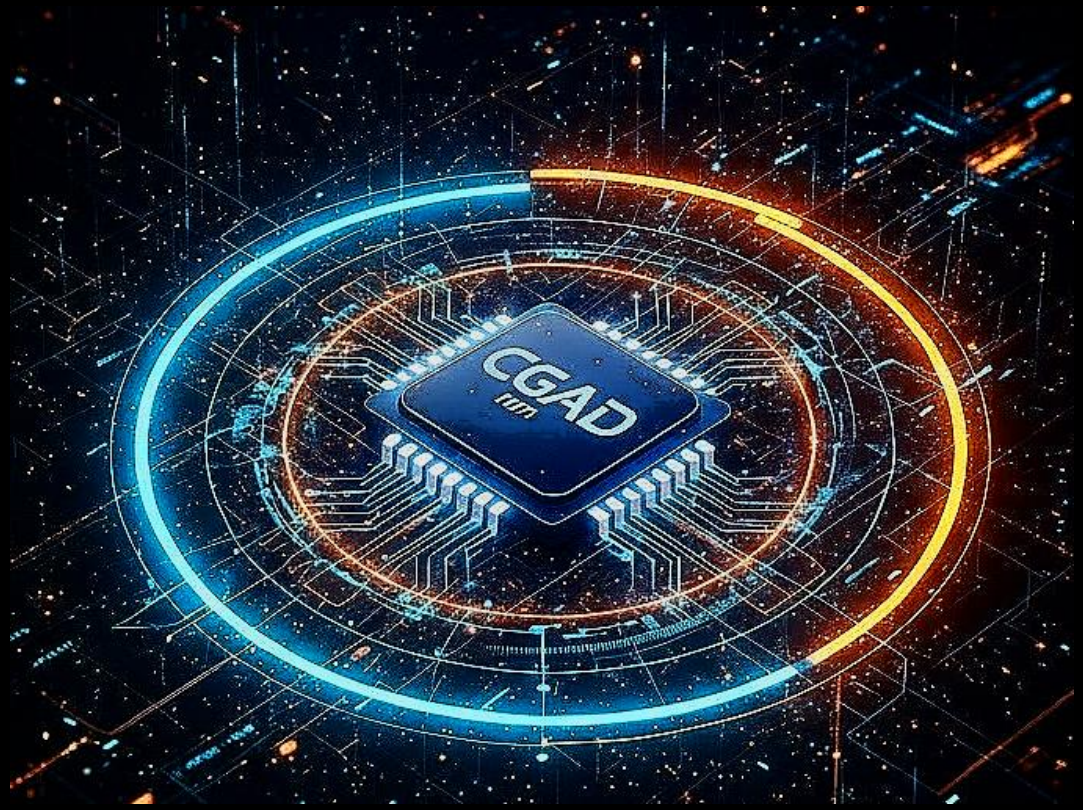
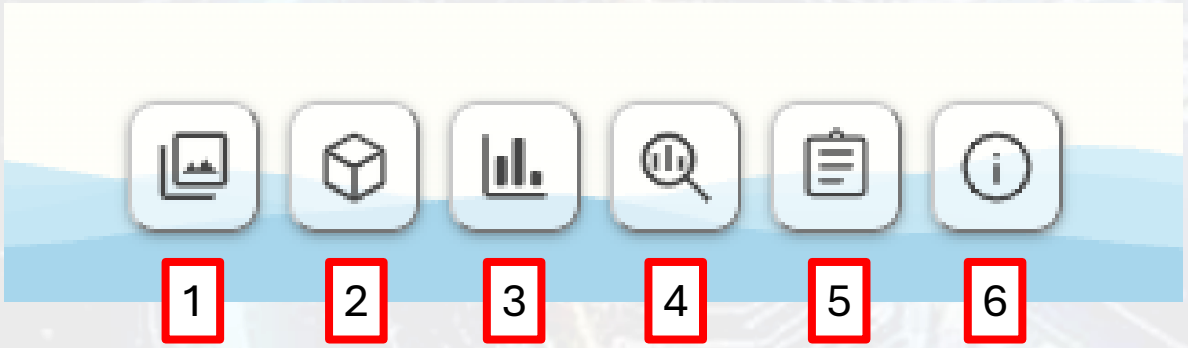


ANNEX B - USER MANUAL

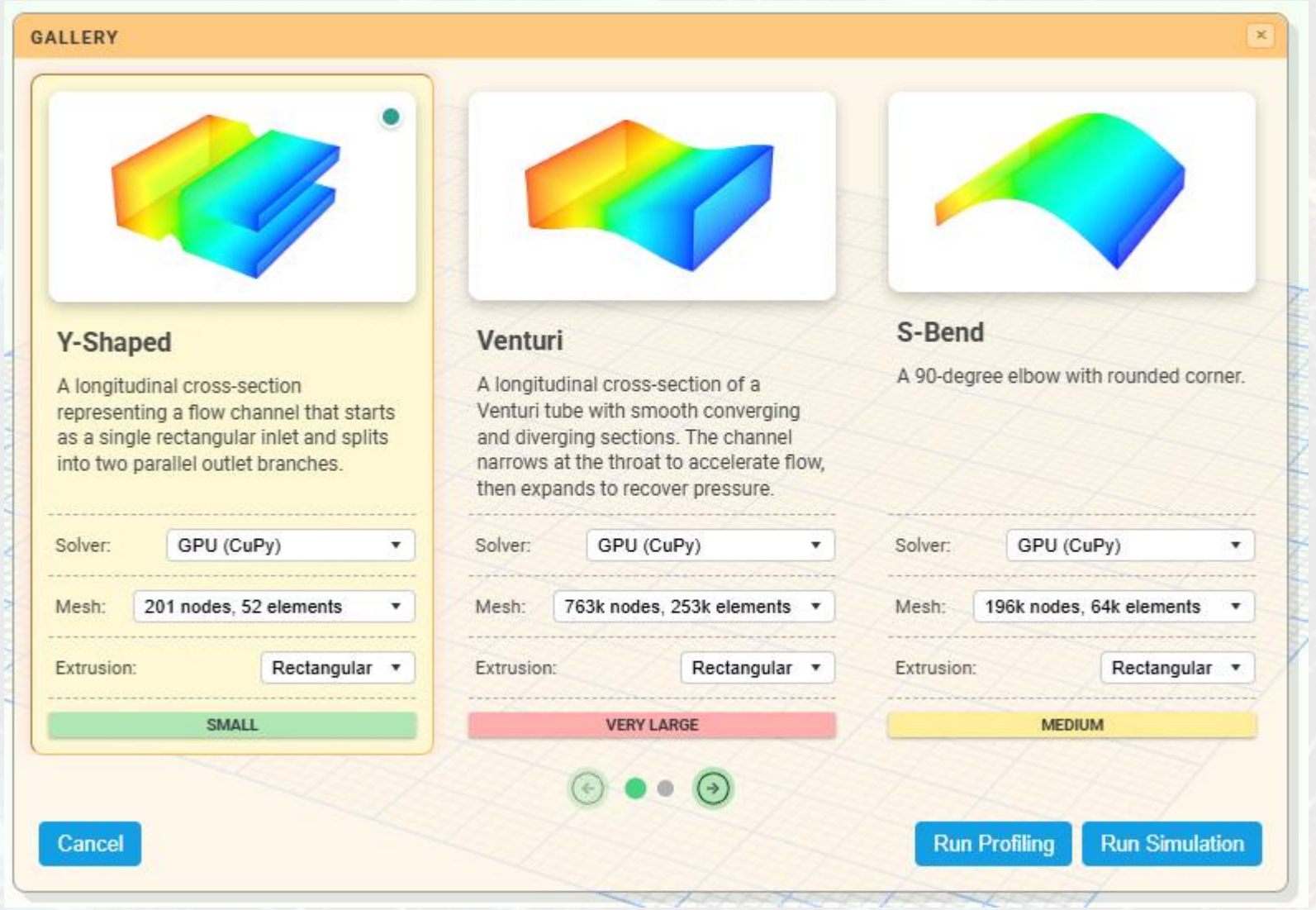
FEMulator Pro

Control Buttons

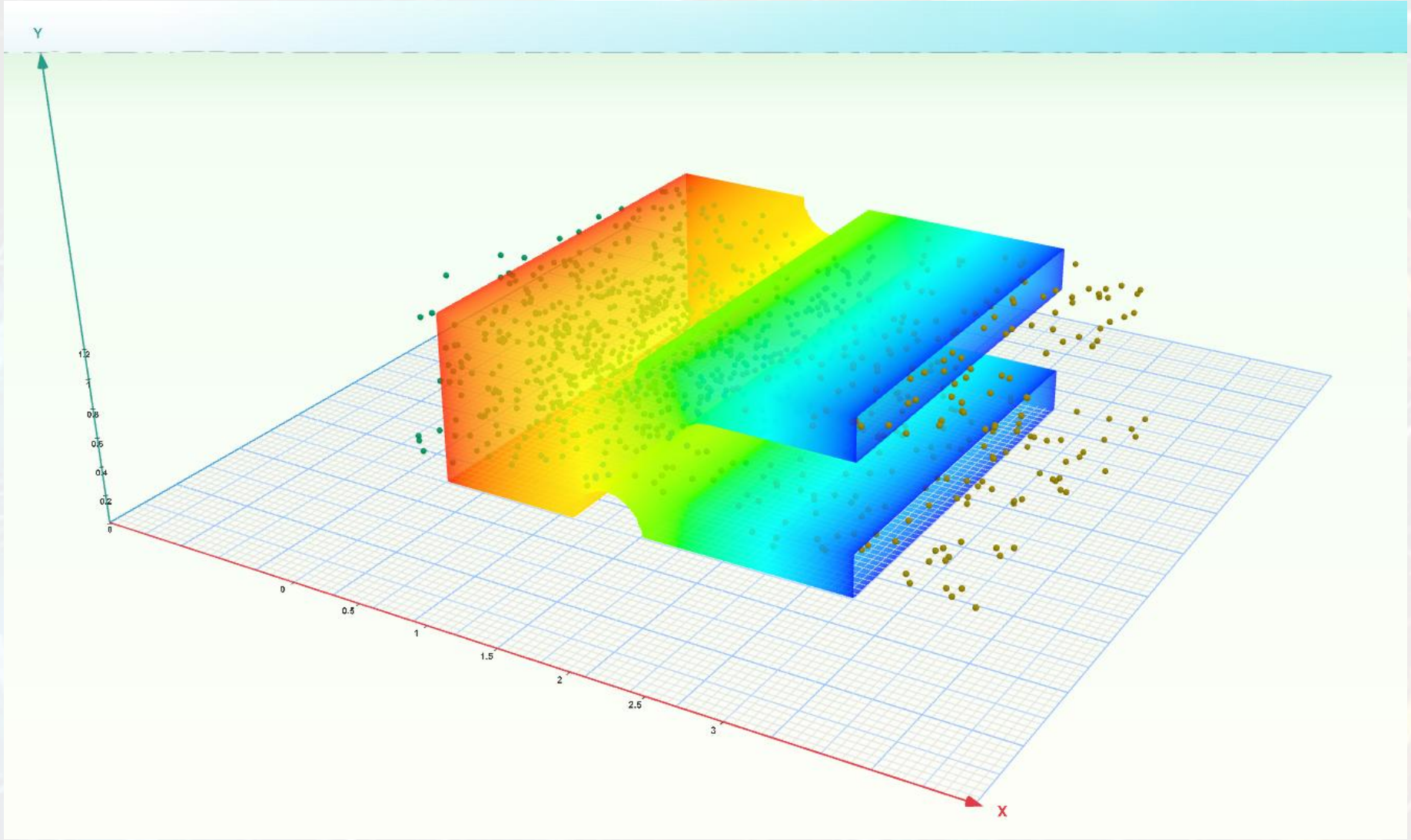


1. Mesh Gallery
2. Simulation Details, Metrics & Settings
3. Benchmark & Simulations History
4. Profiling Sessions
5. Reporting
6. About

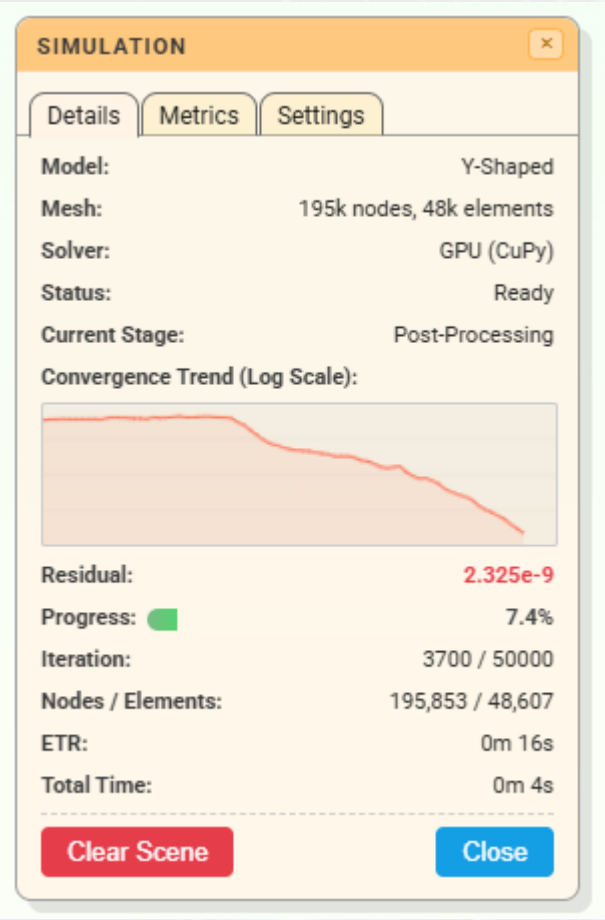
1 – Mesh Gallery

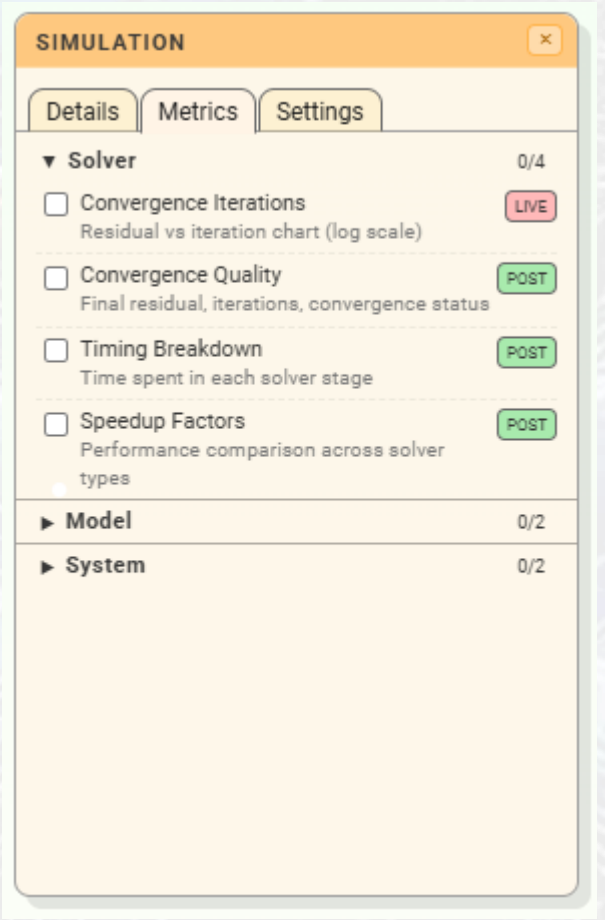


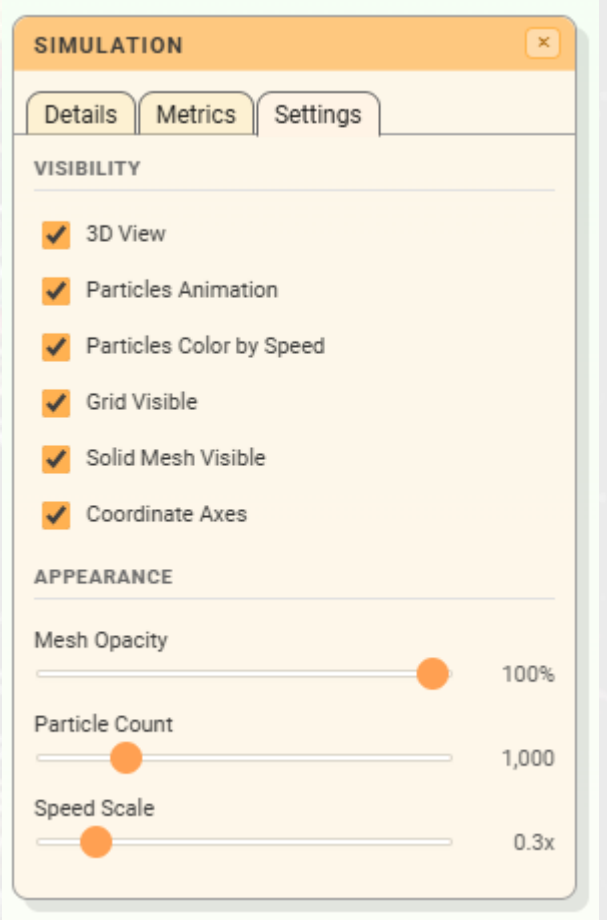
1 – Simulation



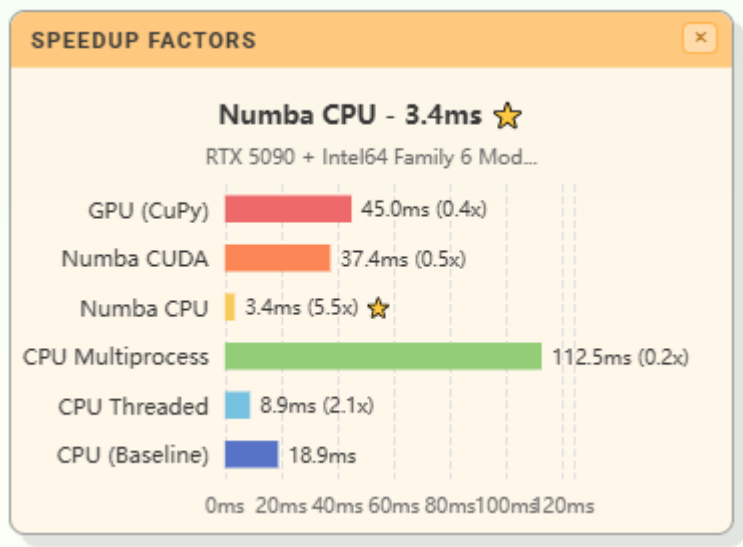
2 – Simulation Details, Metrics & Settings

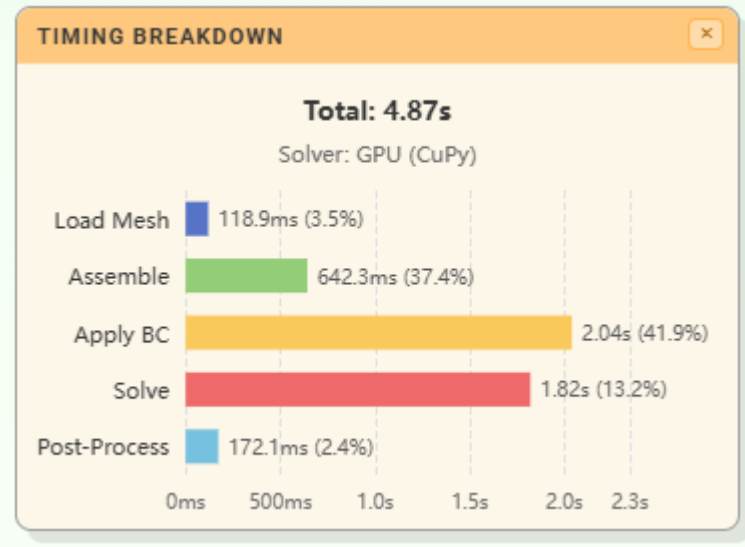




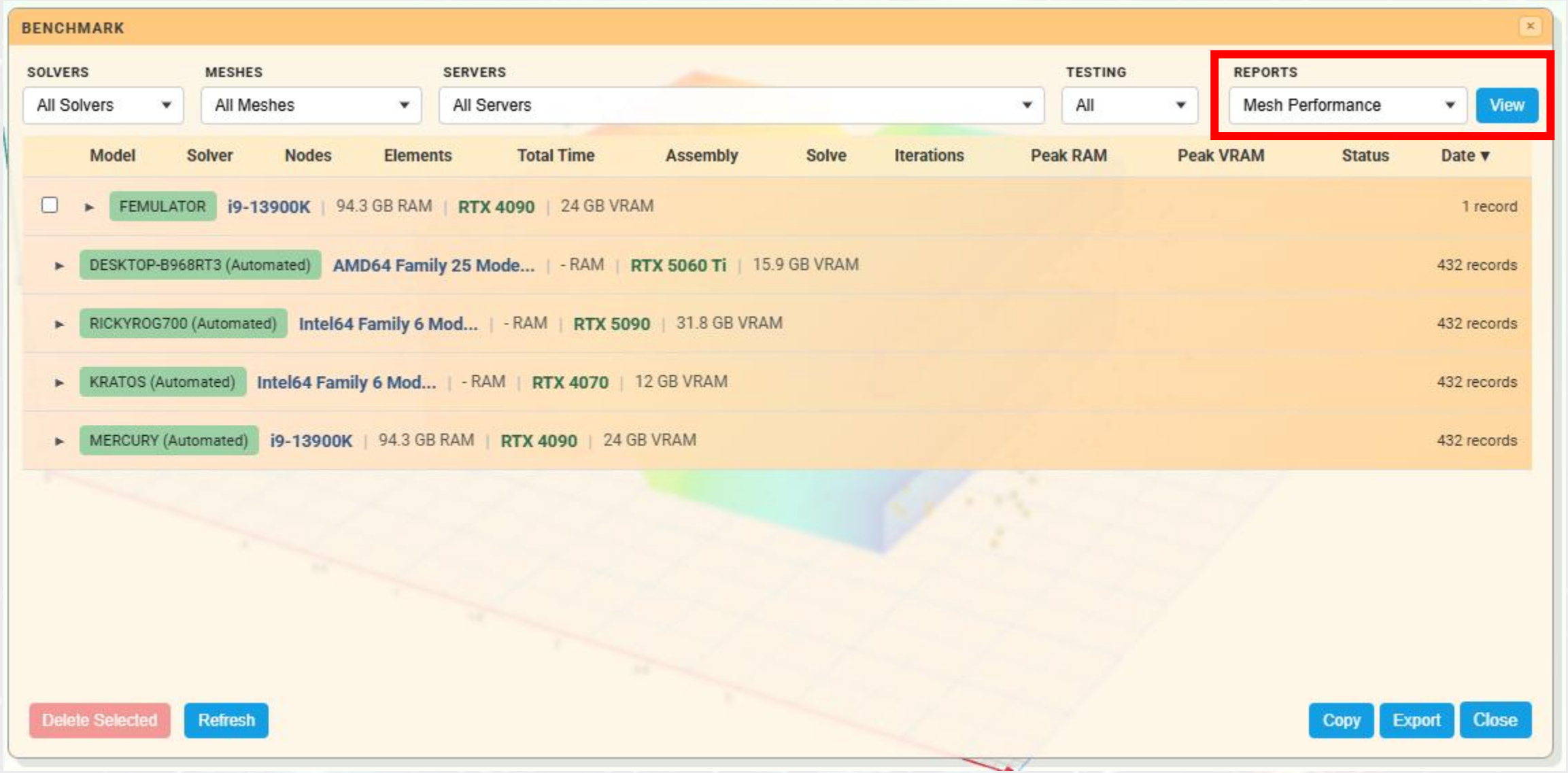


2 – Simulation Metrics - Examples

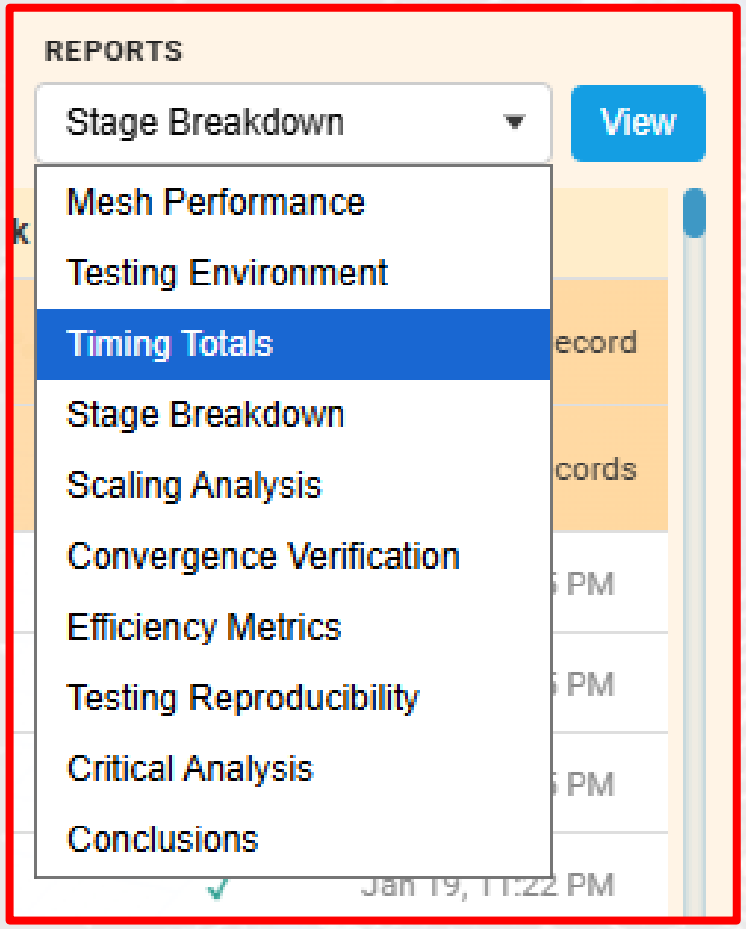


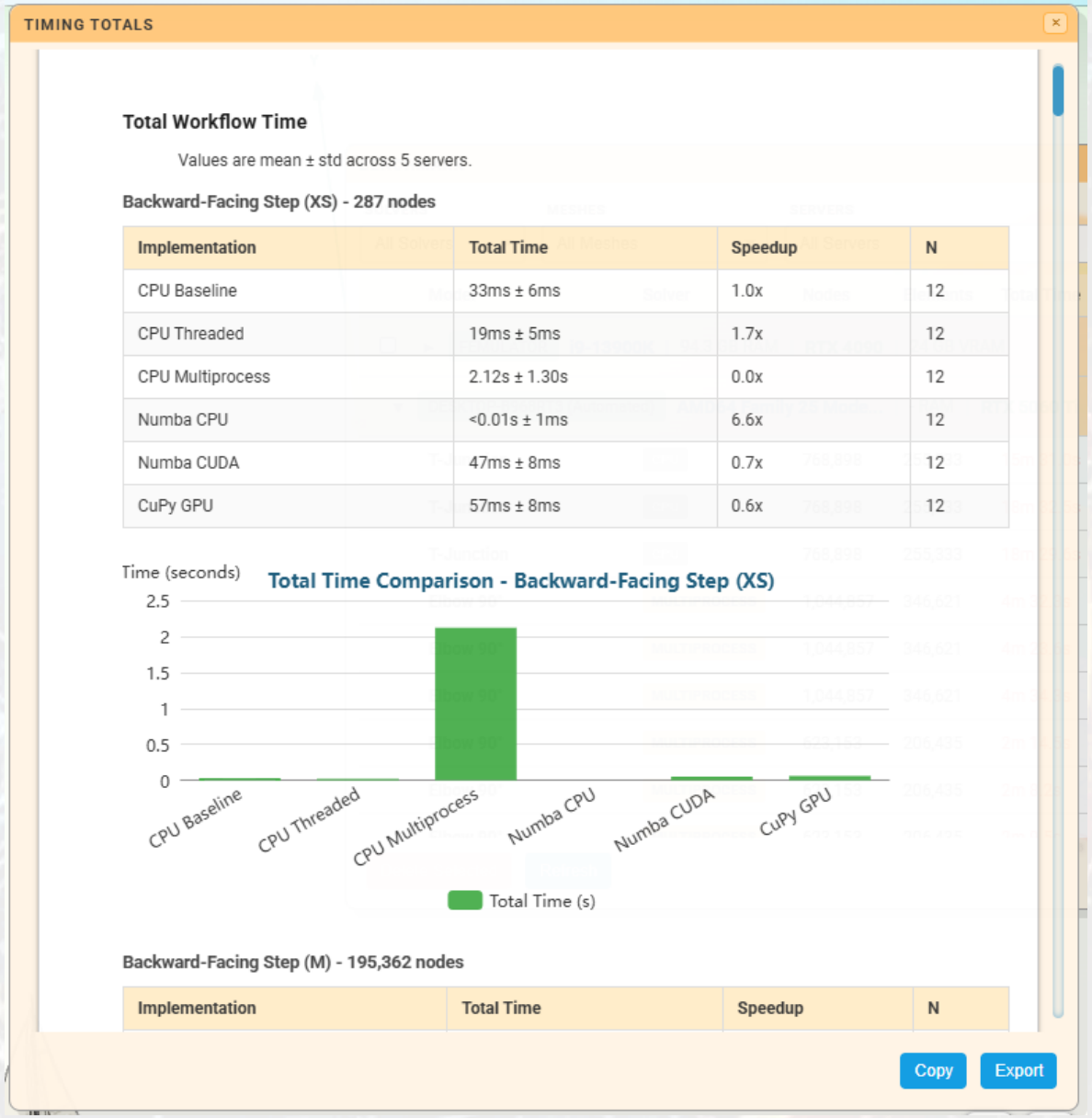


3 – Benchmark & Simulations History

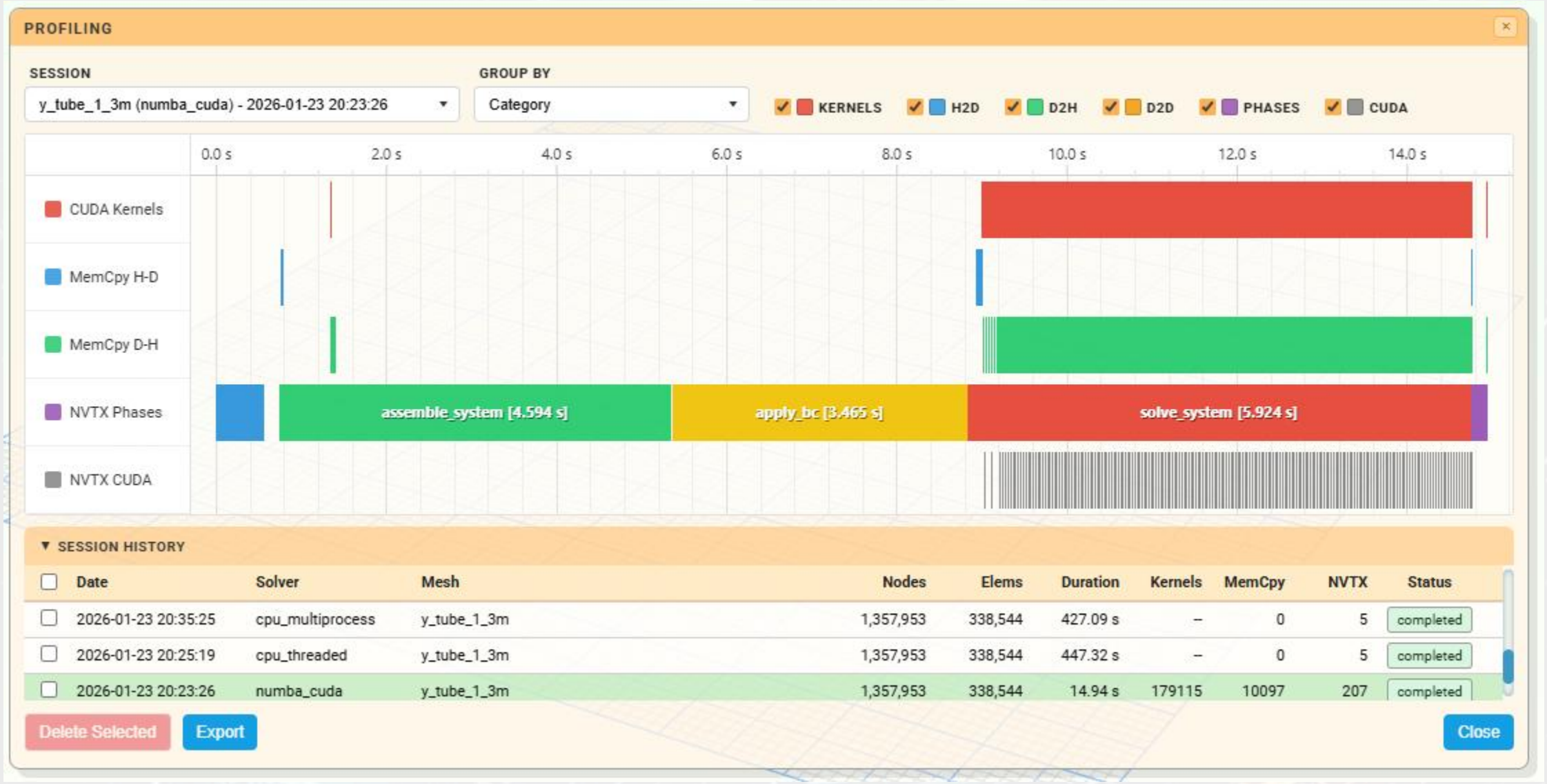


3 – Benchmark & Simulations History - Reports

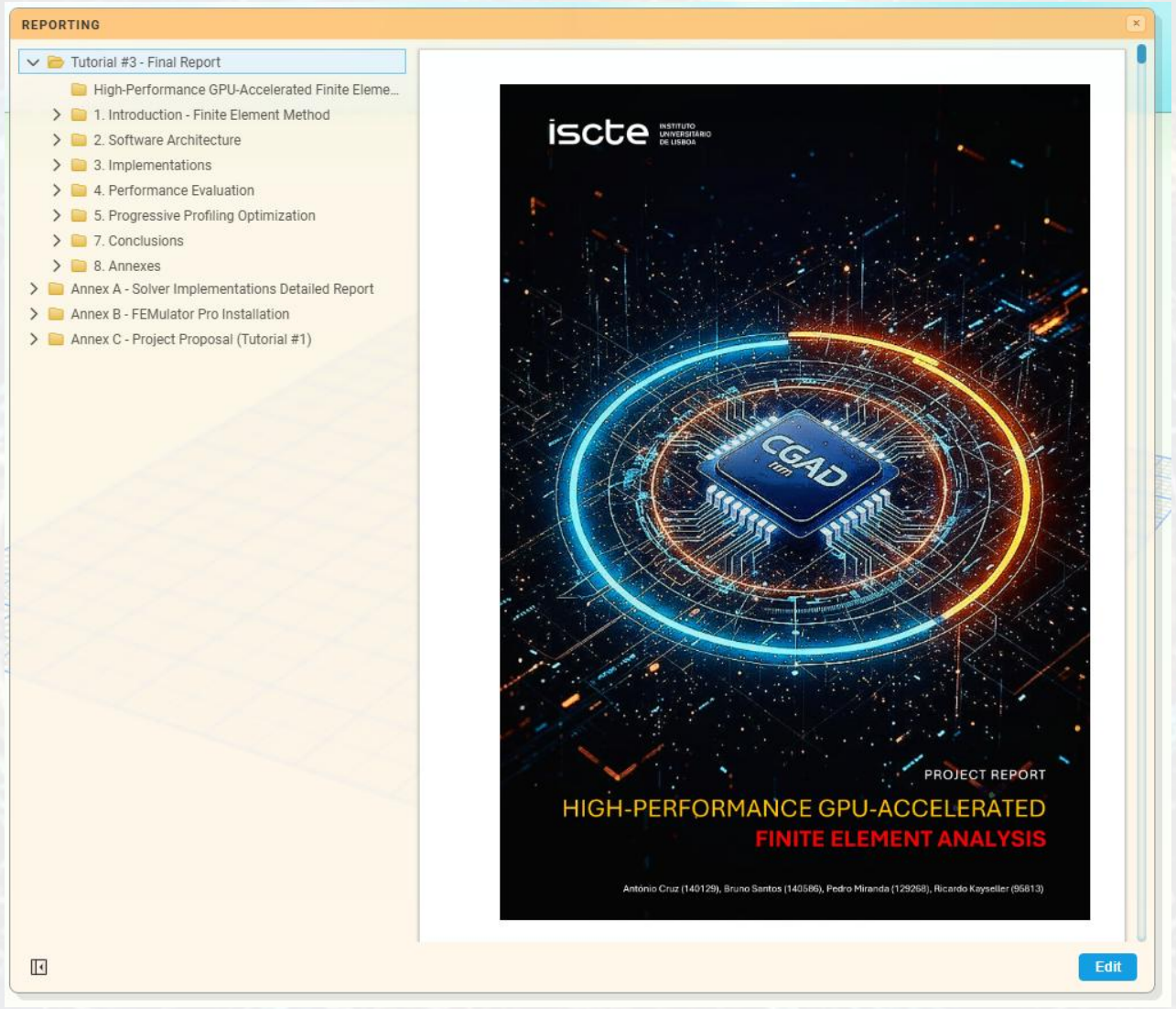




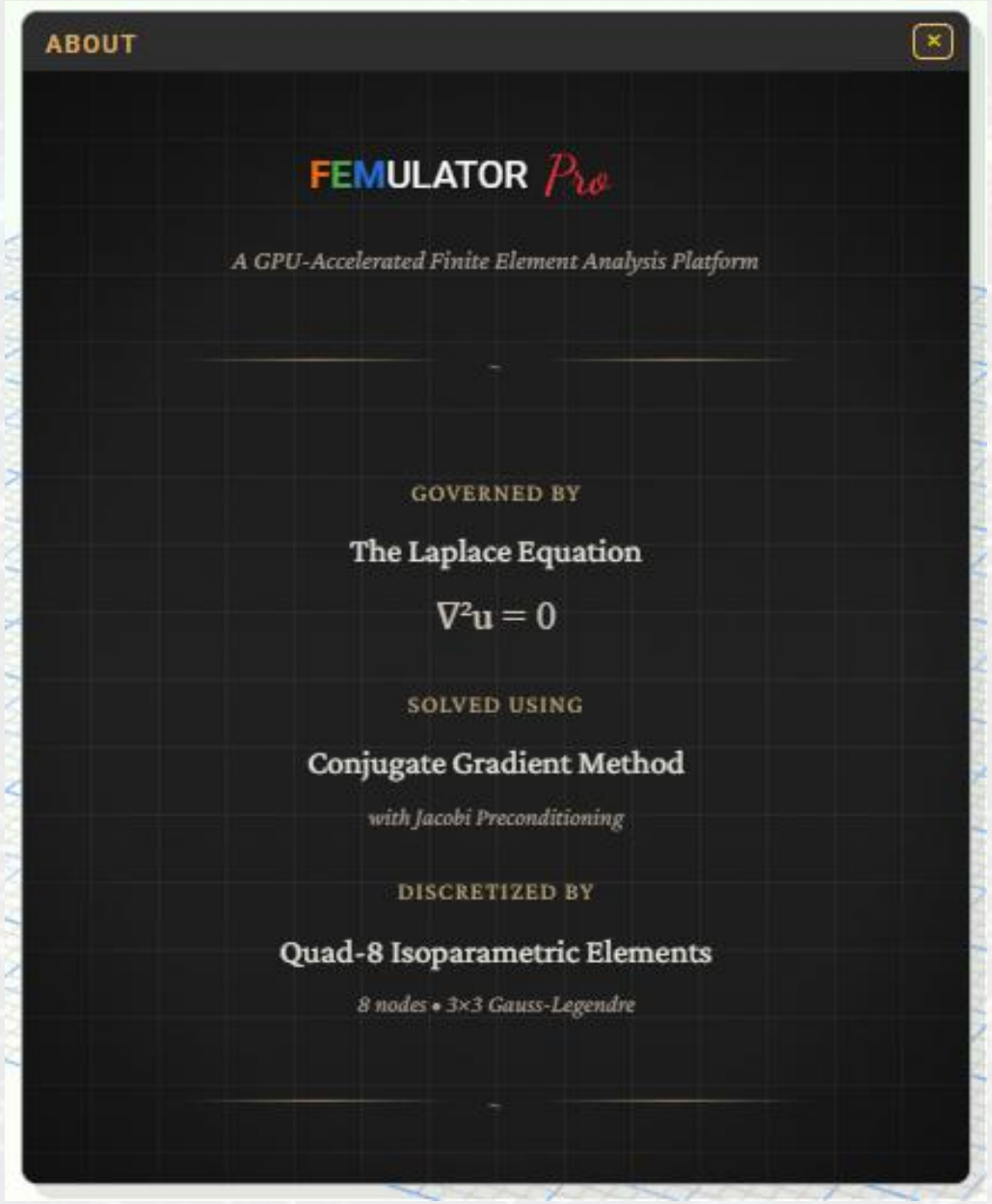
4 – Profiling Sessions



5 – Reporting


REPORTING
Tutorial #3 - Final Report
High-Performance GPU-Accelerated Finite Eleme...
1. Introduction - Finite Element Method
2. Software Architecture
3. Implementations
4. Performance Evaluation
5. Progressive Profiling Optimization
7. Conclusions
8. Annexes
Annex A - Solver Implementations Detailed Report
Annex B - FEMulator Pro Installation
Annex C - Project Proposal (Tutorial #1)
iscte
INSTITUTO UNIVERSITÁRIO DE LISBOA
CGAD
PROJECT REPORT
HIGH-PERFORMANCE GPU-ACCELERATED
FINITE ELEMENT ANALYSIS
António Cruz (140129), Bruno Santos (140586), Pedro Miranda (129268), Ricardo Kayseller (95813)
Edit

6 - About


ABOUT
FEMULATOR Pro
A GPU-Accelerated Finite Element Analysis Platform
GOVERNED BY
The Laplace Equation
$\nabla^2 u = 0$
SOLVED USING
Conjugate Gradient Method
with Jacobi Preconditioning
DISCRETIZED BY
Quad-8 Isoparametric Elements
8 nodes • 3×3 Gauss-Legendre