EnSight Tips & Tricks
Did you know...?

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Talk Segments

Part 1: Tips and Tricks

Part 2: Color Palettes

Part 3: Introduction EnSight Graphics

Part 4: Python Scripting 'teaser'

Part 1 Outline

- EnSight user directories
- Ways to change settings
  - Preferences
  - Command line parameters
  - Environment variables
- Did you know about...
  - Data reader options?
  - How to load individual parts?
  - Extended CFD variables?

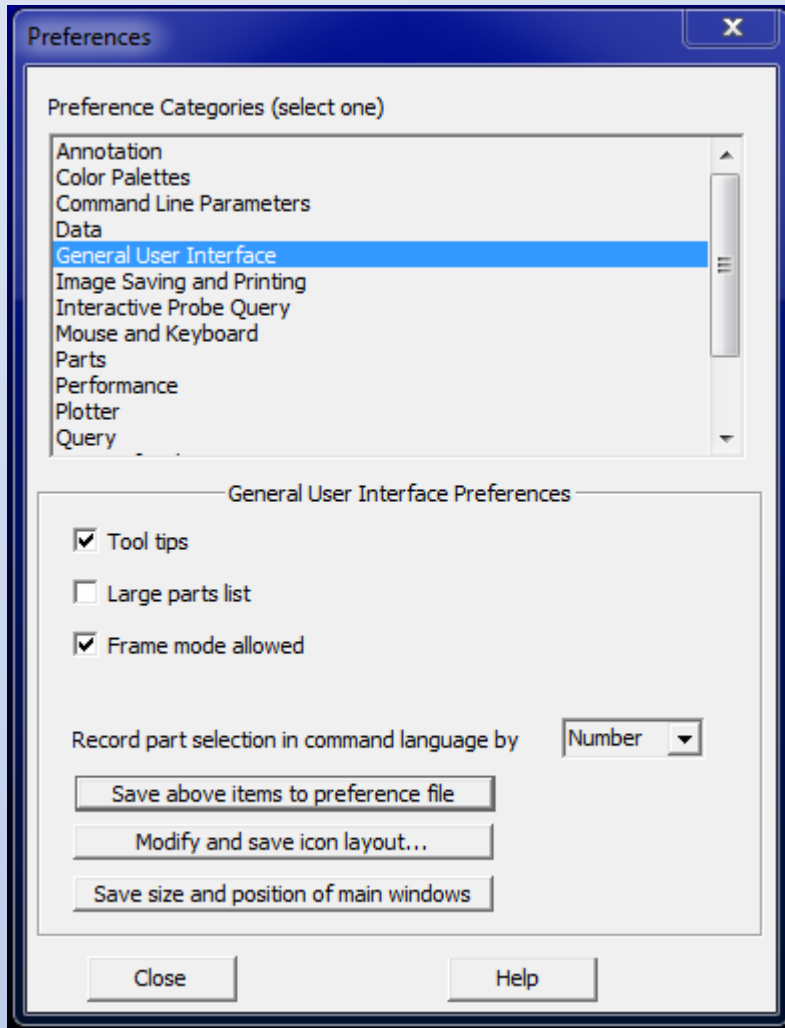# CEI manuals

- Getting Started Manual   88 pages
- How To Manual   438 pages
- User Manual   826 pages
- Interface Manual   358 pages
- Command Language Manual   1577 pages

- These are reference manuals. Users are not expected to read them cover to cover.
- I hope this presentation gives you useful knowledge about EnSight

EnSight user directories

- For storing personal preferences, macros, user-defined tools, license keys
    - Users may not have access to installation directories

- Default paths of EnSight user directories:
    - Windows Vista and 7:
      C:¥Users¥username¥.ensight91
    - Windows (XP and older):
      C:¥Documents and Settings¥username¥.ensight91
    - Linux:
      ~/.ensight91
    - Mac:
      ~/Library/Application Support/EnSight91

- EnSight 9.2 will use .ensight92

Preferences

- Preferences can be set in the menu

  Edit -> Preferences

- After a preference is changed, it must be saved to change the default setting

- See detailed info in How To Manual: How To… Set or Modify Preferences
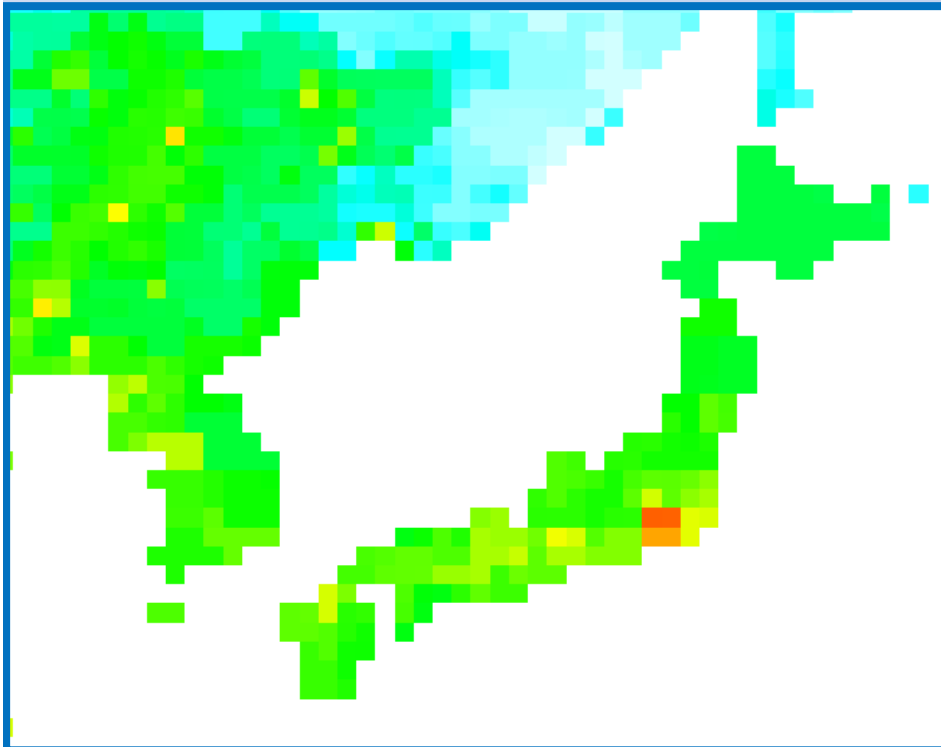
How To …   Set or Modify Preferences
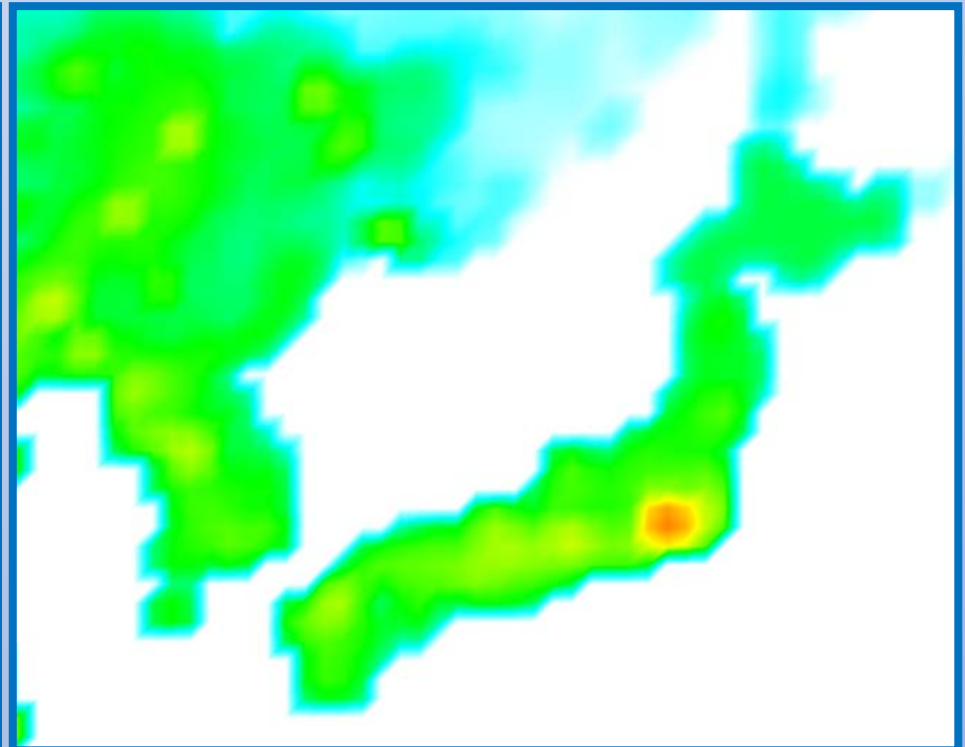
Useful preferences - 1

Color palettes:

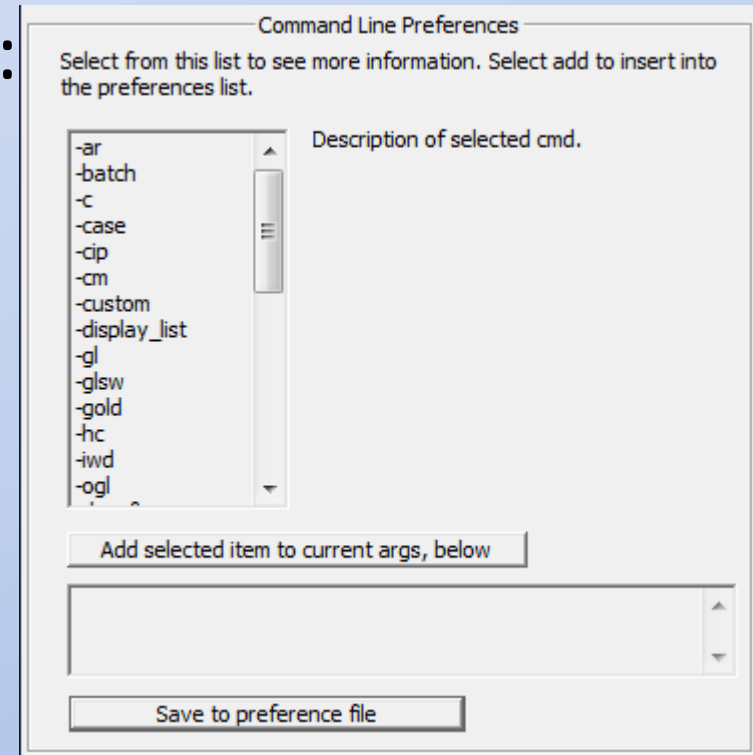– Use continuous palette for per element vars

OFF (default)

ON

Useful preferences - 2

- Command Line Parameters:
  - See list of parameters
  - Add or remove them

- Data:
  - Default data directory
  - If starting time step is not specified load:
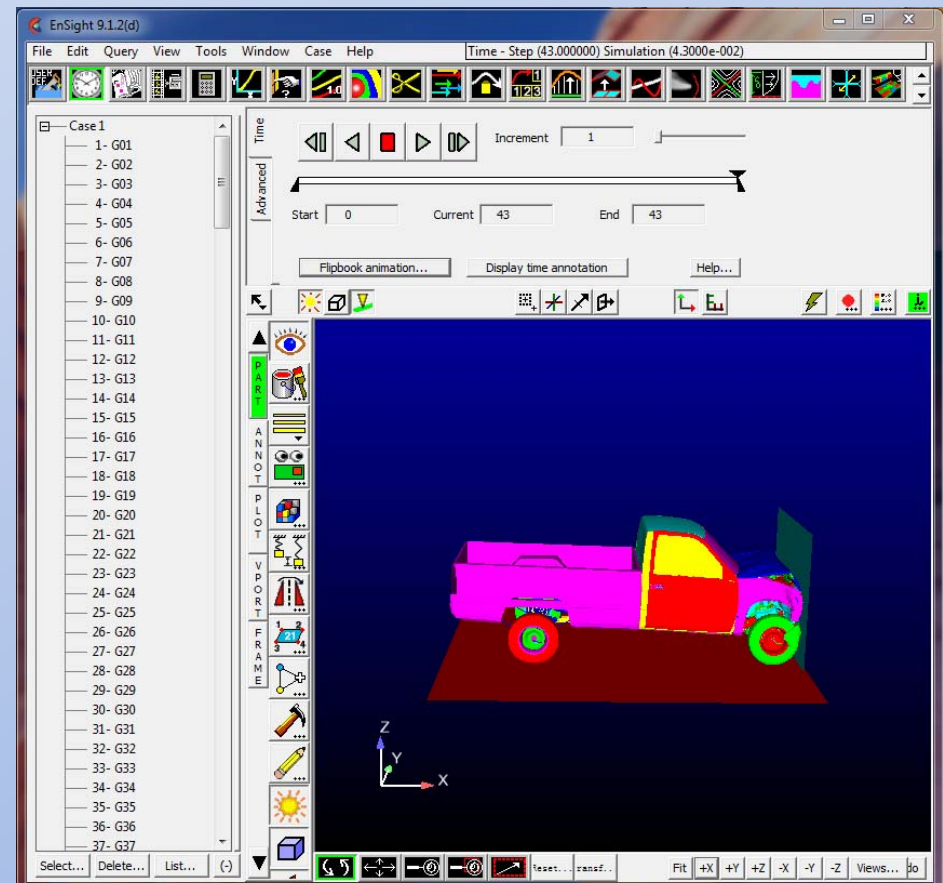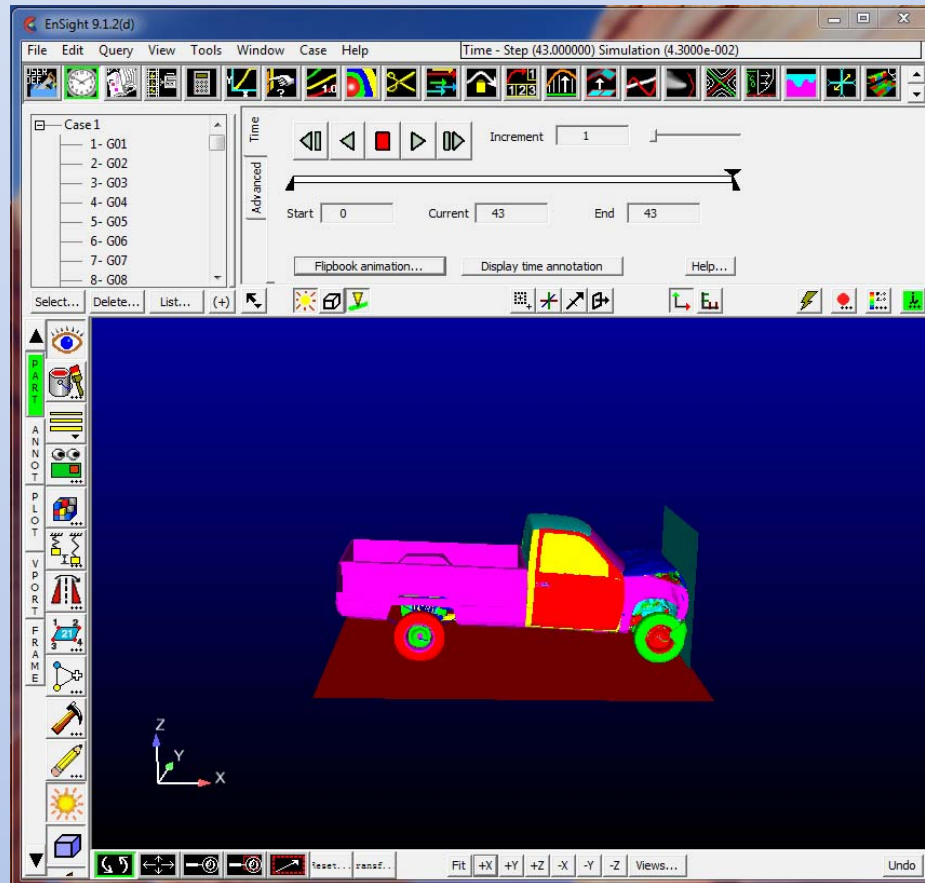   - Last (default) or first

Useful preferences - 3

- General user interface: Large parts list

OFF (default)   **ON**

Useful preferences - 4

- General user interface:
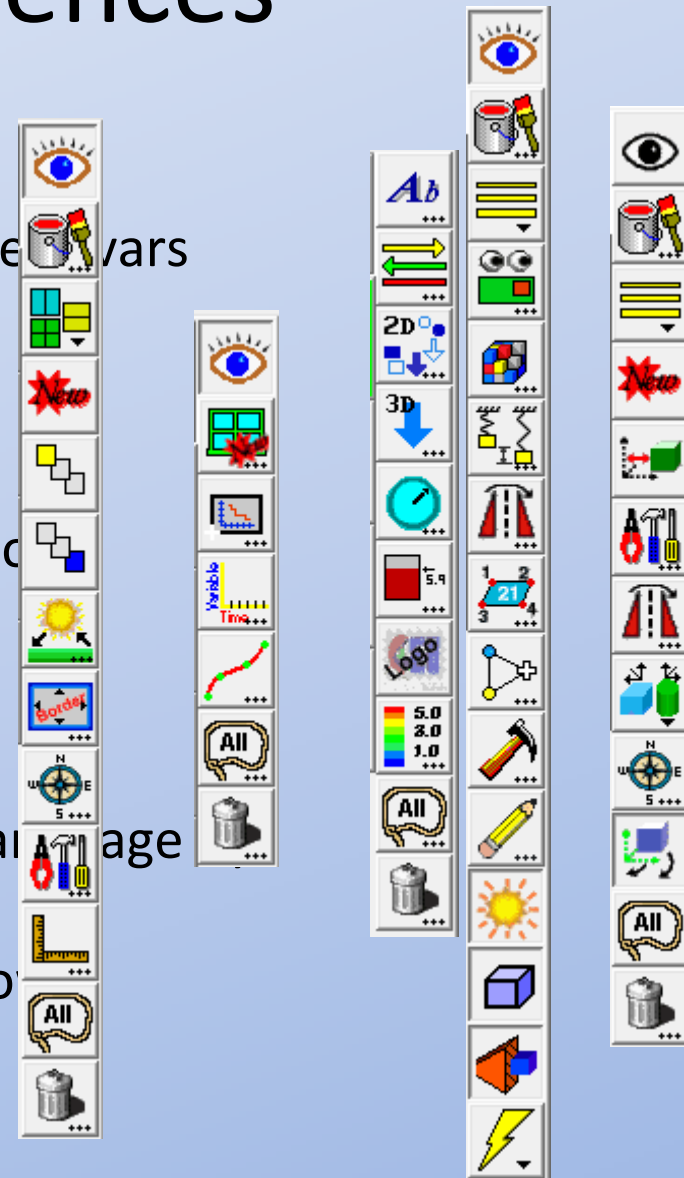 - Modify and save icon layout…

Most users do not use all of EnSight's features. Turn off the icons you don't use!

Useful preferences - 5

- General user interface:
  - Frame mode allowed
    - Advanced feature for visual rigid body transformations
  - Record part selection in command language by
    - Name or Number (default)
  - Save size and position of main windows
    - Arrange the GUI windows to suit you, then save the layout
- Mouse and keyboard:
  - Assign functions to mouse buttons
- Performance:
  - Abort server operations
    - Set a time limit for operations in EnSight
- Query:
  - Auto Plot Queries

Useful preferences

- Color palettes
  - Use continuous palette for per element vars
- Command Line Parameters
- Data
  - Default data directory
  - If starting time step is not specified lo
- General user interface
  - Large parts list
  - Frame mode allowed
  - Record part selection in command language
  - Modify and save icon layout…
  - Save size and position of main windo
- Mouse and keyboard

Command line parameters

- Type manually

- Add to a script

- Set in the preferences

- For a list of command line parameters, see How To Manual: How To... Command Line Start-up Options

Environment Variables

- How to view/set environment variables:
  - Windows Vista and 7:
    - Control Panel -> System -> Advanced -> Environment Variables

- For a list of environment variables, see How To Manual: How To... Use Environment
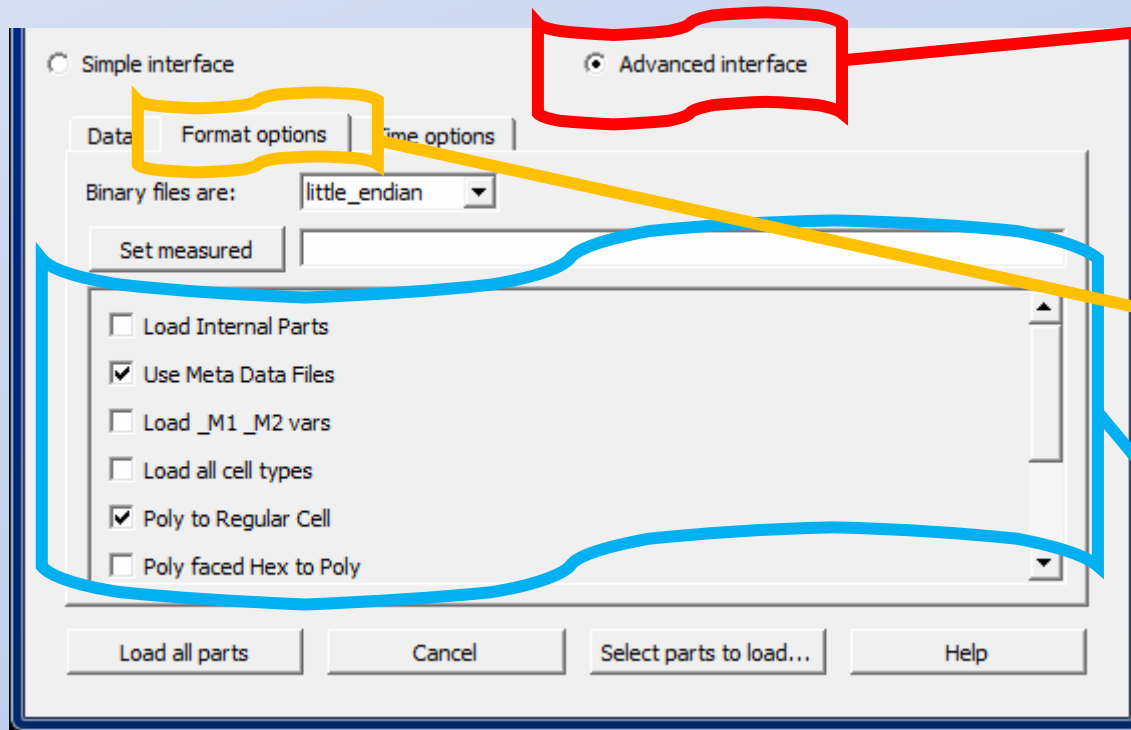
Did you know…?

Reader options

- Many data readers have options that can be selected

- In the File Open window:

In Advanced interface:

1. Select reader format in 'Data' tab

2. Change to 'Format options' tab

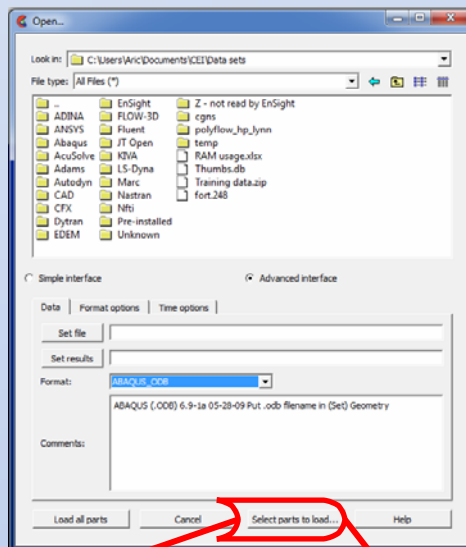3. Select options

Options are unique to each reader

- For more information see the User Manual Section 2.3: 'Other Readers'

Individual Part Loading

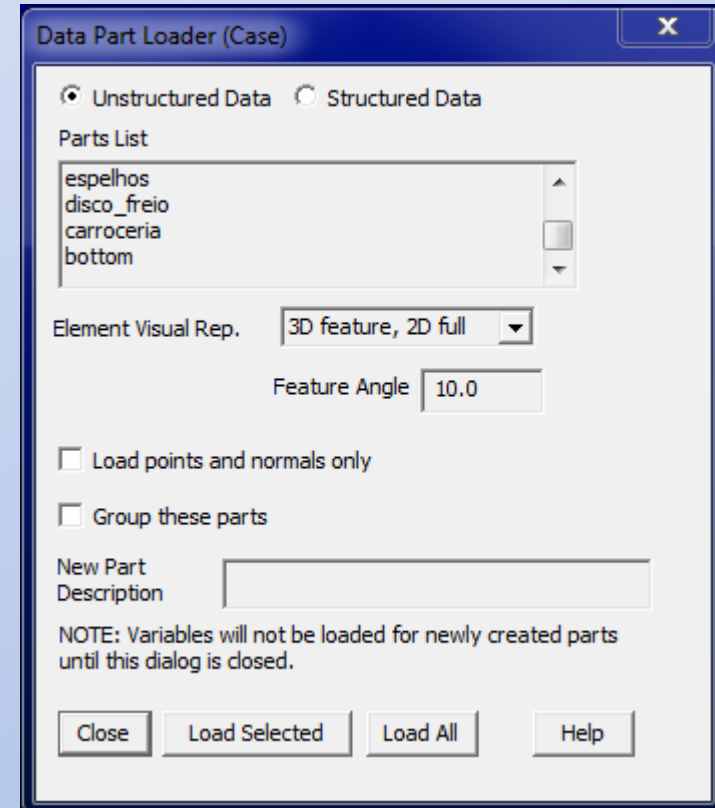File Open window
'Advanced interface' tab:
1. Select file format and data file
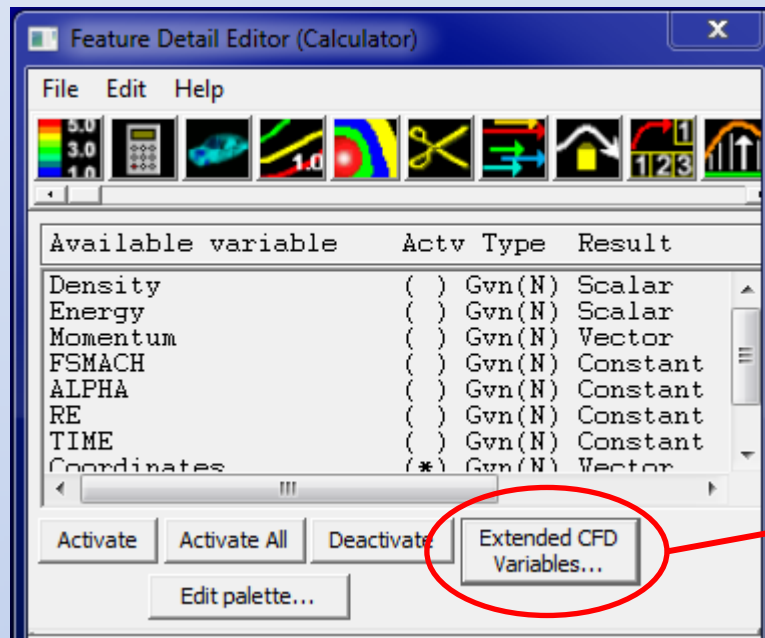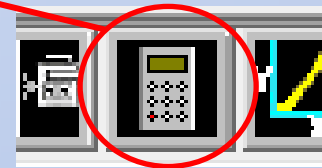2. 'Select parts to load...'

EnSight's

part loader

- Load individual parts
- group parts
- choose visual representation
  - These settings can also be changed later in EnSight
- Useful for large datasets or when you only want a few parts
- Part loader can also be accessed after data is loaded using File -> Load Parts...
- Can be used to load multiple copies of the same part
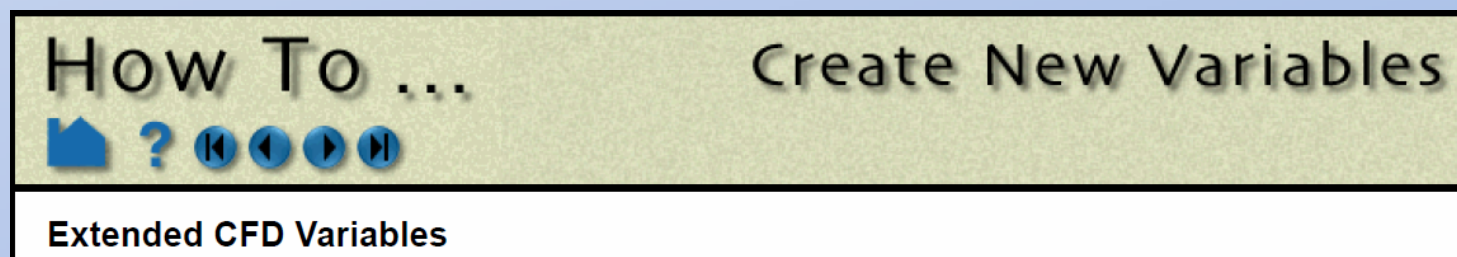
Extended CFD Variables

- Automatically compute common CFD variables

- Open the variable calculator

- Open CFD variables window

- Learn more in the How To Manual

How To ...   Create New Variables

Extended CFD Variables

Extended CFD Variables

- Specify needed variables
  - Required:
    - Energy

      and
    - Velocity or momentum

- Check this box to see the new variables in the variables list
- Click 'OK' to compute

Extended CFD Variables

- Variables created:
  - Enthalpy
  - Entropy
  - Helicity
  - Mach
  - Pressure
  - ShockPlot3d
  - SonicSpeed
  - Swirl
    - Temperature
    - Vorticity

and more