected depths	Transformations BW on seperate zero thickness row Move B Generate combined strat/seam column Flag KL > 5 % Convert to None Split RMU_Defects Fix Record Sequer	W to Seam ~ nce Flags
Save as				
Prefix	FC			
Folder	C:\Temp			\supset
CoalLog Ve	ersion	File Separation		
	○ V2.0 ○ V2.1 ○ V	(3.0 • None O Project O	Hole OK	Cancel

For Peabody/GeoCore users, the "Exclude holes based on model flag" option allows you to exclude holes that are flagged as such in the database.

Options

Include Custom Columns

Includes custom columns that may have been imported.

Prefix

Filename prefix for each csv file (usually project name etc)

Exclude holes based on model flag (Peabody/GeoCore only)

Don't export holes where their exclude model flag is set

Include un-corrected depths

Include columns for un-corrected depths

Transformations

The following transformations can be applied to the export data. These may be required in certain circumstances depending on your target audience.

BW on separate zero thickness row

This option creates a separate lithology row for the Base of Weathering horizon. The CoalLog specification states that horizons do not need to be on a zero thickness row however some modelling packages may require this.

Zero Thickness Row

Inserted BW row must have zero thickness

Move BW to Seam

Move's any BW codes from horizon column to seam column

Generate combined strat/seam column

This option creates an additional column with the Seam and Horizon columns combined/concatenated.

Flag KL > 5% (default is 5%)

This option will create an additional column with a flag set where a seam contains more than 5% core loss. The actual percentage can be modified.

Convert to...

Convert coordinates to specified datum

Currently supports AMG84, MGA94, MGA2020 and Local Grid

Split RMU & Defects

Splits the RMU_Defects csv file into two separate csv files, one for RMU and one for Defects

Fix Record Sequence Flags

Fix record sequence flags prior to export

CoalLog Version

Allows you to specify the CoalLog version used for the export. All selected holes will be converted to the specified version prior to export. Logs can only be upgraded to a higher version, not downgraded to a lower version. I.e. if one or more logs are already V2.1, your only options will be V2.1 or V3.0

After the export, the logs will remain in their original version.

File Separation

None - Generates a single csv file for each data type (I.e. Headers, Lithology etc)

Project – Generates a separate csv file for each project/data type.

Hole – Generates a separate csv file for each hole/data type.

CoalLog Excel Logs

This function exports one or more holes individually as an Excel file. Each file represents one hole with tabs/sheets for the various data types (I.e. Hole Status, Lithology, Drilling etc). The format is the default TM2014 for loading/saving data to file and is identical to the CoalLog V1.x recommended logging sheet (digital data entry).

Custom Exports

Custom Exports allow you to map CoalLog columns to other column headings. Typically this is used to export data to external systems such as Vulcan. Two Vulcan mapping files are provided as an example and can be modified as required.

Custom Export			×
CSV Excel			
Filename Prefix (optional)			<u>B</u> rowse
Hole Selection	Options	Column Mapping	
O All 4 holes	Include Custom Columns	Vulcan1.xml	~ 🧔
④ 4 checked holes	 Include UnMapped Columns Use Mapped Column Order 	Column Mapping Of	Cancel

Exports can be as a single Excel file with multiple sheets or multiple CSV files. When exporting to CSV files you select the folder where the files are to be saved and an optional prefix. The CSV filename will comprise of the prefix followed by the sheet name.

Include Custom Columns

Custom Columns can be included but are only relevant when working with imported data. When data is imported, any non-standard/CoalLog columns are retained as "Custom Columns". These cannot be edited within TM although they can be displayed on graphic logs. When you subsequently export the holes, these custom columns can also be included.

Include UnMapped Columns

UnMapped Columns are CoalLog columns that do not have a column mapping provided. These can be included/excluded as required.

Use Mapped Column Order

This option instructs the export to arrange the columns in the order they appear in the mapping file, rather than the default column order.

Column Mapping

Column Mapping files describe two way mapping between internal TM/CoalLog columns and external columns and can be used for both importing and exporting data.

Column Mapping can be configured by clicking the Column Mapping button, however it is often easier to create the mapping manually by editing a csv file.

e	Sheet		
	InternalColumn		ExternalColumn
	Hole_Type	-	TYPE
	Hole_Name	-	HOLE
	Easting	-	EAST
	Northing	-	NORTH
	Geodetic_Da	-	GRID
	Location_Acc	-	ACCUR
	Elevation	-	COLLAR
	Total_Depth	•	DEPTH
	Complete_Date	-	DATE
	Inclination	-	DIP
	Azimuth	-	AZM
		-	

Column Mapping can be customised by clicking the "Column Mapping" button.

Mapping files can be found in your Task Manager Files folder, usually under "ImportExport Mappers". Check the location via Tools, Settings, Folders, Import Export Mappers Folder:

ì	reporting remplates rolaer		DIOWIGO
	Logging Templates Folder	D:\Documents\Task Manager Files\Logging Templates	Browse
	Import Export Mappers Folder	D:\Documents\Task Manager Files\ImportExport Mappers	Browse
	Root Folder	D:\Documents\My Data\Sample Data	Browse

Folder Location for Import Export Mapper files

The mapper file contains four (4) columns:

InternalSheetName	The TM/CoalLog data source (I.e. Lithology)
ExternalSheetName	The output file sheet name (only for Excel files, not required for CSV)
InternalColumnName	The TM/CoalLog column name (I.e. Litho_Type)
ExternalColumnName	The output file column name (I.e. LITHO)

Columns that are not required can either be left blank or removed entirely.

	А	В	с	D
1	InternalSheetName	ExternalSheetName	InternalColumnName	ExternalColumnName
2	Lithology	Sheet1	Hole_Name	Hole_Id
3	Lithology	Sheet1	Project	Project_Id
4	Lithology	Sheet1	From_Depth	Depth_From
5	Lithology	Sheet1	To_Depth	Depth_To
6	Lithology	Sheet1	Recovered_Thick	Recovered_Thick
7	Lithology	Sheet1	UnCorrectedFromDepth	
8	Lithology	Sheet1	UnCorrectedToDepth	
9	Lithology	Sheet1		Record
10	Lithology	Sheet1	Record_Seq_Flag	Record_Seq_Flag
11	Lithology	Sheet1	Seam	Seam
12	Lithology	Sheet1	Ply	Ply

Example Mapper File

LAS

This function exports selected loaded LAS data as a single CSV file

KML

This function exports either a list of hole locations or the current cross section as a KML file

MapInfo

Exports holes, cross sections or map layer to MapInfo

EMF

Exports cross section or graphic log view to EMF file

SVG

Exports cross section view to SVG file

PDF (Image)

Exports cross section or graphic log view to a PDF file (as an embedded image)

Combining Windows

You can combine windows of compatible types into a single window. For example, if you have created several table windows with various hole selections you can combine them into a single window.

From the Windows menu select Combine Windows.

Tick the windows you want to combine (right click for some quick selections)

Choose the type of new window you want to create with the combined selection

Tick the "Close original windows" box if you don't want to keep the old windows open

Click the OK button.

Appendix A - Lithology Functions

Special functions can be used to display calculated values in table and map windows or for creating contours. Available functions are as follows:

Depth Functions

Depth functions return the depth to the top or base from the top of the hole (i.e. overburden)

baseofseam(seam) - Base (to) depth of selected seam

baseofhorizon(horizon) - Base (to) depth of selected horizon

topofseam(seam) – Top (from) depth of selected seam

topofhorizon(horizon) - Top (from) depth of selected horizon

overburden(seam) - Same as top of seam, included for simplicity

Elevation Functions

Elevation functions are essentially the same as the above depth functions subtracted from the hole elevation. These are typically used for generating structure contours.

baseofseamrl(seam) - Base elevation of selected seam

baseofhorizonrl(horizon) - Base elevation of selected horizon

topofseamrl(seam) - Top elevation of selected seam

topofhorizonrl(horizon) - Top elevation of selected horizon

Thickness Functions

Thickness functions return the thickness of a given interval.

seamthick([seam1,seam2,seamN]) - Total thickness of selected seams

horizonthick(horizon) - Thickness of selected horizon*

coalthick([seam]) - Sum thickness of CO units for selected seam or entire hole if seam omitted

interburden([seam1,seam2,seamN]) - Sum thickness of units between selected seams

overburden([*seam1,seam2,seamN*]) – Thickness of material above the first seam(or top of first seam)

totalburden([seam1,seam2,seamN]) - interburden plus overburden

stripratio([seam1,seam2,seamN]) - totalburden divided by seamthick

For all above functions, seams are optional and default is all seams

interburden is calculated as the sum of recovered thickness not allocated to a seam between the top depth of the first seam and the base depth of last seam.

Other Functions

seams(([seam]) - Returns a list of all seams in the hole

samples() – Returns a list of all samples in the hole. The sample list is abbreviated where possible using the sample number notation convention.

cq(seam,parameter) – Returns the weighted average of the selected raw coal parameter for the given seam. i.e. cq(VU,ASH)

calc(*equation*) - Performs simple calculations such as addition, subtraction, multiplication and division.

Standard order or precedence applies, i.e. division first, then multiplication, subtraction, addition.

Wildcards

For each of the above functions, seam and horizon can be a specific seam/horizon code or a wildcard (*) can be used to select multiple related units. I.e. V* would select V, VL, VU, VL1, VL2 etc

Labels

Any custom function can be prefixed with a label which will be used as the column heading in a table view.

Syntax is: *label=function* where *label* is your nominated label and *function* is any combination of the above functions.

Examples

BaseVU=baseofseamrl(vu)

Creates a custom label/column which calculates the base RL of the VU seam and calls it BaseVU

BaseOfV=baseofseam(v*)

Creates a custom label/column which calculates the base depth of any seam starting with V and calls it BaseOfV

NonCoal=calc(seamthick(vu)-coalthick(vu))

Creates a custom label/column which calculates the thickness of the VU seam and subtracts the sum thickness of CO units within VU and calls it NonCoal

Appendix B - Conventions

File Naming Conventions

Drill Logs

Task Manager does not require any strict naming convention for hole names, however the following is recommended. *Note that this is not a CoalLog convention*.

PPHHHHS

PP=Prefix – 2 letter prefix usually indicating the area where the hole was drilled HHHH=Hole Number – (At least) 4 digit hole number S=Suffix – Optional combination of letters and numbers indicating type of hole C – Cored/Partly Cored hole C4 – Large diameter (4 inch) FC – Fully cored R – 1st Redrill R2 – 2nd redrill R3 – 3rd redrill **Examples**

AA1234 – Chip hole AA1234R – Redrilled chip hole AA1234C – Core hole AA1234CR – Redrilled core hole

Drill log filenames should match the hole name. I.e. AA1234C.xlsx

LAS Files

Task Manager can be configured to recognise other suffixes but the default (and recommended) settings are shown below. The most common types are _GN – General Log (typically 10cm interval) and _DA,_DB...Dn – Detail Logs (typically 1cm interval), other common types are GV/VT/VP for Verticality, _DEN for density, _SON for Sonic etc

Detail logs were often used when file size was a restriction. Rather than creating a single log for the entire hole at a 1cm interval, a General log was generated with a 10cm interval and separate Detail logs were generated just for the coal seams with 1cm intervals. These days, a general log at 1cm is more common and detail logs are not required.

PPHHHHS_LL.las PPHHHHS = Hole name as specified above. LL = 2 letter suffix indicating log type GN = General Log DA, DB, DC...DZ = Detail logs RN = General log – logged thru rods RA, RA, RC...RZ (excluding RN) = Detail logs – logged through rods

Examples

AA1234CR_GN.las AA1234CR_RA.las

Core Photos

Core photos should be named with the hole name and the from/to depths applicable to that photograph. This enables Task Manager to quickly locate the photo for a specific depth.

A Core Photo Renaming Tool is provided in Task Manager to quickly and easily renaming photos to this convention.

Note that depths are generally uncorrected drillers depths so there may be some discrepancy between these and geophysically corrected depths in the log.

Format:

holename_FF.FF-TT.TT.jpg

Where FF.FF = From Depth and TT.TT = To Depth

The number of decimal places is not enforced but 2 or 3 is normal.

Examples:

AA1234C_20.03-20.53.jpg AA1234C_145.50-146.00.jpg

Sample Number Notation Convention

Sample numbers should be numeric only and preferably sequential especially if they are likely to be combined later for composite testing.

Sample numbers can be prefixed with non numeric characters and/or suffixed with "_GT" to denote Geotech samples or the hole number. However this is not necessary as the sample type will show that.

When a group of sample numbers (sample range) is displayed it is generally converted to a simplified/abbreviated notation where possible. See examples below.

Therefore using prefixes or anything other than purely numeric sample numbers may cause issues.

Sample Numbers	Abbreviated Notation	Comments
1000,1001,1002,1003,1004	1000_4	
	1000_04	Optional leading zero for readability
1000,2008,2009,2010,2011,2012	1000,2008_12	
	1000+2008_12	Plus can be used in place of comma
12345,12348,12357,12358,12359	12345,12348,12357_9	
	12345,48,57_59	Common prefix (123) can be dropped
	12345+48+57_59	Plus used in place of comma

As of version 1.0.672 the characters used to determine sample ranges can be defined via settings.

Under Tools, Settings, Coal Quality there are two new settings:

Sample Range Identifiers

The sample ranger identifiers are the characters that can denote a range of samples. I.e. 1000_4 uses the underscore character to denote the range 1000 to 1004. Any one character in this list can be used. The default characters are underscore, hyphen and period (full stop).

Multiple Sample Identifiers

The multiple sample identifiers are the characters that can denote two or more separate samples or ranges of sample. I.e. 1000,2008_12 uses the comma to denote the range 1000 and 2008 to 2012.

NOTE: Multiple sample identifiers are not used when the Sample Composite Mode is set to **Simple**. In **Simple** mode only the first and last sample are used.

W T D A V G Mode	Auto	/
Fix Proximate Analysis Mode	ProRata 🔨	/
Fix Proximate Analysis F C Max	2.00	
Sample Composite Mode	Detailed	/
Sample Range Identifiers	_7.	
Multiple Sample Identifiers	.8+	

Folder Naming Conventions / Folder Structure

Task Manager can be configured to work with a wide variety of folder structures. This is accomplished by using a series of tokens in the folder settings. Refer to <u>Folder Settings</u> for more information or <u>Folder Configuration Examples</u> for more examples.

Folder Configuration Examples

The folder configuration can be difficult to get right but is worth the effort and necessary for automated loading of LAS files, core photos and rehab photos.

The following are more examples to help explain how this works.

Example 1 – No tokens

In this example, all data is stored in one folder so no token translation is required.

Folder Configuration

Root Folder	C:\My Data
LAS Folder	C:\My Data\Drilling\LAS

Drill Log

Hole Stat	us [Drillir	ng 🛛	Lithology	Water Ob	s.	Defe	ects	Poir	nt Lo	ads	Ac	tivitie	es 📕	Sam	ples	Se	eams	H	orizo	ns	Sar	mple Dispato	;
Hole Sta	itus	Geo	ologi	sts Casir	ng Cemen	ting																		
	Selected	Company	Project	Hole_Name	Lease_No	Site_Id	Hole_Type	Data_Status	Hole_Purpose	Hole_Purpose	Redrill_Of	Geodetic_Dati	UTM_Zone	Height_Datum	Location_Acc	Easting	Northing	Elevation	Inclination	Azimuth	Survey_Comp.	Survey_Date	Start_Date	Complete_Dat
•			TP	AB2345	EPC1234			R					55			0	0	0					8/06/2017	9/06/2017

Translation

No translation is required, so the LAS folder simply points to:

C:\My Data\ Drilling\LAS

Example 2 – Simple token translation

In this example we simple translate the root folder and hole name to obtain the correct folder.

Folder Configuration

Root Folder	C:\My Data
LAS Folder	{Root}\Drilling\LAS\{hole}

Drill Log

Hole Status	Drilli	ng	Lithology	Water Ob	is.	Defe	ects	Poi	nt Lo	ads	Ac	stivitie	es 🛛	Sam	ples	Se	eams	H	orizo	ns	Sar	mple Dispato	;
Hole Status	Ge	ologi	sts Casi	ng Cemen	iting]																	
an Cier Cier Cier Cier Cier Cier Cier Cier	Company	Project	Hole_Name	Lease_No	Site_Id	Hole_Type	Data_Status	Hole_Purpose	Hole_Purpose	Redrill_Of	Geodetic_Dati	UTM_Zone	Height_Datum	Location_Acc	Easting	Northing	Elevation	Inclination	Azimuth	Survey_Comp.	Survey_Date	Start_Date	Complete_D at
•		ΤР	AB2345	EPC1234			R					55			0	0	0					8/06/2017	9/06/2017

Translation

{root} translates directly to "C:\My Data"

{hole} translates directly to "AB2345"

Therefore, the full translation is:

C:\My Data\Drilling\LAS\AB2345

Example 3 – Lease_Name translation

This example is a little more complex as we are using the dictionary to translate the Lease_No code to a Lease_Name

Folder Configuration

Root Folder	C:\My Data
LAS Folder	{root}\{lease_name}\Drilling\LAS\{hole}

Dictionary

Category	Code	Short Description
Lease_No	EPC1234	EPC1234 Woop Woop
Project	ТР	Test Project

Note: The project code is not required for this example but is included for consistency.

Drill Log

Hole Status Drilling Lithology Water Obs. Defects Point Loads Activities Samples Seams Horizons Sample Dispate Hole Status Geologists Casing Cementing Geodetic_Dat Height_Datum Survey_Comp Complete_Dat Hole_Purpose Location_Acc Site_Id Hole_Type Data_Status Hole_Purpos Survey_Date UTM_Zone Start_Date Hole Name Inclination Redrill_Of Elevation Lease_No Company Northing Azimuth Selected Easting Project TP AB2345 EPC1234 R 55 0 0 8/06/2017 9/06/2017 0

Translation

{root} translates directly to "C:\My Data"

{lease_name} translates the Lease_No "EPC1234" (via the dictionary) to "EPC1234 Woop Woop"

{hole} translates directly to "AB2345"

Therefore, the full translation is:

C:\My Data\EPC1234 Woop Woop\Drilling\LAS\AB2345

Alternate Folder

If the folder name does not match the code or description you can use the Folder parameter in the dictionary to define it:

Category	Code	Short Description	Folder
Lease_No	EPC1234	EPC1234 Woop Woop	Woop Woop
Project	ТР	Test Project	

If Folder is not defined, Short Description is used. However, in this case we have defined the folder as "Woop Woop" therefore the translation would be C:\My Data\Woop Woop\Drilling\LAS\AB2345

Example 4 – Completion Date

This example is similar to the last one plus we translate the year part of hole completion date

Folder Configuration

Root Folder	C:\My Data
LAS Folder	{Root}\{Project_Name}\{Complete_Date,YYYY}\LAS\{hole}

Dictionary

Category	Code	Short Description
Lease_No	EPC1234	EPC1234 Woop Woop
Project	ТР	Test Project

Drill Log

Hole Statu	s [Drillin	g l	.ithology	Water Ob	s.	Defe	ects	Poir	nt Lo	ads	Ac	tivitie	es 📔	Sam	ples	Se	ams	H	orizo	ns	Sar	mple Dispato	:
Hole Stat	us	Geo	logis	ts Casir	ng Cemen	ting																		
	Selected	Company	Project	Hole_Name	Lease_No	Site_Id	Hole_Type	Data_Status	Hole_Purpose	Hole_Purpose	Redrill_0f	Geodetic_Dati	UTM_Zone	Height_Datum	Location_Acc	Easting	Northing	Elevation	Inclination	Azimuth	Survey_Comp.	Survey_Date	Start_Date	Complete_Dat
•			TP	AB2345	EPC1234			R					55			0	0	0					8/06/2017	9/06/2017

Translation

{root} translates directly to "C:\My Data"

{project_name} translates the project code "TP" (via the dictionary) to "Test Project"

{complete_date,YYYY} translates the year component of the hole completion date to "2017"

{hole} translates directly to "AB2345"

Therefore, the full translation is:

C:\My Data\Test Project\2017\ LAS\AB2345

Appendix C – Supported File Types

The following file types are supported by Task Manager 2014

Category	File Type	Description
Drill Data	.csv/.zip	CoalLog standard transfer format
Drill Data	.xlsx	CoalLog standard Excel file / TM2014 default
Drill Data	.xls	TM2008 Excel Drill Log File
Drill Data	.dbf	LogCheck .dbf file
Header /	.csv/.xls/.xlsx	Header & Lithology data in Vulcan format
Lithology		
Header /	.csv/.xls/.xlsx	Header & Lithology data in Minex format
Lithology		
Header /	.csv / .dbf	Header & Lithology data in LogCheck .dbf or
Lithology		.csv format
Lithology	.dat	Lithology data in ProLog .dat format (limited)
Geophysics	.las	Standard ASCII LAS file
Geophysics	.csv/xls/xlsx	LAS data in tabular format
Coal Quality	.csv/xls/xlsx	Data Summary (various formats)
Survey	.csv/xls/xlsx	TRB Survey Data
Grid	.csv/xls/xlsx	Gridded horizon data (Vulcan export)
Grid	.grd	Gridded horizon data (Grid format)
X,Y, Thick	.csv/xls/xlsx	X, Y and thickness data for contouring
Image	.jpg	Image file (usually core photos)
Image / Map	.bmp, .emf, .exf, .gif, .ico, .jpg, .mbp, .png,	Image files as map layers
Layer	.tif, .wmf	
Map Layer	.shp	Shape file
Map Layer	.bgd	Raster file
Workspace	.tmw	TM2014 workspace file
Layout	.xml	TM2014 graphic log layout file
Wizard	.wizard	TM2014 configuration wizard file

Most of these formats have been derived from available documentation and/or examples provided by customers and should not be assumed to represent official format specifications.

Drill Data

CoalLog Standard Transfer Format

This is a standard format consisting of a collection of CSV files, one for each type of data. Refer to the CoalLog standard for more details.

CoalLog Standard Excel Format

This is an Excel template as prescribed by the CoalLog standard and is the default format for loading and saving drill data in TM2014

TM2008 Drill Log Format

This is the Excel template used by a previous version of TM which can be imported into TM2014 and converted to the CoalLog template and dictionary.

If you have data in another format please contact us as we may be able to provide additional importers/converters.

Geophysics

LAS files Standard ASCII LAS file format V1.x or V2.0

Refer to:

LAS File Settings

Loading LAS files

LAS file naming convention

Excel/CSV files

LAS data in tabular format

First row should contain column headings, the first column must contains the hole name, the second column depth and curve mnemonic from column 3 onwards. The file may contain multiple holes.

Column	Туре
Hole_Name	Text
Depth	Numeric
Value1	Numeric
Value2	Numeric
ValueN	Numeric

Example

Hole	Depth	BRDU	DENL	GRDE
AA1234	107.000	-999.25	-999.25	-999.25
AA1234	106.900	17663.56	2.37	92.53
AA1234	106.800	18632.73	2.49	94.72

Vulcan Header/Lithology Data

TM2014 supports two types of Vulcan data as described below:

Note: V1 and V2 do not indicate any particular version of CoalLog or Vulcan, they are simply two different formats observed from client supplied data.

Header (V1)

Column	Туре	Description
Hole	Text	Hole name
Site	Text	Site name
East	Numeric	Easting
North	Numeric	Northing
Crl	Numeric	Collar Reduced Level / Elevation
Td	Numeric	Total Depth

Lithology (V1)

Column	Туре	Description
Hole	Text	Hole name
Тор	Numeric	From/Top Depth
Base	Numeric	To/Base Depth
Tk	Numeric	Thickness
Strat	Text	Strat/Seam Name
Frm	Text	Formation Name
Samnum	Text	Sample Number
Rock	Text	Rock / Litho Type
Perc	Numeric	Percentage
Litadj1 / Litadj	Text	Adjective 1
Litadj2	Text	Adjective 2
Litadj3	Text	Adjective 3
Shade	Text	Shade
Hue / Col1	Text	Colour / Hue
Tint	Text	Tint
Grain	Text	Grain Size
weath	Text	Weathering

Header (V2)

Column	Туре	Description
Hole / HoleId	Text	Hole name
Proj	Text	Project Name
East	Numeric	Easting
North	Numeric	Northing
RI / Collar	Numeric	Collar Reduced Level / Elevation
Totdep / depth	Numeric	Total Depth
Srvmet / accur	Text	Survey/Location Accuracy
Grid	Text	Geodetic Datum
Dip	Numeric	Dip / Inclination
Azm	Numeric	Azimuth
Date	Date	Hole Completion Data
Holtyp / type	Text	Hole Type

Holpur	Text	Hole Purpose
Holesz	Numeric	Hole Size
Coresz	Numeric	Core Size
Geopco	Text	Geophysics Company
Gphdep	Numeric	Geophysics Depth (not used)
Gphrun	Text	Logs Ran
Logsts	Text	unknown

Lithology (V2)

Column	Туре	Description
Hole / Holeid	Text	Hole name
Topdep	Numeric	From/Top Depth
Botdep / Depth	Numeric	To/Base Depth
Thick	Numeric	Thickness
Seam	Text	Strat/Seam Name
Horizn	Text	Horizon/Formation Name
Fldsam	Text	Sample Number
Littyp / Rock	Text	Rock / Litho Type
Litper	Numeric	Percentage
Litqu1 / Lith1	Text	Adjective 1
Litqu2 / Lith2	Text	Adjective 2
Litqu3 / Lith3	Text	Adjective 3
Shade	Text	Shade
Hue	Text	Hue
Colour	Text	Colour
Grain / Grnsiz	Text	Grain Size
Weath	Text	Weathering
Rokstr	Text	Hardness
Cont	Text	Continuation
Corstt	Text	Core State (not used)
Inttype	Text	Interval Type (not used)
Mstate	Test	Mech State

Note: Internally the above lithology is initially imported into a TM2008 style drill log format, then converted to the TM2014/CoalLog format.

In V2 format, additional columns not listed above are added as custom/pass through columns and will be included in any exports. See <u>Custom Columns</u>

Seam Picks

TM2014 can import seam picks and merge them with existing lithology, splitting lithology units as required.

Your seam pick file must be an Excel or CSV file with four columns as below. The actual column name are not important but the column positions are. I.e. the Hole Name must be in the first column etc.

Hole	Hole Name
From	From Depth
То	To Depth
Seam	Seam Name

The file can contain seams from multiple holes, hence the Hole Name column.

The holes must be loaded in TM prior to importing the seam picks.

The depths do not need to match existing lithology depths, TM will split existing lithology rows to accommodate the seam depths. Obviously the depths cannot exceed the existing lithology. If your existing lithology is incomplete, add an NR record of sufficient depth.

Minex Model Format

Column	Туре	Description
BOREID	Text	Hole name
EASTING	Numeric	From/Top Depth
NORTHING	Numeric	To/Base Depth
ELEVATION	Numeric	Elevation/RL
TOTAL_DEPTH	Numeric	Total Depth
FROM_DEPTH	Numeric	From/Top Depth
TO_DEPTH	Numeric	To/Base Depth
THICKNESS	Numeric	Thickness
SEAM	Text	Seam Name
CLASS	Text	Seam Class (NOT USED)
ROCK_TYPE	Text	Litho_Type
INTERREL	Text	Lithology Interrelationship
PERCENT	Numeric	Lithology Percentage

Columns in bold text must appear exactly as shown. Other columns can be named different but must appear in the column position shown. I.e. BOREID must be called BOREID and be the first column. Easting can be called anything but must be in the second column.

Coal Quality

Various file formats are supported for coal quality data. Additionally columns and sheets can be mapped manually. Refer to <u>Loading Coal Quality data</u> for more information.

Survey

TRB Survey Data

Column	Туре
Borehole ID	Text
MGA East	Numeric
MGA North	Numeric
AHD RL	Numeric
Remarks	Text
Date Surveyed	Date
Surveyor	Text

Other

X,Y,Thick

A CSV file with three columns labelled Easting, Northing and Thick or X, Y, Thick. This can be imported directly into a Map window as points. From here contours can be generated based on the Thick column.
Other CSV or Excel files can also be opened in a <u>generic table view</u>. This allows you to map columns and import/export data such as survey data. It is currently limited to data in the hole status sheet only.

Custom Import

Task Manager also has a Custom import/export feature whereby columns can be mapped from your Excel/CSV file to CoalLog columns for Header, Drilling, Lithology and Seam pick files

See <u>Custom Exports</u> and <u>Custom Column Mapping</u> for more information

Appendix D - Revision History

The following table lists all recent update releases for TM2014.

Release dates are in dd/mm/yy format. Related YouTrack issue# is appended where relevant.

Current version is shown in the top right-hand corner of the screen and under Help, About.

Version &	Description
Date Released	
1.0.0./81	Added average LAS export for generic tables
21/02/22	Improved Seam Pick importer to include samples
	Fixed reading of some LAS file headers
1.0.0.780	Added customisation options to Well Completion Reports #950
15/02/22	 Fixed blank pages after photos in Well Completion Reports #948
	 Added table mapping aggregation methods #947
	Added generic compositing function #947
1.0.0.779	Improved Pseudo Log seam selection
09/02/22	Fixed pseudo log ignore casing
1.0.0.778	 Added tool to extract casing info from LAS headers #944
07/02/22	Use Cased Depth from LAS for Interval Report
	 Moved LAS tools to a separate Tools menu
	• Fixed Rehab photos not displayed in Well Completion Report #945
1.0.0.777	Fixed core photos not displayed in Well Completion Report #940
07/02/22	Added option to change English Log title colour #941
	Ignore cased depth when calculating UCS
	Generate interval log even when no defects
1.0.0.776	Sort core photos by depth
04/02/22	Added option to disable some English Log drilling fields #939
	Fixed bug in Remove all holes function
1.0.0.775	Improved Seam Pick importer (Added horizon option)
24/01/22	Added Save prompt when removing holes
1.0.0.774	Added GeoBank lith importer
14/01/22	• Fixed MC2F/UCS conversion & -999 values in interval log
	Update TMDB with new Jc columns
1.0.0.773	Fixed issue with clsSampleDispatch columns causing errors on export
07/01/22	
1 0 0 772	Eixed issue with clsDefect Ic columns causing errors on export
06/01/22	Fixed LAS load issues
00,01,22	Added more info to LAS fix tool
1 0 0 771	Added more mild to EAS in tool
1.0.0.771	• Fixed create labers bug in custom import Append mode
1 0 0 770	Eived bug in restore dictionary function
14/12/21	Fixed bug in restore dictionary function Eived issue losing labels during sustem import
17/12/21	 Fixed issue losing labers during custom import Eived issue pacting licence text from email address
	Fixed issue pasting licence text from email address Sorted reports many alphabetically
	 Sorted reports mend aphabetically Improved system import /ovport manner detection
1.0.0.700	Improved custom import/export mapper detection
1.0.0.769	Fixed advanced pseudo log cumulative seam calcs
01/12/21	 Fixed GDA94 Geocore MapGrid issue #932

	 Fixed sample thickness with KL validation error
	 Added CO% to Seam and Sample Summary reports #931
	 Ongoing updates to interval log report
	Added ability to select underlying section objects
1.0.0.768	• Fix GeoCore translation of casing type PV/PVC #930
17/11/21	 Fixed bug loading CoalLog V3 un-corrected from depth
	Fixed various pseudo log report issues
1.0.0.767	Fixed exception in defect validation #926
12/11/21	Added advanced pseudo log #927
	Added ability to lock CTRL key #928
	Added ability to more easily select CQ display options from graphic log
1.0.0.766	 Select LOX as well as RC when loading CQ from GeoCore #925
10/11/21	• Fixed loading un-selected LAS headers from GeoCore #924
	Renamed MLog to one point #923
	 Added ANALYSIS_TYPE to CQ export for MLog/one point
	Added Interval Log report (Beta)
	Added validation error for Defect.Perp_Width
1.0.0.765	Added ability to load and display non-numeric CQ values
29/10/21	
1.0.0.764	Fixed sample range interpretation issue #922
29/10/21	 Applied LAS file type filters when loading from acQuire
1.0.0.763	Fixed various bugs loading from acQuire
28/10/21	
1.0.0.762	Fixed bug loading LAS from acQuire
28/10/21	Fixed merging sample types from acQuire
1.0.0.761	Added validation error for defect in un-broken zone #918
27/10/21	Fixed user experience when re-loading hole from database #917
	 Added ability to load LAS from acQuire database
	 Added ability to load Coal Quality from acQuire database
	Fixed Coal Quality display as histogram
	 Added function to create codes in new dictionary
	 Fixed issue saving seam colours to dictionary
	Fixed issue with LAS validation STRT/STOP depths
1.0.0.760	Fixed issue with TMDB model not updated
25/10/21	
1.0.0.759	Added Coal Quality to CoalLog Export
25/10/21	 Added ability to download Coal Quality data from MLog
	 Fixed CoalLog export formatting issues #909
	 Added Geophysics details report #906
	Added more LAS file validation checks #916
	Removed check for project selection in database custom exports #913
	Improved speed of GeoCore paste exact match
1.0.0.758	• Fixed file separation (hole mode) in CoalLog Transfer File Export #911
19/10/21	
1.0.0.757	Fixed bug in previous update #900
14/10/21	 Added casing depth to Geophysics summary report
	Improved LAS file rename wizard
1.0.0.756	 Prevent setting corrections roof/floor where not allowed #900
13/10/21	 Add option for BW on separate row in custom export #899

	Add tool to rename samples according to naming convention #903
	• Extract casing depth from LAS headers #901
	• Add option to exclude LAS above casing in advanced export #901
	Added tool to move LAS files into hole folders #902
1.0.0.755	Fixed issue saving merged data to TMDB
0710/21	
1.0.0.754	Improved custom import merge
07/10/21	
1.0.0.753	 Added option to merge rather than append custom imports
06/10/21	
1.0.0.752	 Added reminder to re-load quick loaded holes
06/10/21	 Added RQD_Length calculate from defects #892
	 Added ability to download GSB files via plugins #888
	 Additional logging around QLD submission template export
	 Fixed ALT key sticking after ALT-TAB #895
	 Added options to disable ALT/CTRL scroll #894
1.0.0.751	 Fixed dictionary lookup for CoalLog reference Lab_Name #891
27/09/21	 Converted Sample Dispatch settings to new format #889
	 Fixed grid layouts not loading/saving correctly #890
	 Added parameters for MLog geophysics upload #884
	 Prevent upload to MLog if critical errors present #883
1.0.0.750	• Fixed bug loading/save Geo_From_Depth for CoalLog V3.0 #887
23/09/21	
1.0.0.749	• Fixed bug loading/saving Water Observations for CoalLog V3.0
21/09/21	• Fixed bug loading custom columns when heading is null
1.0.0.748	Fixed bug entering defects for CoalLog V3.0
20/9/21	
1.0.0.747	 Added ability to convert coordinates in generic table view
16/09/21	 Added automap columns in table view
	 Added ability to convert coordinates in GeoCore custom exports
	 Added coordinate conversion for all Australia zones (not just 55/56)
	 Added ability to convert coordinates on export
	 Added ability to download specific status from MLog
	 Added support for uploading different statuses to MLog
	 Added all data types to custom import/export mapping
	 Changed CoalLog dictionary code from GDA20 to GDA2020
	 Fixed issue in GDA2020 to GDA94 conversion
	 Upload to MLog reports failure when some data is missing #873
	 Check for valid project codes before saving to MLog #874
1.0.0.746	 Added support for CoalLog V2.x-V3.x in custom exports
06/09/21	 Added support for other data types in custom exports
1.0.0.744/745	Fixed bug saving custom columns
03/09/21	
1.0.0.743	 Added M1,M2,M3 as valid lith for conglomorite qualifiers
03/09/21	 Added custom columns to Excel template
	 Added NC_custom prefix (CoalLog V3.1)
	 Fixed invalid for chipped sections validation #867
	Fixed PointLoad export bug
	Fixed error handling unusual LAS parameter

	Fixed exception importing lith with no hole_name
1.0.0.742	• Export CQ data with QLD Submission Template (GeoCore only) #839
12/08/21	Added more lithology columns to sample summary report #866
	Completed MLog API integration (BoreHoles & Geophysics)
	Major internal code refactoring and reorganising
1.0.0.741	Use GeoCore CQ Translation file to detect CQ column headings
28/07/21	 Apply depth corrections to Point Load Mid Depth #865
1.0.0.740	Added support for ALS format CO data import
28/07/21	Improved duplicate CO result detection
	 Internal namespace changes and refactoring
	Fixed Apply Depth corrections to defect mid point depth
	• Fixed MLOG upload/download
	Update all nuget packages to latest version
	Re-targeted to .NET Framework 4.8
1.0.0.739	Internal code refactoring
21/07/21	
1.0.0.738	Fixed uncorrected depths not loading V3.0
21/07/21	Added fix sample Id feature for GeoCore samples
1.0.0.737	Custom export includes un-mapped columns from mapper file #863
07/07/21	 Added option to order columns to match mapper file #862
1.0.0.736	Added validation for non-core data entry #861
06/07/21	
1.0.0.735	 Don't calculate Point Load from depth unless it's missing #860
28/06/21	
1.0.0.734	Fixed CoalLog import not handling numeric hole names #859
21/06/21	• Fixed samples from composites not displaying #858
	Added option to display Point Loads samples on graphic log #857
1.0.0.733	Fixed GeoCore Infill Consistency translation
16/06/21	Fixed exception in hole filter dialog
1.0.0.732	Fixed LAS data disposed after generating graphic logs #854
16/06/21	Improved error logging for acQuire database
1.0.0.727-731	Ongoing implementation of acQuire interface #848
26/05/21	
1.0.0.726	• Fixed cannot insert lithology in base of corrections unit #851
25/05/21	 Fixed V3 CoalLog not loading if missing From_Depth #852
	 Initial implementation of acQuire interface #848
1.0.0.725	• Fixed data entry issue when using CoalLog style continuations #846
19/05/21	• Fixed sample selection when same sample # with different types #847
	 Fixed File/New {version} always uses default version #850
	Preliminary implementation of MLOG database integration #849
1.0.0.724	Added repair tool to sort cementing by depth
11/05/21	Added option for GeoBank style record sequence flags #845
	 Allow overlapping casing if different type/material #844
1.0.0.723	Fixed Remove Thickness leaving a gap #842
04/05/21	 Possible fix for "Operation is not valid" error
1.0.0.722	Fixed null reference exception reloading new log #834
30/04/21	Fixed exception if zero in SW_LEVEL_DATE import #837
	• Fixed CoalLog Lithology csv recognised as Header file #838
	 Fixed missing Hole_Name causing exception importing Lith #841

	 Fixed Hole_Name containing invalid characters won't save #842
1.0.0.721	Added option for acQuire style record sequence flags #832
05/04/21	• Fixed CoalLog 3.0 Sample Type/Sample Purpose validation issue #829
	• Fixed CoalLog 2.0 export issue #831
	• Fixed null reference exception if recent data summary blank #825
1.0.0.720	Added TMDB migration missing from previous update #824
22/03/21	Added CoalLog V3 dictionary #817
	• Fixed some RMU depths not adjusting #823
	• Fixed CoalLog V3 export missing some data #822
	 Fixed LAS not re-loading in some scenarios #820
1.0.0.719	• Fixed litho comments not wrapping in English Log #819
17/03/21	
1.0.0.718	Fixed bug in CoalLog export after #815
11/03/21	
1.0.0.717	 Added support for client CQ format
11/03/21	 Added support for client CoalLog custom format #815
	Added support for QLD submission template wireline logging info #811
	 Added LAS quick load feature #802
	Added LAS audit report
	 Added seams only print option #812
	 Fixed info panel should be read only #816
	 Fixed CoalLog V2.x columns visible in V1.x mode #808
	 Fixed Pack & Send copying all files #813
1.0.0.716	Added Geophysics TD validation
19/02/21	Added Comments tab
	 Added ability to plot CQ bands with different widths/margins
	Fixed Custom Import duplicate columns
1.0.0.715	 Fixed another bug re TD validations
18/02/21	
1.0.0.714	 Fixed bug in previous release re TD validations
17/02/21	
1.0.0.713	Improved sample matching when loading CQ data
1//02/21	Refactored CoalLog transfer file export
	Fixed CQ plotting minimum value
	 Added optional validation rules for missing seam/litho_type codes
	Fixed custom import/export
	Added various ID validation checks
	Added more export options
	Added export options load/save
	Fixed SHIFT key issue when selecting map tools
4 0 0 740	Added SHIFT lock function
1.0.0./12	Added feature to display formations on graphic log #/99
08/02/21	Fixed CoalLog V3.0 Sample Dispatch not saving correctly #800 Fixed Community Dispatch up and the dispatch of the dis
100711	Fixed Sample Dispatch recovery rounding issue #801
1.0.0./11	Fixed CoalLog V3.0 template not saving #/97 Fixed CoalLog V3.0 template not saving #/97
04/02/21	Fixed Sample Dispatch sheet missing from QLD Coal template #796
1.0.0./10	Fixed CQ display spacing not applying #/92
16/12/20	Increased CQ display range maximum value #/93
1.0.0.709	 Fixed exception when Geo. To_Depth is missing #790

04/12/20	Updated QLD data-submission-template export
1.0.0.708	• Fixed CoalLog V1.x export missing drilling data #789
26/11/20	
1.0.0.707	 Fixed dictionary selection company code case sensitive #786
19/11/20	 Fixed CoalLog dictionary re-enabled after refresh #787
1.0.0.706	Added Location and Water Info to Borehole Summary Sheet #781
12/11/20	Added new GeoCore POINT_LOAD table
	Fixed Swap Seam/Ply function #782
1.0.0.705	Fixed bug in GeoCore CW translation
29/10/20	• Fixed ignored headings in CoalLog V1.x export
1.0.0.704	Fixed bug in custom importer
19/10/20	
1.0.0.703	 Fixed bug in English Log generator
14/10/20	
1.0.0.702	 Fixed issues with defects conversion from 1.x to 2.x/3.x
07/10/20	 Fixed issue with Sample Dispatch not saving for 3.x
1.0.0.701	Fixed TMDB migration issue
26/09/20	
1.0.0.700	 Fixed bug in TM2008 drill log format importer
26/09/20	Update TMDB migration
1.0.0.699	 Patch to fix GeoCore CQ upload with multiple FRACTION_CODE's
17/09/20	
1.0.0.698	 Fixed null reference in English Log generator #776
09/09/20	 Added new datum codes for CoalLog 3.1
	 Added ability to grid shift GDA94 to GDA2020 #775
1.0.0.697	 Added CoalLog V3.0 Reference Dictionary #746
07/09/20	 Added support for CoalLog V3.0 #746
	 Added temporary codes for GDA94 & GDA2020 #747
	 Fixed missing QLD submission template in build #773
	 Fixed grouting sheets (again) #757
1.0.0.696	 Patch to fix bug in previous update (Sample Dispatch) #774
27/08/20	
1.0.0.695	 Updated English Log Generator for CoalLog V2.1 #769
27/08/20	 Added sample ID formatting & validation #770
	 Added support for GeoCore Point Load results #771
	 Fixed exception when LAS file location is un-available #772
	 Added additional columns to Sample Dispatch V2.1 #763
	 Added option to disable validation warning in holes list
1.0.0.694	 Patch to fix bug in previous update (Import CoalLog CSV) #768
21/08/20	
10.0.0693	 Patch to fix bug in previous update (Generate Sample Advice) #767
20/08/20	
1.0.0.692	 Patch to fix bug in previous update (CTRL-boundary adjust) #766
20/08/20	
1.0.0.691	Added importers for ProLog CSV Comments/Strat
19/08/20	Added bulk swap seam/horizon function
	Added validation warning when saving #760
	Added validation warning in hole list
	 Added long path support

	Added support for non-standard date formats #762
	 Added true depths in seam summary based on TDEP #765
	 Added ability to plot custom values (Lith & Defects) #764
	 Categorised validation errors (Warnings, Error, Critical)
	 Fixed GT samples not downloading from GeoCore #756
	 Fixed grouting template volume calcs #757
	• Fixed calculated composite sample types #761
	• Fixed CQ sample purpose overwriting CQC
	 Improved fix depth gap/overlap repair tool
	Performance improvements
1.0.0.690	Added missing data report #752
18/07/20	Added importers for ProLog CSV Headers/Lithology
	 Fixed English Log – Ignore historical/validation codes #755
1.0.0.689	Fixed English Log Seam.Litho Type null reference #753
08/07/20	
1.0.0.688	Added ability to bulk edit all sheets #750
01/07/20	• Fixed un-corrected depths not saved in Sample Dispatch #749
	• Fixed error in grouting template formula #751
1.0.0.687	• Fixed bug saving CQ vs CQC samples #744
10/06/20	
1.0.0.686	 Fixed bug saving CQ vs CQC samples #744
10/06/20	 Added option to ignore overlapping Cementing #743
1.00.685	 Added check for CQ vs CQC samples #740
03/06/20	 Fixed Core Runs not displaying for CoalLog V2.1 #737
	• Fixed Sample Advice generator when sample depths don't match #742
	 Improved F12 for V2.1 Run_Loss_Gain and Cum_Loss_Gain #739
1.0.0.684	 Added {site-id} token for folder settings #734
28/05/20	 Fixed GC_SAMPLE_DISPATCH Lab code translation #736
1.0.0.683	Fixed cut rows not cleared after insertion #730
20/05/20	 Fixed Defect_Continuation and Comments not loading #732
	 Fixed MapInfo export bug #733
	 Disabled sample depth update when saving CQ results #731
	 Update NuGet packages to latest versions
1.0.0.682A	 Patch to fix RQD_Length not saving in V2.1 #729
14/05/20	
1.0.0.682	 Fixed HS, WS and CCC samples saving as CQ instead of CQC #728
06/05/20	 Fixed translation bug for ANALYSIS_TECHNIQUE_CODE
1.0.0.681	 Added Geophys_Log code K for Magnetic Susceptibility #726
29/04/20	 Added GeoCore translation for new Geophys_Log code K #726
	 Fixed bug loading default LAS headers instead of all headers #727
	 Fixed CQ results not saving to GeoCore
	 Fixed error loading Drilling V2.1 with missing depth #724
	 Fixed not all sample types loaded/displayed #716
1.0.0.679-680	Fixed bug in grouting record generator
15/04/20	
1.0.0.678	 Added options dialog when generating grouting record #720
15/04/20	 Added support for importing LogCheck CoalLog V2.x files #718
	 Improved support for importing LogCheck .csv and .dbf files #719
	 Fixed bug generating grouting record from CoalLog V2.x #721

	 Fixed CoalLog V2.x Casing columns not displayed correctly
1.0.0.677	Added feature to find hole in workspace/holes list #702
31/03/20	Improved find hole in table window
	 Added feature to remove LAS from loaded holes #705
	 Added ability to export settings to .wizard file #699
	• Added ability to import .wizard settings via dictionary update #699
	 Added support for custom grouting sheet #713
	Added support for custom drill runs (V2.1) sheet #714
	• Added ability to import acQuire seam picks without lithology #703
	• Fixed exception changing nulls to values in table view
	• Fixed issues with V2.1 Sample Dispatch sheet
1.0.0.676	Added validation error for positive inclination #694
12/02/20	 Added option to allow positive inclination #694
	 Added header default for inclination = -90 #694
	 Fixed exception when double clicking on Files grid #692
	 Fixed generate mass from density only using first LAS file #695
	 Ignore missing F weathering for NR and KL litho_types
1.0.0.675	Fixed issue importing CoalLog headers #689
10/02/20	 Fixed issue importing CoalLog V2.x defects #690
1.0.0.674	Fixed bug in GeoCore CQ upload
10/02/20	
1.0.0.673	 Moved unwanted values to translation file
06/02/20	 Fixed CQ headings not displaying at correct depth
	 Fixed GT results not saving to GeoCore
1.0.0.672	 Added option to define sample range identifiers #685
04/02/20	 Added ability to rename GeoCore samples
	 Fixed exception writing to EventLog #687
	Fixed exception closing window after error #688
1.0.0.671	 Added QLD Coal Submission template report #681/664
20/01/20	 Added ability to select holes with/without LAS loaded
	 Added Coal Quality report #682
	 Fixed display resetting after clicking Cancel in Settings #663
	 Fixed lithology not display after import #644
	 Fixed graphic log save as image #683
	Fixed bug in BW export #684
	Fixed bug preventing STL data load
1.0.0.670	 Added option to not add new un-matched samples #673
09/01/20	 Added summary window after saving CQ results
	 Removed redundant references to GeoCoreAPI in public release
	 Fixed custom columns not displayed in tables
	Improved GeoCore Audit History Explorer
1.0.0.669	Added translation for GeoCore BPI duplicate params
18/12/19	Removed redundant references to GeoCore in public release
1.0.0.668	• Fixed bug copy/pasting in grid with hidden columns #672
1//12/19	Added translation for GeoCore CERCHAR duplicate params
1.0.0.667	Added sample number prefix for F6 auto populate #667
25/11/19	Fixed bug converting GDA94 to AGD84 using GridShift #666
	Fixed Folder Settings Wizard not saving settings #665
	 Fixed bug when double-clicking on empty cell #669

1.0.0.665/666	Added LAS wellname suffix removal for VELOCITY/DEVIATION #661
19/11/19	 Added ability to GridShift (i.e. AGD84 to GDA94) coordinates
	 Improved sample composite and dispatch
	 Improved error trapping around startup
	• Fixed exception on new table view due to template #649
	 Fixed problem importing CoalLog V2.1 defects #658
	 Fixed problem importing CoalLog V2.1 drill times #659
1.0.0.664	Added GeoCore translation for W-WIRE bit type
31/10/19	 Added GeoCore Lab code translation via dictionary
	 Added GeoCore translation for Defect Type from DB to DI #647
	 Added option to export GeoCore CQ data by ATC #651
	 Added ability to import GeoCore GeoTech data
	 Fixed bug duplicating drilling from GeoCore #639
	• Fixed bug translating back to CoalLog after Save fail #641
	• Fixed bug in CO export from GeoCore #642
	• Fixed point load re-generation bug #648
	 Fixed bug with table view check boxes #654
	 Fixed bug with Fill Above Guide #655
1.0.0.663	Added option to fill above LAS guide value #633
03/10/19	 Added ability to select multiple projects from database #632
	 Added ability to export Coall og CSV's by project or by hole #630
	 Added ability to export Multi Log View to image #634
	 Added support for @ProjectSiteTable udt in Custom Exports
	Added support for @ProjectTable udt in Custom Exports
	Improved performance selecting large number of holes
	Improved performance loading graphic logs
	 Fixed man extent aspect ratio bug #631
	Fixed depth label overlaps #635
	Fixed last lith denth label missing
	Fixed adjacent seam depth label missing
1.0.0.662	Added option to hide CO headings
19/09/19	Added Quick Load Project feature
- , , -	Fixed CO heading overlap
	• Fixed grouting record when ST casing removed #627
	 Fixed loading workspace when hole file no longer exists #626
	 Fixed error generating graphic log if file in use #628
	 Removed "Allow Re-sequence" option #625
	IAS uploader no longer allows duplicate filenames
1.0.0.661	Added ROD_Cored
09/09/19	Added Drilling Statistics report (per run)
	• Fixed bug in Coall og V2.1 export
	Fixed bug loading Sample Dispatch from GeoCore
1.0.0.660	Added ability to display custom column on graphic log
29/08/19	Fixed bug loading Sample Dispatch from GeoCore
1.0.0.659	Added feature to find closest holes
28/08/19	Added feature to extract SWL from LAS data
, , -	Added validation for decimal places #623
	Added feature to fix decimal places #623
	• Fixed Seam Fault and Confidence not saving #619

	Fixed error in Water Observations data entry #620
	• Fixed error with duplicate columns uploading LAS
	 Fixed number formatting in Excel files (decimal places) #623
	Improved validation performance
	 Improved valuation performance Improved performance loading Holes from GeoCore #622
	 Improved performance applying sample IDs #622
	 Improved performance loading LAS from GeoCore
	 Cosmetic improvements – status labels
100658	Eived another bug in Coall og 2.1 Import/Export #619
09/08/19	
1.0.0.657	 Fixed bug in CoalLog 2.1 Import/Export #618
08/08/19	
1.0.0.656	 Added option to display defect estimated strength
08/08/19	 Added option to display composite samples #612
	 Added option to display seam confidence #614
	 Added columns for uncorrected depths in sample dispatch #603
	 Added importer for ProLog .dat format
	Added Lith comments to Info window
	 Fixed bug in sample depths on English Log #613
	• Fixed error generating sample dispatch #616
	 Further improvements to Graphic Log V2 BETA
1.0.0.655	Added folder settings for Layouts. Settings etc #602
01/08/19	 Added Repair tool to move files into new settings folders #602
	Added ontion to clear buffer tables after upload #606
	Added option to calculate Defect Length from Pern Width & Angle
	 Added GeoCore support for Coall og V2 1 drilling sheets
	 Dictionary check will now check for missing Peabody dictionaries
	 Improved Debugging/Event Logging
	 Improved Graphic Log V2 (Beta feature)
	 Indited Settings ToolTins
	 Eived LAS Grid drawn too thick
	 Fixed East on a drawn too trick Eixed Sample Selection when CO samples shown #E08
	 Fixed sample selection when CQ samples shown #598 Fixed issue importing with Custom Importor
	Fixed issue importing with Custom importer Fixed switch lead leading NC data famall halos #COF
	Fixed quick load loading NC data for all noies #605
	Fixed bug if DATE_INSERTED IS null #604 Fixed Dafast, March //s fill, March //s file, has been first to first file.
	Fixed Defect_Mode/Infill_Mode not saving to GeoCore #608
	Fixed Infill_Est_Str not saving to GeoCore #608
	Fixed LAS scale/range changing when enabled #609
1.0.0.654	Added ability to edit GeoCore LKP_PARAM's
11/0//19	 Added ability to add lease codes in GeoCore LKP_LEASE
	 Removed options for saving NC GeoCore tables in settings
	Improved Custom Import to include Seam Picks
	Graphic Log Logo Filename now accepts tokens
1.0.0.653	 Added admin tool to convert LAS paths to UNC
03/07/19	 Added function to populate blank projects in TMDB
	 Removed GeoCore translation of MD/ME to GAS sample type
	 Fixed Database interface to work with blank projects
	 Fixed LAS uploader to used UNC path instead of mapped drives
	 Fixed Pack & Send error when files don't exist

1.0.0.652	Added import via Custom Mapper
26/06/19	Added Copy option to Pack & Send
	Fixed Pack & Send to work with imported/DB holes #145
1.0.0.651	Improved Database Dump for TMDB
20/06/19	
1.0.0.649	Fixed invalid columns in V2.1 export
19/06/19	Modified Database Dump to allow column mapping
1.0.0.648	Added Database Dump for TMDB #592
17/06/19	 Fixed Date picker to default to today's date #587
	 Fixed page numbers not showing in print preview #591
	Core Photos not ticked in NSW report #590
1.0.0.647	 Added option to display core photos using un-corrected depths
23/05/19	Added Date Logged to Geologists template
	Updated LAS importer to recognise HOLEID
	Updated Date picker
	Fixed depth column in some LAS exports
	Fixed section correlation levels
	 Fixed drilling comments not saving in V2.1 template
	 Fixed lab not loading from V2.1 sample dispatch template
	Fixed date/time formatting in V2.1 template
	Fixed time formatting in V2.1 drilling table
1.0.0.646	Added Zoom feature on Graphic Log
10/05/19	Added option to disable depth corrections
	 Fixed YTB not correlating correctly in sections #585
	 Fixed LAS display settings when selecting layout
	Fixed bug saving layouts
	 Fixed single character data entry not always saving
	Fixed table view frozen columns in layouts
	Fixed Water Observations saving to CoalLog 2.1 format
1.0.0.645	 URGENT FIX – GeoCore EF Model Mismatch (PEA ONLY)
08/05/19	
1.0.0.644	 Fixed bug adding COMPANY codes (not saving)
07/05/19	 Fixed missing column error on CoalLog 2.1 export
	 Fixed various issues with loading/saving V2.x formats
	Further development of quick data entry feature
1.0.0.643	 Added option to crop LAS values outside of plot range #580
24/04/19	 Added BOA validation (similar to BUTE validation)
	Added validation error for required field Geodetic_Datum #582
	 Added feature to show defect movement during correction
	Fixed save layout bug
	 Fixed bug updating samples of different types with same depths
	Fixed CoalLog V2.1 Template #581
	 Fixed bug saving defects in CoalLog V2.1 #579
	Fixed bug editing defects in CoalLog V2.1
1.0.0.642	Added option to retain sample mass when re-generating dispatch #576
08/04/19	 Added option to select holes by source type #577
	 Added admin function for adding FRACTION_CODE's
	Added admin function for adding COMPANY codes
1	 Fixed bug not showing CoalLog V2.0 defects

1.0.0.641	Fixed bug when FileInfo is null
02/04/19	 Fixed bug occasionally not printing last page #573
	 CoalLog V2.1 Template missing from installation #575
	 Added check for template file when saving #575
	Improved GeoCore CQ Summary Export
	 Improved performance of acQuire importer
	 Updated LAS Importer to be more flexible #561
1.0.0.640	Added feature to repeat cells for selected columns #564
22/03/19	 Added folder settings for raw, corrected and final #569
1 1 -	Added geologist and date logged columns #562
	 Added sample hag column #567
	 Added support for wet/dry core photo renaming #563
	 Added warning when exporting multiple datums
	Further development of quick data entry feature
	Fixed bug in DB Coal Quality Summary report
	 Fixed bug in DB coal Quality Summary report Fixed copy/pacting dates in table views #220
	 Fixed copy/pasting dates in table views #525 Eived exception after colliting row when "Decevered. Thick" column
	 Fixed exception after splitting row when kecovered_finck_column hidden #572
	Fixed change thickness rounding to two decimal places #570
	 Fixed Change Unickness Founding to two decimal places #570 Fixed Congrate Doint Loads Longth in m #558
	 Fixed Generate Point Loads – length in in #556 You can now remove a sear via the rename sear function #571
	• Fou call now remove a seall via the remaine seall function #5/1
1.0.0.620	Improved performance of all tables views via double bullering
1.0.0.039	Added translation LP to LOX for Geocore
10/05/19	Added Beta toggie in debug options
1.0.0.000	Added prototype quick data entry screen (under development)
1.0.0.638	Added GeoCore Coal Quality Export (by hole selection) #554
12/03/19	Added GeoCore Coal Quality Summary Report
	Added English Log Encoder #553
	Fixed null reference exception in Generic Table Viewer #552
	Fixed Generate Point Loads m to mm #556
	Improved performance of expanding holes list #557
	Updated dependencies, GemBox, PDFSharp, Svg
1.0.0.637	Added importer for DHD header/lithology #551
05/03/19	Fixed LogCheck importer to include LQ column #550
1.0.0.636	 Added search function in Settings window #515
25/02/19	 Added option to display historical codes in dictionary lookup
	 Added automatic conversion of Sample Dispatch Lab names to Codes
	Added UI for Point Load Generation
	 Added acQuire Export/Translation option #547
	 Fixed KML export elevation offset #538
	Fixed TMDB migration
1.0.0.635	 Added function to Generate Point Loads sheet from GF samples #543
14/02/19	Added option to ignore GF samples when generating sample dispatch
	 Added option to select lab & date for Other sample types
	 Added check for un-saved changes when checking for updates #542
	Fixed CoalLog import not recognising PointLoads filename #544
	Fixed bug when clicking on Quality grid #510
1.0.0.634	Added validation check for missing Defect_Type #540
11/02/19	 Added validation checks for Point Loads - Test Type

	 Added validation checks for Point Loads – Sample No
	Added validation checks for Point Loads - Test ID
	• Fixed exception when Lease No missing in NSW summary report #541
	 Fixed saving Point Loads to GeoCore
1.0.0.633	• Fixed RMU_Type not exporting #539
06/02/19	
1.0.0.632	Added dynamic dictionary option for data entry
05/02/19	 Updated English Log Report, added Sample Type & Sample No
	• Fixed plot coal before other percentages #531
	• Fixed sample plot height #536
	 Fixed CQ WTD AVG not updating/syncing correctly
1.0.0.631	 Added option to ignore map reprojection warnings #524
31/01/19	 Added English Log report (English Log in Table format) #530
	 Show Sample Types menu now stays open after clicking #533
	 Fixed core loss in defects (RMU) validation error #528
	 Fixed Save Point Loads to GeoCore #213
	 Fixed LAS AutoRange and Reverse not synchronising #534
	 Fixed Print Pages not updating correctly #535
1.0.0.630	 Force SITE_ID to upper case for GeoCore #519
16/01/19	 Fixed bug with change thickness on continuation rows #521
	 Added support for CoalLog 2.1 Sample Dispatch sheet #520
	• Added Calculated Mass & Difference columns in Sample Dispatch #482
1.0.0.629	Fixed issue exporting imported LAS data to pseudo LAS files
13/01/19	 Fixed save button after applying depth corrections #522
	Make lith boundary lines more visible
1.0.0.628	Fixed issue importing acQuire LAS data
11/01/19	
1.0.0.627	 Fixed issue re-creating TMDB database
10/01/19	
1.0.0.626	 Added option to allow certain fresh rock types above BW
09/01/19	 Added option to allow overlapping casing
	 Added support for importing acQuire LAS format
1.0.0.625	 Added warning about LAS display in RAW edit mode
09/01/19	 Added translation of Geophys_Company from GeoCore
	 Added detection of NOT_LOGGED from GeoCore
	 Added ability to generate DIFF columns in Generic Table View #517
	 Added option to save as CoalLog V2.0 or V2.1
	 Cannot split row unless cursor is within selection #504
	 Fixed concatenated seams in sample dispatch validation error #518
	Fixed GeoCore translation issue when using Find
1.0.0.624	 Fixed CoalLog V2.1 Export issues
13/12/18	 Fixed Save button not always enabled #511
	Fixed saving Sample Dispatch to GeoCore #509
	Added average by seam option to LAS export (advanced) #512
1.0.0.623	 Added option to enable LAS display even in RAW edit mode #623
04/12/18	
1.0.0.622	Fixed bug causing exception on new logs (IsChanged)
30/11/18	Fixed bug reading CoalLog V2.0 Lithology
1.0.0.621	 Fixed issue with cursor moving up instead of right

21/11/18	Fixed section seam labels not correctly aligned #497
	Fixed change negative thickness
	 Fixed seam sequence validation when disabled #500
	• Fixed seam sequence validation should ignore faults #502
	• Fixed lithology not loading if thickness blank #499
	Fixed memory leak when loading LAS from GeoCore DB #503
	 Fixed validation exception when Pointl and depth is null
	 Fixed data entry highlight when changing row only (same column)
	 Fixed ALL LAS export (data in wrong columns when mixed files) #493
	 Fixed defects data entry not auto progressing #493
	 Fixed defects (V1) not validating
	Added ison on Cranbia Log to indicate source
1.0.0.000	Added icon on Graphic Log to indicate source
1.0.0.620	Fixed CoalLog V2.1 file load/save issues
12/11/18	Fixed bug in IsChanged function when filename is null #496
	Fixed bug importing CoalLog Transfer file water observations
1.0.0.619	 Added ability to validate seam sequence against dictionary #491
07/11/18	 Added feature to compare two boreholes and show differences #474
	Improved acquire importer
1.0.0.618	 Added option to disable validation for Casing.Recovered_Length #489
07/11/18	 Added ability to load multiple map layers at once
	 Added settings for map layer default folder #479
	 Added file change detection on refresh or save #488
	 Added ability to update dictionary from file path #477
	 Added option to deny thickness change for solid core #468
	 Added option to allow thickness change if core state undefined
	• Fixed Seam Hierarchy editor sorting seam codes alphabetically
	• Fixed issue saving/recognising alternate Sample Dispatch format
	 Dictionary pop up window size now saved #484
	 Improved validation & screen refresh performance
	 Improved Vulcan and acQuire importers
1.0.0.617	Added validation for Casing & Cementing #462
30/10/18	Added validation limit for Cementing Volume #462
	 Added ability to convert/export to Coall og V2.1 CSV
	Eurther preparation work for Coall og V2 1 #434
	 Export to later version of Coall og no longer causes unsaved changes
	Lindated TMDB for Coall og V2 1
	 Eived hug in Reset to RAW not resetting AppliedDepthCorrection
	 Fixed bug in Reset to RAW not resetting Applied Depth correction Fixed bug auto populating Pup. No #462
	 Fixed bug auto populating run_ito #405 Eixed bug in English Log generator when values missing #464
	 Fixed bug in English Log generation when values missing #404 Eived defects in core loss too consitive #452
	 Fixed delects in core loss too sensitive #455 Fixed TM new closes correctly when discording unserved changes
	Fixed TWI now closes correctly when discarding unsaved changes
100610	Fixed re-valuation entire noie after every edit
1.0.0.010	Preparation work for upcoming CoalLog V2.1 release Figure and the update update update update update. V2.2
23/10/18	Fix bug in previous update when using CoalLog V2.0
1.0.0.615	Added change thickness by percentage
23/10/18	Fixed CoalLog export missing Recovered_Thick
	Fixed Point Load test From_Depth calculation
1.0.0.614	 Convert Casing_Type to Casing_Material during V1 to V2 conversion
16/10/18	 Added validation for run number without recovered length

	 Fixed uncorrected depths not saving correctly
	 Prevent loading of blank lithology rows (no depth or thickness)
1.0.0.613	 Fixed AutoSave saving too frequently when set < zero
05/09/18	 Fixed Allow Sample Thickness change not working
1.0.0.612	 Added alternate setting for decimal places when dragging
30/08/18	 Added option to reset composites based on results
	 Added option to enable safe mode permanently
	Added F12 fix TD in header
	Improved Seam Pick Importer
	 Improved initial load time (load some settings in background)
	 Re-instated un-corrected depth save/view (after applying corrections)
	 Updated GeoCoreLASEF model to support new columns
	 Fixed Pseudo Log generator to recognise CALP mneumonic
	 Fixed LAS exporter exception (string padding)
	 Fixed lithology drag denied depending on previous selection
	 Fixed copy/paste multiple cells
	 Various data entry bug fixes and improvements
1.0.0.611	 Fixed bug in defect/core loss validation
23/08/18	
1.0.0.610	 Fixed depth corrections not applied automatically
21/08/18	 Fixed enviro sample types not translated to GeoCore
	 Fixed CoalLog V2.0 transfer file headings
	 Fixed paste not changing IsSaved flag
	 Improved seam pick importer to filter out QA, TE horizons and TD's
	Preliminary changes for CoalLog V2.1
1.0.0.609	 Added Alternate Lithology display (i.e. Pseudo Log from Geophysics)
15/08/18	 Added ability to export LAS files (from non LAS source)
	 Added ability to import seam picks (with lithology split)
	 Added validation check for defects logged in core loss
	 Added more data entry tab buttons
	 Change thickness not allowed if less than defect thickness
	 Improved performance of grid formatting
	 Improved data entry/validation performance
	 Disabled display of geophysics in raw edit mode
	 Renamed edit mode (Corrected = Correcting)
	Fixed defects hidden behind core runs on graphic log
	 Fixed bug displaying defects with null depth
	Fixed apply depth corrections (again)
1.0.0.608	 Added custom log exporter (via mapping file)
02/08/18	Added CoalLog file suffix settings
	 Added option to enforce CoalLog file suffix usage
	Added option to display LAS differently by depth
	Added Geophysics Pseudo Log report
	 Added options to reset all depths to raw depths
	Improved database custom exports by selection
	Moved file settings to separate category
	Cosmetic tweaks to English Log format
	 Lithology depths now colour coded raw (yellow)/adjusted (blue)
	 Fixed Sample Core Loss calculation when KL not assigned sample no.

	 Fixed seam fault codes don't display where there's no seam code
1.0.0.607	 Added custom log importer (via mapping file)
24/07/18	 Added Sample Summary to English Log
	 Added Litho_Type to Horizon Summary
	Added Loss % to Seam Summary
	 Added Moving Average 11 and 13 smoothing options
	Fixed bug in Sample Dispatch Generator
1.0.0.606	Added editable generic table column mapping and data import/export
18/07/18	Improved handling of uncorrected depths in raw edit mode
	Fixed Apply Depth Corrections
	Fixed bug in Settings window
	• Fixed some minor/cosmetic validation bugs
	Removed option to disable "Apply Depth Corrections"
1.0.0.605	Added Save Core Photos as PDF feature
17/07/18	Added Save Rehab Photos as PDF feature
	Added Well Completion Report (DRAFT)
	Added fill to guide option
	 Added ability to import CoalLog CSV's from File/Open menu
	Added validation check for interrelationship/continuation rows
	Added validation check for duplicate depths LAS uploader
	Added validation check for defect depth sequence
	 Added quick edit on graphic log (litho_type, litho_qual, adjectives)
	Added bad LAS files shown in red
	 Added option to disable "Apply Depth Corrections"
	Added option to display defect type on graphic log
	Added function to reset depths/data status to Raw
	Changed histogram from gradient fill to solid fill
	 Historical CoalLog codes now flagged as validation warning
	Changed English Log drilling column spacing
	Improved CoalLog V2 export compatibility
	 Fixed CoalLog export from depth on continuation rows
	 Fixed uncorrected depths in CoalLog imports
	 Fixed screen refresh and LAS sync after customization
	 Fixed reports not working on first open
	 Fixed validation for empty litho_type on continuation rows
	 Fixed problem loading unspecified suffix LAS files
	 Fixed graphic log jumps on right-click
	 Fixed rehab photo title not defaulting to settings
	 Fixed rounding error in uncorrected depths after split row
1.0.0.604	 Added validation rules for lithology above/below tertiary
09/07/18	Added check for 0m core photo increment
	 Updated weathering validation to ignore zero thickness and KL
	Fixed performance issue with custom database exports
1.0.0.603	Added F3 & F5 function in table view
04/07/18	 Added ability to change multiple/selected cells via F3
	 Added validation checks for weathering codes below BW
	Updated LAS icons
	 Changed "Load LAS from DB only" will not load linked files
	• Fixed pick lists not working in table view

	Fixed auto convert to upper case in table view editing
	• Fixed table view from DB, edited holes appear in hole list for saving
	• Fixed removed quick loaded holes disappear from DB screen
1.0.0.602	Added E6 auto generate sample number feature
28/06/18	Added F9 conv previous cells feature #384
	 Added auto fresh feature #385
	 Added action to include ply in seam correlations #395
	 Fixed seam hierarchy editor when parent codes not defined
	 Fixed bug when run number entered without drilling denths
1 0 0 601	Added To, Dopth designal data ontry chartsuit
25/06/18	 Added ability to index and view LAS DDE files
25/00/18	 Added ability to Index and view LAS PDF files Added ability to load (asis LAS DDE files from ConCore DD
	Added ability to load/save LAS PDF files from GeoCore DB
	Added ability to selectively load specific LAS file types from GeoCore DB
	Added ability to mark hole as NOT LOGGED & generate PDF
	Added ability to create new V1.x or V2.x CoalLog logs
	 Improved duplicate SITE_ID project select dialog
	Fixed issue with null elevation in CoalLog V2 reader
	 Fixed validation report re-running after every edit
	Fixed hidden correlations re-appearing after hole move
1.0.0.600	Added option to draw horizontal correlation lines behind Geophysics
13/06/18	 Added option to hide working sections on graphic log
	 Added support for importing/exporting V2.0 CoalLog Transfer Files
	 Cross Section Refresh/Re-correlate now re-sorts holes by PlotX
	 Hold down SHIFT key to enable event logging at start up
1.0.0.599	 Added option to "Show Graphic Logs" Side By Side
06/06/18	 Added ToolTipText on graphic log right click menus
	 Changed GeoCore MEASURED_LENGTH to Geologists_Recov_Length
	Changed Core Recovery to be any drilling with a run number
	Removed Drillers_Recov_Length
	Removed Drillers Gain/Loss
1.0.0.598	Fixed Log10 error on zero resistivity LAS values
04/06/18	Fixed Append to Master Sample Progression sheet
	Fixed page preview boundaries
1.0.0.597	Added ability to view/edit all Lithology/Drilling in table view
31/05/18	Added preliminary acQuire importer
	Added browse button to LAS loader
	Added ontion to load LAS beader information only
	 Added option to overwrite Geophys Log tools from LAS
	 Added option to pot show photos in list
	 Fixed Geophys Log tool translation from GeoCore & LAS
1 0 0 596	Fixed bug in event log when specified folder does not exist
21/05/18	 Fixed bug in event log when specified folder does not exist
1 0 0 505	Added ability to customize LAS guides
21/05/12	Added/Improved dictionany folder right click entions
21/03/10	Added/improved dictionary folder right click options Eived Coalling V2.0 Load/Save
	 FIXED COOLEDS V2.0 LOGO/SOVE Demoved EC/EQ Coolege Seconde Type translations
100504	Removed ES/EO GeoCore Sample Type translations
1.0.0.594	Added option to display sample depths directly from CQ
16/05/18	Added option to offset correlations on cross sections
	 Added option to export logs to location defined by folder settings

	 Fixed CQ display vertical alignment
	 Fixed Drilling sheet not loading when only Geologist depths entered
	 Fixed Data Entry mode not working when selected from toolbar
	 Fixed CoalLog V2.0 Plotting Patterns not displaying
1.0.0.593	Fixed SaveAll behaviour
09/05/18	 Fixed GeoCore upload FRACTION_CODE from tracking database
1.0.0.592	Fixed quick load maintaining link to TMDB
02/05/18	Added option to delete holes from TMDB
1.0.0.591	Added WTDAVG by Thickness calculation mode
02/05/18	• Fixed CoalLog export to use 0 for Record_Seq_Flag when not required.
	 Added Hole Purpose translation from S to ST on export
	 Updated GemBox Spreadsheet Library to V43.0.35.1018
1.0.0.590	 Added option to display CQ histogram at full sample height
17/04/18	 Added detection of brackets in core photo filenames
	Updated TMDB database
	Improved GeoCore Add User interface
	Changed Core State colour coding
1.0.0.589	Added option to split Caliper & Gamma display from other curves
10/04/18	Fixed TMDB database
	• Fixed GeoCore CQ upload to remove trailing spaces and handle non-
	numeric values
1.0.0.588	Added JBLith Seam importer
28/03/18	• Fixed Core Photo Editor/Viewer when filename contains large number
	Fixed Rehab Photo Editor not refreshing correctly
	 Fixed Rehab Photo Editor to use font specified in settings
	• Fixed suffix LAS load bug
	Fixed memory leak
1.0.0.587	Added ability to set section LAS curve width
14/03/18	Added ability to reset section scalebar
	Added Zoom Extents toolbar button in Map windows
	 Added Next/Previous view toolbar buttons in Map windows
	Fixed non nullable decimals, Easting, Northing, Elevation
	 Fixed suffix LAS load bug in last update
	Fixed section scalebar end value
	 Improved map selection and flags
1.0.0.586	 Updated GemBox.Spreadsheet Library to V41
07/03/18	 Added support for additional GEOCORE LAS columns
	 Added support for VW_LKP_LAS_DB_COL_MAP view
	 Added ability to filter by multiple projects/leases
	 Added ability to restore file backups
	Improved auto backup
	 Improved handling of non-numeric data in spreadsheets
	Fixed bug when inserting lithology beyond TD
1.0.0.585	 Added support for AusLog Verticality LAS format
28/02/18	 Added support for saving CoalLog V2.0 logs
	 Added feature to convert CoalLog V1.x to V2.0 logs
	Improved sample range hole name prefix detection
1.0.0.584	Added GeoCore BUFFER_CQ Uploader
21/02/18	 Added Borehole Summary Report (NSW Dept. Format)

4 0 0 5 0 0	
1.0.0.583	Added Drilling From Depth to English Log
13/02/18	 Un-hide zero in drilling Run_No
	Made validation errors table sortable
	 Fixed SaveAll when only 1 un-saved hole
	Fixed Drilling Validation Go To Error function
	Fixed Cancel doesn't abort Save All (to database)
1.0.0.582	 Added Hole_Purpose and Data_Status to English Log
08/02/18	Added Hole Planning function
	Added Save All dialog prompt
	• Fixed bug in previous update (menuitem vs toolstripmenuitem)
	• Fixed bug in multiple seams with same name & percentages
	Fixed Table Window Select/Deselect holes
1.0.0.581	Added cross section horizontal/vertical/depth mode selection/display
31/01/18	Added cross section aspect ratio display on toolbar
	• Added ability to handle multiple seams with same name (i.e. UN)
	Added option to show/hide BW on graphic log
	Added option to show/hide SWL on graphic log
	Changed default setting Database/Read Only to False
	 Fixed cosmetic issue with LAS grid overprinting core runs
	• Fixed bug with split lithology not splitting at mouse location
	Fixed boundary drag applying on initial click
	 Fixed LAS file type selection when hole doesn't match
1.0.0.580	Added option to exclude from Coall og export (Exclude from Model)
25/01/18	 Added option to paste holes list with exact match
20,01,10	Added option to bide horizontal sample lines
	Added option to get GPS location in Hole Status
	 Added option to get GPS location in Map Window
	Prevent LAS Files and LAS Curves right-click menu from closing
	 Fixed LAS curve translation when loading from GeoCore
	 Fixed bug from last undate when entering new defect row.
1 0 0 579	Added double click beyond TD to add row at clicked donth
16/01/18	 Added touch friendly option (Sottings/Data Entry Defaults)
10/01/10	Added touch friendly option (Settings/ Data Entry Defaults)
	Added couple number creation dialog
	 Added sample number creation dialog Added satisfy to load LAS from DB only (ignore files)
	Added by there for All (Nene (Default LAS file types)
	Added buttons for All/None/Default LAS file types
	Added Logio LAS processing (resistivity - FE)
	 Added double click on grid column header to auto size column width Added by these for 52, 510 and 512 here (to usb friendly)
	Added buttons for F3, F10 and F12 keys (touch menaly)
	Added buttons for Litho_Type and Litho_Qual (touch friendly) BETA
	Added more sample dispatch validation
	Added toolbar button to active windows Un Screen Keyboard
	Updated GB_LAS_DATA EF model to include new curves
	Improved camera functionality
	Fixed renab photo not resizing with window
	Fixed depth correction validation error taking precedence over
	aeptn/tnickness validation errors
	Fixed new row depth miscalculation
	 Fixed double-click on graphic log to change litho_type

	• Fixed sample dispatch generator – now includes seam fault codes
1.0.0.578	Added feature to take photo in core photo renaming tool
14/12/17	Improved photo taker in rehab photo editor
1.0.0.577	Added I – Invalid Point Load Failure Mode code
14/12/17	 Added custom options for JB Mining export
	Added feature to take photo in rehab photo editor
	Added feature to get current location in rehab photo editor
	• Fixed bug in track changes when generating sample advice
	• Fixed bug allowing roof/floor corrections set on sampled unit
1.0.0.576	Added X,Y,Thick import (for contours)
29/11/17	Added ability to disable label collision detection on maps
	Updated contour generator to support decimal increments/steps
	Fixed label positioning on maps
	Fixed bug in contour generator in certain situations
1.0.0.575	Fixed bug in average LAS value export
21/11/17	
1.0.0.574	 Added feature to delete old (30 days) site locks from GeoCore
17/11/17	 Added ability to load/save Sample Dispatch to GeoCore (disabled)
	 Added folder translation option for dictionary codes
	 Added validation warning for Hole_Name longer than 10 characters
	 Increased size of Data Summary selection window (for long paths)
	 Fixed null reference exception when cementing from depth = 0
	 Fixed section line not updating on map windows
	Fixed exception when hole not found importing CQ template
1.0.0.573	 Added Limit Warning for Drilling Recovered Length
27/10/17	 Added ability to add & edit master GeoCore seam codes (admin only)
	Added GeoCore Audit History viewer (admin only)
1.0.0.572	 Added ability to set LAS curve display order
20/10/17	 Added GeoCore Sample Repair feature (admin only)
	Improved GeoCore Seam Code editor (admin only)
1.0.0.571	 Added Water Flows and Activity to GeoCore Save Options
06/10/17	 Added Admin functions for managing GeoCore samples
	Fixed bug duplicating samples when no CQ data in GeoCore
1.0.0.570	Added Admin GeoCore Seam Editor
28/09/17	 Added ability to display multiple results for same sample (i.e. WS)
	 Added ability to plot mixed CQ simple numbers & histograms
	 Added ability to display background fill/boundary of result samples
	 Added ability for seam correlations to skip holes in cross sections
	 Added sample numbers on cross sections
	Improved error trapping and event logging around GeoCore save
1.0.0.569	 Added F12 calculate V-Notch flow rate from flow height
21/09/17	Added flow rate calculator (F3)
	Added teature to select holes from clipboard
	Added teature to load holes from clipboard list
	Added feature to select holes by filter
	Added validation check for Flow_Test_Type (required)
	Added GeoCore validation errors for NC tables
	Added ability to set background and border colour on section labels
	 Added ability to set horizontal alignment on cross section labels

	 Added DELete key to remove cross section objects
	Added option to update inset maps on cross sections
	Improved default cross section title box
	 Moved Validate All to Reports menu
	 Moved Coal Quality Display Settings to View menu
	Moved Sort Holes List to View menu
	Re-ordered Reports menu
	 Fixed anchor points could be moved in Zoom/Pan modes
	 Fixed inset man on cross section not displaying when maximised
1 0 0 568	Added ontion to search all LAS folders
14/09/17	 Added ability to conv/pacte some cross section objects
1,00,17	 Added track changes (depth thickness and seam changes only)
	 Added antion to display lithe description and comments together
	 Added option to display hino description and comments together Added function to import SM/L and water flows from drill sum
	Added function to import SWL and water nows from drift sum
	Added GeoCore NC_WATER_FLOW_INFO
	Added ability to plot custom coal quality values
	Added Custom/Vulcan export
	Fixed LAS not syncing when nodes not populated
	Fixed Cross Section selection rectangle
	Fixed unable to add lithology row after changing binding source
1.0.0.567	Added MapInfo pattern conversion table
29/08/17	 Added attributes to MapInfo cross section export
	Added images to Cross Sections
	 Added ability to resize Map windows in Cross Sections
	 Added ability to resize Scale Bars in Cross Sections
	 Added shapes to Cross Sections
	 Added hidden/pass through custom columns
	 Added tool to insert BW on zero thickness horizon
	Improved Vulcan Importer
	 Removed border from lithology in MapInfo export
	 Fixed bounds issue with MapInfo cross section export
	 Fixed CoalLog V2.0 Plotting Patterns
	Fixed bug in GeoCore unlock hole
1.0.0.566	 Added "Custom_" prefix to Fault column in CoalLog export
22/08/17	Added CoalLog Transfer File export dialog
	 Fixed codes left translated when SaveToBufferTables fails
1.0.0.565	Added default fonts for cross section hole and seam labels
21/08/17	Added TMDB database (beta)
	 Added seam correlation dip calculation (double click)
	 Added option to disable LAS curve syncing (SHIFT to reverse)
	Added ability to select horizon correlations
	Added option to display seam depths
	Changed "Remove hole if save successful" default un-ticked
	Changed cursor to "invalid" when boundary adjustment not allowed
	• Fixed well name warning in LAS uploader
	Fixed table window default title on selection change
	Fixed hole selection on table window selection change
	Fixed diagnostic report. Added send via email ontion
	Fixed boundary adjust to only work within lithology column

	 Fixed BW not displayed unless Show Casing option enabled
	 Fixed BW only recognised "BW", ignoring settings
	• Fixed uncorrected depths incorrectly assigned after splitting row
	• Fixed Save to Database button enabled even when no DB configured
1.0.0.564	Added Update Data Summary function
28/07/17	Added <u>Folder Settings Wizard</u>
	Added Seam Core Loss% limit
	 Added warning when core loss exceeds limit
	• Fixed Validation Errors and Files "Save sheet as" (right click only)
	• Fixed date conversion for Sample Advice Date Dispatched
	Fixed Data Summary mapping load/save
	Fixed Settings Wizard boolean values
	Composite Samples now shown when loaded from GeoCore
	 Composite Samples now saved as "CQC" instead of "CQ" type
	 Manual path now remembered for English and Graphic log exports
	Updated Entity Framework from 5.0 to 6.1.3
	Removed support for NKD database
1.0.0.563	Changed default file format for DB reports back to csv
24/07/17	• Fixed xGraphics state error when exporting PDF graphic log
1.0.0.562	BW now shown as zig zag line on preview window (ala TM2008)
20/07/17	Added ability to adjust printed pages from centre
	 Print pages now added centred at mouse cursor position
	Added splash/loading screen
	Added ability to save Sample/Seam/Horizon tables to file
	Added ability to save Validation and Files tables to file
	 Added custom header label variables
	○ Page
	• Pages
	o Scale
	 Company_Name
	 Internal code improvements/consolidation
	 Improved performance displaying holes list
	 Improved performance of graphic log loading
	 Improved display of printed pages
	Improved display of horizon labels
	 Improved display of LAS legend
	 Range values centred
	 LAS guide value now displayed in legend
	 LAS guides only displayed if greater than zero
1.0.0.561	 Added tool tip text to settings
12/07/17	 Added vertical LAS curve guides
	 Added Select All/Select None to Database Dump
	 Added link to AusIMM CoalLog web site
	 Improved Save to Database dialog
	 Added overwrite option (disable overwrite prompt)
	 Disabled option to save changes to file when not applicable
	 LAS curve display settings save automatically
	 Fixed edit mode change according to data status
	 Fixed LAS grid not displaying correctly in Stacked mode

	 Fixed LAS grid interval when vertical scale > 50
	 Fixed Cap Bhus tools getting removed when loading LAS from DB
	Fixed Geophys tools getting removed when loading LAS norm DB Changed Ded summers take to light blue as Ded indicates "hed"
4.0.0.5.00	Changed Red summary tabs to light blue as Red indicates bad
1.0.0.560	Fixed bug exporting images to PDF at wrong scale
09/06/17	 Fixed F7 error when copying drilling depths
	 Fixed grammatical error in legacy validation message
	 Rearranged folder settings
	 Appended "Folder" suffix to Reporting and Logging Templates settings
1.0.0.559	Added custom header labels
09/06/17	Fixed template load from recent files
1.0.0.558	 Added ability to hide/select columns in Coal Quality Viewer
08/06/17	 Added ability to load/save layouts in Coal Quality Viewer
	 Added ability to load/save logging templates
	 Added "What's New" under Help menu
	 Improved initial load performance of graphic log screen
	 Fixed application icon missing/broken in recent releases
	 Fixed option buttons now appear clicked when selected
1.0.0.557	 Added "Validation Only" flag for legacy dictionary codes
06/06/17	 Added warning when validation only/legacy codes used
	Colour coded validation error list
	Fixed site lock date stamp to include time
1.0.0.556	• Fixed "Thickness" error when entering From Depth in Defects sheet
05/06/17	 Fixed handling of IS for MASS in CQ import
	 Fixed data summary import (last heading row)
1.0.0.555	Added toolbar buttons for core state and LAS grid
02/06/17	 Fixed Apply Depth Corrections (multiple corrections)
	Added comments to Samples/Results
	Added MODEL FLAG CODE
1.0.0.554	Improved Data Summary loading/column recognition
31/05/17	Added support for BVI Final Report CO data
	Added verticality KML export
	 Fixed error selecting LAS curves (due to new photo nodes)
	 Fixed error display LAS curves with range < 1.0
	 Delayed loading of photo nodes in holes list
	 Improved appearance of core runs
	Core State E now displays in red
1.0.0.553	Eixed manual Load LAS (from holes list)
23/05/17	 Added From Depth to Activities sheet
100552	Improvements to Rebab Photo editor
17/05/17	\circ Show/Hide all attributes
	\circ Show/Hide individual attributes
	\circ Change logo
	 Added core photos and rehab photos to main holes list
	 Added ability to edit seam and horizon colours from dictionary
	 Removed default colours for horizons (now uses dictionary colour)
	Added ability to double click on dictionary code to edit
1.0.0.551	Added option to display comments in place of lith descriptions
09/05/17	Added Activities DB link
	Added Rehab Photo viewer/editor (beta)

	Added admin option to override user lock
	• Added LAS uploader warning when well name does not match filename
	Added seam to LAS exports
	• Fixed LAS source hover text when loaded from file via DB
	 Fixed SWL/BHWL horizon insertion when SWL=0
	 Changed tab colour to red for read only sheets
1.0.0.550	• Fixed issue with CoalLog transfer file import/export of drilling depths
03/05/17	• Fixed exception when clicking on new drilling row during edit
	• Fixed GeoCore LAS delete & rename bug
	 Upgraded SVG library to V2.3
1.0.0.549	Fixed bug when entering From_Depth in Cementing
26/04/17	(Introduced in previous update)
1.0.0.548	Added CQ(<i>seam,param</i>) function
26/04/17	Added function to generate PROJECT SITE list
	Added hole selection options to right-click menu
	 Added warning for zero thickness with no record sequence flag
	• Fixed custom columns not displaying in table view
	 Minor improvements to Image/KML converter, fixed vertical scaling
12/04/17	NOTE: END OF SUPPORT FOR TM2008
1.0.0.547	Added option to Auto Load LAS when loading holes
10/04/17	 Added Side by Side window option (graphic logs only)
	Added graphic log sync scrolling option
	 Fixed bug when loading LAS from database linked to CSV file
	Fixed Database Seam Summary Report
	 Fixed depth/thickness bug during data entry
1.0.0.546	Tweak CO loader to recognise data summary format
29/03/17	 Added option to generate English Logs without header info
1.0.0.545	 Added additional error information around NC table saving
23/03/17	 Added check for existing hole when saving to database
1.0.0.544	Fixed null PROJECT code exception when loading/saving GeoCore
21/03/17	 Improved error handling when importing CoalLog CSV's
	 Added more help information for GeoCore save errors
1.0.0.543	Improved error reporting in GeoCore LAS uploader
08/03/17	
1.0.0.542	 Fixed bug in GeoCore LAS uploader – Nothing ready for upload
08/03/17	
1.0.0.541	 Improved GeoCore LAS uploader - pre upload validation
08/03/17	
1.0.0.540	Fixed section hole labels missing from export when Keep Visible on
01/03/17	 Improved LAS curve scale display
	 Added option to display LAS grid
	 Added option to reverse selected LAS curves by default
1.0.0.539	 Added Seam Depths to GeoCore CQ Pivoted Export
23/02/17	 Fixed CoalLog load missing rows with null To_Depth
	 CoalLog load now calculates Recovered_Thick if missing
	Fixed null reference exception uploading Drilling depth to GeoCore
1.0.0.538	Fixed Sample Advice B save/export
18/02/17	
1.0.0.537	 Fixed Sample Advice B generation & load/save

17/02/17	 Fixed ability to adjust lith boundary of last unit
	 Improved link between section and graphic log (lith/seam selection)
	 Added ability to copy map layers to other map windows
1.0.0.536	Updated GeoCore custom export display names
16/02/17	• Fixed Database configuration interface when changing type
	• Added option to Update TD function to insert NR's to match header
1.0.0.535	Added ability to paste address into CoalLog Export folder selection
03/02/17	 Added tool to fix/reset From Depth/Thickness based on To Depth
	Fixed CSV Unicode TXT issue
	 Improved Save Table As options (CSV/XLSX etc)
	Changed icon for dictionary download
	Improved documentation for licencing
	 Improved KML export (elevation & colour)
	 Added lithology report (all lithology for selected holes in one table)
1.0.0.534	 Added ability to load CSV grids and display on cross sections*
27/01/17	 Currently only works with elevation depth mode and true
	spaced point to point projection
	 Added True Depth columns (from verticality LAS)
	 First value on or after logged depth
	 Improved handling of unusual sample ranges & prefixes
	 I.e. 123C10 (where 123C is hole name or other prefix)
	 Updated ENER dictionary conversion matrix
	 Fixed case sensitivity issue with dictionary downloads
	 Dictionary files now backed up prior to downloading new version
1.0.0.533	Improved performance of dictionary updates
21/12/16	 Added option to rotate core photos according to EXIF information
	 Improved error handling for duplicate sample depths in GeoCore
1.0.0.532	Fix core photo loader to support multiple underscores in filename
21/12/16	
1.0.0.529/530/531	 Updated LAS loader for malformed headers
15/12/16	
1.0.0.528	 Rehab date now included in quick load (GeoCore)
15/12/16	 Fixed duplicate holes when loaded from pasted list
	 Added option to exclude seams above BW in StripRatio
	 Added option to exclude non coal seams from StripRatio
	 Fixed GeoCore custom reports @Site_list (TABLE)
	Improved CoalLog importer
	 Import lithology without headers using existing holes
	Calculate thickness when not provided
1.0.0.527	Translate LP sample type to CQ (no LOX sample purpose in GeoCore)
01/12/16	Added tests for additional CQ templates
100500	Moved GeoCore CQ translation table to external file
1.0.0.526	Added @Site_list parameter for Stored Procedure custom exports Changed LAC issue that for a DD EXT title?
25/11/10	Changed LAS icon when loaded from DB EXT_LINK Eived events is the second seco
	Fixed graphic log scrolling tick marks on scale
	Added function to view LAS file in table
	Fixed composite sample generator to honour hidden samples Fixed excitit excert to the sample generator to honour hidden samples
	 Fixed multi-screen toggle when primary display is not at X=0
	 Fixed case sensitive custom report prefix filter

1	
1.0.0.525	 Updated quick load to include survey information
11/11/16	 Fixed bug when adding/removing multiple new lithology rows
	 Added drag/drop LAS files to LAS uploader
	 Automatically remove MC2U if VL2A is present
	 Added admin options to overwrite/clear existing LAS data
	 Improved error reporting and progress notification
	Improved recognition of WellName in LAS header
	 Added F11 copy multiple lithology rows to end
1.0.0.524	Added FireTriggers and CheckConstraints options for LAS upload
09/11/16	
1.0.0.523	Improved error detection for LAS GeoCore Upload
09/11/16	
1.0.0.522	 Added CTRL-F10 – Copy down current column (cell above) only
07/11/16	 Added SHIFT-F10 – Force copy down entire row even if not empty
	(except depth/thickness)
	 Unlocked column width on hole status tab
	 Added Zoom In/Out buttons to Map window
	 Added Section Buffer Width +/- buttons to Map window
1.0.0.521	Removed translation of NR for continuation (zero thickness) rows
28/10/16	Fixed Sample Dispatch Generator to ignore previous continuation rows
20/ 20/ 20	 Improved database configuration setup logic
	 Fixed issue where LAS in quick loaded heles was deleted on relead
100520	Added option to hido comple labels by type
27/10/16	Added option to nide sample labels by type
27/10/10	Completed work to support multiple samples at same deptn
	Added Validation check for overlapping samples (of same type)
	Added Company Code filter in Load from Database filters
	Added Gas Lab & Date to Sample Dispatch Generator
	Added WHERE clause generator for selected DB sites
	Added function to copy list of selected DB sites to clipboard
1.0.0.519	Added option to enable/disable all seam correlations
24/10/16	Fixed issue with MapInfo export bounds
	 Further work on multiple samples at same depth
	Improved sample validation
1.0.0.518	 Added ability to rename LAS files in database
21/10/16	Added ability to delete LAS files from database
1.0.0.517	 Fixed sample load from GeoCore for non CQ samples
17/10/16	 Updated to recognise multiple samples at the same depth (tbc)
1.0.0.516	 Added Remove Layer button on map layers dialog
12/10/16	 Sw_Level now inserted as BHWL horizon (GeoCore only)
	Added Setup Wizard
	 Added ability to convert table views to map layers
	 Added ability to convert map layers to tables
	 Fixed PAD_NAME not saved when default PAD_NAME used
	 Minor improvements to Map layer property windows
1.0.0.515	Added StripRatio to custom parameters (i.e. plot on map)
28/09/16	Fixed map layer label selection
	Added ability to change map layer title
	Added ability to copy selected map objects to new laver
	 Added ability to save selected map objects to file

	Added ability to delete selected objects from map layer
	LAS header data now concatenated from GC_LAS_HEADER/PARAM
	LAS mneumonic now correctly set from GC_LAS_PARAM
	 Default LAS curves now correctly selected when loading from GeoCore
	• Fixed LAS curve display colour reset in holes menu
1.0.0.514	Fixed Geophys header info not downloading from GeoCore
19/09/16	Fixed Rehab data not downloading from GeoCore
1.0.0.513	Fixed issue with duplicate pads in NC_PAD_PLANNING
19/09/16	
1.0.0.512	Fixed map hole selection not highlighted
19/09/16	Updated DotSpatial from 1.7 to 1.9
	 Added ability to right click on flags to selected those holes
	 Added Find hole from main holes list (in current map or table window)
	Improved Coal Quality Viewer (filter selection & washability viewer)
	 CQ display settings now save when changed, not just on exit
	• Fixed LAS V1.20 well name
	 Fixed trailing space when stripping DENSITY from WELLNAME
1.0.0.511	Added MODEL EXCLUDE FLAG tick box in header
14/09/16	 Fixed Coal Quality view setup to only include numeric values
	Added Sample Type to Sample Summary report
	• Fixed Strip Ratio report to ignore faults
	 Fixed Strip Ratio report – "All Seams"
1.0.0.509/510	Added support for NC_PAD_PLANNING
07/09/16	Fixed GeoCore CQ template importer, no longer requires SUB_PROJECT
	column
	 Added simple inset map on cross sections
1.0.0.508	Added browser bar to core photo renaming tool
31/08/16	 Added ability to drag/drop core photos onto TM
	• Fixed bug resetting table layout after "Change all"
1.0.0.507	Fixed bug in Horizon correlation in cross sections
29/08/16	Added ability to freeze columns in table windows
	• Added right click option to hide & choose columns in table windows
	Fixed table layout resetting after refresh
	• Fixed additional guides not saved with Graphic Log layout
1.0.0.506	Fixed minor bug in previous update
26/08/16	
1.0.0.505	Added table layouts (similar to Graphic Log layouts)
26/08/16	
1.0.0.504	 Fixed LAS downloader to ignore NULL FILE_LINK references
24/08/16	 Improved data summary reader
	 Recognise additional header columns
	 Ignore d.b columns
1.0.0.503	 Fixed Database timeout not applied to all queries
18/08/16	Fixed LoadFromDB to load CQ data by default since removing option
	Fixed LAS uploader to ignore suffice after well name
1.0.0.502	 Fixed core photo/lithology syncing (when cycling through photos)
12/08/16	
1.0.0.501	 Fixed issue with TM not recognizing A+B+C style sample numbering
12/08/16	• Fixed issue with multiple seam filters in reports

1.0.0.500	Updated Core State colour coding
05/08/16	 Fixed misinterpretation of A+B+C sample label convention
	Added Strip Ratio Report
	 Improved event logging and debugging
1.0.0.499	• Fixed bug in GeoCore sample update when sample not found in lith
05/08/16	 Fixed multiple exception errors opening and closing DB window
1.0.0.498	Fixed exception when closing database window
29/07/16	Added Horizon Summary & Depth Reports
	Fixed hole source when loading from DB within map extents
1.0.0.495	 Added option to show core state in graphic log
29/07/16	 Added option to re-correlate on refresh only when SHIFT key pressed
	 Fixed cross sections to display selected object on top
	 Fixed cross sections to enable horizon labels to be moved
	 Fixed bug in cross sections using ProjectOntoLine in certain
	circumstances
	 Added setting for default section buffer width
	 Added option to lock section buffer width (disable mouse wheel)
	 PointToPoint sections now shown as jagged lines on maps
	Fixed some section hole selection issues
	 Added ability to save map drawing layers (i.e. section lines)
	 Added option to insert horizon on graphic log
	 Added option to permanently display CTRL key additional guides
	 Added ALT-I function to copy selected rows to end of log
	 Added CTRL-I function to insert row(s)
	Improved GeoCore save to update all sample depths
1.0.0.494 30/06/16	 Fixed problem switching paper size for Graphic Logs
1.0.0.493	Added ability to manually adjust width of holes list
27/06/16	 Added option to save default LAS file load settings
1.0.0.492	Added Polygon Select in Map Window
27/06/16	Added Cross Section Select in Database Map Window
	Added Re-Create Section from Hole Selection button
	 Added ability to load/save cross section layouts
	 Added ability to copy layout from another cross section window
	Improved map hole selection performance
	Fixed LAS plotting artefact
1.0.0.491	• Fixed bug in previous update stripping excess spaces from Rig_No
24/06/16	Removed single instance app setting
1.0.0.490	Added stored procedure custom exports
22/06/16	
1.0.0.489	 Added ADMIN tools (Add User/Delete LAS Data)
20/06/16	Fixed map/section/hole selection
	LAS importer now removes excess data after units i.e:
	DEPT .M 00 001 00 00
1.0.0.488	Fixed custom export to retain trailing commas
10/06/16	Fixed custom export to format dates as short date style
	Fixed GeoCore analysis import to support headers on first row
1.0.0.487	Added option to display horizon on graphic log
03/06/16	 Improved import/export of Coal Quality Data for GeoCore upload

1.0.0.486	• Fixed bug in GeoCore save when project code not in dictionary
01/06/16	
1.0.0.485	Improved performance of cross section selection from map window
25/05/16	
1.0.0.484	 Removed quotes from column headings in csv exports
25/05/16	
1.0.0.483	 Fixed bug in previous update removing initial valid colon
23/05/16	
1.0.0.482	 Added check for illegal filename/path characters in folder settings
23/05/16	Enabled extended file/folder information by default
1.0.0.481	 Added option to extend database timeout (default 30 seconds)
20/05/16	
1.0.0.480	 Fixed Grouting Record generator for holes loaded from DB
16/05/16	 Generate Mass from Density now prompts user when BRDU not found
	 Fixed FRACTION_CODE conversion to not be case sensitive
1.0.0.479	Fixed hole summary export
10/05/16	 Added prefix prompt for CoalLog exports
	Updated Training Manual
1.0.0.478	Temporary debug release
10/05/16	
1.0.0.477	Added Summary Sheet generator
06/05/16	 Preliminary work on MapInfo table export (tba)
1.0.0.476	 Cosmetic changes to English & Graphic Logs
22/04/16	 Fixed LAS uploading/downloading project code translations
1.0.0.475	Fixed duplication in CQ data dump
20/04/16	 Fixed LAS uploading to wrong server
1.0.0.474	• Fixed file recognition issue with CoalLog transfer files ending in _v1.1
19/04/16	
1.0.0.473	 Fixed incorrect update link (PEA version)
11/04/16	Added Custom Exports (GeoCore)
1.0.0.470	 Added translation for old MVL and COP project codes to GeoCore LAS
06/04/16	download function.
1.0.0.469	 Fixed GeoCore LAS download to recognise both numeric and alpha
06/04/16	project codes. Sort LAS data by depth and assign default curve colours.
1.0.0.468	 Fixed GeoCore comments not downloading and causing issue with
22/03/16	English Logs
1.0.0.467	 Finalised GeoCore LAS Uploader/Downloader functionality
16/03/16	
1.0.0.466	 Fixed hole status comments to wrap onto next line if too long
15/03/16	
1.0.0.465	 Added hole status comments to English Log
11/03/16	
1.0.0.464	Fixed CoalLog converter to translate Hole_Type to Core_Size when
09/03/16	generating Core Runs
1.0.0.463	Extended colour coded historical holes for multiple company codes
03/03/16	Re-load all holes now loads DB quick loaded holes
	Provisional release of LAS data upload feature
1.0.0.462	Added ability to colour code historical holes in map window
02/03/16	 Added warning when mixed datums loaded

1.0.0.461	 Added ability to filter sites by survey RANKING (GeoCore)
23/02/16	Added RANKING filter to database dump (GeoCore)
1.0.0.460	 Fixed cross section bug when Northings are almost identical (bounding
15/02/16	rectangle had zero height)
	 Added SUB_PROJECT, LEASE_NO and DATES to pivoted CQ export
	Added CQ export from Data Summary window
1.0.0.459	 Fixed Company code translation for GeoCore Save
27/01/16	Header TD defaults to Lith TD if null (GeoCore Save)
1.0.0.458	 Added curve options to Export LAS feature
22/01/16	 Default Curves
	 Visible Curves
	o All Curves
	 Added output file options to Export LAS feature
	• One large CSV file
	• One CSV file per hole
	• One CSV file per LAS file
1.0.0.457	Added more options to Export LAS feature
21/01/16	• All Values
	Average LAS value per lith unit
1.0.0.456	Average LAS value per sample Eived fileneme recognition for Coolling CCV/imports
1.0.0.450	Fixed filename recognition for CoalLog CSV imports
100455	Added COALLOG (ACARP) translation option in Geocore DB dump
1.0.0.455	Removed seam translation from description except very long
10/12/13	Added 30 day grace period after licence expires
1.0.0.453-454	 Fixed rounding issue in insert Lithology function (was ignoring docimal place setting)
10/12/13	(was ignoring decimal place setting)
00/12/15	Added seal to little description in English Logs Eived formation thickness calculation in English Logs
1 0 0 451	Fixed Confere CO data dump to use only Panking=1
01/12/15	 Fixed Geocore CQ data during to use only Ranking-1 Ungraded to ComPox Spreadshoot V2.0 1120
1 0 0 450	Opgraded to Genibox.spreadsheet v3.9.1120
24/11/15	• Made performance improvements optional (crashes of some systems)
1 0 0 448	Eived CO export bug when NULL elevation in GeoCore
19/11/15	Minor performance improvements
1 0 0 447	Fixed bug when core photo contains corrupt EXIE data
17/11/15	Indated ETP dll to latest version
1,11,10	 Fixed Sample Dispatch hole number in wrong cell
1 0 0 446	Fixed GeoCore drill fluid and bit type translation
03/11/15	Fixed Rig. No trim trailing snaces
,,	 Improved load time of Graphic Log window
1.0.0.445	Fixed GeoCore CO export (fast mode) to include seams
03/11/15	• Fixed GeoCore MINING COMPANY CODE NULL translating to AP
1.0.0.444	Various updates to CO/GeoCore import/export
03/11/15	
1.0.0.443	Minor cosmetic fixes to English Logs
15/10/15	Added validation check for missing sample types
. ,	 Fixed – horizons now plot at base depth rather than mid depth
	Horizons & formations plot differently depending on parent code
	Horizons & formations now have labels

	Fixed GeoCore sample purpose validation check
1.0.0.442	 Disabled NC_PAD_PLANNING write via Entity Framework as it was
14/10/15	causing errors
1.0.0.441	Fixed English log to include interbedding
06/10/15	• Fixed English log to remove CRLF characters and trailing commas
	 Added English log dialog window similar to Graphic Log
	Added "Save as English Log PDF" from File menu
1.0.0.440	Added option to save to GeoCore when resequence is required
06/10/15	 Added support for LAS V3.0 header (~Log_Defenition)
	Fixed CoreLoss missing from Samples sheet
1.0.0.438	Added ability to nominate horizons for English Logs
01/10/15	Fixed bug downloading/translating some GeoCore fields
1.0.0.434/434	Fixed bug when clicking on validation report
16/09/15	Fixed bug renaming core photos over 1000m
1.0.0.433/433	Fixed "Index Start" error on data row change
02/09/15	
1.0.0.432/432	Updated GeoCore project list to use VW_SEC_USER_PROJECTS
28/08/15	Added non CoalLog lithology sheet option
	Updated PDF component to latest version
1.0.0.xxx/431	Fixed lag when selecting holes from database
05/08/15	
1.0.0.431/xxx	 Fixed plotting of marine bands and bivalves
04/08/15	
1.0.0.430/430	Fixed database sort sync issue
30/07/15	 Added database extents tool (show all holes within map extents)
	 Added FTP download, extract and convert tool
	 Added hole_type (SITE_TYPE, SITE_REASON) to DB drilling summary
1.0.0.429/429	 Added drill dates to drilling summary report
24/07/15	
1.0.0.428/428	 Added section orientation selection (NS/EW/SN/EW)
23/07/15	Fixed automatic section orientation
	 Fixed Interval Status after bulk shift/boundary adjust
	 Fixed bug in SplitRow not setting GeoCore INTERVAL_NO to zero
1.0.0.427/427	 Fixed plotting of root beds & marine bands
17/07/15	Improved validation performance
	Fixed SplitRow and InsertRow for percentages
1.0.0.426/426	Fixed validations for custom dictionaries (again)
16/07/15	Fixed overlap when saving hatch brushes to PDF
	Fixed invalid date handler when loading Water Observations
	Fixed English Log Drilling when more than one page
	Changed English Log Geologists to table
	 Added option to save default LAS curve display settings
	 Added ability to specific which sheets to save to GeoCore
	Added ability to save any sheet to XLS
	Added ability to save Sample Dispatch sheet separately from log
	Added ability to adjust print pages on main screen
1.0.0.425/425	Fixed validation inconsistencies
10/07/15	
1.0.0.424/424	Fixed validation for custom dictionaries

10/07/15	 Fixed GeoCore special case translation of TT code
	Fixed GeoCore MGA/GDA translation
1.0.0.423/423	 Fixed GeoCore special case translation of CH and TS codes
10/07/15	 Added links to Training Manual and YouTrack from help menu
	 Added link to Software Licensing Agreement from Licencing window
	 Initial internal support added for CoalLog V2.0 (not yet implemented)
1.0.0.422/422	 Added Minimal and Expanded hole list display options
03/07/15	 Minimal mode to reduce width of hole list
	 Expanded displays more info (customisation coming soon!)
	Re-arranged Tools menu
	Moved "Sort Holes" from Windows to Tools menu
	Added Settings button on toolbar
	Removed double-click function to open graphic log window
	 This allows double-click to expand/collapse tree
	Fixed current hole highlight missing from hole list
	 Fixed right-click on "(No LAS files loaded)" pop up menu
	Added SHIFT-Click now deselects as well as selects lithology
	Fixed Create Composite when no CQ results loaded
	Added "Save to Database" for Composites (GeoCore only)
1.0.0.421/421	Fixed Core photo viewer on graphic log screen
30/06/15	Added validation check for negative thickness
	Improved support for drag/drop files including zip's
	Slight performance increase when loading graphic log window
	Geocore country and Basin filters now load on demand
	Internal changes to allow selective loading of GeoCore tables Fixed "New Hele" strenge depths in gross sections
	 Fixed New Hole strange depths in closs sections Added function to change hole coloction in table/man windows
1 0 0 yyy//20	Fixed CC_INTERVAL_NO (for now boloc)
26/06/15	 Fixed GC_INTERVAL_NO (IOI new holes) Eixed rounding issue when assigning new GC_INTERVAL_NO's
20,00,10	Added Template Reporting feature
1 0 0 417/417	Fixed GC_INTERVAL_NO re-ordering after inserting rows
25/06/15	 LAS Other (unspecified) ontion now defaults to checked
	Eise Stife (dispectice) option now defaults to checked Eised SITE_STATUS code translation issue
	 Fixed seam reports not honouring seam filters
	 Fixed load workspace not restoring report table windows correctly
	Added Seam Statistics "Full" Report
1.0.0.416/416	Added ClickPoints for Insert Lithology & Split Row functions
24/06/15	Added Composite creation interface
	 Fixed bug in Map window when hole number is blank
	 Fixed bug translating blank Company code in GeoCore
1.0.0415/415	Added Cementing to English Logs
16/06/15	• Fixed GeoCore sample/lith depth rounding issue
1.0.0.XXX/414	 Reduced Sample_No column minimum width by 50%
15/06/15	 Fixed GeoCore Grouting and Geologist Load/Save issues
	• Fixed hole locked on save when same user
	Added preliminary Washability Curves
1.0.0.XXX/413	Fixed WTD AVG calculations
11/06/15	 Fixed GeoCore saving of null Defect Perpendicular Width
1.0.0.412/412	Added function to update survey information

03/06/15	Updated GeoCore save function to only save header information when
	required
	 Fixed GeoCore lithology zero percent bug
	 Added option to hide advanced database save options / fix tools
	 Modified "Save to Database" button to save all unsaved holes if none
	are checked
	Added display options to expand/collapse hole list:
	• Hole only
	• Hole & LAS file
	• Hole, LAS file & curves
	Removed File/Remove function as it was ambiguous
	Added "CoveTeDetebase" toolber button
	 Added function to coloct balos that have file date newer than DP.
	 Added function to select holes that have the date newer than DB insert/undate date (to be tested)
	 Improved handling of invalid data in Excel log files
	 Further development of Coall og V2 0 plotting patterns
1 0 0 411/411	Fixed seam label vertical position when changing vertical scale
28/05/15	 Added "Indate Legend" function
1 0 0 XXX/410	Fixed double translation of ACARP to GeoCore codes
27/05/15	
1.0.0.XXX/409	Re-release with correct version of Entity Framework 5.0
26/05/15	
1.0.0.411/408	 Fixed position of "ROOF OF CORRECTIONS" text (cosmetic)
26/05/15	Fixed duplicate custom label error
	 Changed map layer window to non mdichild, topmost + transparency
	 Added Project to saved workspaces to avoid issues with duplicate hole
	names when loading
1.0.0.406/407	 Improved sample depth display to avoid overlapping
20/05/15	 Added option to check for dictionary updates periodically
	 Removed option to disable database quick load
	 Added CoalLog V2.0 patterns option (requires further development)
	Cross Section Generator
	 Fixed custom depth alignment bug
	 Added "New ScaleBar" function
	 Added "New TitleBox" function
	 Add new labels to existing title box
	 Added "Remove LitleBox" function Decomplete results and a supervised first
	 Ke-correlate now snows a warning first Changing porizontal alignment no langer resets correlations for
	 Changing nonzontal alignment no longer resets correlations & label sustamisations
1 0 0 405 /405	Cross Section Congrater
18/05/15	 Added ability to enable/disable correlations
10/03/13	\sim Added ability to edit correlations (colour)
1.0.0 404/XXX	Minor hug fixes to dictionary viewer/editor
15/05/15	 Date filter for reports and data dumps and generally improved
,,	database filters interface. Click the filter button (funnel icon) to
	show/hide the filters
	 Additional database reports (hole summary, seam summary etc)
	 Added validation for casing

	 Loading a workspace with holes loaded from the database now uses the quick load method
1 0 0 XXX/403	Indated GeoCore Save function to concatenate Coall og Hole Purpose
14/05/15	codes (if used)
1.0.0.XXX/402 14/05/15	• n/a
1.0.0.XXX/401	Eixed sample saving to GeoCore
08/05/15	Added notification after saving to GeoCore
	Added rode translation for data dumps
1 0 0 XXX/400	Fixed cross section hole position bug
06/05/15	
1.0.0.XXX/399 06/05/15	 Added "New Legend" option to cross sections
1.0.0.XXX/398	Fixed various cross section bugs/projection issues
04/05/15	Added database dump report
1.0.0.XXX/397	Added GeoCore upload for DefectsV2
04/05/15	 Fixed GeoCore drilling upload to include both cored and chipped
	sections
	Removed zero defaults
1.0.0.396	Fixed printing issues
24/04/15	• Bottom border now honoured, log now doesn't print right to
	the bottom of the page
	 Fixed scaling, depths should now be contiguous from one page
	to the next
	 Removed page numbering/nomination guidelines from
	printed/pdf pages
1.0.0.394	 Fixed depth errors when splitting a row into 3 or more units
10/04/15	 Scroll mouse wheel to zoom in core photos no longer affects graphic
	log
	 Added different colour for columns that have an associated pick list
	(very light gray)
	Added "Import Layout" option and renamed "Save Layout As" option to
	"Export Layout" (to avoid confusion with "Save Layout")
06/04/15	 Fixed unhandled exception error during data entry
24/03/15	Re-released private version with temporary code signing certificate due
	to issue with .NET Framework 4.0. Does not affect public version
	 Added GeoCore pass through variables for RQD & NumofFractures
	 Added option to select layout when generating bulk graphic logs
17/03/15	 Added translation for GeoCore COORD_SYSTEM
	 Fixed split lithology bug for continuations
1.0.0.383	 Fixed graphic log scaling/printing issues
12/03/15	
03/03/15	GeoCore
	 Set LITH_PERCENT to NULL rather than 100%
	 Does not set CONTINUATION_CODE where LITH_PERCENT is not null
25/02/15	Eixed null reference handler when opening Excel log
19/02/15	GeoCore
-5, 52, 15	 Added translation for Survey Type/Location Acc
	 Added pass through variables for Reliability Height & XY

17/02/15	Added vertical lines when holding down CTRL key in graphic log
	Fixed core run display bug
11/02/15	 Fixed handling of null drill dates
05/02/15	 Fixed unhandled exception when clicking out of edit mode in cell
23/01/15	 Fixed depth errors when dragging lith
30/03/14	FIRST PUBLIC RELEASE
03/01/14	BETA RELEASE
Appendix E – Performance Tips

The following tips may help to improve performance

General hints and tips can be found in Appendix G – Hints, Tips and FAQ's

Disable plugins

The mapping module can use optional plugins which provide additional functionality but take time to load. If you don't need the extra functionality, disable these under Tools, Plugins for best performance.

Plu	ugins						×
	Plugins installa	s provide ation. Click	additiona below to	al functionality that is not include select/install plugins.	d in the st	andard	
		Туре	Name	Description	Installed		Remove
	Þ	Dot Spatial	GDAL	Geospatial Data Abstraction Library			
							Close

If you encounter a problem removing the GDAL plugin, try closing TM and manually deleting or renaming the "gdal" folder under Task Manager Files/Plugins

Documents library Plugins				Arrange
Name	Date modified	Туре	Size	Width
\mu gdal	14/07/2017 4:42 PM	File folder		
S DotSpatial.Data.Rasters.GdalExtension.dll	25/04/2016 5:42 AM	Application extens	51 KB	
📾 DotSpatial.Data.Rasters.GdalExtension.pdb	25/04/2016 5:42 AM	Program Debug D	112 KB	
🚳 gdal_csharp.dll	22/04/2016 12:05	Application extens	78 KB	
🖳 GDAL_Plugin.zip	14/07/2017 4:42 PM	WinZip File	27,277 KB	
🚳 gdalconst_csharp.dll	22/04/2016 12:05	Application extens	19 KB	
🚳 ogr_csharp.dll	22/04/2016 12:05	Application extens	66 KB	
🚳 osr_csharp.dll	22/04/2016 12:05	Application extens	46 KB	
Readme.txt	22/04/2016 12:04	Text Document	1 KB	

Disable Auto Validation

When entering data in the graphic log screen the data is validated every time a value changes. This process is fairly quick but may be noticeable on slower machines. You can disable this feature by clicking on "AUTO VALIDATE" in the status bar at the bottom of the screen. Note that any validation errors will not be picked up until you either re-enable the AUTO VALIDATE feature or perform a manual validation.

CTRL SHIFT AUTOSAVE AUTO VALIDATE

Addendum: Performance improvements introduced in version 1.0.0.427 make this tip redundant. However if you notice any lag during validation you may still want to try disabling it.

Turn off photos in holes list

If you expand the holes list you will see any LAS files plus core photos and rehab photos. These photos are only loaded when the individual tree node is expanded. When loading many LAS files each node is expanded after the LAS files for that hole are loaded, this in turn causes the photos to be loaded which can take some time. Turning off photos will speed up LAS loading, you can turn them back on afterwards if required.

This is largely redundant now as photos are only loaded when you click on the tree node, they are not loaded automatically when the node is expanded. You may still with to disable photos if you do not use them frequently and they are cluttering your screen.

Load LAS headers only

If you just want to run a Geophysics Summary report or populate the Geophys_Log tools in the Hole Status sheet. Select the option to only load LAS headers when loading LAS files. This will load the well and curve information but not the actual data. These speeds up LAS loading slightly and uses a lot less memory when loading LAS for a large number of holes. If you need to look at the actual LAS data you can re-load the LAS for individual holes as required.

Use Quick (Partial) Load

When loading holes from the database, always use the quick load option. This only loads the header information and is almost instantaneous. Additional data is then loaded later on demand. This is particularly useful when creating cross sections as you can quick load all the holes for a project, then open a map window and use the section tool to select holes. When you create the section window the selected holes are fully loaded from the database.

NOTE: Some functionality may be restricted for quick loaded holes such as reports. You can optionally include specific information such as Rehab Date and Drilling Dates by selecting these under Tools, Settings, Database, Quick Load. However this will affect performance.

🗧 Database								
<u>O</u> ptions	<u>R</u> eports							
: 💿 🍠 🛛								

Don't load all LAS files

Try not to load more LAS files than you really need. Don't load both general and detailed log files if only one is required. Don't load LAS files for all holes if you don't need to. Using the above quick load example, after creating your section window click the Load LAS Files button and only load LAS files for "Selected Holes". This will load LAS files just for the holes in your section.



Turn off LAS curves when not required

Drawing the geophysical response curves requires significant computing time, particularly on cross sections with many holes. Minimizing the number of curves displayed will greatly improve the redraw time.



Turn off features in graphic logs

Turning off the following features will improve responsiveness

- LAS Grid
- Core Photos
- LAS Curves
- Horizontal Guide

Enabled High Performance Graphics Mode

For faster graphic log and cross section drawing, try setting your graphic log quality to "High Performance".

General	Depth Column Mode	From To Recovered Thick +	
Database	Image Scaling	2.50	
L A S Files	Show Seam Colours		
- Core Photos - Rehab Photos	Horizontal Guide		
– Email – Map	Weathering Code	BW,WTHR	
Cross Section	Other Markers	YTB	
English Log	Logo Filename		Browse
- Charting - Data Entry Defaults	Show Percentages		
Validation	Retain Layout Scale		
Reports	Use Coal Log V 2 Patterns		
- Coal Quality	Graphics Quality	HighPerformance	
- External - Debug Mode	Include Hole Status Headers	HighQualty HighPerformance	
	Include Lithology Headers	GoodPerformance	
	Header Height	100	

However, if you do this some of the smaller text on the graphic log may become unreadable. If this happens try increasing the font size slightly:

	1.9116-215	7451d8,0,0	Font:	Font style: S	ze:	
ase s Files Yhotos a Photos	Font B Font C Font D	Arial,8.25,0 Arial,9.75,0 Arial,12,0	Anal Arial Arial monospaced Arial Rounded MT Bankforthus LT B	Regular Regular Narrow Bold	10 H	OK Cancel
200020030	Font E	Arial, 14,0	BANKGOTHIC MD +	Bold Italic - 1	6 -	
ic Log ints ser Interface h Log	Font F	Arial, 18,0 Arial, 18,0	Effects	Sample AaBbYyZz		
nu romany Defaults son oal Log ts Nualty al g Mode				Script: Western	•	_
intry Defaults ion cal Log ts kuality al y Mode				Script: Western	_	•

The smallest text uses "Font A", the default size for this is 6 which is actually smaller than the minimum for that particular font. Therefore, in High Performance mode it's unable to scale properly. Changing this font size to 8 should fix this.

Create subset map windows

If you're working with a large number of holes, hole selection within map windows may feel slow. Rather than using a single map window with all holes listed, open additional map windows with a subset of holes while you're working in those areas.

- 1. Zoom into the area of interest
- 2. Open a new map window
- 3. Select the current map window and tick "Current View only"

This will create a new map window with only the holes from the previous map extents. You will find this new smaller map window will be far more responsive. Once you've finished working in that area, close the smaller map window and repeat the process for the next area.



Original Map Window

Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	G
-3494 CP3535	G
CP2521C	
CP3534 SWC12638	
CP020	Ζ
CP005 CQ544 CQ545 CQ563 CQ559 CQ558	0
CP018 CP346 CP347 C0546 C0560 C0562 CP038 C0543 C0547 C05555	
Selection Laver Holes	

Original Map Window zoomed into area of interest



New Map Window

ter nores				×
Base Selection				
All 365 holes	Selection	n (0 holes)		
Filters				•
Table Window	s			-
Section Windo	ws			•
Map Windows	Map 1 - (3	65 holes)		•
Current Vie	ew Only			
Additional Filters (o	on base selection)			
Additional Filters (o	on base selection) Title Project			•
Additional Filters (o	n base selection) Title Project Lease			•
Additional Filters (o	on base selection) Title Project Lease Seams		(All)	•
Additional Filters (c	on base selection) Title Project Lease Seams stes Date	16/10/1994 🗣	(All) to 3/07/2016	• •

Select existing Map Window (Current View Only)



New subset map window

Appendix F – Application Errors and Known Issues

The following is a list of known issues and workarounds where available. These may be bugs that we are working on or known limitations due to hardware and/or software.

Installation Errors

There are different distributions of Task Manager 2014. The main distributions is referred to as the Public version that is available from our web site:

www.epsoft.net.au/TM2014/publish.htm

Other private distributions are made available for corporate clients for installation within their corporate networks. This is usually due to firewall restrictions preventing download or installation of program files from public web sites.

Peabody users should install TM from the following link:

\\brspfp02\MapInfo Data\SOFTWARE\TM2014

All distributions have the same basic features and receive the same bug fixes and other updates. Some private distributions have additional client specific functionality such as connectivity to proprietary databases.

In most cases you should be able to install the public version. If you are unable due to corporate firewall issues, contact us to see if a private distribution is available.

Application cannot be started

If you receive the following error message when attempting to install TM2014:

"Application cannot be started" and/or "Value does not fall within the expected range"

This is an issue caused by the Microsoft ClickOnce technology used to distribute the application.

- 1. Clear the ClickOnce application cache
- First try running the following command
- (*Start Run...*): rundll32 dfshim CleanOnlineAppCache
- •
- If you still are having issues, try opening the folder:
- %LocalAppData%\Apps\2.0
- and then delete all of the subfolders there
- 2. Check whether your antivirus software is quarantining any files during the download process. If it is try excluding the files.

Application is improperly formatted

If you received the following error message when attempting to install TM2014:

"Cannot Start Application" and/or "The application is improperly formatted".

	50 (550) (116
i) Cannot	continue. The app	lication is imprope	erly
Tormatte	d. Contact the ap	plication vendor fo	or assistance.
	OV	Deteile	

This is because your system does not have the required .NET Framework version installed.

TM2014 required .NET Framework 4.0 or 4.5 depending on TM version.

Windows 8 and Windows 10 both come pre-installed with .NET 4.5 or higher. Windows 7 comes with .NET 3.5 but you can install it

https://en.wikipedia.org/wiki/Template:.NET_Framework_version_history

Install the .NET Framework 4.7 from the following link:

https://www.microsoft.com/en-us/download/details.aspx?id=55170

Application Errors

Terminology

The following terminology is used in this section:

Software Bug

Bugs are errors in the application code that were missed during testing. Traditional software development involves lots of planning, design, development then rigorous testing. This takes time and significantly increases the cost. If you're building an auto pilot system for an A380 or a rocket guidance system, the traditional method is still valid. For less critical systems there are for efficient methods. We employ a rapid development cycle to get new features and updates out to you as soon as possible. Unfortunately, this increases the chances of bugs creeping in and we endeavour to correct such bugs as quickly as possible, usually within 24-48 hours.

Bad Data

TM2014 frequently expects to see certain types of data in specific places. For example, if it encounters text where it's expecting numbers or dates this can cause problems. We try to anticipate this as much as possible but inevitably some get past us. These types of errors may manifest as an "Unhandled exception" such as "NullReferenceException" or "InvalidCastException".

A NullReferenceException is where a NULL (blank/empty cell) is found when a value is expected.

An InvalidCastException is where the program is expecting one type of data but receives another. I.e. expecting a date value but receives text. In some cases the types can be converted, but not always.

In the majority of cases, if we can have a look at the data we can usually identify the cause and either build in functionality to handle it or provide guidance to modify the data.

Hardware/System Software Error

Sometimes events beyond our control can cause problems such as hardware failure, operating system errors, viruses etc. Generally there's not much we can do about these types of error except provide guidance and/or workarounds where possible.

Unhandled exception has occurred in your application...

An unhandled exception basically means something unexpected happen. This can be caused by a software bug, hardware problem or by unusual/unexpected data. In many cases you can click Continue and carry on however the last action performed may not have completed. You should save your work immediately and it may be necessary to close and re-launch the application.

Unhandled exceptions can occur anywhere, any time and should always be reported to Epsoft. If they are caused by a software bug we can usually rectify them with 48 hours. If they are caused by bad data we may require samples of that data to identify the cause and provide a fix/patch to handle the specific circumstances and/or provide guidance on how to modify the data to avoid the error.



If you find yourself in this situation, **do not** click Quit as the application will close without saving any changes. Click **Continue** and immediately save any unsaved changes if you can. In some cases this may not be possible hence it is important to save frequently and utilise the auto save and auto backup features. Then close and re-launch the application and attempt to reproduce the problem. Collate as much information as possible including screen shots where applicable and send this to Epsoft for diagnosis.

If the issue only occurs with a specific data set, send a copy of the data to Epsoft if possible along with the above diagnostic information so we can attempt to reproduce the error.

If the issue only occurs after a recent update, try <u>reverting back to the previous version</u> until a fix/patch/update is released.

Known Issues

If you are experiencing any of the following issues, we are aware of them but don't have an immediate fix/solution. If the issue is of significance to you please let us know and we will attempt to move it up the priority list.

The issue numbers shown related to items logged via the YouTrack Issue Tracker.

Graphic Log Window slow to open Issue# TM-593

If the graphic log window is very slow to open it could be because the default printer is not set or the default printer is offline.

TM uses the default printer to determine paper size settings when drawing the graphic log. If the default printer is not available TM can get hung up waiting for a response. Change the default printer to one that is always available such as a PDF driver will fix the issue.

Reducing decimal places can cause rounding errors Issue# TM-451

If you reduce the decimal places via Tools, Settings, Data Entry, Decimal places (say from 3dp to 2dp), when you save the log the depths are rounded down to the new decimal places and may result in rounding errors and/or depth gap/overlap errors.

If you need to reduce decimal places, perform a manual validation and fix any depth errors prior to saving.

Correlation colours re-set when re-correlating Issue# TM-260

If you change the colour of a seam correlation in a cross section then re-correlate, the colour will reset to the default seam colour. To permanently change the seam/correlation colour, modify the seam colour either in the <u>Dictionary Editor</u> or <u>Seam Hierarchy Editor</u>.

Auto Progression moves backwards when SHIFT key held down. Issue# TM-179

The Auto Progression feature automatically moves to the next cell when a certain number of characters have been entered. I.e. if the dictionary has a maximum code length of 2 for a given category, then once two characters have been entered the focus automatically moves to the next cell.

If the SHIFT key is being held down in order to type upper case characters, the auto progression action actually moves back/left instead of forward/right. This is due to the fact that the auto progression works by sending an additional TAB keystroke to the interface and the SHIFT key reverses that action.

To avoid this situation, avoid holding down the SHIFT key during code entry. This is not required as codes will automatically be converted to upper case anyway. Alternatively you can disable the Auto Progression feature via Tools, Settings, Data Entry Defaults, Auto Progression.

Multiple Seams with Same Name

Issue# TM-60 – Fixed as of version 1.0.0.581 – 31/01/18

TM2014 does not currently support multiple seams with the same name. Each seam must have a unique seam code. If you use the same seam code multiple times (i.e. UN), TM will treat this as one very thick seam. Differentiate each seam by adding a suffix (i.e. UN1, UN2, UN3 etc). This allows TM to calculate from/to/thick for each unique seam and also correlate seams in cross sections.

Note: This is no longer an issue, multiple seams with the same name are now supported correctly.

Cannot display graphic logs side by side with different scales if using same layout Issue# TM-355

If you display two or more graphic logs using the same layout, you cannot display them with different scales (or any other layout options) as they share the same layout. In order to display the logs differently you must switch one of the graphic log windows to use a different layout. You can then change the layout options independently.

Coding Dictionary is NOT enforced Issue# TM-56

When entering codes, TM warns you in the form of validation errors when codes are not in the relevant dictionary. Some systems will not allow you to enter invalid codes which seems obvious so why does TM allow it?

The design philosophy behind this feature was twofold:

- 1. Allows for importing non-CoalLog data
- 2. Allows for faster data entry especially when codes are not known

Importing/Viewing Non CoalLog Coded Data

Non CoalLog coded data can be imported and converted as required. However you can still view the unconverted data provided that sufficient conversion is performed and/or the plotting legend is modified to support the foreign coding dictionary.

Faster Data Entry

If you know the codes, it's generally faster to type them than choose them from a list. If you're not sure of a code you can stop and look it up or you can type something/anything that you can update later to the correct code. For example, if you didn't know the code for Siltstone, just type SILT for now and fix it later. When you've finished entering the data, double click the SILT "code", select the correct ST code and tick the "Change all" box. This will change all occurrences of SILT to ST

Having said all that, this feature has been requested and we are considering adding an option to enforce code validation in a future release.

CoalLog V2.0 Plotting Patterns

Issues# TM-16

This feature is partially implemented but has some issues with tile sizing and overlap. We recommend not using this feature in its current state. Improvements were made in V1.0.0.567 on 29/08/17 however there are still some cosmetic issues.

No colour is used in the CoalLog plotting patterns, the default TM patterns use colour which are easier to see. You may prefer to use the TM patterns for data entry and switch to the CoalLog patterns for final printing.

GDA94 projection does not always align correctly

Issue# TM-9

When plotting holes in GDA94 projection then adding lease boundaries in Lat/Long, the holes do not always align correctly with the tenement boundaries. Switching between projection modes usually fixes it but it can be tedious and prone to error. When viewing maps with mixed projections be aware that there may be some issues.

Undo/Redo

Issue# TM-4

The Undo/Redo functionality is very limited. Simple code changes and single cell edits can be undone and redone but more complex operations cannot. We recommend saving frequently and using the auto save and auto backup features. You can then reload the log at any time to undo any recent changes.

Dates not appearing in English Logs

If dates are not appearing in the English Logs, in particular Drilling Dates and Survey Date, check the Long Date format in your Regional Settings under Control Panel.

🔗 Region and Language	e 🔨 🗾
Formats Location Key	boards and Languages Administrative
<u>F</u> ormat:	
English (Australia)	▼.
Date and time form	ats
Short date:	d/MM/yyyy
Long date:	dddd, d MMMM yyyy
S <u>h</u> ort time:	h:mm tt 🔹
Long time:	h:mm:ss tt
First day of <u>w</u> eek:	Monday
What does the nota	tion mean?
Examples	
Short date:	6/03/2018
Long date:	Tuesday, 6 March 2018
Short time:	3:27 PM
Long time:	3:27:55 PM
	Additional settings
Go online to learn abo	out changing languages and regional formats
L	OK Cancel Apply

Appendix G - Hints, Tips and FAQ's

For more hints & tips refer to <u>Appendix E – Performance Tips</u>

Graphic Log Window

- Q. Every time I open a new Graphic Log window I must resize the panels and select my preferred view. How can I save and recall my preferred layout?
- A. Once you have the graphic log window setup the way you like, save the layout via View, Layout, Save Layout, (New) and give it a suitable name. In future, to restore this view simply select View, Layout and select the required layout from the list. To make a layout the default view, simply select View, Layout, Save as Default Layout. New Graphic Logs windows will always use the Default layout.

- Q. What's the difference between the **Samples** sheet and the **Sample Dispatch** sheet?
- A. The Samples data sheet is just a summary of the sample numbers in the lithology sheet. The Samples sheet cannot be edited directly. The Sample Dispatch sheet is similar in that it contains a summary of the lithology samples however it must be generated manually and regenerated periodically. The Sample Dispatch sheet contains additional information that can only be entered on that sheet such as Laboratory, Date Dispatched etc and can contain both corrected and un-corrected depths.
- Q. I cannot see the Sample Dispatch sheet?
- As this was not a standard CoalLog sheet until V2.1 it is disabled by default. Enable it via Tools, Settings, Non-Coal Log, Sample Dispatch. For a more detailed Sample Dispatch sheet, enable Sample Dispatch B. If you prefer the CoalLog V2.1 sheet, use Sample Dispatch 21
- Q. The Save To Database button is greyed out, I can load from the database but can't save.
- A. Ensure "Read Only Mode" is not ticked in Tools, Settings, Database

Note: As of V1.0.0 580 – 25/01/18, Read Only mode is disabled by default.

- Q. How do I reset LAS curve customisations back to the default values.
- A. LAS curve customisations are saved in xml files in your Task Manager Files folder. To reset these settings to factory default, simply delete or rename these files.

Example: Curve_SSD_DisplaySettings.xml contains the customisations for the SSD mnemonic

- Q. How can I quickly create a new log from geophysics
- A. Create a new log, load the LAS files. Then double click at the appropriate depth to create lithology units. Each new unit will extend from the previous TD to the clicked depth and you can assign a basic lithology type. You can then go back and edit the log in more detail as per normal.

Cross Section Window

- Q. My cross section is all squashed up and messy. How do I clean it up?
- A. Try enlarging the section by using a combination of increased horizontal and vertical spacing.To maintain a 1:1 aspect ratio, use the corresponding values for each:

Horizontal - True Spacing%	Vertical Exaggeration
50%	0.5 (Custom)
100%	1
200%	2
400%	4
500% (Custom)	5
800% (Custom)	8

Non-standard values can be entered as Custom values.

- Q. I have several holes very close together and all bunched up, even after increasing the horizontal spacing.
- A. You have two options, either switch to fixed horizontal spacing or manually separate the offending holes using the move tool
- Q. How do I vertically align my cross section to the base of weathering (or other horizon).
- A. Select View, Depth Mode, Horizon, select desired horizon

- Q. How can I move a hole up or down in a section?
- A. The vertical position of a hole is generally determined by the Depth Mode. You can use the
 Move tool to click and drag a hole horizontally but not vertically. However, when the Depth
 Mode is set to Custom you can manually click and drag to move a hole in any direction.
- Q. When I switch to a Depth Mode other than Elevation or Depth I lose the background scale and instead see a separate scale for each hole. Why is this?
- A. In Elevation or Depth modes, every hole is plotted against a common scale. In all other modes, each hole is plotted in its own vertical space which may or may not relate to the holes around it. Therefore, each hole is plotted with its own scale.
- Q. I have configured seam colours in the dictionary but all my seam correlations are cyan coloured?
- A. Ensure that your dictionary contains the Company and Project code matching the hole. TM uses the Company and Project codes to determine which custom dictionary to use.
- Q. How do I select/move the title box
- A. Moving the title box can be tricky. The title box is made up of several independent text boxes that are grouped together. When you click on the title box you tend to select one of the text boxes rather than the title box itself. The trick to selecting/moving the actual title box is to click near the bottom right corner as the default "Author" text box generally doesn't extend the full width of the title box. This gives you a small window where you can click to select the underlying title box.



Use Table Windows for bulk edits

If you need to make bulk changes to multiple holes, such as updating coordinates, datums, rehab dates etc, use a table window in edit mode. If using a database, this can also be used in combination with the database quick load feature for making changes to hole status information without having to load the entire hole (drilling, lithology etc).

You can also do bulk edits of drilling and lithology data (for all holes) via the Reports menu. This will display all drilling or all lithology data in a single table which can be edited including bulk changes.

NOTE: You cannot remove rows or add new rows, you can only edit existing rows.

Licencing

- Q. My 30 day trial period is up, can I get an extended trial?
- A. Certainly, just contact us and tell us what you need.
- Q. My licence says it's due to expire, what do I do?
- A. Don't panic! When your licence expires it will automatically roll into a 30 day grace period with full functionality. Contact your manager/supplier to arrange for a new licence before the grace period ends to prevent downtime.
- Q. My grace period is almost up, what do I do?
- A. After the grace period you will be restricted to read-only mode. You can still view your data, including graphic logs, cross sections etc, you can't save any changes while in read-only mode. If you have not received a new licence by this time, contact your manager/supplier to obtain a new licence.

Appendix H – Validation Rules

The following validation rules are either hard coded or can be defined and will display as validation errors in the Validation tab.

Hole_Status/Header Sheet Validation

Required Values

In the Hole_Status sheet, the Project, Company, Hole_Name and Total_Depth values are required/cannot be blank/empty.

Start/Complete Dates

The start date cannot be after the complete date.

Total Depth Mismatch

The Total_Depth in the Hole_Status sheet should match the last lithology To_Depth

BHWL/SW_Level Mismatch

The SW_Level in the Hole_Status sheet should match the BHWL horizon depth in the lithology sheet.

Dictionary Code Errors

Any data entry table column that corresponds to a dictionary category is validated against that dictionary code list. Any code entered that does not exist in the dictionary for that category will be highlighted as an error.

			È	3	_	ų			_	é	0	-2	3		-	70	-				-
	From Depth	To Depth	Recovered	Record Seq	Seam	Seam_Confi	Fault	Ply	Horizon	Horizon_Co	Sample Typ	Sample Nun	Interval_Sta	Lithology %	Lithology	Lithology Qu	Lith_Modifie	Shade	Hue	Colour	Adjactive 1
	0.000	1.000	1.000						TE				А		SA	MM				0	T
	1.000	5.000	4.000						TE				А		SA	MM				Y	T
	5.000	18.000	13.000						TE				A		CL				W	0	
	18.000	44.000	26.000						TE				A		CL				W	U	
	44.000	48.000	4.000						TE				А		SA	MM				W	
	48.000	52.000	4.000						TE				А		CS				W	U	1
	52.000	54.000	2.000						TE				А		CS					U	1
	54.000	57.000	3.000						R				А		X					0	
	57.000	58.000	1.000										А		MS	Litho_	Туре	Xinva	alid co	ode!	T
	58.000	59.000	1.000										А		MS					Y	T
	59.000	62.000	3.000	A									А		MS				G	Y	t
	62.000	62.000	0.000	в					BW				А		NR						t
	62.000	66.000	4.000										А		MS			D		G	Т
	66.000	68.000	2.000										А		ST			D		G	Т
	68.000	69.700	1.700										А		ΧМ			D		G	t
	69.700	70.600	0.900										А		MS			D		G	Т
	70.600	71.110	0.510										А		ΧМ			D		G	t
	71.110	71.740	0.630										A		ХМ			D		G	t
	71.740	71.910	0.170										A		ХМ			D		G	t
	71.910	72.120	0.210										А		ХМ			D		G	t
	72.120	72.130	0.010										A		KL						t
	72.130	73.030	0.900										A		ХМ			D		G	t
			III																		•
,	Core Photo	Rehab Pho	to Quality	Com	posites	3 Val	dation	File	s I	Data En	try										
	Hole	Sheet	Row	Columr	ı	Dept	ı	Code		Catego	ory		Validatio	inCateg	ory	Me	essage	•			
	DV3092C L	ithology	110 2	1		116.7	60			RawCo	al		CoalQua	ityHigh/	AshCo	al ASI	H > 30)% can	not be	coal?	
	DV3092C	Drilling	7 1			111.0	50			Drillers_	From	Depth	Depth Th	ickness	Error	Dep	oth ga	p from	82.55	0 to 11	1.0
	DV3092C L	ithology	8 2	1		57.00)	Х		Litho_T	уре		CodeEmo	xr.		Lith	о_Тур	be Xin	valid c	ode!	
			1																		

Drilling Sheet Validation Rules

The Recovered_Length should be between the Min and Max values. Additionally a warning message will be shown when the Warning value is exceeded. Default values are shown below but can be adjusted in Tools, Settings, Limits.

Parameter	Minimum	Warning	Maximum
Recovered_Length	0	3.05	3.10

i Settings		×
Settings General Database Folders Core Photos Rehab Photos Enail Map Cross Section Graphic Log Charting Data Entry Defaults Validation Non Coal Log Reports Umits Defects Diffung Coal Quality Coal Quality External Debug Mode	Recov _ Length _ Min Recov _ Length _ Waming Recov _ Length _ Max	0.00 <u>*</u> 3.05 <u>*</u> 3.10 *
Import Export Reset	Setup Wizard	OK Cancel

Lithology Sheet Validation Rules

Lithology Depth/Thickness Error

Lithology depths and thickness should add up with no gaps or overlaps.

Sample_Type cannot be blank

If a Sample_No is entered, a Sample_Type is required.

Litho_Type cannot be blank

A Litho_Type code must be entered for each Lithology row.

Α	SA	ММ				W	
А	CS				W	U	
А	CS					U	
А			_			0	-
Α	MS	Litho	_Type	cann	ot be	blank	1
Α	MS					Y	
Α	MS				G	Y	
А	NR						
	110			D		~	-

Litho_Qual X invalid qualifier for Y

The selected Litho_Qual value is not a valid qualifier for the selected Litho_Type.

For example, the grain size code "FF" is valid for sandstone but not for coal.

QP	90367	Α	CO	C5			К		
QP	90368	Α	CO	BD			К	- 60	116 -
QP	90369	Α	CO	C5			К		
QP	90370	Α	CO	BD			К	· ····	~~~~~
QP	90371	Α	CO	DB			К		
QP	90372	Α	CO	FF	1.24	0	V.	<u> </u>	٦.
QP	90372	А	CO	SY	Litti	5_Qua	N		1
QP	90373	Α	CO	DB			к		
QP	90373	Α	CO	BD			К		
QP	90374	Α	CO	DB			К	- 120	56 -
QP	90375	Α	CO	BD			К		

Lithology Percentages

Lithology percentages should add up to 100%

147.670	147.870	0.200									А		SS	FF		D	
147.870	149.050	1.180									Α		SS	S8		L	Τ
149.050	149.920	0.870	A								Α	60	XT				Γ
149.920	149.920	0.000	В								Α	45	SS	FM		Α	Т
149.920	150.010	0.090									Α		CS			L	6 -
		111															•
Core Phot	o Rehat	Photo	Qualit	y Comp	osites	Validat	ion Fil	es D	ata	Entry							
Column	Depth	c	ode	Categ	ory	Valid	ationCat	tegory	*	Message							*
20	149.92	0		Percer	tages	Lithold	gyPerc	entages		Percentage	s don'	t add up	to 100%	6 at 149	9.92(10	5.00	∂) ≡
20	149.92	0		Percen	tages	LithologyPercentages				Percentages don't add up to 100% at 149.92(105.00%)					6)		
21	155.35	0		RawCo	al	CoalQualityHighAshCoal			al	ASH > 30%	canno	ot be coa	1?				
11	154.84	0		RawCo	al	CoalQualityHighAshCoal			ASH > 30% cannot be coal?								

Coal Quality / Sample Validation

Sample Depth Mismatch

Sample depth/thickness should match lithology.

Sample Seam Mismatch Sample seam should match lithology

ASH > n% (default 30%)

ASH value should not exceed the value defined in settings and still be logged as Coal.

KL > n% (default 5%)

Sample core loss should not exceed value defined in settings (default 5%)

Raw Coal Limits

Raw coal results should not be outside the following ranges:

Parameter	Minimum	Maximum
ASH	0.1	100
FC	0	100
RD	1.2	3.6
SE	0.001	40
VM	1	95

🎯 Settings			Ŵ	Settings			
General Gustabase Folders L A S Files Core Photos Rehab Photos Email Map Cross Section Graphic Log Figlish Log Chating Data Entry Defaults Validation Non Coal Log Reports Umits Defects Dulling Coal Quality Cal Quality Estemal Debug Mode	Ash _ Min Ash _ Max F C _ Min F C _ Max R D _ Min R D _ Max S E _ Min S E _ Max V M _ Min V M _ Max	0.10 (*) 100.00 (*) 0.00 (*) 100.00 (*) 1.20 (*) 3.60 (*) 40.00 (*) 1.00 (*) 95.00 (*)		General Database Folders La S Files Core Photos Email Map Cross Section Graphic Log Graphic Log Graphic Log Data Entry Defaults Validation Non Coal Log Repots Units Defects Diffing Units Coal Quality Raw Coal Defug Mode Import Excont Reset	Max Seam Core Loss Percent	5.00	
Export Reset	Joctop Wiza				Coup Wizerd		

Optional Validation Rules

The following optional validation rules can be applied

Base of Weathering on Separate Row

If selected, the Base of Weathering must be entered on a separate lithology row with zero thickness

Zero Thickness Horizons

If selected, all Horizons must be on a separate row with zero thickness.

Note: This is NOT the CoalLog recommended method but may be required for some modelling packages.

User Limits

The following user defined limits can be validated

See Limits

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