



# Software Version 2.5 Release Notes

[System Requirements](#)

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## 2.5 System Minimum Requirements

- Microsoft Windows 10/11 64-bit edition
- Microsoft .NET 4.7.2
- Minimum 8 GB of CPU RAM
- GPU with at least 1 GB RAM and OpenGL 3.3 support
- NVIDIA GPU with at least 3.5 CUDA Compute Capability and driver support for CUDA 11
  - Installer tests your system to easily check to see if your hardware and driver is supported
  - Required for reconstruction
  - Required for high-resolution volume rendering
  - Required for efX-Sim, efX-DR
  - Required to display image filters
  - For a full list of GPUs that are supported or not supported, see the [CUDA Wikipedia](#) page

For slower processing of larger datasets please discuss computer options with your salesperson. [Click Here to Contact Us.](#)



# Key Features

- Accelerated SubpiX
- Layered Frames
- Project Viewer
- CT Transfer Projects

# efX Accelerated SubpiX

## SubpiX RR step CT scans:

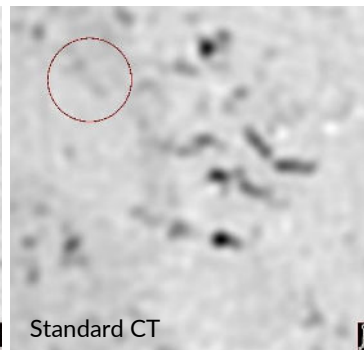
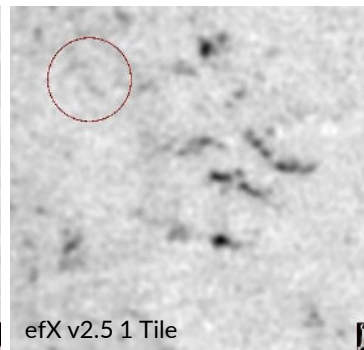
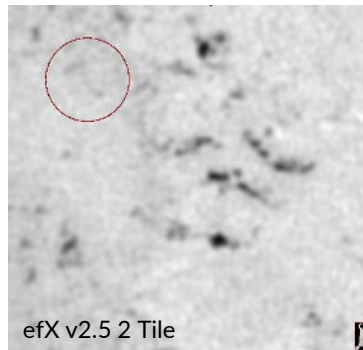
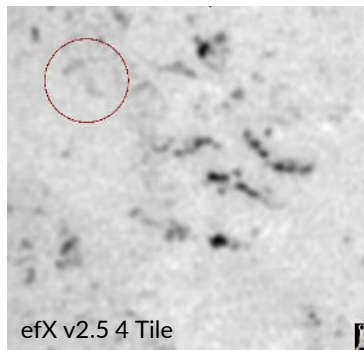
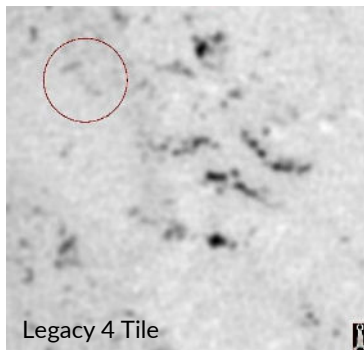
- Reduced acquisition time
- Added shift correction

## Added two new SubpiX scan methods:

- 2 Tile:
  - Reduced acquisition time by ~50%
  - Slightly reduced quality from 4 Tile SubpiX
- 1 Tile:
  - Reduced acquisition time by ~75%
  - Lower quality, better than standard circular CT scan

The screenshot shows the SubpiX software interface with the following settings:

- Part name:** SubpiX
- Detector Corrections:** Snap, Record
- CT Scan:**
  - # projections: 720
  - delay [ms]: 0
  - fr. average: 1
  - Continuous scan: ☐
  - est. duration: 19m12s
  - 15.82 GB needed
  - 597.51 GB available
  - 720 total projections
- Advanced Parameters:**
  - range [deg]: 360
  - image numbering start: 0
  - Vortex: ☐
  - bit depth: Max
  - buffered save: ☐
  - ring reduction: ☒
  - auto xray off on scan complete: ☒
  - acquire zero position image: ☒
  - Monitor Xray Down: ☒
  - % Variation: 8
- Subimages:**
  - SubpiX: ☒
  - Rows: 2, Columns: 2
  - 4 Tile (selected)
  - 2 Tile
  - 1 Tile
- Buttons:** CT Start, CT Geometry, Technique, Close



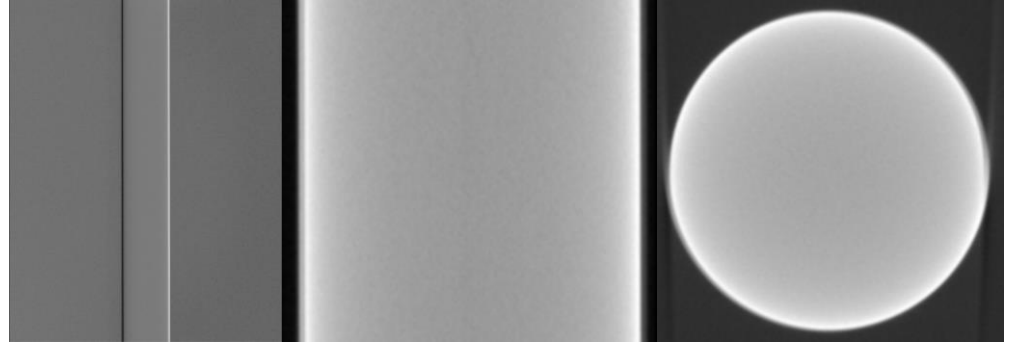


# Accelerated SubpiX

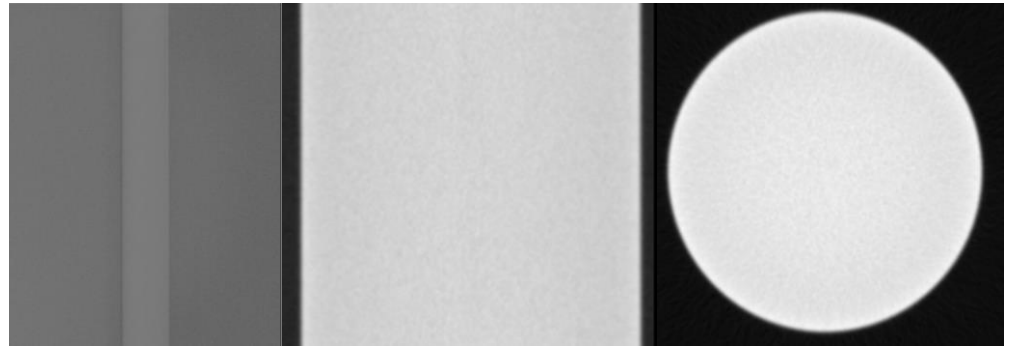
## Additional benefits:

- SubpiX Ring Reduction step CT scans:
- All RR SubpiX Scans now have beam shift correction

2.4 and earlier ALL SubpiX



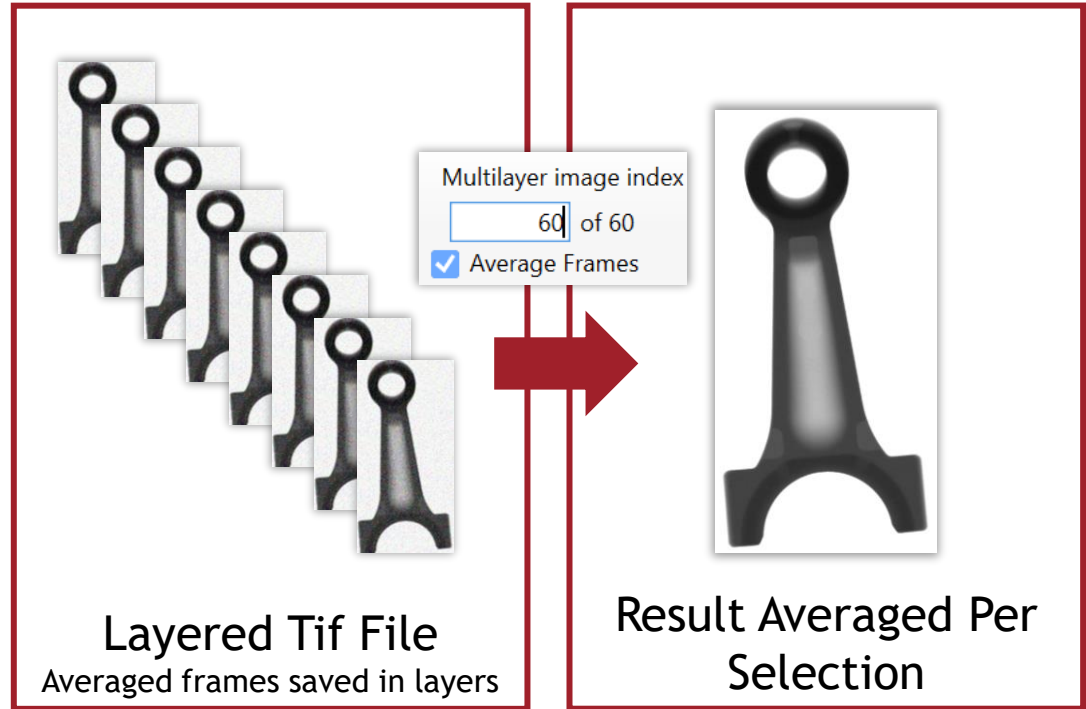
RR 4-Tile, 2-Tile, and 1-Tile





# Layered Frames

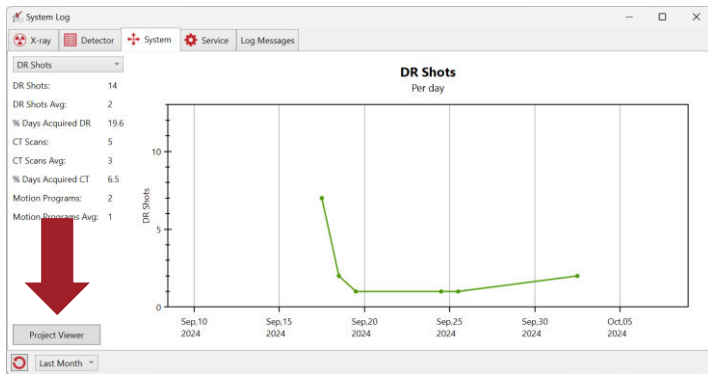
- DR/CT projects
- When averaging, save frames in layers
- View/Reconstruct with desired amount of averaging
- Reduces number of scans to determine techniques





# Project Viewer

- Look up previous DR/CT project techniques
  - Search by name
- Recover project or technique sheet



Project Viewer window showing a table of projects and a technique sheet.

Select Project type, find project and click Recover to re-save it to disk.

Recover	Date	Project	Version	User	View Tech	Save Tech
Recover	2024-10-24 12:06	D:\vsc_scratch\Drfaidh\Drfaidh.nsiro	2.4.3.3	wahrendt	View Tech	Save Tech
Recover	2024-10-24 12:06	D:\vsc_scratch\Drfaidh\Drfaidh.nsiro	2.4.3.3	wahrendt	View Tech	Save Tech
Recover	2024-10-07 17:05	D:\vsc_scratch\Evene_Circular_PE\Evene_Circular_PE.nsiro	2.4.3.1	wahrendt	View Tech	Save Tech
Recover	2024-09-09 15:40	D:\vsc_scratch\ytest\ytest4.nsiro	2.4.3.0	wahrendt	View Tech	Save Tech
Recover	2024-09-09 15:37	D:\vsc_scratch\ytest\ytest3.nsiro	2.4.3.1	wahrendt	View Tech	Save Tech
Recover	2024-09-09 15:33	D:\vsc_scratch\ytest\ytest2.nsiro	2.4.3.1	wahrendt	View Tech	Save Tech
Recover	2024-09-09 15:27	D:\vsc_scratch\ytest\ytest.nsiro	2.4.3.0	wahrendt	View Tech	Save Tech
Recover	2024-08-13 12:50	D:\vsc_scratch\ggg\ggg.nsiro	2.4.3.0	wahrendt	View Tech	Save Tech
Recover	2024-08-13 12:22	D:\vsc_scratch\Dddasf\Dddasf.nsiro	2.4.3.0	wahrendt	View Tech	Save Tech
Recover	2024-08-12 14:46	D:\vsc_scratch\Testcontubipix\Testcontubipix.nsiro	2.4.3.0	wahrendt	View Tech	Save Tech
Recover	2024-07-17 10:38	D:\vsc_scratch\Ddddiedf\Ddddiedf.nsiro	2.4.2.2	wahrendt	View Tech	Save Tech
Recover	2024-07-17 10:34	D:\vsc_scratch\ff\ff2.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-17 10:33	D:\vsc_scratch\ff\ff.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-17 10:20	D:\vsc_scratch\Dasf\Dasf.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-17 09:21	D:\vsc_scratch\Testpostac\Testpostac2.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-17 09:21	D:\vsc_scratch\Testpostac\Testpostac.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-17 09:18	D:\vsc_scratch\Testcorrection\Testcorrection2.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-17 09:18	D:\vsc_scratch\Testcorrection\Testcorrection.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-16 10:25	D:\vsc_scratch\Subpix1\Subpix1.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-09 12:36	D:\666\666.nsiro	2.4.2.3	wahrendt	View Tech	Save Tech
Recover	2024-07-08 11:21	D:\Testdaiches\Slice 1.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-08 11:20	D:\Testdaiches\Slice 1.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-03 09:42	D:\555\555.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-03 09:38	D:\555\555.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-02 16:37	D:\Ddd\DDD.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-02 16:32	D:\555\555.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech
Recover	2024-07-02 16:25	D:\333\333.nsiro	2.4.2.4	wahrendt	View Tech	Save Tech

NSI-Dev  
CT Acquisition  
Technique Sheet

Machine ID: TestModel  
Machine Serial: 602-0823  
Operator ID: wahrendt  
Date Time: 10/24/2024 12:54:59 PM

Xray Source:

Name: Emulation (debug)  
Voltage: 130 kV  
Current: 200  $\mu$ A  
Focal spot size: 30 microns  
Focal spot mode: Large

Detector:

Name: Emulation[ni]  
Pixel pitch: 200 x 200 microns  
Mode: 1536x1024 @ 10Hz max  
Gain: 0.25 pf  
Frame rate: 1 fps  
Flip: Horizontal  
Rotation: 270 degree  
Crop: 20 Left, 20 Top, 20 Right, 20 Bottom (pixels)  
ROI: 1024x1536[ni]  
Defect map: no defective pixel map used  
Offset map: no offset used  
Gain map: no gains used

Distances:

Units: Same unit as at acquisition  
Source to detector: 47.244 [in] (FDD)  
Source to object: 23.822 [in] (FDD)  
Calculated Ltg: 0.01101 [in] (0.15 pixels)  
Zoom factor: X2  
Effective pixel pitch: 0.001909 [in]

Geometric  
Unsharpness Custom  
Formula:

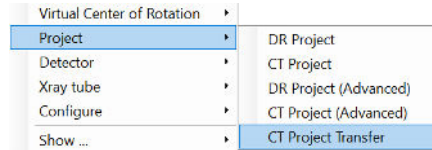
Name: IQI Hole (mm)  
Expression: -2  
Value: -2  
Name: X Str-Pixels (Hole)  
Expression: 3  
Value: 3

Close



# CT Transfer Project

- Easily move completed project and associated files to another computer
  - Pick project file(s) (.NSIPRO)
  - Pick destination folder
  - Go!
- Very useful for SubpiX/MosaiX projects where the folder structure is complex
- Continue scanning more parts while getting the first scan reconstructed



Access from

- Right-click menu
- CT Project button

