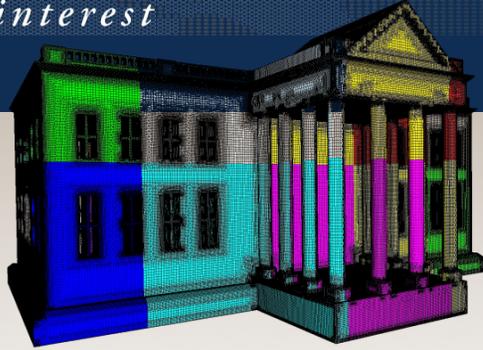


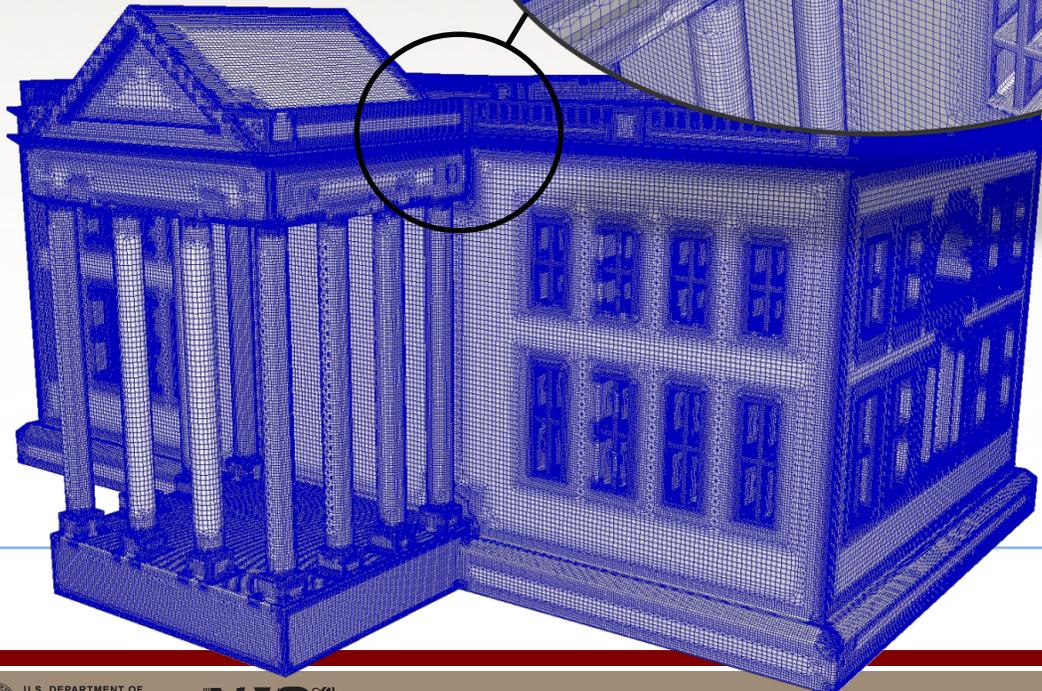
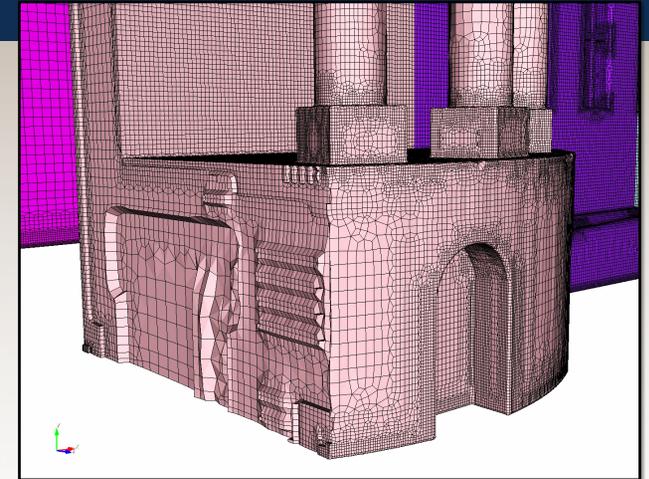
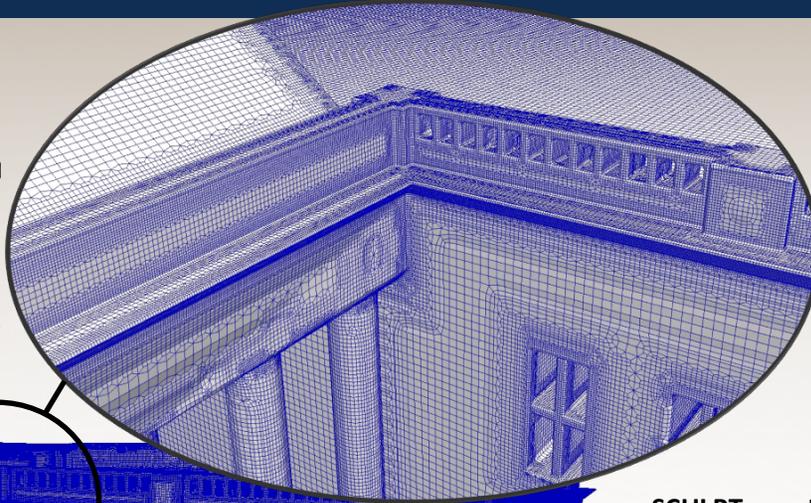
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Parallel Hexahedral Mesh Generation for White House Geometry with SCULPT

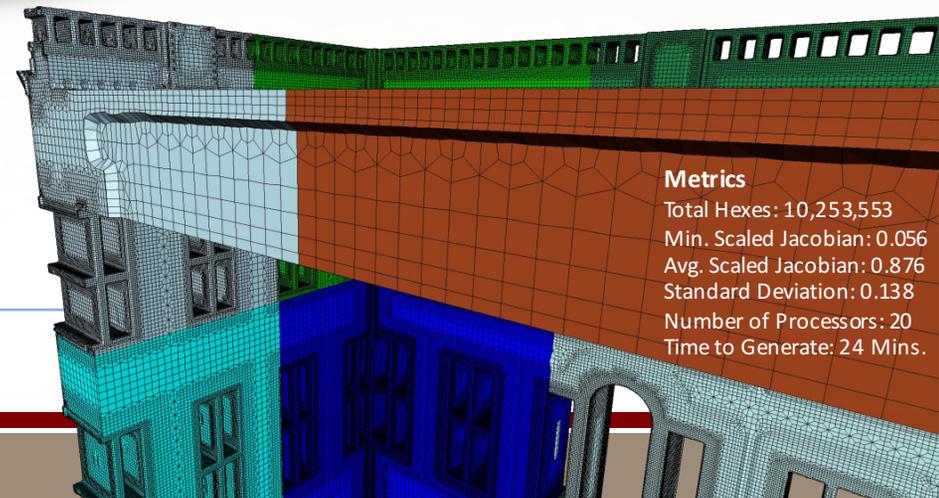
Bradley Parks, Steve Owen



White house mesh generated on 20 processors using adaptive grid-based all-hex algorithm



SCULPT was developed at Sandia Labs as a solution for HPC distributed parallel hex meshing where time to analysis is critical. It dramatically reduces user time eliminating the need for decomposition and geometry cleanup.



Metrics
Total Hexes: 10,253,553
Min. Scaled Jacobian: 0.056
Avg. Scaled Jacobian: 0.876
Standard Deviation: 0.138
Number of Processors: 20
Time to Generate: 24 Mins.