

DESClogik User Guide for Technicians

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Overview

DESClogik is a core description software for core describers and micropaleontologists to enter observations. The software is configurable to meet different needs of different science parties. Configuring and editing the software is the responsibility of the Core Description Technician (you!).

As you're getting started make sure to read the [Core Description S.O.P.](#) for useful information on what (and how) you need to do at the beginning, middle, and end of the expedition.

DESClogik is in the process of being replaced by a new software package GEODESC. Due to this, a lot of time is going into the design and implementation of the new software, meaning that some bugs in DESClogik will continue to exist but technicians have found easy work-arounds to make the process as smooth as possible.

Important Terminology

- **Configuration Sheet (Config Sheet):** This is an excel workbook that is the basis for DESClogik. These configuration sheets contain all the column information such as header, width, visibility, whether a column is free text or uses a pre-determined drop-down set of terms, and a unique definition for each column. Configuration sheets create the *templates* in DESClogik (see below).
- **Template:** A template is what the scientists are entering their data into in DESClogik. Templates are broken up into somewhat standardized groups: Macroscopic, microscopic, and one for each micropaleontology group sailing (e.g. nannofossils, forams, etc.). We'll discuss the difference between these templates later.
- **Value lists:** Value lists are groupings of similar terms. For example one value list we have is "principal_lithology_sediment_names" and inside that value list are terms that fall within this category such as "sand" and "clay". All terms used in DESClogik must be inside a value list.
- **Sub Lists:** A sublist is a subset of values from a value list that will be used on an expedition. In DESClogik sublists appear as a drop-down list of options for descriptive terms. For example "principal_lithology_sediment_names" value list could have thousands of values, so scientists will choose a smaller list of terms of only the principal lithologies they expect to see.
- **Data Workbooks:** These are exports from DESClogik that contain the descriptions uploaded by scientists.

What You Need

You will need to use the following software, server folders, and web based applications:

- **'All Things DESClogik' folder (VOL 1 > IODP_Share > All Things DESClogik)**: Contains previous expedition folders with all the configuration sheets and data workbooks from those expeditions, tutorials, and resources to give scientists to help them use the software.
- **DESC Value List Manager**: A web based application where value list and sublist excel workbooks are uploaded every time a change has been made to those sheets. <http://eiger.ship.iodp.tamu.edu/apps/valuelistmanager/>
- **DESClogik**: The description software users enter data into. Config Sheets are loaded into DESClogik, which generates the templates that users will use. It is an iterative process making edits to the config sheet, loading it into DESClogik, then making more edits.

Getting Started

General

In the first few days on the ship get these items done to ensure a smooth transition, but note deadlines can be pushed forward or back depending on length or portcall and transit. Other portcall activities take priority so work with your ALO and LO your priorities.

- Talk to the MCS' to get at least two email distribution groups together: ExpXXX Core Description and ExpXXX Micropaleontology.
- Talk to the EPM to get an idea what expeditions are similar to your current expedition.
- Propose those expeditions to your scientists and see if they have any other expedition ideas

Set up the Expedition Folder

Each expedition has its own folder in the "All Things DESClogik" folder. These folders contain the current value lists, configuration sheets, data exports, smear slide templates, Thin Section Reports, and logsheets. Open up recent expedition folders to get an idea of the structure previous techs have used.

1. Open up the "All Things DESClogik" folder VOL 1 > IODP_Share > All Things DESClogik. The most recent expedition is at the top of the list with an underscore before the name.

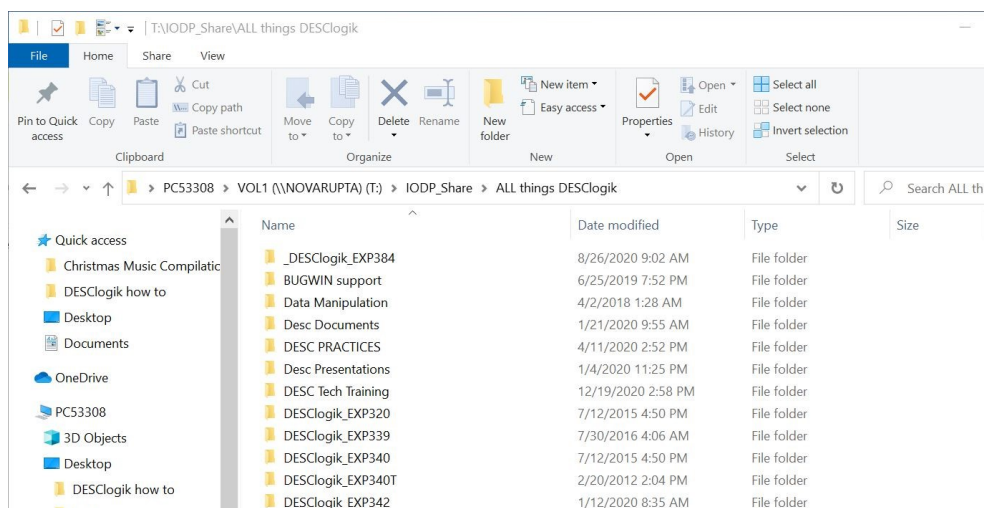
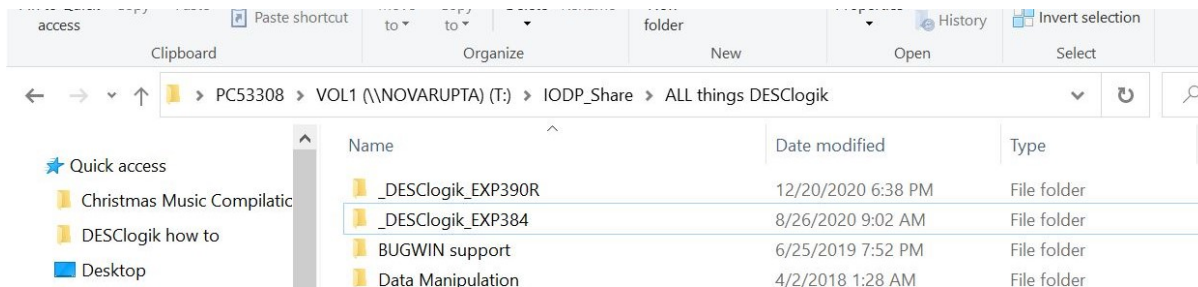
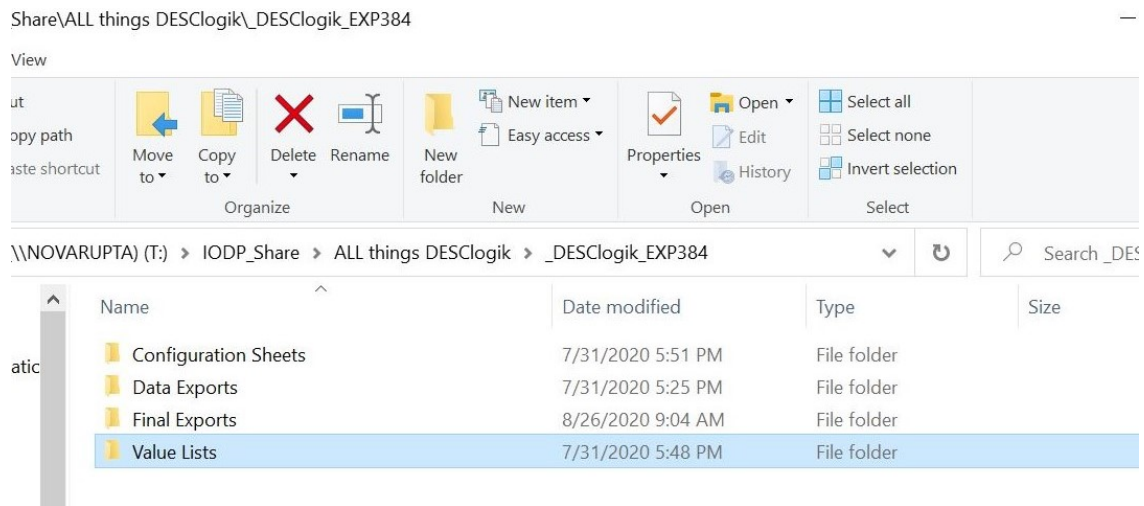


Figure X: The file structure

2. Create a new folder following the same format as previous expeditions: "_DESClogik_EXP999". Put an underscore at the beginning to make it easier to access during the expedition.



3. Open up the folder of the most recent expedition and copy the "Value Lists" folder into your new expedition folder. Taking the value list from the most recent expedition ensures you have the most updated set of terms.

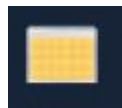


4. Go back to the previous expedition folder and remove the underscore. Now the only expedition folder at the top is your current expedition.

Finding a Jump Off Point

The best way to get started is read the scientific prospectus and chat with the EPM to find an expedition that encountered similar material as what your current expedition anticipates. Keep in mind expeditions prior to 341 used a different system that cannot be opened in DESClogik.

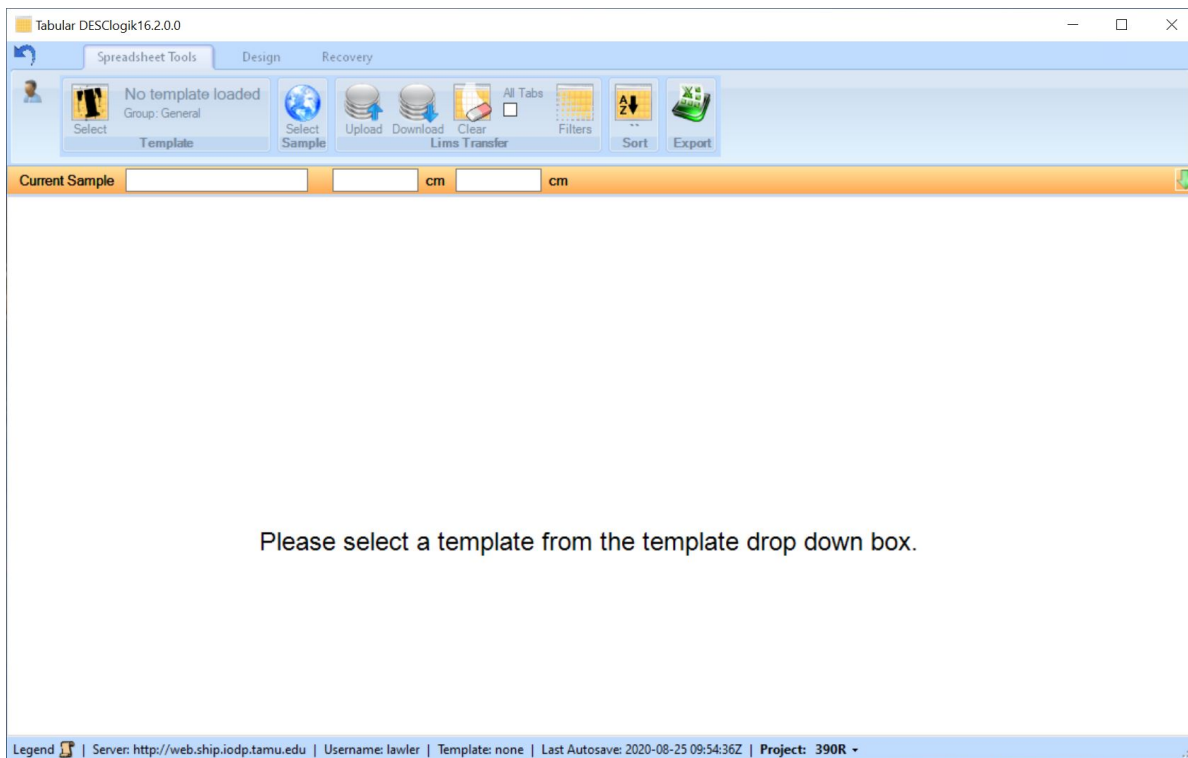
1. Click on the DESClogik icon to open the software.



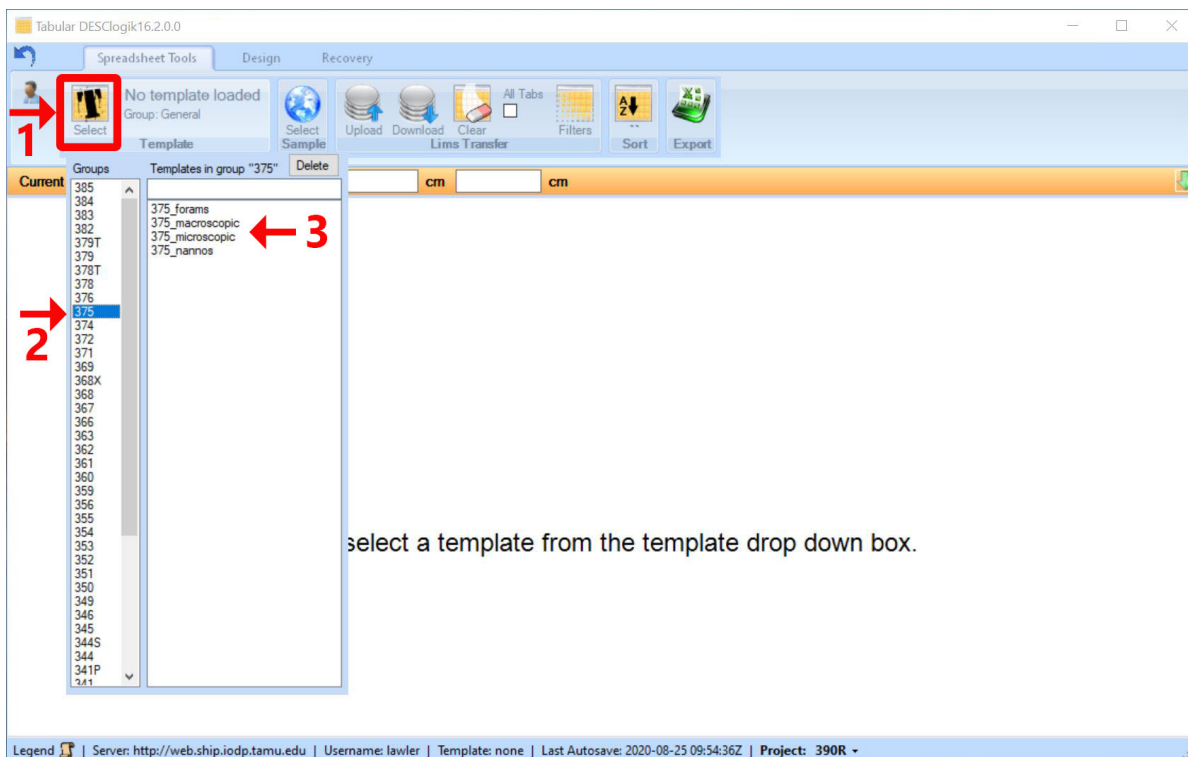
2. Login with your LIMS application username and password.



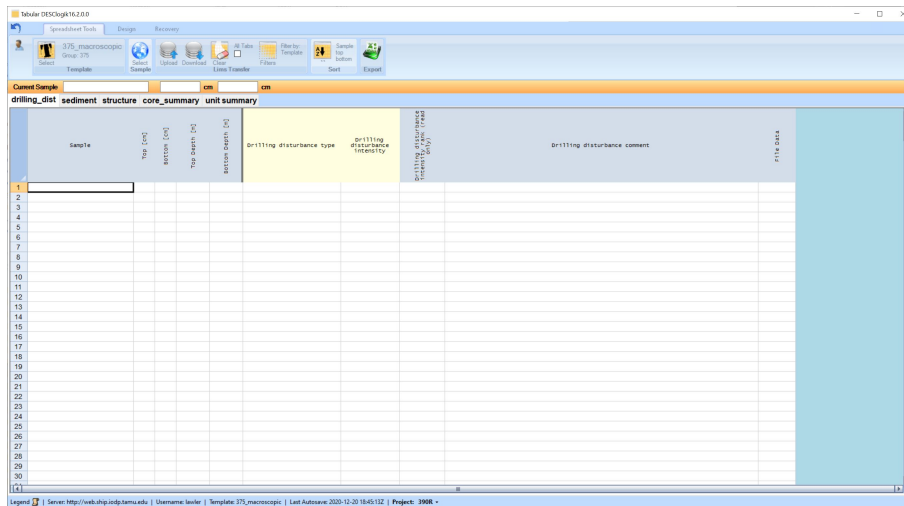
3. The main DESClogik screen opens.



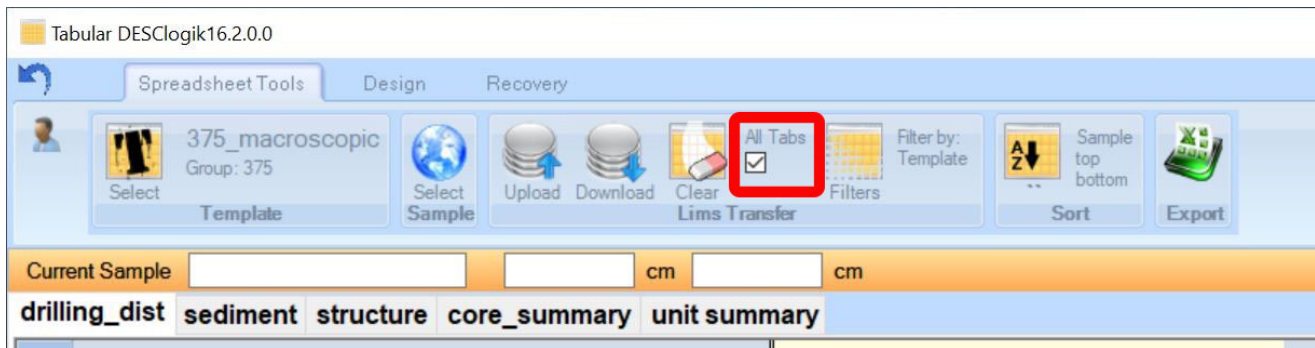
5. Click the black T. A list of all previous expedition templates will appear in the right 'Groups' panel. The left panel shows all the templates used in that expedition. Double-click the template of interest.



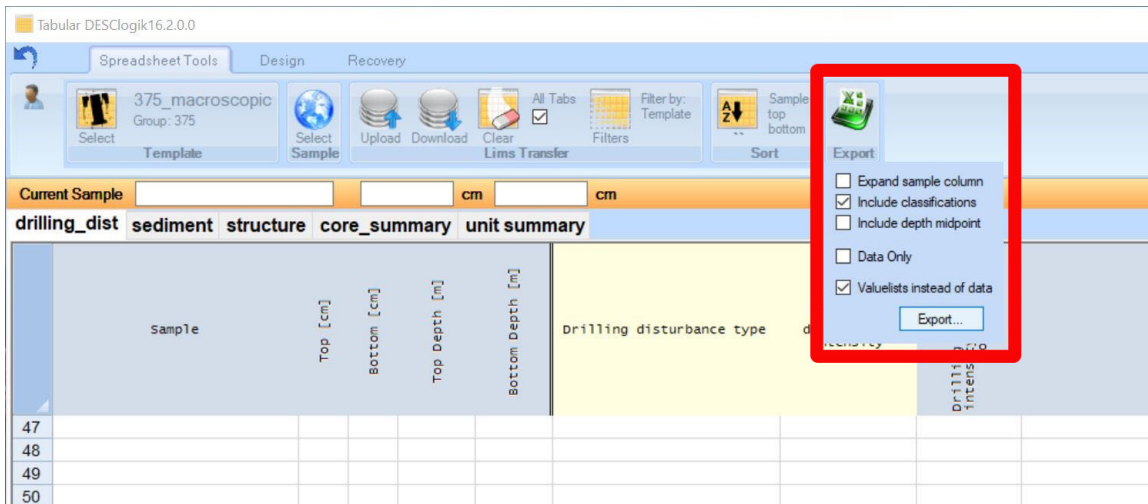
6. The template loads into the main screen.



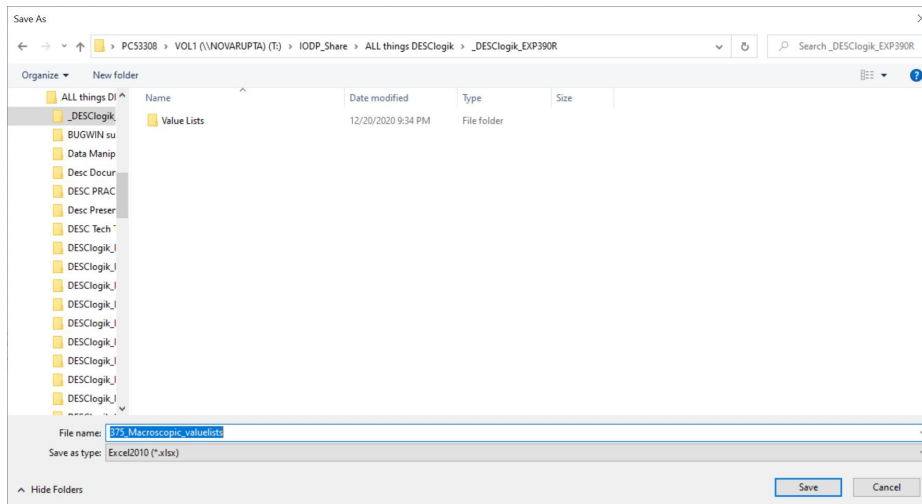
7. Check the 'All tabs' box.



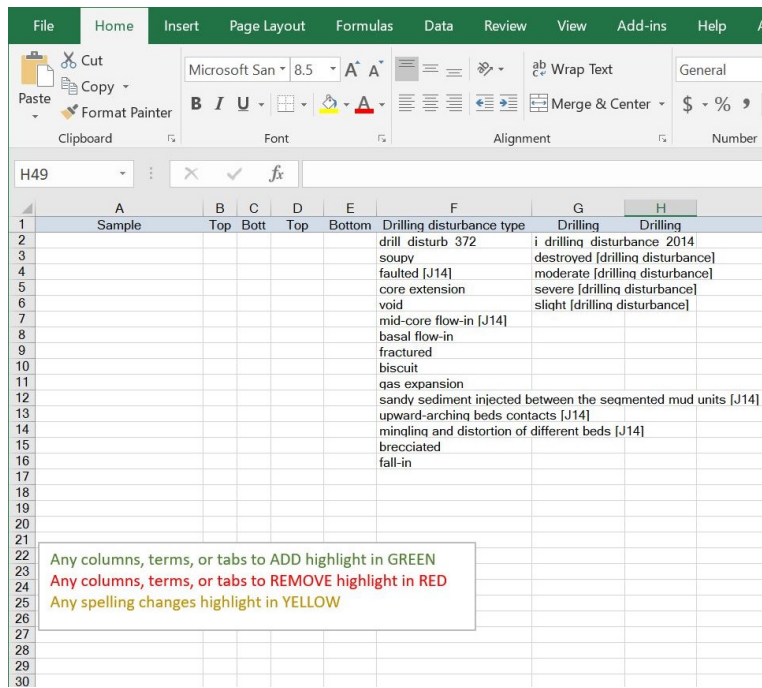
8. Click the green 'Export' button. In the drop-down menu 'Include Classifications' is already checked. Check the box for 'Valuelists Instead of Data'. Then click 'Export...'



9. Save the file in your expedition folder in the 'All things DESClogik' folder.



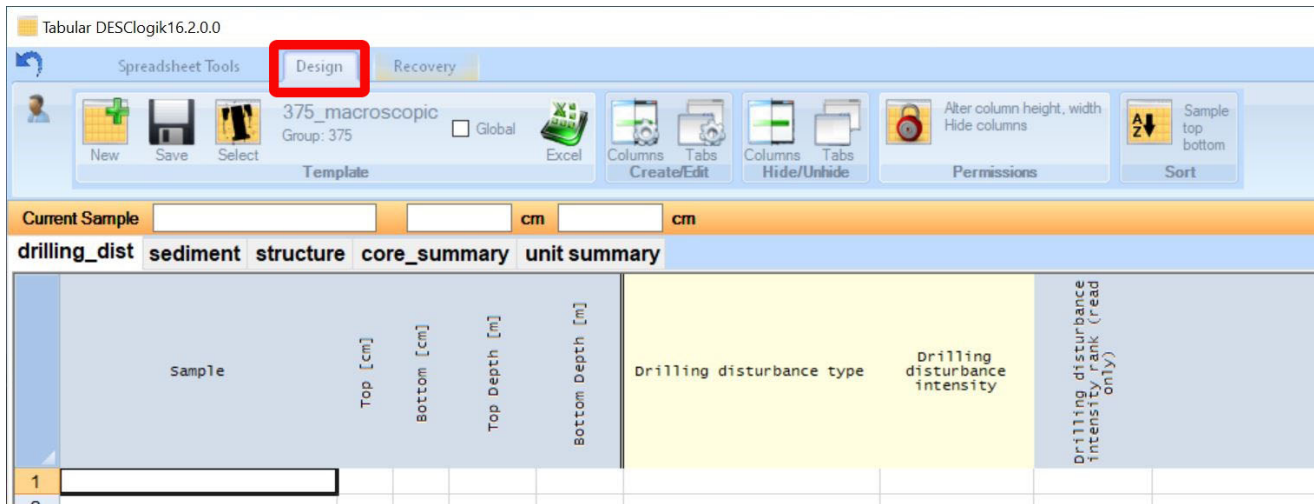
10. Open up the file and add a key in each tab indicating the most useful way to make edits to the sheet. Note in the example below, it's asked that any additions be made in green, any deletions made in red, and any spelling changes in yellow. Save the workbook when the instructions are on every page.



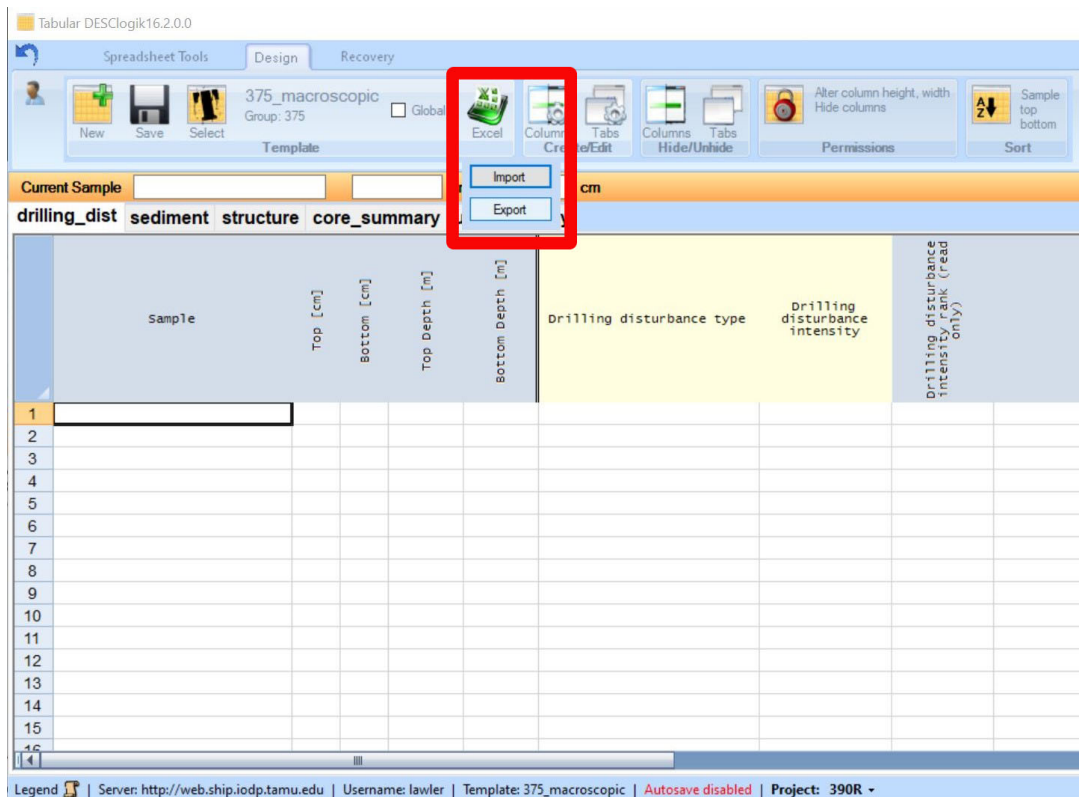
11. Send an email to the appropriate distribution group with the workbook attached. For paleo groups, send to the few members in the particular discipline rather than the whole group. In the email mention that they all need to review and agree upon changes as a group. Include how they should make edits to the page and then email it back to you once they all agree. It will likely take a few iterations before everyone is satisfied. Make sure you get this back with enough time to make the changes before the first core on deck. If time is running out prioritize the Macroscopic workbook first, then microscopic, then the different paleo groups.

12. Now that the scientists are working on their changes let's go back to DESClogik and export the Configuration sheet.

13. Open up DESClogik and click on the 'Design' tab at the top of the screen



14. Select the black T and click on the appropriate template. After it loads select the green excel button and click 'Export'.



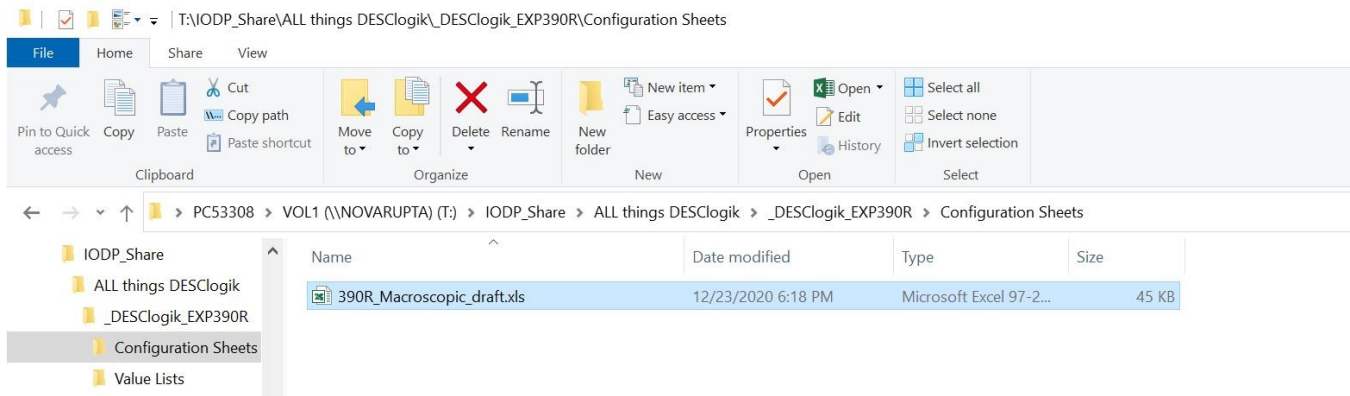
15. Direct yourself to your expedition folder inside "All Things DESClogik". If not already there, make a folder called "Configuration Sheets". Save the file in your new "Configuration" folder with a name such as "XXX_Macroscopic_Draft". At this stage give the sheet a temporary name as demonstrated in the previous sentence, we will explain why in later sections.

Making Edits

Overview

When the scientists have gone through the excel workbooks and send you an edited copy, we start making edits to the configuration excel workbook.

1. Go to the 'Configuration Sheets' Folder and open up the workbook that corresponds to the file you received.



2. The sheet opens up. There are three areas of note as illustrated in the different boxes in the image below.

Box 1: These first 5 lines of the workbook have primarily fixed values that either cannot be changed or often do not need to be changed. The sample type filters and test type filters can be added or removed but do so with caution. We will show you how to do this in later sections.

Box 2: This is where the action happens. Regardless of the config sheet opened the column layout will always be the same.

A. **Header.** This shows the header names as they display in DESClogik. Here the headers are laid out as rows but is transposed in DESClogik to

B. **Text Orientation:** Text orientation for the header can be changed between vertical and horizontal

C. **Column Width:** Can change the width of the entire column here. A known bug is that width changes will not take more than once to the same template name.

D. **Visibility:** Columns can be either 'visible' or 'hidden'. If visible it shows up in DESClogik and if hidden it does not. If a group doesn't want a column you can change its visibility to hidden, then if later they decide they do want it, you can change it back to 'visible', rather than remake the column.

E. **Sub-list:** The name of the sub-list that the config sheet points to to populate the dropdown menu. The name will be the same name as entered in the sub-list excel sheet. 'default' is used for free-text columns such as a comment column.

F. **Check for overlaps:** Can be set to 'yes' or 'no'. If set to yes will highlight rows that have overlapping descriptions in that particular column.

G. **Formula:** Shows any formula used in that column. Formulas cannot be entered here. They can only be entered in DESClogik.

H. **Metadata Class:** Applies to 'piece number lookup' and does not need to be edited.

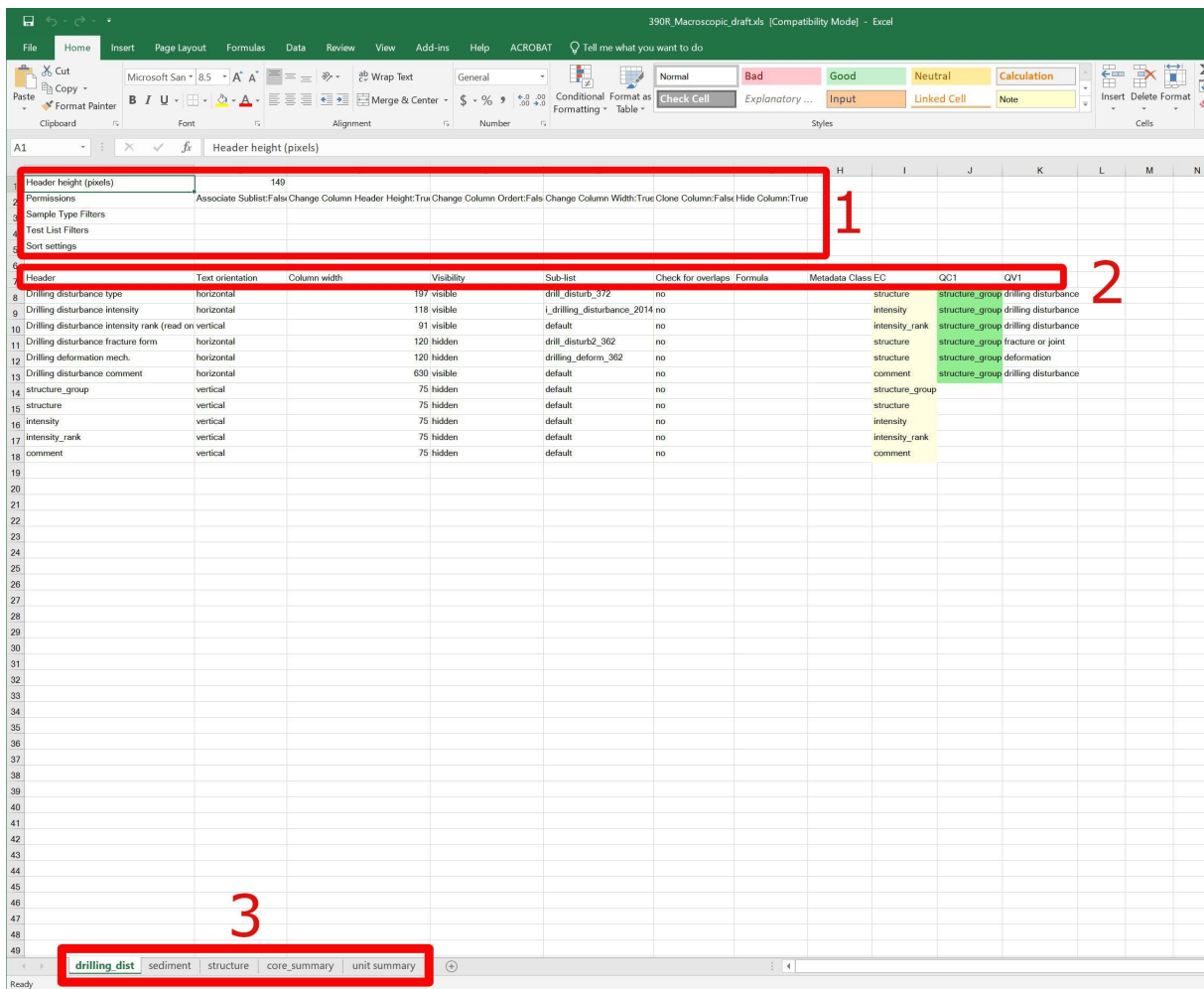
I. **EC:** Stands for 'Entry Component'. This value corresponds to the names of each value list, although it is not always a direct match. The sub-list must be in the sub-list for the value list from the EC. This is the broadest term to describe the column. For a list of Entry Components that can be used in DESClogik follow this [link](#).

J. **QC1:** Stands for 'Quality Component'. This value also corresponds to the value list terms. There can be multiple QCs, each one increases in number, i.e. QC2, QC3, etc.

K. **QV1:** Stands for 'Quality Value'. This value must be one of the terms from the value list used in QC. The QV is paired with the QC so if there are multiple QCs you must have the same number of QVs, i.e. QV2, QV3.

The EC, QCs, and QVs are used to create a unique definition for each column. The definition is key to data uploading and downloading successfully. If two or more columns have the same definition, even if they have different headers, data will inconsistently move back and forth between columns.

Box 3: The tabs at the bottom of the screen are the tabs that show up in DESClogik. Tabs can be added or removed from the workbook.



3. On another screen open up the edited sheet from the scientists.

To make or update a formula column, like adding a Total Texture column in a microscope template, the formula has to be entered in DESClogik. The changes won't take if you enter it into the configuration sheet. It's a little out of order but for making or changing Formula columns jump ahead to Creating a Formula

Add and Remove Columns

1. Any columns marked for deletion, go to the corresponding row in the configuration sheet and either change the visibility column to 'hidden' or delete the row. If you delete it, first highlight the whole row, use the clear contents command, and then delete it. The cells and rows in these workbooks can get stuck on values, even if deleted, so the best way to avoid issues is clearing the contents before deleting.
2. If a column needs to be added, first check the sheet to make sure the column doesn't exist but listed as hidden.
3. Insert a row where the column should go. Fill in the header name. Enter in the text orientation, column width, visibility, and check for overlaps column. Leave the sublist column empty for now, we will re-visit this later.
4. Create an appropriate EC, QC, QV definition. You can use multiple QCs and QVs if necessary. You can also look for similar columns in other tabs or workbooks and copy and paste that definition.

Add and Remove Tabs

To add a tab, make sure to copy the top seven lines from a previous tab. Rename the tab to what the scientists requested, the tab name will display in DESClogik

To delete a tab, clear the contents for the whole workbook then delete the tab.

Add and remove terms from a sub-list

If users want to add or remove terms from a sublist, we will need to make a new sublist rather than altering another expedition's list. In row 2 of the workbook given to the scientists the sublist name is listed. In the image below we see "drill_disturb_372" as the sublist for column "Drilling disturbance type". This sublist name is what you'll find listed in the configuration sheet in the sublist column.

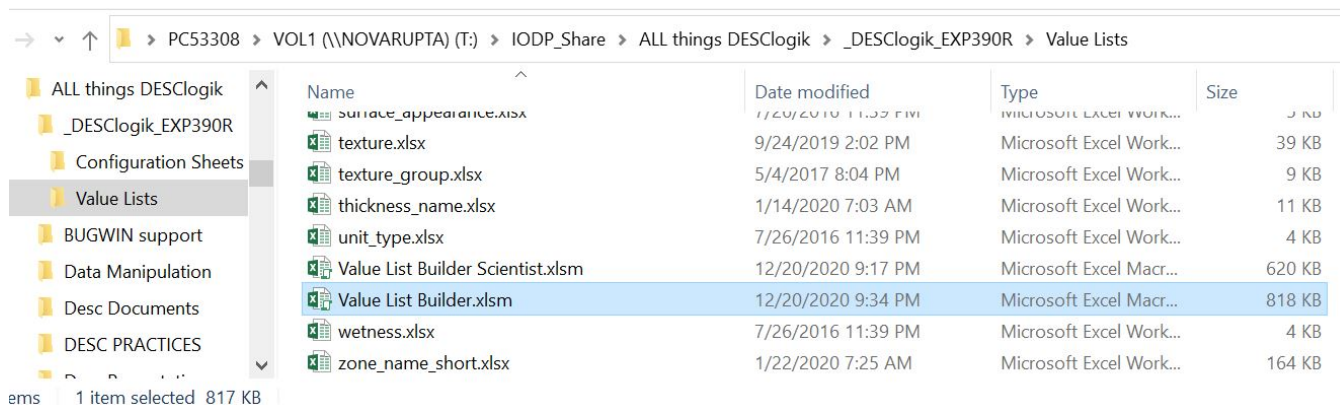
There are two ways to approach sublists: proactively change the sublists so most or all are specific to your expedition or to change the sublists that scientists request changes to and then as edits come up during an expedition change the sublists at that time. It is easier to make changes during an expedition if you made a new sublist, but does require more time upfront.

	A	B	C	D	E	F	G
1	Sample	Top	Bott	Top	Bottom	Drilling disturbance type	Drilling disturbance intensity
2						drill disturb 372	drilling disturbance 2014
3						soupy	destroyed [drilling disturbance]
4						faulted [J14]	moderate [drilling disturbance]
5						core extension	severe [drilling disturbance]
6						void	slight [drilling disturbance]
7						mid-core flow-in [J14]	
8						basal flow-in	
9						fractured	
10						biscuit	
11						gas expansion	
12						sandy sediment injected between the segmented mud units [J14]	
13						upward-arching beds contacts [J14]	
14						mingling and distortion of different beds [J14]	
15						brecciated	
16						fall-in	
17							
18							

We will use the Value List Builder macro excel workbook. Here we briefly go over what you need to do, for more in depth information refer to the [Value List Builder Macro User Guide](#)

Add Terms

1. Open the "Value List Builder.xlsm" located in Vol 1 > IODP_Share > _DESClogik_EXPxxx > Value Lists

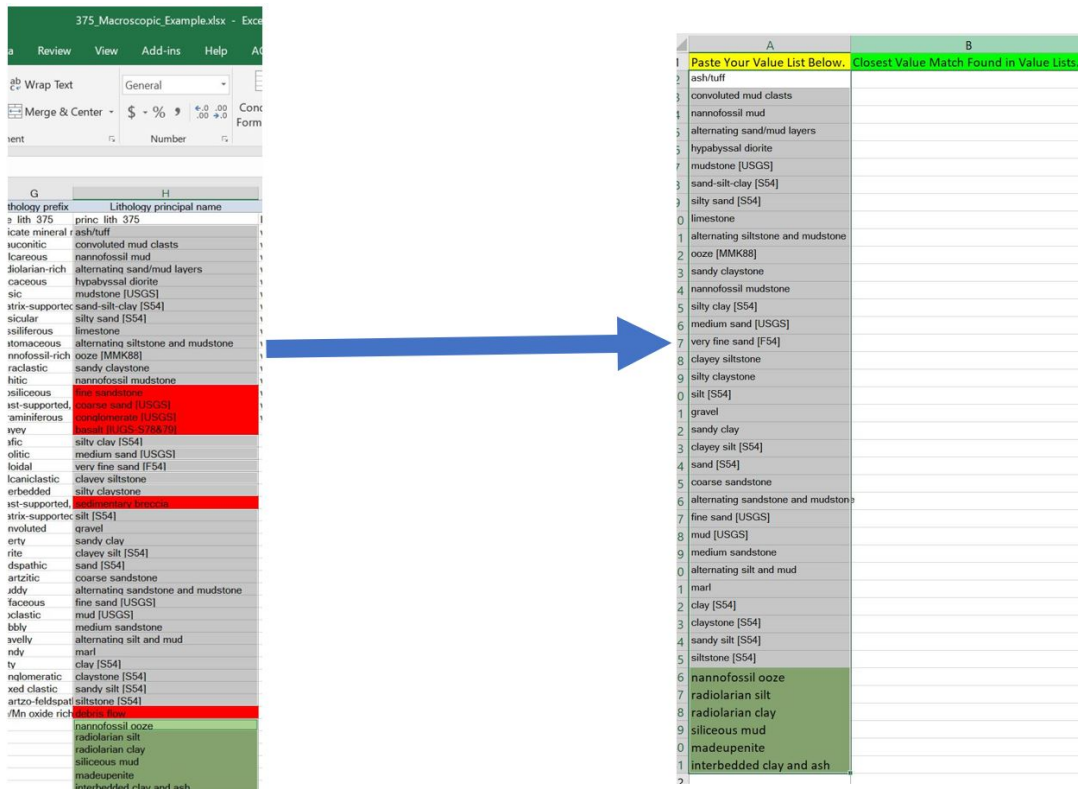


2. If prompted, click "enable macros" and "trust this document". In the top left corner click the circled x to clear the form of previous search results.

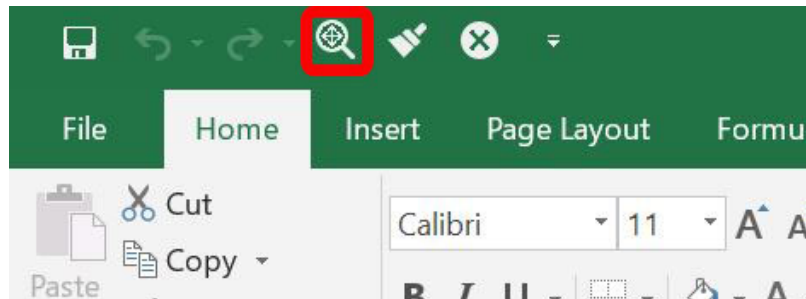


3. In the sheet sent by the scientists copy the new terms for one column. Do this one column at a time as each column will have its own sublist, terms are located in different values, and easier to add values if they don't yet exist.

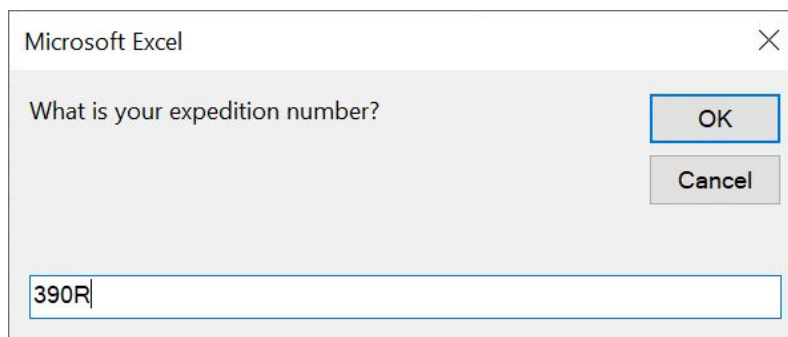
4. Copy all the wanted terms into the column labeled "Paste you Value List Below"



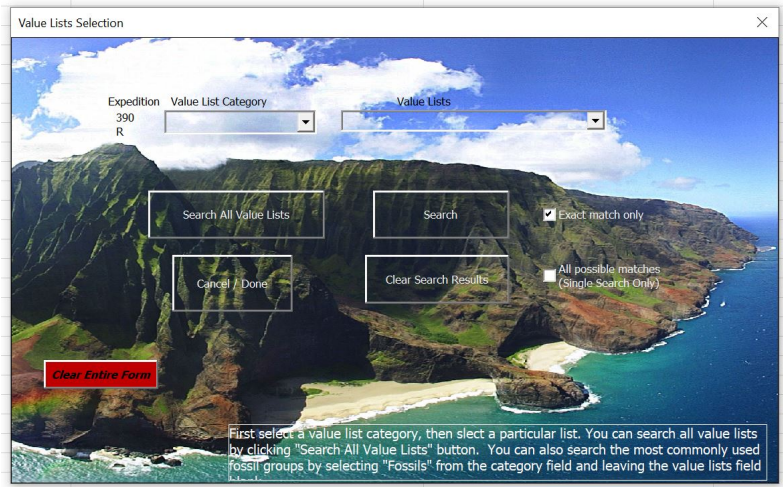
5. Click the magnifying glass in the top left corner of the workbook.



6. A prompt pops up. Enter your expedition number and click 'OK'.



7. A Value List Selection window pops up. Click in the Value List Category and select the appropriate category. Then select a value list from the next drop down. In Figure XX terms were added to the Lithology principal name, so to search I would select the category 'Lithology' and value list 'principal_lithology_sediment_names' since this is a sediment tab. Click Search. If you have no idea where to start or how this column should be defined, click Search All Value Lists.



8. Results populate the fields. Any results that are found will show up in the 'Closest Value Match Found in Value Lists' and corresponding definitions. Any terms that are not found in that value list show up in the 'Values not found' column. In the below example we have three terms that are not in our value list.

	A	C	D	E	F
1	Paste Your Value List Below.	lithology_classification [mod: principal_lithology locked]	lithology_definition [mod: principal_lithology]	principal_lithology_rank [mod: principal_lithology]	Values NOT FOUND.
2	ash/tuff	Leg 202, modified after Mazullo, Meyer & Kidd, 1988	0-10% nonpelagic biogenic components, 75-100% volcanoclastic components, 0-10% pelagic biogenic components		hypabyssal diorite
3	convoluted mud clasts	Exp 375	Methods		madeupenite
4	nanofossil mud	Exp 375	Methods		interbedded clay and ash
5	alternating sand/mud layers	Exp 362	(to be defined in Method section)		
6	hypabyssal diorite	USGS, after Folk, 1954	consolidated mud (95-100% mud (< 0.0625 mm), 1:0 - 9:1 ratio of mud:sand, 0-2.5% gravel)		
7	mudstone [US54]	Shepard, 1954	20-60% sand, 20-60% silt, 20-60% clay		
8	sand-silt-clay [S54]	Shepard, 1954	50-75% sand, 20-50% silt, 0-20% clay		
9	silty sand [S54]	2014, draft for IBM expeditions 350, 351, 352			
10	limestone	Exp 375	Methods		
11	alternating siltstone and mudstone	Mazullo, Meyer & Kidd, 1988	unconsolidated calcareous and/or siliceous pelagic sediments		
12	ooze [MMK88]	ODP Leg 178 modified after ODP Leg 105	consolidated sandy clay (>75% clay, >12.5% sand)		

9. For the values that haven't been found, open up the appropriate value list, in this example the 'principal_lithology_sediment_names' list.

VOL1 (\\NOVARUPTA) (T:) > IODP_Share > ALL things DESClogik > _DESClogik_EXP390R > Value Lists

Name	Date modified	Type	Size
ostracods.xlsx	1/4/2019 11:01 PM	MICROSOFT EXCEL WORK...	32 KB
pollen_spore.xlsx	3/26/2019 4:05 PM	Microsoft Excel Work...	68 KB
porosity.xlsx	2/11/2019 2:14 PM	Microsoft Excel Work...	10 KB
preservation.xlsx	1/22/2020 7:20 AM	Microsoft Excel Work...	22 KB
principal_lithology_igneous rock names.xlsx	10/27/2019 2:34 PM	Microsoft Excel Work...	20 KB
principal_lithology_metamorphic rock names.xlsx	5/13/2018 1:21 PM	Microsoft Excel Work...	13 KB
principal_lithology_sediment names.xlsx	1/19/2020 11:39 PM	Microsoft Excel Work...	62 KB
quality.xlsx	4/12/2018 5:19 AM	Microsoft Excel Work...	10 KB

10. Copy the values from the 'not found' column from the Value List Builder and paste into the first column of the value list spreadsheet, with the reference and definition in the following columns. Click 'save' and close the spreadsheet.

11. Now double check the Value list builder and search again to make sure the terms show up.

12. Open up the corresponding sub list spreadsheet, in this example 'sublist_principal_lithology'. The sublist spreadsheets are in a 'sublists' folder inside the 'Value List' folder.

VOL1 (\\NOVARUPTA) (T:) > IODP_Share > ALL things DESClogik > _DESClogik_EXP390R > Value Lists > sublists

Name	Date modified	Type	Size
sublist_preservation.xls	1/22/2020 7:21 AM	Microsoft Excel 97-2...	11 KB
sublist_principal_lithology.xls	7/31/2020 4:57 PM	Microsoft Excel Work...	126 KB
sublist_quality.xlsx	4/12/2018 5:25 AM	Microsoft Excel Work...	9 KB
sublist_relative_abundance_gray_20161021.xlsx	10/21/2016 5:10 PM	Microsoft Excel Work...	10 KB
sublist_roundness.xls	1/14/2020 7:21 AM	Microsoft Excel 97-2...	9 KB

13. The spreadsheet opens up. This list contains all the sublists that have been used for expeditions with this value list. Note the top line is empty, the next line has the name of the sublist, and below are all the terms in the sublist.

	CU	CV	CW	CX	CY	CZ	DA	DB	DC
1									
2	prin_lith_structur	prin_lith_ig_hyp_385	java_test	prin_lith_ss_378	prin_lith_maj_378	prin_lith_min_378	prin_lith_clast_378	prin_lith_384	
15	nannofossil chalk	clay		claystone	claystone	silty sandstone	sand-silt-clay [MMK88]	clay	
16	radiolarite	breccia		diatomite	diatomite	chert [MMK88]	sand-silt-claystone [MM silt		
17	sand	brecciated basalt		mud	mud	nannofossil ooze	silty claystone [MMK88]	silty clay	
18	silt	basaltic breccia		nannofossil chalk	nannofossil chalk	volcanic ash	silty sandstone [MMK88]	clayey silt	
19	clayey sandstone [S54]	volcaniclastic rock		sand	sand	biogenic indurated sedin	chalk [MMK88]	mud	
20	sandy claystone [S54]	pyroclastic rock		sandstone	sandstone	calcareous biosiliceous i	spiculite [MMK88]	sandy mud	

14. Copy the formatting of the top two lines and paste in the next available column. Give the sublist a unique name, this can be done by incorporating the expedition number. Then copy all the terms from the value list builder from the 'Closest Value Match' column. This column has formatted the terms correctly. There have been errors using values that aren't formatted correctly. The newly created sublist is outlined in red below.



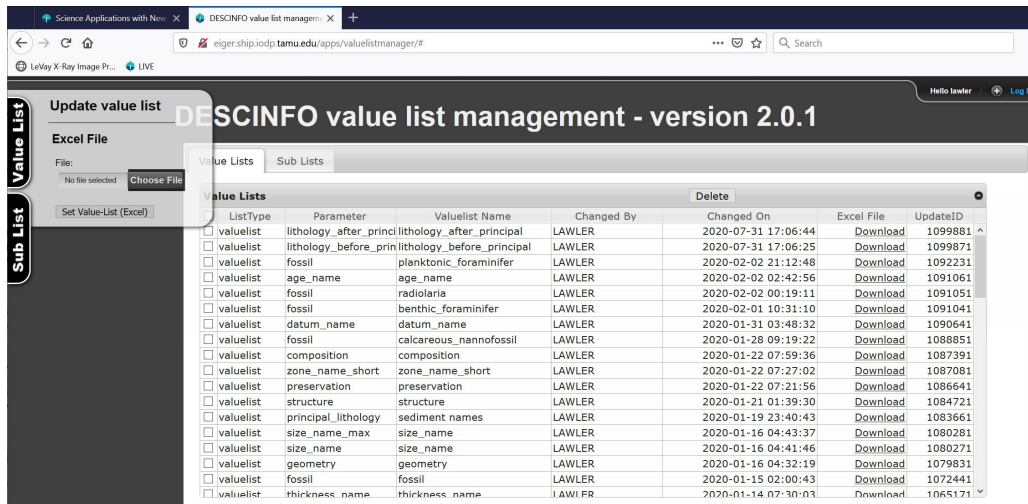
Now that we have added terms to our a value list and a sublist we need to update these worksheets in the database. If these are not updated the new values will not be recognized by DESClogik and throw errors.

15. Close the value list and sublist excel worksheets you were working on.

16. In your internet browser go to DESC Value List Manager. <http://eiger.ship.iodp.tamu.edu/apps/valuelistmanager/> . You can access it from the shipboard iodp home page > Access LIMS applications >and under Web applications select DESC Value List Manager.

17. Click the login button in the top right corner. Login with your LIMS username and password. Now in the right corner you should see your username.

18. Click the Value List button on the left side of the screen. The window will slide out to the right. Click 'Choose File' and navigate to the value list you added terms to, in our example its the 'principal_lithology_sediment_names value list. Click Set Value-List (Excel). This file can take a few minutes to upload. When done a message will appear in the upper right-hand corner saying 'Server Response Success'.



19. Give it about 30 seconds and then click on the Value List button so the window retreats and then click on the Sub List button. Click Choose File and then navigate to the sublist file you updated, in our example 'sublist_principal_lithology'. Then Click Set Sublist. This file can take a few minutes to upload. When done a message will appear in the upper right-hand corner saying 'Server Response Success'.

20. Open up the configuration sheet, if not already open. Find the column you were editing the sublist for. In our example its the Lithology Principal Name column.

21. Go to the sublist cell for that column. Click in cell and use the clear contents command.

22. Re-open the sublist excel worksheet you just updated. Navigate to your sublist and copy the name cell. Go back to your configuration sheet and paste using the 'values only' command.

23. Save the configuration sheet.

Delete Terms

If the scientists have no additions to a sublist and only deletions we still need to make a new sublist.

1. Open up the appropriate sublist excel spreadsheet. If you're not sure which sublist file your list is in, you can look at the configuration sheet and the corresponding EC value. In the below example I am deleting terms from the drill_disturb_372 sublist. Looking at the configuration sheet the EC for this column is 'structure' so I can find this sublist in the 'sublist_structure' excel file.

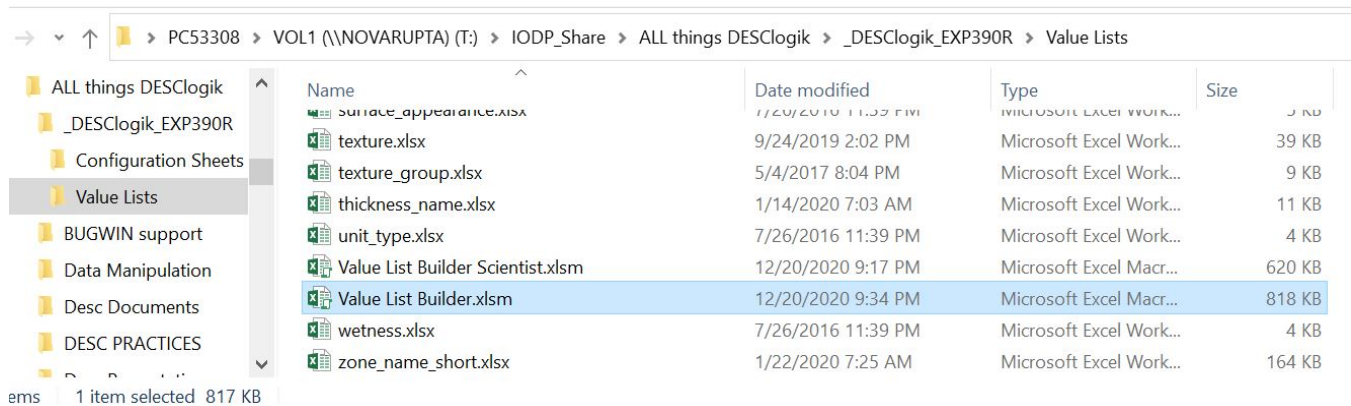
Sample	Top	Bott	Top	Bottom	Drilling disturbance type	Drilling	Drilling
					drill disturb 372	i	drilling disturbance 2014
					soupy		destroyed [drilling disturbance]
					faulted [J14]		moderate [drilling disturbance]
					core extension		severe [drilling disturbance]
					void		slight [drilling disturbance]
					mid-core flow-in [J14]		
					basal flow-in		
					fractured		
					biscuit		
					gas expansion		
					sandy sediment injected		between the segmented mud units [J14]
					upward-arching beds		contacts [J14]
					mingling and distortion of		different beds [J14]
					brecciated		
					fall-in		

2. In the sublist excel worksheet, copy the formatting of the top two lines and paste in the next available column. Give the sublist a unique name, this can be done by incorporating the expedition number.

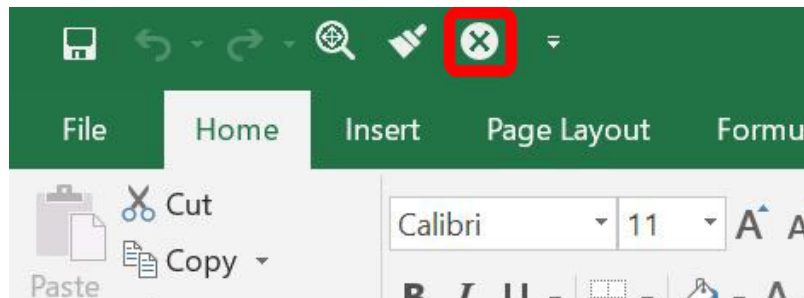
	GF	GG	GH
	deform_378	sed_struct_378	drill_dist_390R
	area reduction	convolute bedding	
	ash pods	pod	
	asymmetrical fold [BJ80]	mud crack	
	bedding	trough cross-stratification	
	bleb	current ripple mark	

3. Copy the wanted values from the edited worksheet sent by the scientists and paste into the Value List Builder excel worksheet. You could just copy paste directly into the sublist column but a change could have been made without recording it in the sheet. Even just a spelling change could require adding a new term to the value list.

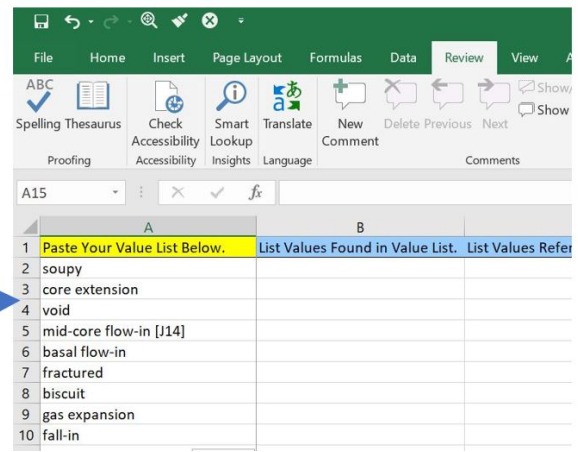
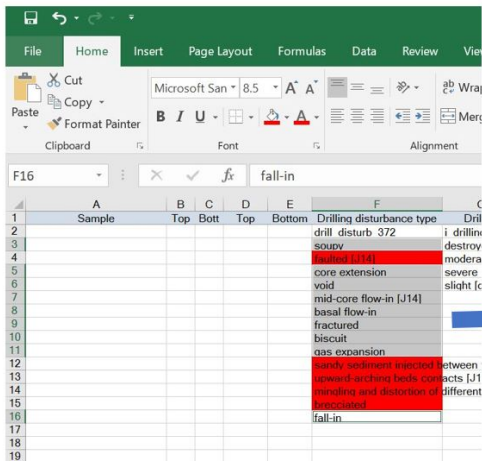
4. Open the "Value List Builder.xlsm" located in Vol 1 > IODP_Share > _DESClogik_EXPxxx > Value Lists



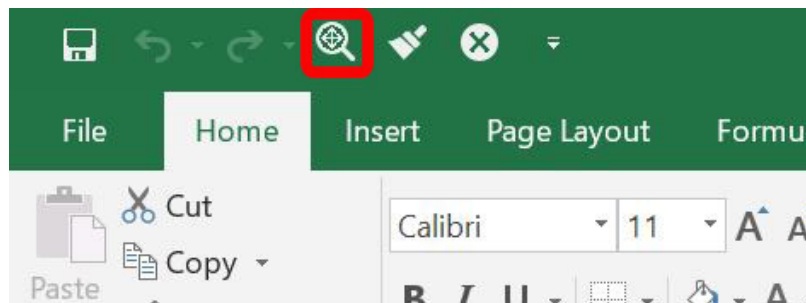
5. If prompted, click "enable macros" and "trust this document". In the top left corner click the circled x to clear the form of previous search results.



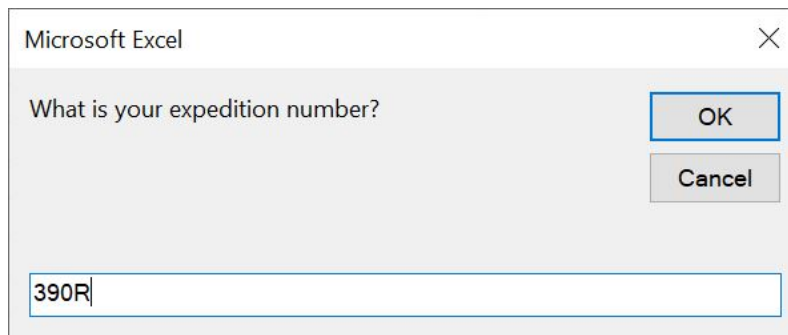
6. In the sheet sent by the scientists copy all the wanted terms for one column and paste into the Value List Builder in the column labeled "Paste Your Value List Below". Do this one column at a time as each column will have its own sublist, terms are located in different values, and easier to add values if they don't yet exist.



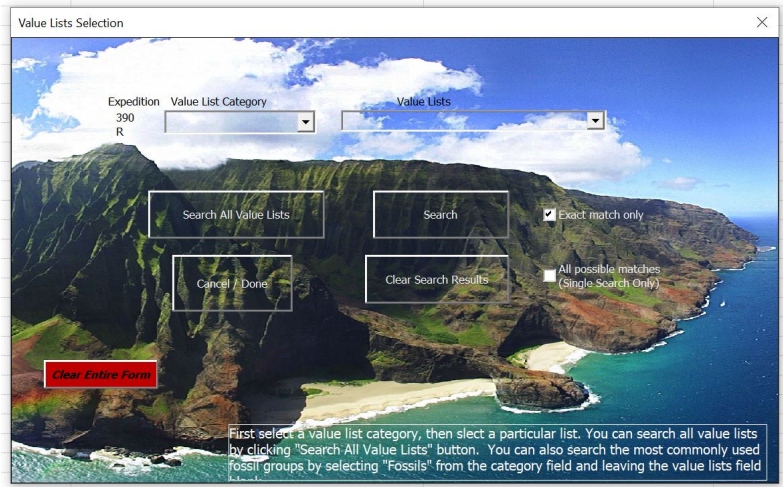
7. Click the magnifying glass in the top left corner of the workbook.



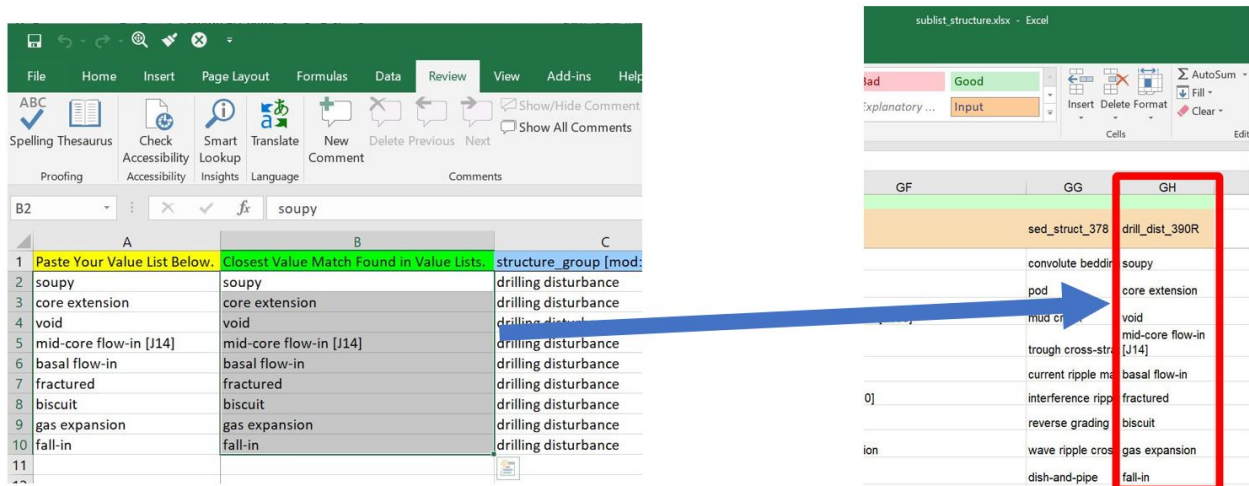
8. A prompt pops up. Enter your expedition number and click 'OK'.



9. A Value List Selection window pops up. Click in the Value List Category and select the appropriate category. Then select a value list from the next drop down. In Figure XX terms were deleted from the drilling disturbance type column, which I already determined to be from 'structure' value list, so I would select the category 'Structure and Texture' and value list 'structure' since this is a sediment tab. Click Search. If you have no idea where to start or how this column should be defined, click Search All Value Lists.



10. The terms should all populate in the 'Closest Value Match'. Copy the values from the 'Closest Value Match' and paste into your sublist. If some values show up as not found, use the section above to add terms to the value list.

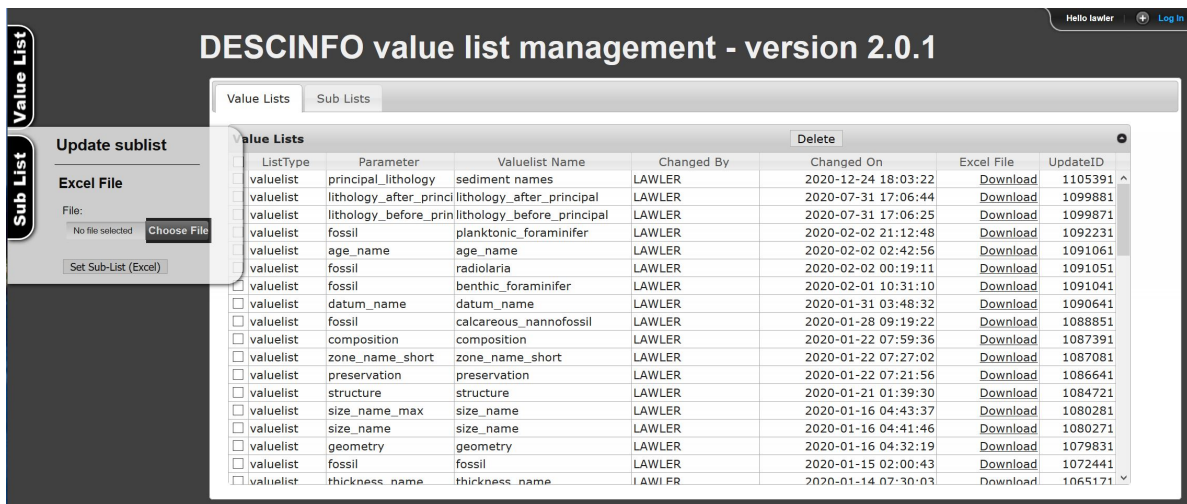


11. Save the sublist worksheet and close it.

12. In your internet browser go to DESC Value List Manager. <http://eiger.ship.iodp.tamu.edu/apps/valuelistmanager/>. You can access it from the shipboard iodp home page > Access LIMS applications > and under Web applications select DESC Value List Manager.

13. Click the login button in the top right corner. Login with your LIMS username and password. Now in the right corner you should see your username.

14. Select the sublist button on the side



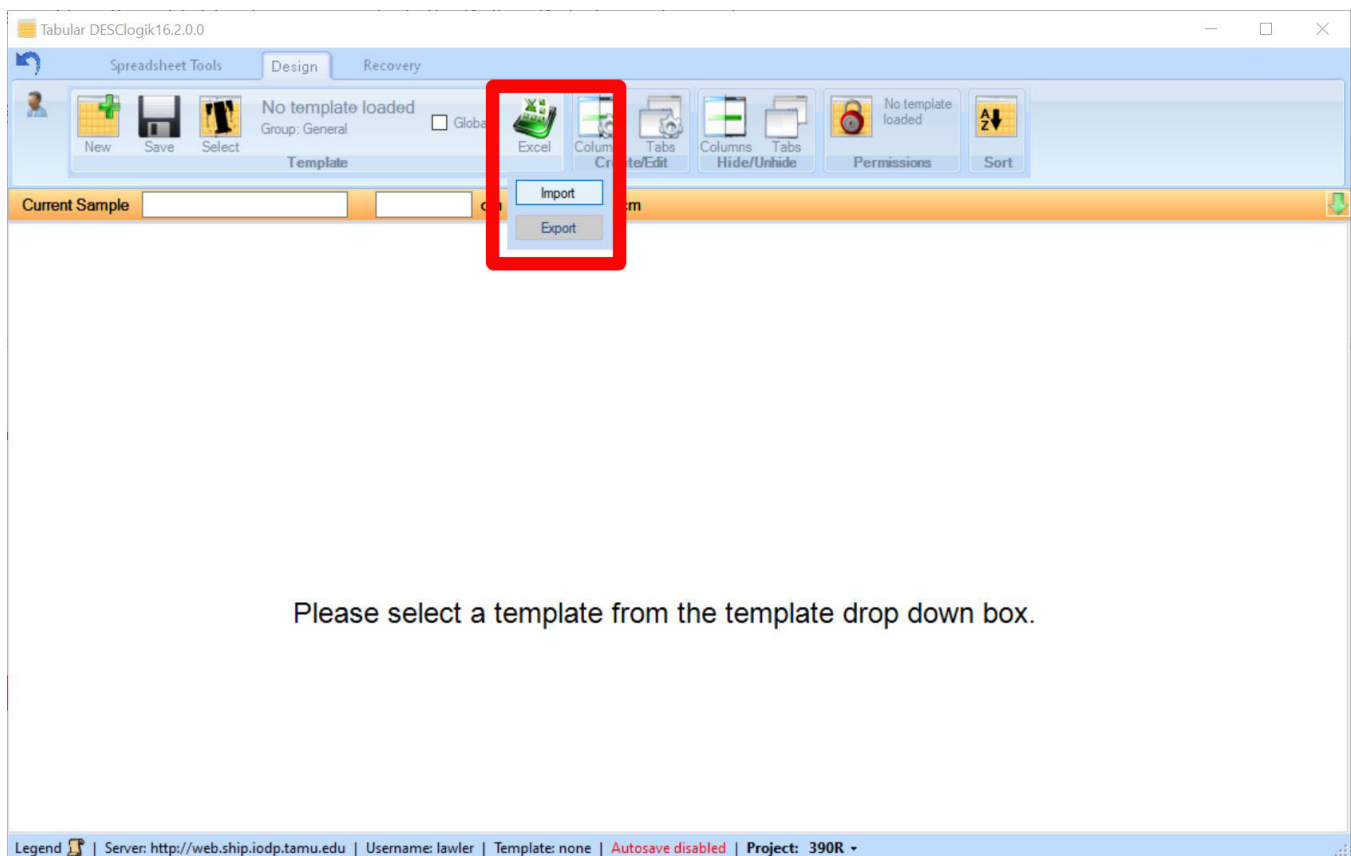
15. Select **Choose File** and navigate to the file you just updated. In our example it is 'sublist_structure.xlsx'.
16. Open up the configuration sheet, if not already open. Find the column you were editing the sublist for. In our example its the Drilling Disturbance Type column.
17. Go to the sublist cell for that column. Click in cell and use the clear contents command.
18. Re-open the sublist excel worksheet you just updated. Navigate to your sublist and copy the name cell. Go back to your configuration sheet and paste using the 'values only' command.
19. Save the configuration sheet.

Import Configuration into DESClogik

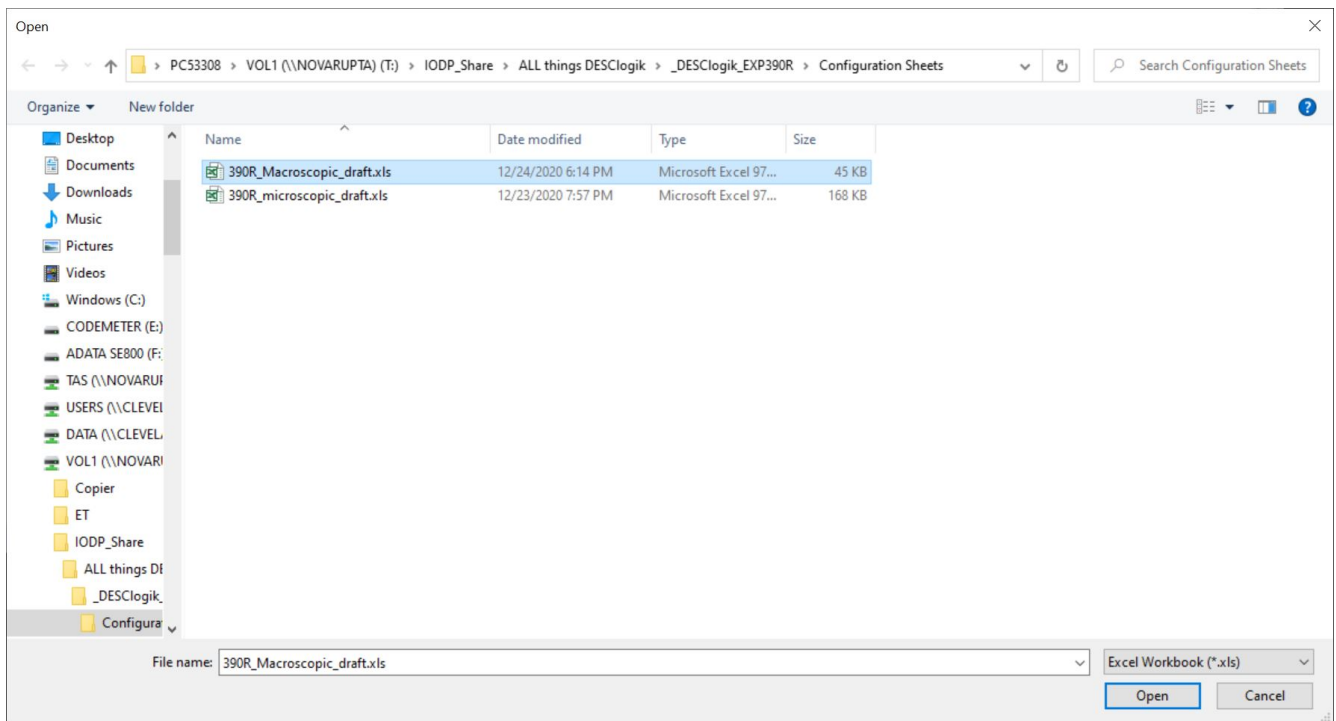
After you've made all the initial edits (trust me there will be more) we can import the configuration workbook into DESClogik. After you import an updated configuration

Import

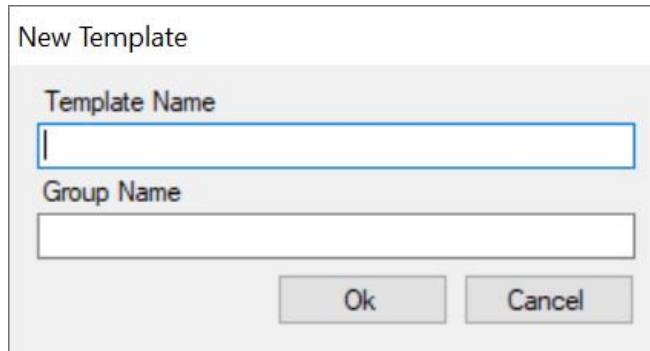
1. Open DESClogik and click on the Design Tab.
2. Select the green **Excel** button and select **Import**.



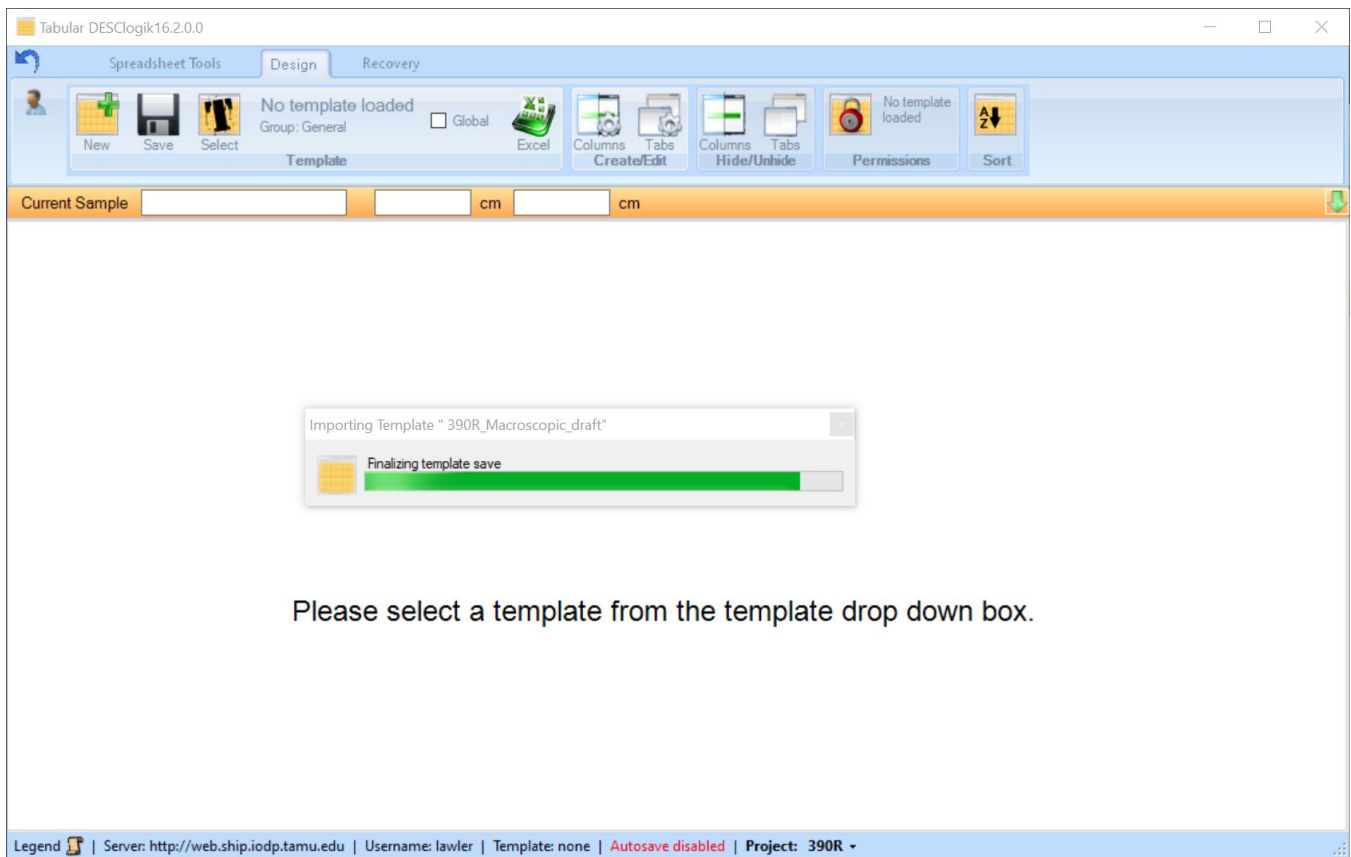
3. Navigate to the configuration file you have been working on. Copy the filename before you click **Open**.



4. A 'New Template' Window opens. Paste the filename into the Template Name. When more edits are made to the configuration sheet the template will have to be deleted from DESClogik and then imported again. Data is tied to the template name so any change at all to the template name would result in a loss of expedition data. For this reason its best practice to keep the filename the same and just copy and paste into the template name. The Group Name is the Expedition number, in this case 390R

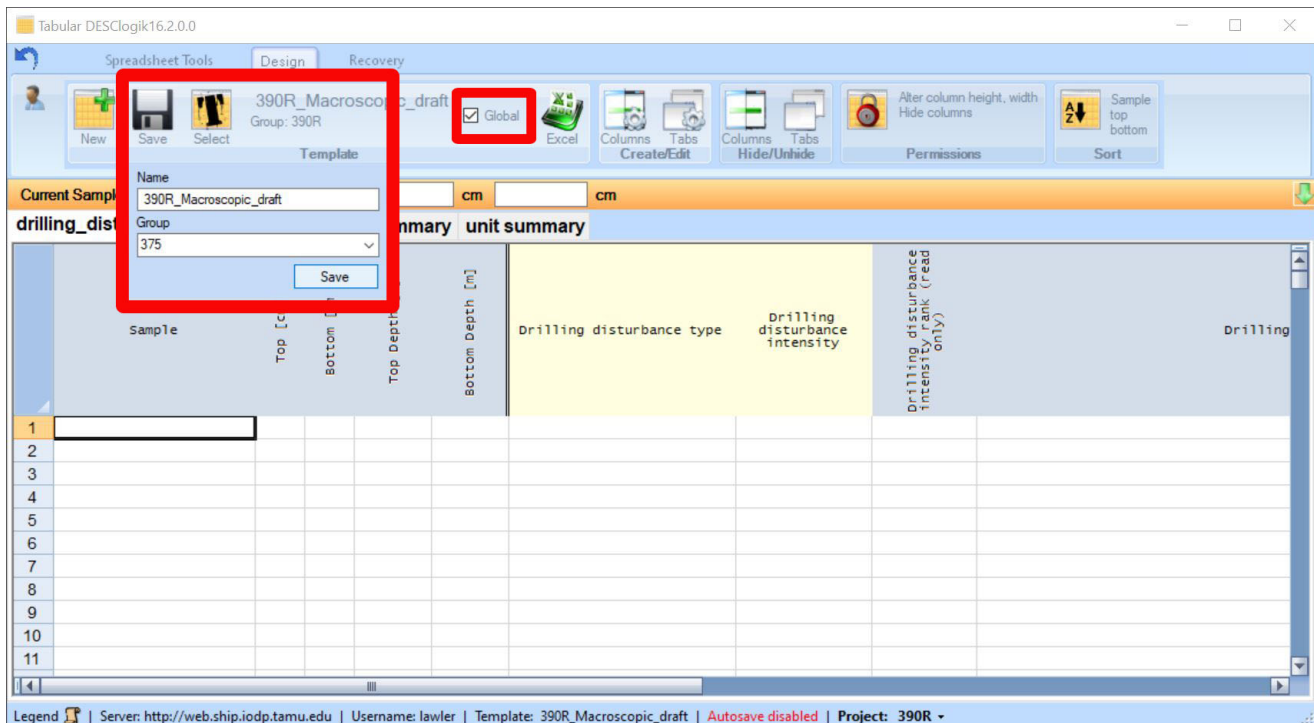


5. The Configuration Sheet loads in. If there are any errors in the Configuration Sheet, an error message will pop up. If this happens, see the troubleshooting section below. After it loads you will also see a message indicating the template has no autosave settings, this is not true the template does. For help checking or editing those settings, see the software introduction section below.



Please select a template from the template drop down box.

6. Congrats your template is loaded! Right now only administrators (technicians) can see the template. To let the scientists view it check the **Global** box and then click **Save**. A drop down appears with the template name and a group. Change the group number to your current expedition.



7. Now lets double check that scientists can view the template. Close and reopen DESClogik but this time login with the credentials: username = descstest ; password = \$DescTest1 . Select **Template** and you should see your expedition as the group number and from there you should see your template you uploaded. If you see other templates, take a note of which templates, login with your credentials, and uncheck the global box. Before you start getting core make sure the scientists only see their templates. We don't want anyone to enter data against the wrong template!

8. Send out an email to your email distribution group that everyone can review the template and get you any feedback.

9. From here continue making edits as requested. Please note that column widths cannot be changed and re-imported under the same template name. The best way to change column widths before anyone enters data is to change the width in DESClogik, export the Configuration sheet, and then import with a slightly different name (390R_Macroscopic_Draft1,2,3,etc.). Once scientists start entering data the template name must stay the same so the column widths are fixed.

10. Test that each column in each tab uploads and downloads data correctly. If template definitions aren't unique, data can upload and download to the wrong columns. An easy way to do this check is enter a number in each entry and increase chronologically (1, 2, 3, 4, 5, etc.). This makes it easy to tell if something doesn't work right, (ie if the numbers go 1,18, 3, 4, 5 you will need to fix the definition for the 18th column or the 2nd column)

Once the templates are finalized (for now) and before you get core, **change the name of your configuration sheets to their final name and import into DESClogik and give the template the same name.** For example 390R_Macroscopic instead of 390R_Macroscopic Draft27.

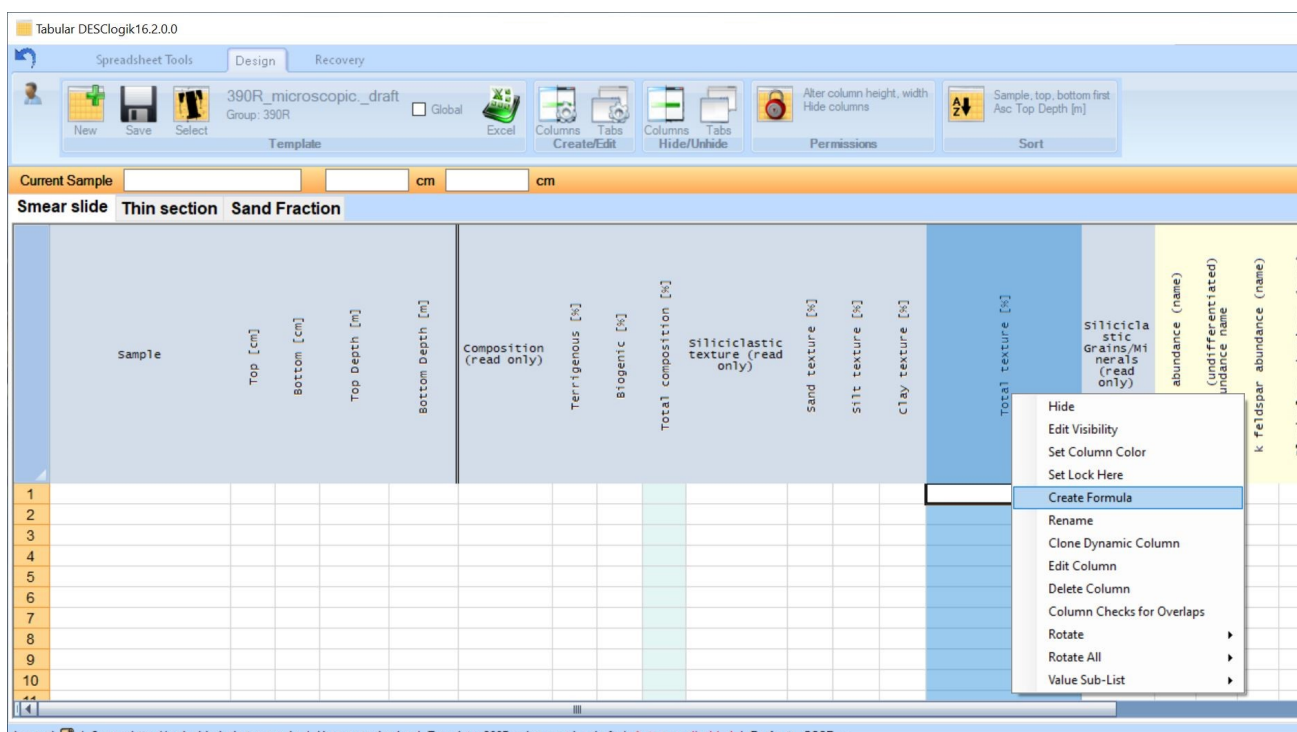
Editing Formulas

Formula columns have to be edited in DESClogik, not in the configuration sheet.

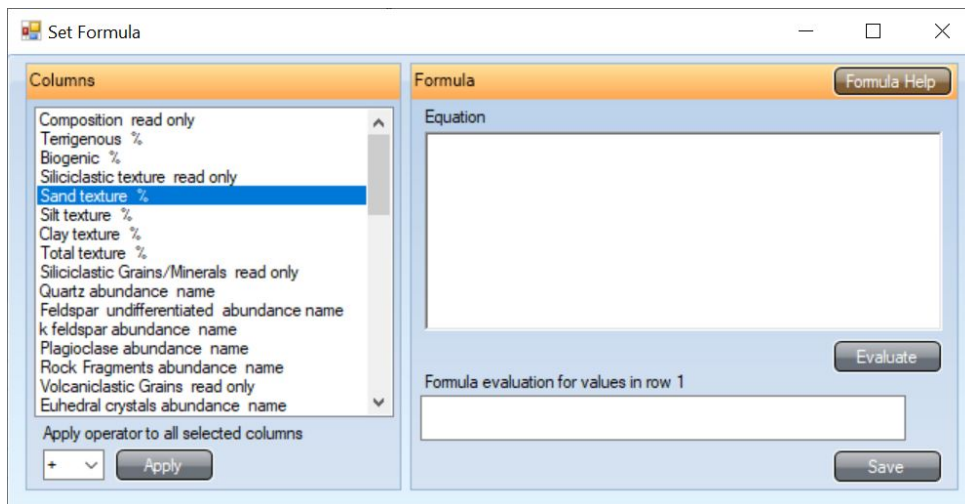
In the steps below we will go through a common scenario where there's a new column 'Total Texture' and the science party wants it that column to be the sum of a few other texture columns: 'Sand Texture %', 'Silt Texture %', and 'Clay Texture %'.

1.If the configuration sheet is not imported into DESClogik, import it now.

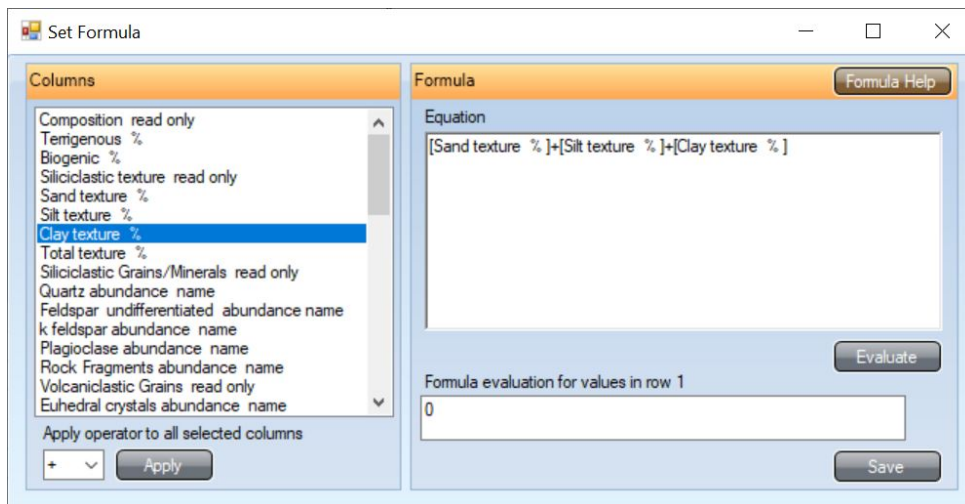
2. Right click on the column you want to attach a formula to, in our example 'Total Texture', and select **Create Formula**.



3. A **Set Formula** dialogue box opens up. On the left is a list of all the columns in this template tab. Select the operator you want, in our example a +. Scroll through and select the columns you want to add. This can either be done by ctrl-clicking all the columns you want at once and selecting **Apply**, or single selecting the columns and clicking Apply or double clicking to see it added to the Equation Window. If you single click, you will need to use the keyboard to add in the numerical operator.



4. Your formula is visible in the Equation Window. Click **Evaluate** and the software will calculate the answer based on the formula. Due to no values being in the columns yet, our result is '0'. If satisfied with the formula select **Save**.



5. Double-check the formula works correctly in the worksheet by entering some values in the columns. If everything looks good, we will need to export and then re-import this configuration sheet. If you close and re-open DESClogik without doing this, it will not remember the formula.

Make Edits After Data Entered

During the course of the expedition you will need to edit the templates. This can range from big changes to just adding a couple terms. We'll go over the steps and different cases

Export Configuration

To make sure you have and are editing the latest configuration sheet, make sure to export a copy before you make changes.

1. Select the **Design** tab.
2. Click on the **Excel** button and select **Export**.
3. Make sure the name is the exact same as the template name for ease.
4. In your Configuration Folder, have a folder called Archived or Old where you can put all the previous versions of your configuration sheets. It is handy to have in case you run into an issue.

Export Data

Export data before you edit a template and regularly during the course of the expedition.

1. Make a folder called 'Data Workbooks' in your expedition folder

2. Open DESClogik and select a template. Check the **All tabs** box.
3. Select a hole as a sample type and then click **Download**. This can take a couple minutes for larger datasets.
4. Once the data has downloaded, click **Export** and check the box for **Data Only**. Click **Export**.
5. Navigate to your Data Workbook folder and give the file a representative name(U9999A_macroscopic).

Making Edits

If you're making edits that require anything beyond adding or deleting a term to a sublist you created for this expedition, you will need to have any scientist working on the template to close it down and you will have to delete the template and re-import the template under the same name. To make it less disruptive you can edit the configuration sheet and import under a different template name. Doing this confirms it will upload without errors and you can check that the data uploads and downloads properly. This also minimizes disruption to the science party to just a few minutes!

Add Terms to your Expedition Sublist

If the scientists need a term added and you created a new sublist for this column, you don't need to delete the template!

1. Check the Value List Builder to see we have the term in the corresponding value list. If we don't add the term to the value list. If we do move on to the next step.
2. Copy and paste the term into the sublist.
3. Update the value list (if necessary) and sublist in the DESC Value List Manager: <http://eiger.ship.iodp.tamu.edu/apps/valuelistmanager/> .
4. DESClogik will need to close and reopen in order to see the terms in the software.

Delete Terms to your Expedition Sublist

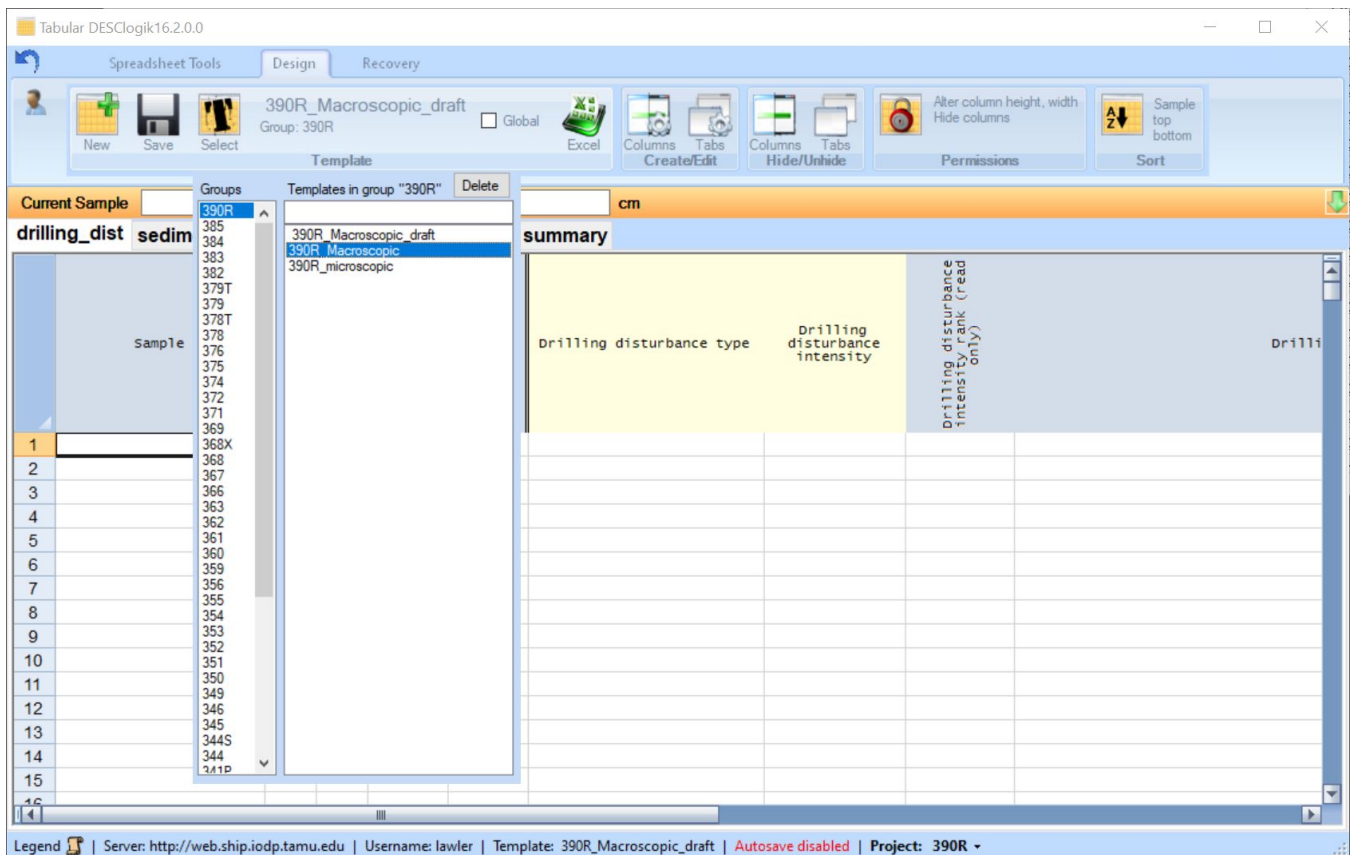
If the scientists need a term deleted from a sublist you created for this expedition, you don't need to delete the template.

1. Open the sublist and use the 'clear contents' command in cell that has the term you need to remove.
2. Save the sublist.
3. Update the sublist in the DESC Value List Manager: <http://eiger.ship.iodp.tamu.edu/apps/valuelistmanager/> .
4. DESClogik will need to close and reopen in order to reflect the change.

Add Terms if its another Expedition Sublist

If you need to add or delete terms to a sublist that carried over from another template, you'll need to make a new sublist, delete the template and during that period the DESClogik template can't be open. Take a breath, it's going to be ok. Make sure you exported the data and let's edit the config sheet and import under a different name to test it out first like we mentioned above.

1. Check the Value List Builder to see we have the term in the corresponding value list. If we don't add the term to the value list. If we do move on to the next step.
2. Open up the appropriate sublist excel workbook.
3. Create a new sublist in the next available space, give it a unique name, and copy the formatting for the top two rows.
4. Copy and Paste all the desired terms underneath your new sublist.
5. Open your Configuration Sheet.
6. Go to the cell for the sublist that you are changing. Use the clear contents command and then copy and paste your new sublist name using the paste values only command.
7. Save and close the Configuration sheet.
8. Update the value list (if necessary) and the sublist using the the DESC Value List Manager.
9. Open up DESClogik and import the configuration sheet using a different template name. If there's an error on import see the Troubleshooting Section. If not, congrats! And we can move on to the next step.
10. Now we can delete and re-import the template. Go around to the scientists and ask them to close the template you need to delete. People working on other templates will not be affected.
11. Go to the Design tab in DESClogik, select **Template** and then select the test template you imported and click **Delete**. Then select the actual template and click **Delete**.



12. Close and reopen DESClogik (sporadic issues importing a template with the same name you just deleted).

13. Go to the Design tab, click **Excel**, and select **Import**.

14. Navigate to the configuration file. Copy the filename and select **Open**.

15. Paste the filename into the template name box and enter your expedition into the Group Name. It's very important the template is exactly the same as before you deleted. All the data is tied to the template name. Click **OK**.

16. The template should load successfully.

Remove Terms if its another Expedition Sublist

1. Open up the appropriate sublist excel workbook.

2. Create a new sublist in the next available space, give it a unique name, and copy the formatting for the top two rows.

3. Copy and Paste all the desired terms underneath your new sublist.

4. Open your Configuration Sheet.

5. Go to the cell for the sublist that you are changing. Use the clear contents command and then copy and paste your new sublist name using the paste values only command.

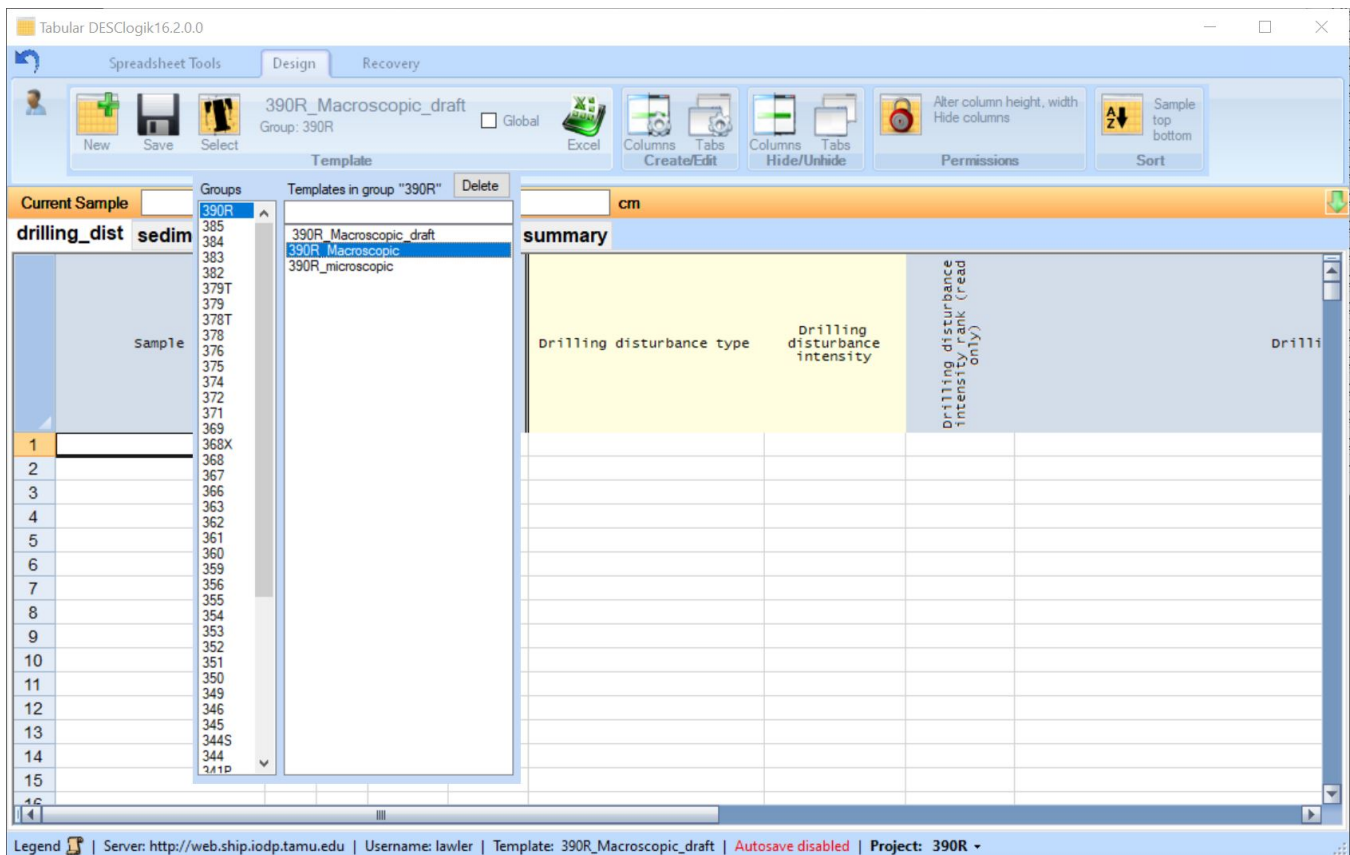
6. Save and close the Configuration sheet.

7. Update the sublist using the the DESC Value List Manager.

8. Open up DESClogik and import the configuration sheet using a different template name. If there's an error on import see the Troubleshooting Section. If not, congrats! And we can move on to the next step.

9. Now we can delete and re-import the template. Go around to the scientists and ask them to close the template you need to delete. People working on other templates will not be affected.

10. Go to the Design tab in DESClogik, select **Template** and then select the test template you imported and click **Delete**. Then select the actual template and click **Delete**.



11. Close and reopen DESClogik (sporadic issues importing a template with the same name you just deleted).

12. Go to the Design tab, click **Excel**, and select **Import**.

13. Navigate to the configuration file. Copy the filename and select **Open**.

14. Paste the filename into the template name box and enter your expedition into the Group Name. It's very important the template is exactly the same as before you deleted. All the data is tied to the template name. Click **OK**.

15. The template should load successfully.

Everything Else

If you need to add columns to tabs to your template, follow the instructions from the [DESClogik User Guide for Technicians#Add and Remove Columns](#) Section and the [DESClogik User Guide for Technicians#Add and Remove Tabs](#) Section

Responsibilities Mid-Expedition

During an expedition make sure to do regular exports of the data for each workbook. This will change depending on the expedition but every couple weeks or at the start of a new site is good practice.

Responsibilities At the End of the Expedition

At the end of the expedition you will need export the final the final data workbooks and configuration sheets.

1. Make a folder in the expedition folder called 'Final Exports'. In here have folders for Data Workbooks, Configuration Sheets, copy in the entire Value List folder, and if any Thin Sections were made, put in a folder for Thin Section Reports and the Thin Section Report Definition.

2. Confirm with the scientists when they are completely 100% done entering and editing data and then you can begin exporting the data workbooks. For this step you'll need to work with scientists, programmers, and mcs'. The scientists will need some time to finish all the data entry, the programmers at some point will need to shut down the database, and the mcs' need some time to backup the data1 folder and put the file onto the desktops in the computer room. Give yourself about 6 hours to export all the data. It can take less time but this process has been getting touchier so you may encounter some problems. After you work a timeline with MCS' and programmers, check with the staff scientist, and then email your scientists what to expect and what to do to copy expedition data.

3. Export all the data by hole for each template. Export the config sheets.

4. When you have all the data, config sheets, logsheets, the most current value list folder, and any Thin Section Reports, in your Final Exports Folder, copy the folder into into Data1.

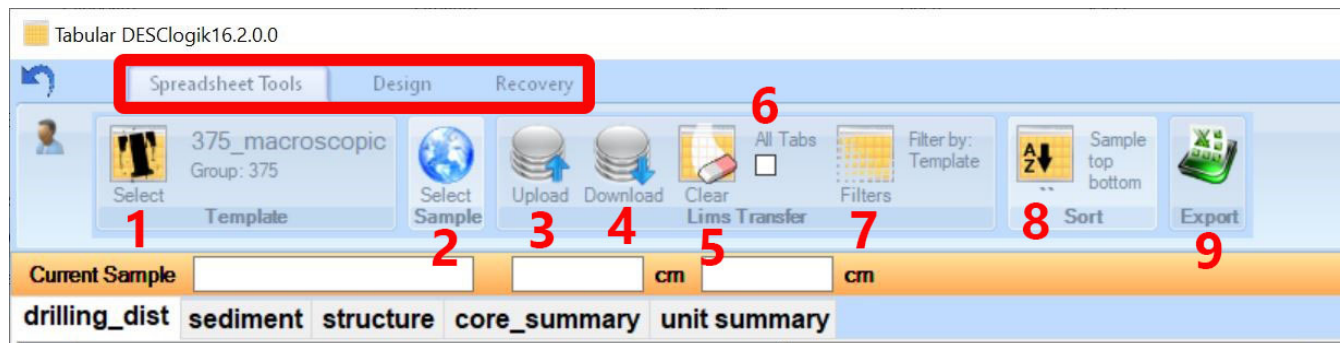
5. Once its in tell the programmers and the MCS, usually you are the last one to finish. They should still stick to the timeline if you finish before the deadline, but may want to get a headstart if they can.

Software Introduction

Here is some information on the tools and features in DESClogik. For more information please refer to the video tutorials and the [Frequently Asked Questions](#) document.

Spreadsheet Tool Ribbon

The main window opens up. Let's take a look at the main ribbon at the top of the screen.

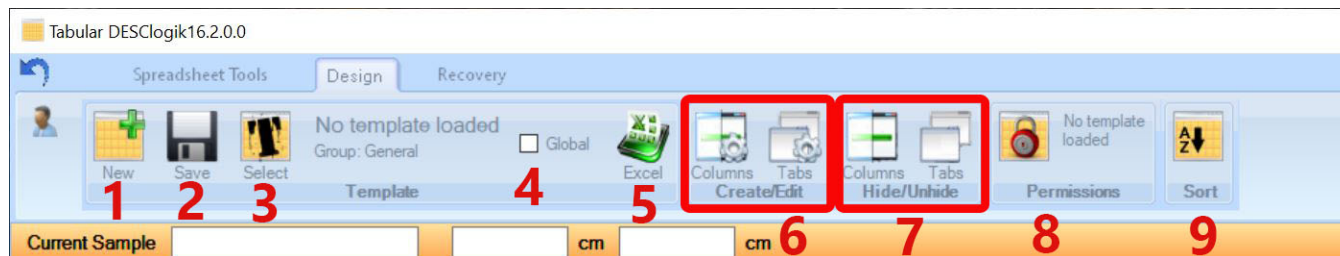


At the top of the window there are three tabs: Spreadsheet Tools, Design, and Recovery. The software defaults to open on the Spreadsheet Tools tab. The Spreadsheet tab is the primary tab that scientists will use. The tools are outlined below:

1. **Template:** How users select templates. Templates are sorted first by group (expedition number) and off the group, you can see all the templates used in that expedition.
2. **Select Sample:** allows users to find and add samples to describe. Has filter selections to narrow down the samples seen. The filter selections work left to right so first a user must select expedition, site, hole, and then a sample type. From here users can select a test type, but is not required. Once selected, the sample will show up in the **Current Sample** bar.
3. **Upload:** Uploads data to the database. Only uploads changes made in the spreadsheet, data that's already been uploaded won't create duplicates.
4. **Download:** Downloads data into the spreadsheet for the selected samples, as seen in the **Current Sample** bar.
5. **Clear:** Removes data from the screen but does not delete or remove data from the database.
6. **All Tabs:** Checkbox, when checked indicates that actions taken will apply to all the screens. Example: If box is checked and click the **Clear** button, data from all tabs will be cleared.
7. **Filters:** These features work inconsistently and incompletely. No need to use this button.
8. **Sort:** Sorts data on the screen.
9. **Export:** Allows users to export templates with data and valuelists into excel spreadsheets. Publications Specialist will use this feature with the depth midpoint box selected.

Design Tool Ribbon

From the Design Tab we get a new set of tools. Only technicians can access the Design Tab. Here we have a few key functions but several tools do not work as expected or consistently so these can be avoided.

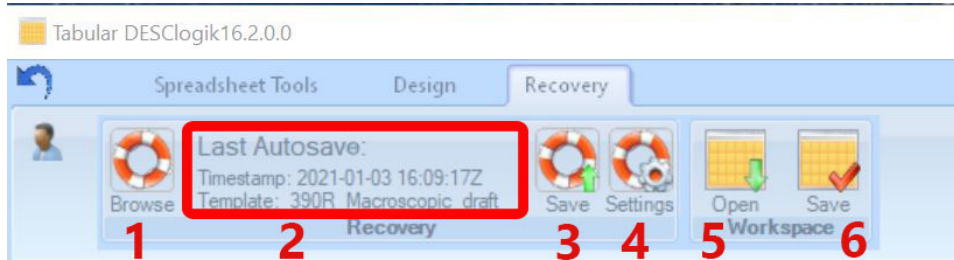


1. **New:** This button does not work and can be ignored. Here you can create a new template with the idea of building it all inside the software but these features are not currently supported.
2. **Save:** Saves your template. Here can assign it a new name or move it to a different group. Do not move expedition templates to new groups, import an expedition template under a new name to your group. You will need to Save if you check or uncheck the **Global** box.
3. **Select:** You can select templates from this window and they will load into the screen.
4. **Global:** A checkbox, if checked than any user can view the template. If not checked then only administrators (technicians) can view the template. We only have the current expeditions templates as global.
5. **Excel:** This excel has different options than the Excel button in the Spreadsheet Tools tab. This excel button deals with the configuration sheet and you have two options: import or export.
6. **Create/Edit:** These buttons do not work and can be ignored. The idea being you can edit the templates in the software however the changes don't keep and can lead to unstable behavior. Do not use.

7. **Hide/Unhide:** These buttons do not work and can be ignored. The idea being you can edit the visibility in the software however the changes don't keep and can lead to unstable behavior. Do not use.
8. **Permissions:** Shows Permissions allowed in a loaded template. Again do not use, is not a stable feature.
9. **Sort:** Sorts the samples in spreadsheet.

Recovery

The Recovery Tab is where we can restore potentially lost data due to a crash or accidental software close. Here you can also adjust how often the template autosaves and how many copies it retains. Technicians and scientists can access this tab, but only technicians can recover data. If a scientist needs data recovered follow the instructions in the troubleshooting section. Even though when you first open a template it says there are no autosave features, there are and you can check them here.



1. **Browse:** View previous autosave versions here.
2. **Last Autosave:** Indicates the current template and the last time an autosave took place.
3. **Save:** Performs an autosave.
4. **Settings:** Set the frequency of an autosave and how many autosave snapshots should be saved
5. **Open:** ?
6. **Save:** ?

Troubleshooting

Here we will talk about problems the DESClogik technician might encounter. For other troubleshooting regarding users please refer to [DESClogik Frequently Asked Questions](#) guide.

DESClogik buttons aren't displaying right.

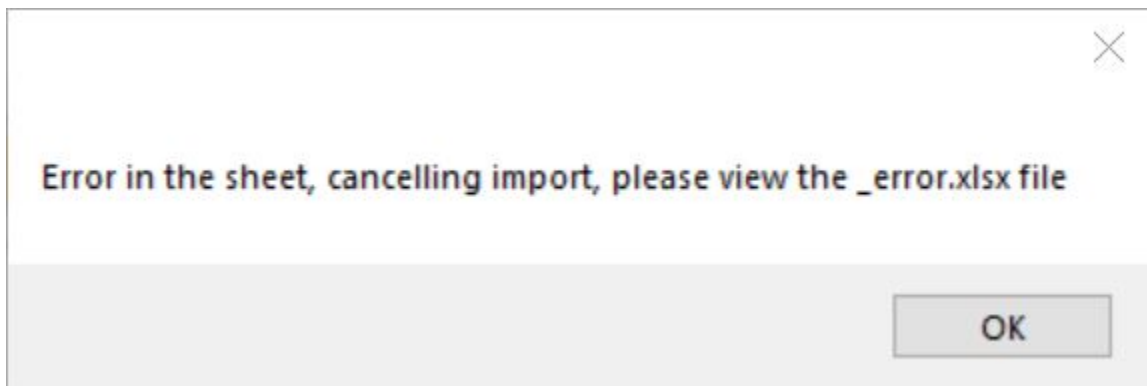
If your buttons look like the below image, change the computer display settings to 1920x1080. Close and reopen DESClogik. Once DESClogik has reopened at the right display setting you can change the display back to your regular display settings and DESClogik will still look as expected. Our monitor resolutions are improving faster than software packages, so you may have to do this for third party software as well. Even though you can't read all the text or see all the buttons please know that the software still works correctly.



I got an error message when importing my configuration sheet

No worries, it happens to all of us. There are a lot of reasons an import can fail so it will take some investigation by you and a few good practices to employ if you can't figure it out.

So you go to import a configuration sheet and you see the dreaded message below.



Click **OK** and the File Explorer Window containing your configuration file opens with a new file, the exact same as your config with "_error" at the end of it. Open up the error file and your configuration file. The error file tells what's wrong but you'll need to make any changes to the configuration file. Any problematic cells are highlighted in red, and if you right click in the cell you can select 'Show/hide comments' and you can see what the problem is. In the below image I see it highlighted a sublist name and the note says its not defined. There's a few things that could have gone wrong here: 1. I put the name in wrong 2. I didn't update this sublist in the Value List Manager 3. I imported the configuration sheet too quickly after updating the list in the Value List Manager 4. The cell is stuck on a previous value.

	Header	Text orienta	Column wid	Visibility	Sub-list	Check for o	Formula	Metadata C	EC	QC1	QV1	QC2	QV2	Qr
	Lithologic u	vertical	33	visible	default	no			comment	comment_t	unit/subunit			
	Sample don	horizontal	50	hidden	default	no			domain_nur	domain_typ	sediment	domain		
	Sample don	horizontal	94	hidden	domain_sediment_2014	no			domain	domain_typ	sediment	domain		
	Domain rel;	horizontal	30	hidden	default	no			relative_abi	domain_typ	sediment	domain		
	Lithology pr	horizontal	127	visible	pre_lith_390R	no			lithology_be	domain_typ	sediment	domain		
	Lithology pr	horizontal	300	visible	princ_lith_374	no			principal_lit	domain_typ	sediment	domain		
	Lithology st	horizontal	116	visible	lith_suffix_37	no			lithology_af	domain_typ	sediment	domain		
	Lithology pr	vertical	107	visible	default	no			lithology_at	domain_typ	sediment	domain		
	Lithology pr	horizontal	459	visible	default	no			lithology_at	domain_typ	sediment	domain		
	Lithology ne	vertical	45	visible	default	no			lithology_bc	domain_typ	sediment	domain		
	Lithology ct	horizontal	75	hidden	color_volec_se	no			color					
	Lithology ct	horizontal	250	visible	Munsell_soil	no			color	domain_typ	sediment	domain		
	Bottom con	horizontal	162	visible	bottom_conta	no			geometry	structure_g	boundary or	contact		
	Bottom con	horizontal	146	visible	contact_def_375	no			definition	structure_g	boundary or	contact		
	Bottom con	horizontal	150	visible	default	no	concat([Bottom contact		comment	structure_g	boundary or	contact		
	Bottom con	horizontal	88	visible	boundary contact attitude	no			attitude	structure_g	boundary or	contact		

Error, sublist: 'pre_lith_390R' is not a valid sublist for parameter: 'lithology_before_principal'

Go through and check on option 1 and 2. If it's neither of those you can try importing again or clearing the contents of the cell and pasting in the sublist name again. If it still doesn't work you can update the sublist again.

It's the same process with pretty much every error you get on this screen, it's either an error you made and can fix, or a ghost value hanging around where you need to step back through the process, clear the contents of potentially corrupted cells and re-paste or re-type in the value. Make sure to go through every tab and check for errors.

Value List Manager Shows an Error

This happens once in a while and patience is key here. First double check that the files are closed on your computer. If you get an error updating a sublist, make sure the value list is updated first. If you just updated the value list wait ~ 30 seconds before you try to update the sublist. If you're still getting errors make sure all the terms in sublist are correct and can be found in the value list. If keep getting errors with sublist or value list wait a bit and try again, and if you're not having luck talk to the programmer