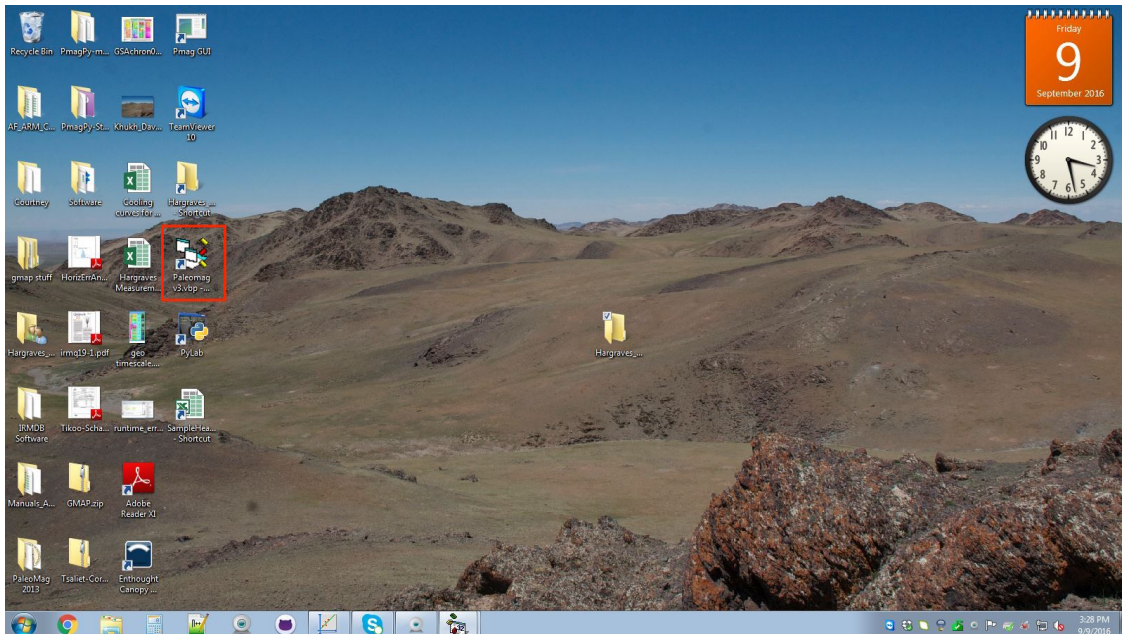
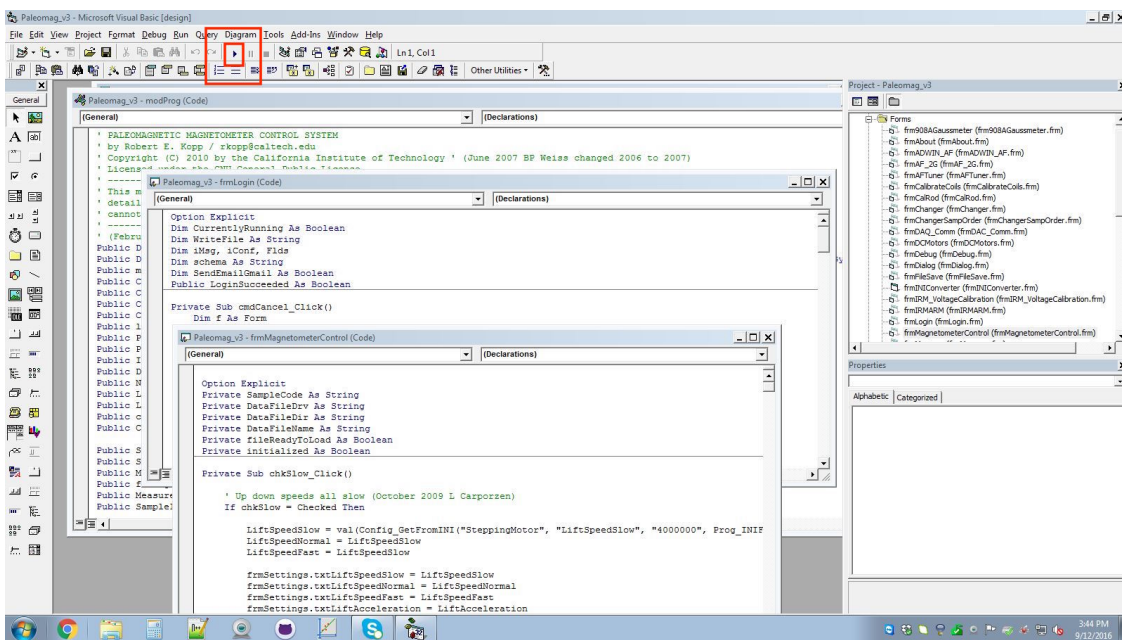


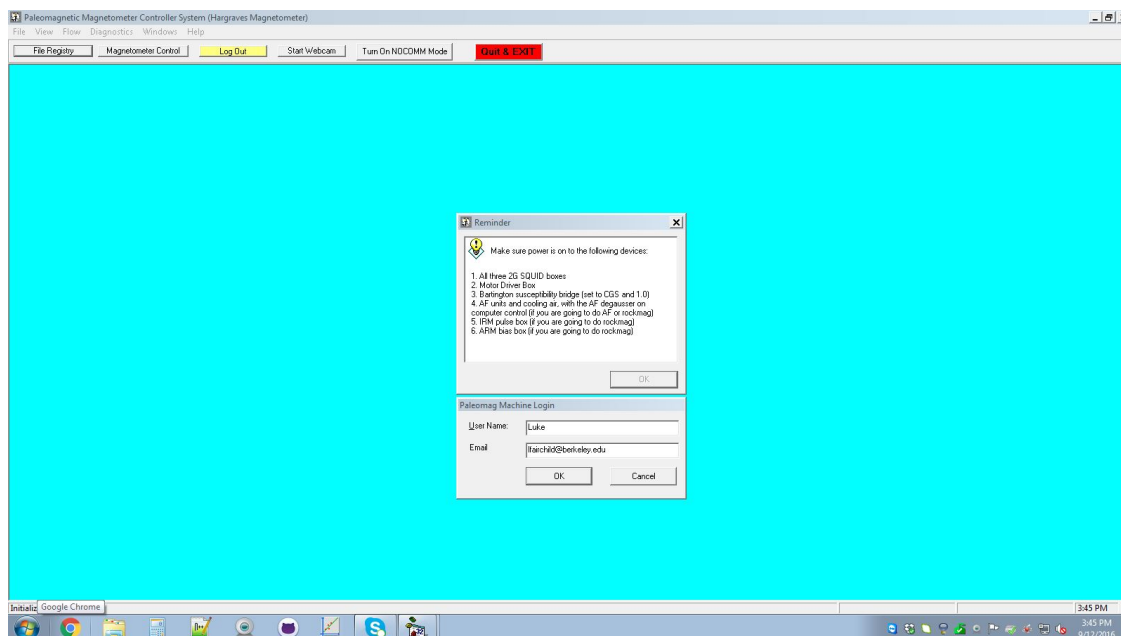
Step 1. Open the Visual Basic program (double click the circled icon on the desktop).



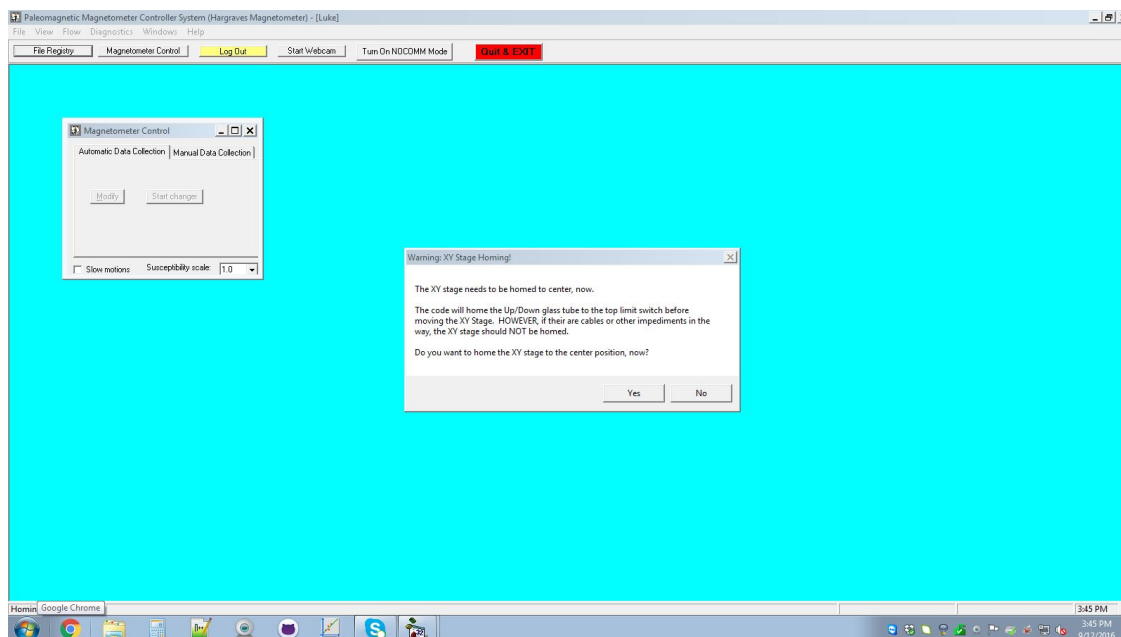
Step 2. Press the play icon to open the program interface.



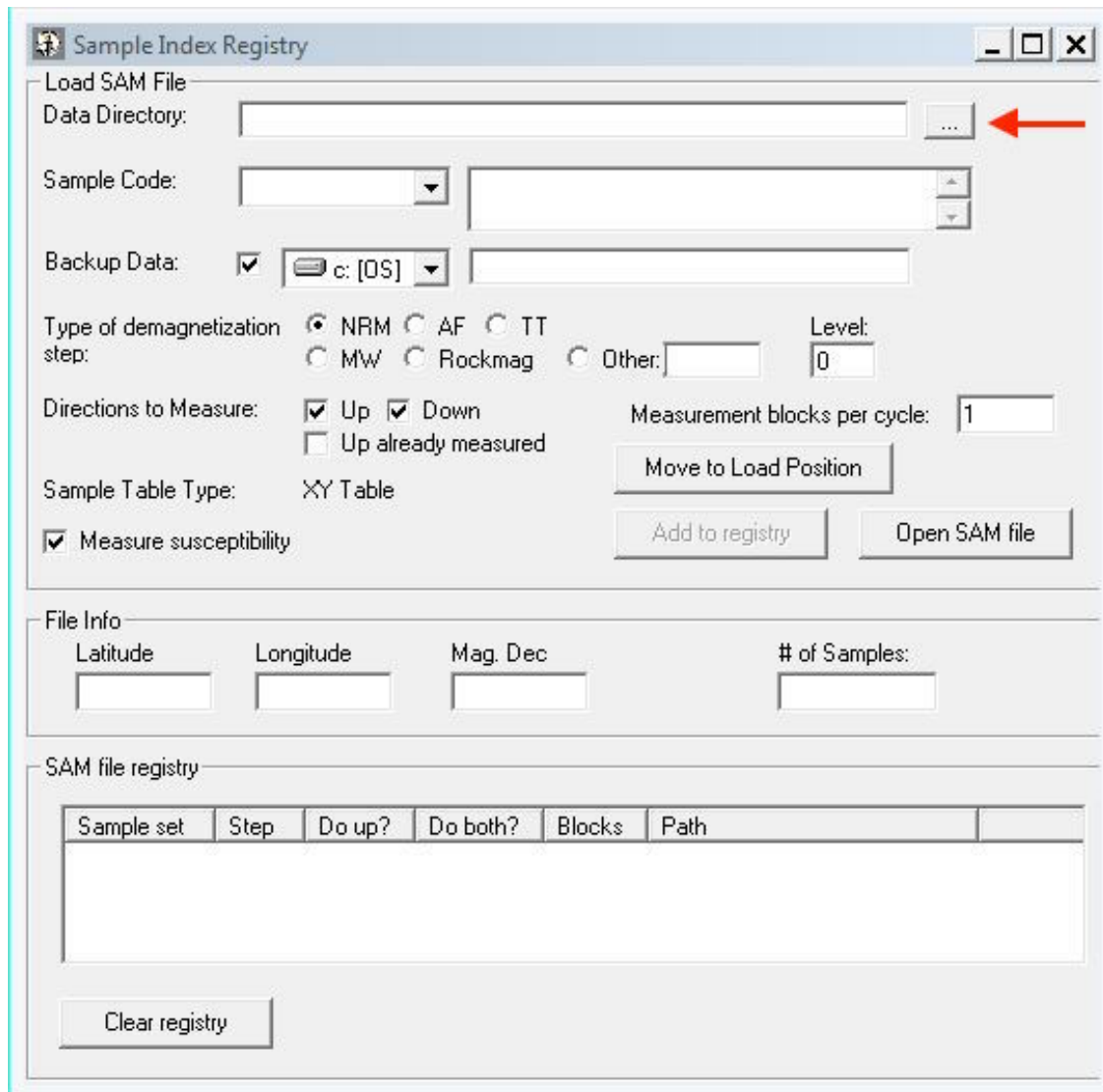
Step 3. Sign in with your name and email.



Step 4. The program will ask to home the XY stage to center—you can either choose to do this now (if your samples are already loaded on the tray) or click “No” to do it later.



Step 5. The Sample Index Registry window (see below) should open automatically. Click the button marked by the arrow to begin loading your data files into the registry.



The screenshot shows the 'Sample Index Registry' window. The 'Load SAM File' section contains the following fields and controls:

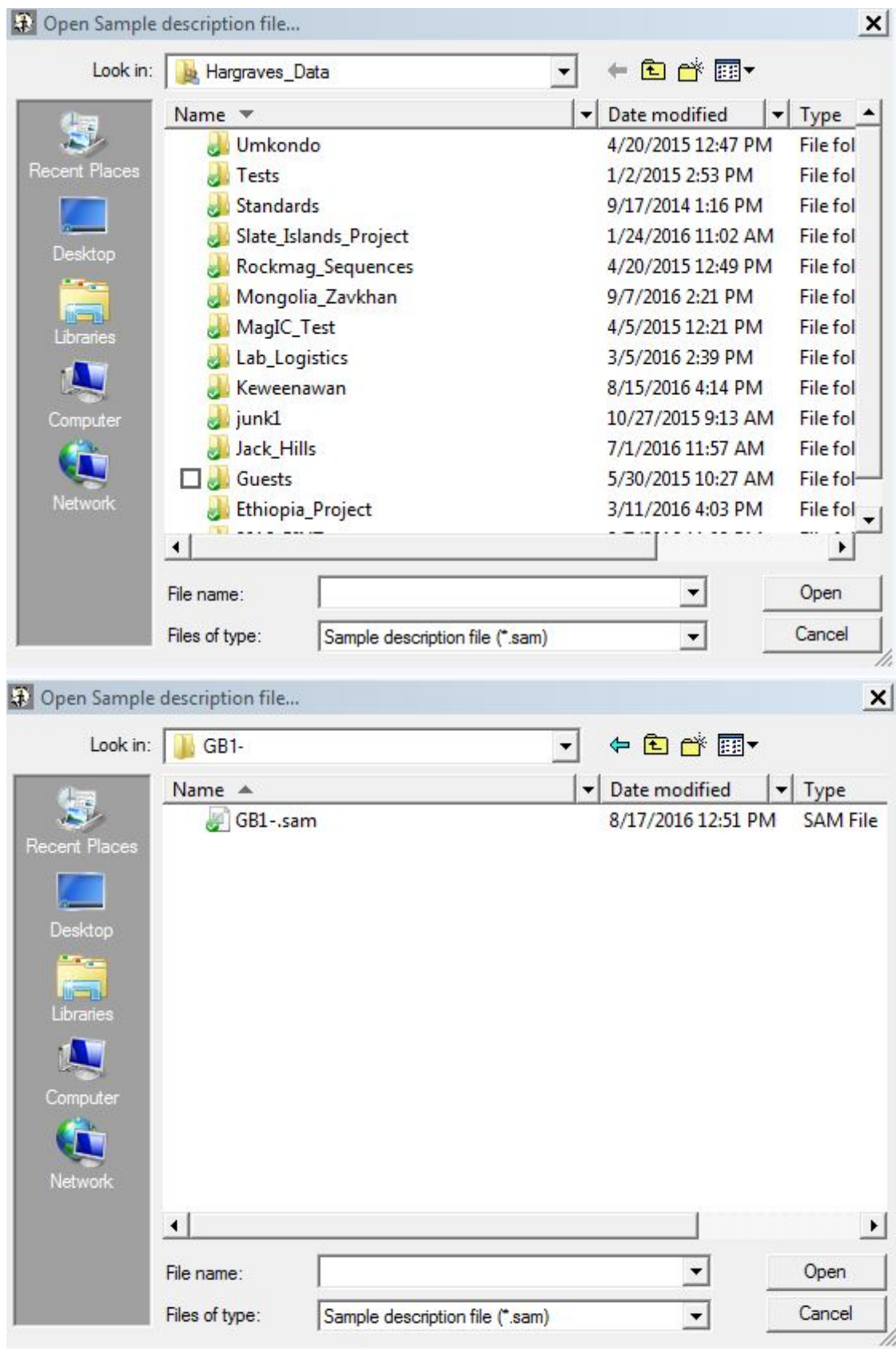
- Data Directory:** A text field with a browse button ('...') indicated by a red arrow.
- Sample Code:** A dropdown menu and a text field.
- Backup Data:** A checked checkbox, a drive dropdown (showing 'c: [OS]'), and a text field.
- Type of demagnetization step:** Radio buttons for NRM (selected), AF, TT, MW, Rockmag, and Other. A 'Level:' field with the value '0'.
- Directions to Measure:** Checkboxes for Up (checked), Down (checked), and Up already measured (unchecked).
- Measurement blocks per cycle:** A text field with the value '1'.
- Sample Table Type:** A dropdown menu showing 'XY Table'.
- Measure susceptibility:** A checked checkbox.
- Buttons:** 'Move to Load Position', 'Add to registry', and 'Open SAM file'.

The 'File Info' section contains four text fields: Latitude, Longitude, Mag. Dec, and # of Samples.

The 'SAM file registry' section contains a table with the following columns: Sample set, Step, Do up?, Do both?, Blocks, Path, and an empty column.

A 'Clear registry' button is located at the bottom left of the window.

Step 6. In the Hargraves_Data Dropbox folder, find the SAM file of the first site you want to load.



Step 7.

1. Uncheck “Backup Data”.
2. Specify the treatment step of the samples you are measuring. In the example below, samples have been thermally demagnetized (“TT”) to 200 °C.
3. Specify the orientations of samples you wish to measure. Both “Up” and “Down” should be measured when possible. If “Up” directions were measured previously and you are only measuring “Down”, uncheck “Up” and check “Up already measured”.
4. Specify whether you want to measure susceptibility.
5. Add the site to the registry.

The screenshot shows the 'Sample Index Registry' dialog box. Red numbers 1 through 5 are placed next to specific controls: 1. Next to the 'Backup Data' checkbox (which is unchecked). 2. Next to the 'Type of demagnetization step' radio buttons, where 'TT' is selected. 3. Next to the 'Directions to Measure' checkboxes, where both 'Up' and 'Down' are checked. 4. Next to the 'Measure susceptibility' checkbox (which is checked). 5. Next to the 'Add to registry' button.

Sample Index Registry

Load SAM File
Data Directory: C:\Dropbox\Hargraves_Data\Keweenawan\Gooseberry\

Sample Code: GB1- GB1-

Backup Data: ☐ c: [OS] c:\Dropbox\Hargraves_Data\Keweenawan\

Type of demagnetization step: ☐ NRM ☐ AF ☒ TT ☐ MW ☐ Rockmag ☐ Other: Level: 200

Directions to Measure: ☒ Up ☒ Down ☐ Up already measured Measurement blocks per cycle: 1

Sample Table Type: XY Table

☒ Measure susceptibility

Move to Load Position

Add to registry Open SAM file

File Info

Latitude	Longitude	Mag. Dec	# of Samples:
47.2	-91.5	0	8

SAM file registry

Sample set	Step	Do up?	Do both?	Blocks	Path

Clear registry

Step 8. Repeat step 7 for all sites and fill the registry.

Sample Index Registry

Load SAM File

Data Directory: C:\Dropbox\Hargraves_Data\Keweenaw\Gooseberry\

Sample Code: GB4-

Backup Data: ☐ c: [OS] c:\Dropbox\Hargraves_Data\Keweenaw\

Type of demagnetization step: ☐ NRM ☐ AF ☒ TT ☐ MW ☐ Rockmag ☐ Other: Level: 200

Directions to Measure: ☒ Up ☒ Down ☐ Up already measured Measurement blocks per cycle: 1

Sample Table Type: XY Table

☒ Measure susceptibility

Move to Load Position

Add to registry Open SAM file

File Info

Latitude	Longitude	Mag. Dec	# of Samples:
47.2	-91.5	0	8

SAM file registry

Sample set	Step	Do up?	Do both?	Blocks	Path
GB1-	TT 2...	Y	Y	1	C:\Dropbox\Hargraves_Data...
GB2-	TT 2...	Y	Y	1	C:\Dropbox\Hargraves_Data...
GB3-	TT 2...	Y	Y	1	C:\Dropbox\Hargraves_Data...
GB4-	TT 2...	Y	Y	1	C:\Dropbox\Hargraves_Data...

Clear registry

Step 9. In the Magnetometer Control window, click “Modify”.

Magnetometer Control

Automatic Data Collection | Manual Data Collection

Modify Start changer

☐ Slow motions Susceptibility scale: 1.0

Step 10. Specify the position (hole number) of the first sample. Click “Add to list”. This will assign positions on the tray for all the samples in the registry in the order that they were loaded (starting from the initial position). Click “View new sample list” and check that the positions of the samples on the tray are correct.

Sample Settings

Position of first sample:

From file:

Load Order
☒ Ascending ☐ Descending

Reload position
☒ Return to start ☐ Leave at end

Final position
☒ Return to start ☐ Leave at end

Multiple holder measurements
☒ Repeat (weak samples) ☐ Skip (strong samples)

AF Holder
☐ AF Holder before measuring

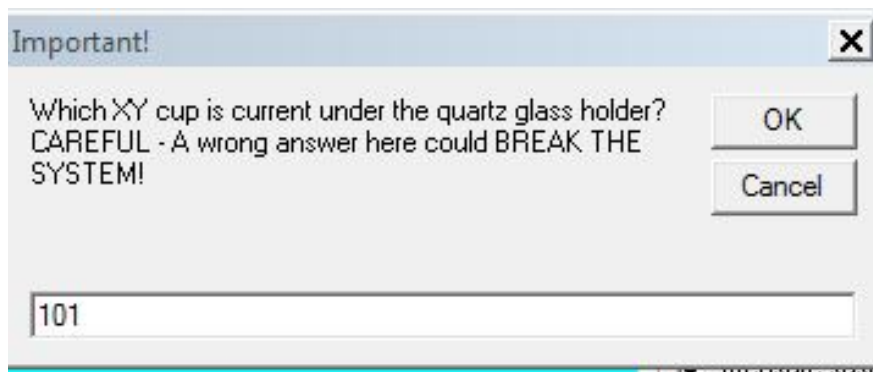
Measure Holder
☒ Measure holder every samples

Hole Sample List - New Sample Set

Hole	Sample	Hole	Sample	Hole	Sample
1	GB1-1a	47		93	
2	GB1-2a	48		94	
3	GB1-3a	49		95	
4	GB1-4a	50		96	
5	GB1-5a	51		97	
6	GB1-6a	52		98	
7	GB1-7a	53		99	
8	GB1-8a	54		100	
9	GB2-1a	55			
10	GB2-2a	56			
11	GB2-3a	57			
12	GB2-4a	58			
13	GB2-5a	59			
14	GB2-6a	60			
15	GB2-7a	61			
16	GB2-8a	62			
17	GB3-1a	63			
18	GB3-2a	64			
19	GB3-3a	65			
20	GB3-4a	66			
21	GB3-5a	67			
22	GB3-6a	68			
23	GB3-7a	69			
24	GB3-8a	70			
25	GB4-1a	71			
26	GB4-2a	72			
27	GB4-3a	73			
28	GB4-4a	74			
29	GB4-5a	75			
30	GB4-6a	76			
31	GB4-7a	77			
32	GB4-8a	78			
33		79			

Sample order
☒ Ascending ☐ Descending

Step 11. If you chose not to home the XY stage in Step 4, the system will ask you to do this now. If you have started the program from scratch (i.e. you did not simply log off a different user and log back in), the system will confirm the position of the glass holder once the XY stage homes to center. Check to make sure the glass holder is positioned over the hole in the tray (cup number 46). If it is, enter 46 and click Okay. If it isn't, something is wrong.



Step 11. Click "Start changer" to begin your measurements!

