Digital Structural Inspection
Data Flow & Process Diagram

1. Input Data
   - Photos of existing structure

2. Digital Inspection Process
   - Photogrammetry (Metashape)
   - AI Pattern Recognition
   - Pointcloud .e57
   - Digital Structural Inspection Data (2 x ASCII Plaintext Files)
     - Damage attributes
     - Contour geometry

3. Generation of BIM Output
   - Python IfcOpenShell
   - Custom Python Tool
   - IFC4 Structural Inspection Model
   - BCF 2.1

4. EIR Requires an As-Built BIM Model?
   - Yes: Scan to BIM
   - No: Revit BIM Model

5. Optional
   - Scan to BIM
   - Revit BIM Model

6. Federated Output
   - Pointcloud .e57
   - Federated IFC4 Model (Solibri, BIMcollab Zoom, DESITE)

7. BCF Server / STRUCINSPECT Platform (Interim Structural Inspections)