

If you have questions, or notice any problems with the equipment, please contact Wendy Katz: 859-333-0926, wkatz@uky.edu

## “EchoMRI 2016” instructions

Wendy is happy to meet with new users to orient you to the procedure.

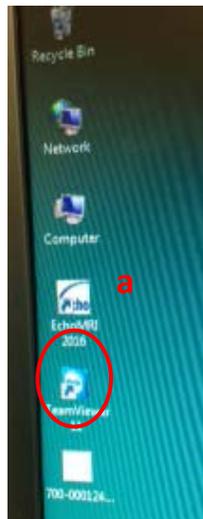
PLEASE email [wkatz@uky.edu](mailto:wkatz@uky.edu) even if you see the equipment free and decide to use it right away. We track usage for grant budgeting.

**Logon:** There is no longer a user name or password – just click the Windows icon if the computer is logged off.

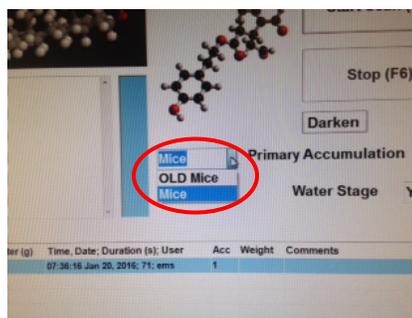


### 1. Open EchoMRI

using icon on desktop (a) or on navigation bar at the bottom of the screen (b).

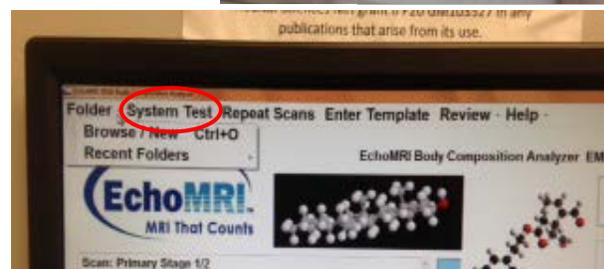


Check the drop-down menu in center-right area of screen: you want it to say “Mice”, unless you are doing a longitudinal study with mice that were measured in 2015 – in which case, select “OLD Mice.”



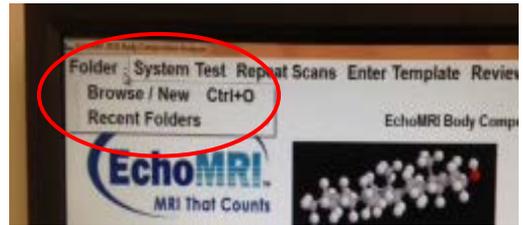
### 2. System Test

- Slide in standard tube containing jar of oil –
- Small end goes in first.
- BE CAREFUL that the end cap that holds the jar in doesn't pop off (hold both ends while removing from box or machine to be sure it stays together).
- Click “System test” (in top frame)
- Test takes several min. Occasionally, it may automatically transition to a calibration as well.



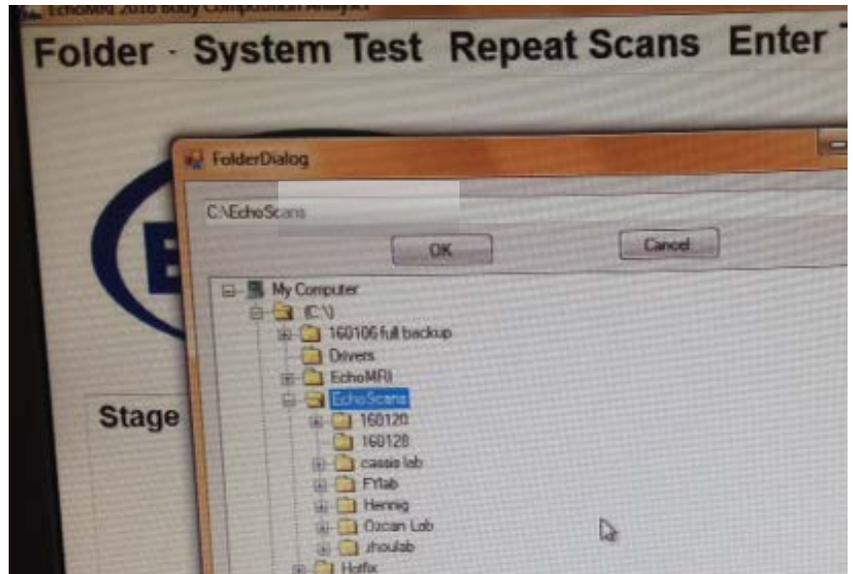
### 3. Choose output folder:

Click "Folder" (in top margin), then "Browse/New

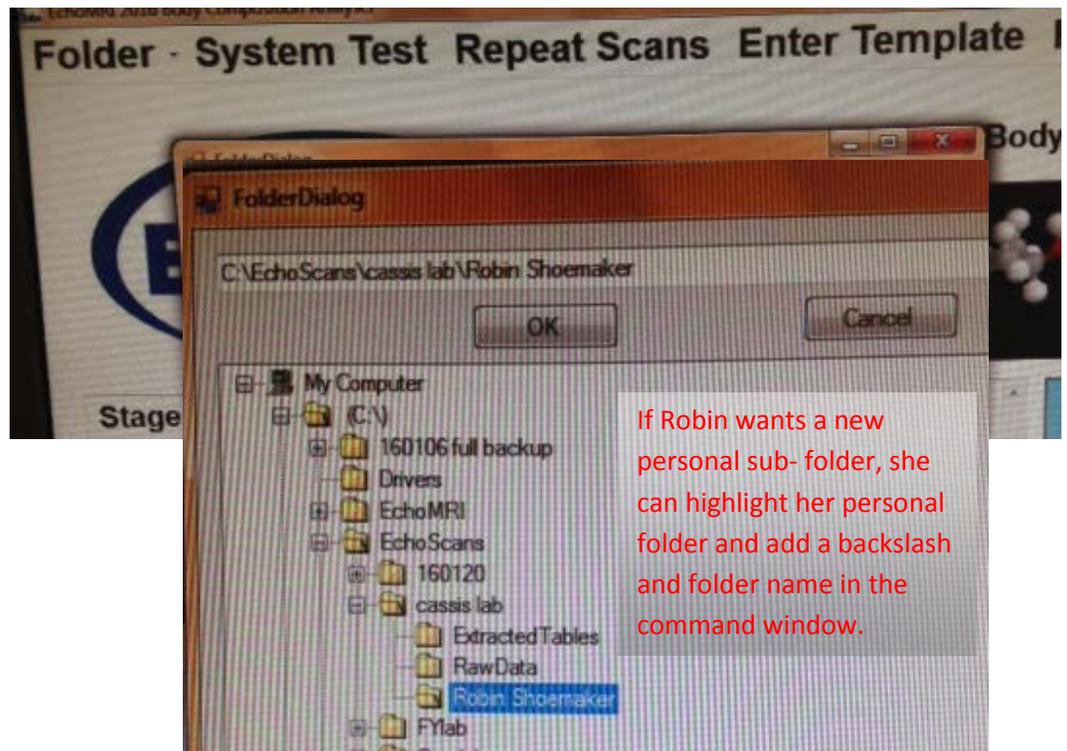


Expand the "EchoScans" folder, and

- a) select your lab's existing folder in the EchoScans folder.
- b) OR in the navigation bar (after highlighting EchoScans), add a backslash and name to create a folder for your lab. You will get a window telling you there is no folder with that name and asking if you want to create a new folder. Say "yes."



You are encouraged to create personal sub-folders to organize data according to users or projects, but please keep everything inside the EchoScans folder. To make a personal subfolder, highlight your lab's folder, and then add a backslash and folder name in the navigation window



If Robin wants a new personal sub- folder, she can highlight her personal folder and add a backslash and folder name in the command window.

For best performance, a folder should contain no more than 100-200 scans (lines of data). You can see this number when you choose an existing folder.

**Scan Stage Report**

In this example of folders organized by lab, user and projects, the highlighted sub-sub-sub-folder contains 18 scans.\labname

**Output Folder = C:\EchoScans\FYlab\Shayan\ERT colony\**

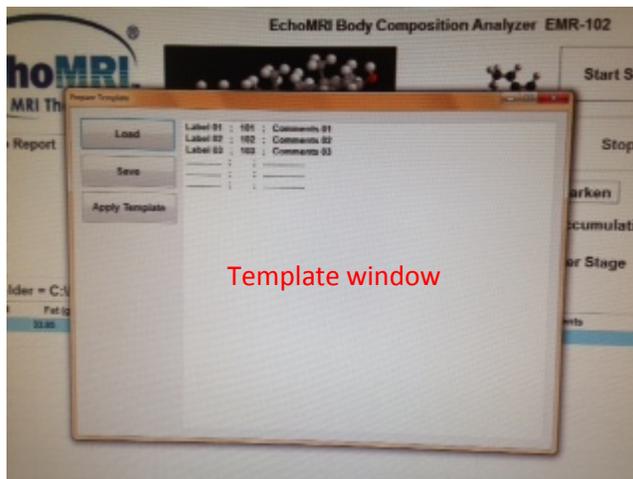
Num	Label	Fat (g)	Lean (g)	F.Water (g)	T.Water (g)	Time, Date
18	E19	1.04	16.44	0.09	14.40	14:58:33 Jan
17	E5	0.57	17.07	0.08	14.94	14:57:14 Jan
16	E3	1.14	22.05	0.03	18.72	14:55:55 Jan
15	E2	1.05	23.46	0.00	20.12	14:54:36 Jan
14	E18	1.15	19.27	0.11	16.81	14:53:18 Jan
13	E17	1.48	18.48	0.03	16.28	14:52:00 Jan
12	E16	1.32	19.76	0.02	17.13	14:50:25 Jan
11	E15	0.88	20.60	0.13	17.94	14:49:05 Jan
10	E14	0.93	21.86	0.01	18.61	14:47:45 Jan
9	E13	1.27	19.86	0.11	17.08	14:46:21 Jan
8	E4	1.87	15.62	0.05	13.57	14:44:29 Jan
7	E12	1.30	16.57	0.05	14.66	14:43:11 Jan
6	E11	1.39	16.74	0.11	14.91	14:41:48 Jan 20, 2016; 71; ems
5	F10	1.73	16.68	0.20	15.00	14:40:25, Jan 20, 2016; 70; ems

System ID: EMR-102

#### 4. Set up scan:

a) Click "Start Scan" (1); a screen will open (2) that allows you to label one measurement at a time.

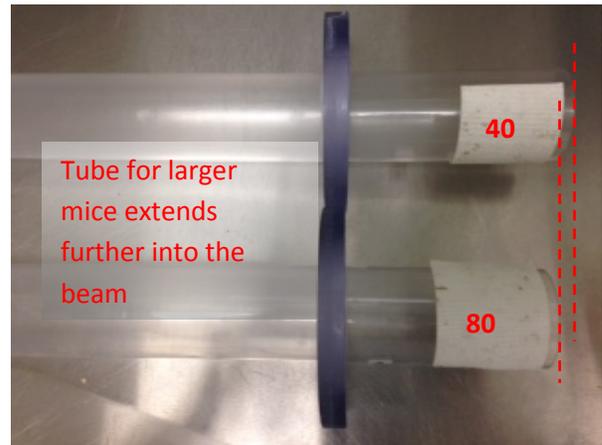
b) OR If you wish to create a template, click "Enter Template" in the top margin...



...enter the labels into the template window, then click “Apply Template.”

##### 5. Choose mouse tube of appropriate size: 40, 60, 80 g.

- The number on the tube is the maximum weight mouse that should go in the tube. The tubes are all the same diameter, but the plastic collar determines how far the end of the tube goes into the beam. Smaller mice can be read in the larger numbered tubes though they won't be centered in the beam. If you put a larger mouse in a smaller numbered tube, part of the mouse won't be scanned because the tube doesn't go in as far.



- Position mouse so it is rolled up like a donut, with its side against the end of the tube. This avoids putting compressive force on the neck.
- If the mouse is too obese to curl up, insert the plunger so as to apply GENTLE pressure against the face to hold the mouse still.
- Insert tube horizontally with mouse right side up so it can breathe easily. Don't try to hold the plunger still while the tube is in the machine. You will suffocate the mouse!

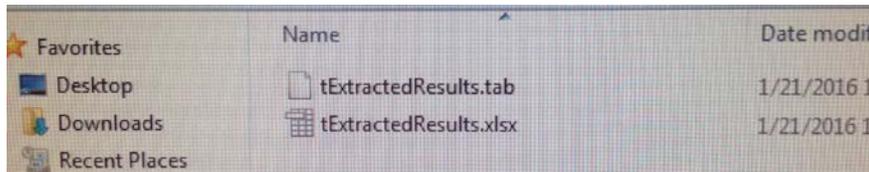


##### 6. Take measurements (click Start each time, watch progress).

Release the mouse promptly when the reading is ended. You may pre-load the next mouse into a tube with the plunger partly inserted, but don't fully insert the plunger to immobilize the mouse until it is time to put the tube into the machine.

**7. Extract data when you have made all your measurements**

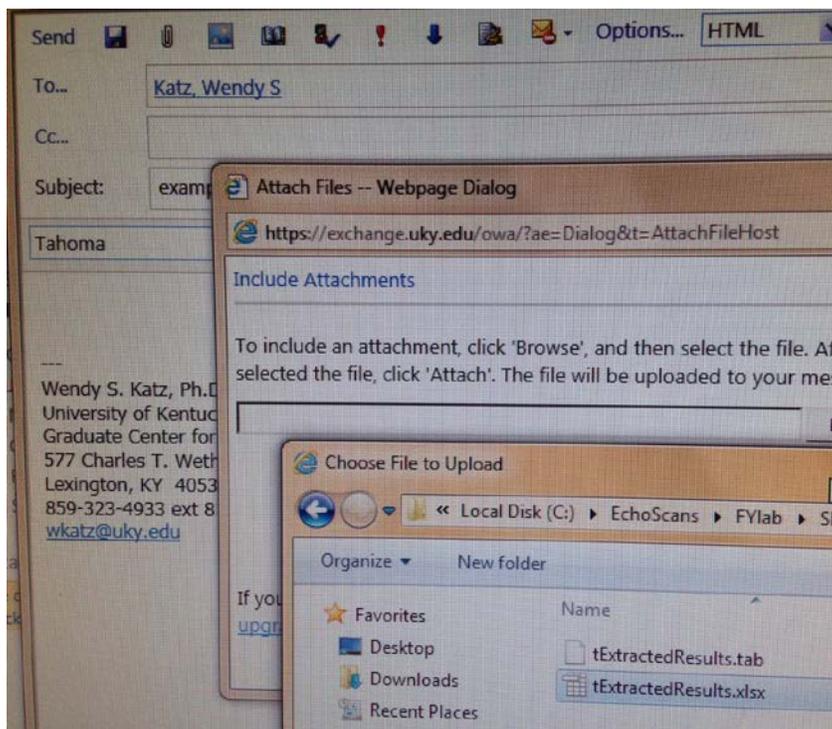
- select all lines of data (hold Shift key and click top and bottom lines)
- Press F8 to extract.
- Data will go into the Output folder you selected at the start.
- Name the file when prompted.
- Save. It will be saved as an Excel file and a tab file.



**8. Email the data to yourself:**

Open Explorer, sign on to exchange.uky.edu

- Attach your data. You will find it in “Local Disk (C:)” in the “EchoScans” folder.
- If you need to check your saved data table while you are still in B014, it will open in “Open Office” software; we don’t have Excel on that computer.



**9. Close the programs.**

- Leave the computer on.
- Wash tubes with hand soap. Be as gentle as possible if scrub brush is necessary. You may let them air dry next to the sink, or dry GENTLY with paper towels if they need to be washed during a series of measurements.

**10. For publication, the name of the equipment is “EchoMRI-100.”**

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