

Use cases:

- Store Contour objects for given contour, plane, image, mode(+/-)
 - [Tools]
- Retrieve Contours for given plane, image (all modes)
 - [Rendering, editing]
- Compute resulting Contour/ Merge Contours for given plane, image
 - [Rendering]
- Retrieve resulting Contours in stack (in direction of normal of plane) for given plane, image
 - [Interpolation purposes]
- Retrieve resulting Contour for given plane, image
 - [Rendering, Tools, editing]

Requirements:

- Use MITK micro service implementation
 - Service interface and implementation in Segmentation Module
 - Activator class that registers the Service in Segmentation Plugin
 - Use Singleton as a Service pattern for the actual implementation
- Map Contour object to image and plane
- Store planes for easy access via plane and image
- Intersection computation of two contours {at least better then $O(n^2)$ }
- Concept to work with binary image representation
 - Project, fill, write back
- Concept for Rendering -> need of a DataNode+Data
- Alternating contour fires event {listener to update binary image}

Possible improvement

