TUTORIAL VIDEO 10

# 10 Results: contour, deform, section, threshold, probe

Read crash results in BeidPrep: contour plots, playback, the deformed shape, sections, thresholds, displacement vectors, probing a single element and the model summary.

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| **Tutorial files** | folder `10_Results` — open `sshape_0000.rad` first (this video also needs the results zip) |
| **Video** | Watch video 10 on YouTube |
| **Download files** | Download the tutorial files (97 MB)<br>Download the solver results (225 MB) |

## 1 Opening, Load

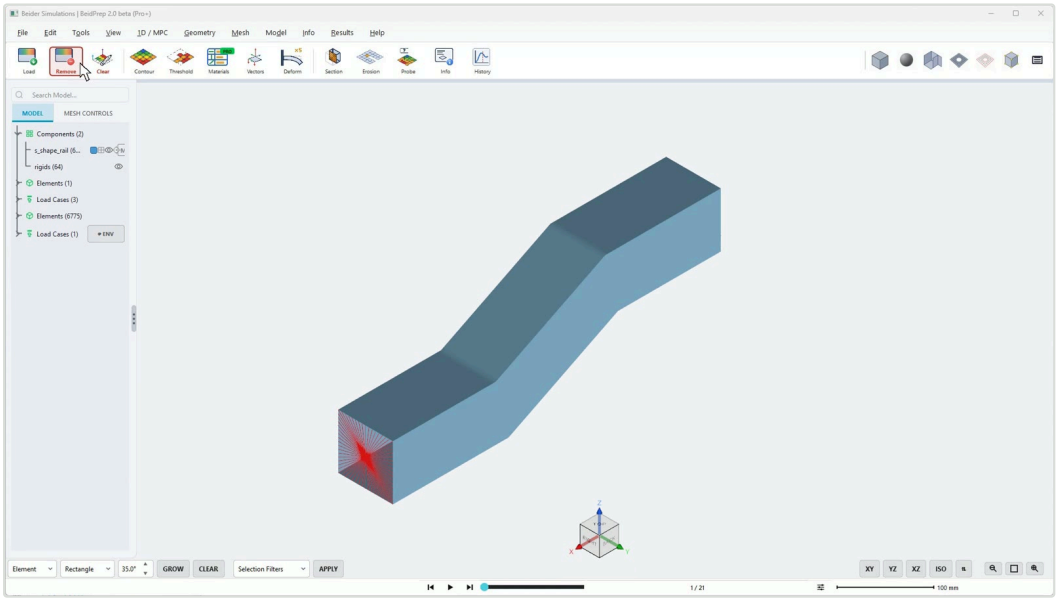
video 0:00

This video shows the results of a crash run in BeidPrep.

The S-shaped rail is crushed at six metres per second.

Load has already opened the run's first animation file.

Each file is one moment of the run.



The screen at 0:13 in the video.

## 2 Load case, Contour

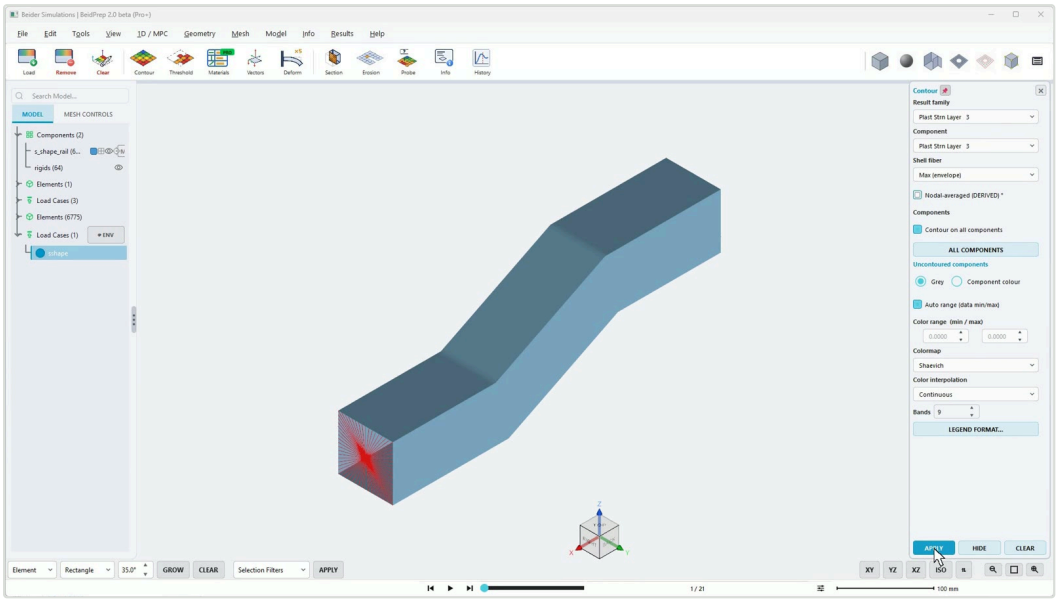
video 0:13

1. In the model tree, click the run's load case.

   The result tools need it.

2 Click Contour, and choose Plastic Strain.

Nothing changes in the 3D view, until you press Apply.



The screen at 0:25 in the video.

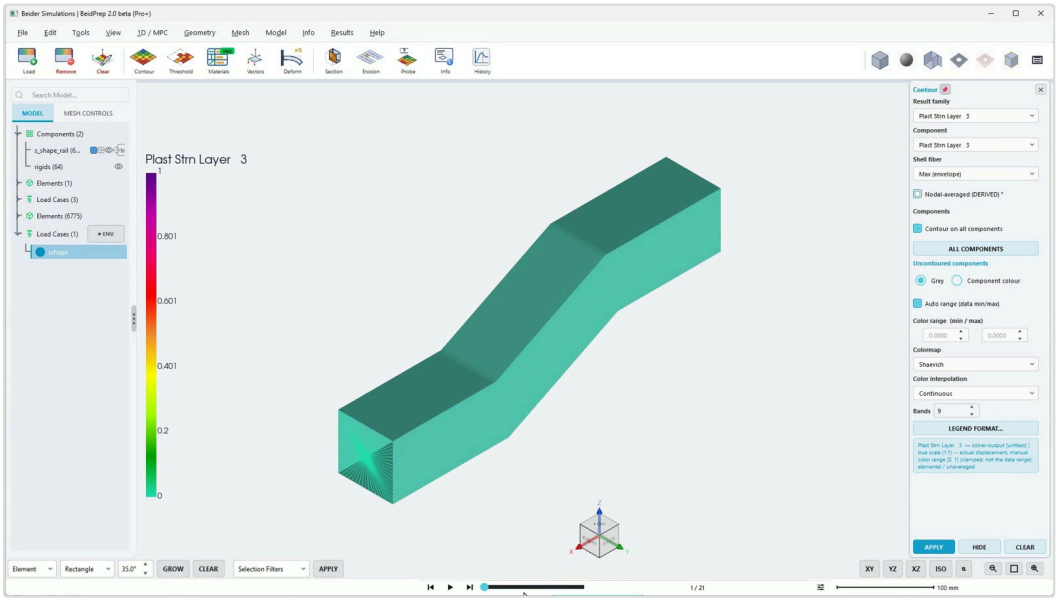
## 3 Apply rule, Playback bar

video 0:25

1 Press Apply: at this first moment of the run, the plastic strain is still zero everywhere.

2 Now play the run.

The playback controls are on the bottom bar.




The screen at 0:36 in the video.

## 4 Play, Slider

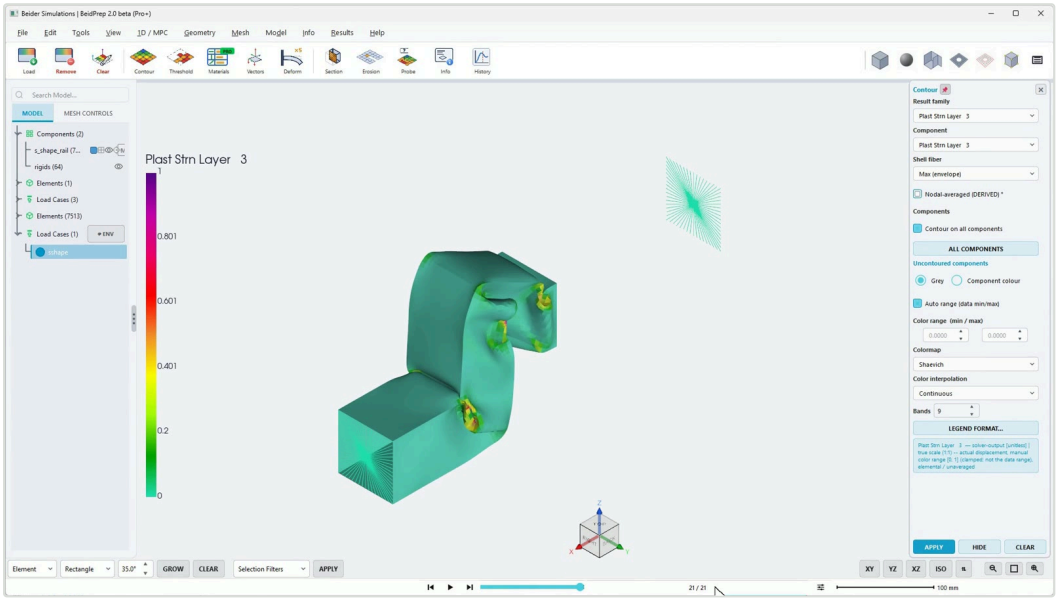
video 0:37

1. Press Play.

   The rail folds, and the colours follow each moment.

2. Drag the time slider to go to any moment.

   The readout shows which state is shown.




The screen at 0:48 in the video.

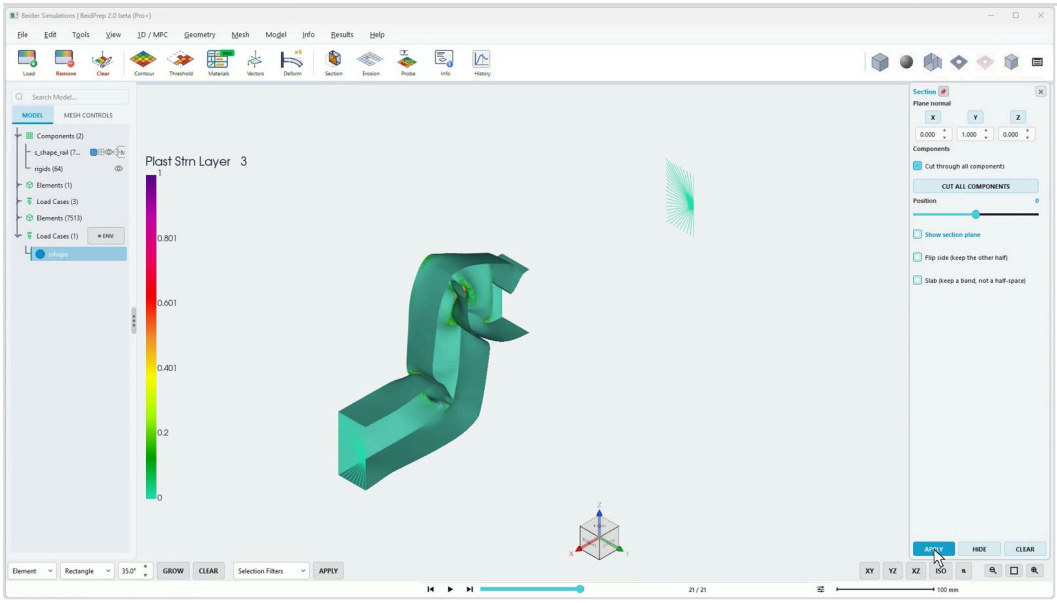
## 5 Deform, Section

video 0:48

Deform shows the deformed shape, and can scale it.

Section cuts the model with a plane, to see inside it.

1. Set the plane normal to Y, and press Apply.




The screen at 1:03 in the video.

## 6 Threshold

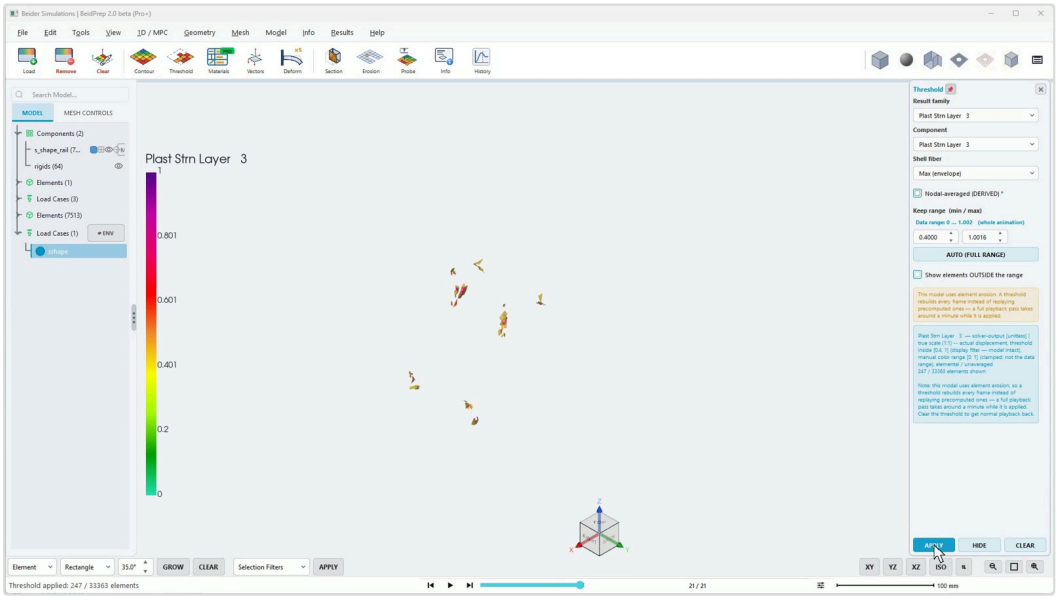
video 1:07

Threshold shows only the elements inside a range you set.

1. Choose plastic strain, and set the minimum to zero point four.
2. Press Apply: only the elements at or above zero point four stay visible.

Clear brings every element back.

In the video: **0.4** in lower value.




The screen at 1:19 in the video.

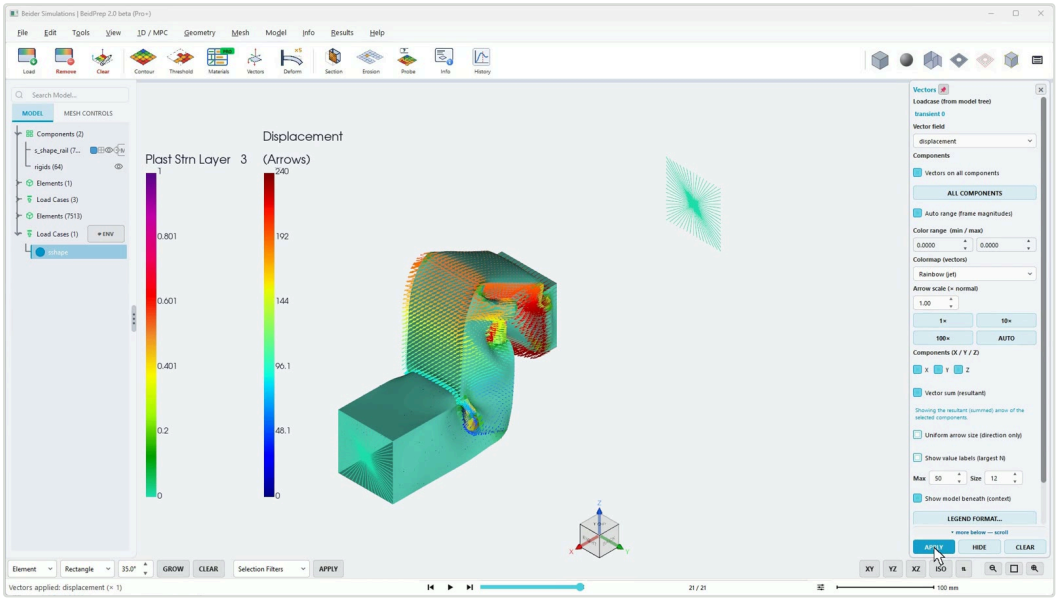
## 7 Vectors

video 1:22

Vectors can draw any vector result as arrows.

Here it shows displacement.

1. Press Apply, and the arrows appear.




The screen at 1:32 in the video.

## 8 Probe, Info

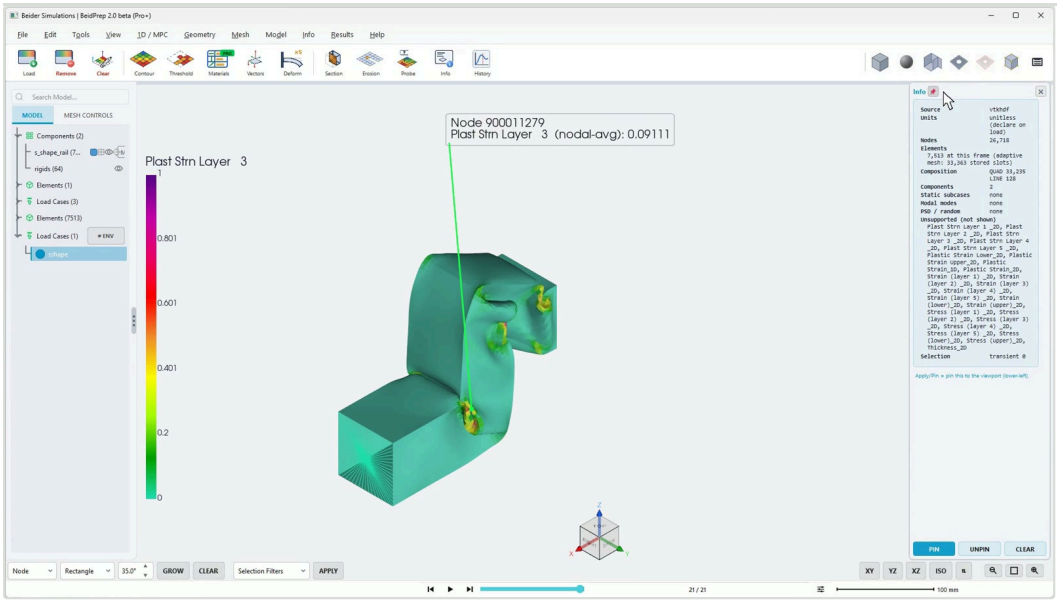
video 1:35

Probe reads the values at one point.

1. Click an element on the fold.

Info sums up the model, and the selection.

It can stay pinned on the view.




The screen at 1:48 in the video.

## 9 History, Clear, Close

video 1:49

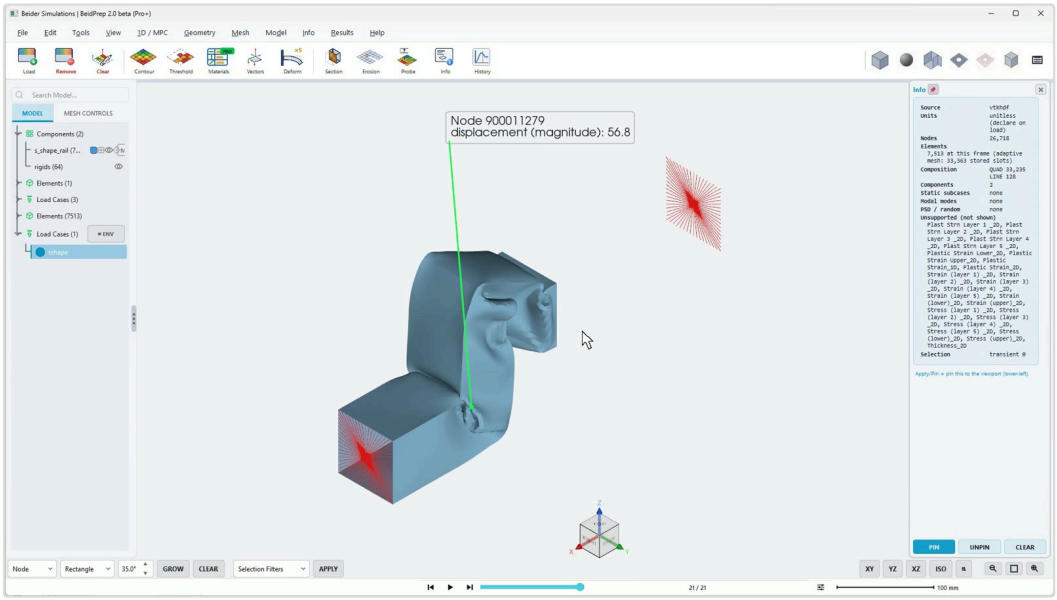
History plots the run's time history: reaction forces and energies.

Video eleven shows it in full.

Clear removes the colours and filters.

The model and the deformed shape stay.

That is the Results tab: colours, shape, cuts and values, through the whole run.




The screen at 2:07 in the video.

Steps and pictures are taken from tutorial video 10. Every picture is a frame of the video.