Performance comparison 130 Mb / 63 130 Mb / 63 Gb / 130 Mb / 63 Gb / 300 Data Size Gb / 300 Gb 130 Mb / 63 Gb / 300 Gb 300 Gb 130 Mb / 63 Gb / 300 Gb 1.67 Tb Gb Fusion 8x down-sampling Illumination Virtual Fusion Multi-view Stitching full resolution Software ICP refinement Selection @ full resolution Registration (requires Illumination Selection) (requires Illumination Selection) n.a. / 9 s / 4 s / 1 min 28 s / 9 s / 57 s / 1 s / 9 s / 44 s1 s / 15 s / 19 s6 min 30 s BigStitcher 8 s / 1 h 19 min / 8 h 43 min 14 s 7 min 15 s 2 min 52 s 16 s / 34 min 43 s / 2 h 29 1 min 15 s / 14 min 24 s\* / 1 h 4\* X X Х 2 min 29 s / 26 min 41 s\* / 2 h 35 min\* TeraStitcher min 10 s / 61 min / X/X/XХ Χ Χ Х ImageJ Stitcher 16 s / 10 h 36 min\* / 44 h 40 min\* 5 h 35 min X/X/XX 2s/X/XΧ Х Х Xuv Tools 9 s/X/XX/X/XХ 27 s / 47 h 15 min / 7 d 4 h\* Х 2 s / 5 min\* / 51 min\* Х Arivis X/X/XBigStitcher benchmark for processing a terabyte-sized multi-view dataset Data Size 1.67 Tb Illumination Virtual Fusion @ full Multi-view Software Selection Stitching ICP refinement Fusion @ 4x downsampling res. (display / save) Registration

1 h 1 min

56 s / 23 h 50 min\*

6 min 30 s

7 min 28 s

59 s

**BigStitcher** 

1h 14 min