Chair for Computation in Engineering
Deparment of Civil, Geo and Environmental Engineering
Technical University of Munich

An independent library to read VTK files

Project Characteristics
Modeling: ★★☆☆☆
Mathematics: ★☆☆☆☆
Programming: ★★★★★
Science: ★★☆☆☆

Setting:

- VTK is used to visualize scientific data, often in combination with the Paraview visualization software
- VTK is a very large project, and using it just for reading and writing result files is an overkill
- vtu11 is a small header only library written in C++ that writes .vtu files without the need of adding the dependency to VTK (https://github.com/phmkopp/vtu11)

Your Tasks:

- Extend the functionality of vtu11 to also read .vtu files in different file formats (ASCII, binary, compressed binary)
- Extend vtu11 to work also in parallel environments

References

[1] Schroeder, Will; Martin, Ken; Lorensen, Bill (2006), The Visualization Toolkit (4th ed.), Kitware, ISBN 978-1-930934-19-1