



Progress Update on SolidWorks -> Geant4 Converter

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Translator Program

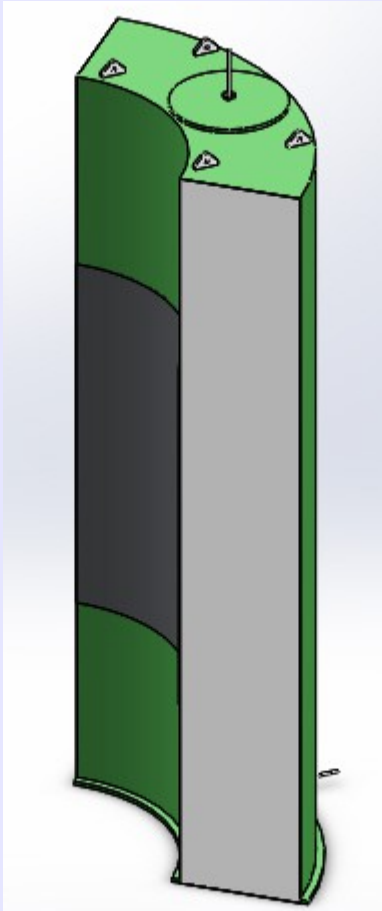
- C++ program developed with Visual Studio and using the SolidWorks API
- About 3000 lines of code currently
- Takes one SolidWorks file and produces GDML output file



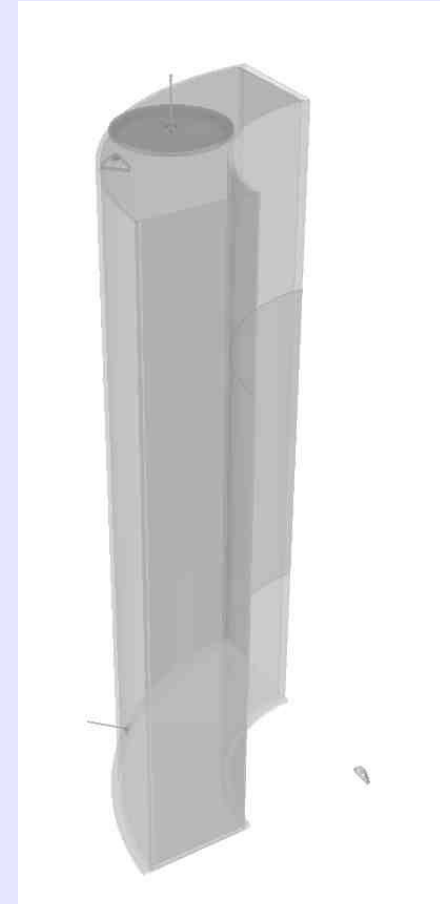
Processing Entire SW Assemblies



SolidWorks Design



Same Design in Geant4



- Many separate components, each with its own coordinate system
- Every part in place except for three lifting eyes at origin



New: Local Linear Pattern

- Lifting eyes have new feature: Local linear pattern
- Instead of having mates, they are placed in pattern
- Need to read pattern data from
ILocalLinearPatternFeatureData
- Getting spacing values successfully
 - But failing to get axis

```
gCComPtr<IRefAxis> refAxis;  
hres = RefAxisDisp->QueryInterface(__uuidof(IRefAxis), reinterpret_cast<void**>(&refAxis));
```

>> Fails to find interface



Failure to Find IRefAxis Interface

- IlocalLinearPatternFeatureData member getD1Axis() returns an IDispatch
- D1 is an edge axis that is not reversed
- This IDispatch has a zero type info count and no type info
- Calling QueryInterface for IRefAxis fails
- Don't know how to get the IRefAxis
- Will try GetIDsOfNames()