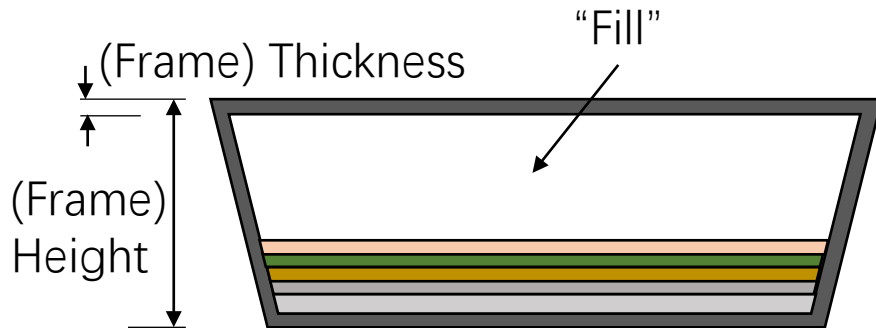
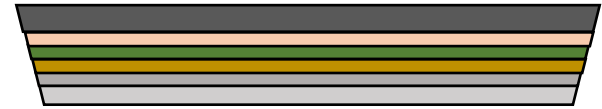


Recent Geometry Update

- 2 PRs merged recently
- 6 AstroPix layers -> 4 AstroPix layers (+ 2 empty shelves)
<https://github.com/eic/epic/pull/469>
 - It may change the clustering performance (topo-clustering)
 - Will test it and re-optimize clustering parameters
- Simplified carbon-fiber frames (shelves) for AstroPix
<https://github.com/eic/epic/pull/470>
 - It introduces a small gap between sectors
 - Total materials unchanged

Carbon-fiber Frame

```
<layer repeat="1" vis="EcalBarrellayerVis"
  space_before="0.*cm">
  <slice material="Silicon" thickness="EcalBarrel_SiliconThickness" sensitive="yes" limits="cal_limits" vis="EcalBarrelSliceVis"/>
  <slice material="Silicon" thickness="EcalBarrel_ElectronicsThickness" vis="EcalBarrelSliceVis"/>
  <slice material="Copper" thickness="EcalBarrel_CopperThickness" vis="EcalBarrelSliceVis"/>
  <slice material="Kapton" thickness="EcalBarrel_KaptonThickness" vis="EcalBarrelSliceVis"/>
  <slice material="Epoxy" thickness="EcalBarrel_EpoxyThickness" vis="EcalBarrelSliceVis"/>
  <slice material="CarbonFiber" thickness="EcalBarrel_CarbonThickness" vis="EcalBarrelSliceVis"/>
</layer>
```



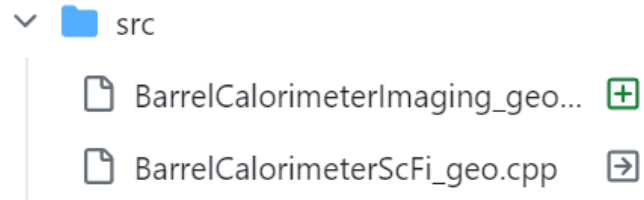
```
<layer repeat="1" vis="EcalBarrellayerVis"
  space_before="EcalBarrel_ScFiLayerThickness + EcalBarrel_SpaceBetween">
  <frame material="CarbonFiber" fill="Air" thickness="EcalBarrel_CarbonThickness" height="EcalBarrel_ImagingLayerThickness">
  <slice material="Silicon" thickness="EcalBarrel_SiliconThickness" sensitive="yes" limits="cal_limits" vis="EcalBarrelSliceVis"/>
  <slice material="Silicon" thickness="EcalBarrel_ElectronicsThickness" vis="EcalBarrelSliceVis"/>
  <slice material="Copper" thickness="EcalBarrel_CopperThickness" vis="EcalBarrelSliceVis"/>
  <slice material="Kapton" thickness="EcalBarrel_KaptonThickness" vis="EcalBarrelSliceVis"/>
  <slice material="Epoxy" thickness="EcalBarrel_EpoxyThickness" vis="EcalBarrelSliceVis"/>
  </frame>
</layer>
```

```
<layer repeat="1" vis="EcalBarrellayerVis"
  space_before="EcalBarrel_ScFiLayerThickness + EcalBarrel_SpaceBetween">
  <frame material="CarbonFiber" fill="Air" thickness="EcalBarrel_CarbonThickness" height="EcalBarrel_ImagingLayerThickness">
  </frame>
</layer>
```



Code Changes and Planned Updates

- The Geometry plugin is separated for AstroPix/SciFi
 - Planned updates mostly for AstroPix layers



- Aluminum plate on the frame
 - Attach to SciFi layers
- Fish-scale AstroPix staves

