

Scripting Examples from ParaView, Ensight, and Visit

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This page presents a comparison of ParaView, Visit, and Ensight scripting for the same analysis problem.

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Conceptual description of problem analysis steps

```
Open c:\myDirectory\data\can.exo
Change geometry to look down the +X axis
clip
snapshot to c:\myDirectory\snapshots\picture1.jpg
```

Enight Record file Script for problem

```

VERSION 8.26
prefs: user_defined_input OFF
prefs: macro_panel ON
prefs: part_panel ON
prefs: user_input_zoomsens 1.000000
prefs: user_input_postranssens 1.000000
prefs: user_input_valtranssens 1.000000
prefs: user_input_rotateusing mixed mode
prefs: user_input_rotatesens 1.000000
prefs: user_defined_input OFF
prefs: macro_panel ON
prefs: part_panel ON
prefs: user_input_zoomsens 1.000000
prefs: user_input_postranssens 1.000000
prefs: user_input_valtranssens 1.000000
prefs: user_input_rotateusing mixed mode
prefs: user_input_rotatesens 1.000000
data: binary_files_are big_endian
data: format MultiExodusII
data: reader_option 'Use distribution factors' ON
data: reader_option 'Ignore side sets' OFF
data: reader_option 'Ignore node sets' OFF
data: reader_option 'Use node and element maps' ON
data: reader_option 'Verbose mode' OFF
data: reader_option 'Use higher-order elements' ON
data: reader_option 'Ignore constant variables' OFF
data: reader_option 'NaN filter input data' ON
data: reader_option 'Clip overlapping timesteps' OFF
data: reader_option 'Autodetect spatial decomp' OFF
data: reader_option 'Use undef value for missing vars' ON
data: reader_option 'Ignore element attribute vars' OFF
data: reader_option 'Epsilon' 1.000000e+000
data: reader_option 'Scale factor' 1.000000e+000
data: shift_time 1.000000 0.000000 0.000000
data: replace C:/alan/demos/Training/can.ex2
view_transf: view_recall +Y
view_transf: view_recall -Y
clip: select_default
part: modify_begin
clip: tool plane
clip: plane 1 -4.727466e+000 -9.445257e-001 -5.110948e+000
clip: plane 2 5.161586e+000 -9.445257e-001 -5.110948e+000
clip: plane 3 5.161586e+000 8.944526e+000 -5.110948e+000
part: modify_end
tools: plane ON
clip: select_default
part: modify_begin
clip: domain inside
clip: tool plane
part: modify_end
view_transf: function plane
view_transf: axis y
view_transf: rotate 0.000000e+000 -9.000000e+001 0.000000e+000
frame: select_begin
0
frame: select_end
part: select_begin
1 2
part: select_end
clip: begin
clip: domain inside
clip: tool plane
clip: plane 1 2.170597e-001 -1.008669e+000 -1.011961e+001
clip: plane 2 2.170605e-001 -1.008669e+000 -1.022791e-001
clip: plane 3 2.170605e-001 9.008667e+000 -1.022791e-001
clip: end
clip: create
part: select_begin
6 7
part: select_end
part: modify_begin
clip: domain outside
clip: tool plane
part: modify_end
file: image_format jpg
file: image_format_options Quality 75
anim_recorders: render offscreen ON
file: image_numpasses 1
file: image_stereo current
file: image_screen_tiling 1 1
file: image_file C:/alan/work/junk6/deleteMe5.jpg
file: save_image

```

ParaView XML Record and Save State Files for Sample Problem

ParaView Record File

ParaView State File

Visit XML GUI and State Files

Visit XML State File

Visit XML GUI File

Visit Python Script

I just typed this into Visit's script interface, and it pretty much did what we wanted:

```
-----  
>>> OpenDatabase("/Users/kmorel/data/ParaViewData/Data/can.ex2")  
Running: engine_ser1.10.0 -host 127.0.0.1 -timeout 480 -port 5600  
!L  
>>> AddPlot("Pseudocolor", "EQPS")  
!L  
>>> DrawPlots()  
!L  
>>> AddOperator("Clip")  
!L  
>>> SaveWindow()  
Visit: Message - Rendering window 1...  
Visit: Message - Saving window 1...  
Visit: Message - Saved visit0000.tif  
'visit0000.tif'  
-----
```

I never got to the step where we adjust the camera angle, but you have to admit that this script is remarkably easy for what it does.

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