Gated Imager Orientation at NIF
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Assumptions/ definitions

• Positioner view: the observer is looking at the phosphor screen, from the back of the positioner
• Assuming pinhole (array) imaging
• Pinhole imaging inverts the image of the object (i.e., negative magnification)

BUT
• The “image” of the pinhole array is a “point” projection (i.e., no inversion)

• For HGXD/RGXD, the DLP is rotated 90° Counter Clock Wise (when looking toward TCC), relative to GXD

Questions? Contact trosseille1/holder4
Fiducials

4 strip cameras: GXD1, 3, 4 – HGXD 2, 6

1 Fidu on strip 1 (at early time side)
2 Fidus on strip 4

2 strip cameras: HGXD 1, 3, 5

1 Fidu on strip 1 (at early time side)
2 Fidus on strip 2
POLAR DIM – Positioner view

GXD
- UP in CCD image
- UP in raw IP scan

HGXD
- UP in film image
- UP in raw IP scan

RGXD
- UP in CCD image
- UP in raw IP scan

Data orientation, MCP (SAVI view)

Data orientation, IP (SAVI view)
Pinhole array design – RVP - GXD

Looking \textit{from} TCC

Looking \textit{toward} TCC

Flip horiz.

Pinhole
Aligning pins

IP/MCP fidus

Kinematic basket handle
Pinhole array design – RVP - RGXD/HGXD

Looking from TCC. (this is usually the orientation of pinhole array drawings)

Looking toward TCC.

Pinhole Aligning pins

This pin is not at 45°; it is at 60/120.

IP/MCP fidus

DLP rotated 90° CCW (looking toward TCC), relative to GXD
Fiducial orientation, any equatorial positioner, looking toward TCC

GXD

RGXD

Remember pinhole inversion!

HGXD/ RGXD
equatorial IP DATA (SAVI view)
Fiducial orientation 00-00, looking toward TCC

Kinematic basket handle

GXD 00-00

00-00 DATA (SAVI view)

Remember pinhole inversion!