

Merging in 2dx

Henning Stahlberg, UC Davis
Sept. 12, 2008

Project Management

- Launch *2dx_merge*
- Import ONE image
- Open and process in *2dx_image*, save database as project-default
- Import all other images in *2dx_merge*
- Process them all automatically :-)
- Merge in 2D
- Merge in 3D

Project Management

- Launch *2dx_merge*
- Import ONE image

Import Images

Translate: A:\w3.4\H\c\l2\H\c\l6\H\c\l2\7\5

Filename	Name	Angle	Number	Sub-Image
1				
2. glpf0000655301.tif	2. glpf	00	006553	01
3. glpf0000655501.tif	3. glpf	00	006555	01
4. glpf0000655701.tif	4. glpf	00	006557	01
5. glpf3000665301.tif	5. glpf	30	006653	01
6. glpf3000666701.tif	6. glpf	30	006667	01
7. glpf3000669001.tif	7. glpf	30	006690	01
8. glpf4500800501.tif	8. glpf	45	008005	01
9. glpf4500801301.tif	9. glpf	45	008013	01
10. glpf4500802501.tif	10. glpf	45	008025	01

File Tree:

- Name
- 2dx_master.cfg
- gf0000
 - 2dx_master.cfg
 - gf000000655301
 - gf000000655501
 - gf000000655701
- gf0030
 - 2dx_master.cfg
 - gf003000665301
 - gf003000666701
 - gf003000669001
- gf0045
 - 2dx_master.cfg
 - gf004500800501
 - gf004500801301
 - gf004500802501
- merge
 - 2dx_merge_dirfile.dat
 - 2dx_merge.cfg
 - 2dx_origtiltk-console.log
 - APH
 - config
 - CUT
 - FFTIR
 - LOGS
 - merge-p4.mrc
 - merge2D.mtz
 - merge3D.mtz

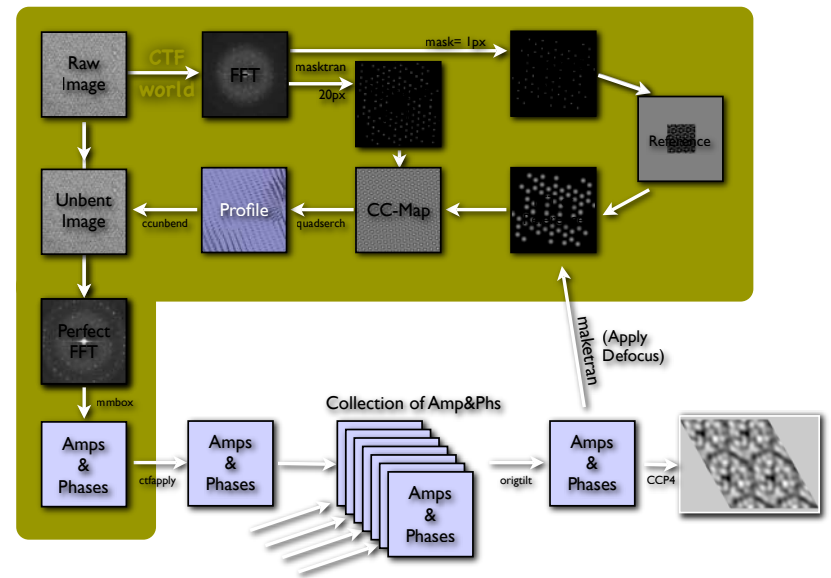
Project Management

- Launch *2dx_merge*
- Import ONE image
- Open and process in *2dx_image*, save database as project-default
- Import all other images in *2dx_merge*
- Process them all automatically :-)
- Merge in 2D
- Merge in 3D

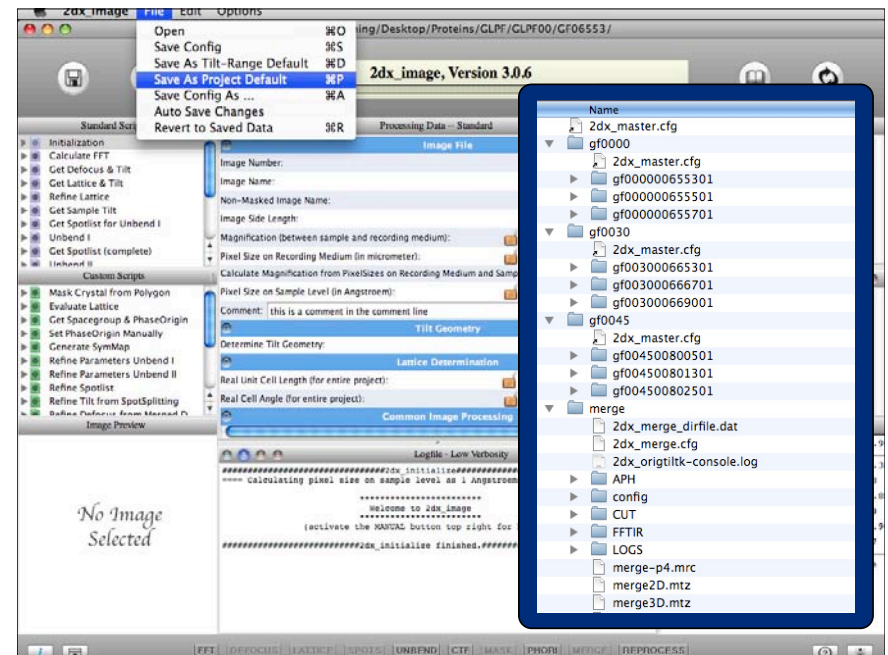
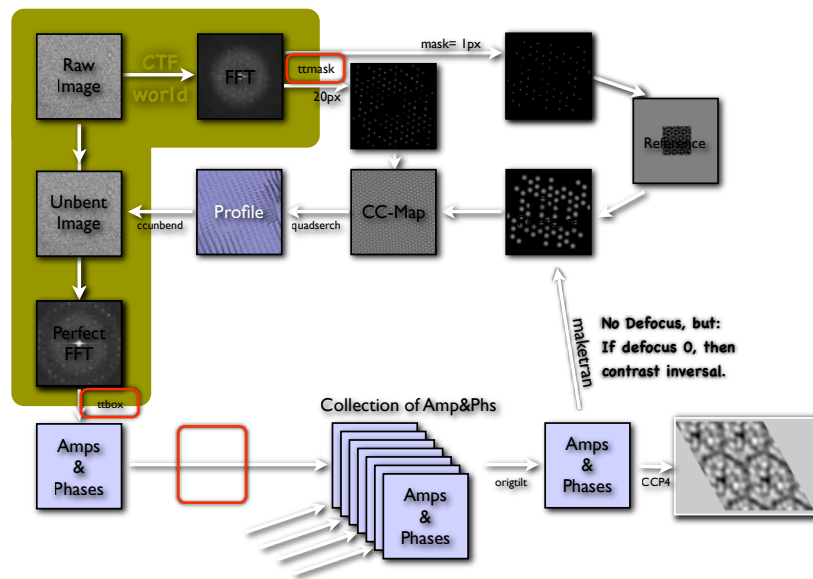
Project Management

- Launch *2dx_merge*
- Import ONE image
- Open and process in *2dx_image*, save database as project-default

Algorithm Non-tilted

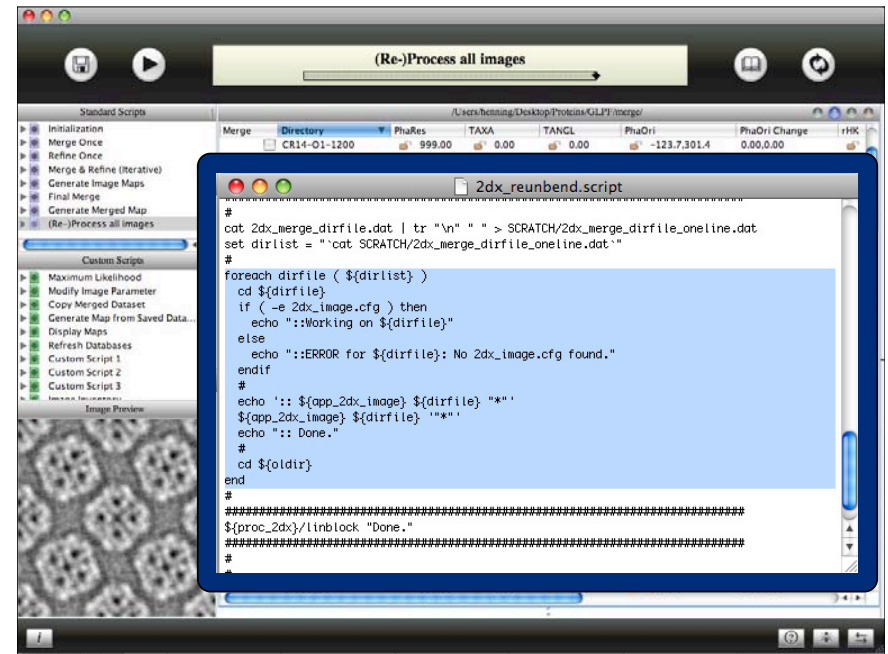


Algorithm Tilted



Project Management

- Launch *2dx_merge*
- Import ONE image
- Open and process in *2dx_image*, save database as project-default
- Import all other images in *2dx_merge*
- Process them all automatically :-)



Project Management

- Launch *2dx_merge*
- Import ONE image
- Open and process in *2dx_image*, save database as project-default
- Import all other images in *2dx_merge*
- Process them all automatically :-)
- Merge in 2D
- Merge in 3D

2D Merging

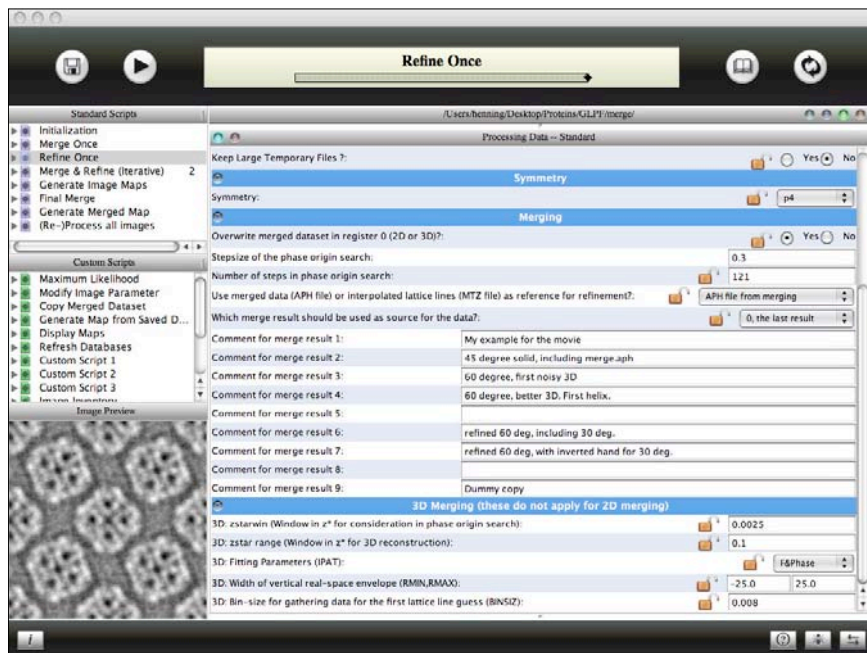
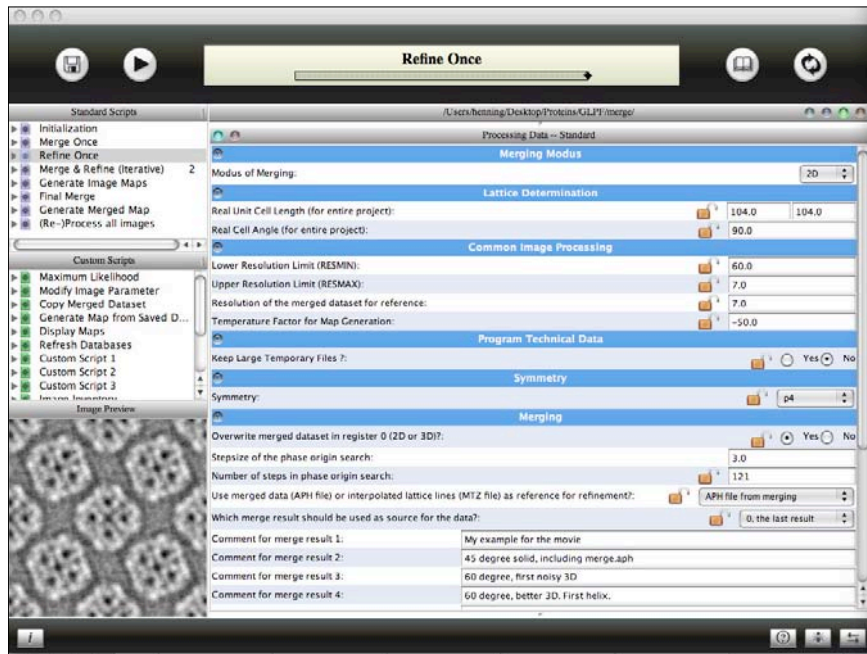
- Set Modus to "2D"
- Select best image only
- Run "Merge Once" to create reference
- Select all images
- Run "Refine Once" to align against reference
- Run "Merge & Refine" 5 times to refine PhaseOrigins
- Generate Image Maps
- Final Merge
- Generate Merged 2D Map

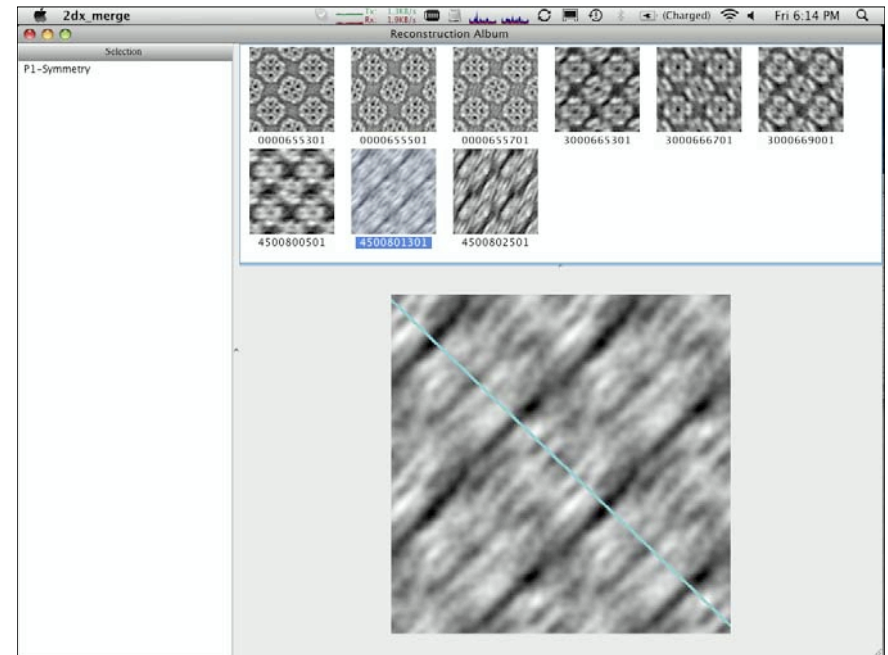
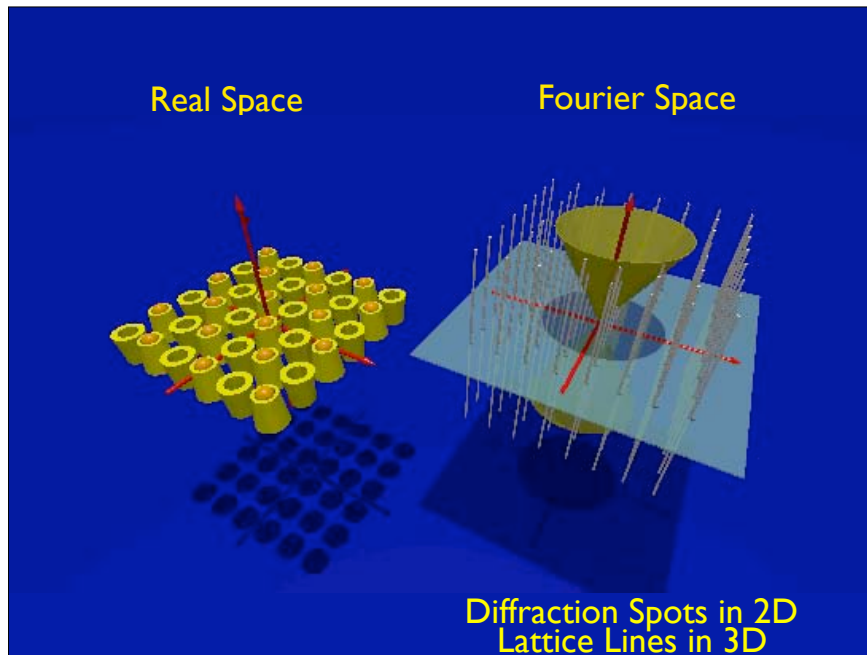
3D Merging

- Set Modus to “3D”
- Set zstarwin to larger value, so that tilted images can use non-tilted data as reference
- Run “Refine Once” to align all images
- Generate Image Maps, and Verify
- Merge Once
- Refine Once with smaller zstarwin
- Run “Merge & Refine” 20 times
- Generate Image Maps
- Final Merge
- Generate Merged 3D Map
- Inspect with Chimera

3D Merging

- Set Modus to “3D”
- Set zstarwin to larger value, so that tilted images can use non-tilted data as reference
- Run “Refine Once” to align all images
- Generate Image Maps, and Verify





- ## 3D Merging
- Set Modus to “3D”
 - Set zstarwin to larger value, so that tilted images can use non-tilted data as reference
 - Run “Refine Once” to align all images
 - Generate Image Maps, and Verify
 - Merge Once
 - Refine Once with smaller zstarwin
 - Run “Merge & Refine” 20 times
 - Generate Image Maps
 - Final Merge
 - Generate Merged 3D Map
 - Inspect with Chimera

you are here: home → documentation → 2dx software → manual → data flow → processing in 2dx_image of one image

Processing in 2dx_image of ONE image

This processing deals only with one single image and is therefore two-dimensional processing.

UNBEND II: mmbbox.exe:

takes FFTIR/our\$(imagename).fft.mrc
generates APH/\$(imagename).fou.nolimit.aph

```

File name: APH/$(imagename).fou.nolimit.aph
1: Header
2:  H      K      AMP      PMS      IQ      BCK      CTF
Example:
655201 qf06652, Unbend2, Mon Jun 16 00:33:22 CEST 2008
0      1      0.0      60.9      9      72.2      0.0
0      2      165.0     330.0     3      49.3      0.0
0      3      17.1      82.3      8      39.3      0.0
0      4      181.8     123.1     2      36.5      0.0
0      5      411.8     127.5     2      58.9      0.0

```

CORRECT CTF: ctffapply.exe:

takes \$(imagename).fou.nolimit.aph
generates \$(imagename).fou.ctf.nolimit.aph

```

File name: $(imagename).fou.ctf.nolimit.aph
1: Header

```

