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Register & Purchase

1. Click on the "**Register**" button at the top right of the screen.
2. Complete the form. We advise including a secondary contact & email address for security and password retrieval purposes.
3. The password must be a minimum of 7 characters long and must contain at least one non-alphanumeric character.
4. Once you have completed the form click on the "**CREATE ACCOUNT**" button.
5. Once you have created the account you will be prompted to purchase a subscription.
6. Subscriptions may be purchased using Visa, MasterCard, Discover or American Express.
7. **Record your Username & Password for future use!**
8. Select your payment method. You may pay either with a PayPal Account OR a Credit Card

The screenshot shows the 'Create a New User Account' page. At the top, there are navigation links: Contact, Pricing, Register, and Log In. The main heading is 'Create a New User Account'. Below this, there is a paragraph explaining the process: 'Create a new user account by completing the form below. Once you have completed the form click on the "CREATE ACCOUNT" button. Inclusion of alternate contact information is encouraged, as this information may also be used in the case of lost password. Once you have created the account you will be prompted to purchase a subscription. Subscriptions may be purchased using Visa, MasterCard, Discover or American Express.'

The form is divided into two sections: 'Primary Contact' and 'Secondary Contact'. The 'Primary Contact' section includes fields for Username (peggiew@), Password (peggie), Confirm Password (peggie), First Name (Elizabeth), Last Name (Peggs), Phone Number (5017689487), Email Address (elizabeth@geosynthetic.net), Business (Minerva - Technology, Resources & Information), Address (5063 FM 2244), City (Austin), State (Texas), and Zip (78733). The 'Secondary Contact' section includes fields for Name (Elizabeth J Peggs), Phone Number (5017689487), and Email Address (elizabeth@geosynthetic.com). At the bottom of the form, there is a 'CREATE ACCOUNT' button. Below the form, there is a note: 'Once you click the "CREATE ACCOUNT" button you will be forwarded to the payment system. You may pay either with a PayPal account OR a credit card.'

The screenshot shows the 'Minerva - Technology Resources & Information' page. On the left, there is a 'Your order summary' table with the following data:

Descriptions	Amount
Initial Subscription	\$2,000.00
Item price: \$2,000.00	
Quantity: 1	
Item total	\$2,000.00
Total	\$2,000.00 USD

On the right, there is a 'Choose a way to pay' section. The first option is 'Pay with my PayPal account', which includes a 'Log in to your account to complete your purchase' link, an email field (elizabeth@geosynthetic.net), a PayPal password field, a checkbox for 'This is a private computer. What's this?', a 'Log In' button, and a 'Forgot email or password?' link. The second option is 'Pay with a debit or credit card, or Bill Me Later', which includes a link to 'Join PayPal for faster future checkout'. A red arrow points from the 'Log In' button in the PayPal section to the 'Pay with a debit or credit card, or Bill Me Later' section.

9. Once you have completed your payment, your account is created! You should be redirected to www.SIMShift.com. If not, you may manually return to the site.

SIMSH/FT Instruction Manual

Log In & Begin Using SIMShift

1. Go to www.SIMShift.com and choose “**Log-In**” from the top right of the page.

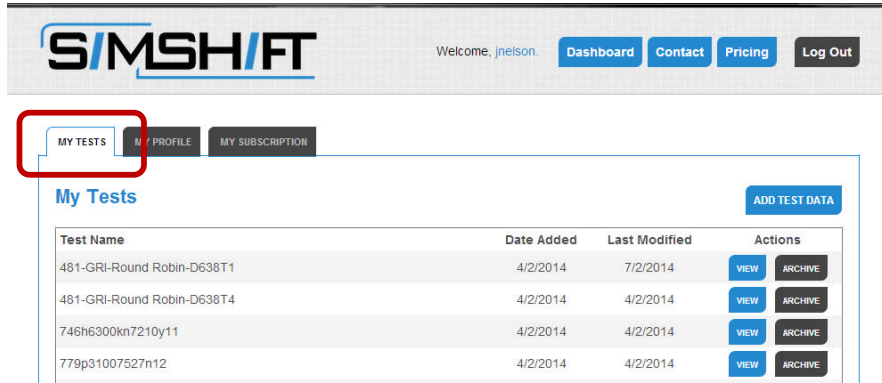


2. Log In using the Username and Password established during the registration process.

A screenshot of the SIMSH/FT Log In page. The header is identical to the homepage, with the SIMSH/FT logo and navigation buttons. The main content area is titled 'Log In' and includes the instruction 'Please enter your username and password.' Below this is a form with two input fields: 'Username' (containing 'jnelson') and 'Password' (containing '*****'). There is a checkbox labeled 'Keep me logged in' and a link for 'Lost Password Retrieval'. A 'LOG IN' button is located at the bottom left of the form.

Create a Test & Add Test Data

- Once you have successfully logged in you will be presented with the dashboard. By default, this should be on the "My Tests" tab. If it is not, navigate to the "My Tests" tab on the left of the screen to create a test and load data.



- Prepare your CSV Data File. In order to add test data to SIMShift you must create a CSV file using excel or similar spreadsheet program.

Add data to the CSV in consecutive columns in EXACTLY this order:

Temperature | Time | Strain | Stress

The resulting CSV spreadsheet should look something like this where, Column A is Temperature, Column B is Time, Column C is Strain and Column D is Stress data for One Step.

	A	B	C	D
1	22.955246	0.26	0	4.6006625
2	22.952242	0.56	0.00048449	4.6006625
3	22.976147	1.06	-0.0022286	4.6006625
4	22.983031	1.56	-0.0003876	4.6006625
5	22.985034	2.06	-0.0002907	4.6006625
6	22.998927	2.56	-0.0001938	4.6006625
7	22.992418	3.06	-0.0027131	4.6006625
8	22.992293	3.56	-0.000969	4.6006625
9	22.988663	4.06	0.00106587	4.6006625
10	22.985409	4.56	0.00174415	4.6006625
11	22.977524	5.06	-9.69E-05	4.6006625
12	22.954244	5.56	0.00125967	4.6006625
13	22.972518	6.08	0.0038759	4.6006625
14	22.972893	6.56	0.00232554	4.6006625

SIMSH/FT Instruction Manual

3. Add data for each step consecutively in the columns to the right of the previous step:

	STEP 1				STEP 2				STEP 3				STEP 4			
1	2001.17	1.085812722	500.092013	50.394866	30001.06	1.47526354	500.092013	55.99534	39991.76	1.908492	500.092013	61.37793	49981.36	2.28103163	500.092013	
2	2004.17	1.10501842	500.092013	45.620883	30031.96	1.49706546	500.092013	52.916399	40021.76	1.84172782	500.092013	59.770623	50011.56	2.32379443	500.092013	
3	2007.17	1.11180134	500.092013	44.556202	30061.96	1.50646451	500.092013	51.741395	40051.76	1.85209584	500.092013	58.720904	50041.55	2.33794145	500.092013	
4	2010.17	1.11858406	500.092013	44.454517	30091.96	1.51373362	500.092013	51.4327	40081.76	1.95975078	500.092013	56.539913	50071.55	2.34511186	500.092013	
5	2013.17	1.12250485	500.092013	44.372036	30121.96	1.51750462	500.092013	51.584894	40111.76	1.97099084	500.092013	56.497784	50101.55	2.35889086	500.092013	
6	2016.17	1.12680354	500.092013	44.444254	30151.96	1.52458433	500.092013	51.426442	40141.76	1.97292879	500.092013	56.561826	50131.55	2.35819302	500.092013	
7	2019.17	1.13063419	500.092013	44.364407	30181.96	1.53079918	500.092013	51.544894	40171.76	1.98077749	500.092013	56.421145	50161.55	2.36126271	500.092013	
8	2022.17	1.13457214	500.092013	44.364626	30211.96	1.53844567	500.092013	51.413297	40201.76	1.98820774	500.092013	56.497618	50191.55	2.37001451	500.092013	
9	2025.17	1.14140185	500.092013	44.450512	30241.96	1.54144449	500.092013	51.578261	40231.76	1.99211489	500.092013	56.513492	50221.55	2.37020383	500.092013	
10	2028.17	1.14300221	500.092013	44.437495	30271.96	1.54867495	500.092013	51.822442	40261.76	1.99628106	500.092013	56.586232	50251.55	2.37650663	500.092013	
11	2031.17	1.14920365	500.092013	44.379671	30301.96	1.54813041	500.092013	51.556731	40291.76	1.99880041	500.092013	56.447304	50281.55	2.37941356	500.092013	
12	2034.17	1.15230437	500.092013	44.411086	30331.96	1.55505013	500.092013	51.837586	40321.76	2.00599803	500.092013	56.544178	50311.55	2.38280897	500.092013	
13	2037.17	1.15585471	500.092013	44.402828	30361.96	1.55537031	500.092013	51.862744	40351.76	2.00723049	500.092013	56.70188	50341.55	2.38978158	500.092013	
14	2040.17	1.15588957	500.092013	44.306703	30391.96	1.56411849	500.092013	51.832956	40381.76	2.01362572	500.092013	56.570336	50371.55	2.39297362	500.092013	
15	2043.17	1.15995926	500.092013	44.342739	30421.96	1.56440918	500.092013	51.524567	40411.76	2.01478889	500.092013	56.800851	50401.55	2.39482025	500.092013	
16	2046.17	1.16325378	500.092013	44.476541	30451.96	1.56878957	500.092013	51.57751	40441.76	2.01843957	500.092013	56.500008	50431.55	2.40237825	500.092013	
17	2049.17	1.16609481	500.092013	44.548387	30481.96	1.57176749	500.092013	51.61241	40471.76	2.02302477	500.092013	56.541424	50461.55	2.40237825	500.092013	
18	2052.17	1.1660638	500.092013	44.430987	30511.96	1.57589198	500.092013	51.65148	40501.76	2.02525341	500.092013	56.585731	50491.55	2.40547997	500.092013	
19	2055.17	1.17139316	500.092013	44.55664	30541.96	1.57818862	500.092013	51.64372	40531.76	2.02806344	500.092013	56.649918	50521.55	2.41148661	500.092013	
20	2058.17	1.17262214	500.092013	44.516471	30571.96	1.58030657	500.092013	51.580138	40561.76	2.03281141	500.092013	56.499621	50551.55	2.41536251	500.092013	
21	2061.17	1.17623801	500.092013	44.495306	30601.96	1.58524213	500.092013	51.663495	40591.76	2.03736559	500.092013	56.564454	50581.55	2.41458733	500.092013	
22	2064.17	1.17711011	500.092013	44.454341	30631.96	1.58544524	500.092013	51.596429	40621.76	2.03765628	500.092013	56.598122	50611.55	2.41875192	500.092013	
23	2067.17	1.18799883	500.092013	44.517271	30661.96	1.58824595	500.092013	51.730555	40651.76	2.04418841	500.092013	56.487236	50641.55	2.42078877	500.092013	
24	2070.17	1.18137964	500.092013	44.485951	30691.96	1.59144357	500.092013	51.705799	40681.76	2.04424531	500.092013	56.834043	50671.55	2.42359879	500.092013	
25	2073.17	1.18457121	500.092013	44.476937	30721.96	1.59454429	500.092013	51.813955	40711.76	2.04847199	500.092013	56.895632	50701.55	2.42059497	500.092013	
26	2076.17	1.18902385	500.092013	44.511735	30751.96	1.60006344	500.092013	51.832105	40741.76	2.04994236	500.092013	56.745936	50731.55	2.42495536	500.092013	
27	2079.17	1.19049768	500.092013	44.530338	30781.96	1.60184334	500.092013	51.830738	40771.76	2.05138438	500.092013	56.733895	50761.55	2.43036121	500.092013	

Once this data is formatted, you are ready to create the test.

4. Click on the **"Add Test Data"** button on the right side of your screen
5. Type the name of this test into the **"Test Name Field"** this is how you will see the test listed in your dashboard, it's a good idea to establish a naming convention which will help you identify the test later.
6. Select the CSV file from your computer by clicking on the **"Choose File"** button. Once you see the file name to the right of the **"Choose File"** button, click on **"Create Test"**. If you have chosen the wrong file you can click on "Cancel" to restart the process.

My Tests

Test Name	Date Added	Last Modified	Actions
481-GRI-Round Robin-D638T1	4/2/2014	7/2/2014	VIEW ARCHIVE
481-GRI-Round Robin-D638T4	4/2/2014	4/2/2014	VIEW ARCHIVE

Add New Data Test Set

Save your data in CSV format from Excel. Please use the provided [SimShift Template](#) to configure data. Choose file for upload using the field below.

Test Name:

CSV Data: No file chosen

Directions

In order to add test data to SIMShift you must create a CSV file using excel or similar spreadsheet program.

Add data in consecutive columns in EXACTLY this order:
Temperature | Time | Strain | Stress

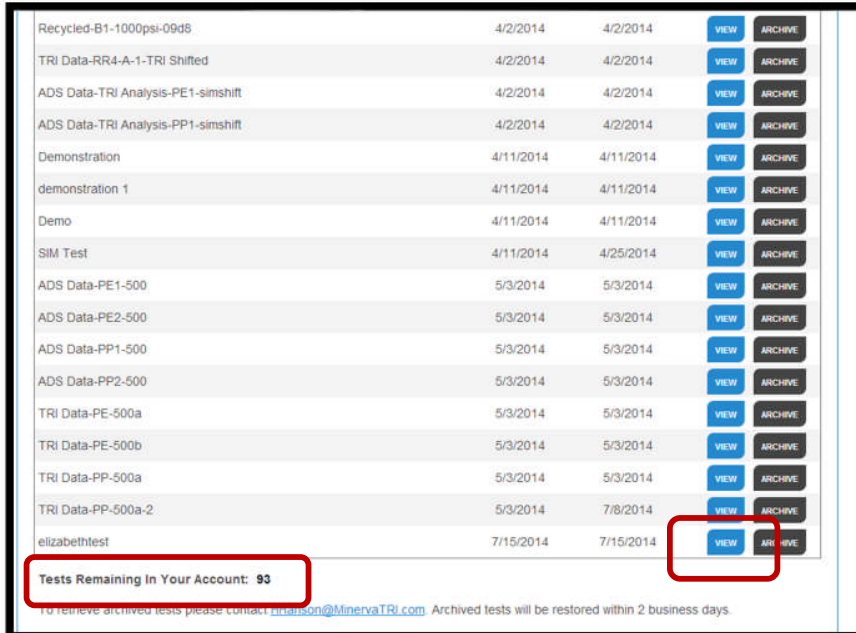
The resulting CSV spreadsheet should look something like this:

	A	B	C	D
1	22.955246	0.28	0	4.800625
2	22.952242	0.56	0.0004849	4.800625
3	22.974147	1.56	0.002286	4.800625
4	22.983031	1.56	-0.0003876	4.800625
5	22.985034	2.06	-0.0002907	4.800625
6	22.988017	2.56	0.0001938	4.800625
7	22.992418	3.06	-0.0027131	4.800625
8	22.992293	3.56	-0.000969	4.800625
9	22.988643	4.06	0.00010567	4.800625
10	22.985409	4.56	0.00174415	4.800625
11	22.977524	5.06	-5.69E-05	4.800625
12	22.954244	5.56	0.0012967	4.800625
13	22.972518	6.06	0.0039759	4.800625
14	22.972893	6.56	0.00232554	4.800625

Add data for each step consecutively in the columns to the right of the previous step.

	STEP 1	STEP 2	STEP 3	STEP 4
1	2001.17	1.085812722	500.092013	50.394866
2	2004.17	1.10501842	500.092013	45.620883
3	2007.17	1.11180134	500.092013	44.556202
4	2010.17	1.11858406	500.092013	44.454517
5	2013.17	1.12250485	500.092013	44.372036
6	2016.17	1.12680354	500.092013	44.444254
7	2019.17	1.13063419	500.092013	44.364407
8	2022.17	1.13457214	500.092013	44.364626
9	2025.17	1.14140185	500.092013	44.450512
10	2028.17	1.14300221	500.092013	44.437495
11	2031.17	1.14920365	500.092013	44.379671
12	2034.17	1.15230437	500.092013	44.411086
13	2037.17	1.15585471	500.092013	44.402828
14	2040.17	1.15588957	500.092013	44.306703
15	2043.17	1.15995926	500.092013	44.342739
16	2046.17	1.16325378	500.092013	44.476541
17	2049.17	1.16609481	500.092013	44.548387
18	2052.17	1.1660638	500.092013	44.430987
19	2055.17	1.17139316	500.092013	44.55664
20	2058.17	1.17136214	500.092013	44.516471
21	2061.17	1.17623801	500.092013	44.495306
22	2064.17	1.17711011	500.092013	44.454341
23	2067.17	1.18799883	500.092013	44.517271
24	2070.17	1.18137964	500.092013	44.485951
25	2073.17	1.18457121	500.092013	44.476937
26	2076.17	1.18902385	500.092013	44.511735
27	2079.17	1.19049768	500.092013	44.530338

7. Once the data has loaded you will be delivered to your account dashboard. The new test will load at the bottom of the page. *NOTE: you can also see the number of tests remaining in your subscription at the bottom of the page.*



Recycled-B1-1000psi-09d8	4/2/2014	4/2/2014	VIEW	ARCHIVE
TRI Data-RR4-A-1-TRI Shifted	4/2/2014	4/2/2014	VIEW	ARCHIVE
ADS Data-TRI Analysis-PE1-simshift	4/2/2014	4/2/2014	VIEW	ARCHIVE
ADS Data-TRI Analysis-PP1-simshift	4/2/2014	4/2/2014	VIEW	ARCHIVE
Demonstration	4/11/2014	4/11/2014	VIEW	ARCHIVE
demonstration 1	4/11/2014	4/11/2014	VIEW	ARCHIVE
Demo	4/11/2014	4/11/2014	VIEW	ARCHIVE
SIM Test	4/11/2014	4/25/2014	VIEW	ARCHIVE
ADS Data-PE1-500	5/3/2014	5/3/2014	VIEW	ARCHIVE
ADS Data-PE2-500	5/3/2014	5/3/2014	VIEW	ARCHIVE
ADS Data-PP1-500	5/3/2014	5/3/2014	VIEW	ARCHIVE
ADS Data-PP2-500	5/3/2014	5/3/2014	VIEW	ARCHIVE
TRI Data-PE-500a	5/3/2014	5/3/2014	VIEW	ARCHIVE
TRI Data-PE-500b	5/3/2014	5/3/2014	VIEW	ARCHIVE
TRI Data-PP-500a	5/3/2014	5/3/2014	VIEW	ARCHIVE
TRI Data-PP-500a-2	5/3/2014	7/8/2014	VIEW	ARCHIVE
elizabethtest	7/15/2014	7/15/2014	VIEW	ARCHIVE

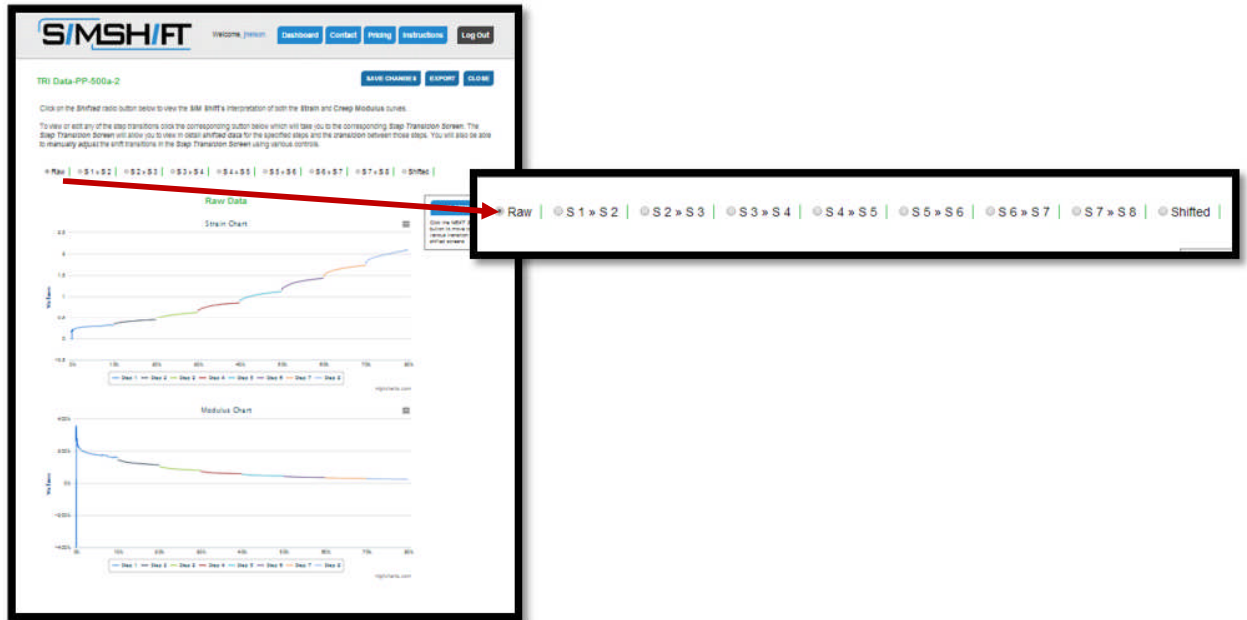
Tests Remaining In Your Account: 93

To retrieve archived tests please contact chanson@MinervaTRI.com. Archived tests will be restored within 2 business days.

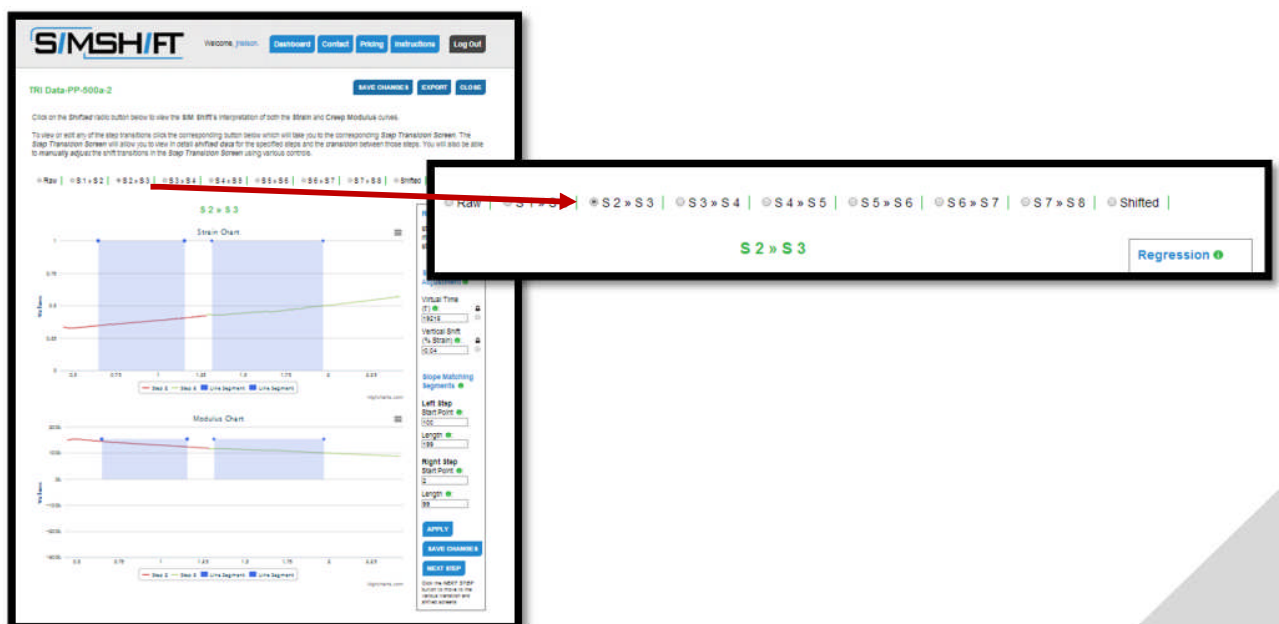
8. To view the data, click on the "**View**" button to the right of the appropriate test name.

View & Edit Step Transitions

1. The initial screen will show RAW data as imported into the test. You may go directly to the shifted data by clicking on the "Shifted" button or you may inspect each of the steps and the corresponding transitions by using the buttons above the graphs.



Select any button to the left of a step combination to view and edit the two specified steps and the corresponding transition.



SIMSHIFT Instruction Manual

Step Transition Screen Attributes

Master Test Controls allow users to save changes, export data and close the test from any Step Transition Screen.

"Test Name"
Display

Easily navigate: raw data,
all steps and fully shifted
data

"Transition Name"
Display

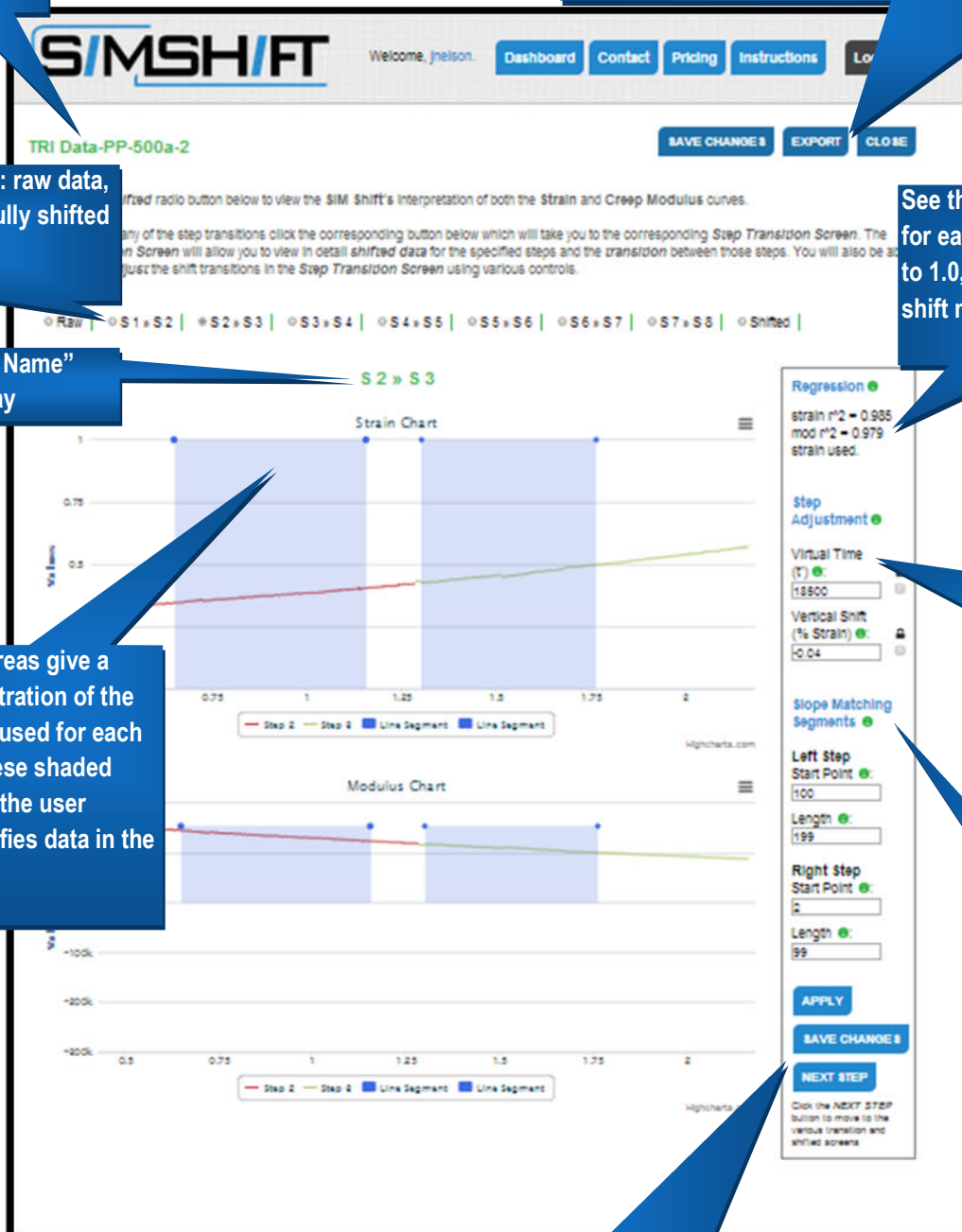
Blue shaded areas give a
visual demonstration of the
line segments used for each
transition. These shaded
areas adjust if the user
manually modifies data in the
control panel.

See the regression accuracy
for each graph. The closer
to 1.0, the more accurate the
shift method.

Manually adjust
both Virtual Time
and Vertical Shift
to fine tune step
transitions

Manually fine-tune
which segments of
each step are used
to create the slope

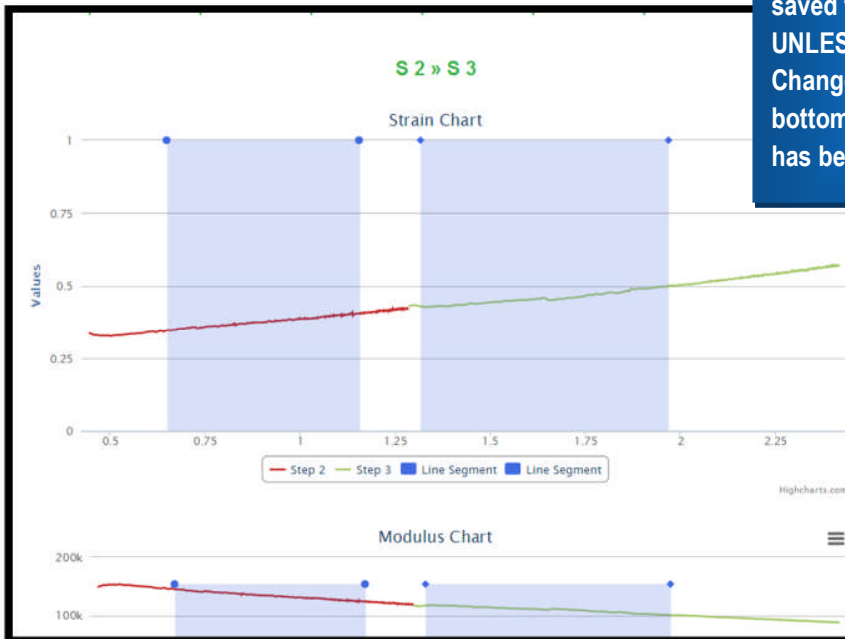
Additional Test Controls allow users to
apply and view changes with or without
saving changes and move to the next step
transition.



Transition & Step Adjustments

Virtual Time Adjustment

The Lock Button allows you to adjust the Virtual Time and retain that change while adjusting other settings. Those changes are not saved to the database **UNLESS** the “Save Changes” button at the bottom of the control panel has been clicked.



Virtual Time is the time at which an isothermal test, preformed at this step's temperature, began. Increasing Virtual Time increases horizontal shift. Decreasing Virtual Time decreases the horizontal shift.



1. Adjust the Virtual Time of the right step by modifying the number in the “**Virtual Time.**”
2. There is no need to click on “Apply.” This change will happen automatically. Occasionally (particularly in Chrome), this may be slow; to speed the process, you may click your cursor into a different field.
3. If you would like to keep the value while making other adjustments to the step, check the “**Lock**” field to the right of the “**Virtual Time**” field.
4. If you would like to permanently modify the record, you must click on the “**Save Changes**” button before exiting the step.

Vertical Shift Adjustment



The Vertical Shift adjustment allows the user to adjust the vertical alignment of the step so that it is higher or lower on the Y axis. Increase the number to increase the vertical positioning, decrease the number to decrease the position. Note that the % Strain is often expressed as a negative number.

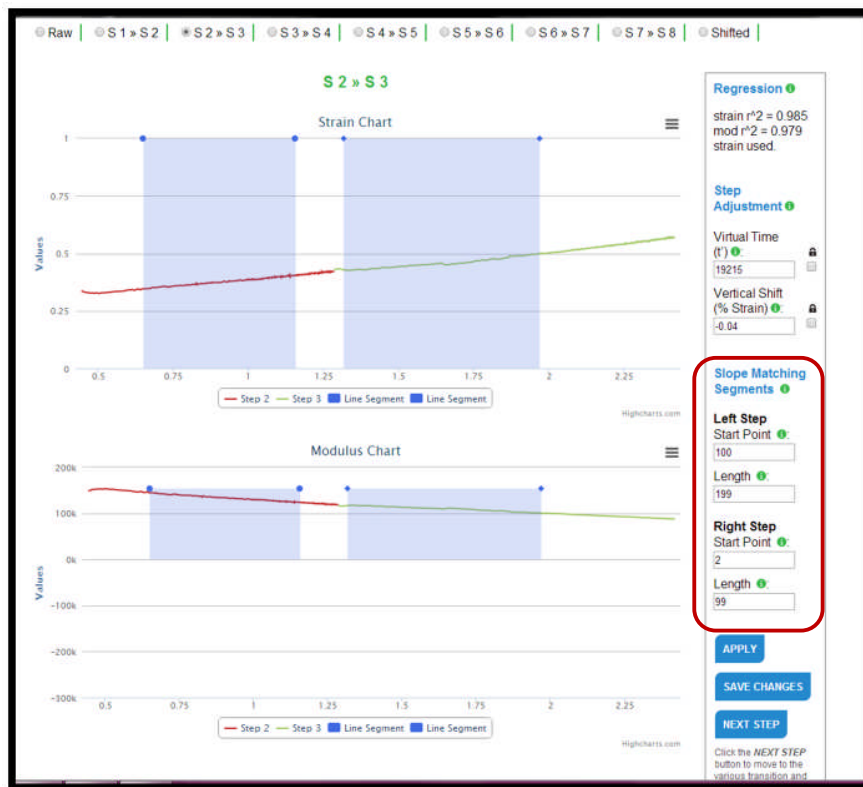
The Lock Button allows you to adjust the Virtual Time and retain that change while adjusting other settings. Those changes are not saved to the database UNLESS the "Save Changes" button at the bottom of the control panel has been clicked.



- Adjust the vertical positioning of the right step by modifying the number in the "**Vertical Shift**" field.
- There is no need to apply this change; it will happen automatically. Occasionally (particularly in Chrome), this may be slow. To speed the process, you may click your cursor into a different field
- If you would like to keep the value while making other adjustments to the step check the **Lock** field to the right of the "**Vertical Shift**" field.
- If you would like to permanently modify the record, you must click on the "**Save Changes**" button before exiting the step.
- To revert to the original values at any point, *before* clicking "**Save Changes**" you may re-click the relevant **Step Transition Button** at the top of the chart.



Slope Matching Segment - Adjustments



Slope Matching Segments are the blue shaded areas on each of the steps. These are the areas which are used to match the two steps, trimming the middle un-shaded areas from each step to account for the transition in temperature and strain.

You may adjust the segments used by modifying the values in the "Slope Matching Segments" portion of the tool bar. The first "Left Step" field pertains to the left-most step in the chart. In this case, Step 2. The "Right Step" field pertains to the right-most step in the chart, in this case, Step 3. Modification of these values will result in adjustments to both the Strain and Modulus Charts.

Left Step

- ❖ The Start Point value refers to the number of data points to the left of the end of that step at which the segment begins.
- ❖ Length is the number of data points, counting left from the Start Point contained in the segment.

Right Step

- ❖ The Start Point value refers to the number of data points to the right of the beginning of that step at which the segment begins.

- ❖ Length is the number of data points, counting right from the Start Point contained in the segment.

Modify the values in these fields and click **Apply Changes** to see the result. Changes will not be permanently saved to the record unless the **Save Changes** button has been clicked. To revert to the original values at any point, *before* clicking **Save Changes** you may re-click the relevant **Step Transition Button** at the top of the chart.



View and Print Shifted Data



downloaded in a variety of file formats including PNG, JPG, PDF or SVG.


View Shifted Data

Click on the **"Shifted"** button on the right end of the transition bar to view all of the steps shifted into both the Strain and the Modulus. This may be done at the beginning of the session to view the SIMShift interpretation of the data or at any time while you are adjusting the data.

Download Data

To download the data in spreadsheet format, click on the **"Export"** button near the top right of the page. Save the file to your computer.

Download Shifted Charts

To download either chart select the  icon on the top right of the relevant chart to view the download options. Charts may be