Single Element Model
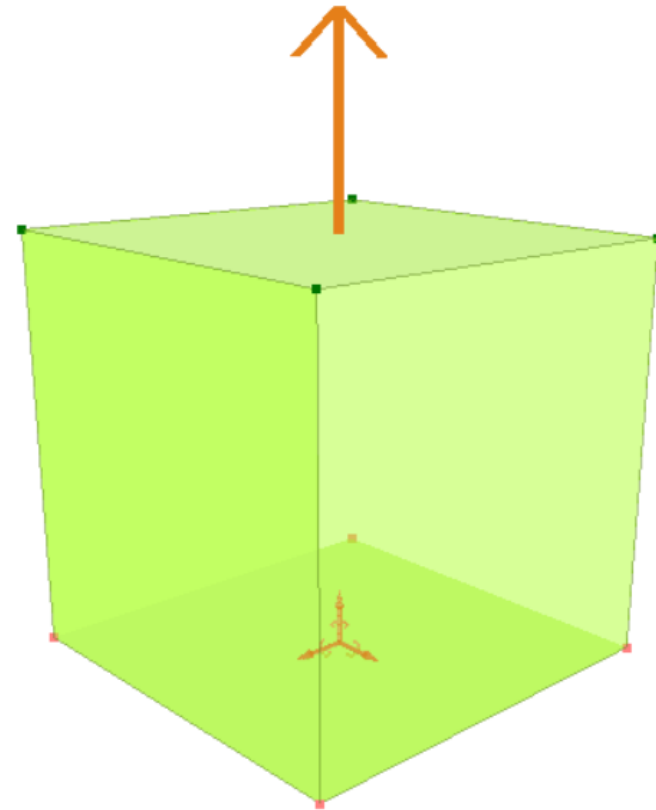
For questions fill out contact form

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Model Description

- Single solid element
- Can be used for experimenting different element types, material response and more
- Force applied on one end
- Fixed boundary condition on opposite end
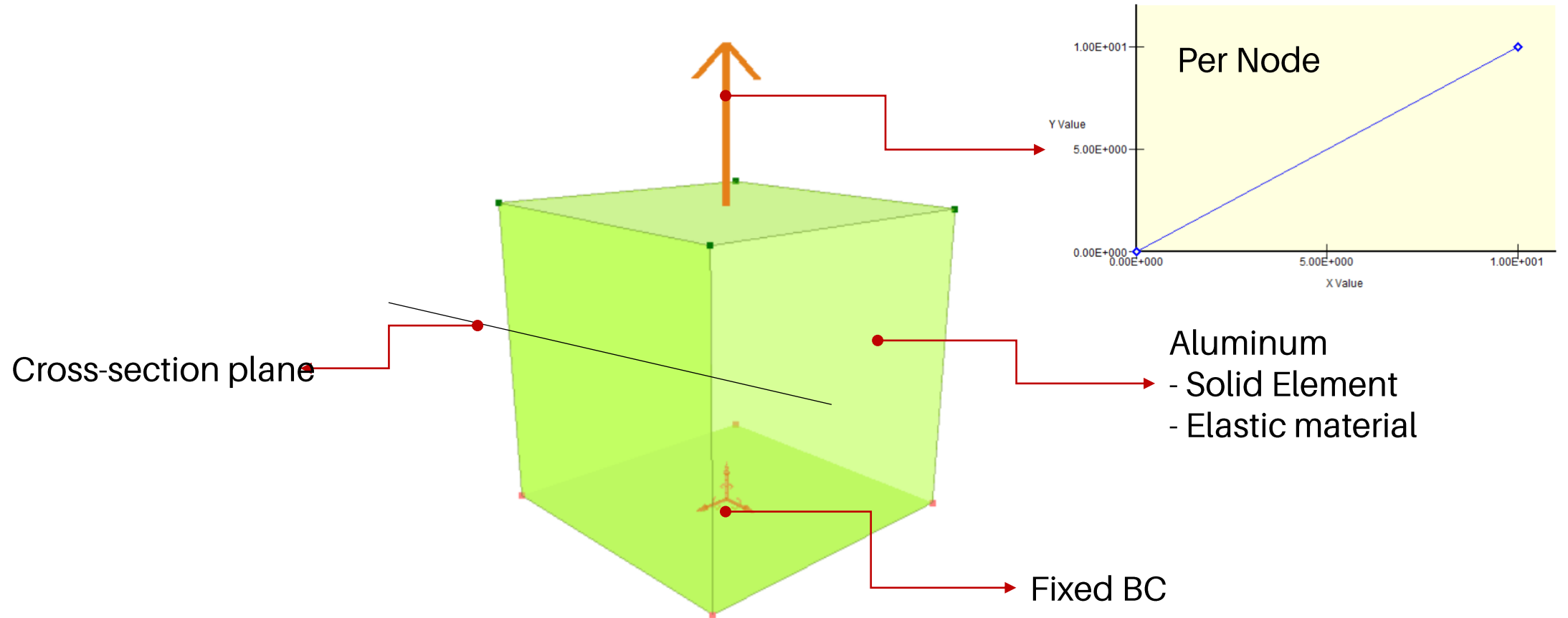- Cross-section plane for force output

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Model Parameters

Entity	Type
Solver	Altair Radioss
Version	2021.2.1
Processors	1
Threads	1
CPU	Intel(R) Core(TM) i7-9750H CPU @ 2.60GHz
Total run time	3.1 sec

FEA Entities	Type
Analysis Type	Dynamic Explicit
Unit System	Kg, KN, mm, ms
Element Type	Solid Type 1
Material Type	Linear Elastic

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Analysis Setup

Per Node

Cross-section plane

Aluminum
- Solid Element
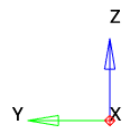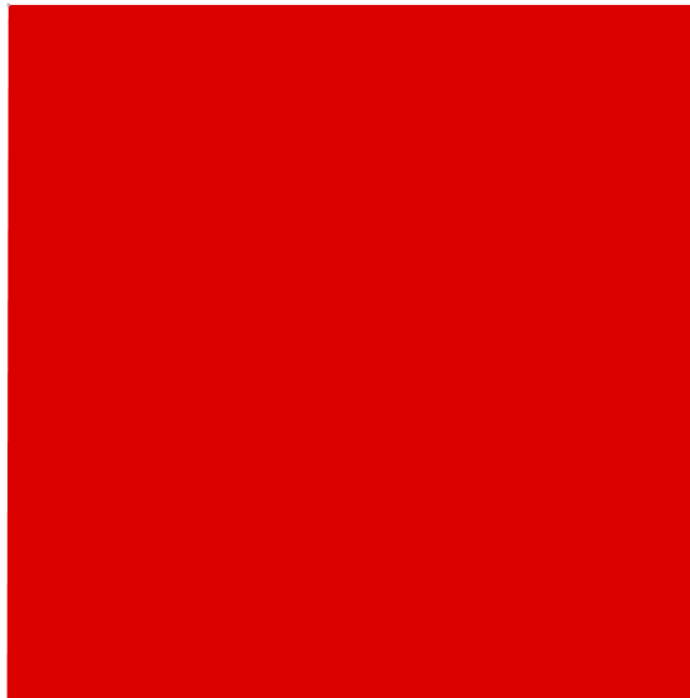- Elastic material

Fixed BC

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Analysis Results

MPa
Contour Plot
Von Mises(Scalar value)
Multiplier = 1000.00

- 4.016E+02
- 3.570E+02
- 3.123E+02
- 2.677E+02
- 2.231E+02
- 1.785E+02
- 1.339E+02
- 8.924E+01
- 4.462E+01
- 0.000E+00
- No Result

Max = 4.016E+02
SOLID 2
Min = 0.000E+00
SOLID 2

1: SingleElementCube_v2
Loadcase 1 : Time = 1.0000e+01 : Frame 11

Cross Section Force
2 crosssection2 - FZ-Z Total Force

Force - KN

Time - ms

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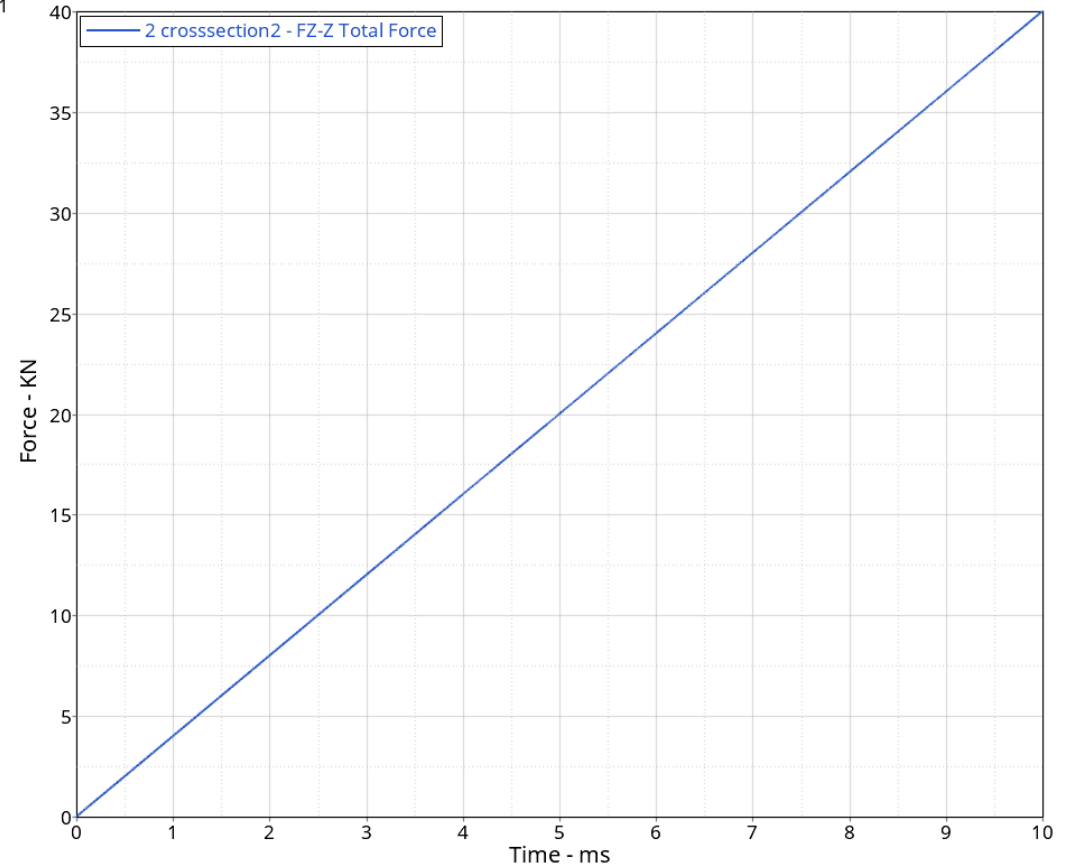
Conclusions

- Single element analysis conducted using Altair Radioss.
- This model can be utilized to test different element types, material models, etc.
- The model runs very fast so it can be useful for testing different solver options or for parametric studies.

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