# Functional MP Directory

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## Job Import:

### HeXML\_Reader

*Description*- Written in 2018.12.07, this MP was written to provide a means to import an entire Leica Multi-station job including point measurements, scans, and instrument plants. It parses through the HeXML file to find and import pieces in SA Job.

## Point Management:

### ADMPointsShift:

*Description*- Written in 2014.11.11, this MP was written to correct an ADM offset issue. It will prompt a user to select points to shift and build new shifted points based upon a user defined ADM distance. It will hide the originals and fabricate measurements to the new points so that the user can continue on with the corrected points. \*\*Note: this MP is designed to correct for an incorrect target definition at the time of measurement, using a probe with a glass prism and a high ADM constant can cause additional angular errors this MP will not correct for.

## Geometry Construction and Geometry Relationship Tools:

### ConstructGeometryOnPoints:

*Description-* Written in 2014.06.17, this MP was designed to build the specified geometry type on each individual selected point. The orientation of the geometry is defined by the working frame Z axis. You will be prompted to first pick points, then the geometry type, then the length and or diameter/radius as necessary. A Cylinder/Sphere/Circle or Frame will then be placed on each point (Cylinders area built with the base on the point and the length vertically upward from it).

Automaticlink-NominalCircleToMesured.mp:

*Description-* Written in 2016.11.01, this MP was written to provide a quick way to link Nominal circle to circle relationship. For each circle relationship in the job file, it will search a nominal circle base on extraction on all surfaces in the job file.

Cloud Extraction Tools:

### CloudSliceExtractionTool:

*Descrition-* Written in 2013.12.10, this MP was built to make it easier to separate features from a point cloud for geometry construction. It prompts the user to choose cloud points to define the top plane of a part. It then builds 2 clipping planes parallel to this reference plane so that only a slice of a specified width remains visible. Buttons are then provided to allow the user to easily select cloud points and build geometry from the.

polyline.mp:

*Description-* Written in 2016.11.01, this MP allow you to create a B-spline following curvature of your laser line scan. This MP works from a selected recherch area define with 3 Click points in the cloud in this order: first point of the line, second point of the line, one point to define the recherch distance from the line. The line need to be a segment of your edge you are looking for, and the length smaller than the smallest curvature you are looking for.

## GD&T:

### GD&TVisualizationVectors:

*Description-* Written in 2013.12.10, this MP was written to help understand why certain GD&T checks fail by building a vector group from the feature measurements to the nominal feature after performing a GD&T alignment using the datum features.

## Simulation:

### StartInstrumentImage:

*Description-* Written in 2014.06.17, this MP was written to provide a quick way to add a basic demo CAD part and start an instrument in simulation. It also demonstrates how an image can be mapped to provide simple user interaction in MP.