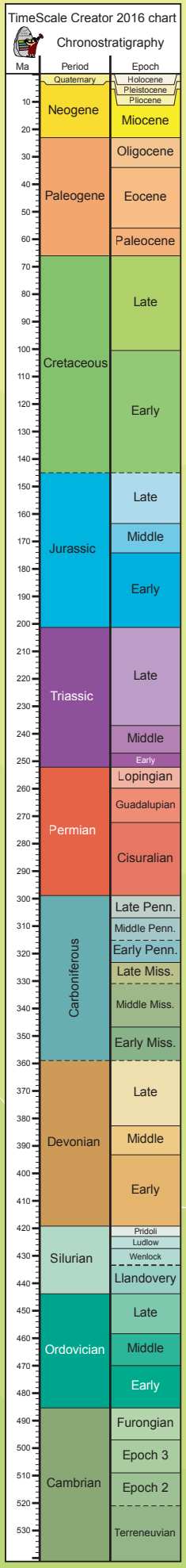
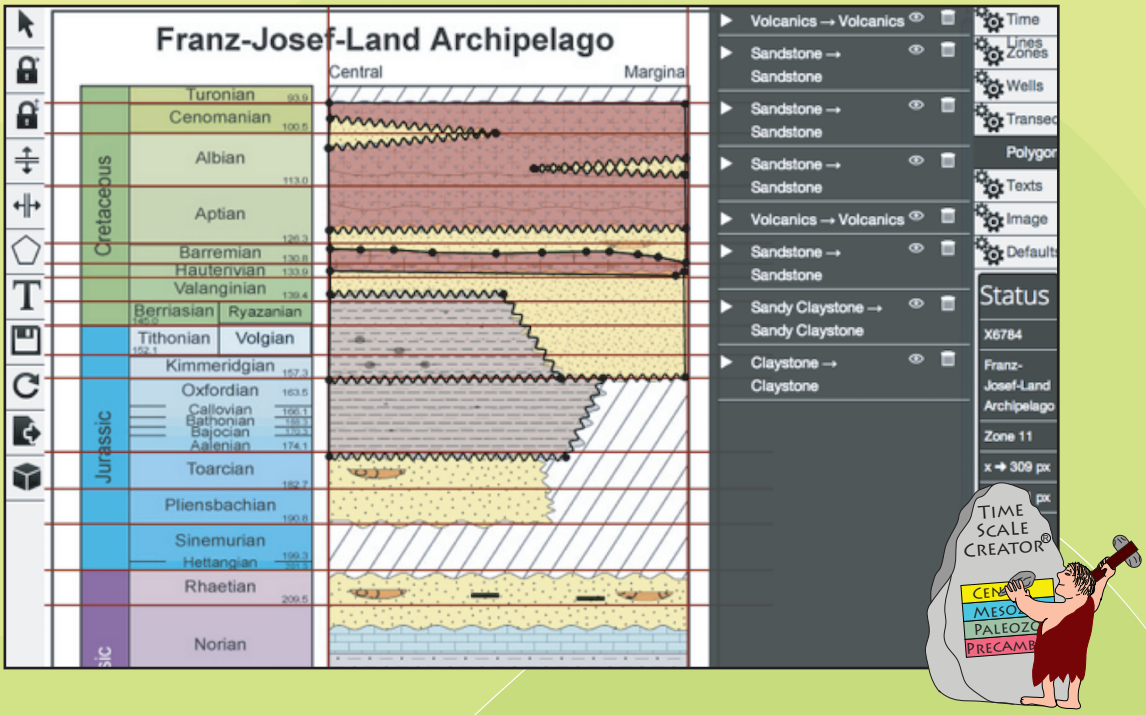


TimeScale Creator Manual

Section 3

TSC Makers



www.timescalecreator.org

This Manual is divided into 5 sections, each section is independent of the others and can be used on its own.

Section 1: Reference of TSCreator Features and Datapack Formats
Section 2: Hands-on Exercises for using TSCreator and how to make datapacks
Section 3: TSC Makers: Online tools to create lithology, transect and curve datapacks.
Section 4: Crossplot, convert outcrop or well datapacks from meters or feet to age datapacks in Ma or Ka.
Section 5: Online TSCreator display systems. Not yet fully functional.

Important websites for TimeScale Creator

TSCreator main website https://timescalecreator.org

Datapack Makers (Transect, Lithology, Curve Maker)

https://timescalecreator.org/tscmaker/

TSC Lite

https://timescalecreator.org/tsclite/index/index.php

Online TimeScale Creator (testing site):

http://show.timescalecreator.com:3000/

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Datapack Makers (Transect, Lithology, Curve Maker)

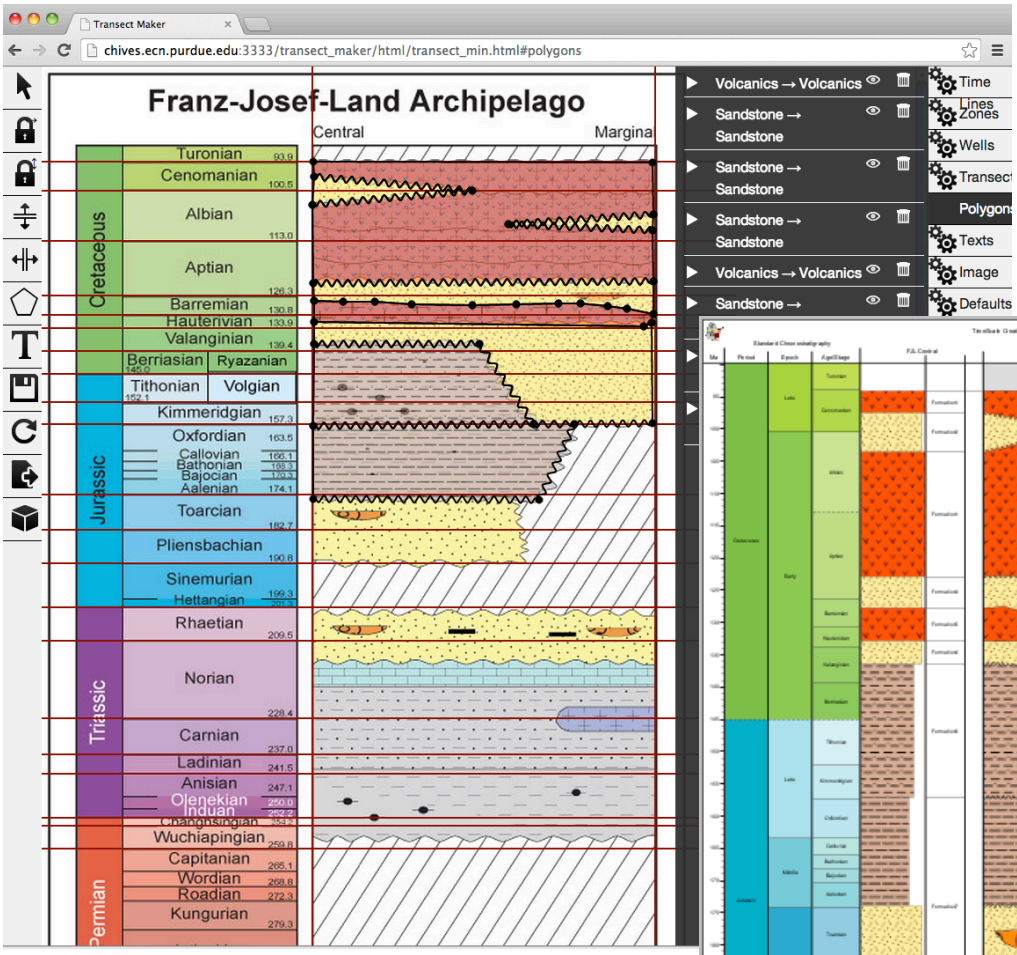
https://timescalecreator.org/tscmaker/

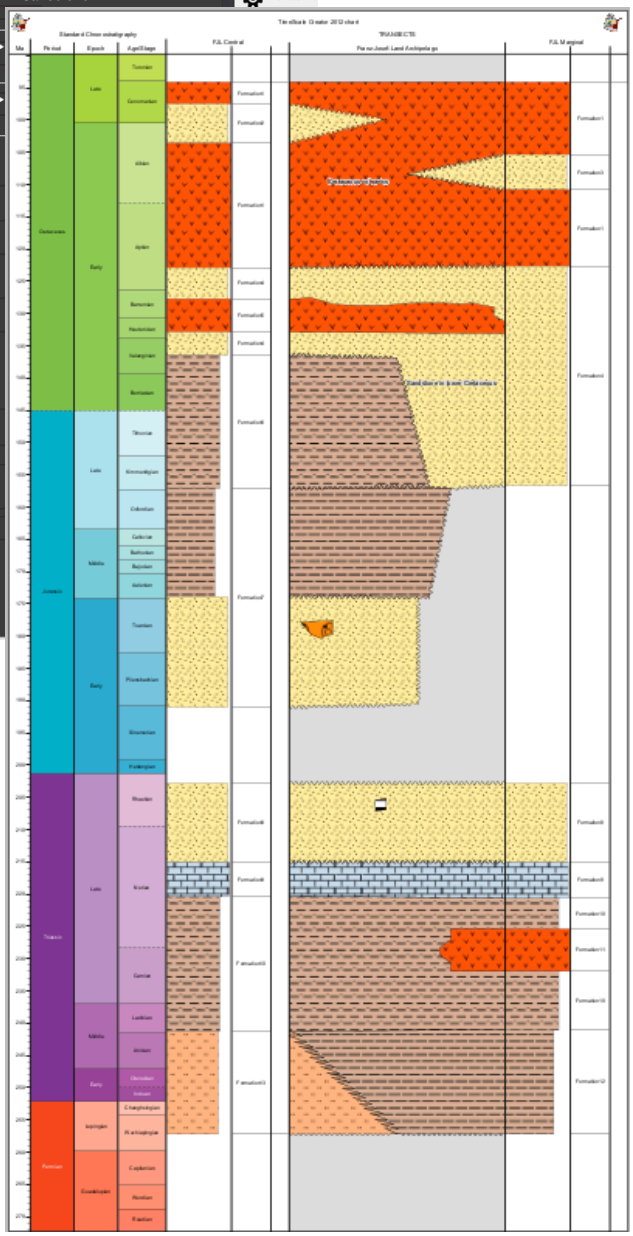
Transect Maker	1
Lithology Maker	23
Curve Maker	43

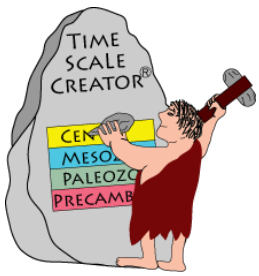
Transect Maker for TimeScale Creator

Nag Varun Chunduru

October 2017

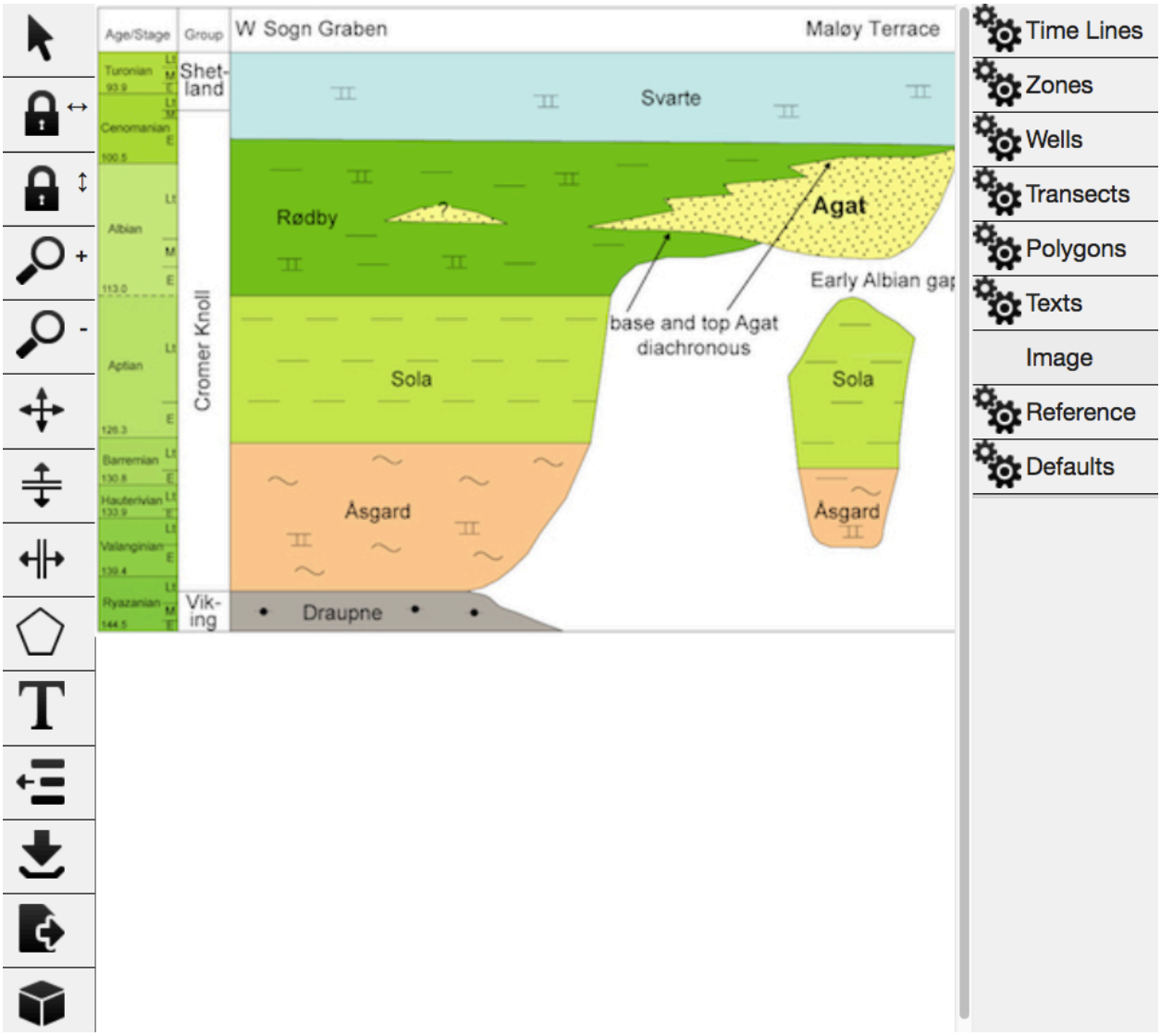






Transect Maker Overview

Tools (left side of opening window)



Pointer Tool - Doesn't really do anything. Clicking the pointer tool will unselect any of the other tools that are active.

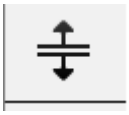
Lock in X Direction - Selecting this will lock the mouse to move only in horizontal direction. The y position is chosen based on the last point added to the polygon so that the next point will be straight across the previous point or the current point that is being dragged. This will help in drawing straight horizontal lines. Key Shortcut

Lock in Y Direction - Selecting this will lock the mouse to move only in vertical direction. The x position is chosen based on the last point of the polygon or the current point that is being dragged. This will help in drawing straight tvertical lines. Key Shortcut

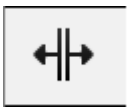
Zoom in - Click on the magnifying glass as often as you need to zoom in.

Zoom out - Click on the magnifying glass as often as you need to zoom out.

Panning – Click the panning option to move your image up or down or left and right. To leave the panning option click the pointer tool.



Add Timeline - After selecting this whenever the user **double clicks** on the canvas a timeline will be added.



Add Well - Similar to the timeline. After selecting this whenever the user **double clicks** on the canvas a well will be dropped.

Polygon Tool - Selecting this will enable polygon mode. Icon changes to . After the plus icons shows up clicking on the icon will start a new polygon. Double clicking on the canvas will add new points to the polygon and the user can generate his desired shape.

Text Tool - Selecting this tool will start a text mode. When the canvas is double clicked the text box appears with an identifier. To change the text, go to **Texts** on the right hand panel, open the appropriate text window and type the desired name.
Before adding text boxes save your project. Delete all previously saved versions from the sandbox. If not, program can get unresponsive and you will lose your work.

Reference Column – Select this icon to see the reference column displayed. Click the icon again and the column disappears. This reference column only corresponds to the selected stages if you do not pan or zoom. Once you have used the zoom it will no longer display correctly.

Zip Download – This allows you to download a zipped file which includes the json and txt file. You can load the zip file directly into TSCreator and it will display correctly.

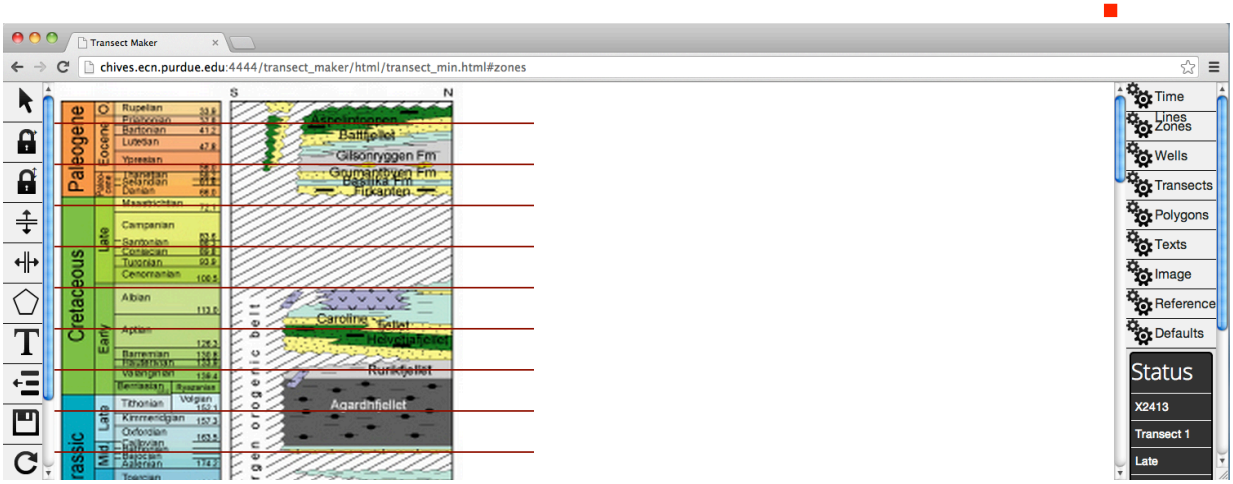
Export - Clicking Export will open a new view that will display the output of the transect maker in TimeScale Creator format.

A tabular view is for the user to quickly verify the changes and the text view is for the user to quickly copy the output and paste it in a text file on his machine. A map view gives you latitude and longitude for your wells already formatted for making a mappack.

Sandbox - This application creates a sandboxed HTML5 file system on the client's machine. Selecting this will open the view displaying directories in the user's file system. User can save the current project or load any of the previous projects quickly into the maker as the files are stored permanently. The files can also be downloaded to the user's machine.

However, it is recommended that you download to your computer all the files you want to keep, once you have finished a project. Then clear out all your saved files from the sandbox, otherwise the Transect maker might become unresponsive during a future project.

Input Panel (right side of opening window)



Add ages and label timelines. Hit return after the entries to record your changes.

Add zone descriptions

Add well name, latitude, longitudes

Add transect name and detailed description

Add polygon name and description. Click on:
Lines: add lapping or wavy lines.
Points: Points can be adjusted by changing the percentage from base of adjacent timeline.
Pattern: Choose lithology pattern. List of available patterns is on next page.

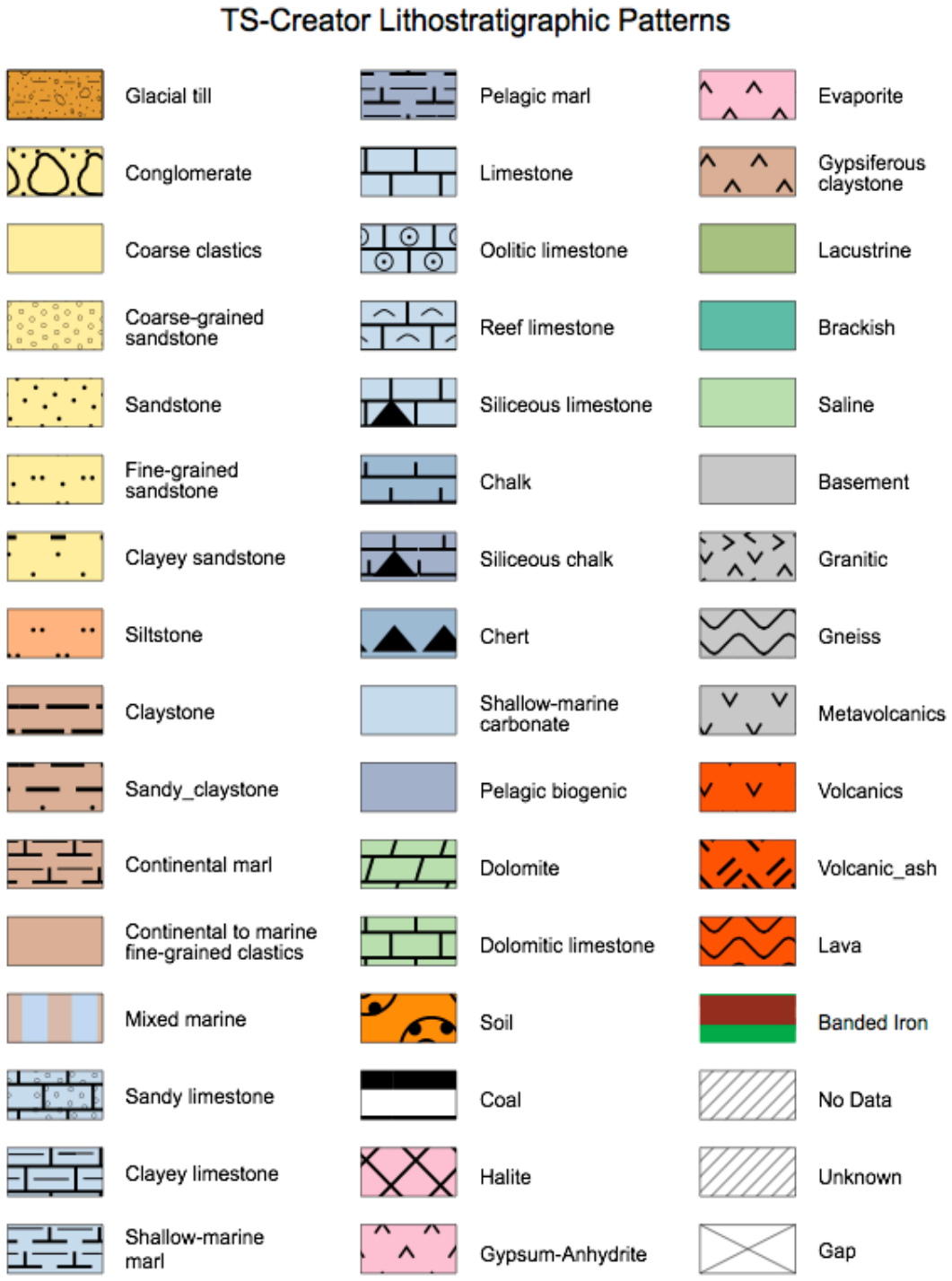
Add text to previously chosen text boxes. Choose font, size and color.

Drag and drop your image. Adjust size.

Choose reference time frame and what columns to use (periods, epochs, stages). You can also add a new previously generated reference column.

This tab has no function yet.

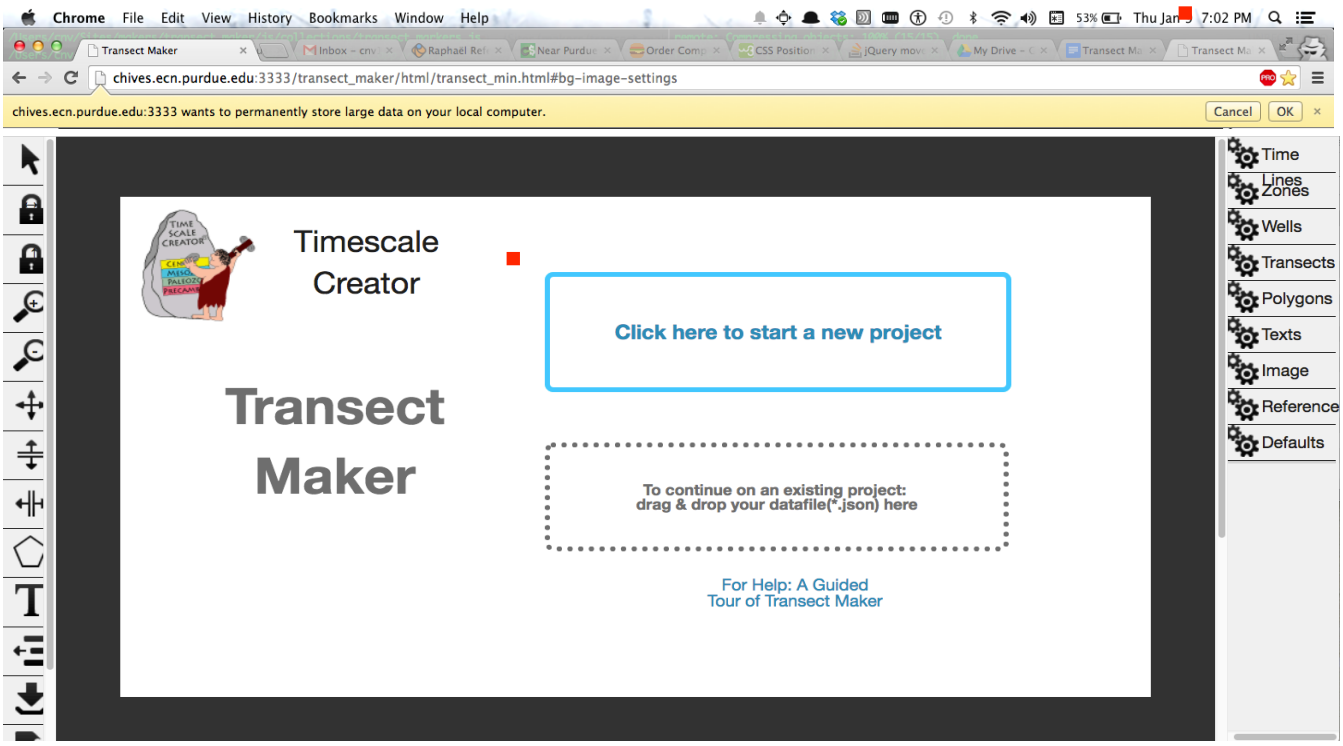
Available Lithostratigraphic Patterns



Getting Started… A Step by Step Guide

Browser Requirements : Google Chrome.
Go to: https://timescalecreator.org/tscmaker/ and select the Transect Maker

Step 1 - On opening the URL the app will ask for your permission to create a space (sandbox) on your system. By accepting it, you will have the ability to store projects in this sandbox and load them when required.



Step 2 - To start a new project just click “start new project” and an empty page will appear.

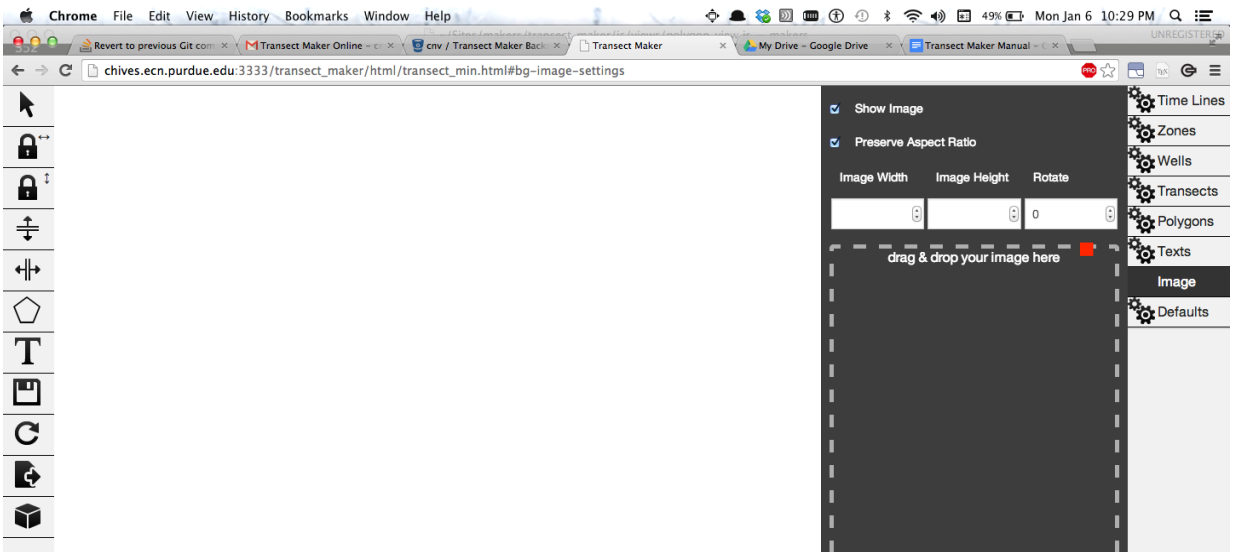
Hint: If you have already a **json** file from a previous project you can just drag it into the “drag and drop” box. It will automatically load.

If you have a saved project in your sandbox, then just click the sandbox icon and load the **json** file from there.

Start new project

Click “start new project” on the intro view. This will take you to an empty page.

Add an image by selecting the Image Tab on the right hand setting panel and then drag and drop an image. Image can be of any format (**png/gif/jpeg**) except pdf. You can resize the image or rotate it according to your needs.



Resize your image before you put in timelines and wells.

Later resizing does not keep the timelines in the same place.

To move your image use the panning tool . Click on the panning tool, a crosshair appears and you can move your image around.

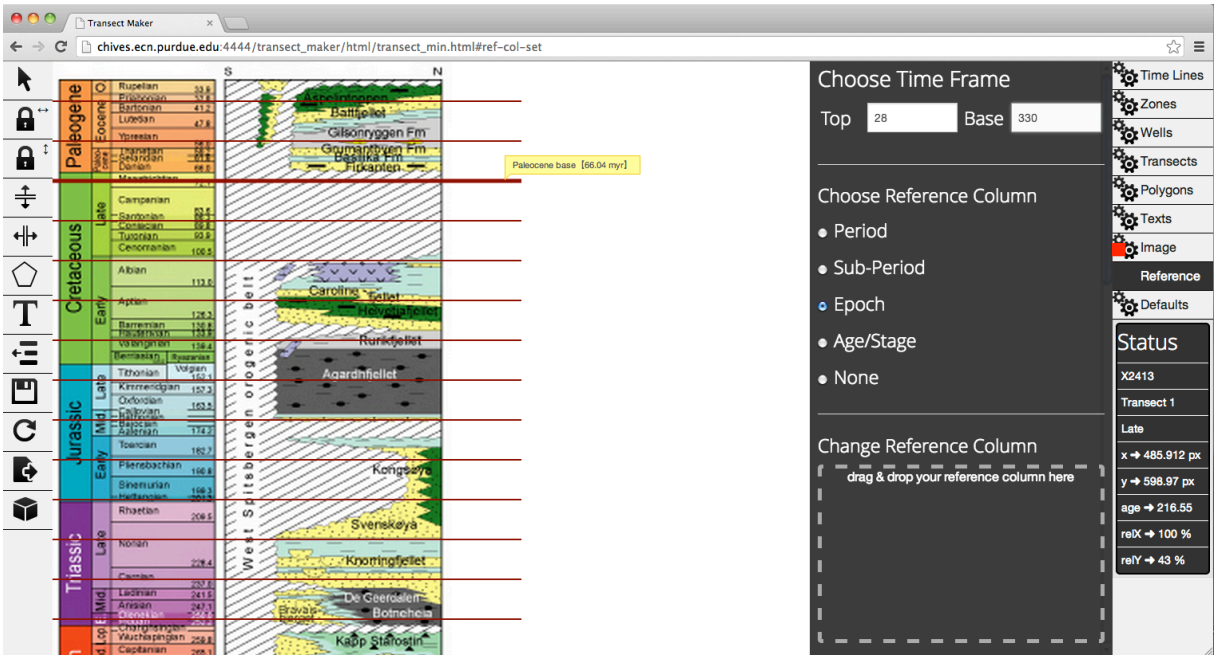
To exit the panning mode click on the pointer tool .

Adding or Editing information to transect elements (Timelines / Zones / Wells / Transects / Polygons / Texts)

Before starting to draw polygons you have to create **timelines** and **wells**. Each of the properties of the transect elements can be edited in right hand sided settings list. Start editing the field by clicking on the corresponding name. In order to close the input fields after the information is updated - **press enter or esc key**. This will update the info to the appropriate element. To close the Tabs completely just click it again.

Add Timelines from the reference Time Scale (GTS2016):

Open Reference Tab on right hand side. This gives you a window where you can choose your time frame and what columns to use (periods, epochs, stages). You can also add a new previously generated reference column.

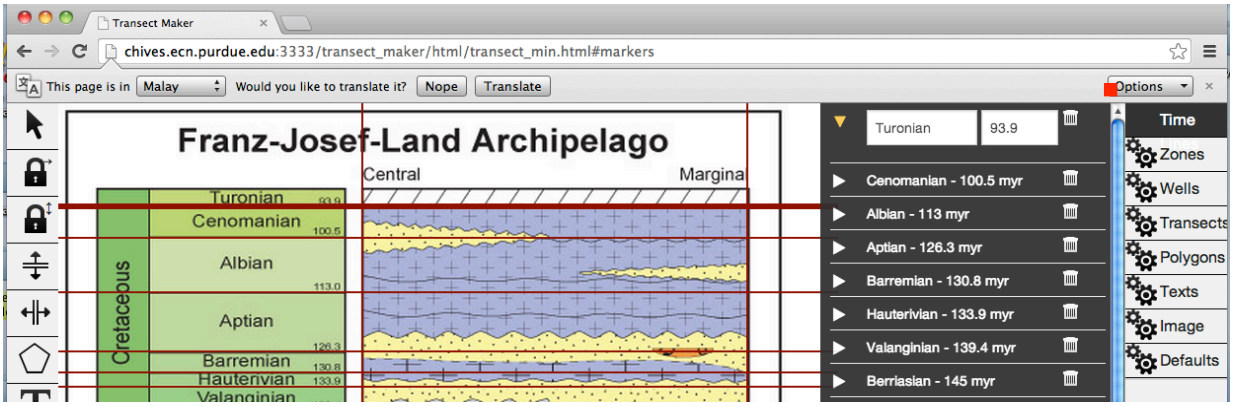


Once you hit **return** on the age selection, the timelines will appear evenly spaced on the screen. You can now drag them to the appropriate location (the timelines are labeled). When you have lots of timelines, they will be off the screen. Use the **panning** tool to move down or up and you will find them.
Hint: For large images zoom out to make it easier to position the time lines.

If you select your timelines from the Reference Time Scale, then the Zone descriptions are already filled in. However, you can still edit or delete them under the Zones tab.

Add Timelines:

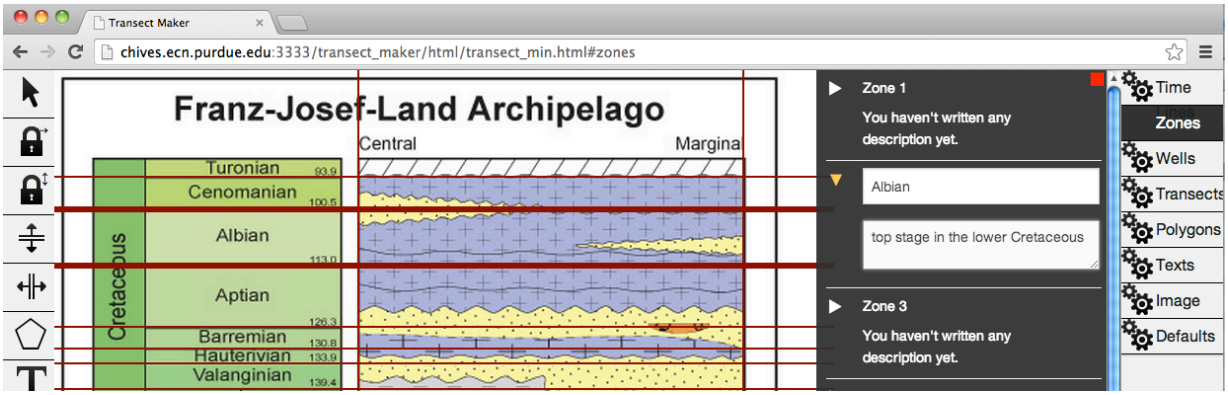
Open Time Tab on right hand side, this will give you the window where you add information for your timelines.
If you selected your timelines from the Reference Time Scale, then the appropriate names and ages for your timelines are already displayed. You can now add or delete other timelines or change the ages.



To add new timelines click **timeline** button on left tool bar and double-click a zone or stage on your image which you want to use as a timeline. On the right a new timeline is added, you can change the name and add the age in myr. Hit **enter** after each entry. Continue until all your timelines are done.

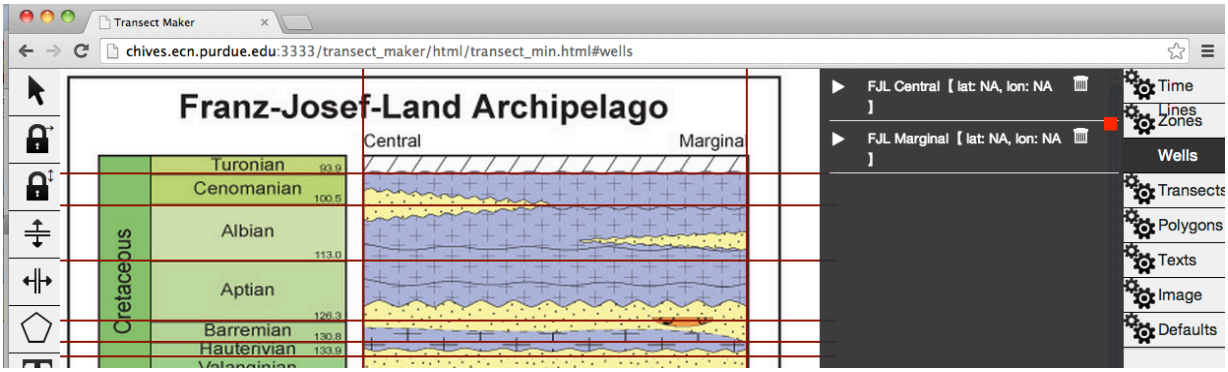
Add Zones:

Open Zones Tab on right hand side, this will give you the window where you add information for your zones, which is the interval between two of your timelines. If you hover the cursor over the zone, the corresponding two timelines will appear bold. Type in zone name and **hit return** (important, otherwise the name will not record)



Add Wells:

Open Wells Tab on right hand side, this will give you the window where you add information for your wells (name and latitude and longitude).



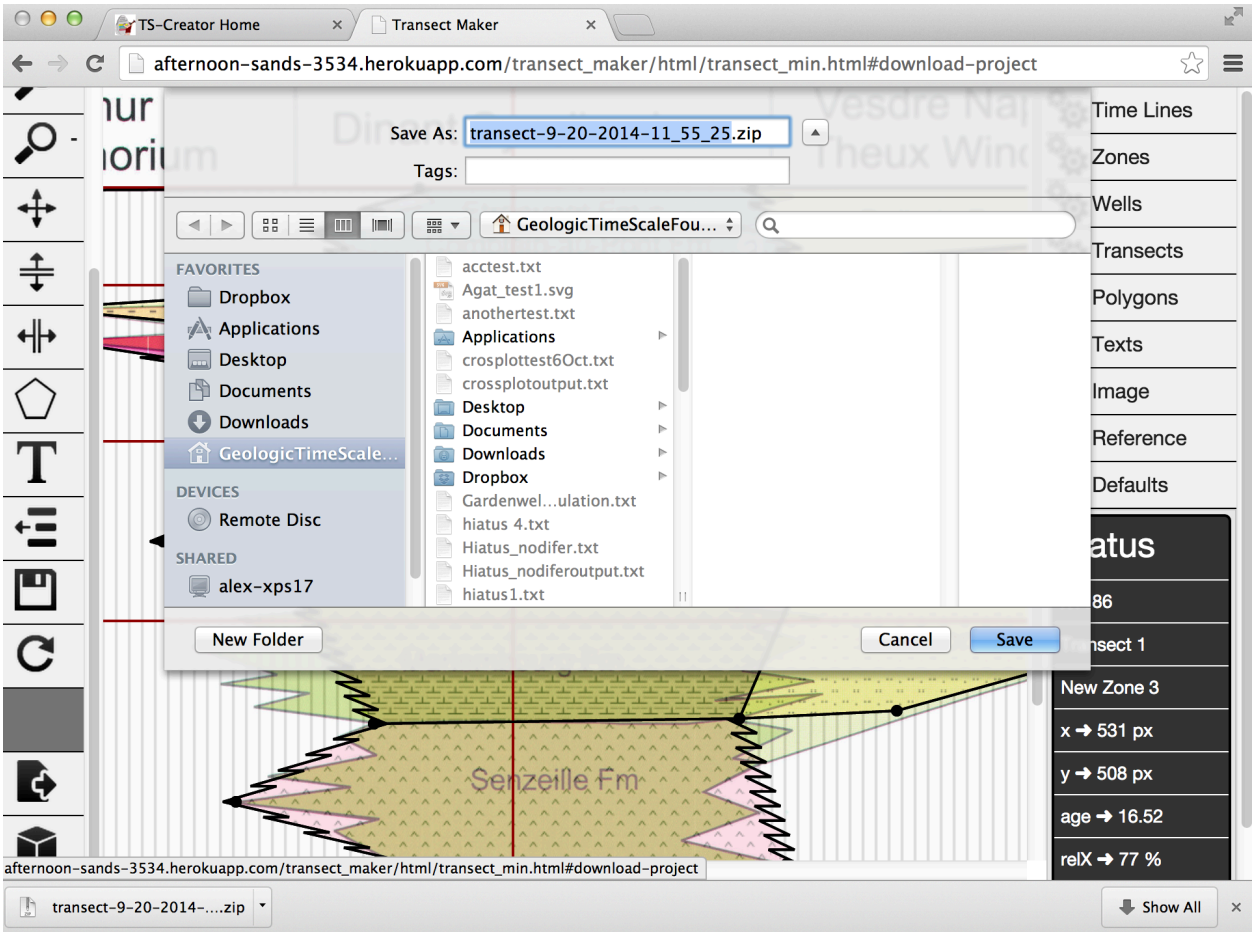
Next click **well** button and double-click where you want a new well. You need at least 2 wells to make a transect.
If you add latitude and longitude coordinates they will be saved in the correct format to be used for producing map packs.

Save one copy, so you don't have to redo the timelines and wells, if you mess up the polygons.

Saving your file:

Save a zip file

Click **download project as zip** and depending on your Chrome settings a window will open and ask you for a file name, or directly save the zip to your computer. The zip file contains the json and the txt files. You can load the zip file directly into TS-Creator and it will load correctly.



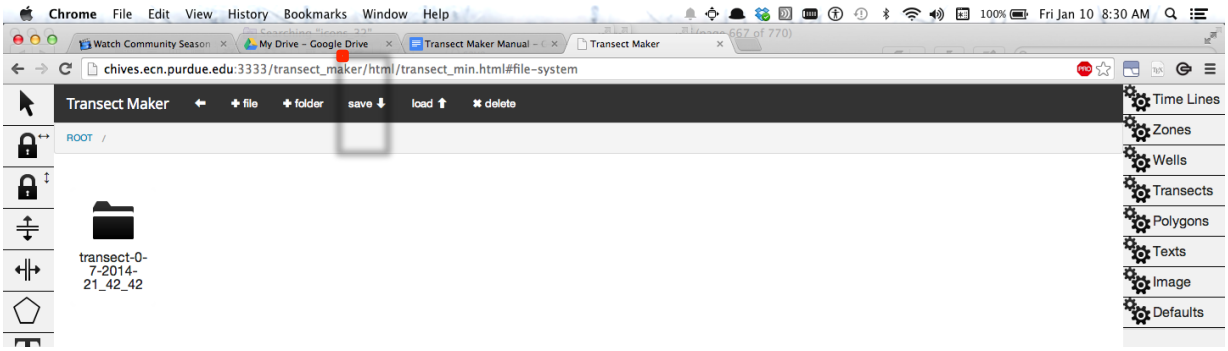
How to save to the Sandbox:

Sandbox

This application creates a sandbox file system on your system to store data permanently. Clicking **download project as zip** will also automatically create a saved copy in your sandbox.

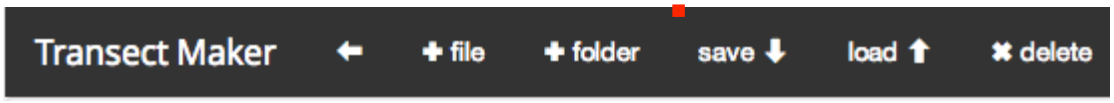
To reload a project from the sandbox click on . This will open up your sandbox and display any directories or files previously saved or created.

Sandbox View

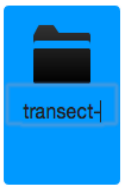


You can also save a project from the sandbox by simply clicking on **“save”** in the menu bar. This will create a new directory called “transect” attached with the time stamp.

Sandbox Menubar

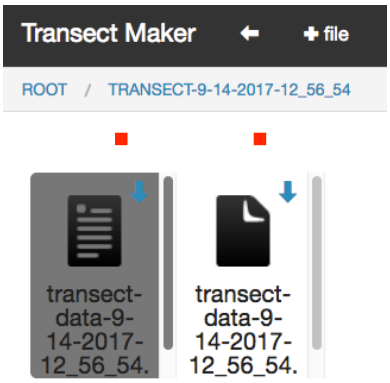


You can rename the directory by simply clicking on the text and edit it.



You can also navigate the directory by double clicking on it. This opens the folder to show 2 files called transect.txt and transect.json. You should rename them.

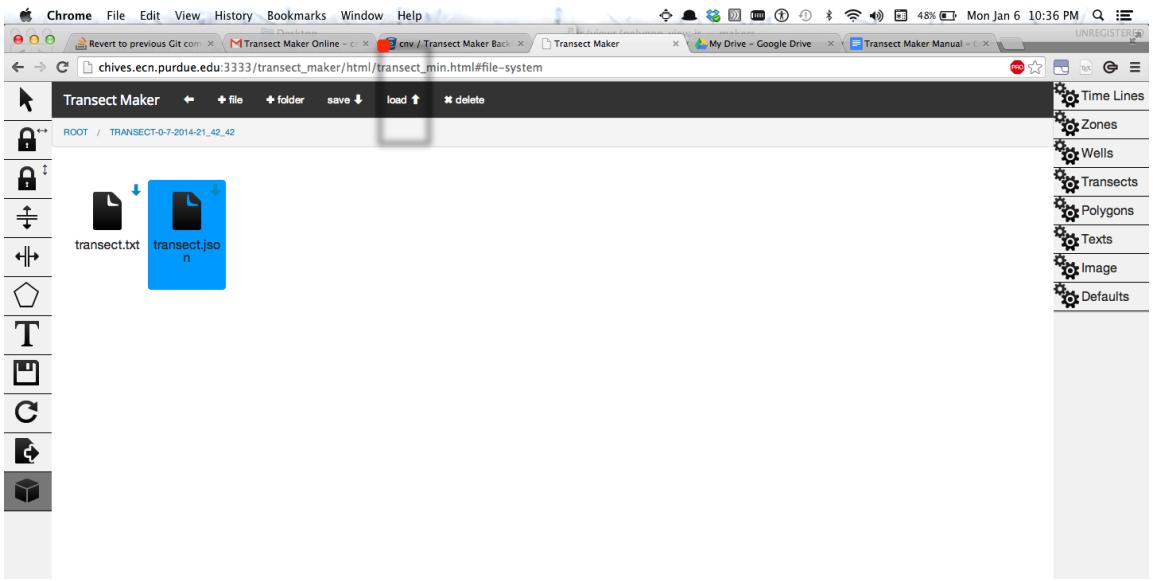
You can download the generated files by clicking on the "**Arrow**" on the right top corner of the file.



You can go back to the parent directory by clicking “**Root**” in the menu bar.

To delete a directory or a file - Select the directory/ file by clicking on it and click **“delete”** in the menu bar.

You can load the data from saved projects, by first selecting the correct folder and then loading the appropriate json file. Single click on the file selects it, then click **“load”.**

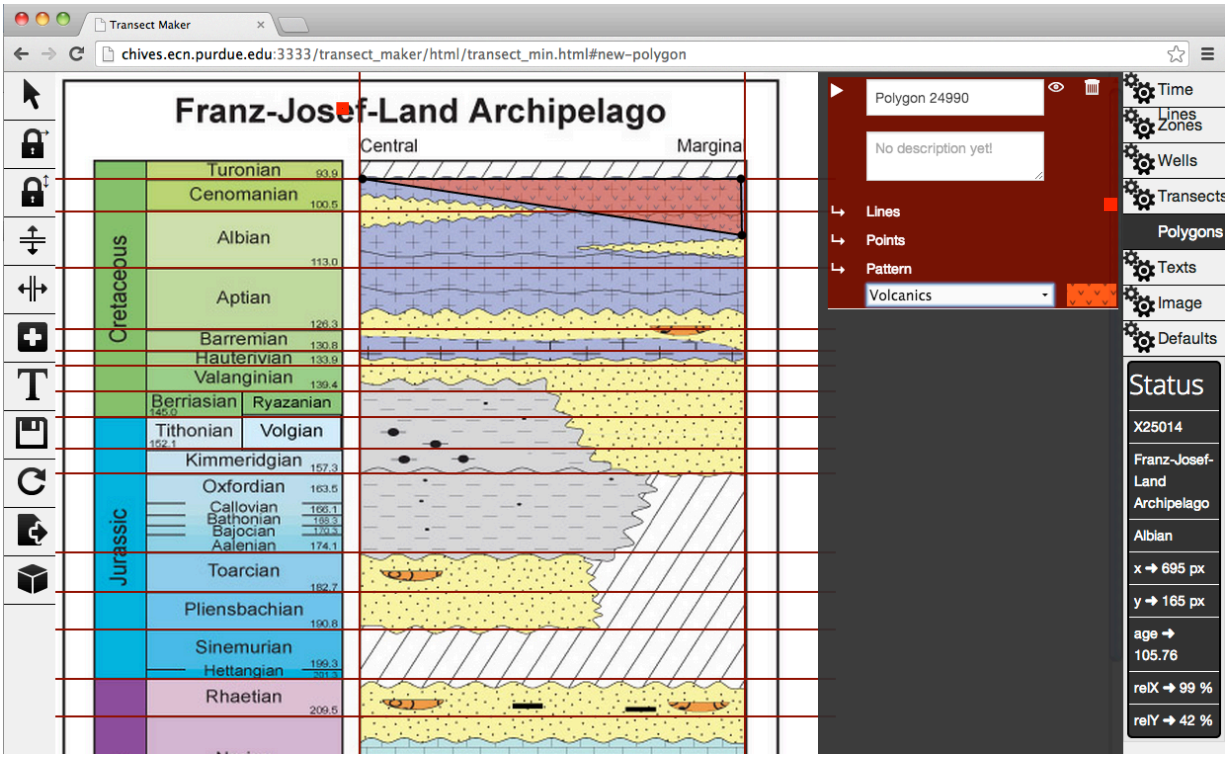


Important!!!!!

Even if you only use the **" download project as zip"** method to save your files, you must go to the sandbox from time to time and delete all the accumulated files, otherwise the program will just stop at some point and not save anymore.
It is best to make sure that the Sandbox is empty, before starting a new project.
There is only one sandbox on your computer, therefore all the files you save from the Transect Maker and Lithology Maker will be saved in the same place.

How to draw Polygons:

Open Polygon Tab on right hand side, this will give you the window where you add information and patterns for your polygons.



Draw Polygon:

Click **polygon** icon , when it changes to , start your first polygon by double-clicking for the first point. Select further points by double-clicking each point. The polygon will close itself, therefore you don't have to draw the last segment.

Hint: You can not put the points directly onto the well lines, therefore choose your points slightly inside the transect. Once your polygone is finished, you can pull the points to the outside of the transect and let go of the mouse and then they snap all back to the well lines. This assures straight borders for your transect.

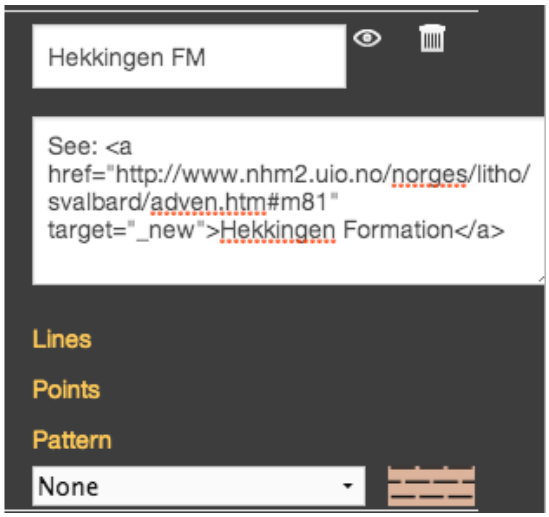
For straight lines you can use the horizontal and vertical locks .
Lock in X Direction - Selecting this will lock the mouse to move only in horizontal direction. The y position is chosen based on the last point added to the polygon so that the next point will be straight across the previous point or the current point that is being dragged. This will help in drawing straight horizontal lines.

Lock in Y Direction - Selecting this will lock the mouse to move only in vertical direction. The x position is chosen based on the last point of the polygon or the current point that is being dragged. This will help in drawing straight down.

Drawing a second Polygon:

Click on the sign again to start the new polygon.
If your second polygon uses some of the same lines as the first, then a red dot will appear and you click only once instead of the double-click. You do that for all the dots, which are used by both polygons. All individual dots need to be double-clicked to be added.

You can add a name in the polygon window and add a description for each polygon. In the description window you can also add links to other websites. The format is:
website name

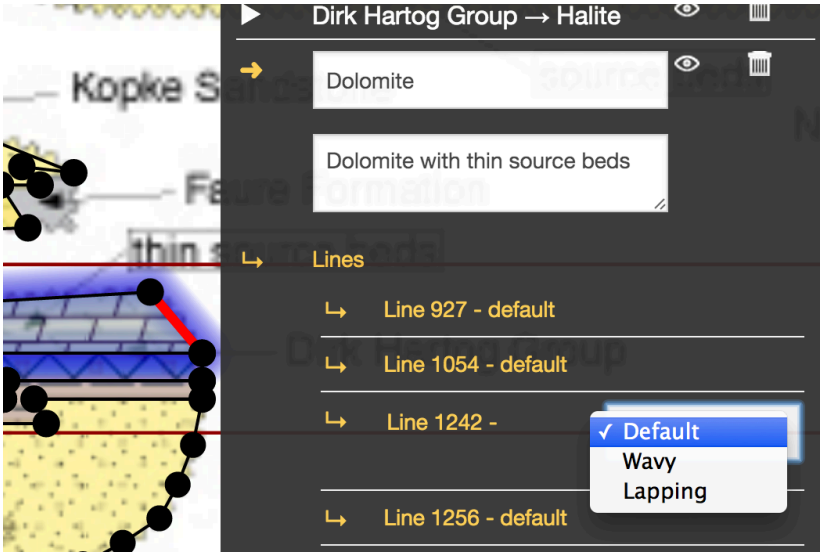


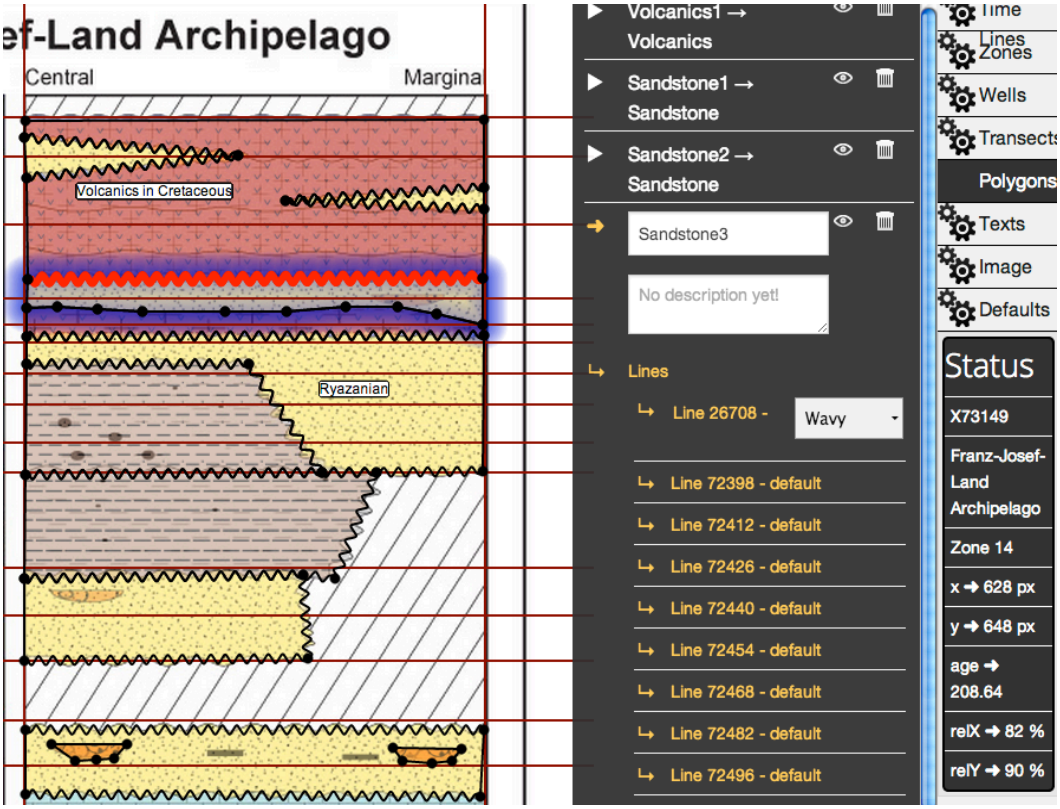
You have to choose a pattern.

Click on **Points** and you can adjust their position by changing the percentage relative to the base of the adjacent timeline.

Click on **Lines** and you can change the line style for each line between straight (default), wavy and lapping. If a line is used by more than one polygon, then you only need to change the line style in one polygon, the other one adjusts automatically.

Hint: Finish all the polygons which share a border before changing the lines to wavy or lapping. That makes it much easier to see the shared dots while drawing.

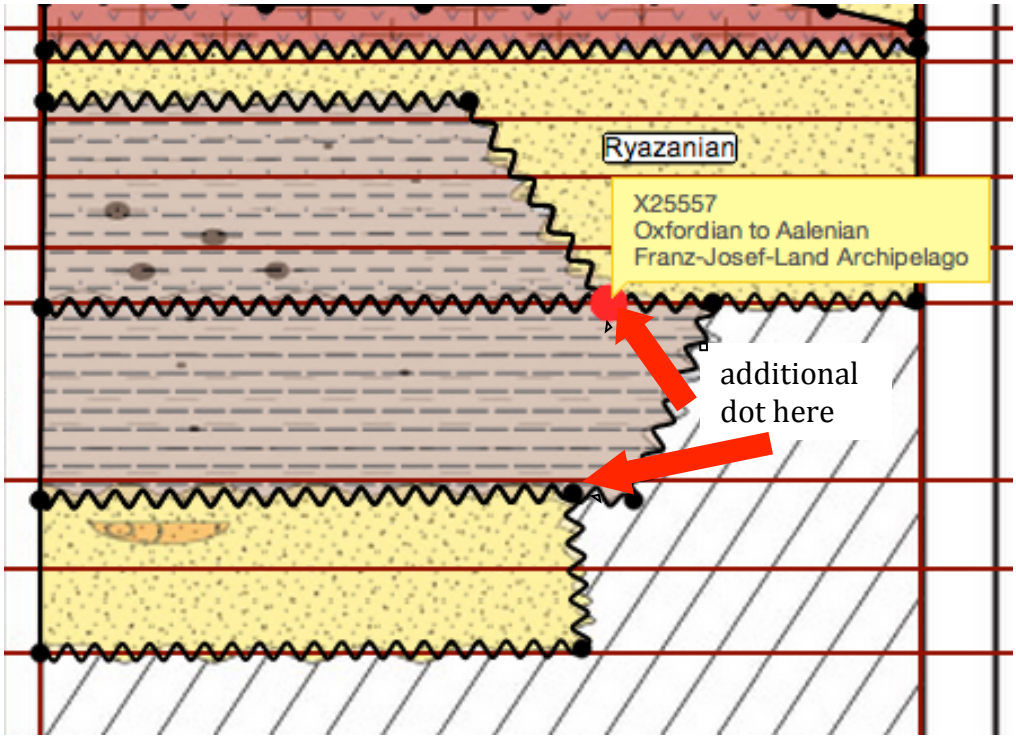




To minimize the Lines folder just click on the word **Lines**. To minimize the whole polygon entry click on the orange arrow next to the polygon name

Special case: Triple junction

The line at the base of the Ryazanian Sandstone cannot be drawn as one line, because it is partly used by the top line of the underlying claystone. Therefore, each segment needs to have a point selected, otherwise the lines won't work

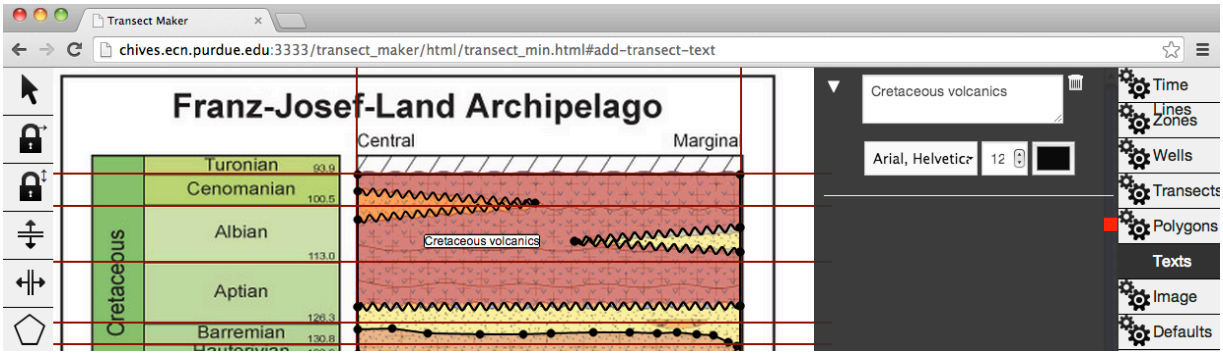


Bad News: If you forget to put a dot on a triple junction, you have to delete your polygon and redo it. It will not show up correctly on your chart otherwise.

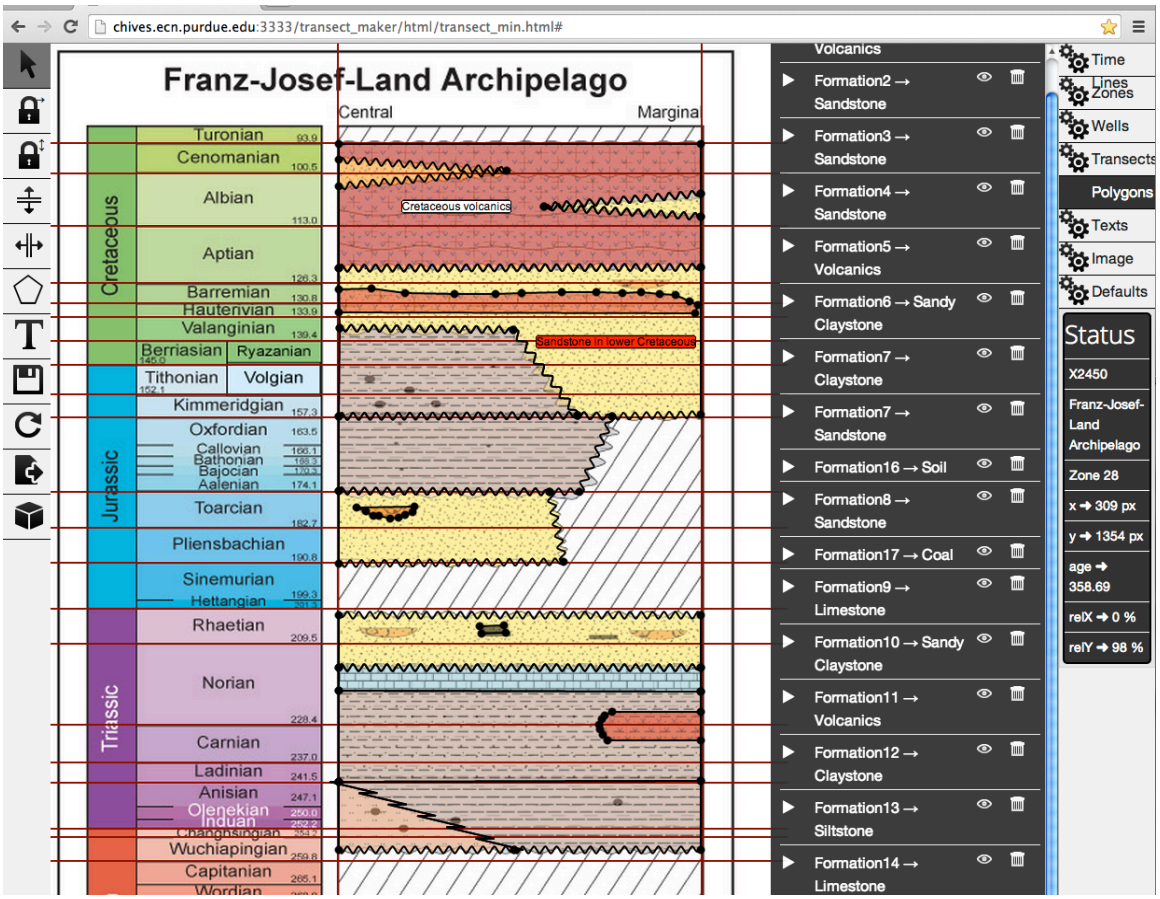
Add Text boxes to transect:

Before adding text boxes save your project. Download all previously saved versions and then delete them from the sandbox. If not, program can get unresponsive and you will lose your work.

Click **Text** icon, start your text by double-clicking into the polygon, where you want to place the text. Go to the Text Tab on the right panel and type the text. You can then move the textbox to its final location in the polygon. Don't put a text box on a time line, it will not display.



Finished transect:

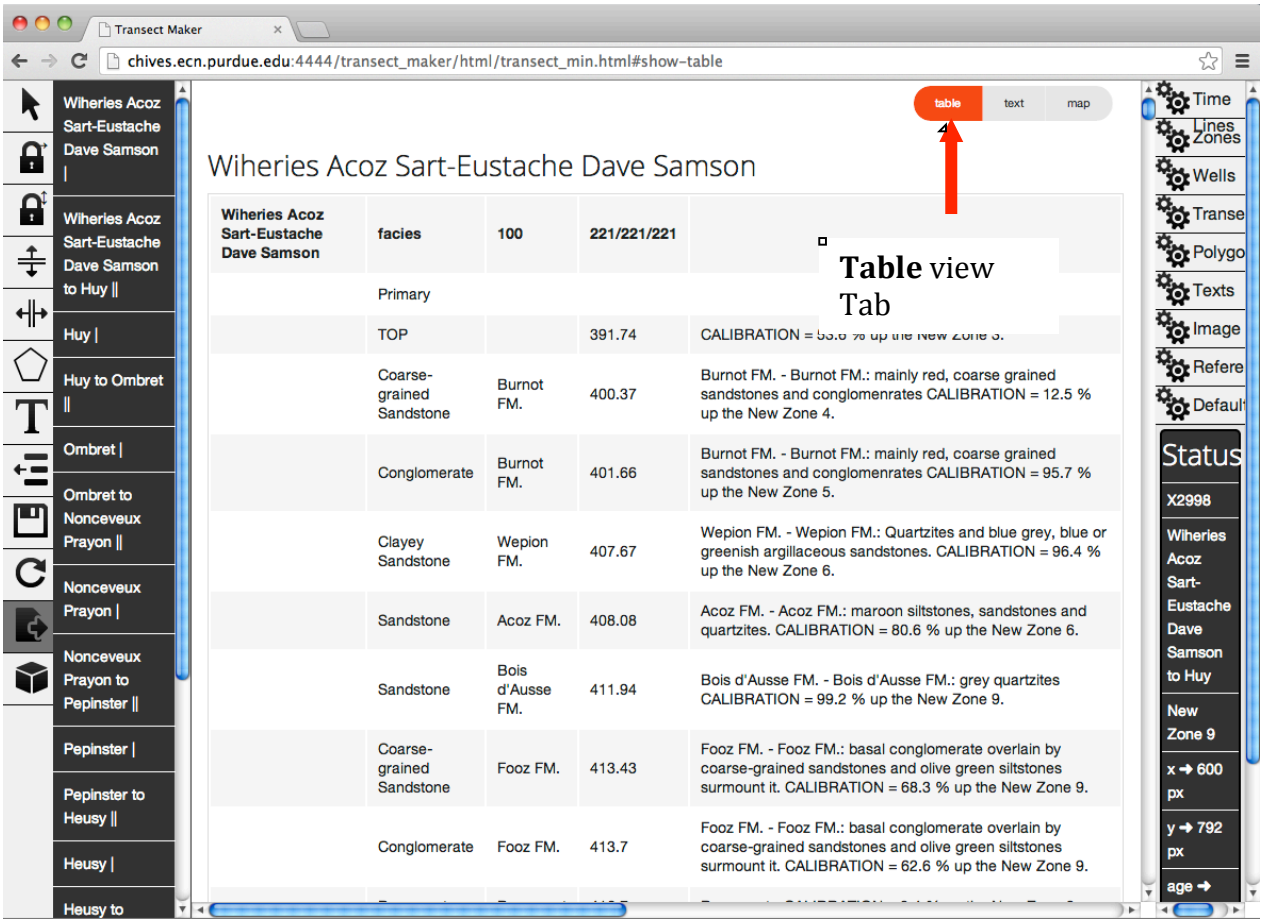


Export Data

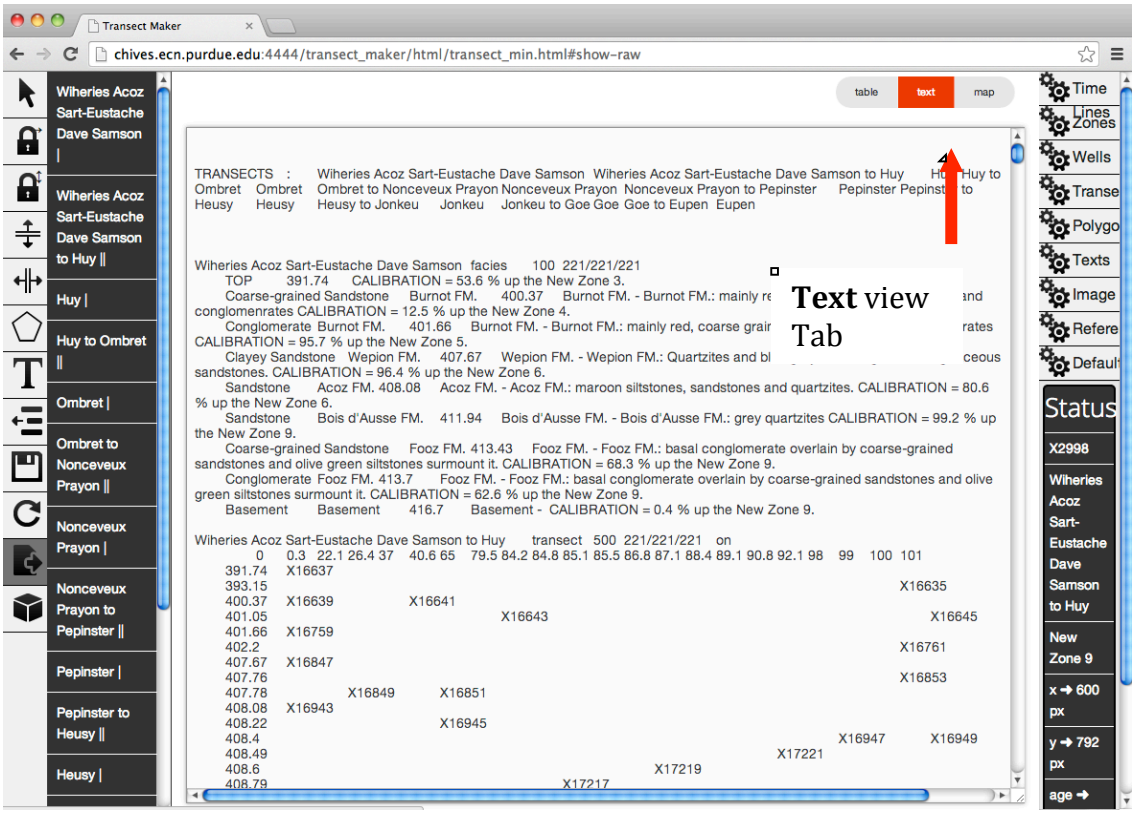
You can export the data in Timescale Creator format either by saving the project as zip to your computer or to the sandbox and downloading the text file or by using **quick export** . The **Export Tab** will open up the view containing the tab-separated Timescale Creator format. You can choose to view the **table** to quickly verify the output and use the **text** view to copy the output into a text editor or Excel. A **map** view gives you latitude and longitude for your wells, already formatted for making a mappack. You have to swipe the mappack text and copy it into Excel to finish the mappack output and then save it as txt. The program doesn't automatically include it into the "Download Project" zip.

Make sure you closed the right hand side tabs by again clicking on the tab, otherwise you won't see the full screen and the button to switch from **table** to **text** to **map** view

You can quickly swipe the whole text view and copy it into a text editor and save as .txt and then load the file into TSCreator.



Wiheries Acoz Sart-Eustache Dave Samson	facies	100	221/221/221	
	Primary			
	TOP		391.74	CALIBRATION = 83.6 % up the New Zone 3.
	Coarse-grained Sandstone	Burnot FM.	400.37	Burnot FM. - Burnot FM.: mainly red, coarse grained sandstones and conglomenrates CALIBRATION = 12.5 % up the New Zone 4.
	Conglomerate	Burnot FM.	401.66	Burnot FM. - Burnot FM.: mainly red, coarse grained sandstones and conglomenrates CALIBRATION = 95.7 % up the New Zone 5.
	Clayey Sandstone	Wepion FM.	407.67	Wepion FM. - Wepion FM.: Quartzites and blue grey, blue or greenish argillaceous sandstones. CALIBRATION = 96.4 % up the New Zone 6.
	Sandstone	Acoz FM.	408.08	Acoz FM. - Acoz FM.: maroon siltstones, sandstones and quartzites. CALIBRATION = 80.6 % up the New Zone 6.
	Sandstone	Bois d'Ausse FM.	411.94	Bois d'Ausse FM. - Bois d'Ausse FM.: grey quartzites CALIBRATION = 99.2 % up the New Zone 9.
	Coarse-grained Sandstone	Fooz FM.	413.43	Fooz FM. - Fooz FM.: basal conglomerate overlain by coarse-grained sandstones and olive green siltstones surmount it. CALIBRATION = 68.3 % up the New Zone 9.
	Conglomerate	Fooz FM.	413.7	Fooz FM. - Fooz FM.: basal conglomerate overlain by coarse-grained sandstones and olive green siltstones surmount it. CALIBRATION = 62.6 % up the New Zone 9.


Transect Maker
chives.ecn.purdue.edu:4444/transect_maker/html/transect_min.html#show-raw
table
text
map
Wiheries Acoz Sart-Eustache Dave Samson |
Wiheries Acoz Sart-Eustache Dave Samson to Huy ||
Huy |
Huy to Ombret ||
Ombret |
Ombret to Nonceveux Prayon ||
Nonceveux Prayon |
Nonceveux Prayon to Pepinster ||
Pepinster |
Pepinster to Heusy ||
Heusy |
Time
Lines
Zones
Wells
Transe
Polygo
Texts
Image
Refere
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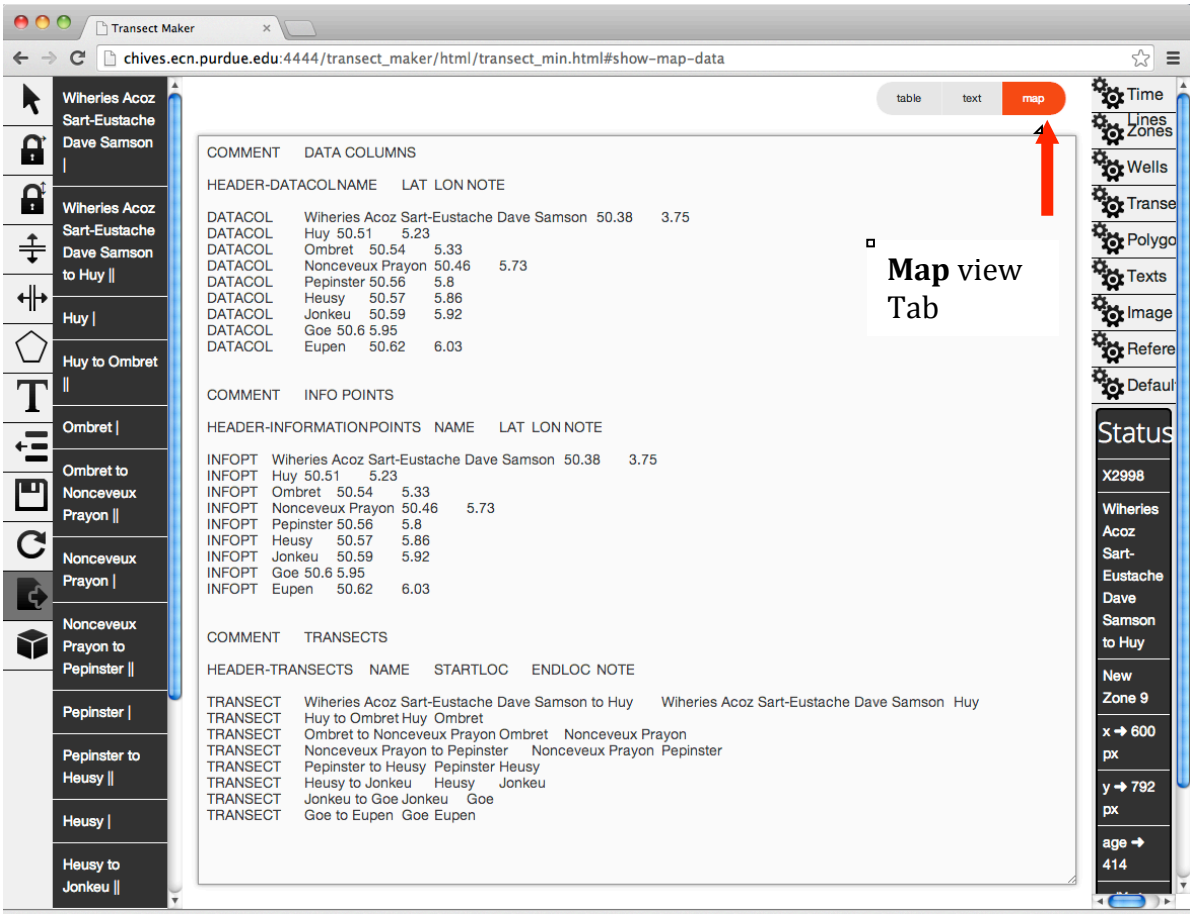
Status
X2998
Wiheries Acoz Sart-Eustache Dave Samson to Huy
New Zone 9
x → 600 px
y → 792 px
age →
TRANSECTS : Wiheries Acoz Sart-Eustache Dave Samson Wiheries Acoz Sart-Eustache Dave Samson to Huy
Ombret Ombret Ombret to Nonceveux Prayon Nonceveux Prayon Nonceveux Prayon to Pepinster Pepinster
Heusy Heusy Heusy to Jonkeu Jonkeu Jonkeu to Goe Goe Goe to Eupen Eupen
Wiheries Acoz Sart-Eustache Dave Samson facies 100 221/221/221
TOP 391.74 CALIBRATION = 53.6 % up the New Zone 3.
Coarse-grained Sandstone Burnot FM. 400.37 Burnot FM. - Burnot FM.: mainly
conglomenrates CALIBRATION = 12.5 % up the New Zone 4.
Conglomerate Burnot FM. 401.66 Burnot FM. - Burnot FM.: mainly red, coarse grain
CALIBRATION = 95.7 % up the New Zone 5.
Clayey Sandstone Wepion FM. 407.67 Wepion FM. - Wepion FM.: Quartzites and bl
sandstones. CALIBRATION = 96.4 % up the New Zone 6.
Sandstone Acoz FM. 408.08 Acoz FM. - Acoz FM.: maroon siltstones, sandstones and quartzites. CALIBRATION = 80.6 % up the New Zone 6.
Sandstone Bois d'Ausse FM. 411.94 Bois d'Ausse FM. - Bois d'Ausse FM.: grey quartzites CALIBRATION = 99.2 % up the New Zone 9.
Coarse-grained Sandstone Fooz FM. 413.43 Fooz FM. - Fooz FM.: basal conglomerate overlain by coarse-grained sandstones and olive green siltstones surmount it. CALIBRATION = 68.3 % up the New Zone 9.
Conglomerate Fooz FM. 413.7 Fooz FM. - Fooz FM.: basal conglomerate overlain by coarse-grained sandstones and olive green siltstones surmount it. CALIBRATION = 62.6 % up the New Zone 9.
Basement Basement 416.7 Basement - CALIBRATION = 0.4 % up the New Zone 9.
Wiheries Acoz Sart-Eustache Dave Samson to Huy transect 500 221/221/221 on
0 0.3 22.1 26.4 37 40.6 65 79.5 84.2 84.8 85.1 85.5 86.8 87.1 88.4 89.1 90.8 92.1 98 99 100 101
391.74 X16637
393.15 X16635
400.37 X16639 X16641
401.05 X16643 X16645
401.66 X16759
402.2 X16761
407.67 X16847
407.76 X16853
407.78 X16849 X16851
408.08 X16943
408.22 X16945
408.4 X16947 X16949
408.49 X17221
408.6 X17219
408.79 X17217
Text view Tab


Transect Maker
chives.ecn.purdue.edu:4444/transect_maker/html/transect_min.html#show-map-data
table
text
map
Wiheries Acoz Sart-Eustache Dave Samson |
Wiheries Acoz Sart-Eustache Dave Samson to Huy ||
Huy |
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Nonceveux Prayon |
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Time
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y → 792 px
age → 414
COMMENT DATA COLUMNS
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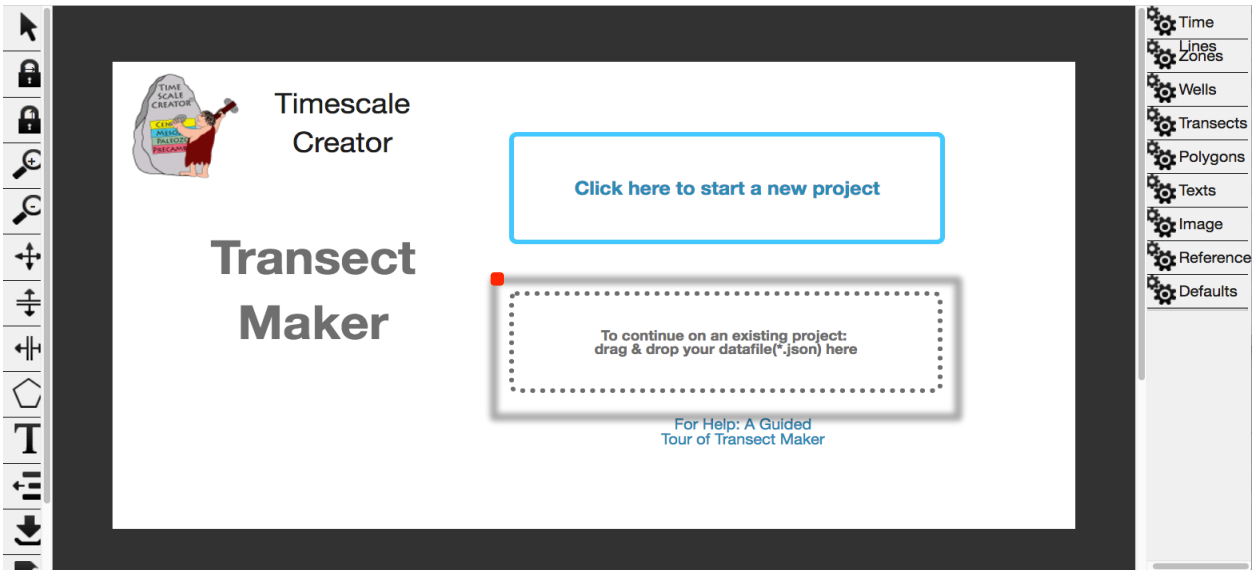
DATACOL Huy 50.51 5.23
DATACOL Ombret 50.54 5.33
DATACOL Nonceveux Prayon 50.46 5.73
DATACOL Pepinster 50.56 5.8
DATACOL Heusy 50.57 5.86
DATACOL Jonkeu 50.59 5.92
DATACOL Goe 50.6 5.95
DATACOL Eupen 50.62 6.03
COMMENT INFO POINTS
HEADER-INFORMATIONPOINTS NAME LAT LON NOTE
INFOPT Wiheries Acoz Sart-Eustache Dave Samson 50.38 3.75
INFOPT Huy 50.51 5.23
INFOPT Ombret 50.54 5.33
INFOPT Nonceveux Prayon 50.46 5.73
INFOPT Pepinster 50.56 5.8
INFOPT Heusy 50.57 5.86
INFOPT Jonkeu 50.59 5.92
INFOPT Goe 50.6 5.95
INFOPT Eupen 50.62 6.03
COMMENT TRANSECTS
HEADER-TRANSECTS NAME STARTLOC ENDLOC NOTE
TRANSECT Wiheries Acoz Sart-Eustache Dave Samson to Huy Wiheries Acoz Sart-Eustache Dave Samson Huy
TRANSECT Huy to Ombret Huy Ombret
TRANSECT Ombret to Nonceveux Prayon Ombret Nonceveux Prayon
TRANSECT Nonceveux Prayon to Pepinster Nonceveux Prayon Pepinster
TRANSECT Pepinster to Heusy Pepinster Heusy
TRANSECT Heusy to Jonkeu Heusy Jonkeu
TRANSECT Jonkeu to Goe Jonkeu Goe
TRANSECT Goe to Eupen Goe Eupen
Map view Tab

Drag & Drop

After you download the file you can share it with other users and they can load the data by “drag and drop” into the introductory screen.
The data file needs to be a json file that was previously generated by the transect maker. If it is any other file format the data will not be loaded.



The finished **txt** file can now be loaded into the TSCreator Pro program.

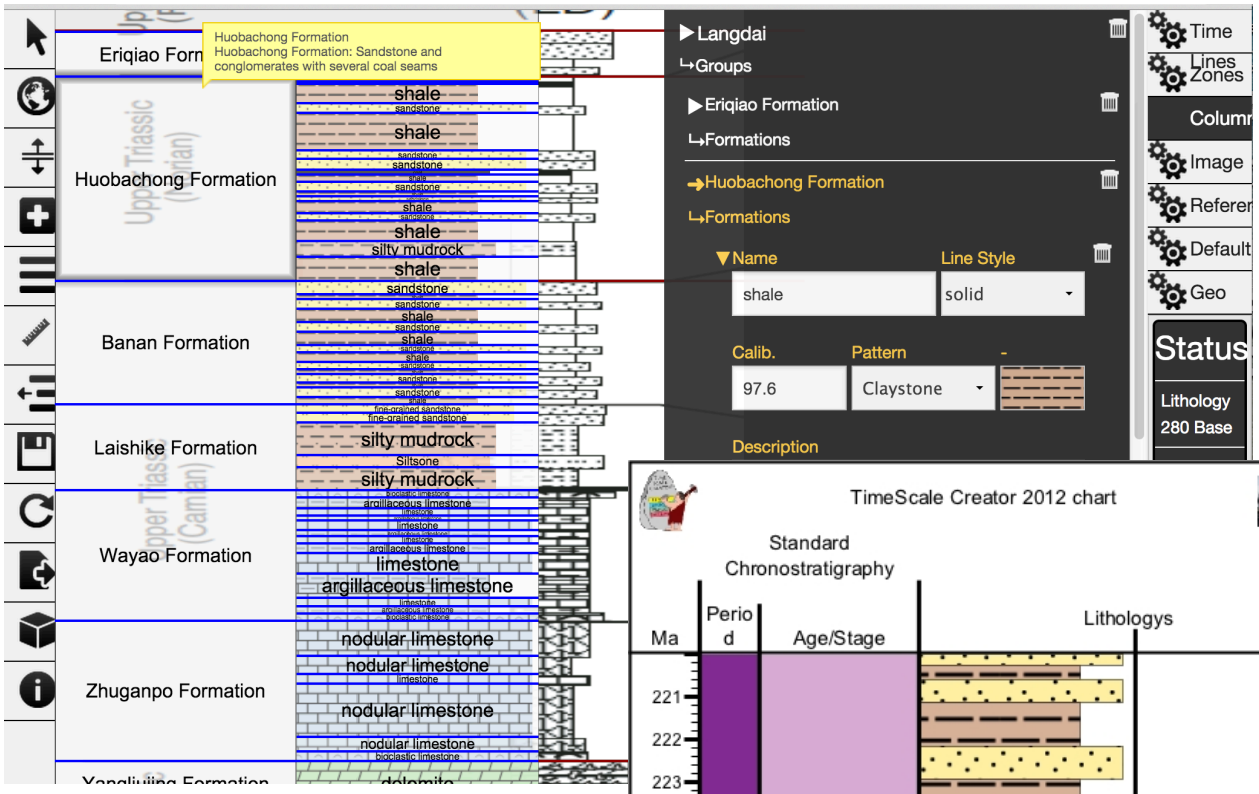
Important!!!!!

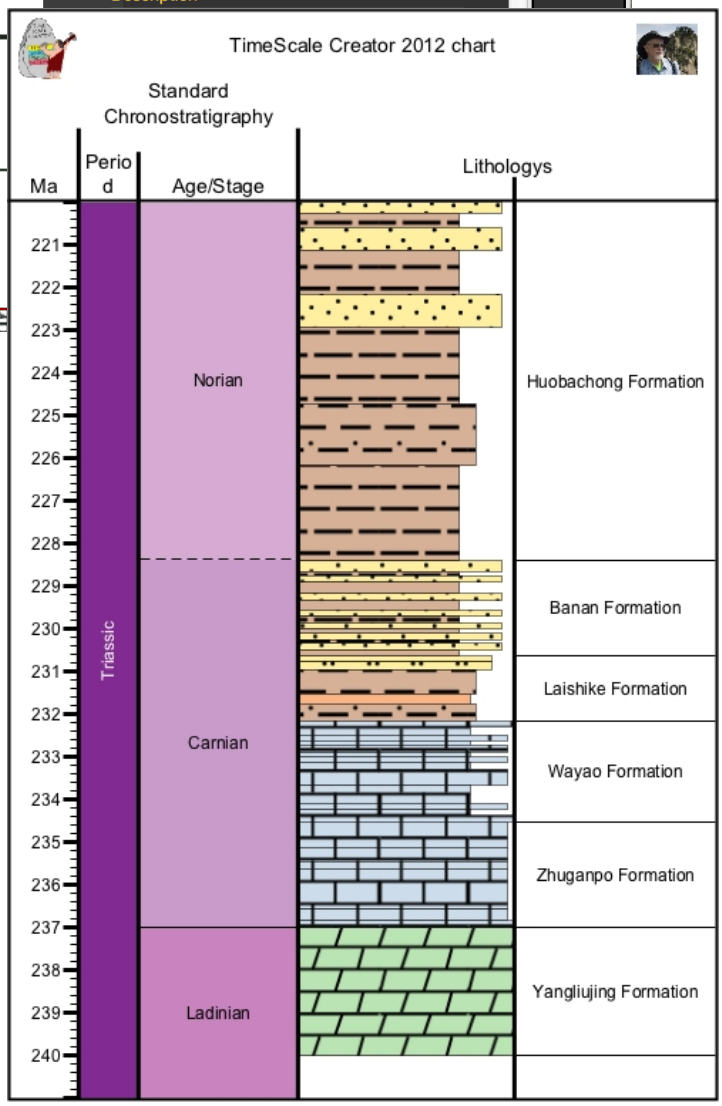
Even if you only use the " **download project as zip"** method to save your files, you must go to the sandbox from time to time and delete all the accumulated files, otherwise the program will just stop at some point and not save anymore.
It is best to make sure that the Sandbox is empty, before starting a new project.
There is only one sandbox on your computer, therefore all the files you save from the Transect Maker and Lithology Maker will be saved in the same place.

Lithology Maker for TimeScale Creator

Nag Varun Chunduru

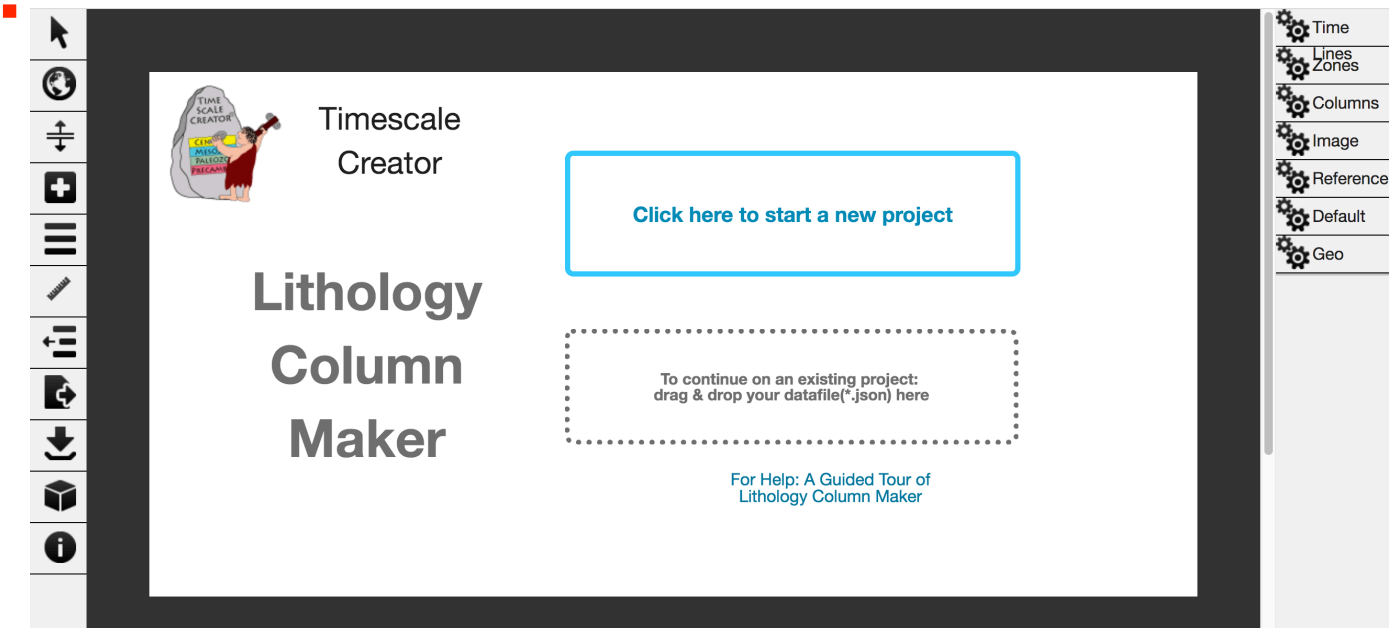
October 2017





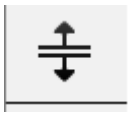
Lithology Maker Overview

Tools (left side of opening window)



Pointer Tool - Clicking the pointer tool will unselect any of the other tools that are active.

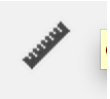
Map View - Displays a world map for your facies polygons.



Add Timeline - Select and **double click** on the canvas to add a timeline. The time line can be dragged with the mouse to its final position.

Add new column - Click and a new column is added to your canvas.

Lithology Tool - Select and double-click in the column area and then again a little apart from the first double-click. A box with a “Group” label will appear. Pull the blue lines to the correct location



Ruler Tool – Select and a ruler will be displayed on the left side of your canvas. Click the icon again and the ruler disappears.

Reference Column – Select and the reference column will be displayed. Click the icon again and the column disappears.

Export - Select and you will get a view containing the tab-separated Timescale Creator format. You can choose between **table** or **text** view.

Zip Download – This allows you to download a zipped file which includes the json and txt file. You can load the zip file directly into TSCreator and it will display correctly.

Sandbox - This application creates a sandboxed HTML5 file system on the client’s machine. Selecting this will open the view displaying directories in the user’s file system. You can save the current project or load any of the previous projects quickly into the maker as the files are stored permanently. The files can also be downloaded to the user’s machine.

However, it is recommended that you download to your computer all the files you want to keep, once you have finished a project. Then clear out all your saved files from the sandbox, otherwise the Lithology maker might become unresponsive during a future project.

Input Panel (right side of opening window)

Add ages and label timelines. Hit return after the entries to record your changes.

Add zone names and descriptions

Add name, latitude, longitudes to lithology column

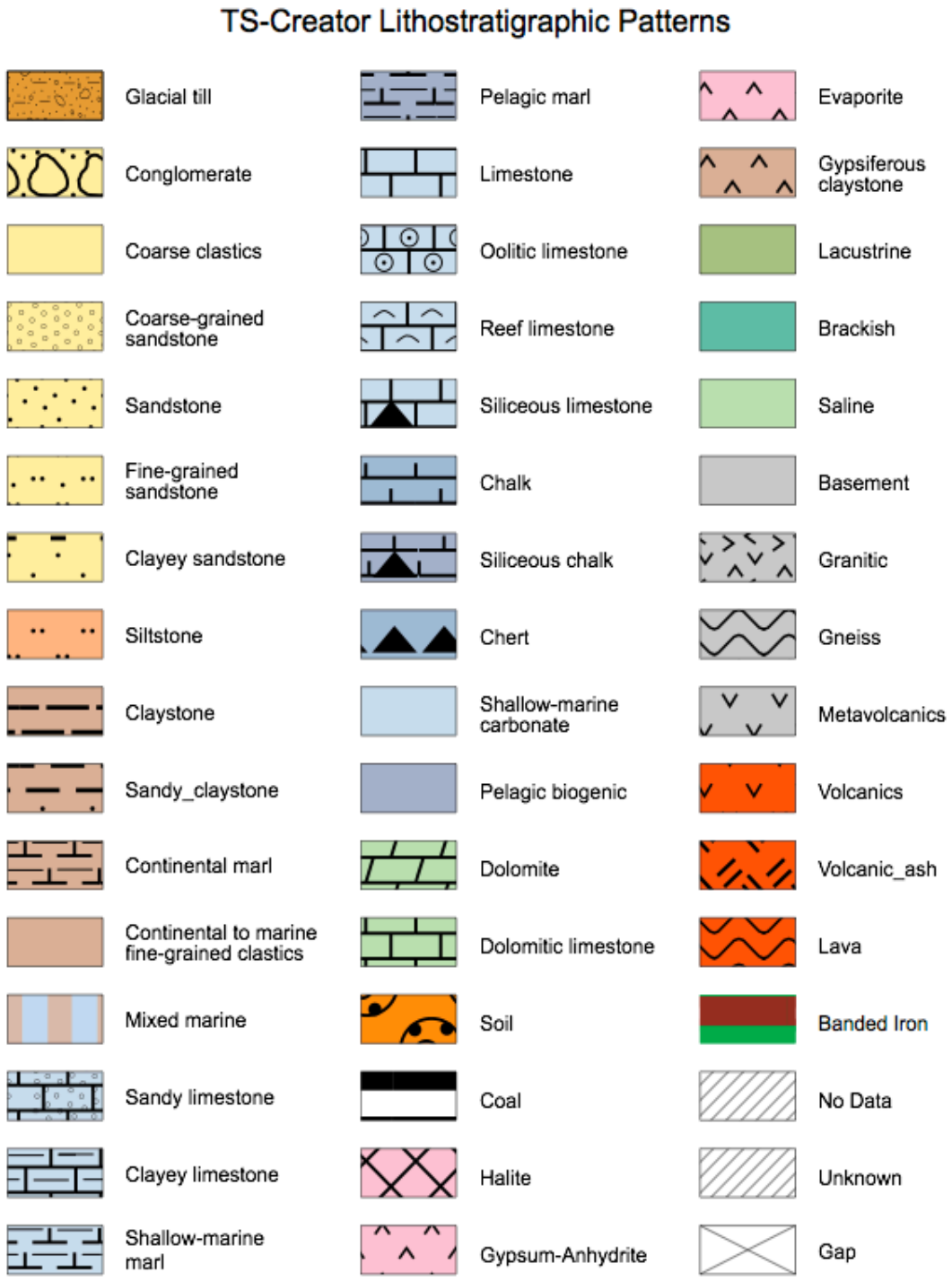
Drag and drop your image. Adjust size.

Choose reference time frame and what columns to use (periods, epochs, stages). You can also add a different previously generated reference column.

This tab has no function yet.

Select your map and animation settings

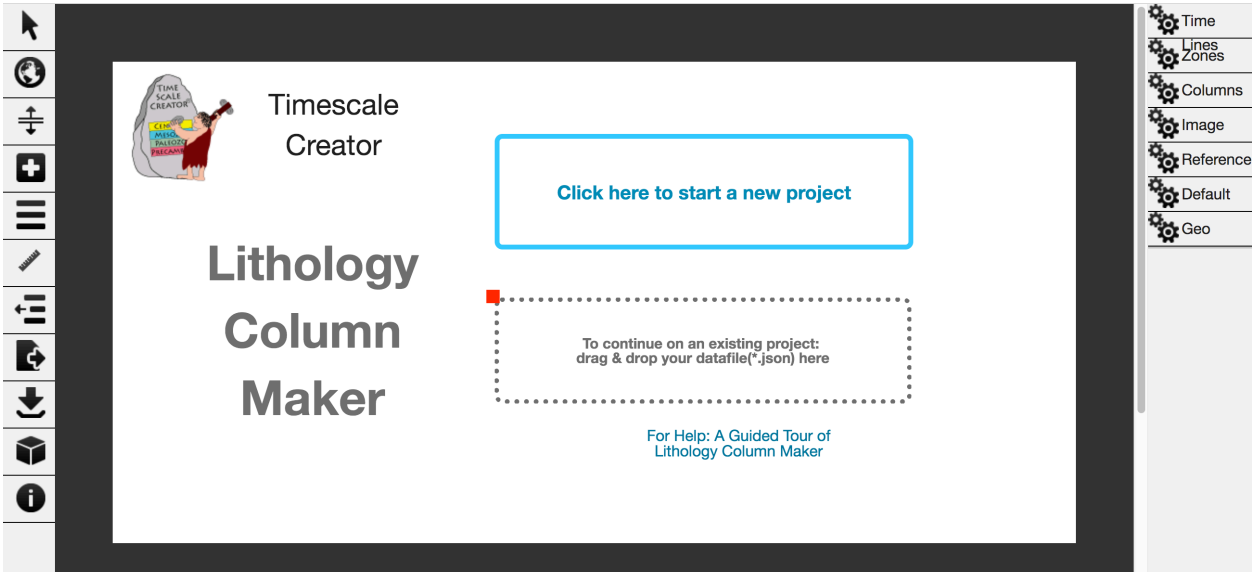
Available Lithostratigraphic Patterns



Getting Started… A Step by Step Guide

Browser Requirements : Google Chrome

Step 1 - On opening the URL the app will ask for your permission to create a space (sandbox) on your system. By accepting, you will have the ability to store projects in this sandbox and load them when required.



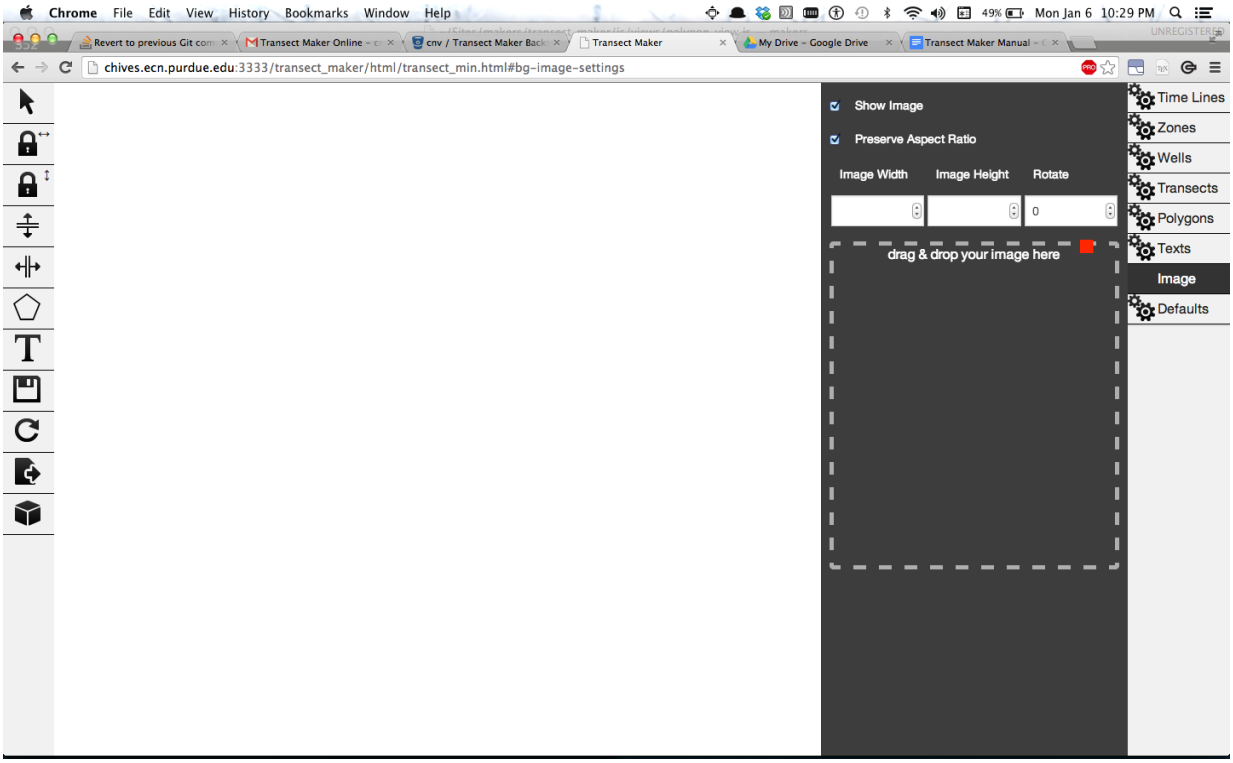
Step 2 - To start a new project just click “start new project” and an empty page will appear.

Hint: If you already have a **json** file from a previous project, you can just drag it into the “drag and drop” box. It will automatically load.

If you have a saved project in your sandbox, then just click the sandbox icon and load the **json** file from there.

Start new project

Click “start new project” on the intro view. This will take you to an empty page.
Add an image by selecting the Image Tab on the right hand setting panel and then drag and drop an image. Image can be of any format (**png/gif/jpeg**) except pdf. You can resize the image or rotate it according to your needs.



Resize your image before you put in timelines.

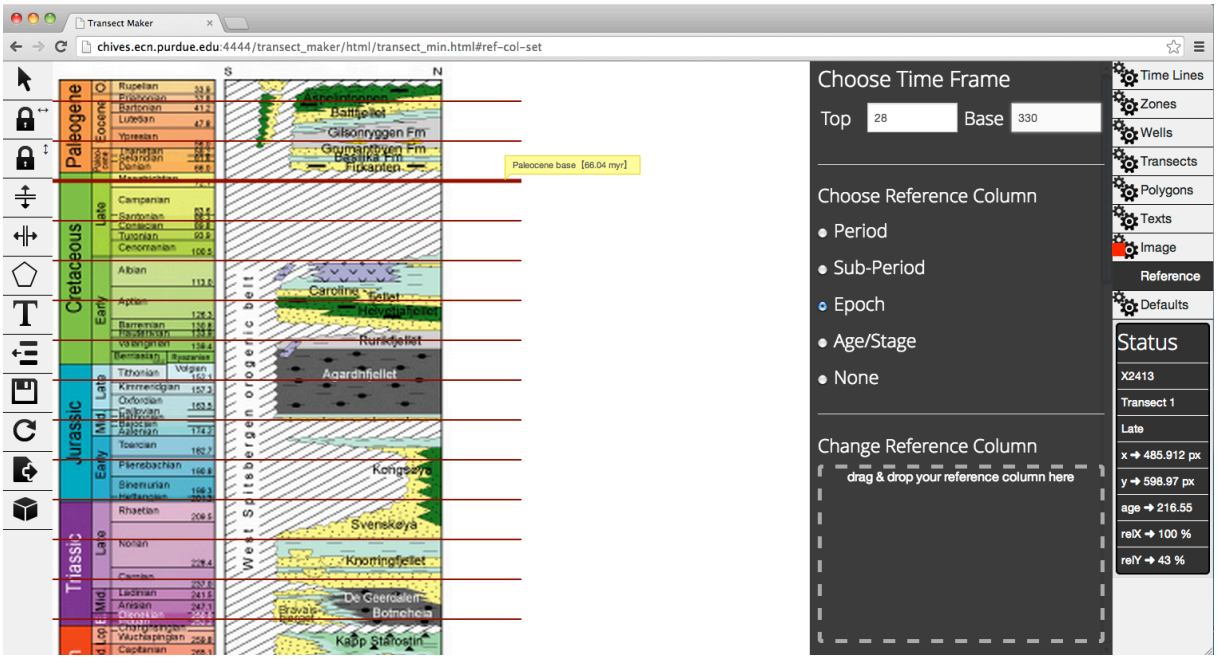
Later resizing does not keep the timelines in the same place.

Adding or Editing information to lithology elements (Timelines / Zones / Columns)

Before starting to draw lithology columns you have to create **timelines**. Each of the properties of the lithology maker elements can be edited in the panels on the right hand side. Start editing the field by clicking on the corresponding name. In order to close the input fields after the information is updated - **press enter or esc** key. This will update the info to the appropriate element. If you don’t press enter, your information will not record. To close the Tabs completely just click the tab again.

Add Timelines from the reference Time Scale (GTS2016):

Open Reference Tab on right hand side. This gives you a window where you can choose your time frame and what columns to use (periods, epochs, stages). You can also add a new previously generated reference column.

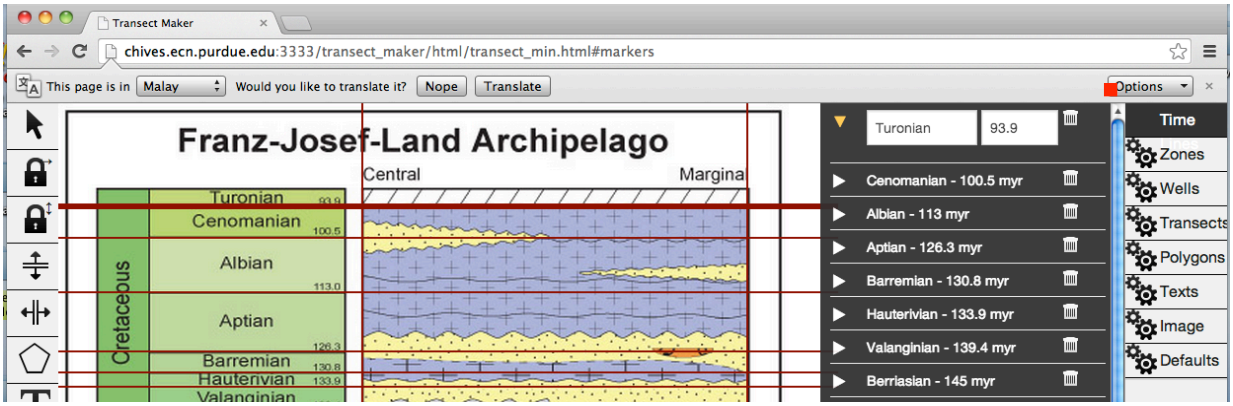


Once you hit **return** on the age selection, the timelines will appear evenly spaced on the screen. You can now drag them to the appropriate location (the timelines are labeled). When you have lots of timelines, they will be off the screen. Use the wheel on your mouse to scroll up and down through your image

If you select your timelines from the Reference Time Scale, then the Zone descriptions are already filled in. However, you can still edit or delete them under the Zones tab.

Add Timelines:

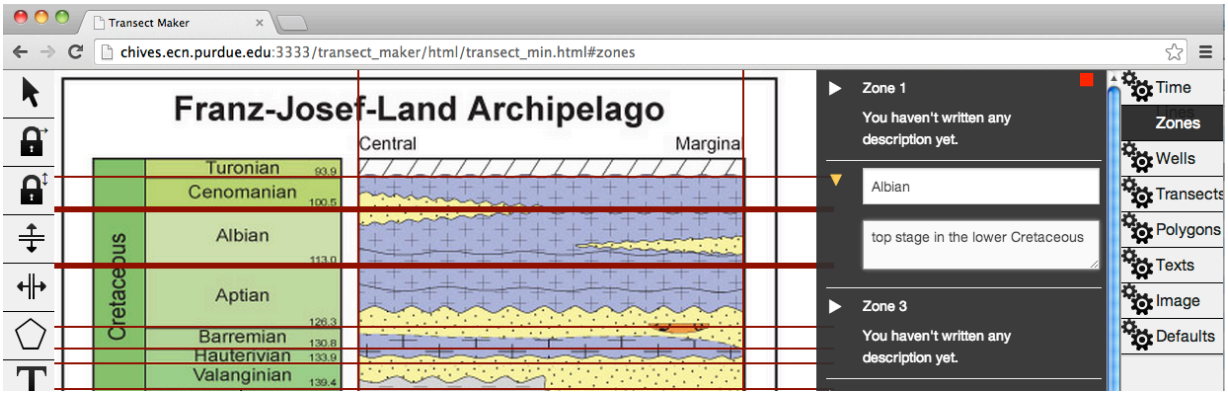
Open Time Tab on right hand side, this will give you the window where you add information for your timelines.
If you selected your timelines from the Reference Time Scale, then the appropriate names and ages for your timelines are already displayed. You can now add or delete other timelines or change the ages.



To add new timelines click **timeline** button on left tool bar and double-click a zone or stage boundary on your image which you want to use as a timeline. On the right panel a new timeline is added, you can change the name and add the age in myr. Hit **enter** after each entry. Continue until all your timelines are done.

Add Zones:

Open Zones Tab on right hand side, here you can add information for your zones, which is the interval between two of your timelines. If you hover the cursor over the zone, the corresponding two timelines will appear bold. Type in zone name and **hit return** (important, otherwise the name will not record), add a zone description.

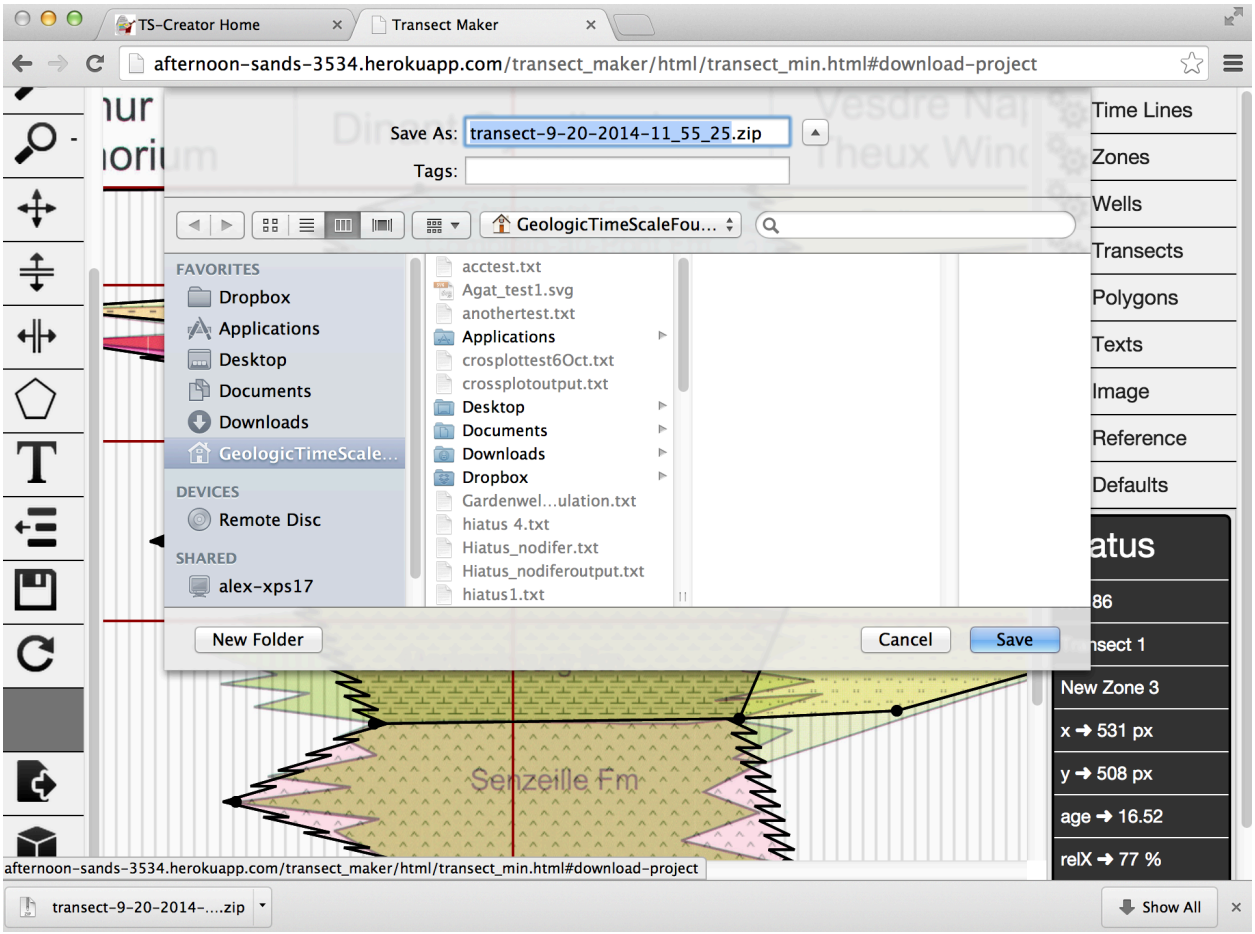


Save one copy, so you don't have to redo the timelines and zones, if you mess up the lithology columns.

Saving your file:

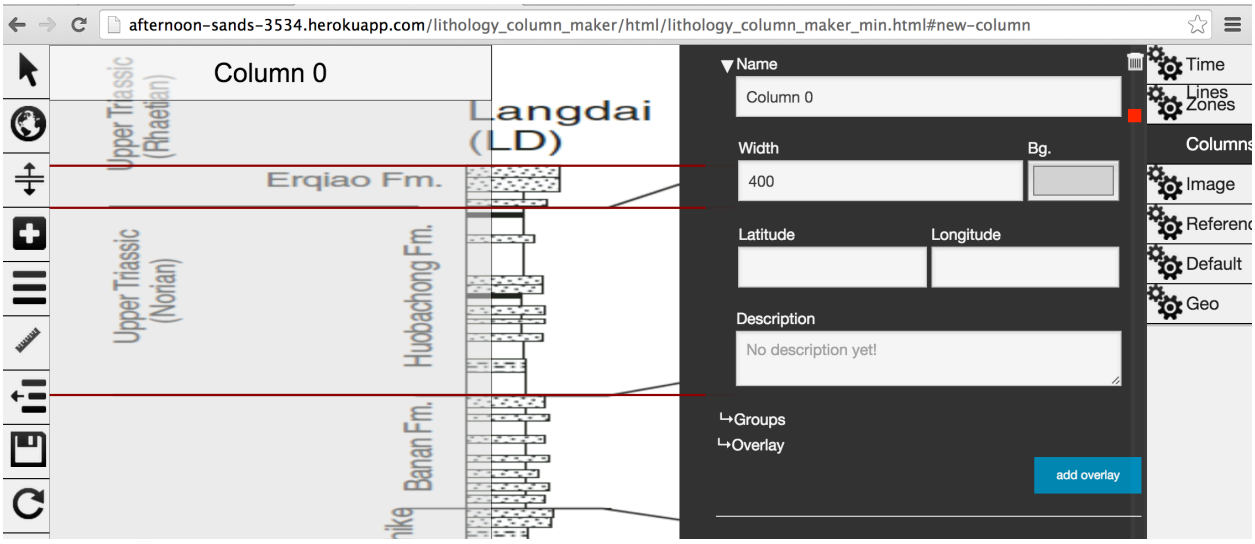
Save a zip file

Click **download project as zip** and depending on your Chrome settings a window will open and ask you for a file name, or directly save the zip to your computer. The zip file contains the json and the txt files. You can load the zip file directly into TS-Creator and it will load correctly.



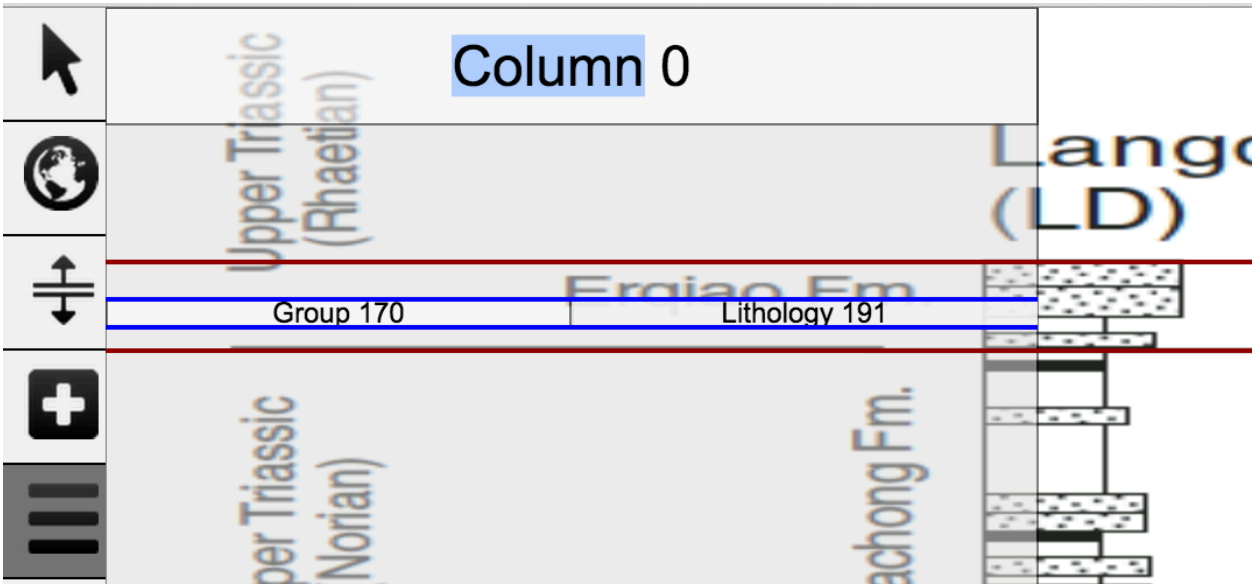
Add Lithology columns:

Click the **add column** button and then open Columns Tab on right hand side, this will give you the window where you add information for your columns (outcrop name and latitude and longitude, width of column etc.).

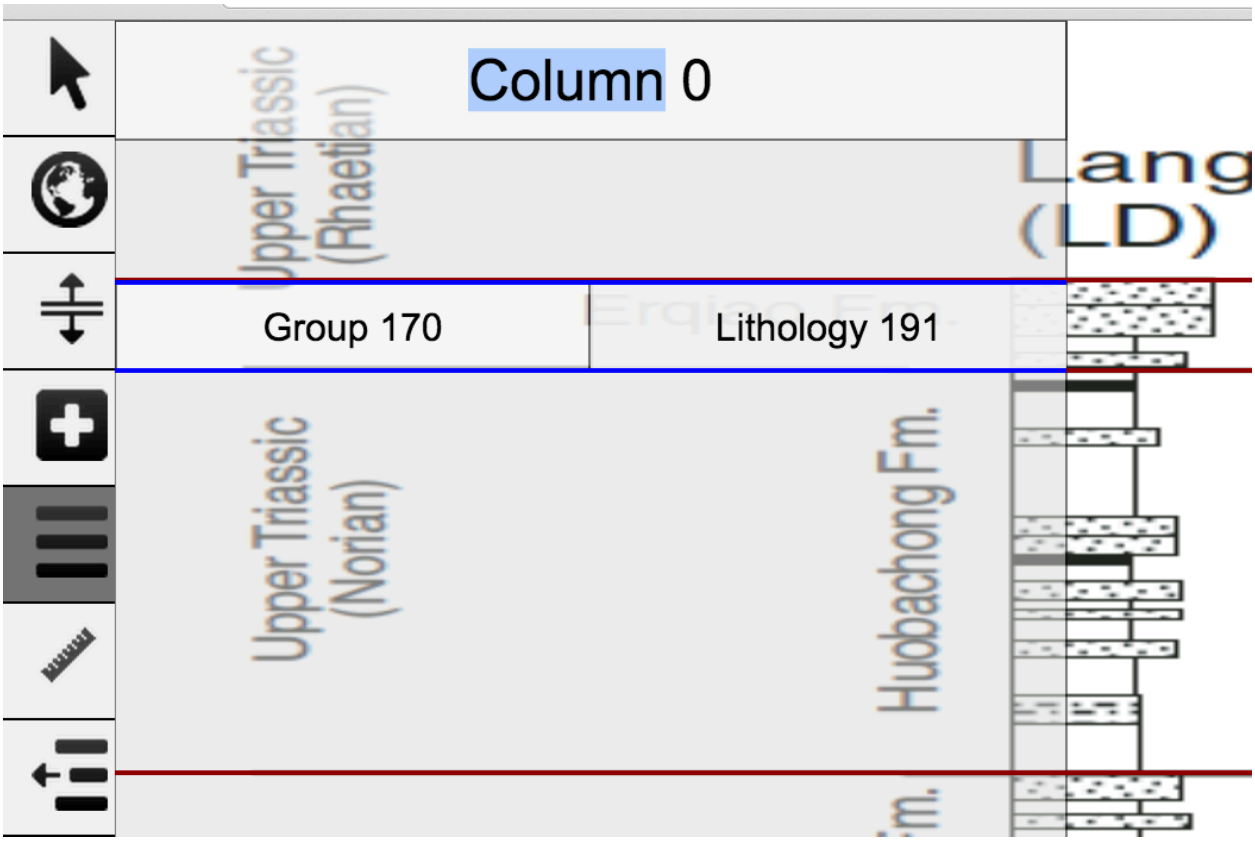


The latitude and longitude coordinates do not yet work

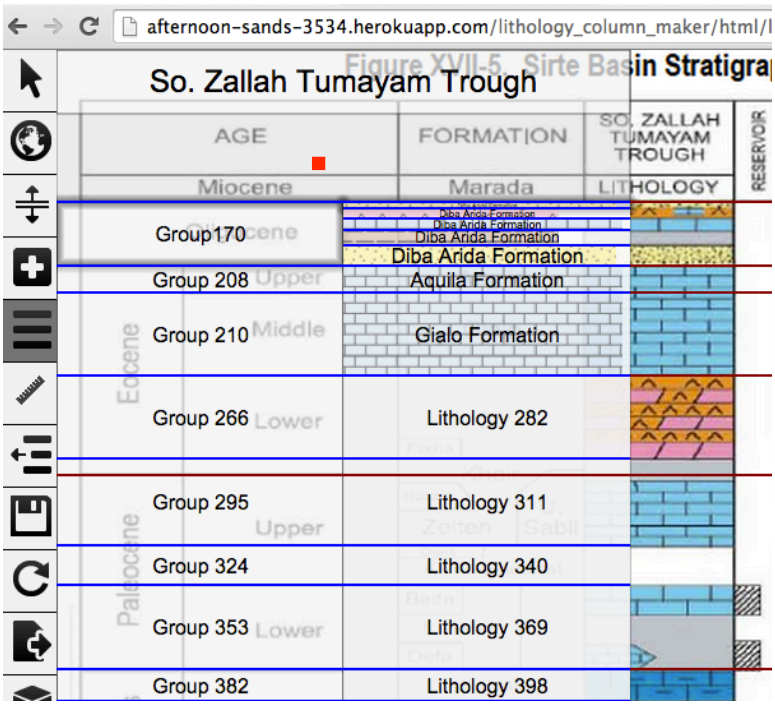
Select the **Lithology Tool** and double-click in the column area and then again a little apart from the first double-click. A box with a “Group” and “Lithology” label will appear.



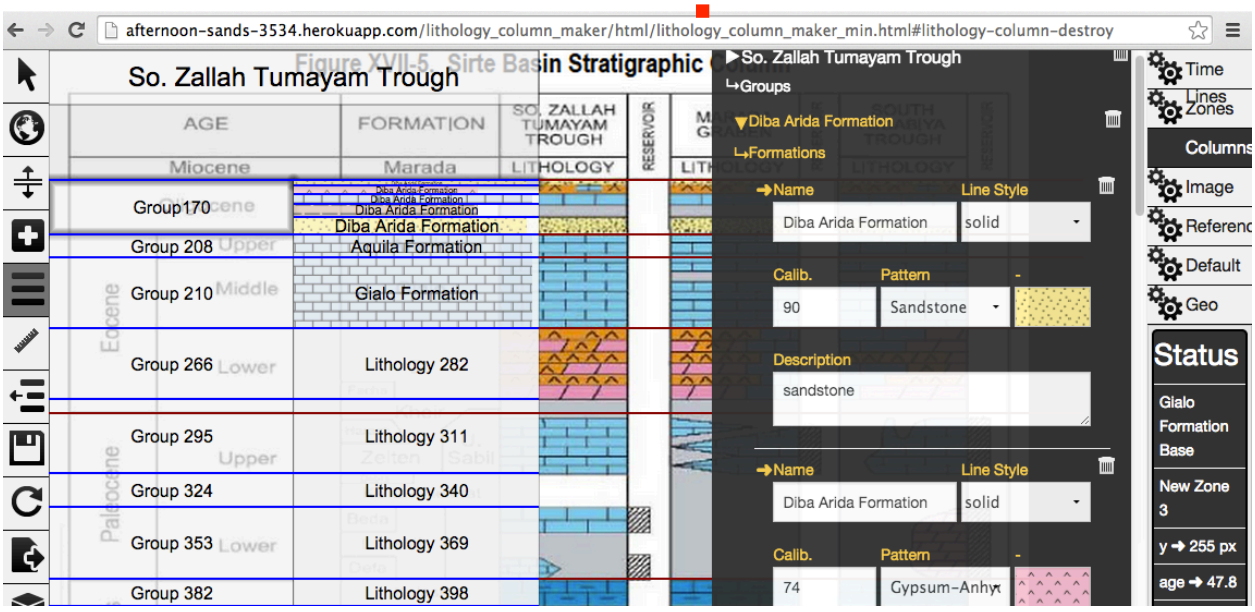
Drag the blue lines to the correct location for the “Group”.



With the **Lithology tool** selected, keep double-clicking in the “Lithology” section of your column for all your different lithologies.

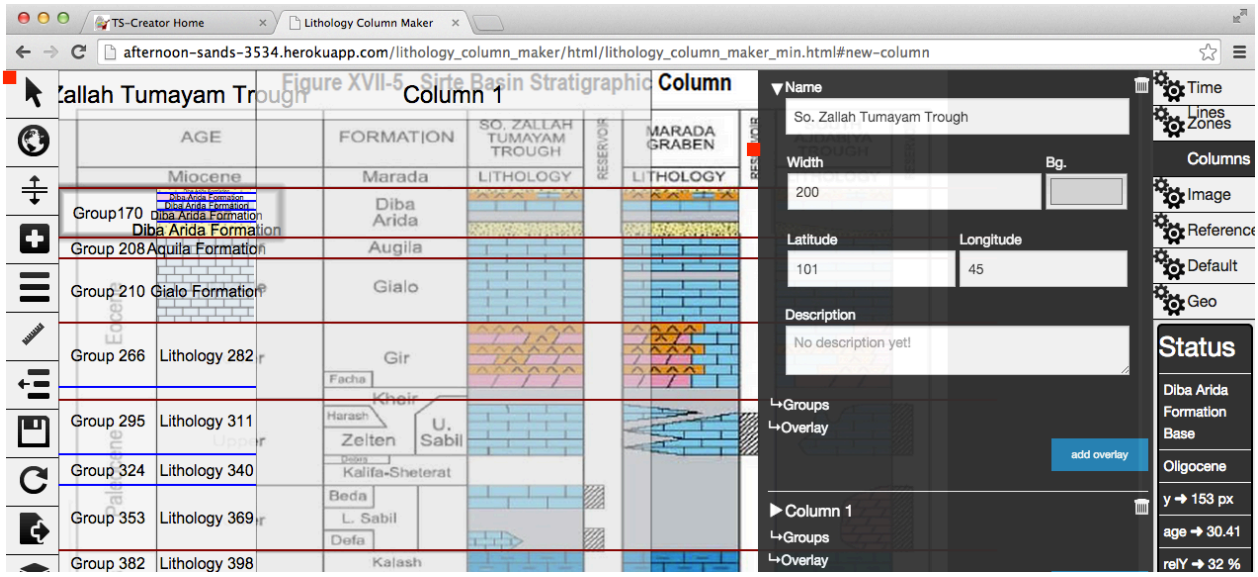


On the right hand side panel, open the **Group** label by clicking on the name, add group name and description, if desired. Next, open **Formation** Label and fill in your information. You need to choose a lithology pattern. Don't forget to press enter after each input, otherwise the new name is not recorded.



To add a second lithostratigraphic column just click the **Add Column** button again and a new column will appear. Repeat the steps as done in the first column.

Hint: You can adjust the width of your columns in the columns menu. Often it is easier to reduce the size of the first column, while working on the second one.

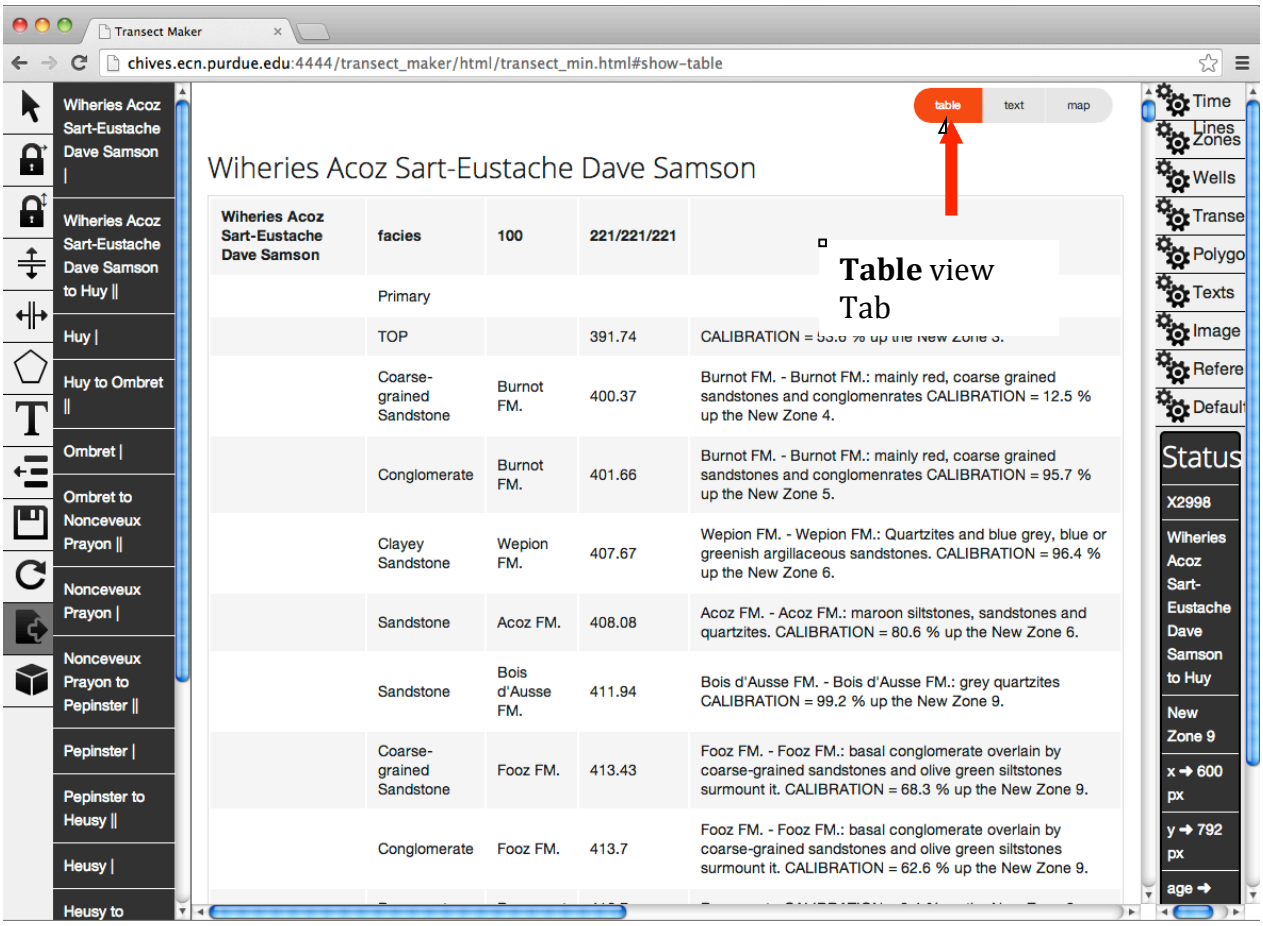


Export Data

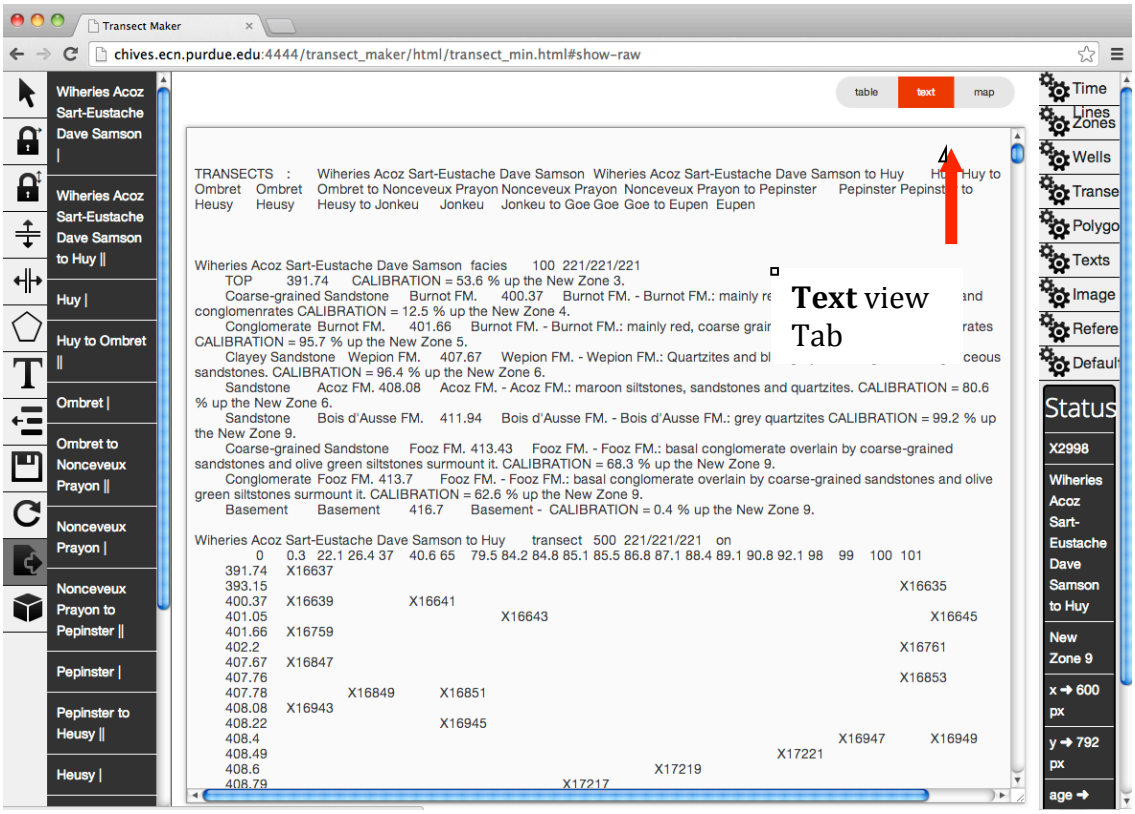
You can export the data in Timescale Creator format by using **quick export** . The **Export Tab** will open up the view containing the tab-separated Timescale Creator format. You can choose to view the **table** to quickly verify the output and use the **text** view to copy the output into a text editor or Excel.

Make sure you closed the right hand side tabs by again clicking on the tab, otherwise you won't see the full screen and the button to switch from **table** to **text** view.

You can quickly swipe the whole text view and copy it into a text editor and save as .txt and then load the file into TSCreator.



Wiheries Acoz Sart-Eustache Dave Samson	facies	100	221/221/221	
	Primary			
	TOP		391.74	CALIBRATION = 53.6 % up the New Zone 5.
	Coarse-grained Sandstone	Burnot FM.	400.37	Burnot FM. - Burnot FM.: mainly red, coarse grained sandstones and conglomenrates CALIBRATION = 12.5 % up the New Zone 4.
	Conglomerate	Burnot FM.	401.66	Burnot FM. - Burnot FM.: mainly red, coarse grained sandstones and conglomenrates CALIBRATION = 95.7 % up the New Zone 5.
	Clayey Sandstone	Wepion FM.	407.67	Wepion FM. - Wepion FM.: Quartzites and blue grey, blue or greenish argillaceous sandstones. CALIBRATION = 96.4 % up the New Zone 6.
	Sandstone	Acoz FM.	408.08	Acoz FM. - Acoz FM.: maroon siltstones, sandstones and quartzites. CALIBRATION = 80.6 % up the New Zone 6.
	Sandstone	Bois d'Ausse FM.	411.94	Bois d'Ausse FM. - Bois d'Ausse FM.: grey quartzites CALIBRATION = 99.2 % up the New Zone 9.
	Coarse-grained Sandstone	Fooz FM.	413.43	Fooz FM. - Fooz FM.: basal conglomerate overlain by coarse-grained sandstones and olive green siltstones surmount it. CALIBRATION = 68.3 % up the New Zone 9.
	Conglomerate	Fooz FM.	413.7	Fooz FM. - Fooz FM.: basal conglomerate overlain by coarse-grained sandstones and olive green siltstones surmount it. CALIBRATION = 62.6 % up the New Zone 9.



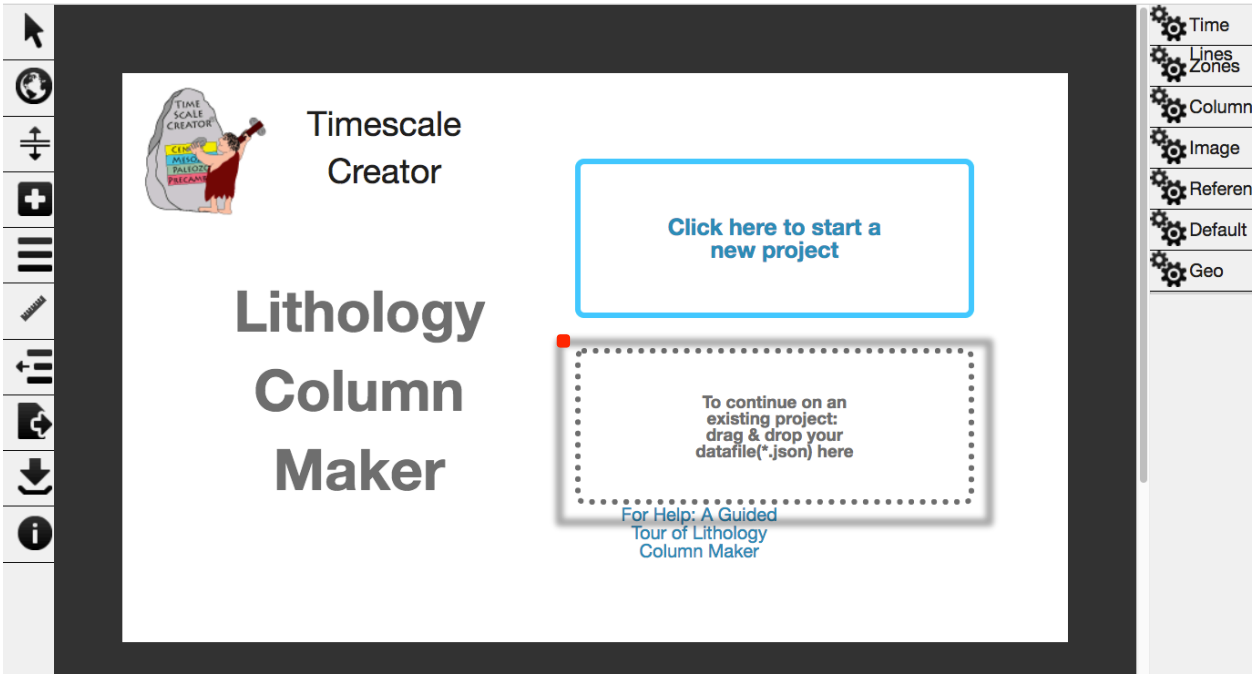
Saving your file:

Download Project as Zip

This downloads a zip file to your computer which contains a txt and a json file. The txt file can be loaded directly into the TSCreator.

Drag & Drop

After you download the file, you can share it with other users and they can load the data by “drag and drop” into the introductory screen.
The data file needs to be a json file that was previously generated by the lithology maker. If it is any other file format the data will not be loaded.



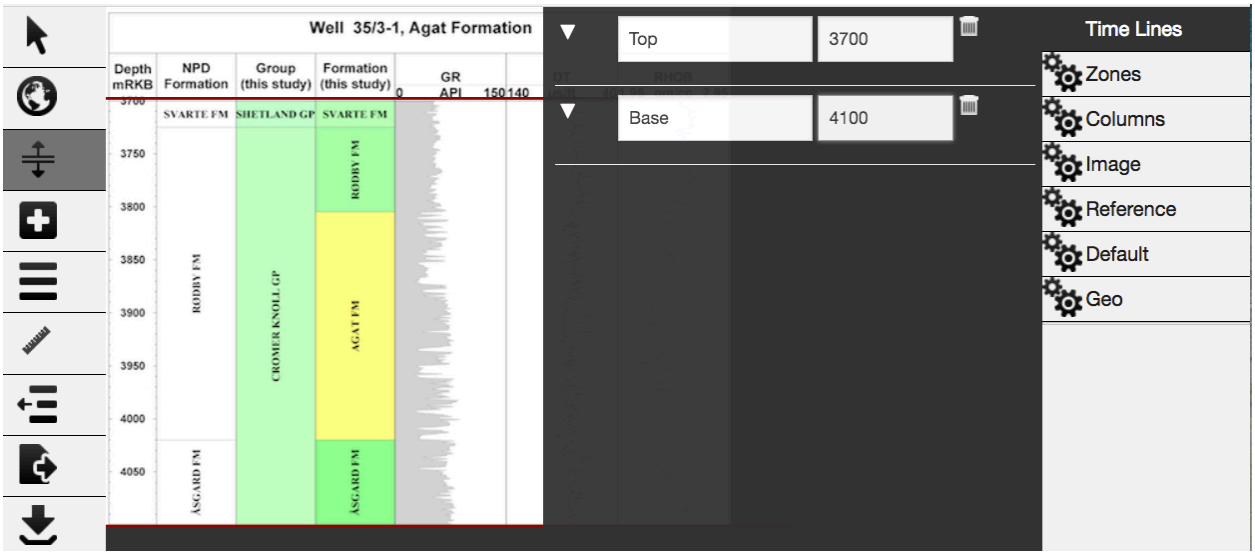
The finished **txt** file can now be loaded into the TSCreator Pro program.

How to use the Lithology Maker for Wells and Outcrops

Wells: (measured from the top down)

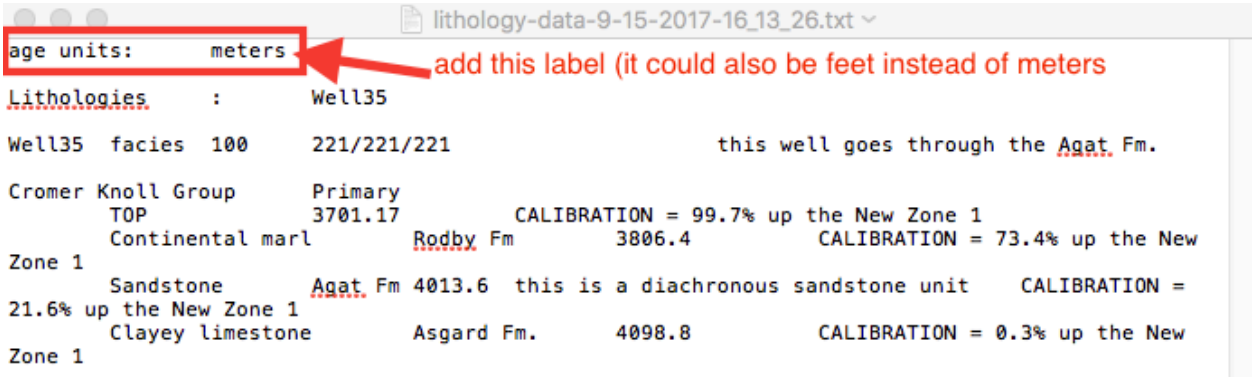
Just make 2 timelines, one at the base of your well and one at the top and add the appropriate depth in the "myr" space. The program doesn't care whether it is millions of years or meters, feet etc.

All the other steps stay the same.

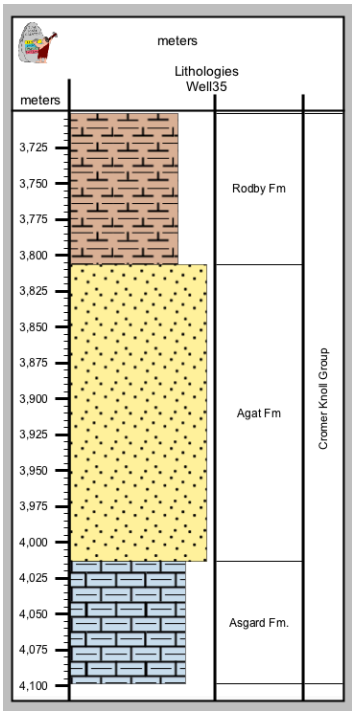


After downloading the zip file to your computer open it up and open the txt file. You have to specify whether your well is in meters or feet so that the TSC Program can recognize that the file needs to be displayed in a different scale.

Add:
age units:[TAB] meters
leave an empty line between the "age units" and the "Lithologies" (you can change the name Lithologies to a different name)



Load your txt file into the TSCreator Program and you should get the well displayed in meters.



Outcrops: (measured from the bottom up)

Just make 2 timelines, one at the base of your outcrop and one at the top and add the appropriate meter levels in the "myr" space. The program doesn't care whether it is millions of years or meters, feet etc. It also has no problems if the lower number is at the bottom and not at the top (see screenshot)

All the other steps stay the same.

After downloading the zip file to your computer open it up and open the txt file. You have to specify that you have an outcrop (this tells the program to display the meters going up) and also whether the outcrop is measured in meters or feet.

Add:
outcrop:[TAB] ON
age units:[TAB] meters

leave an empty line between the "age units" and the "Lithologies" (you can change the name Lithologies to a different name).

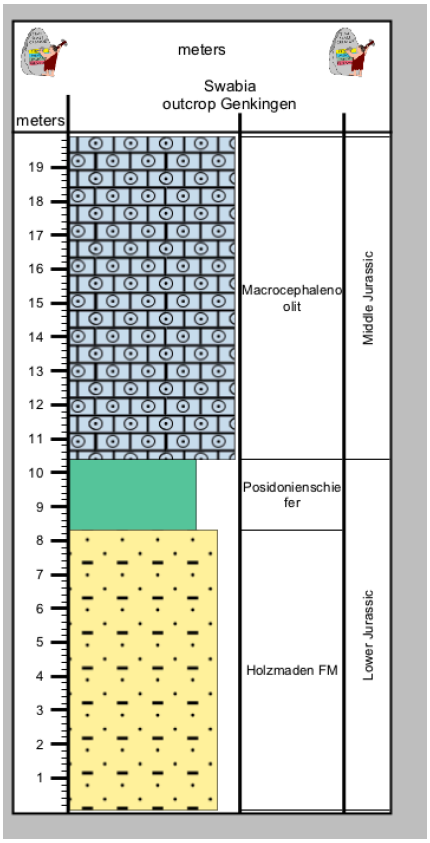
```
outcrop:        ON
age units:      meters

Swabia  :       outcrop Genkingen

outcrop Genkingen       facies  200     221/221/221
Lower Jurassic  Primary
        Brackish        Posidonienschiefer      8.32    really dark stuff       CALIBRATION = 41.6% up the New Zone 1
        Clayey sandstone        Holzmaden FM    0.04    also there      CALIBRATION = 0.2% up the New Zone 1
Middle Jurassic Primary         lots of oolites
        TOP             19.91   lots of iron oolites    CALIBRATION = 99.5% up the New Zone 1
        Oolitic limestone       Macrocephalenoolit      10.38   lots of iron oolites    CALIBRATION = 51.9% up the
New Zone 1
```

add these 2 lines to your outcrop file

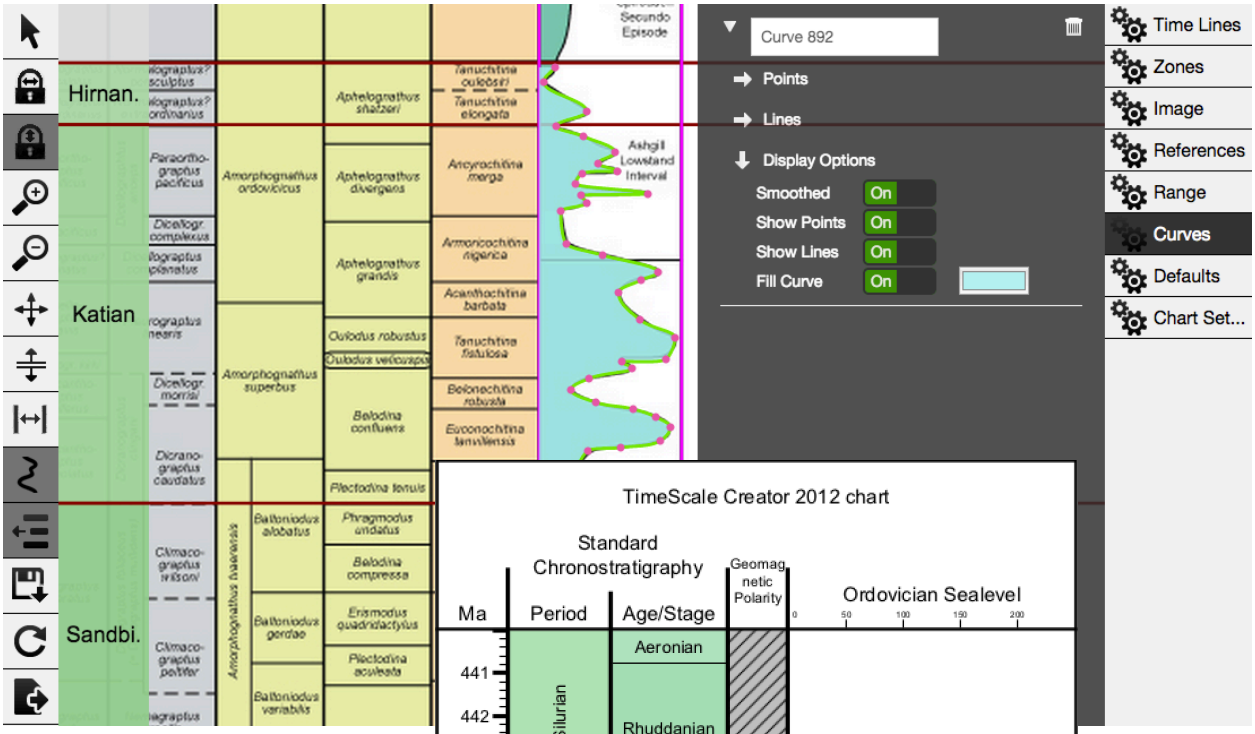
Load your txt file into the TSCreator Program and you should get the outcrop displayed in meters going up.

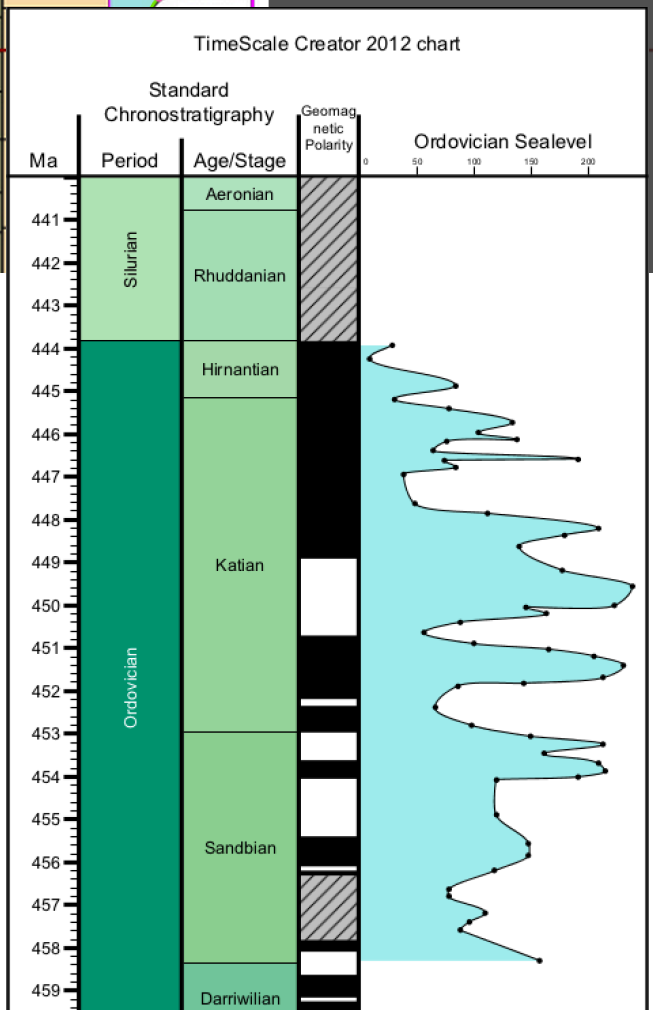


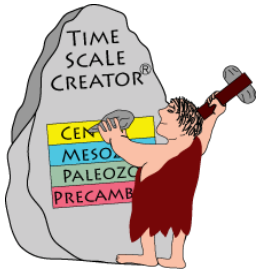
Curve Maker for TimeScale Creator

Keehwan Park

October 2017

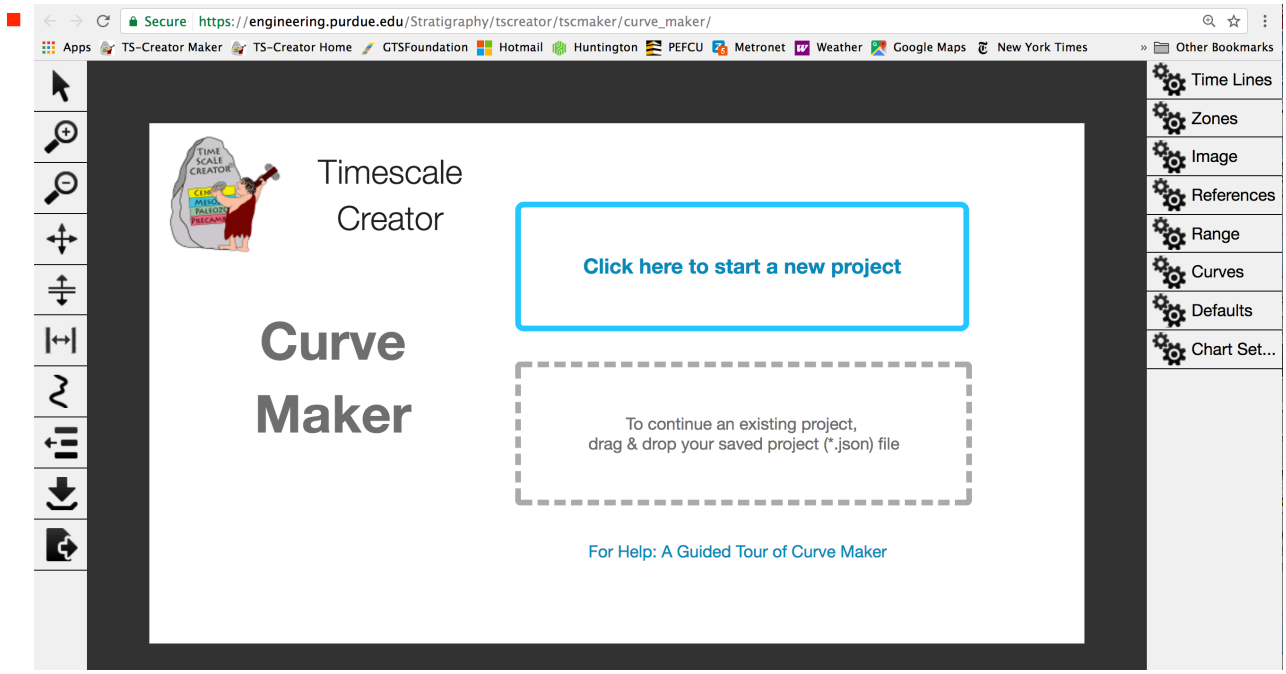






Curve Maker Overview

Tools (left side of opening window)

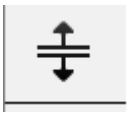


Pointer Tool - Doesn't really do anything. Clicking the pointer tool will unselect any of the other tools that are active.

Zoom in - Click on the magnifying glass as often as you need to zoom in.

Zoom out - Click on the magnifying glass as often as you need to zoom out.

Panning - Click the panning option to move your image up or down or left and right. To leave the panning option, click it again or click the pointer tool.



Add Timeline - Select and then **double-click** on the canvas to add a timeline.

Range Tool - Select and **double-click** where you want your left and right border of your curve.

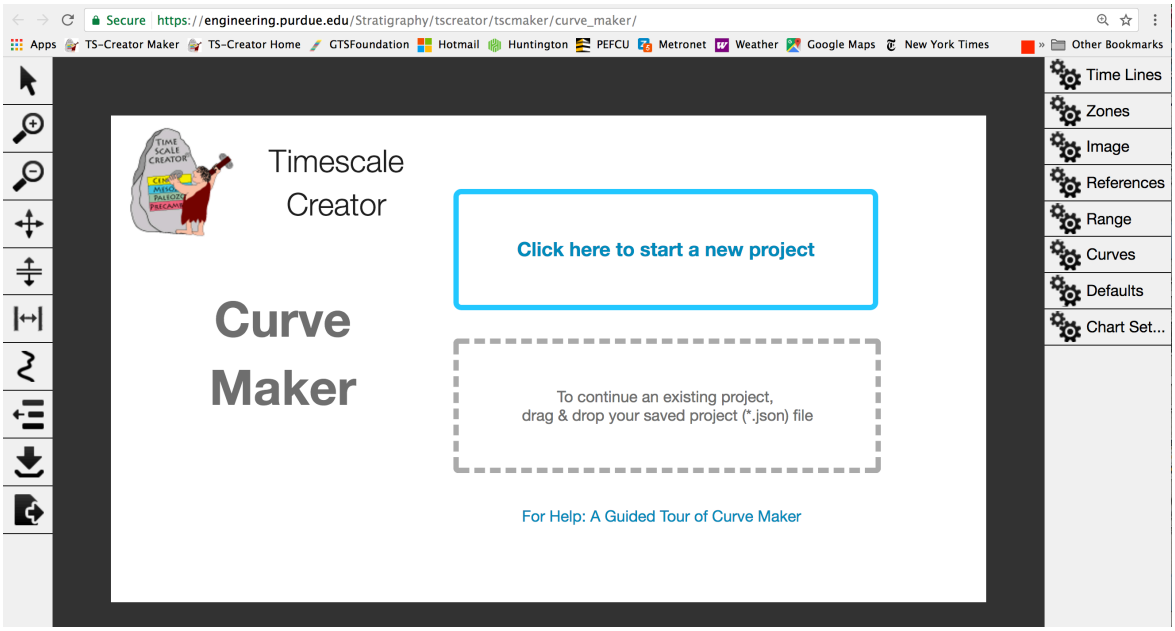
Curve Tool - Select and **double-click** on the first point on your curve. Continue double-clicking new points until your curve is finished. Deselect the curve tool to end the curve.

Reference Column -Select this icon to see the reference column displayed. Click the icon again and the column disappears. Works only if you used the Reference Time Scale for your timelines.

Zip Download – This allows you to download a zipped file which includes the json and txt file. You can load the zip file directly into TSCreator and it will display correctly.

Export - Select and you will get a view containing the tab-separated Timescale Creator format. You can choose between **table** or **text** view. The **Export Tab** will download a “txt” file called “test_output.txt” to your computer.

Input Panel (right side of opening window)



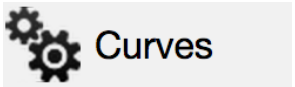
Add ages and label timelines. Hit return after the entries to record your changes.

Add zone descriptions

Drag and drop your image. Adjust size.

Choose reference time frame and what columns to use (periods, epochs, stages).

Set left and right range limit of your curve



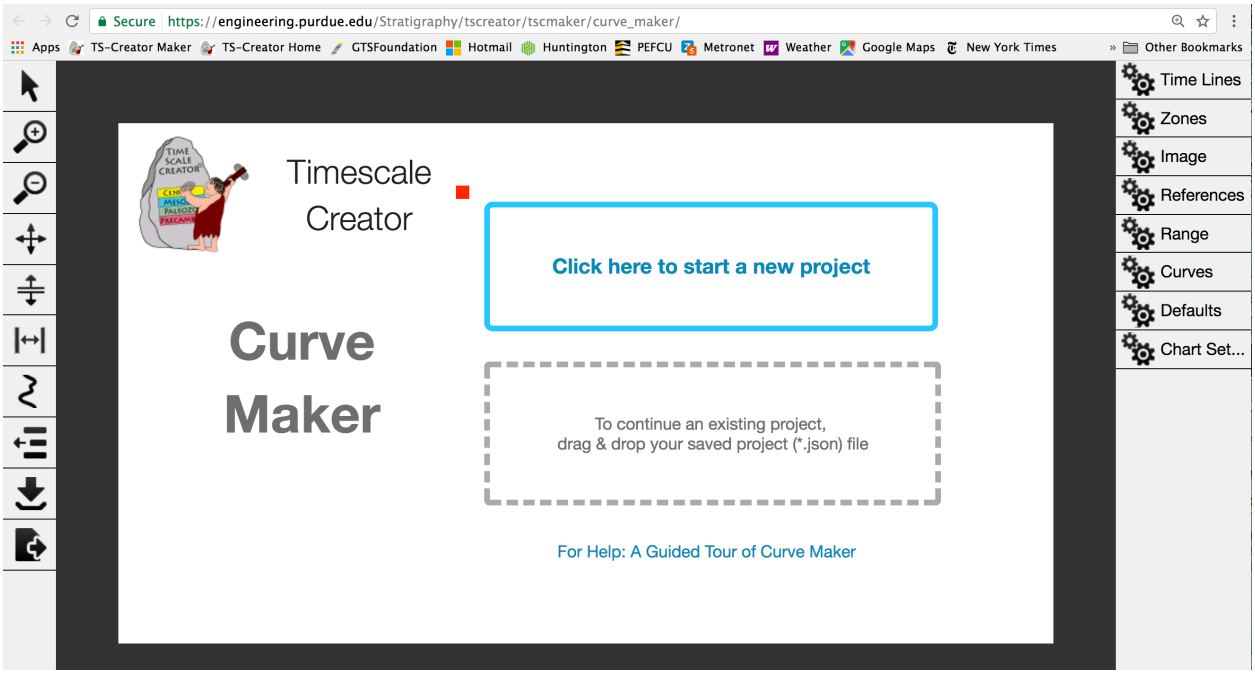
Choose options for curves

This is tab has no function yet.

This is tab has no function yet.

Getting Started… A Step by Step Guide

Browser Requirements : Google Chrome

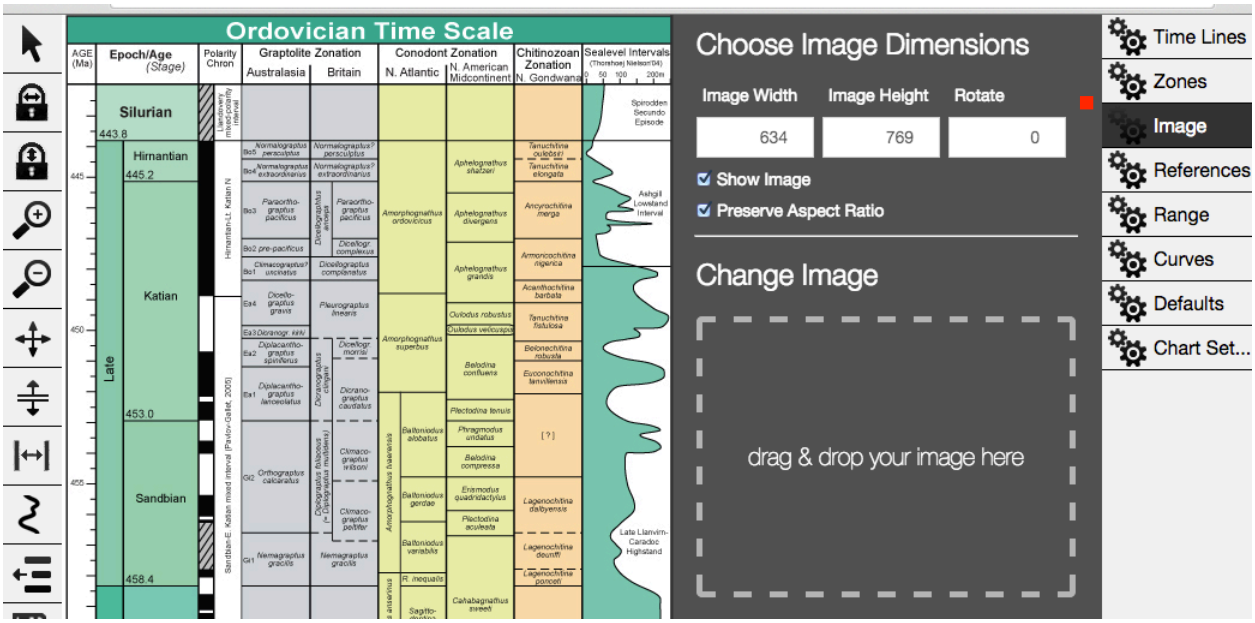


Step 1 - To start a new project just click “start new project” and an empty page will appear.

Hint: If you have already a **json** file from a previous project you can just drag it into the “drag and drop” box. It will automatically load.

Start new project

Click “start new project” on the intro view. This will take you to an empty page.
Add an image by selecting the Image Tab on the right hand setting panel and then drag and drop an image. Image can be of any format (**png/gif/jpeg**) except pdf. You can resize the image or rotate it according to your needs.



Resize your image before you put in timelines and range lines.

Later resizing does not keep the timelines and range lines in the same place.

To move your image use the panning tool . Click on the panning tool, a crosshair appears and you can move your image around.

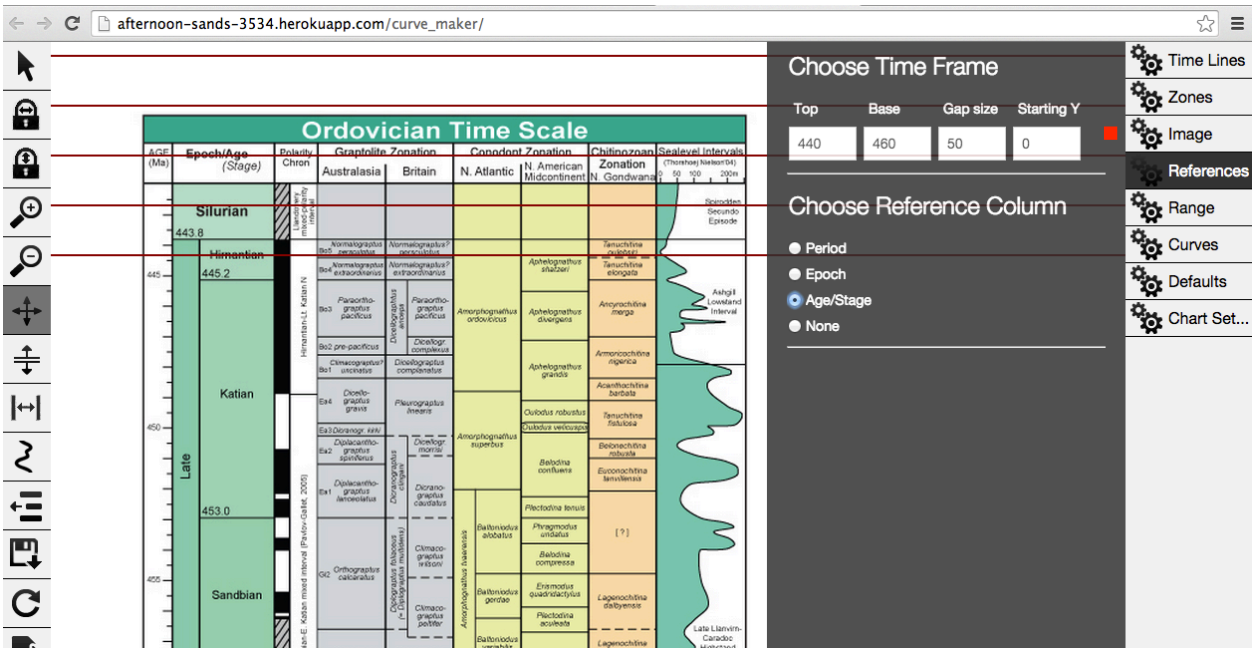
To exit the panning mode click on the panning tool again or the pointer tool .

Adding or Editing information to curve maker elements (Timelines / Zones / Range lines / Curves /)

Before starting to draw a curve you have to create **timelines** and **range lines**. Each of the properties of the curve elements can be edited in the settings list on the right hand side. Start editing the field by clicking on the corresponding name. In order to close the input fields after the information is updated - press enter or esc key. This will update the info to the appropriate element. To close the Tab completely just click it again.

Add Timelines from the reference Time Scale (GTS2012):

Open Reference Tab on right hand side. This gives you a window where you can choose your time frame and what columns to use (periods, epochs, stages).



Choose your top and base age, then choose your reference column and the timelines will appear evenly spaced at the top of the screen.

Select the timeline tool on the left side and drag them to the appropriate location. When you have lots of timelines, they will be off the screen. Use the **panning** tool to move down or up and you will find them.

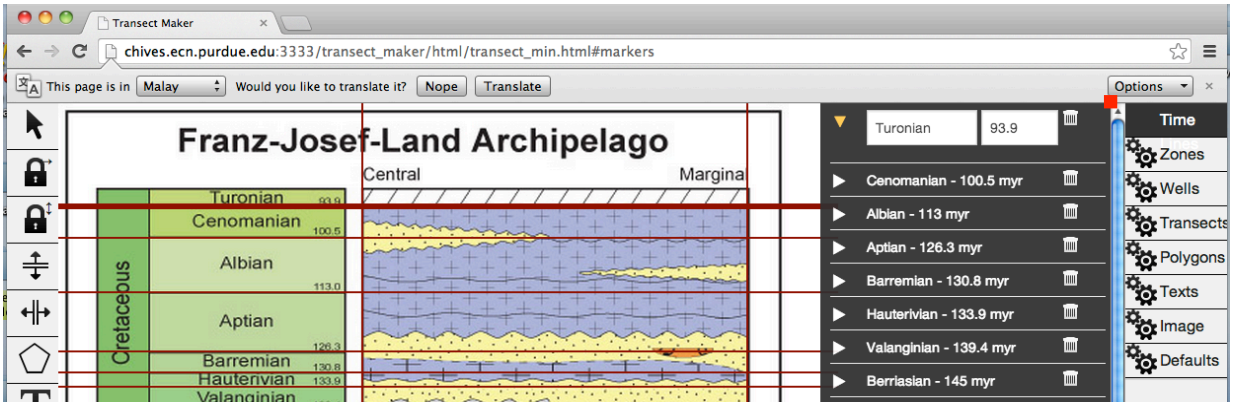
If you want to change your top or base age, you must click none for reference column before clicking the reference column, if you want to generate new timelines. (This will be fixed in the future).

Hint: For large images zoom out to make it easier to position the time lines.

If you select your timelines from the Reference Time Scale, then the Zone descriptions are already filled in. However, you can still edit or delete them under the Zones tab.

Add Timelines:

Open Time Tab on right hand side, here you can add information for your timelines.
If you selected your timelines from the Reference Time Scale, then the appropriate names and ages for your timelines are already displayed. You can now add or delete other timelines or change the ages.



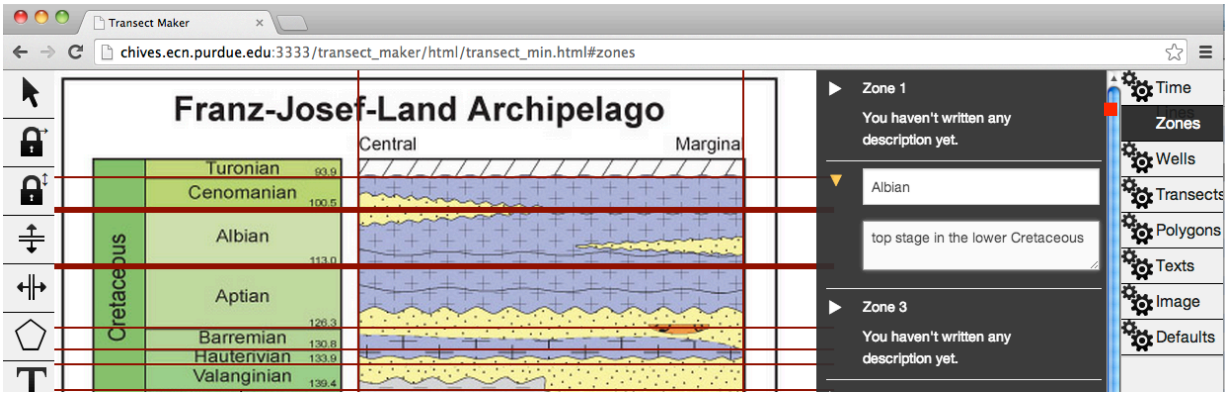
To add new timelines click **timeline** button on left tool bar and double-click the base of a zone or stage on your image, which you want to use as a timeline. On the right side panel a new timeline is added, you can change the name and add the age in Ma. Hit **enter** after each entry. Continue until all your timelines are done.

Add Zones:

Open Zones Tab on right hand side, here you can add information for your zones, which is the interval between two of your timelines. If you hover the cursor over the zone, the corresponding two timelines will appear bold. Type in zone name and description. (this will show up in the pop-ups in the program)

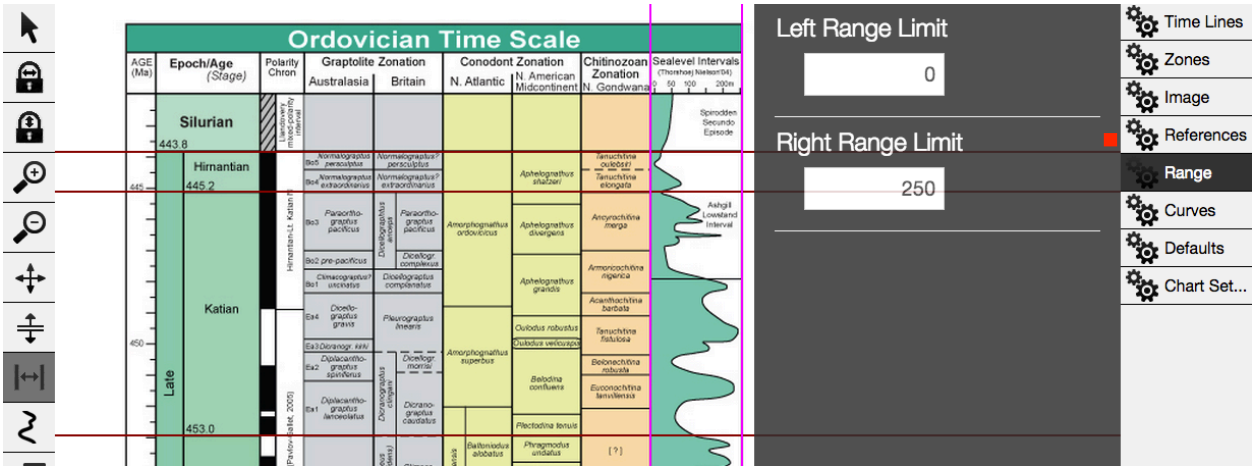
If you selected your timelines from the Reference Time Scale, then the Zone descriptions are already filled in. However, you can still edit or delete them.

To edit existing zone information, just click on the white arrow and it will open the text box.



Add Range Lines:

Open Range Tab on right hand side,. Once you have placed your range lines you can decide on a scale.



Next click **range** button and double-click where you want your right and left borders.

Save a zip file

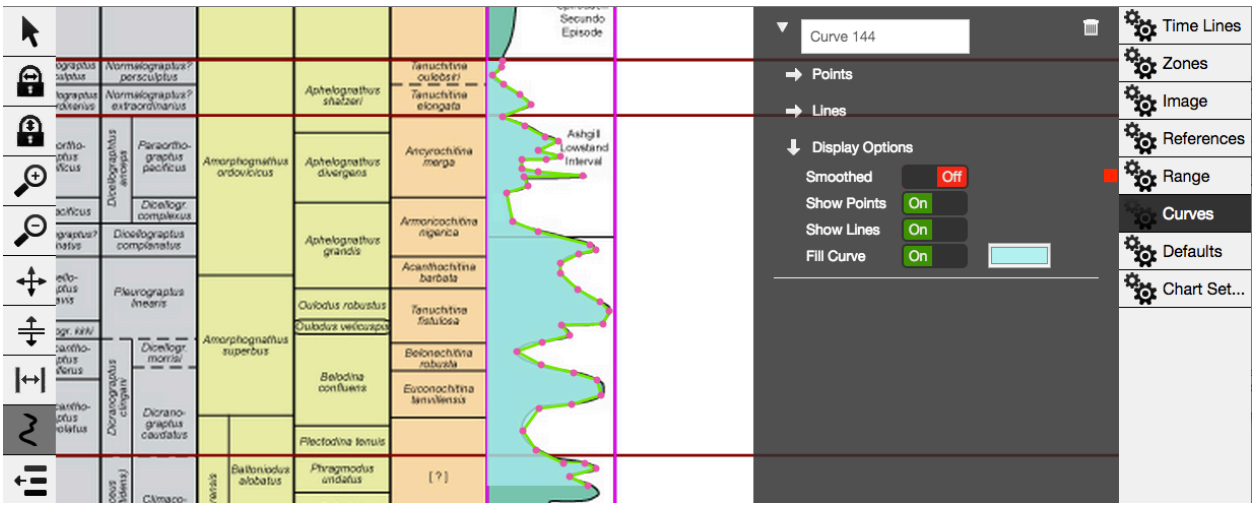
Click **save zip file** and a window will open and asks you for your file name. Save the file to your computer. The zip file contains the json and the txt files. You can load the zip file directly into TS-Creator and it will load correctly.

Depending on your settings in Google Chrome the download will be automatic or you have the possibility to choose a file name.

Reload this json file via the opening screen by dragging it into the drop box.

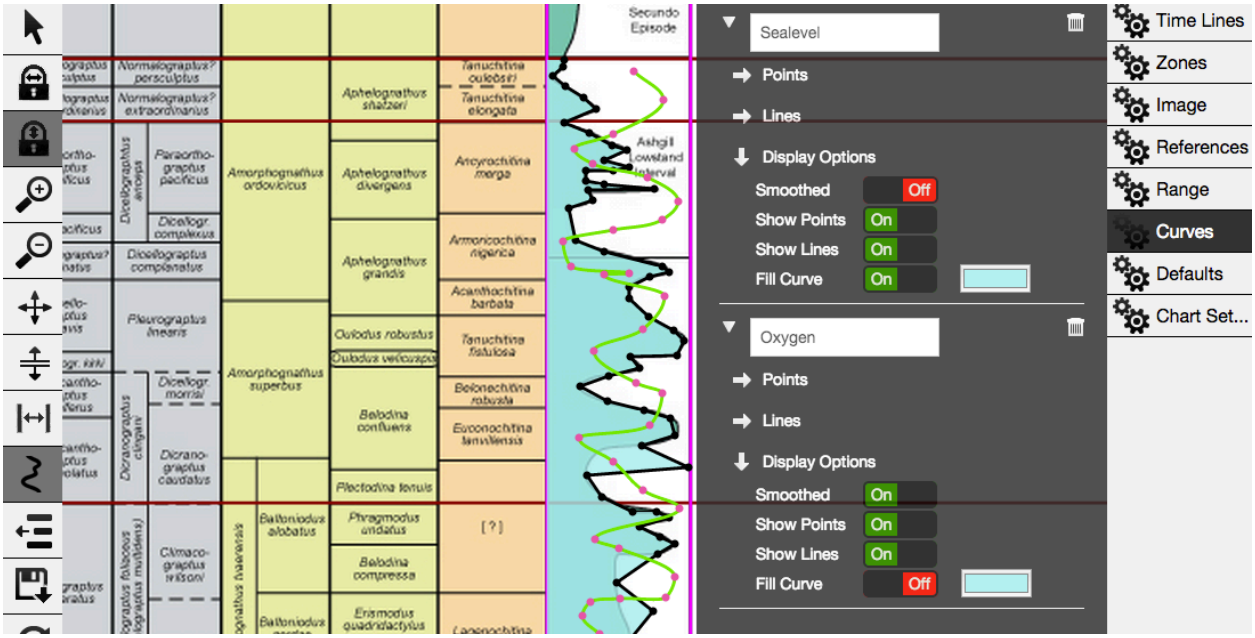
How to draw a Curve:

Open Curve Tab on right hand side and click on curve tool on the left side.
Start your curve by double-clicking points on a curve. Once your curve is done, click on the curve tool again or double-click a second time on your last point. Your points will now appear in black. You can label your curve and choose some options in the curve panel, just click on the “on” and “off” buttons.

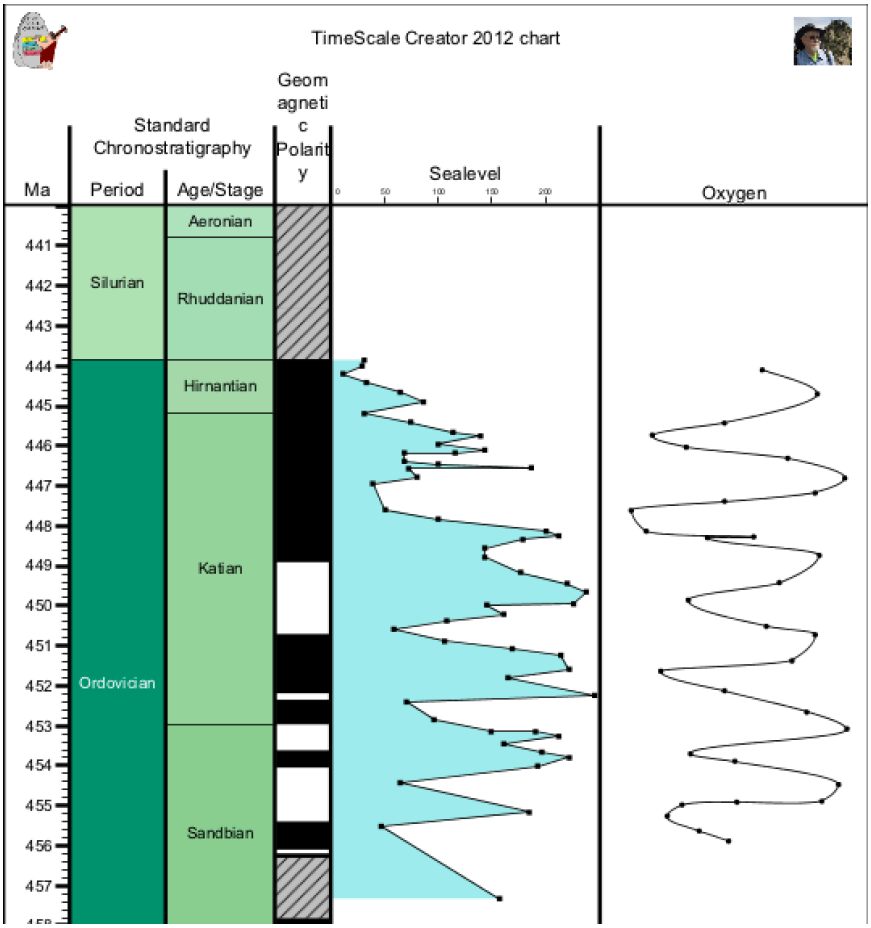


You can re-activate your curve to continue drawing or adjusting points by selecting the curve tool again and double-clicking any of the points.
All points can be adjusted, by selecting and dragging them with your mouse. However, the vertical movement is constraint by the adjacent points.

Adding a second curve:
You can add a second curve by just repeating the same process, however, the first curve needs to have **no fill color** while drawing the second curve. Once you have drawn your second curve you can fill the first curve again.

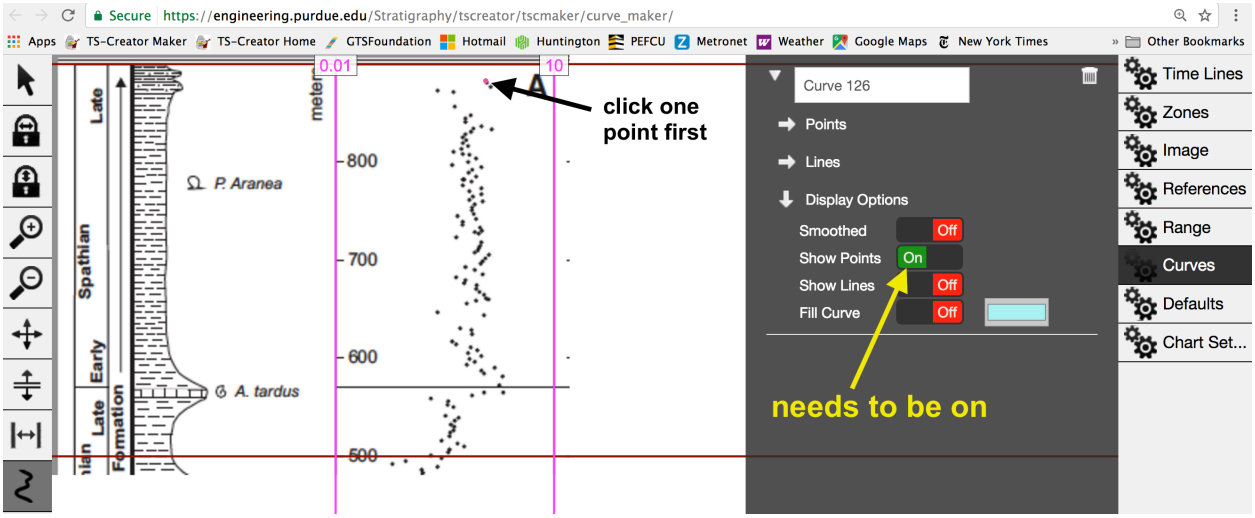


Both curves will be displayed in separate columns once they are loaded into the TSCreator Program.



Digitizing points instead of a curve:

Open Curve Tab on right hand side and click on curve tool on the left side. Double-click the first point. A new Curve will appear in the Curve Window . Open it and then make sure that all the options are turned off except for the “Show Points”.



Continue to double-click all your points until you are finished.

Save your work.

Saving Data

Save a zip file

Click **save zip file** and a window will open and asks you for your file name. Save the file to your computer. The zip file contains the json and the txt files. You can load the zip file directly into TS-Creator and it will load correctly.

Depending on your settings in Google Chrome the download will be automatic or you have the possibility to choose a file name.

Reload the json file via the opening screen by dragging it into the drop box.

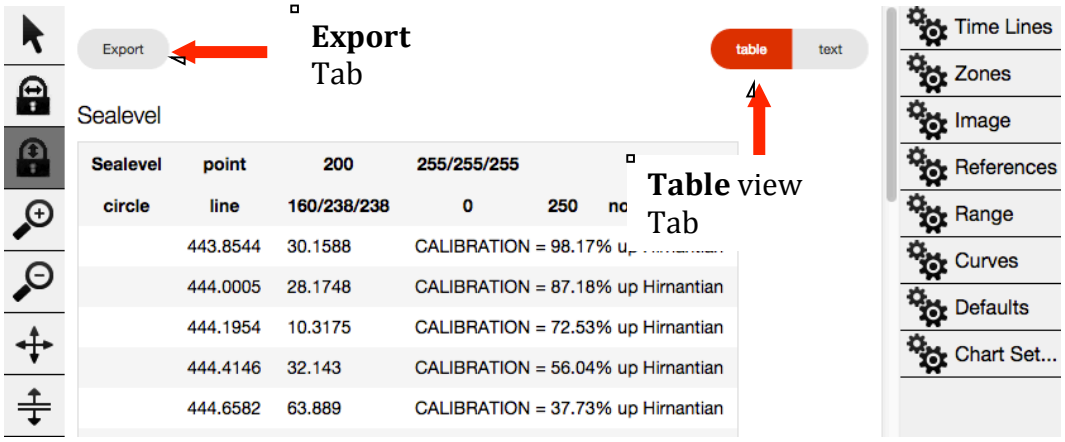
Saving a txt file:

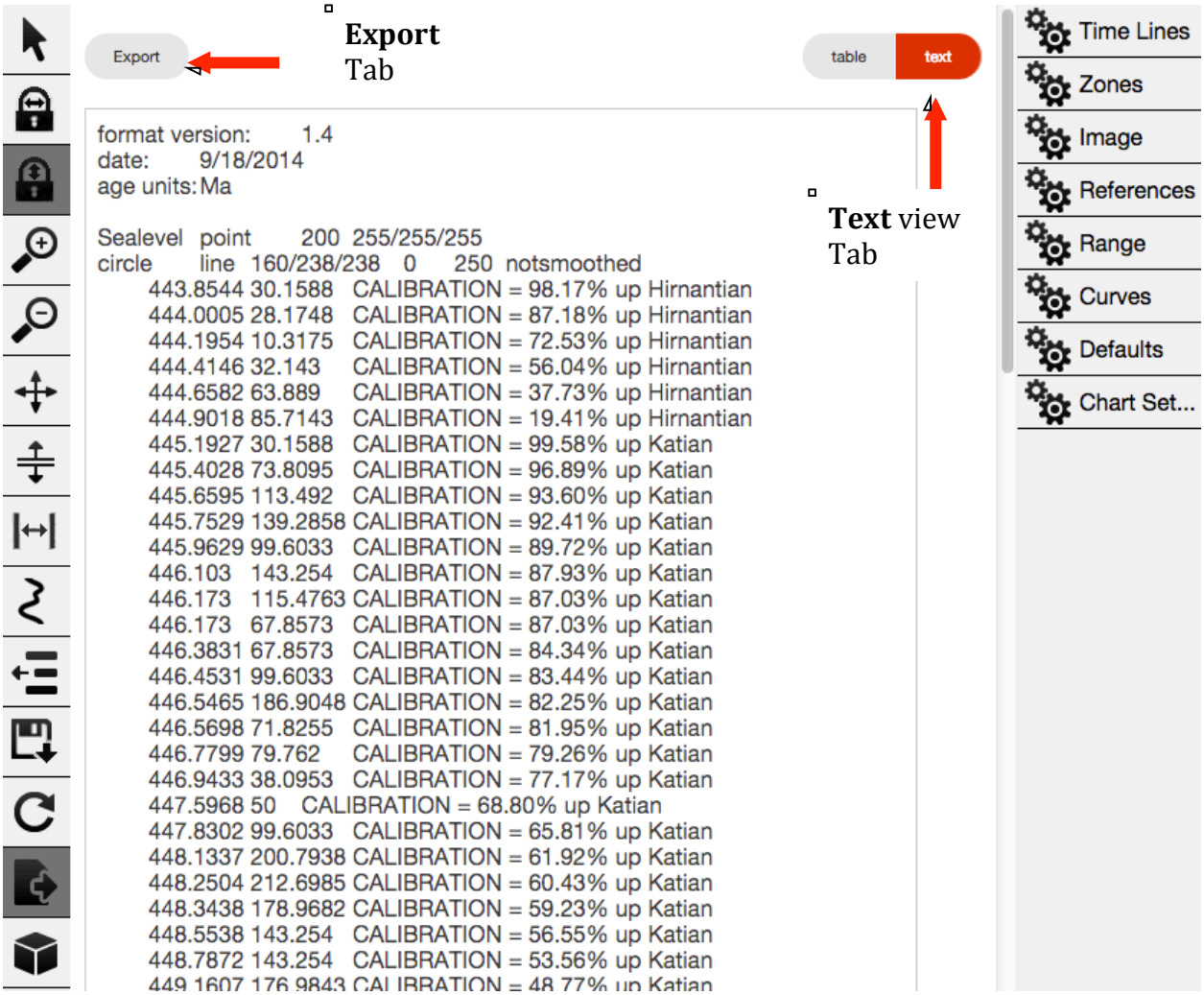
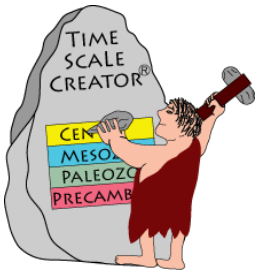
You can download the data in Timescale Creator format with **Export** . The **Export Tool** will open up the view containing the tab-separated Timescale Creator format. You can choose to view the **table** to quickly verify the output or use the **text** view.

The **Export Tab** will download a “txt” file called “test_output.txt” to your computer.

Depending on your settings in Google Chrome the download will be automatic or you have the possibility to choose different file name.

Hint: Make sure you close the right hand side tabs by again clicking on the tab, otherwise you won’t see the full screen and the button to switch from **table** to **text** view.





The finished **txt** file can now be loaded into the TSCreator Pro program.