



ENSURING A SUCCESSFUL IMPLEMENTATION OF CREO SIMULATION LIVE



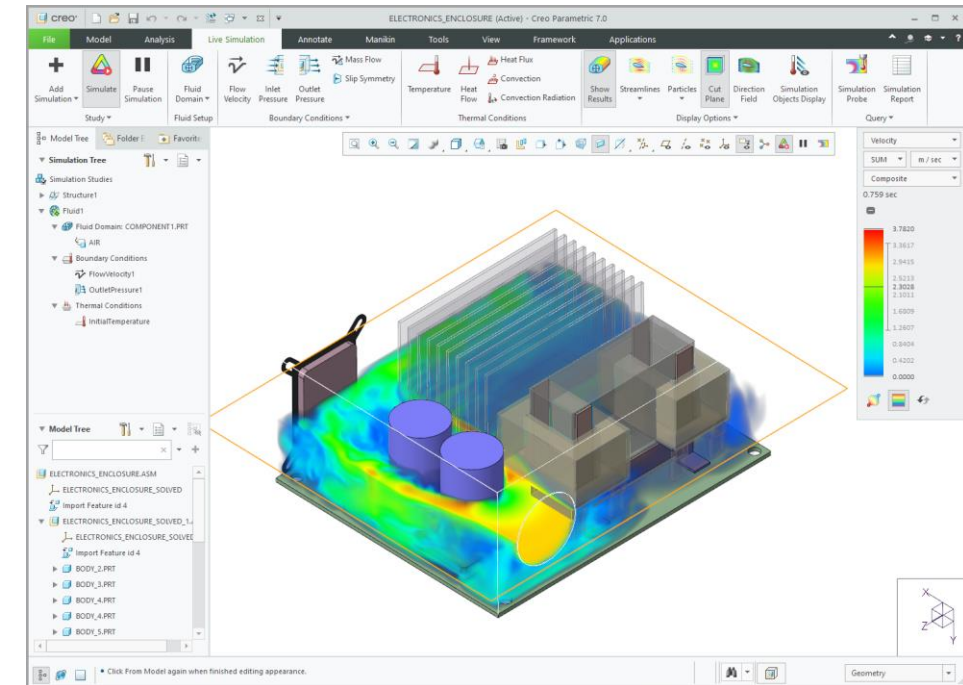
Todd Kraft
Creo Product
Manager



Harish Seth
Tech Support Senior
Manager

CREO SIMULATION LIVE – EXPERT SESSION

- Creo Simulation Live Benefits
- Tech Support top reported issues – Harish Seth
- Why GPU?
- Hardware checker
- Solver versions
- Resolution settings



- Introduced in:
 - Creo Parametric 4.0 M090
 - Creo Parametric 5.0.3.0 (BETA)
 - Creo Parametric 5.0.4.0
 - Creo Parametric 6.0.1.0

Not available in any older release or Datecodes.

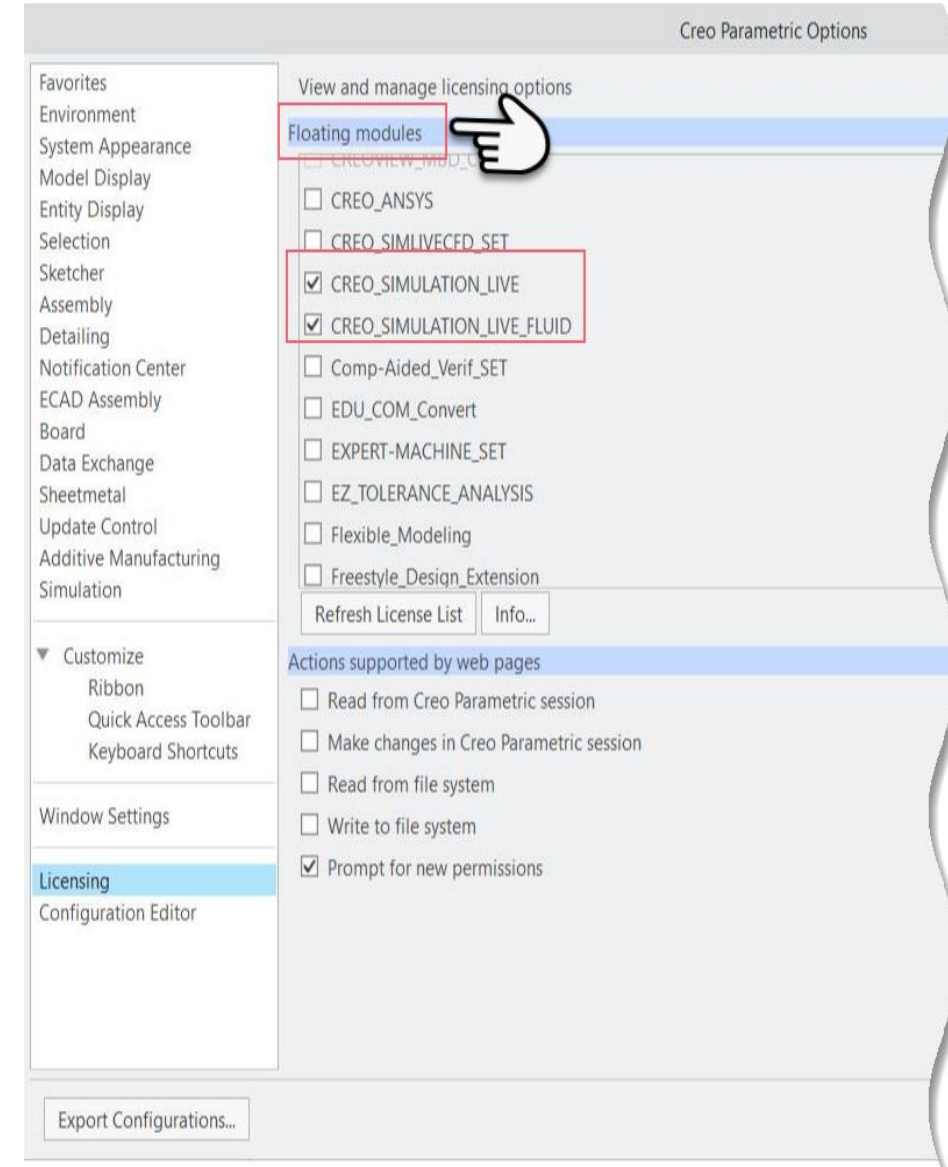
CSL LICENSE

- License Feature information:
 - CSL is available as an Extension or Floating Option
 - CREO_SIMULATION_LIVE (Feat # 379)
 - Creo Simulation Live Plus:
 - Creo Simulation Live with Fluid capabilities (Feat # 385)

Extension

Module = CSL

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063D 2646 CD56 99B2 7FFB BE94 36A8 FAFA 7383"
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TOP 5 ISSUES REPORTED BY USERS

- Error when clicking "Live Simulation > Simulate": "Your current graphics card does not allow run of Creo Simulation Live." in Creo Parametric - [CS302825](#)
- Getting started with Creo Simulation Live in Creo Parametric - [CS315248](#)
- No results in Creo Simulation Live with no warnings or errors displayed in Creo Parametric - [CS311463](#)
- Error "Features Not Obtained - CREO_SIMULATION_LIVE" on starting Creo Parametric, configured with Simulation Live - [CS298487](#)
- How to get [Creo Simulation Live Trial License](#) - [CS298128](#)

PTC TECHNICAL SUPPORT



CSL



Tech Support
Need Help with CSL



Self Help
PTC Knowledge Base



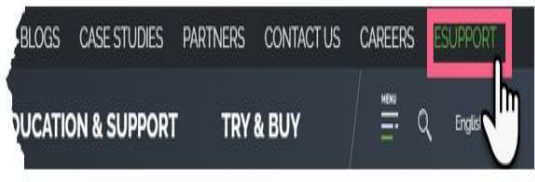
Case Tracking



SPR Tracking



Planning for an Upgrade



My Active Requests

You currently have no ongoing Support or Community Requests

Enter tracking number to track an existing case

My PTC

SPR Tracker

Company

Customer

Search by SPR Number

SPR Number

Update Advisor

Product

☐ Limit to High and Top severity SPRs only

Current Version

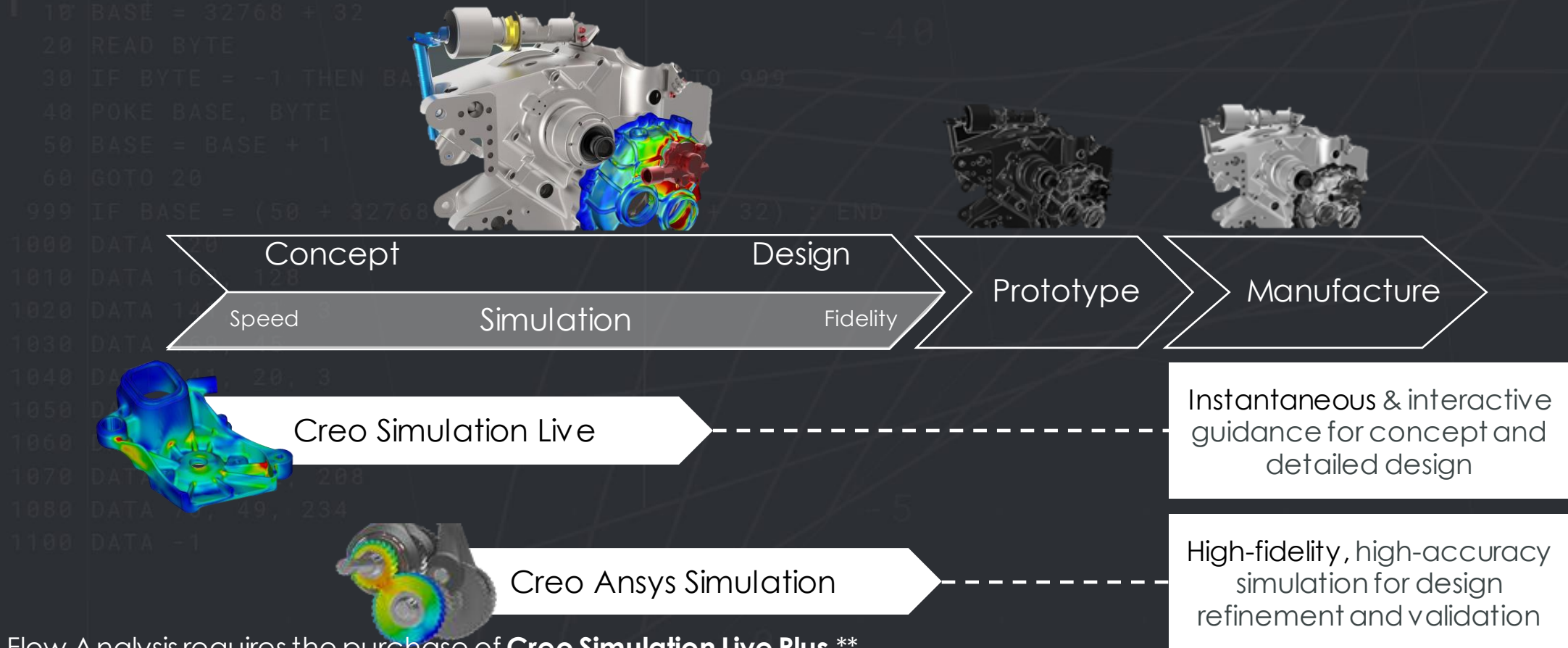
Release

Datecode

PTC-Ansys Partnership

What is Creo Simulation Live (CSL)?

The integration of the Ansys Discovery simulation engine running in Creo to provide real-time analysis for static structural, thermal, modal (vibration) and fluid flow simulation.



****CSL Flow Analysis requires the purchase of *Creo Simulation Live Plus* ****

Get real time feedback on the thousands of design decisions you make as you make them. This fast, easy to use tool is fully integrated into the 3D CAD modeling environment, enabling you to create better designs.

Creo Simulation Live Delivers:

- **Speed** – Instantaneous simulation experience for parts and assemblies
- **Ease of use** – Run 1st simulation in minutes
- **Geometry enabled** – Easily edit or create features while the analysis is running
- **Interactive** – Analysis results update dynamically as user makes geometry modification
- **Confidence** – Powered by ANSYS technology

Capabilities include:



Structural



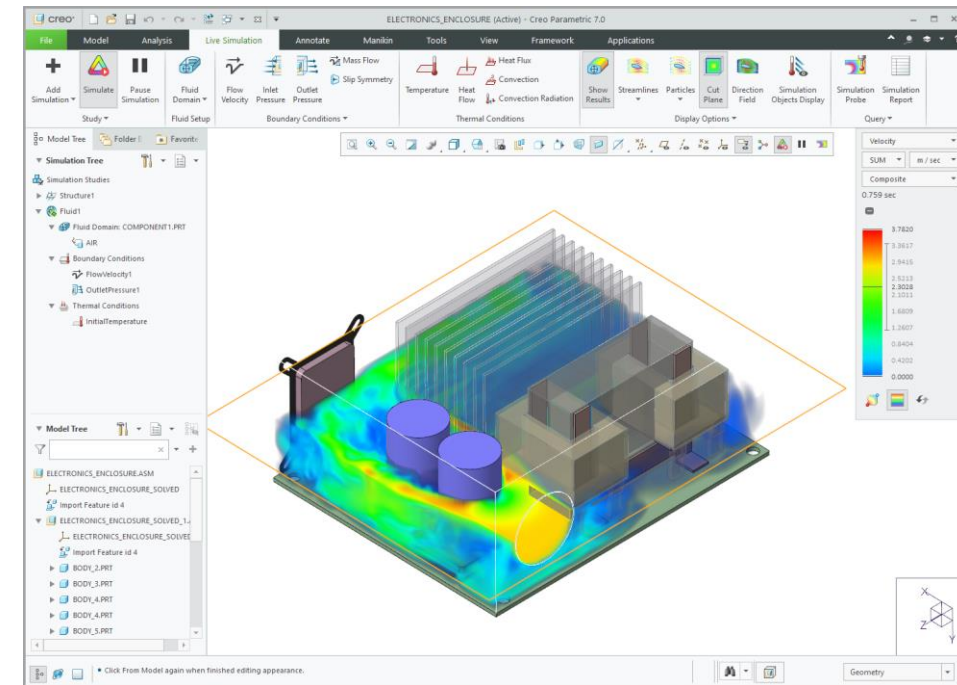
Thermal



Modal

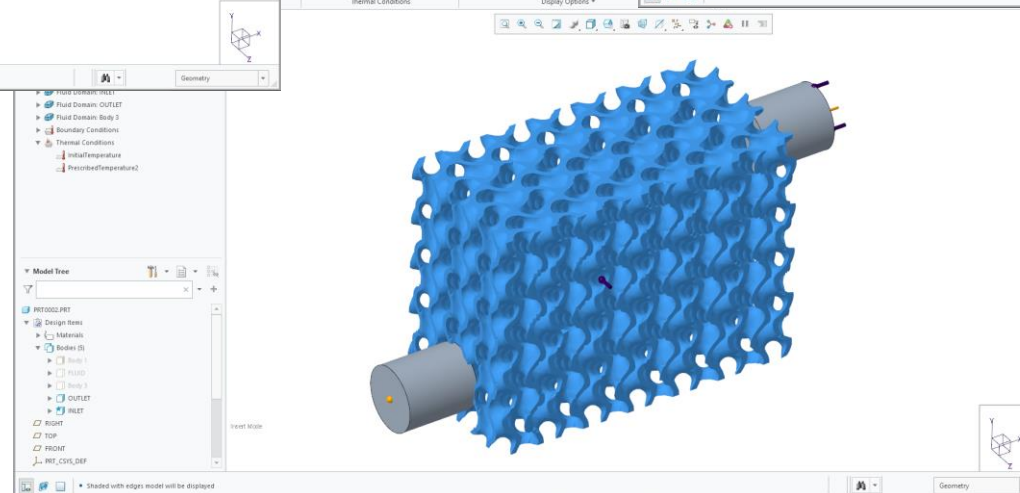
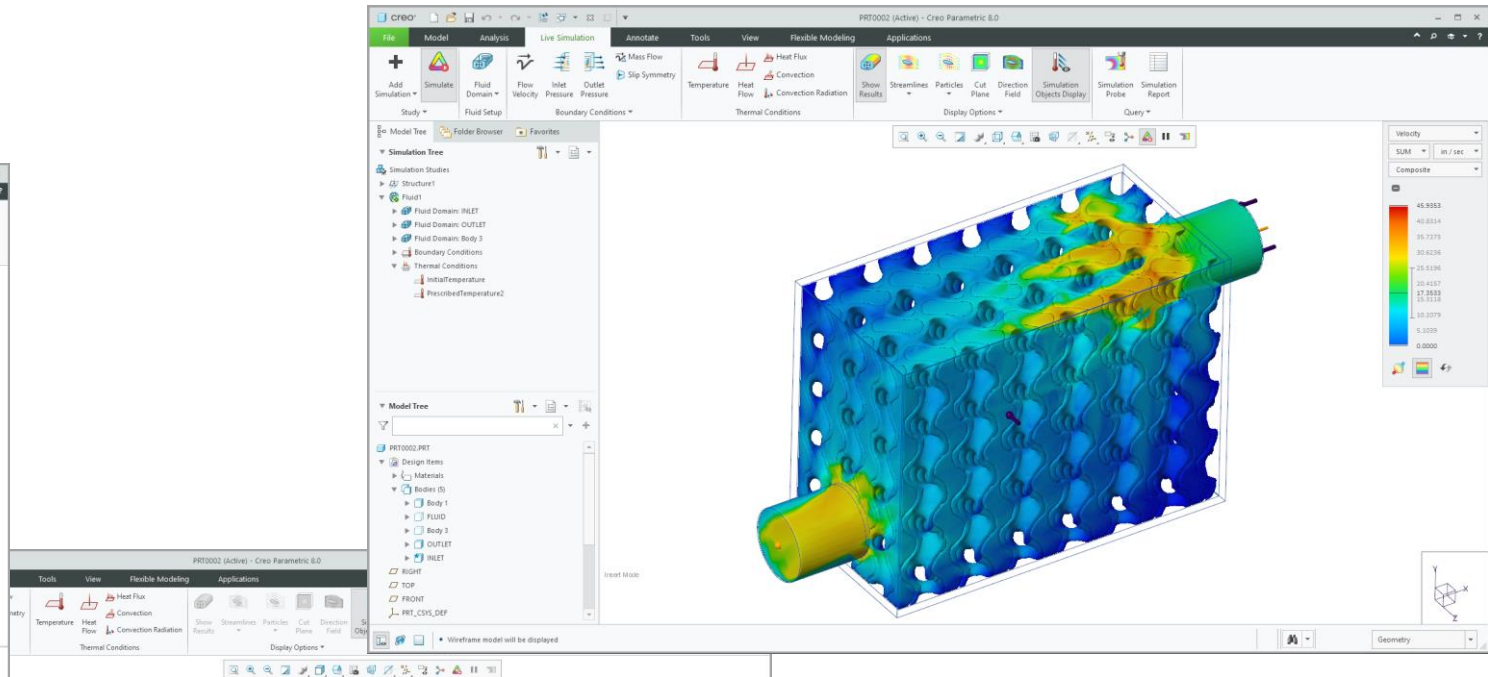
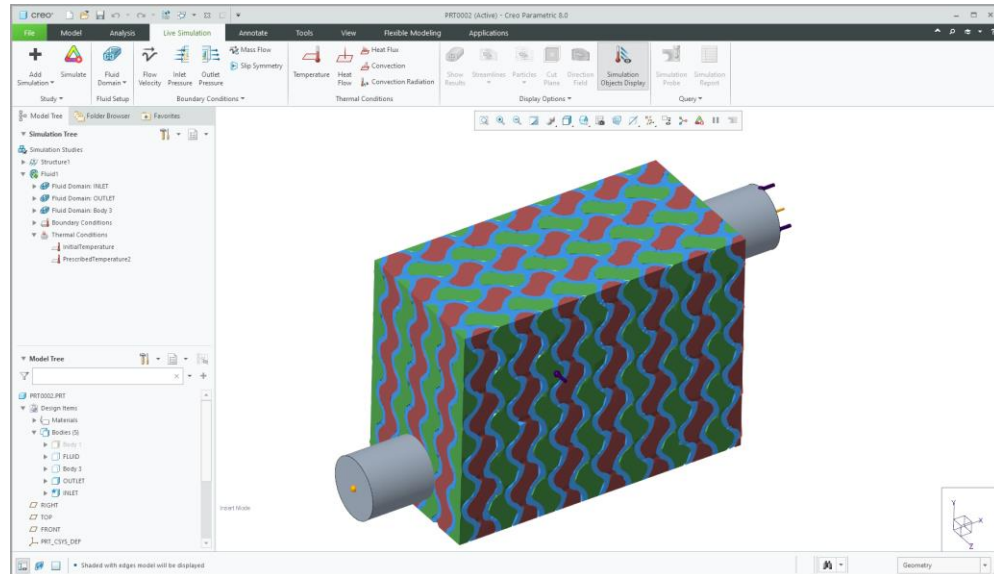


Fluids



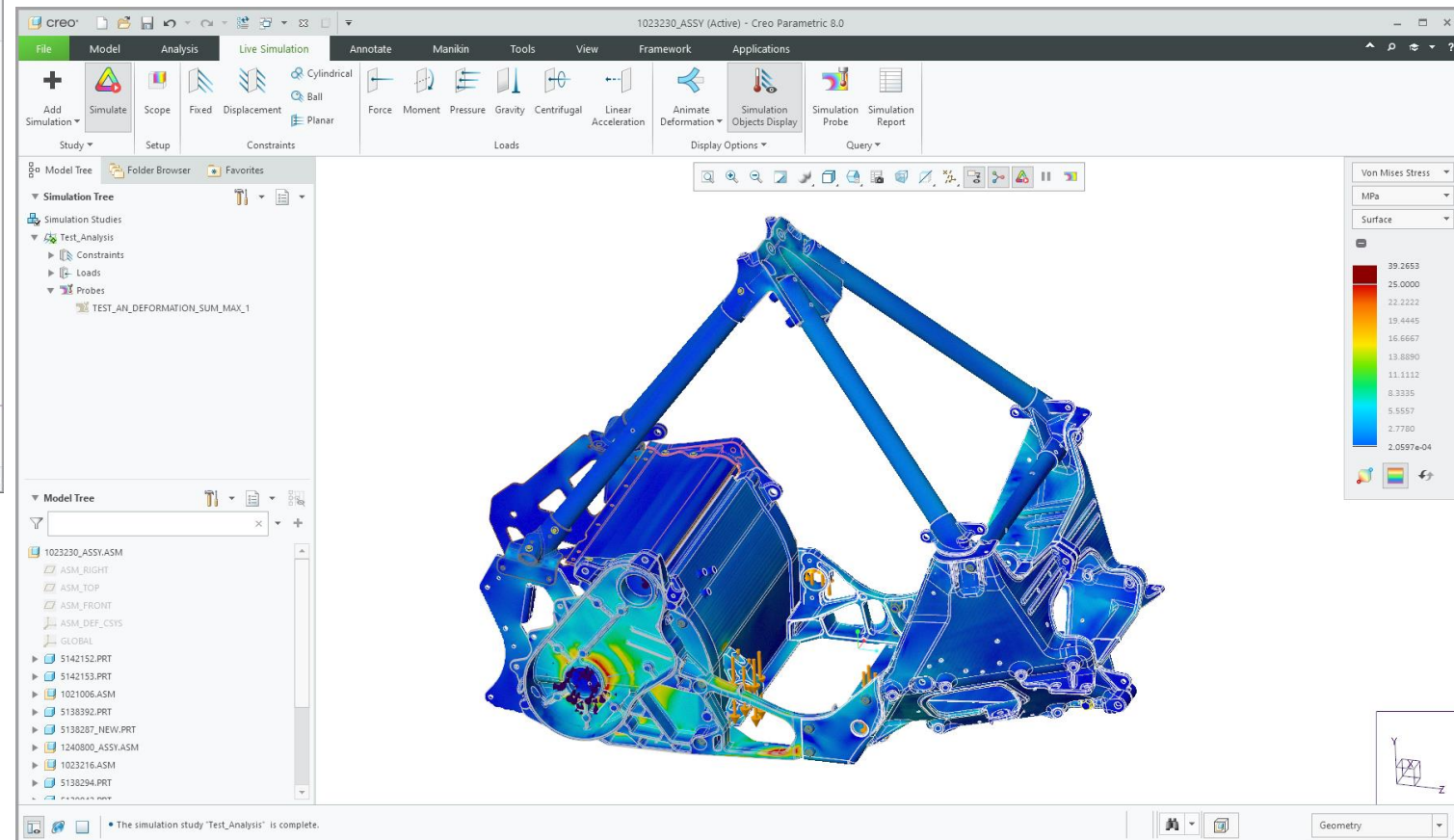
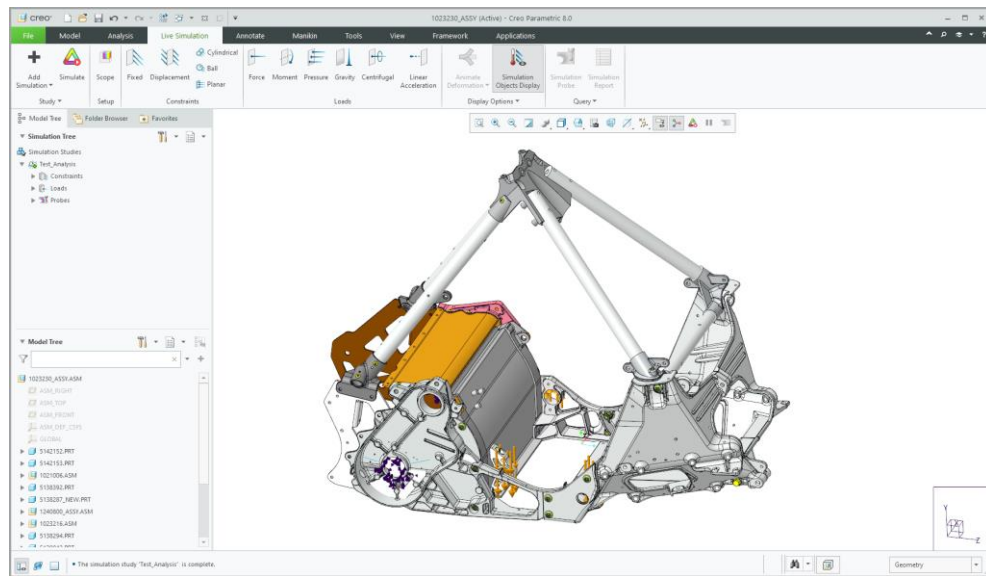
AMAZING CAPABILITIES

- Gyroid heat exchangers



AMAZING CAPABILITIES

- Assembly/System Simulations



Creo Simulation Live and Creo Ansys Simulation Roadmap*



Creo 8.0

Creo 9.0

Creo 10.0

Creo Simulation Live

- SS Fluids
- Improved Probes
- 2021R1 Solver

Creo Ansys Simulation

- Auto Floating License
- Reset options
- 2021R1 Update

Creo Simulation Live

- Upgrade to 2021R2
- Prevented and linear contact
- Structural-Thermal Study
- Lattice support in fluids
- Additional result types
- Surface Regions

Creo Ansys Simulation

- Upgrade to 2021R2
- Mid-surfacing and connections
- Inertia Relief
- Bearing Load
- Improved Results
- Improved workflow
- Copy/Paste Studies
- Cancel mesh, # cores UI
- Geometry Review

Creo Simulation Live

- CHT Simulation
- More result options

Creo Ansys Simulation

- Nonlinear Materials
- Nonlinear Contact
- Transient Structural
- Fatigue
- Design of Experiments
- Random Vibration
- Bolt pretension
- More....



**subject to change*

- ptc community** Connect ▾ Get Help ▾ Register Login

Ensuring a Successful Implementation of Creo Simulation Live



Published on 07-19-2021 12:59 PM by ShilpaK ptc

Join us on **July 28th at 11 AM EST** on our upcoming expert session as we discuss some of the common issues faced during the early stage of the adoption of Creo Simulation live.

Throughout this webcast, you'll learn:

 - Common obstacles faced during software implementation and how to get around them.
 - The benefits of real-time design guidance in the modeling environment.
 - How Creo Simulation Live has shaped its design engineers' approach to work and helped them design better products on their own terms.

REGISTER NOW

Speakers



Todd Kraft, CAD Product Manager,
PTC



Harish Seth, Technical Support,
Senior Manager, PTC

Will you be attending?

Yes	No	Maybe
GOING (0)	NOT GOING (0)	MAYBE (0)

No one has RSVP'd 'Yes' yet

[Add to Calendar](#)

🕒 Starts: Wed, Jul 28, 2021 11:00 AM EDT
Ends: Wed, Jul 28, 2021 12:00 PM EDT

Labels (2)

Expert Sessions
Product: Creo

Tags (2)

Creo Simulation Live
software implementation

Can't attend live? Register to attend and we'll send you the link after the webinar



1 Kudo

Comment

TECH SUPPORT COMMON ISSUES



Ensuring a successful implementation of

Creo Simulation Live



Harish Seth
Tech Support Senior
Manager

CREO SIMULATION LIVE – GPU REQUIREMENTS



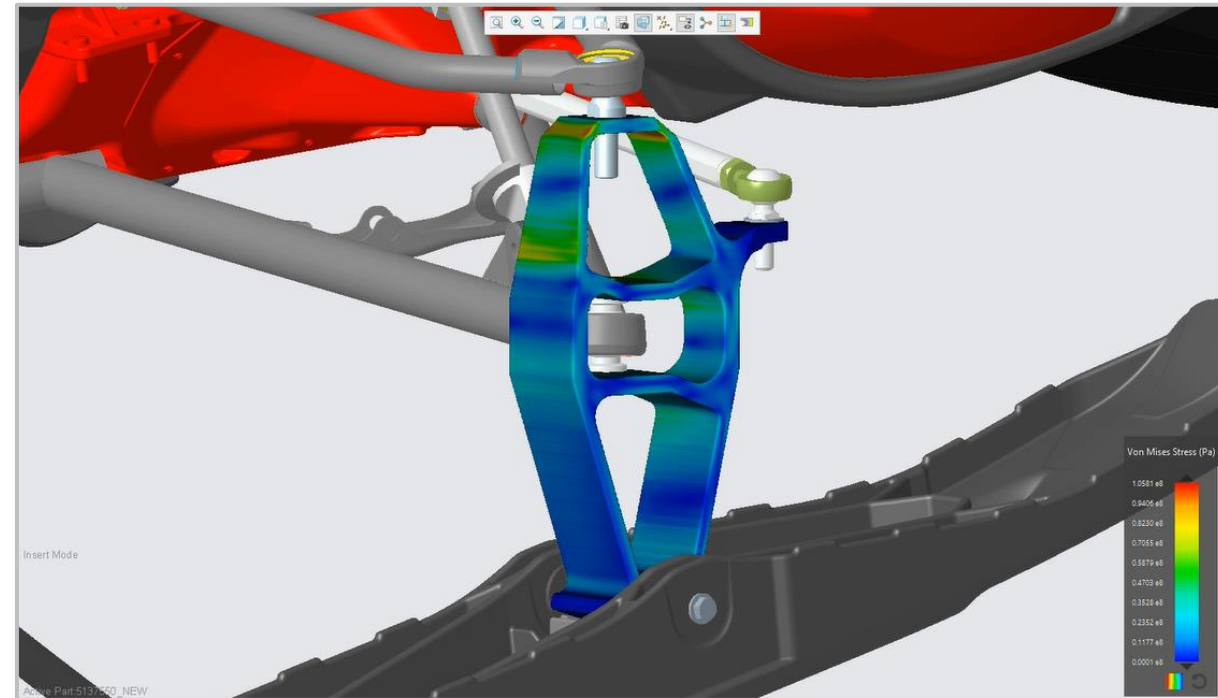
- Why GPU?
- Hardware checker
- Solver versions
- Resolution settings

Why GPU?

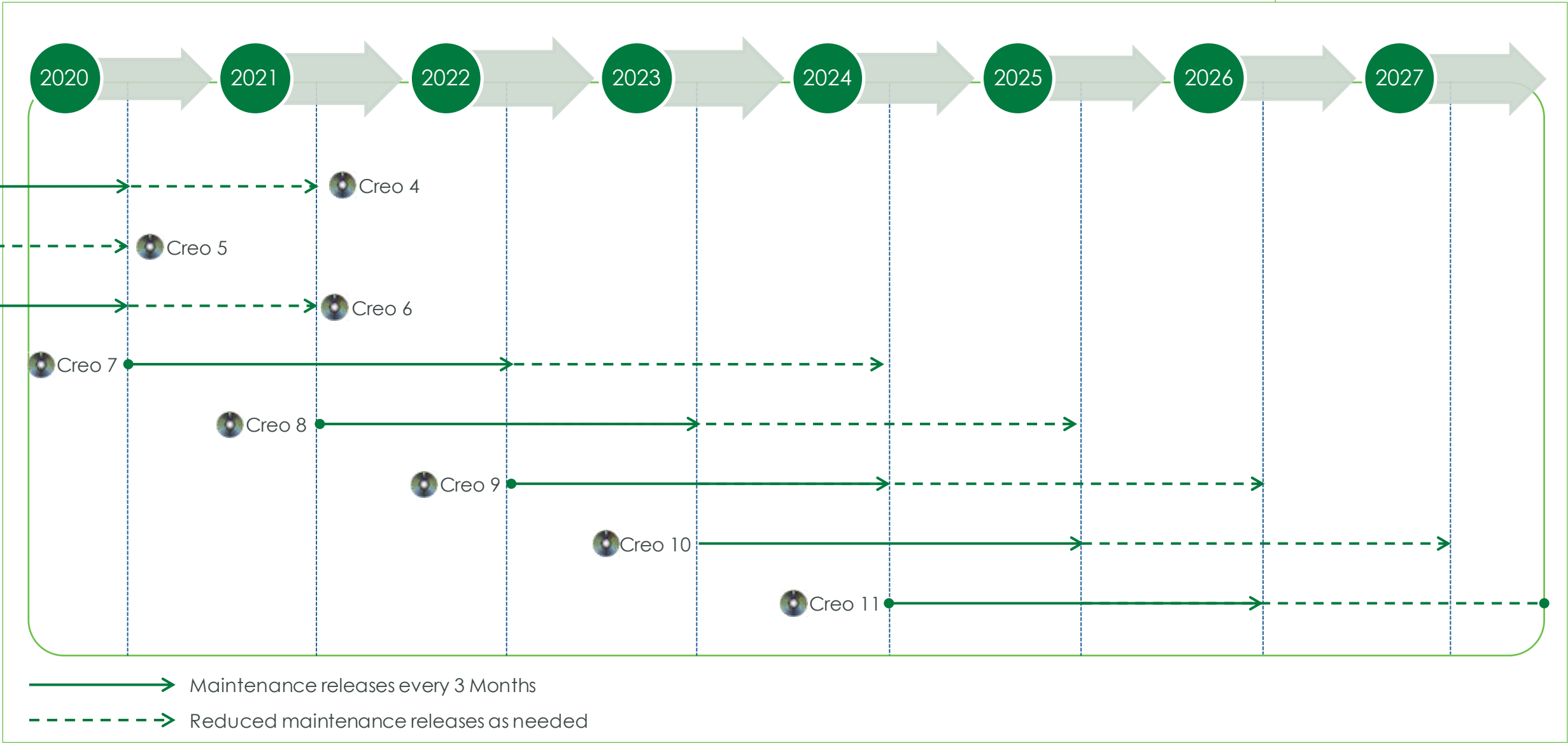
Proprietary technology developed and powered by ANSYS the industry leader in engineering simulation

- New Technology Powered by Ansys (Speed)
 - Solving engine uses the GPU (Nvidia - CUDA supported Graphics card)
- Proprietary meshing and solving
 - Meshing is automatic
 - Analysis results are instantaneous

Note, Discovery Live is GPU-based, you will require a GPU to run it. Ansys recommends a dedicated NVIDIA GPU card based on the Kepler, Maxwell, Pascal or Turing architecture (or newer) with at least 4GB of video RAM (8GB preferred).

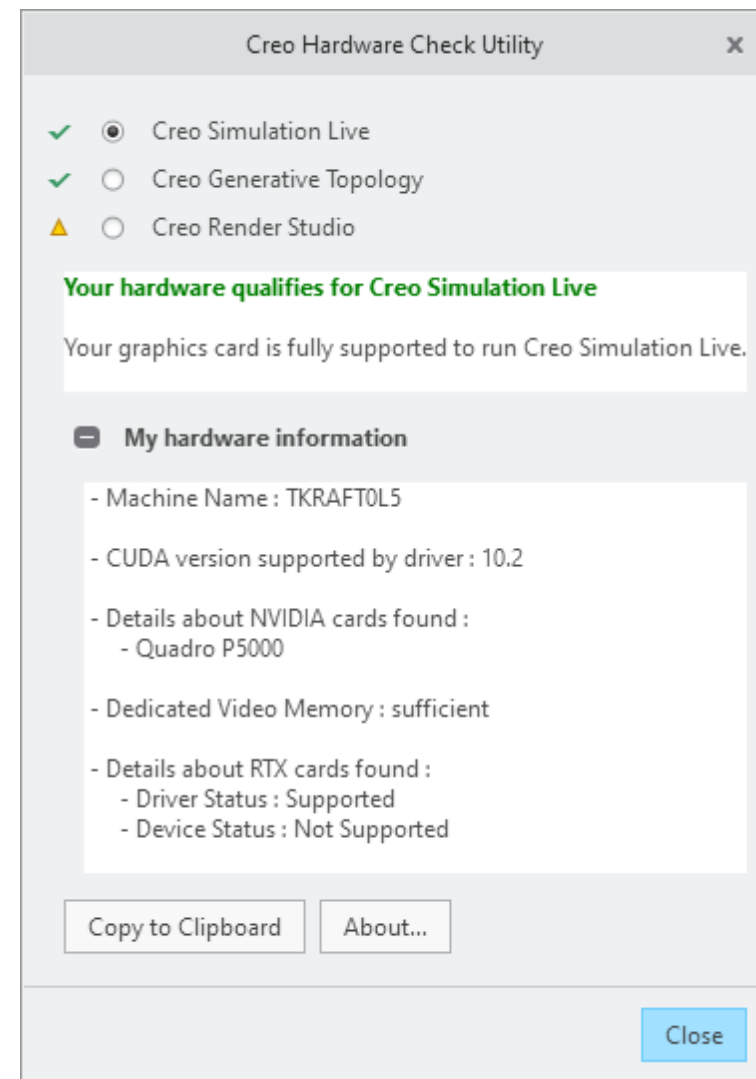
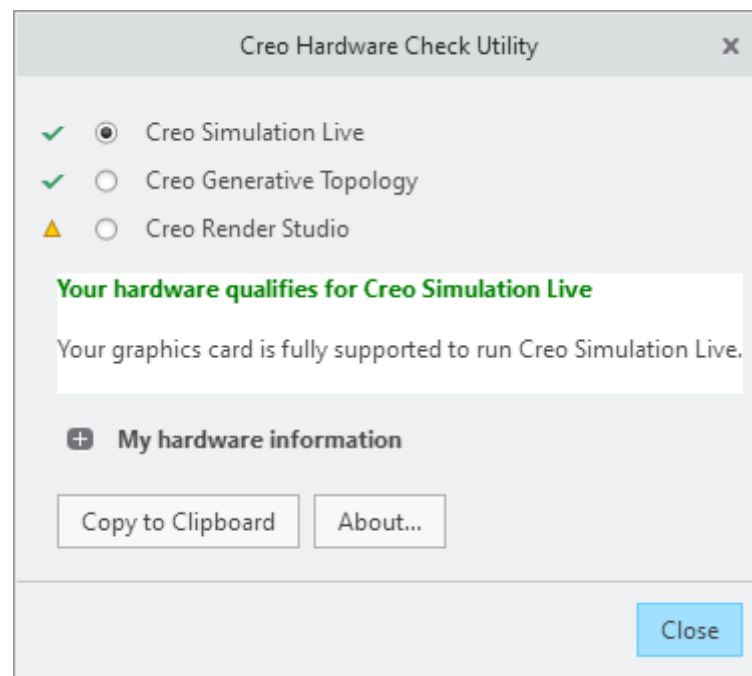


CREO ANNUAL RELEASE CADENCE



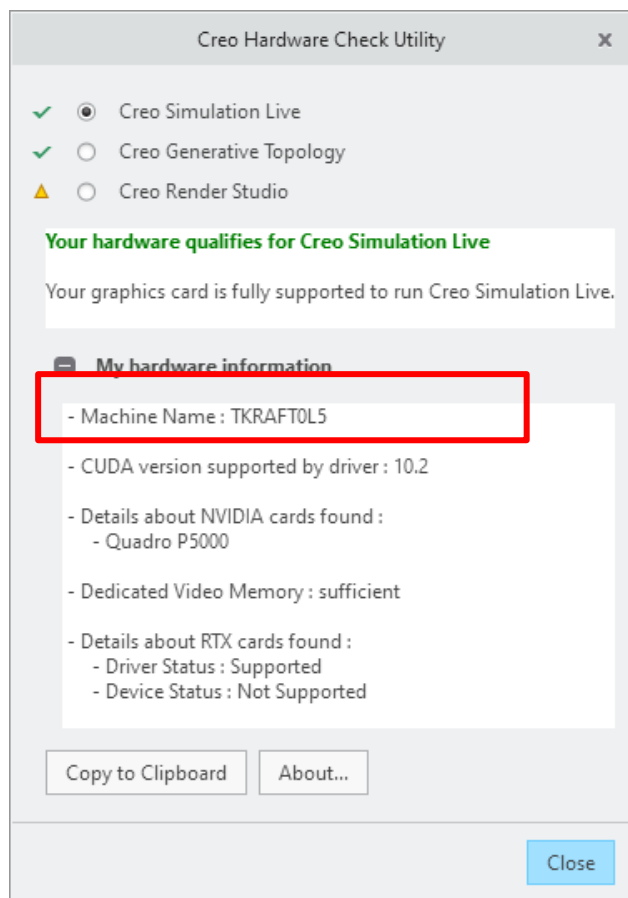
HARDWARE CHECK

- <https://www.ptc.com/en/creo-hardware-check>



HARDWARE CHECK

- <https://www.ptc.com/en/creo-hardware-check>
- <https://www.nvidia.com/Download/index.aspx>



- CUDA Version supported by driver
- CUDA 9.1 or higher
 - Creo 4.0 M120
 - Creo 5.0.6.0
 - Creo 6.0.4.0
 - Creo 7.0.0.0
- CUDA 10.1 or higher
 - Creo 4.0 M130
 - Creo 6.0.5.0
 - Creo 7.0.1.0 and newer
- CUDA 11
 - Creo 9.0.0.0 (spring 2022)

COMPATIBLE GRAPHICS CARDS

- **NVIDIA Quadro Series:**

P4000
P5000
P6000
M2000
M4000
M5000
M6000
K2200
K4200
K5200
K6000
GP100
GV100

- **All RTX cards:**

RTX 4000
RTX 5000
RTX 6000
RTX 8000
RTX 2060
RTX 2070
RTX 2080
RTX 2080 Ti

- **NVIDIA GeForce Series:**

GTX 1060
GTX 1070
GTX 1080
GTX 1080 Ti
Titan V
Titan xp
Titan X

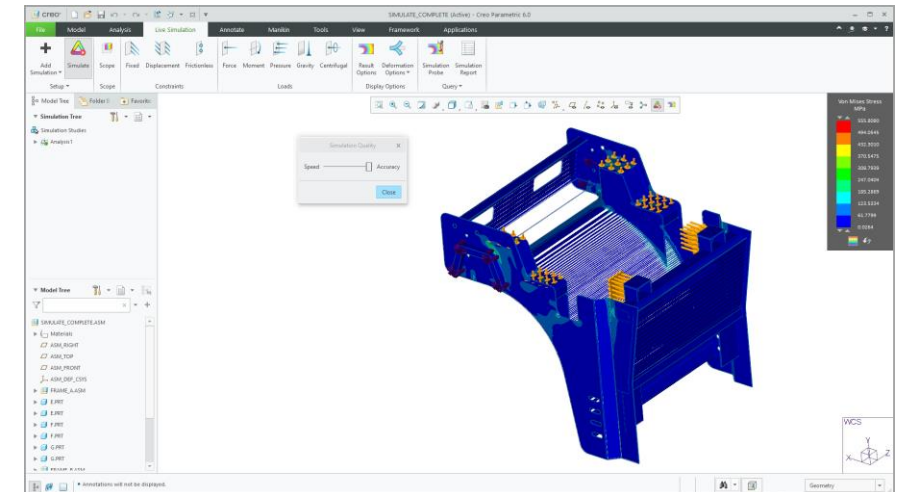
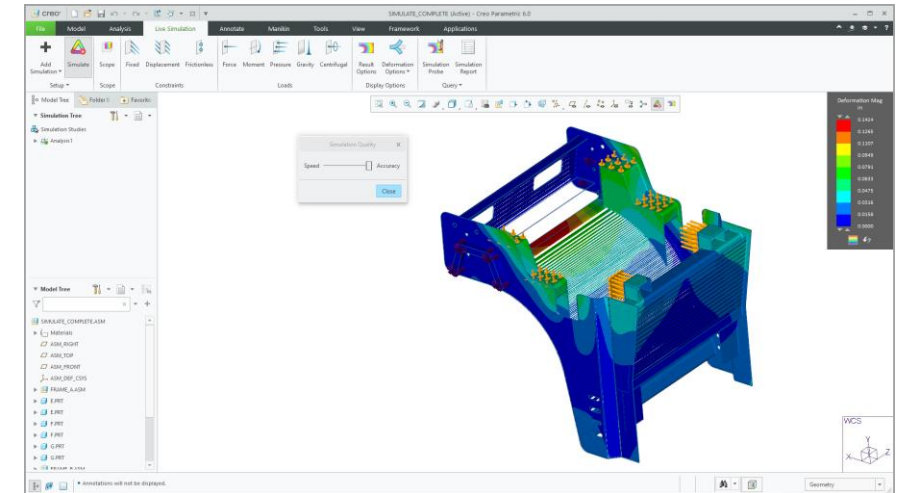
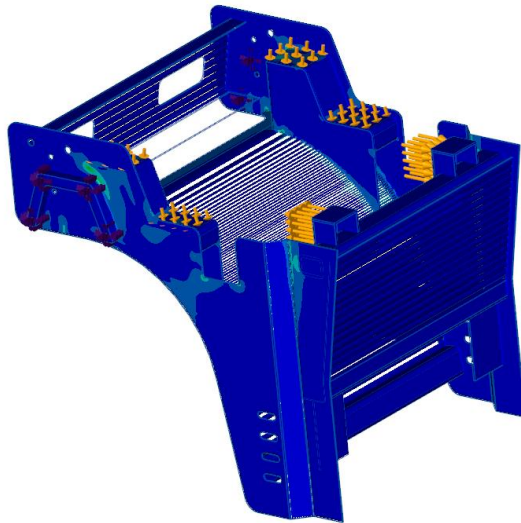
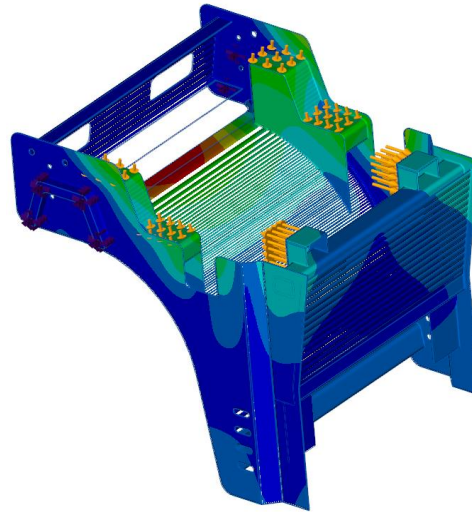
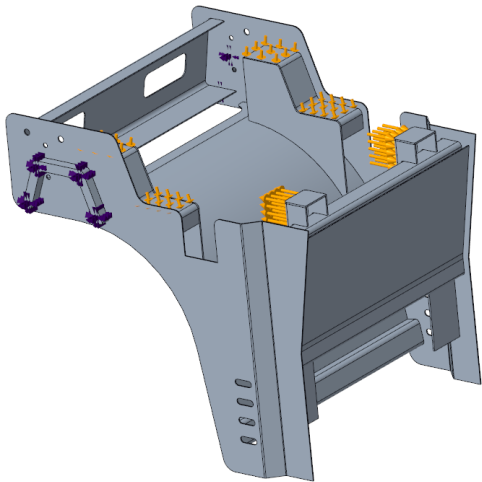
SOLVER VERSIONS

- <https://www.ptc.com/en/support/article/CS327496>

	ANSYS Solver 2019R1	ANSYS Solver 2019R2	ANSYS Solver 2020R1	ANSYS Solver 2021R1
• Creo Parametric 4.0 Mogo - M120 • Creo Parametric 5.0.4.0 - 5.0.6.0 • Creo Parametric 6.0.1.0 - 6.0.4.0	Y			
• Creo Parametric 7.0.0.0		Y		
• Creo Parametric 4.0 M130+ • Creo Parametric 6.0.5.0+ • Creo Parametric 7.0.1.0+			Y	
• Creo Parametric 8.0.0.0				Y

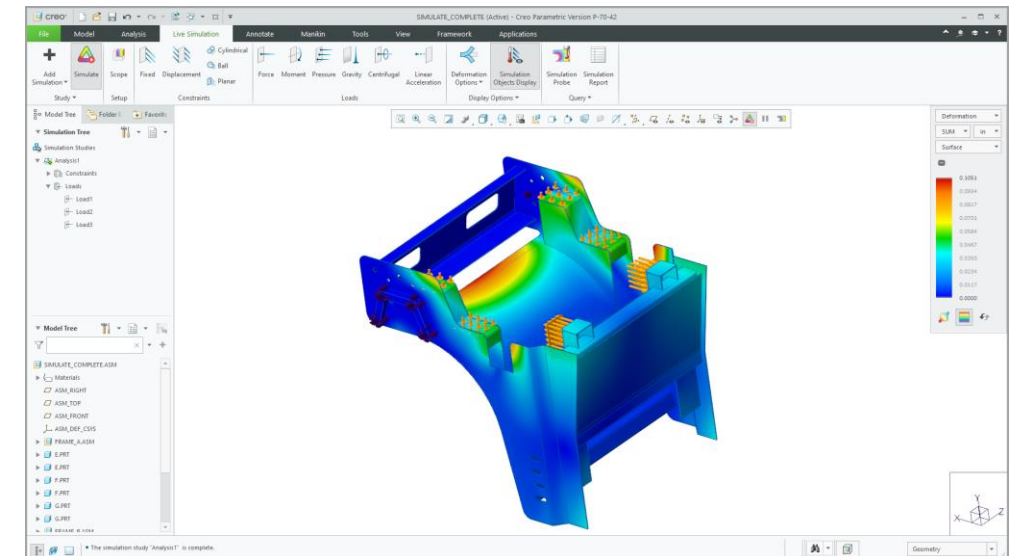
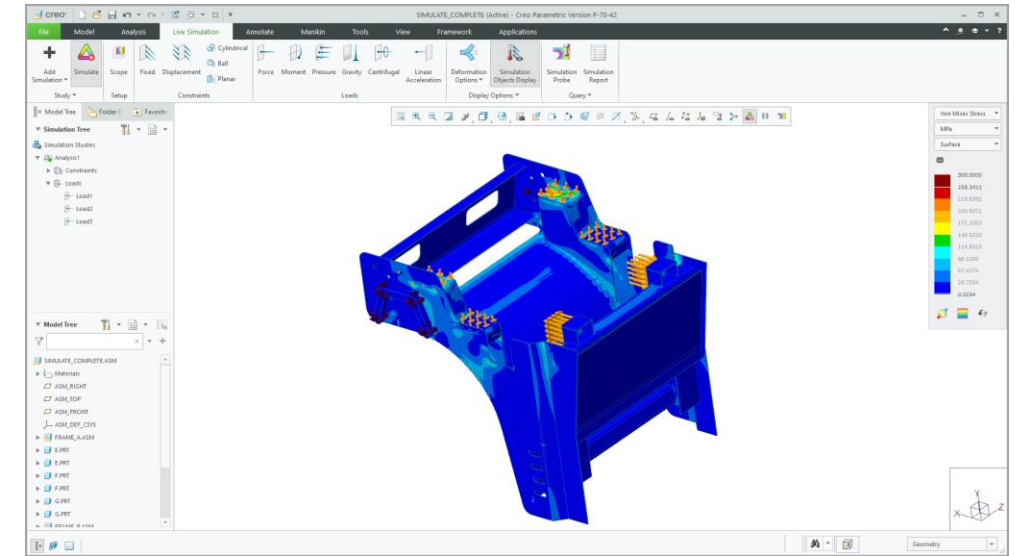
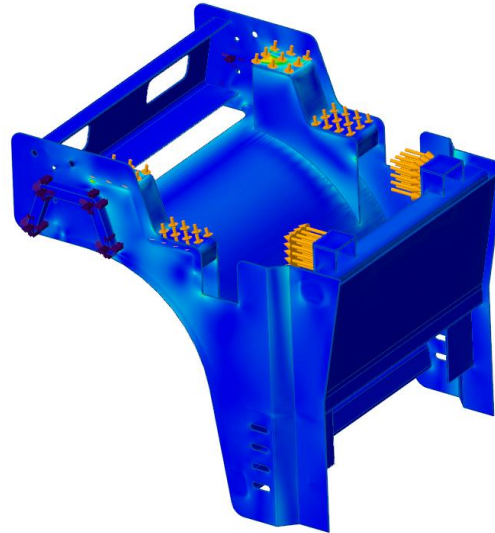
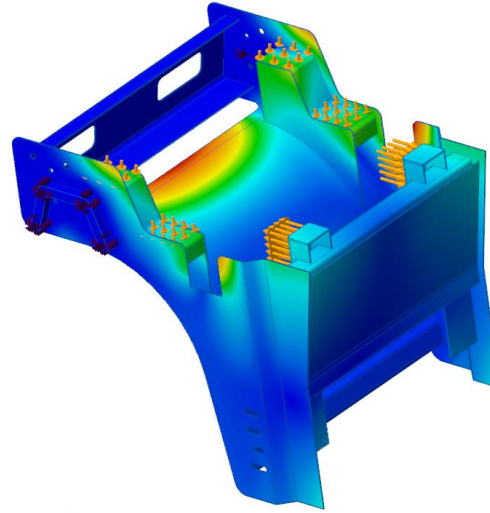
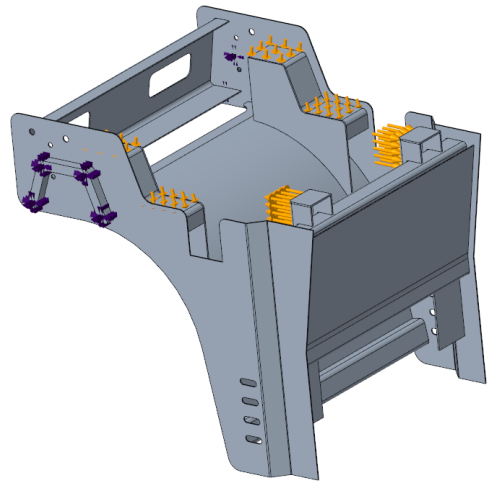
CREO 6.0.3.0 – FULL FIDELITY

- Uses 2.9 GB (of 16 GB) video memory
- Many gaps and missing surfaces



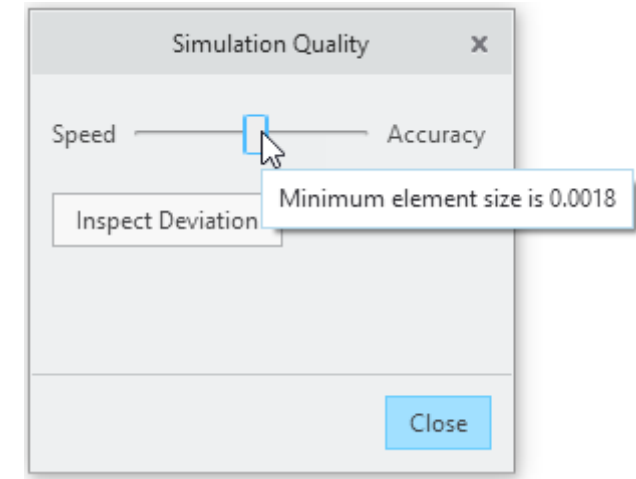
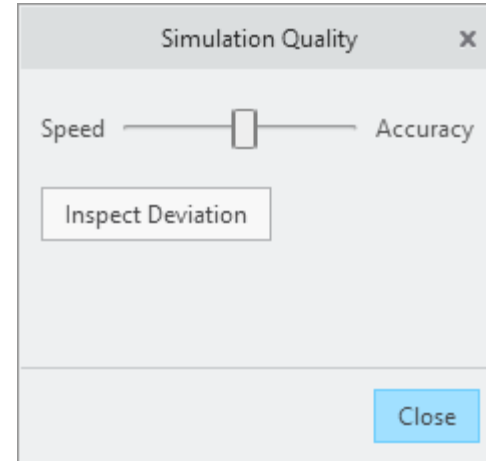
CREO 7.0.1.0 – 50% FIDELITY

- Uses 6.1 GB (of 16 GB) video memory (this is comparable to what an 8 GB video card would show)
- All surfaces have resolution



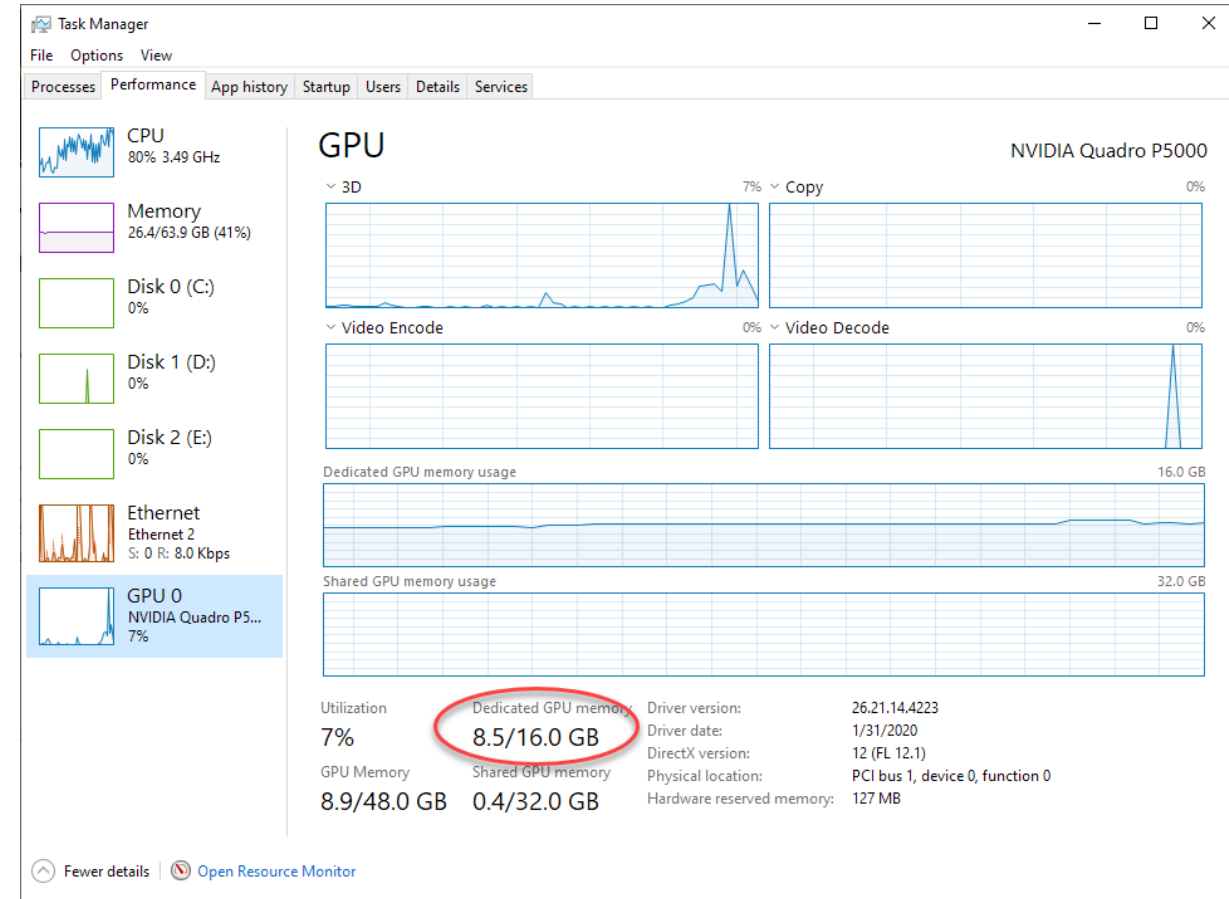
RESOLUTION

- Simulation Quality refers to amount of memory allocated to memory available
- Hovering over slider bar provides minimum element size
- `sim_live_result_quality .25` (.05 to 1)



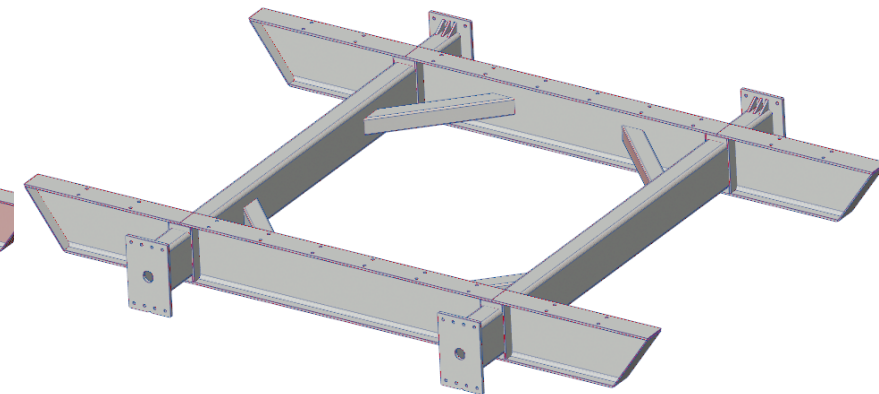
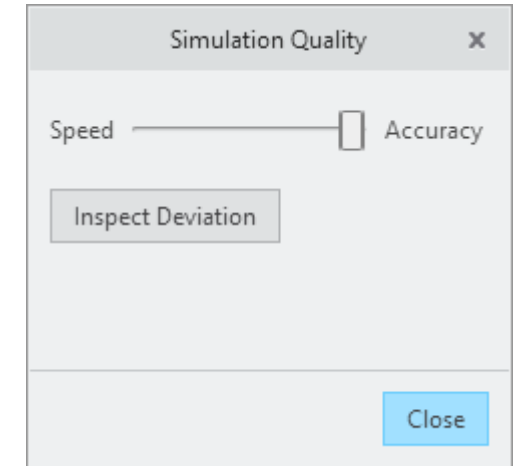
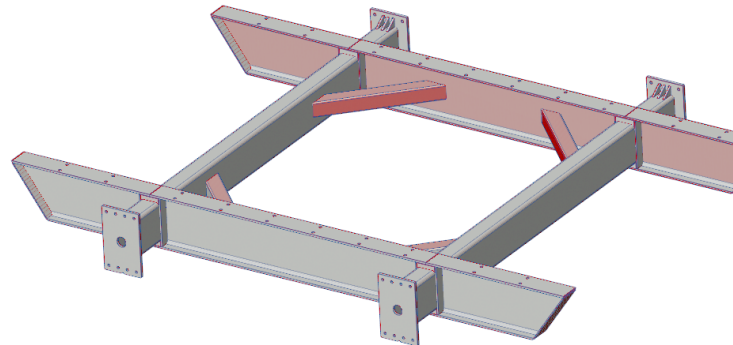
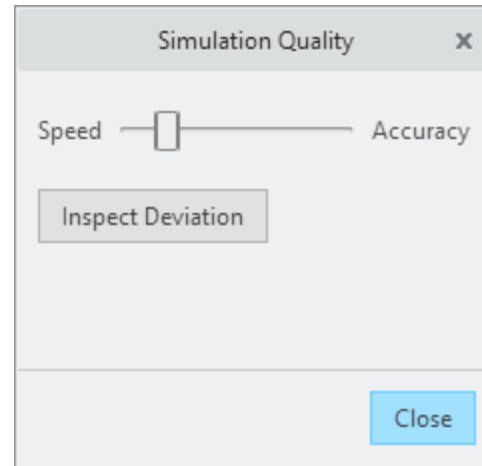
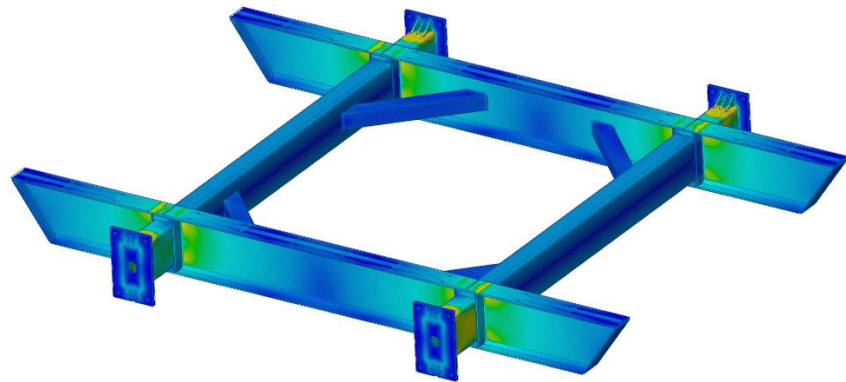
RESOLUTION

- GPU Memory monitoring
- Task Manager>Performance>GPU



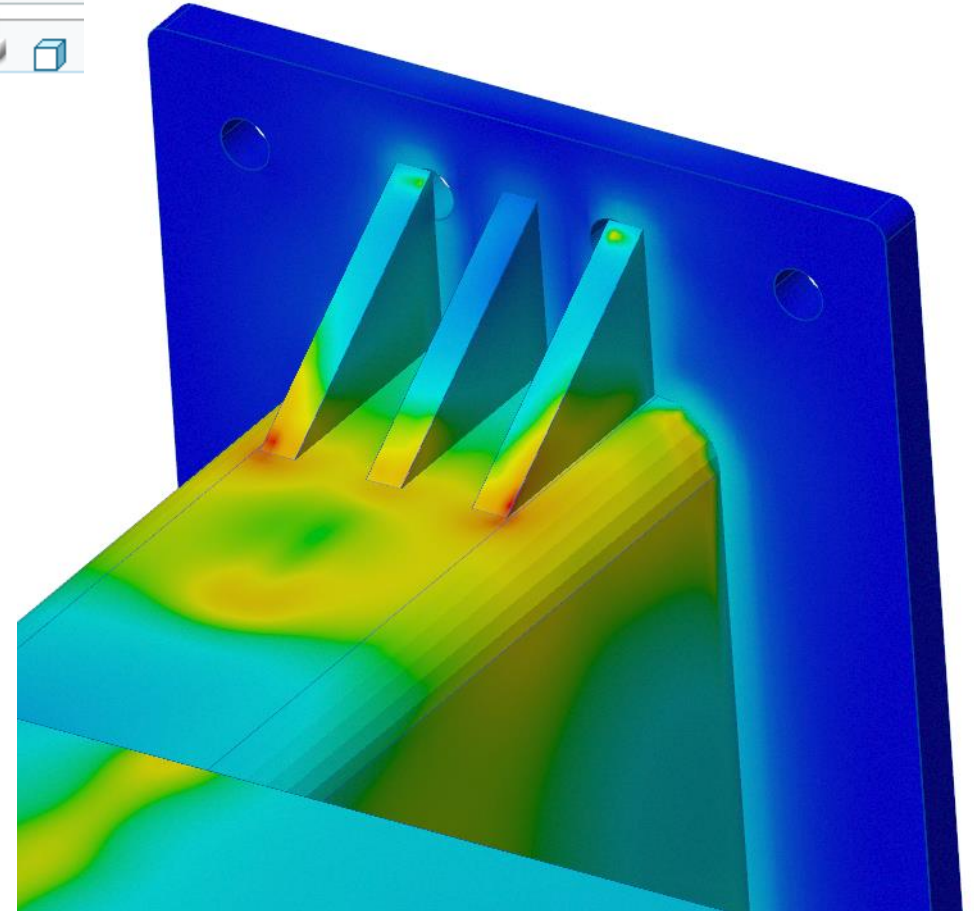
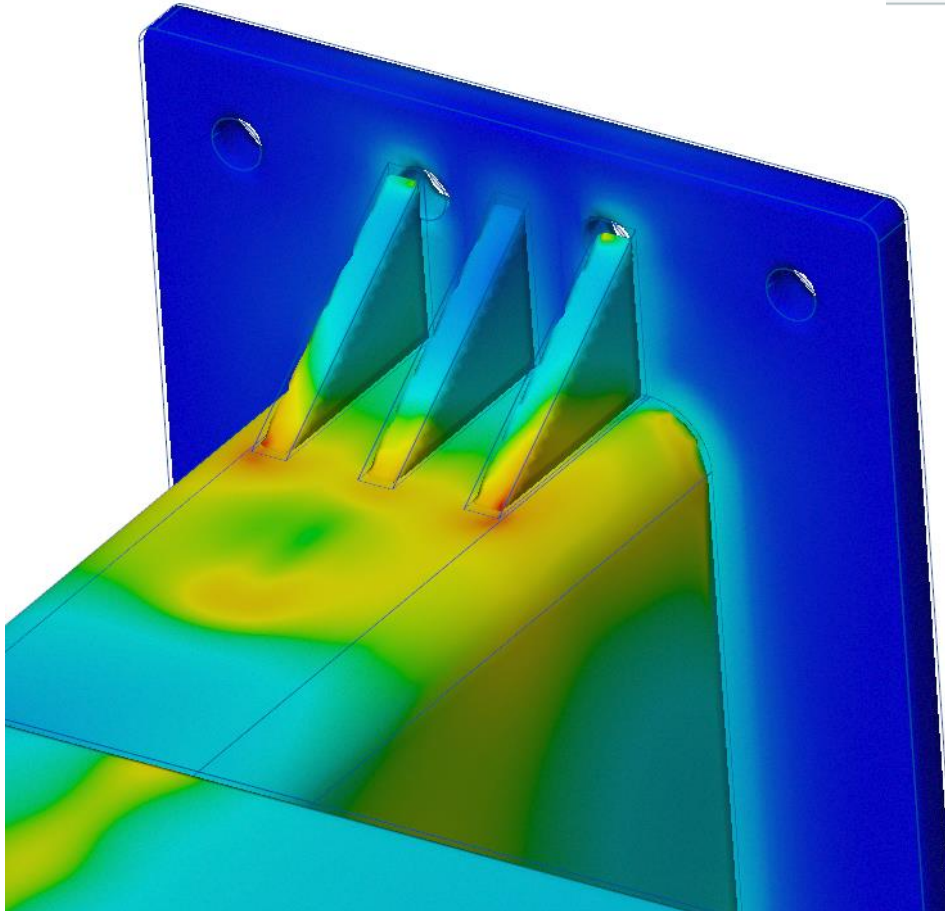
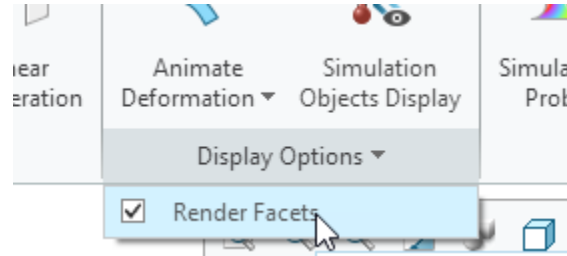
RESOLUTION

- Verify that your deviation isn't too red or blue



RESOLUTION

- Render Facets



ADDITIONAL CSL INFORMATION

- [Creo Simulation Live Onboarding Portal | PTC](https://www.ptc.com/en/customer-success/creo-simulation-live-onboarding)
- <https://www.ptc.com/en/customer-success/creo-simulation-live-onboarding>

