## How to access PET/CT data on SAIF Analysis Workstations

Note: The Inveon User Folders and IRW Workstation F: drives are automatically backed up every morning at 2am.

- 1. Contact Justin Jeffery (jjjeffery@wisc.edu) to request permissions to your user folder and iLab.
- 2. Reserve the workstation in iLab.
- 3. Log in to IRW1, IRW2, IRW3, or the IVIS Analysis workstation using your 6-digit (3-letter, 3number) login and password. If you do not have a radiology network username/password, Justin will assign a generic one to you.
- 4. Map network drive
  - a. Right click on the Computer icon located on the desktop (see image)
  - b. Click Map network drive...



5. Enter the following directory in to the "Folder:" address bar (use default letter next to "Drive"): \\r-fcb-isilon\research\SAIF\DPET00001\_AW\Preclinical\Users\Admin\User Folders\

(After mapping this drive for the first time, it will be saved in the drop down)

- 6. Check the box next to "Connect using different credentials"
- 7. Click Finish



- 9. In the new network window, navigate to your PI's folder and then open the "Datasets" folder within
- 10. Highlight and copy (Ctrl+C) the following files from the Datasets folder on the network (make sure the "Details" view is selected in the Windows Explorer so the file extensions are displayed):
  - a. PET: .pet.img AND respective .pet.img.hdr files
  - b. CT (will be located in the "CTscan ..." folder): .ct.img AND respective .ct.img.hdr files

Workplace

- 11. Open a new Windows Explorer window and navigate to Local Data (F:)  $\rightarrow$  PI User Folder [Last Name First Name]  $\rightarrow$  Datasets
- 12. Paste (Ctrl+P) the image files in to the "Datasets" folder (NOT THE DATASTORE FOLDER) opened in the step above Inveon Research
- 13. Open Inveon Research Workplace (IRW)
- 14. Choose your PI's Datastore:
  - a. Click Administration  $\rightarrow$  Database...



b. Click Browse...



- c. Navigate to *F*: → *PI User Folder* [Last Name First Name] → *Datastore* (NOTE: Highlight the "Datastore" folder but <u>do NOT double click on it</u>)
- d. Click *Select* (Note: The word "Datastore" should appear at the end of the directory to the right of Location as in the image above. If it does not, retry step c. and d. above)
- e. Click *Apply* and then click *OK*
- 15. Import dataset(s) (only if your datasets are not already loaded in to your Datastore):

Importing a Single Dataset	Importing Multiple Datasets					
a. Click File $\rightarrow$ Manual Import	a. To import multiple datasets in a					
Eile       Data       View       Administration       Help         Manual Import       Ctrl+I       roup By:       Study       Import Im	<ul> <li>single folder, click <i>File</i> → <i>Folder</i> <i>Search/Import</i></li> <li>b. Browse and highlight (do NOT double click) the desired Datasets folder and click <i>Open</i></li> <li>a. Click Start Search to populate of</li> </ul>					
Exit Alt+F4	c. Click <i>Start Search</i> to populate a list of datasets in that folder. You					
b. Navigate to your Datasets folder on the local F: drive (ie.	can use the Ctrl button to select the					
F:\[PI Last Name First Name]\Datasets	<ul> <li>desired files and then click <i>Import</i>, or just click <i>Import All</i>.</li> <li>d Close import window when data is</li> </ul>					
c. Highlight the .ct.img file for CT and/or .pet.img file for						
PET and Click <i>Open</i> .						
	finished importing					

Note: When your datasets are imported, a new "series" is created. Additional series are created when a modification is made and then the modified dataset is saved in the General Analysis application.

16. Highlight the desired series within a dataset and click on the *General Analysis* or *Multimodal 3D Visualization* application (shown in red boxes below). For PET/CT registration, use the Ctrl tab to highlight both the PET and CT series.

Eile Data View Administration Help					
E Group By: Study 💌					
Name 🛦	ID	Date	Time	Description	
P-2 20130123_Chen_BON_9hours_AnimalsC1_AB_D_Cu64_900s_em_v1.pet [Sex: 0]	1.2.05100.01022.	1/23/13	10:45:06 PM	20130123_Chen_BON_9hours_AnimalsC1_AB_D_Cu64_900s_em_v1.pet	
- 8 Series PT (S: 159)		1/23/13	10:45:06 PM	20130123_Chen_BON_9hours_AnimalsC1_AB_D_Cu64_900s_em_v1.pet [	
20130610_Bednarz_Lowerlimb_v1.ct [Sex: 0]	1.1.05100.01022.	6/1 0/1 3	3:07:31 PM	20130610_Bednarz_Lowerlimb_v1.ct	
	1.1.05001.03022.	6/11/13	9:26:47 AM	20130611_Alejo_v1.ct	General Analysis
20130611_Saeed_Test_bin2_v1.ct [Sex: 0]	1.1.05001.03022.	6/11/13	1:34:20 PM	20130611_Saeed_Test_bin2_v1.ct	
Image: Provide the state of	1.1.05001.03022.	6/1/13	11:47:10 AM	20130611_Saeed_Test_v1.ct	
Interpretation in the second seco	1.1.05001.03022.	6/1/13	1:12:20 PM	20130611_Wheeler_LR_R_v1.ct	<u>181</u>
20130716_Rock_axplott_v2.ct [Sex: 0]	1.1.05100.01022.	7/17/13	2:51:16 PM	20130716_Rock_axolotl_v2.ct	100
20130722_AllenHoffmann_2276_v1.ct [Sex: 0]	1.1.05100.01022.	7/22/13	4:47:28 PM	20130722_AllenHoffmann_2276_v1.ct	General Analysis (Saved Settings
20130722_AllenHoffmann_2278_v1.ct [Sex: 0]	1.1.05100.01022.	7/22/13	5:30:09 PM	20130722_AllenHoffmann_2278_v1.ct	
20131022_AxolotI_v1.ct [Sex: 0]	1.1.05100.00000.	10/22/13	2:09:54 PM	20131022_Axolott_v1.ct	
20131112_Novadaq_m3_v1.ct [Sex: 0]	1.1.05100.00000.	11/12/13	12:29:50 PM	20131112_Novadaq_m3_v1.ct	
20131205_waterphantom_HUcalibration_v1.ct [Sex: 0]	1.1.05100.00000.	12/5/13	3:37:15 PM	20131205_waterphantorm_HUcalibration_v1.ct	
20131206_Mackie_phantom_HU_v1.ct [Sex: 0]	1.1.05100.00000.	12/6/13	10:52:59 AM	20131206_Mackie_phantom_HU_v1.ct	Multimodal 3D Visualization
20131213_7Vial_Phantom_vHU.ct [Sex: 0]	1.1.05100.00000.	12/13/13	1:59:58 PM	20131213_7Vial_Phantom_vHU.ct	
20131213_Water_Phantom_vtocalcHU.ct (Sex: O)	1.1.05100.00000.	12/13/13	2:32:45 PM	20131213_Water_Phantom_vtocalcHU.ct	_
P-2 20131219_Bednarz_phantoms_vHU.ct [Sex: 0]	1.1.05100.00000.	12/19/13	12:26:38 PM	20131219_Bednarz_phantoms_vHU.ct	0101
-8 Series CT (8: 512)		12/19/13	12:26:38 PM	20131219_Bednarz_phantoms_vHU.ct (modified)	
	0	12/19/13	12:26:38 PM	20131219_Bednarz_phantoms_vHU.ct	Raw Data Converter
🗣 🔂 20131219_Bednarz_rat_vHU.ct (Sex: O)	1.1.05100.00000.	12/19/13	12:12:56 PM	20131219_Bednarz_rat_vHU.ct	
20140303_Vanderby_waterphantomtocalcHU_v1.ct [Sex: 0]	1.1.05100.00000.	3/3/14	9:49:59 AM	20140303_Vanderby_waterphantomtocalcHU_v1.ct	
- 20140514_TransformationMatrix_PET - Transformation Matrix_em_v2.pet [Sex: 0]	1.2.05100.00000.	5/14/14	3:21:21 PM	20140514_TransformationMatrix_PET - Transformation Matrix_em_v2.	<u>10</u>
6 Series CT [S: 736]	0	5/14/14	3:13:07 PM	20140514_TransformationMatrix_v1.ct	
🖉 Series PT (S: 159)	1	5/14/14	3:21:21 PM	20140514_TransformationMatrix_PET - Transformation Matrix_em_v2.	Static to Dynamic Converter

The General Analysis tool is for basic analysis including general viewing, basic image/video generation, dataset registration, cropping, rotating, flipping, basic geometric measuring, and quantifying static and kinetic datasets using regions-of-interest (ROIs).

The Multimodal 3D Visualization tool has the same capabilities as the General Analysis tool plus the ability to generate more intricate images and videos, and it has more options for collecting quantitative data, particularly for measuring trabecular and cortical bone in microCT datasets.