EnSight 9.1

New features and capabilities including volume rendering

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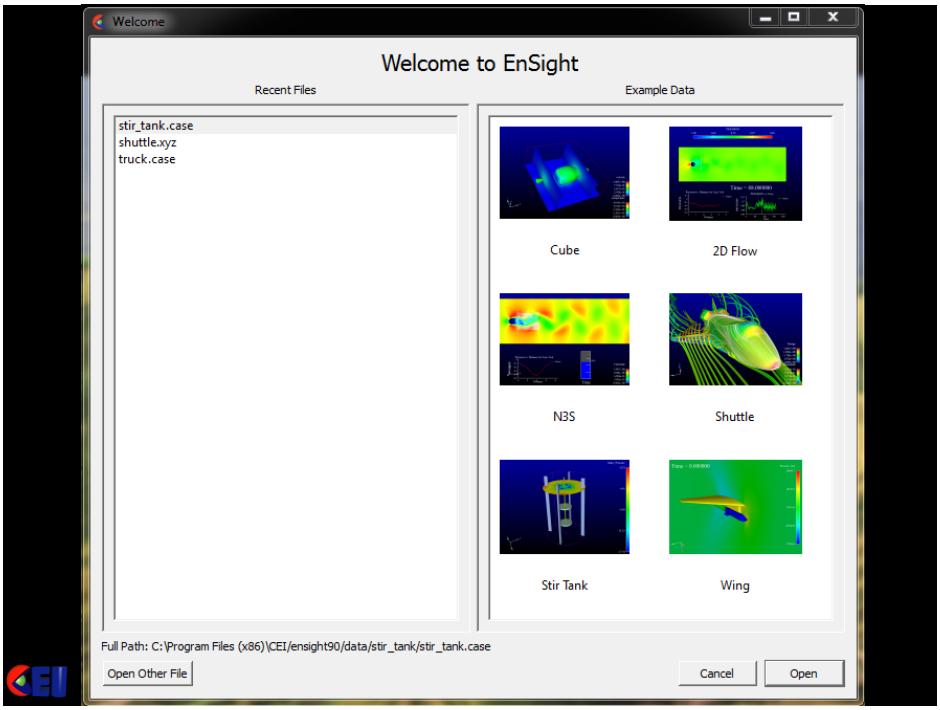
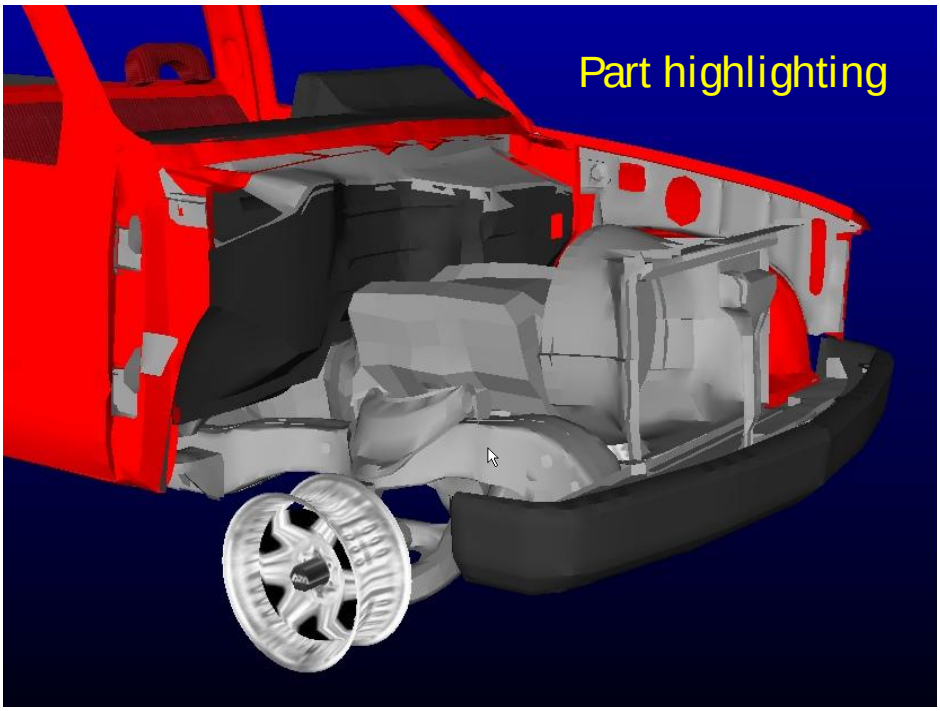
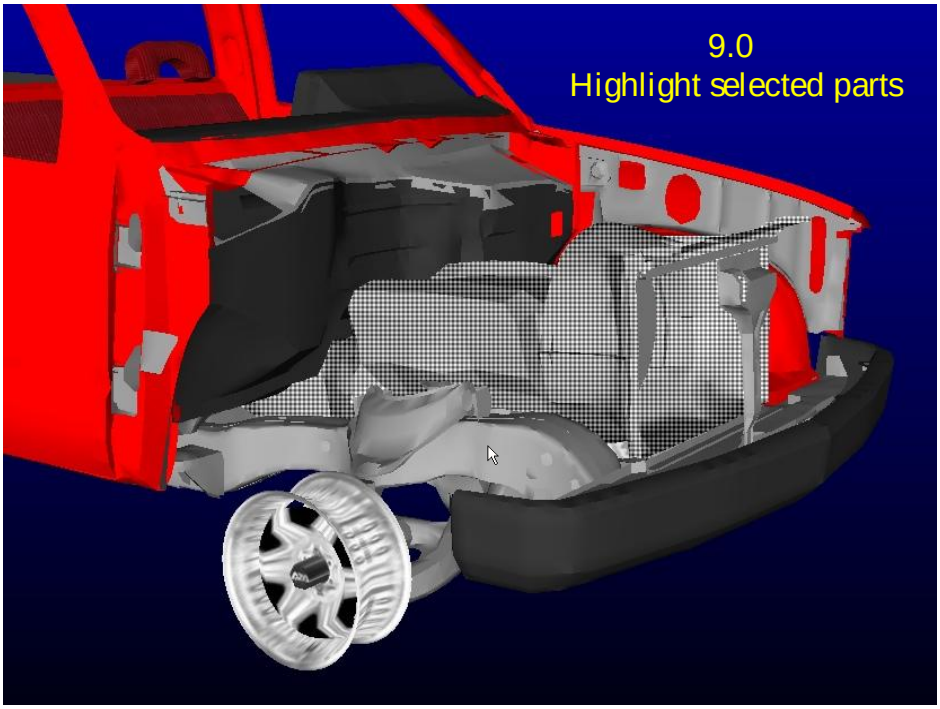
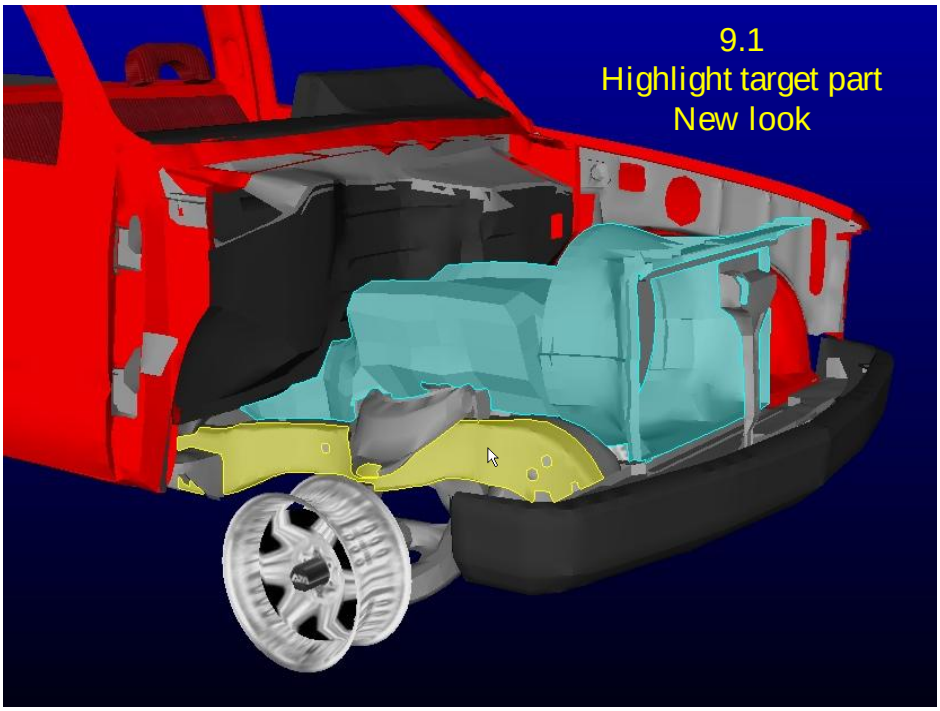
New to EnSight 9.1

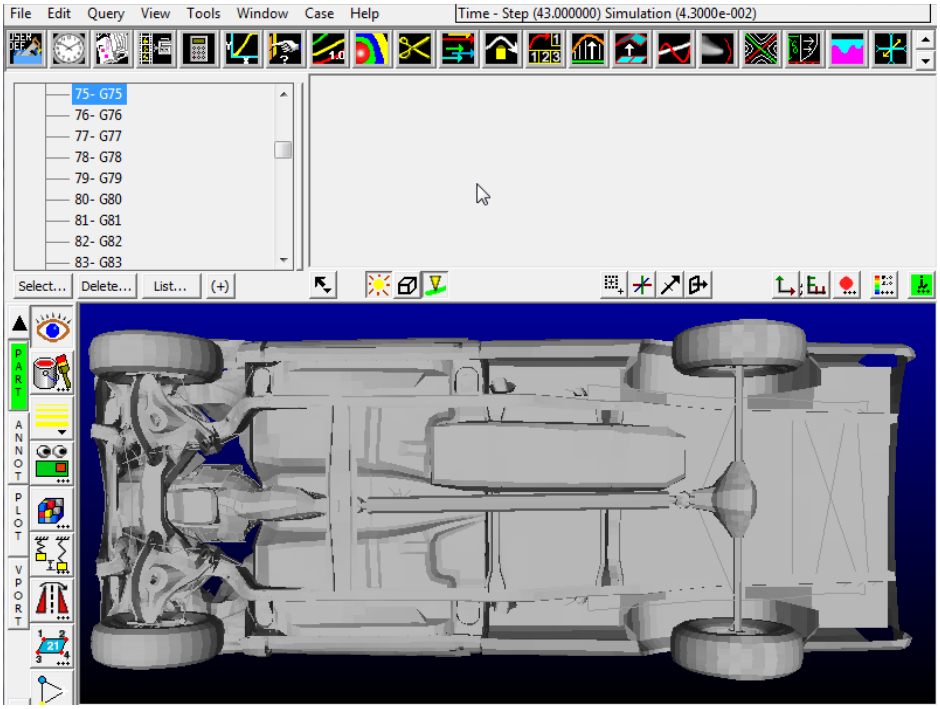
- User interface enhancements
  - Welcome screen
  - Part highlighting
- Increased functionality
  - Volume rendering
  - 3D text and line annotation
  - Data import/export
- Improved performance
  - n-faced elements

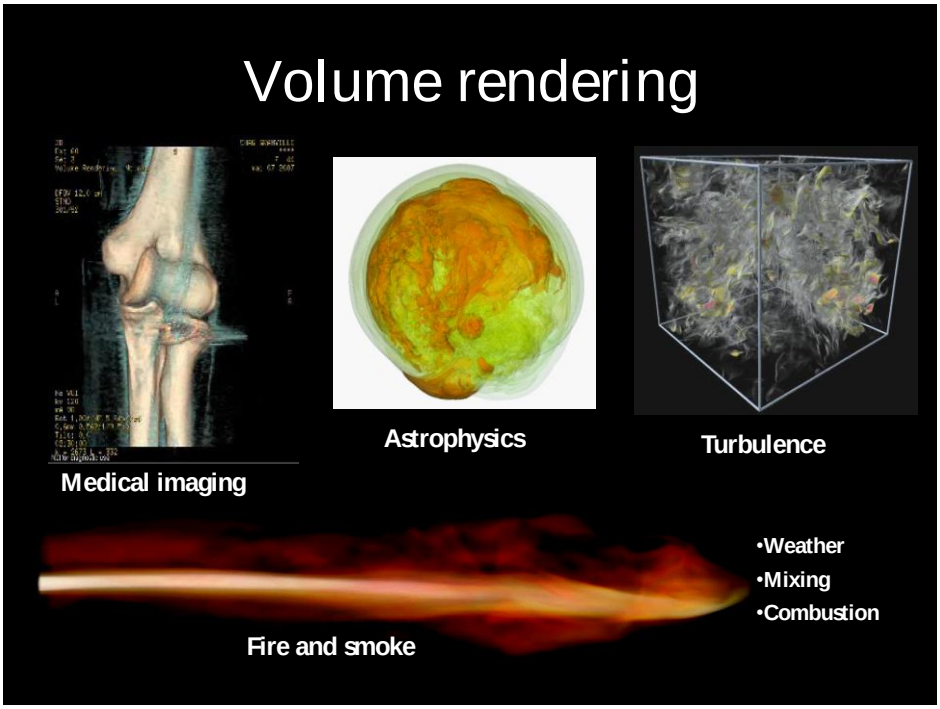

Welcome
Welcome to EnSight
Recent Files
Example Data
stir_tank.case
shuttle.xyz
truck.case
Cube
2D Flow
N3S
Shuttle
Stir Tank
Wing
Full Path: C:\Program Files (x86)\CEI/ensight90/data/stir_tank/stir_tank.case
Open Other File
Cancel
Open

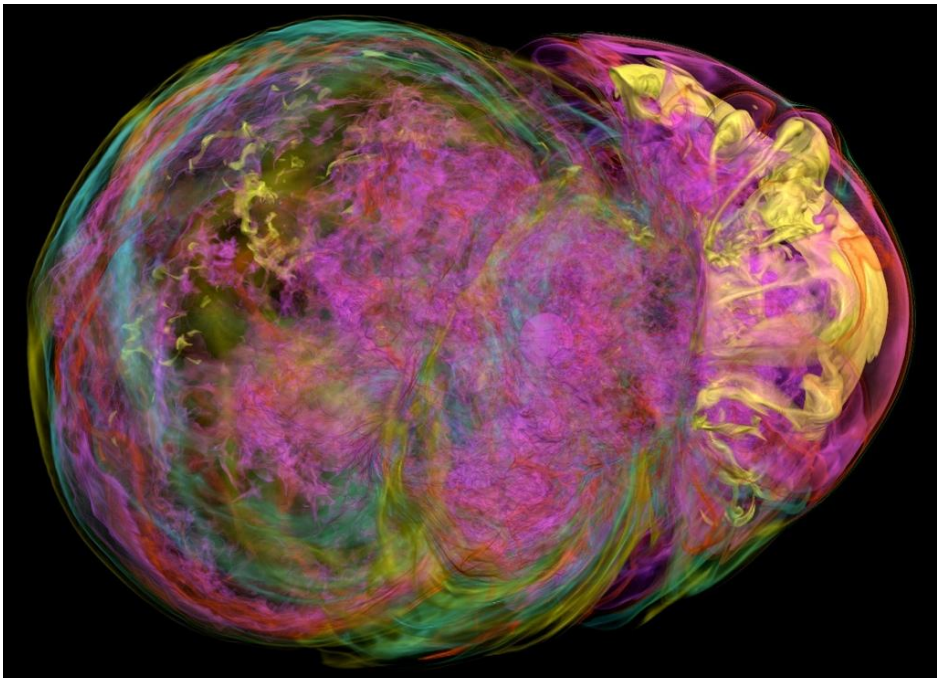

Part highlighting


9.0
Highlight selected parts


9.1
Highlight target part
New look


File Edit Query View Tools Window Case Help
Time - Step (43.000000) Simulation (4.3000e-002)
75- G75
76- G76
77- G77
78- G78
79- G79
80- G80
81- G81
82- G82
83- G83
Select...
Delete...
List...
(+)
PART
ANNOT
PLOT
VPORT


Volume rendering
Medical imaging
Astrophysics
Turbulence
Fire and smoke
•Weather
•Mixing
•Combustion



Volume rendered image of pulsar formation. Nature **445**, 58-60 (2007)

Volume rendering

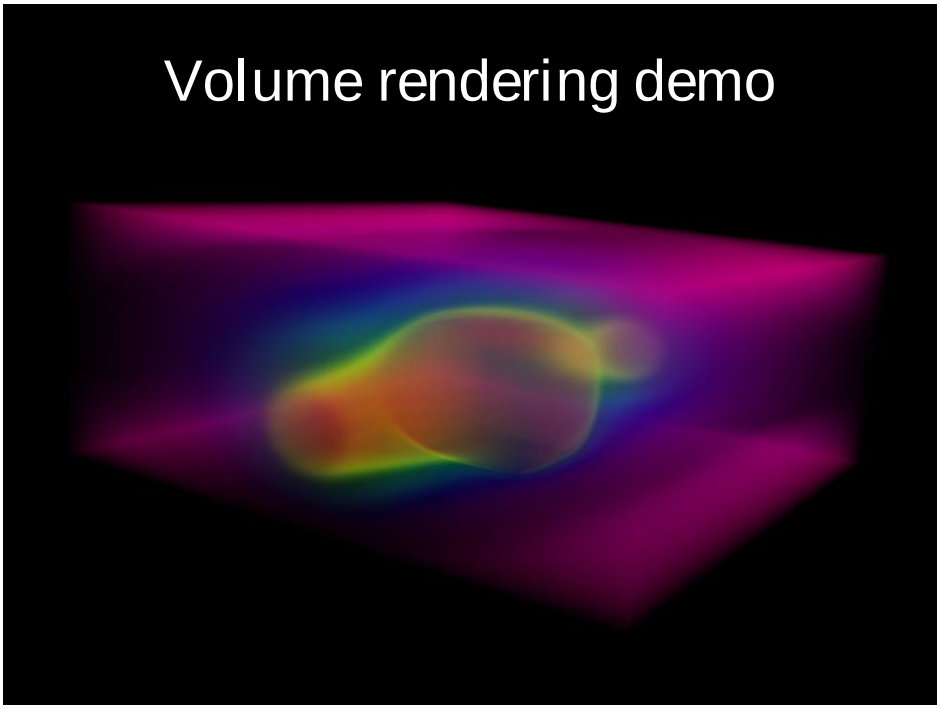
Alternative means to visualize volumes

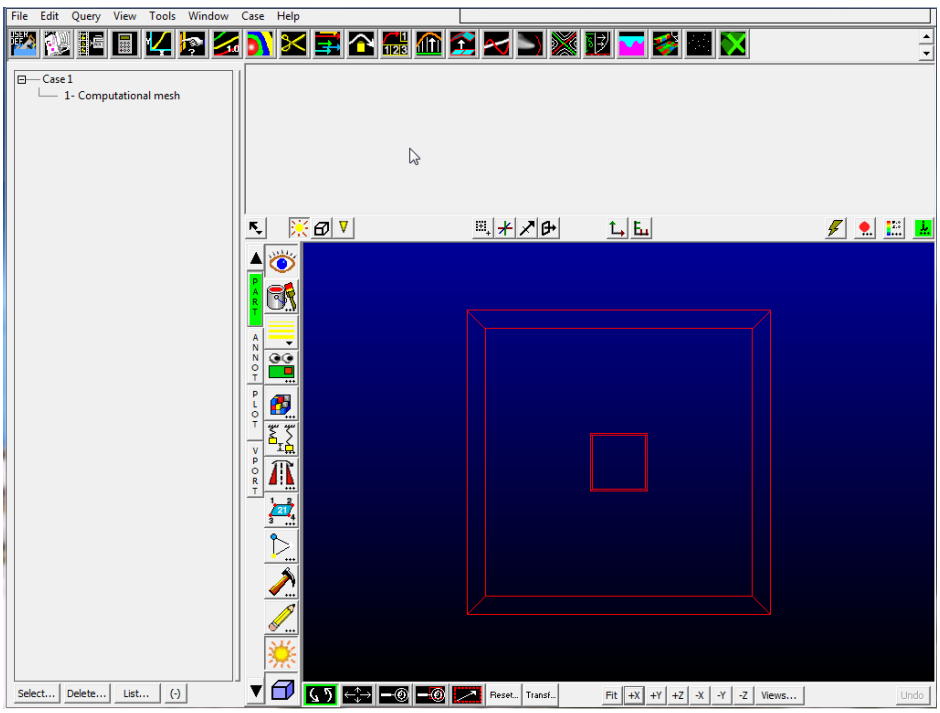
Not limited to clip planes, isosurfaces, and particle traces

Former

Limitations of volume rendering

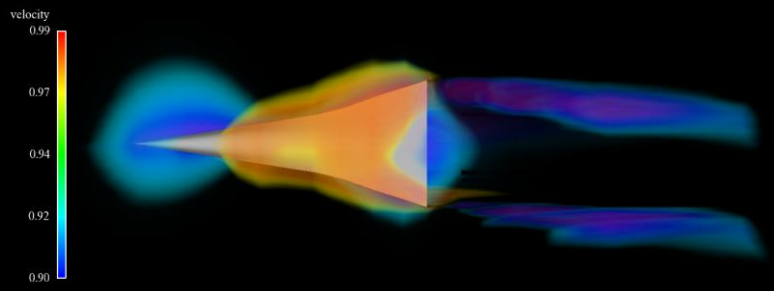
Computationally intensive	Difficult to use	Lack of Commercial support
Modern graphics hardware	Easy palette editor	CEI support


Volume rendering demo


File Edit Query View Tools Window Case Help
Case 1
1- Computational mesh
Select... Delete... List... (-)
Reset... Transf...
Fit +X +Y +Z -X -Y -Z Views...
Undo

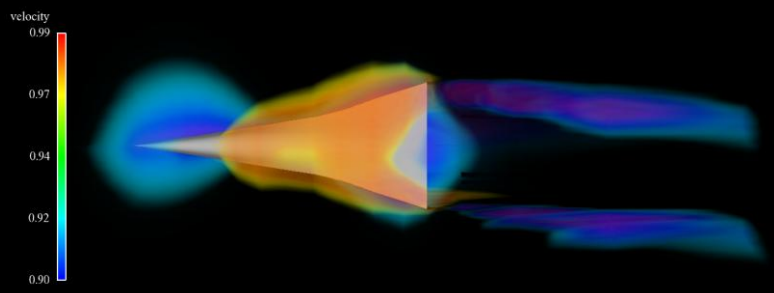
Hardware requirements

- NVIDIA and ATI graphics cards
  - Hardware rendering only using OpenGL 2.0
  - Desktop graphics cards are fine
- Large client system RAM
- <2 year old video card with large video memory recommended (512+ MB)

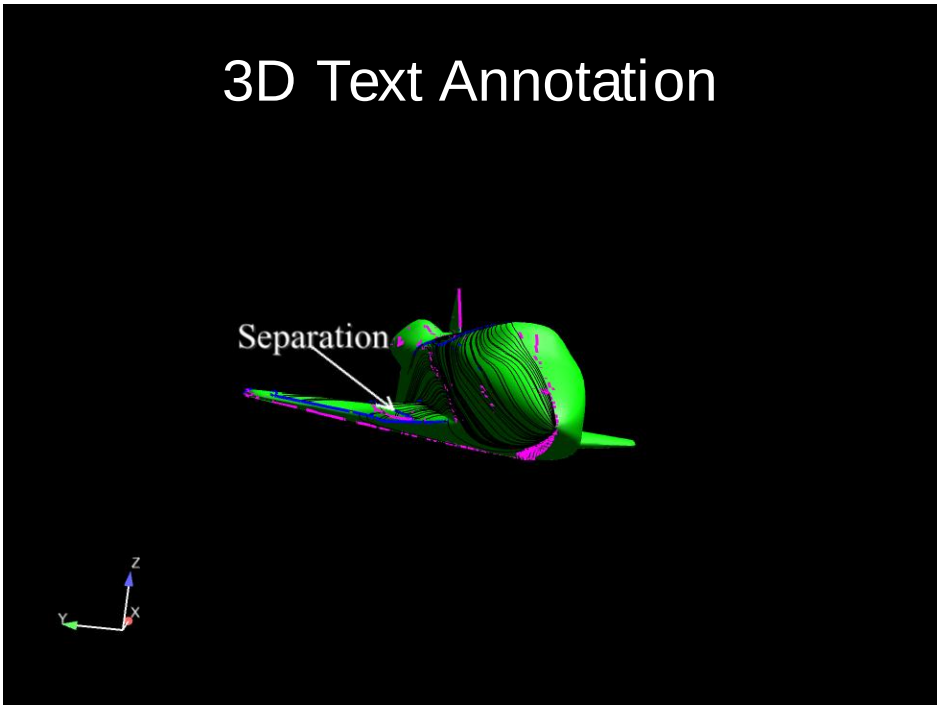


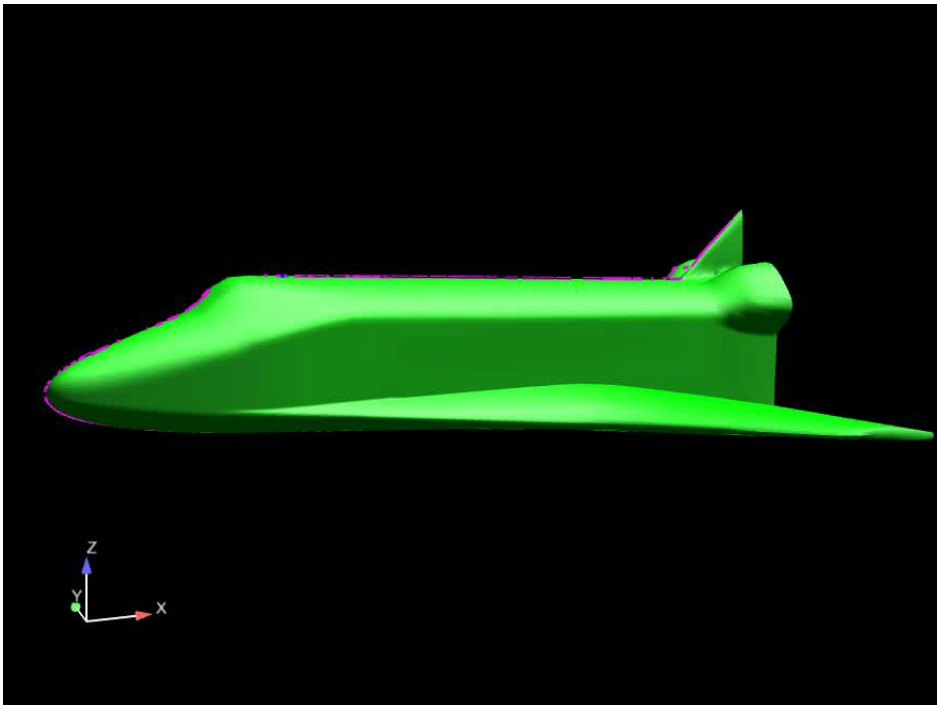
In EnSight

- Available in all versions of EnSight
- Distributed rendering is not supported the first release
  - Full support is expected in future versions



3D Text Annotation





Data I/O

Improved readers

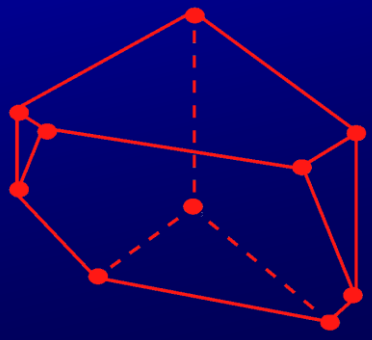
- Autodyn (new)
- Fluent
  - IcePak and AirPak
  - polyhedral cells
  - computational symmetry
- Star CCM+
- Tecplot Binary
- Polyflow

Improved writer

- JT Open 5.0

n-faced elements

- Greatly reduced memory use
- Star-CCM, Star-CD, Fluent
  - The updated Fluent reader also supports polyhedral elements

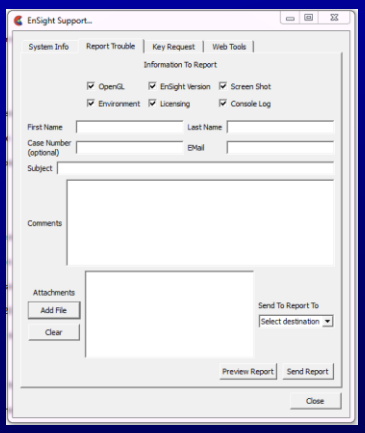


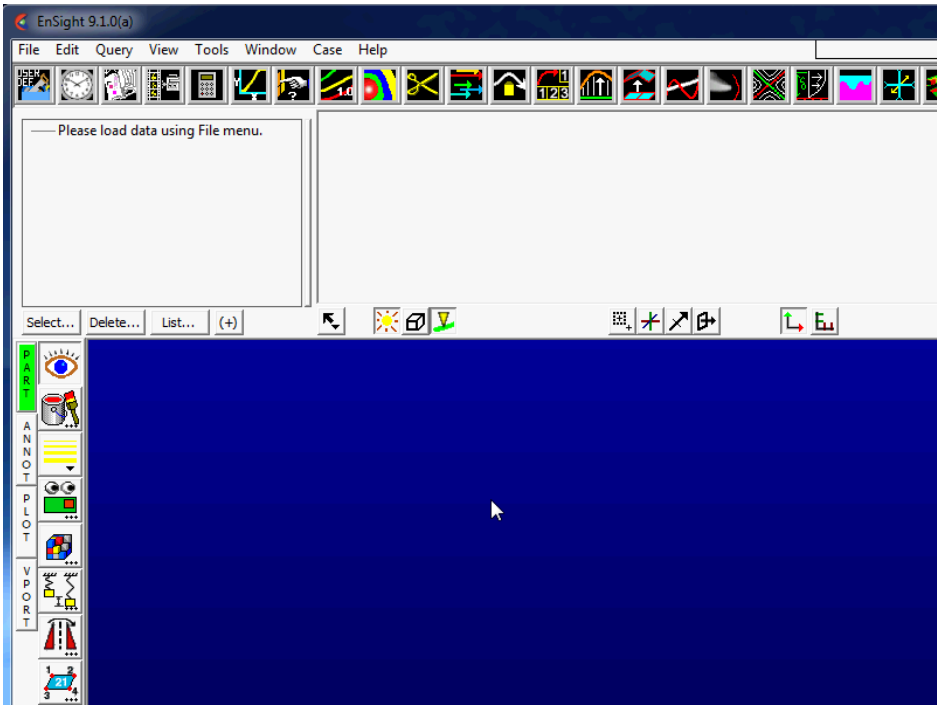
Extensibility with Python

- Programming language
  - Free for all uses - open-source
  - Powerful - high level
  - Strong worldwide user community
- Integrated with Python since EnSight 8.2
- 9.1 includes expansion of the EnSight Python API

Online support tool

- Helps solve your problems faster by sending the information we need
- New in 9.0





Thank you

For more information:

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Visit KGT website: www.kgt.co.jp