## Data Flow Architecture PSF Processing Pipeline

Gen\_2/ 32×32 0.232µm/pixel Projected Pixel Array Raw PSF Parsed Data Intensity Map Sensor Projection (CMV4000 Model) **PSF Files PSF Parser Photon Simulation** (Zemax Output) (Metadata Extraction) (Noise Addition) Noisy Detector Image 5.5µm pixel 2048×2048 CMV4000 Gen\_1/ 128×128 0.5µm/pixel Detected Pixel Groups Centroid Coordinates **Detection** Centroiding (Sub-pixel Accuracy) Bearing Vectors (Angular Coordinates) (Threshold & Grouping)