

Stefan Knott  
HW5

Data File Name: localhost:/home/stefan/Downloads/Morrison.dem

Database comment: Driver: USGSDEM/USGS Optional ASCII DEM (and CDED)

File Format: GDAL\_1.0

How many meshes are there and what are their names: 10, mesh, elevated/mesh,  
lower\_res/resolution\_0537x0695,elevated/lower\_res/resolution\_0537x0695  
,lower\_res/resolution\_0268x0347, elevated/lower\_res/resolution\_0268x0347,  
lower\_res/resolution\_0134x0173, elevated/lower\_res/resolution\_0134x0173,  
lower\_res/resolution\_0067x0086, elevated/lower\_res/resolution\_0067x0086

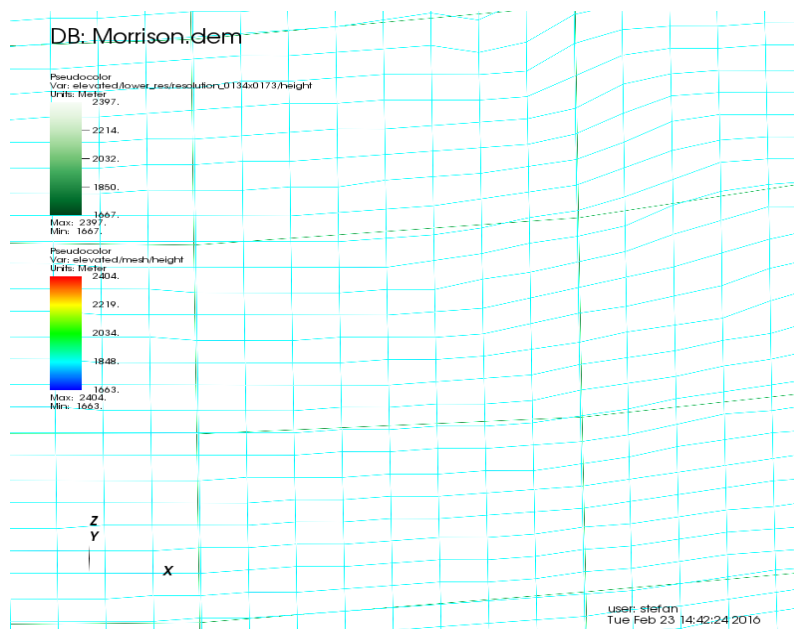
What is the mesh type for the elevated/mesh: Unstructured Mesh

How many Spatial Dimensions does it have: 3

How many Topological Dimensions does it have: 2

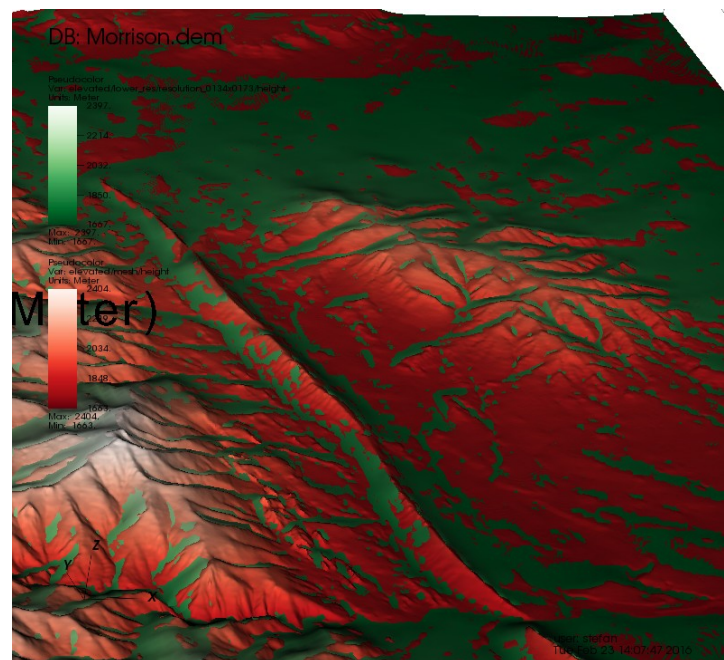
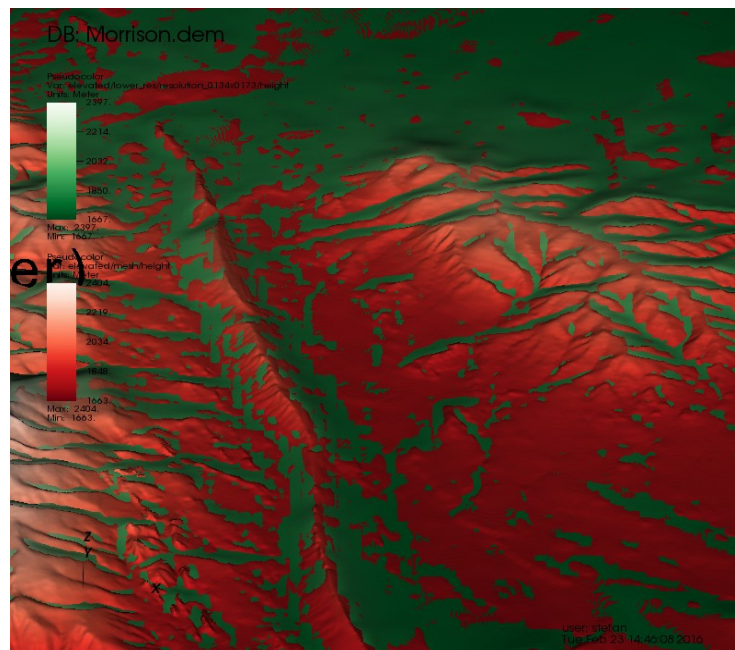
What are its Spatial extents: not set

Question: 64 high res grid patches per low res patch



Question: Perhaps because there is more data relating to one color. For example, in areas where green

is more prevalent maybe there is more low resolution data than high resolution – or perhaps high resolution data for those areas is non-existent.

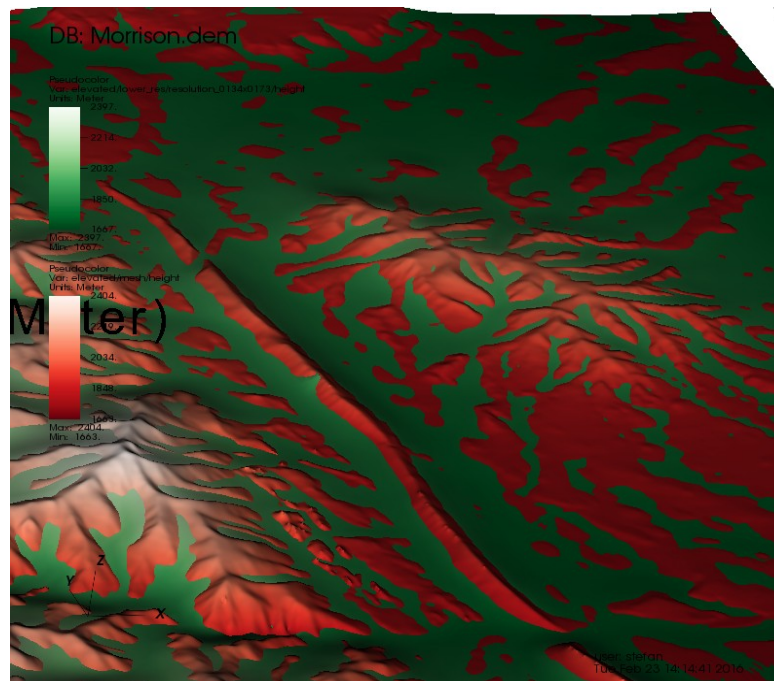


Question: All of the data points have been smoothed – making it so the data isn't represented in a rough, blockish way. I think that internally VisIt is perhaps creating a finer mesh for the data to be represented on. Or perhaps VisIt is just outlining the rough depiction with no smoothing, and then just filling in the negative space caused by the data grid.



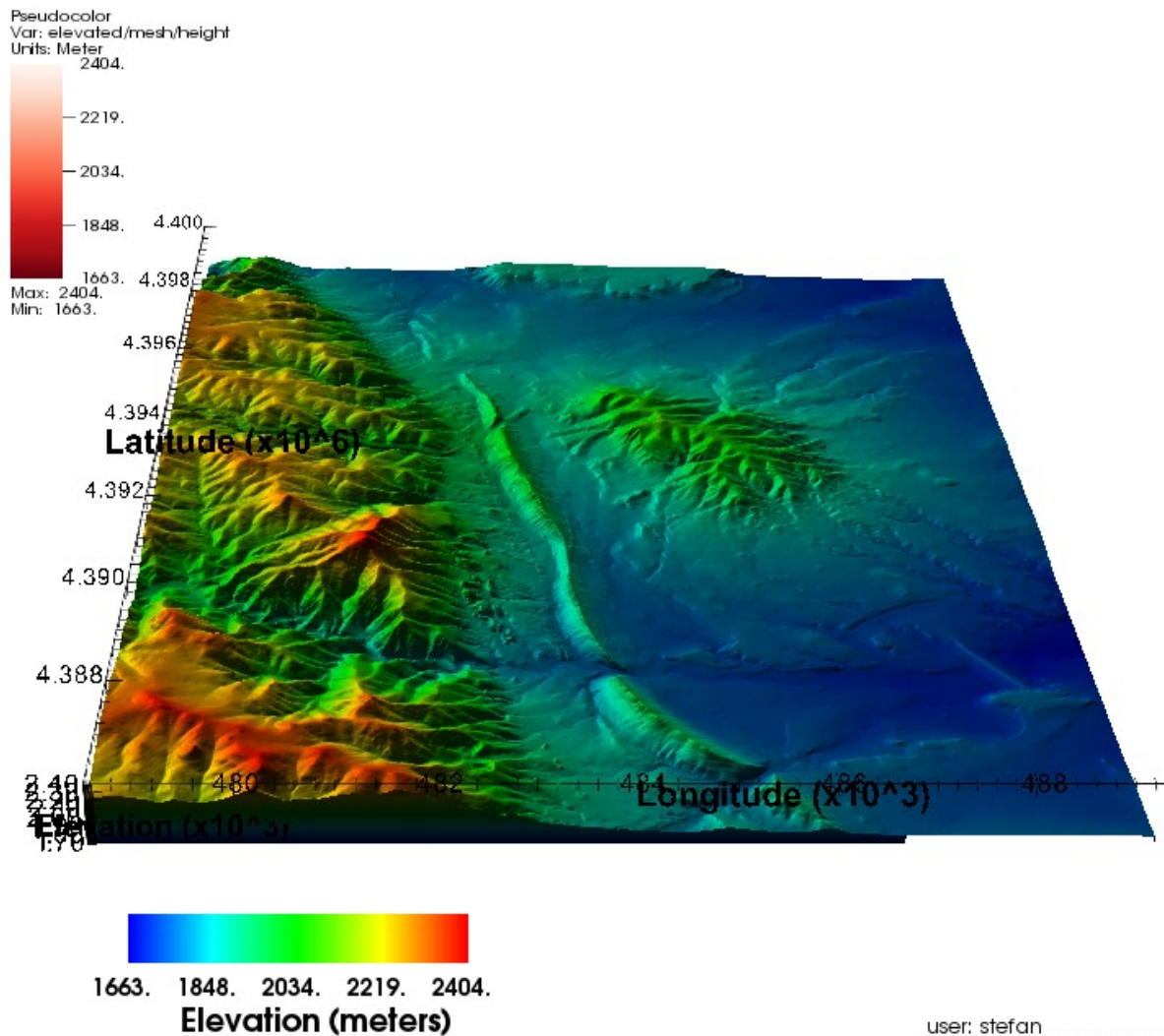
Question: I believe that the visualization with high smoothing is the best to use in this situation. This is

because it seems to provide a more consistent visualization (solid greens and reds are smoothed together more than in fast) The high setting also helps the two data meshes work together in an efficient manner for visualization.





# Morrison Geography



Question: The lie that is depicted in the visualization is that the highest peaks are too saturated.

Question: A problem with one of my axis labels is the z-axis label of Elevation. I would move this label out of the plot, perhaps just below it so that the user could actually read it clearly.