GE Locus Ultra ("VCT") uCT Scanner Operating Notes SOP

notes:
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items in this document are either buttons to push or icons to click or **items to select** from a menu

Start Scanner

Troubleshooting pre-start check options:

- Confirm that recon cluster has booted-up successfully - look on cold room Recon cluster monitor: " beowolf login:"
- Confirm that data drive (6TB ProRAID - /vol/data/vct) in cold room is powered on and running
- Confirm that STC Reset toggle switch is set to Enable, unless you want to prevent gantry motion for troubleshooting
  - **NOTE: SET STC Reset TO "DISABLE" TO PREVENT GANTRY MOTION, IF EXTERNAL MONITOR OR OTHER EXTERNAL CABLES ARE CONNECTED TO DAS COMPUTER**
- Confirm that STC has turned on - look for front panel LED reflection from your hand if window side cover is off for troubleshooting
- Confirm that DAS has turned on - click on "creepy-guy" icon in bottom-right corner of Fedora menu on VCT console
- View System error log - click on

Double-click Locus Ultra Console icon on desktop

Note: can also type **VCTConsole** from a LINUX Terminal to see errors when booting STC

user name: sysadmin
passwd: guest
choose **scan application**
(then wait until system comes up - will take several minutes until 11 icons show up in left column of console)

scan icon

Setup Experiment Protocols

Study: **16Second_Anatomical_Stitch_86mm_Table_Translation**
Specimen: **Stitch_Object**
Orientation: (prone = belly down; supine = back down)
Protocol: **16 second 80kV**

Create Exam: **2011mar18_LargeWaterbathScan**
Scan: **Release Interlock** Execute
Scan: **Scanner Warmup Sequence** Execute
Start Scan (large green hardware button on keyboard - will be pressed many times during warmup!)

Acquire Brightfield and Darkfield Scans - for *each* sequence

Sequences **Name: free_16spr_1000vpr_102mm_680rows 80kv 50mA** (repeat for each sequence in protocol that will be used)
Scan: **Bright Dark** Execute
Start Scan (after the button is lit)
Sequences **Name: free_16spr_1000vpr_102mm_680rows 120kv 20mA** (repeat for each sequence in protocol that will be used)
Scan: **Bright Dark** Execute
Start Scan (after the button is lit)
Sequences **Name: free_16spr_1000vpr_102mm_680rows 140kv 13mA** (repeat for each sequence in protocol that will be used)
Scan: **Bright Dark** Execute
Start Scan (after the button is lit)

Perform CT Acquisitions

Sequences **Name free_16spr_1000vpr_102mm_680rows 120kv 20mA**
Run Go Positional
Start Scan (after the button is lit)
wait for scan to complete and image to appear in Right monitor -
Sequences **Name free_16spr_1000vpr_102mm_680rows 120kv 20mA**
(drag scan extent box to desired position - superimposed on image)
End Positional
Sequences **Name free_16spr_1000vpr_102mm_680rows 120kv 20mA**
Scan: **Sequence**Execute
Start Scan (after the button is lit)

(repeat for scans at other energies or other specimens)

Perform CT Reconstructions

Troubleshooting Guide

20111110
Console computer would not boot (known problem - Solution: keep rebooting)
- power down system
- power off main breaker