

How to store FEA data in HDF5

An FEA “standard” I/O format does not exist for HDF5. CGNS is as close as it gets, but that is for CFD data. There has been some discussion in the past to extend CGNS to include Solid Mechanics, but it never gained traction. For FEA data formats which are geared towards solid mechanics and store the data in HDF5 there are these that we are aware of:

- (1) Exodus (<https://gsjaardema.github.io/seacas/>)
- (2) Silo (<https://wci.llnl.gov/simulation/computer-codes/silo>)
- (3) MOAB (<http://sigma.mcs.anl.gov/moab-library/>)
- (4) XDMF (http://www.xdmf.org/index.php/XDMF_Model_and_Format)

Most vis packages can read these formats and understand that it is FE data.