



clCertify

User Guide – December 2018

Prepared by: Brett Larkin

Email: support@geocheck.com.au

Introduction

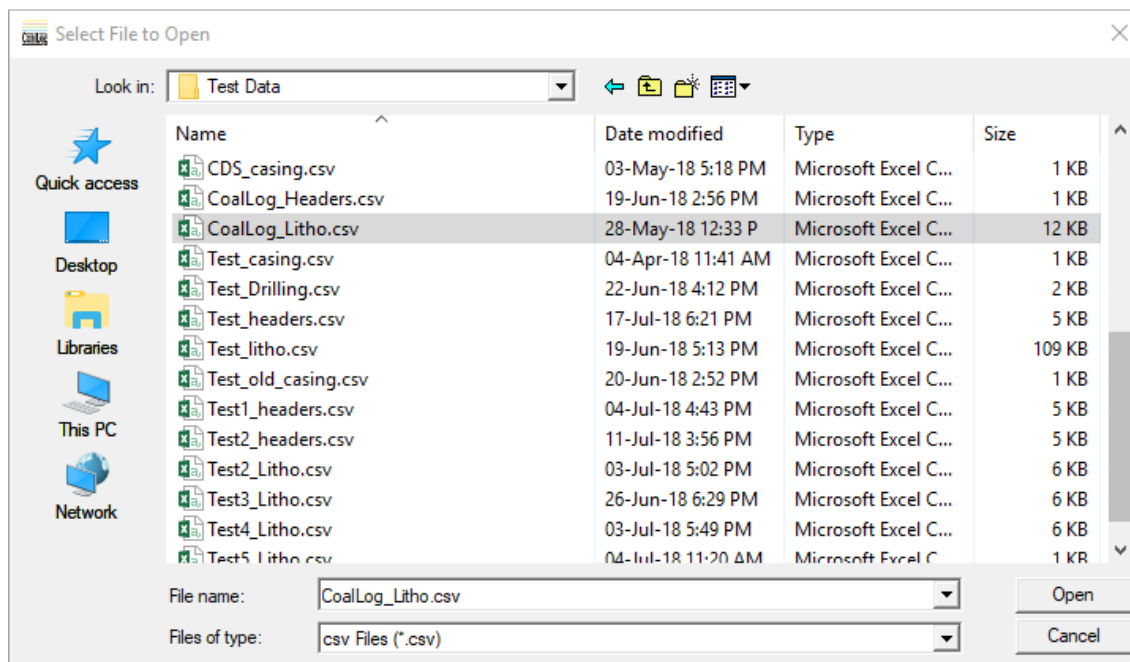
clCertify checks and certifies that .csv files satisfy all the requirements for data transfer files as according to version 2.1 of *CoalLog - Borehole Data Standard for the Australian Coal Industry* (<https://ausimm.com/coal-log/>). This standard includes data entry sheets and standard code lookup tables for header, drilling, casing, cementing, lithology, water flow and geotechnical data, a format for the transferal of this data, a borehole logging training manual and standard plotting patterns for all its lithotypes and lithology qualifiers. It was first released in February 2012 and the current version (v2.1) was released in August 2015.

clCertify can also optionally check and certify that data transfer files also satisfy NSW Government requirements for submission of coal exploration data.

Amongst the changes to CoalLog over its various releases, there have been a small number of changes that meant that data that previously satisfied the standard no longer do. For example, earlier versions of the standard had only one Hole Status field in the Header and this had the name *Hole_Status* whereas later versions had two such fields and their names are *Hole_Status_1* and *Hole_Status_2*. As well as checking the data **clCertify** provides a facility to convert CoalLog data transfer files that satisfied earlier versions of CoalLog, to the current standard.

Selecting Files to be Checked

When **clCertify** is opened the user is prompted to select the files to be checked and/or reformatted. Multiple files can be selected using standard Windows file selection procedures, using the Shift and Ctrl keys, but all the selected files must be contained in a single folder:

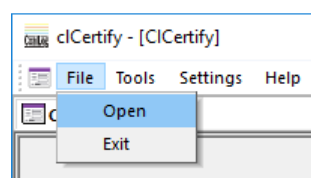


Of the selected files, only those whose names match the CoalLog convention for the naming of data transfer files, will be processed. That is they must have an extension of .csv and the type of data that is contained in the file must be indicated by the first four characters following the last space or underscore in the file name, see Table 1 for valid data type indicators. Naming conventions are not case sensitive.

For example;

AVC0300_Casing.csv
AVC0300_Drilling.csv

The user can select a new set of files at any time by selecting File > Open from the menu at the top of the window:

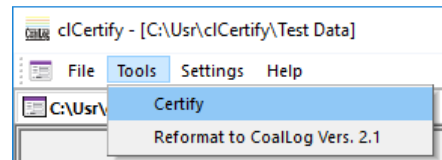


CoalLog Data Type	First four letter following last underscore or space in filename (not case sensitive)
Headers	Head
Geologists	Geol
Casing	Casi
Cementing	Ceme
Drilling	Dril
Lithology	Lith
Sample Dispatch	Samp
Water Observations	Wate
RMU & Defects	Defe
Point Loads	Poin

Table 1: CoalLog data transfer file Data Type indicators for file naming convention.

Checking Files

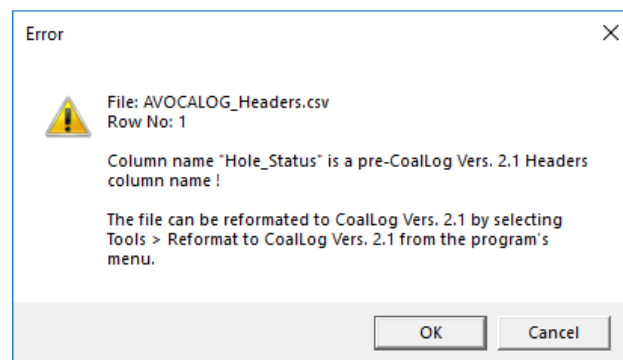
To check the files that have been selected select Tools > Certify from the menu at the top of the window:



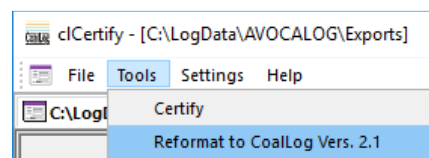
cIcertify will then display on the screen and/or write to text files any errors that are encountered while checking the file. The user can choose whether errors are displayed on the screen and/or written to text files, by opening the Options window from the Settings drop down menu. Text files listing errors will be placed in the same folder as the file being examined and will have the same filename as the data file except that they will end with the words *Certification Report.txt* instead of the *.csv*.

Reformatting Files to the Current Version of CoalLog

Some errors encountered will also display the message that a particular feature of the file is pre-CoalLog Vers. 2.1 and that the file can be reformatted by **cIcertify**:



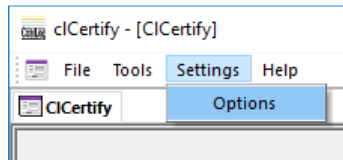
To reformat all the selected files Tools > Reformat to CoalLog Vers 2.1 from the menu at the top of the window:



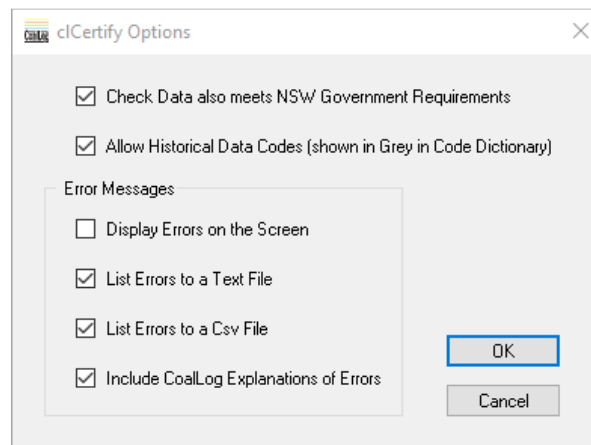
On reformatting, the original file is renamed with a prefix of *Backup of* and the new file will have the same name as the file that was reformatted.

Program Options

To open the program options window, select Settings > Options from the menu at the top of the screen:



The program options window will then appear:

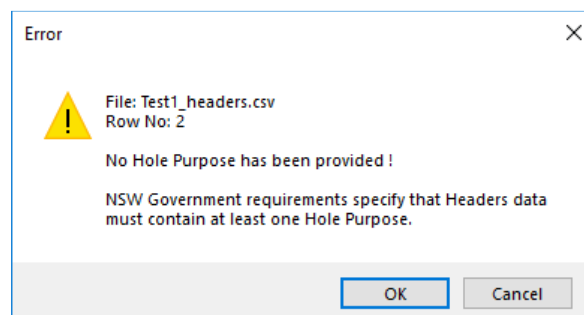


There are six options that can be set:

1. Check Data also meets NSW Government Requirements

To enable flexible use of the CoalLog data transfer there are very few mandatory fields in the CoalLog data transfer format. For example, for Header data the only compulsory field is Borehole Name whereas Header data submitted to the NSW Government must also include: Lease Number, Site Id, Borehole Type, Borehole Purpose, Geodetic Datum UTM Zone, Easting, Northing, Elevation, Date Started, Date Completed, Total Depth, Geophysical Logs recorded, Date Rehabilitated and Borehole Status.

If “Check Data also meets NSW Government Requirements” is ticked, additional checks for NSW Government compulsory fields will also be performed and if any errors are found it will display on the screen messages such as:



And/or list in the certification report messages such as:

- 2 No Hole Purpose has been provided
NSW DPE requires that Headers data must contain at least one Hole Purpose.
- 2 WARNING: No geophysical logs have been specified
NSW DPE requires that Headers data should specify any downhole geophysical logs that have been recorded.
- 3 "Rehab_Date" is blank
NSW DPE requires that Headers data must contain a value in the column named "Rehab_Date"

The NSW Government requires the reporting of geophysical logs in header data and seam name, ply name and sample number in lithology data. However, if any of these are missing then a warning is provided rather than an error indicated as it is possible for a variety of reasons that this data was never collected. If though it was collected it must be included in order to satisfy NSW Government requirements.

2. Allow Historical Data Codes (shown in Grey in Code Dictionary)

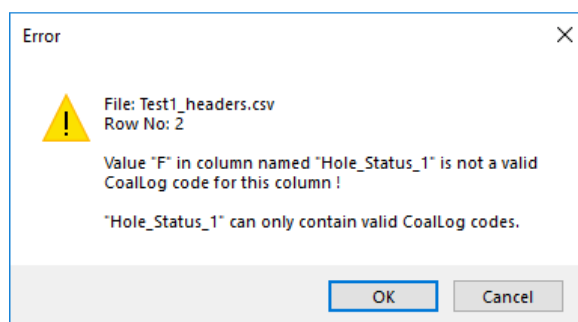
The CoalLog standard includes a number of codes for codes that may be used with historical data but should not be used for current data collection. For example, with Lithology data the Lithology Qualifier IF meaning Inferior is acceptable for coal in historical data but not currently collected data as it does not explain why the coal is inferior. Currently collected data should instead use a Lithology Qualifiers such as HA for heat affected or SY for stony. Codes that should only be used with historical data are displayed in the CoalLog dictionary in grey. For example:

anthracite	AN
cannel (torbanite, bog)	CT
dull conchoidal	DC
inferior	IF
sapropelic	SP
stony	SY

If "Allow Historical Data Codes" is ticked then use of these historical codes will not be indicated as an error.

3. Display Errors on the Screen

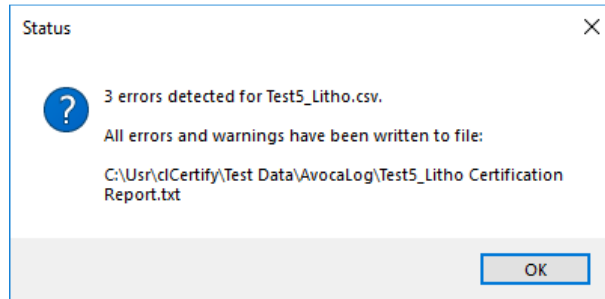
If "Display Errors on the Screen" is ticked a window such as the following pops up on the screen each time an error is accounted.



If there are numerous errors, it is probably easier to turn this option off and turn on List Errors to a File.

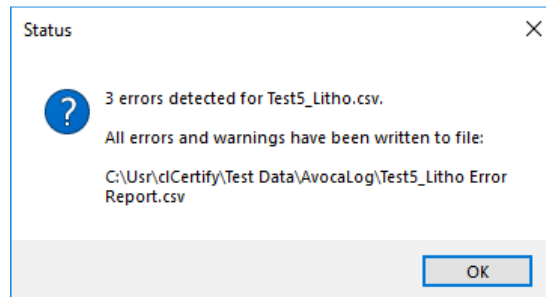
4. List Errors to a Text File

If “List Errors to a Text File” is ticked each error and its row number in the data will be listed to a file with the same name as the data file but the .csv in the filename being replaced by Certification Report.txt. After completing the certification check a summary of the results such as the following will be displayed on the screen:



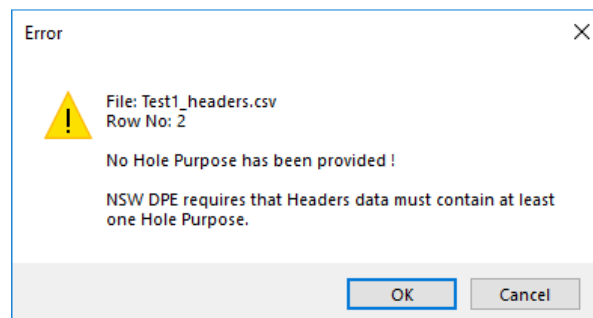
5. List Errors to a Csv File

If “List Errors to a Csv File” is ticked each error and its row number in the data will be listed to a file with the same name as the data file but the .csv in the filename being replaced by Error Report.csv. After completing the certification check a summary of the results such as the following will be displayed on the screen:



6. Include CoalLog Explanations of Errors

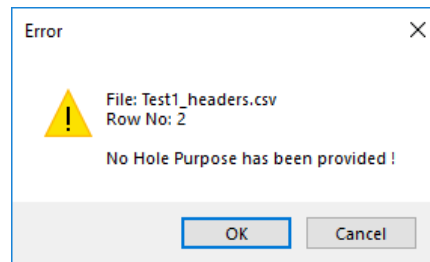
If “Include CoalLog Explanations of Errors” is ticked full explanations of why something is in error are included whereas if it is not ticked much more succinct error messages are provided. For example, if this option is ticked, the previously shown error messages describing where data does not meet NSW Government requirements on the screen would be:



and in the certification report would be:

- 2 No Hole Purpose has been provided
NSW DPE requires that Headers data must contain at least one Hole Purpose.
- 2 WARNING: No geophysical logs have been specified
NSW DPE requires that Headers data should specify any downhole geophysical logs that have been recorded.
- 3 "Rehab_Date" is blank
NSW DPE requires that Headers data must contain a value in the column named "Rehab_Date"

If not ticked, on the screen it would be:

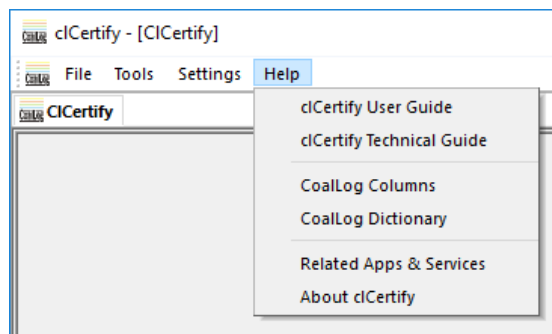


and in the certification report:

- 2 No Hole Purpose has been provided
- 2 WARNING: No geophysical logs have been specified
- 3 "Rehab_Date" is blank

Additional Information

Additional information can be obtained by selecting one of the options from the Help in the menu at the top of the screen:



There are five options:

1. cICertify User Guide

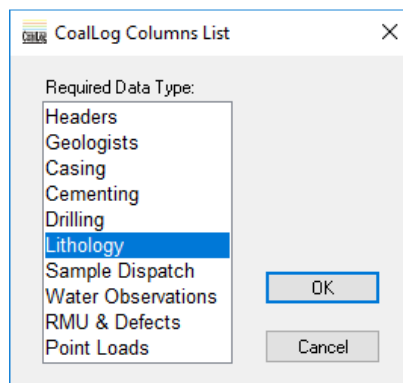
This displays the cICertify User Guide that you are currently reading.

2. cICertify Technical Guide

This lists all the checks that **cICertify** performs to check that data is CoalLog v2.1 compliant and the checks that it meets NSW Government Requirements. It also lists all the modifications that **cICertify** makes when Reformatting Data to CoalLog v2.1 from older versions.

3. CoalLog Columns

This displays the current list of valid column names for use in CoalLog data transfer files. On selecting List CoalLog Column Names, a window appears showing all the valid CoalLog data types from which the user can select the data type whose column names are required:



After selecting the required data type a window will appear showing the valid CoalLog column names and for each whether it is mandatory, a description of it, the maximum number of characters it can have and for columns with numeric data the maximum number of digits after the decimal point. For example, the list for Lithology is:

	Mandatory	Column Name	Description	Max Length	Max Decimal Places
▶	<input type="checkbox"/>	Project_Name	Project	16	
	<input checked="" type="checkbox"/>	Borehole_Name	Borehole Name	16	
	<input checked="" type="checkbox"/>	From_Depth	Lithology From Depth	8	3
	<input checked="" type="checkbox"/>	To_Depth	Lithology To Depth	8	3
	<input checked="" type="checkbox"/>	Record_Seq_Flag	Record Sequence Flag	1	
	<input type="checkbox"/>	Recovered_Thick	Recovered Thickness	8	3
	<input type="checkbox"/>	Seam	Seam	16	
	<input type="checkbox"/>	Ply	Ply	16	
	<input type="checkbox"/>	Horizon	Horizon	16	
	<input type="checkbox"/>	Sample_Purpose	Lithology Sample Purpose	2	
	<input type="checkbox"/>	Sample_No	Lithology Sample Number	16	
	<input type="checkbox"/>	Interval_Status	Interval Status	1	
	<input checked="" type="checkbox"/>	Litho_Perc	Lithology Percentage	3	0
	<input checked="" type="checkbox"/>	Litho_Type	Lithology	2	
	<input type="checkbox"/>	Litho_Qual	Lithology Qualifier	2	
	<input type="checkbox"/>	Shade	Shade	1	

The NSW Government have further columns that are mandatory above just those that are mandatory for the standard CoalLog. If “Check Data also meets NSW Government Requirements” has been ticked in the options window then the list will also show the additional NSW Government mandatory fields also as mandatory. For example, this option was not turned on when the above list above was produced but was for the following list:

	Mandatory	Column Name	Description	Max Length	Max Decimal Places
▶	<input type="checkbox"/>	Project_Name	Project	16	
	<input checked="" type="checkbox"/>	Borehole_Name	Borehole Name	16	
	<input checked="" type="checkbox"/>	From_Depth	Lithology From Depth	8	3
	<input checked="" type="checkbox"/>	To_Depth	Lithology To Depth	8	3
	<input checked="" type="checkbox"/>	Record_Seq_Flag	Record Sequence Flag	1	
	<input type="checkbox"/>	Recovered_Thick	Recovered Thickness	8	3
	<input checked="" type="checkbox"/>	Seam	Seam	16	
	<input checked="" type="checkbox"/>	Ply	Ply	16	
	<input type="checkbox"/>	Horizon	Horizon	16	
	<input type="checkbox"/>	Sample_Purpose	Lithology Sample Purpose	2	
	<input checked="" type="checkbox"/>	Sample_No	Lithology Sample Number	16	
	<input type="checkbox"/>	Interval_Status	Interval Status	1	
	<input checked="" type="checkbox"/>	Litho_Perc	Lithology Percentage	3	0
	<input checked="" type="checkbox"/>	Litho_Type	Lithology	2	
	<input checked="" type="checkbox"/>	Litho_Qual	Lithology Qualifier	2	
	<input type="checkbox"/>	Shade	Shade	1	

This list has the fields Seam, Ply, Sample_No and Lithology Qualifier indicated as mandatory as opposed to the previous list which did not.

4. CoalLog Dictionary

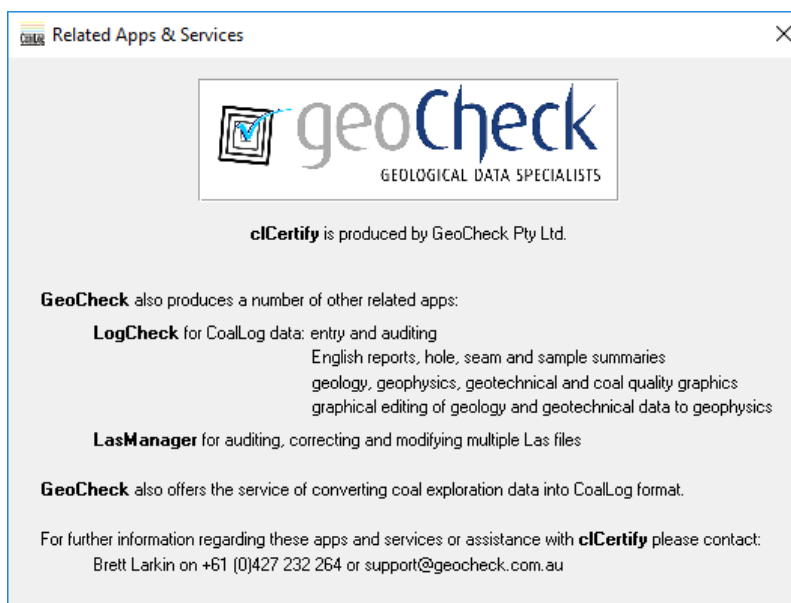
This displays the CoalLog v2.1 Dictionary:

CoalLog v2.1 - Lithology Dictionary

SHADE		clear	LC	marly	MR	stringers	SG	WEATHERING	
light	L	coarser (<10% of unit)	XC	metamorphosed	MM	traces	TR	residual soil	R
light to medium	A	conchoidal	CC	micaceous	MI	wisps	WP	extremely weathered	E
light to dark	C	dull	DD	muddy	MD			highly weathered	H
medium	E	fault gouge	FT	mudstone	MS	Preposition		distinctly weathered	D
medium to dark	B	finer (<10% of unit)	FF	oxidised	OX	and	ET	moderately weathered	M
dark	D	hard	HR	peaty	PE	as	AS	slightly weathered	S
banded	N	heat affected	HA	phosphatic	PP	of	OF	weathered	W
mottled	M	interbanded	IB	pyritic	PY	on	ON	fresh	F
speckled	S	irregular	IR	quartzose	QZ	with	WI		
variegated	V	lustrous	LU	sandstone	SS				
		moderately opaque	MO	sandy	SA	Position		ESTIMATED STRENGTH	
HUE / COLOUR		opaque	OP	shaly	SH	alternating	AT	Unconsolidated Cohesive	
blackish / black	K	resinous	RS	shelly	SH	near base of unit	BU	very soft	C1
bluish / blue	L	soft	SO	sideritic	SD	near middle of unit	MU	soft	C2
brownish / brown	B	translucent	TL	siliceous	SC	near top and base of unit	XU	firm	C3
buff	F	Lithological		silicified	SF	near top of unit	TU	stiff	C4
creamy / cream	C	acidic	AC	siltstone	ST	tends to	TT	very stiff	C5
greenish / green	E			silty	SI	throughout	TO	hard	C6

5. Related Apps & Services

This displays a window describing the other Related Apps and Services provided by the authors of **clCertify**:



6. About cICertify

This displays a window with a synopsis of the program, the CoalLog version that it complies to, the release number of **cICertify** and contact for support:

