Tips for Large Assembly Performance

Ben Weisenberger, **Senior Application Engineer, Solid Edge**
Global Technical Enablement - Siemens Digital Industries Software

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Agenda

Simplify your components
Pay attention to your drawings
Improve your model
Take advantage of data management
Optimize your display

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Tips for Improving CAD Performance

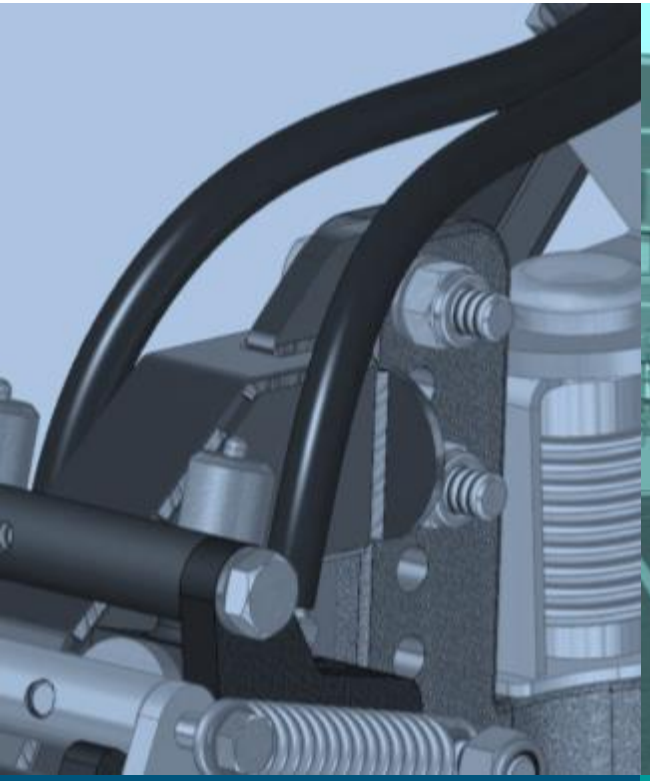


- **Tip 1: Simplify your components**
- **Tip 2: Pay attention to your drawings**
- **Tip 3: Improve your model**
- **Tip 4: Take advantage of PDM**
- **Tip 5: Optimize your display**

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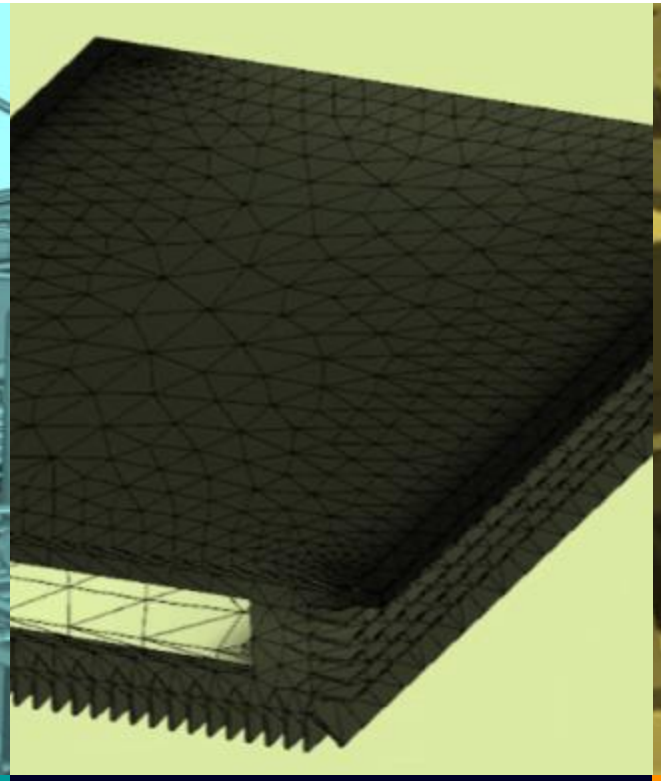
Eliminate unnecessary details



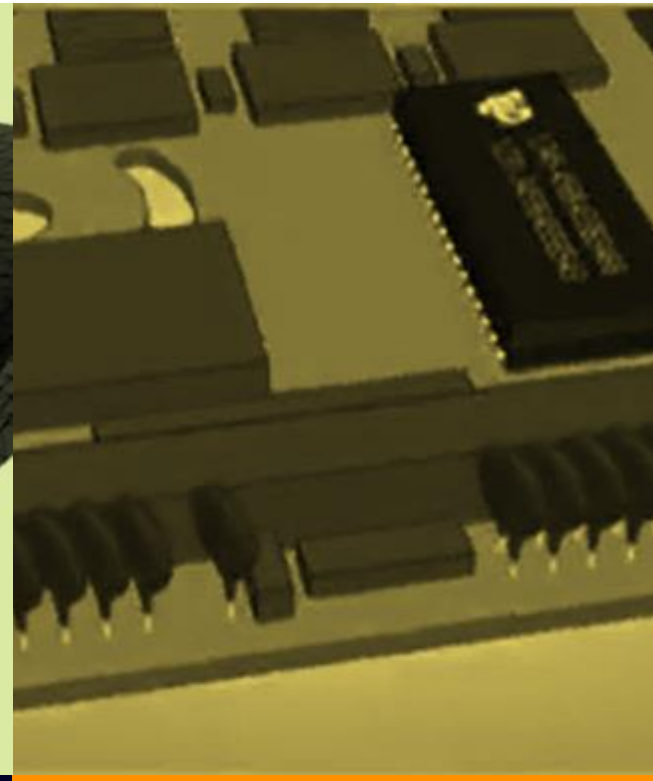
Simplify hardware details based on need



Cull components from upper-level assembly



Let analysis needs determine detail level



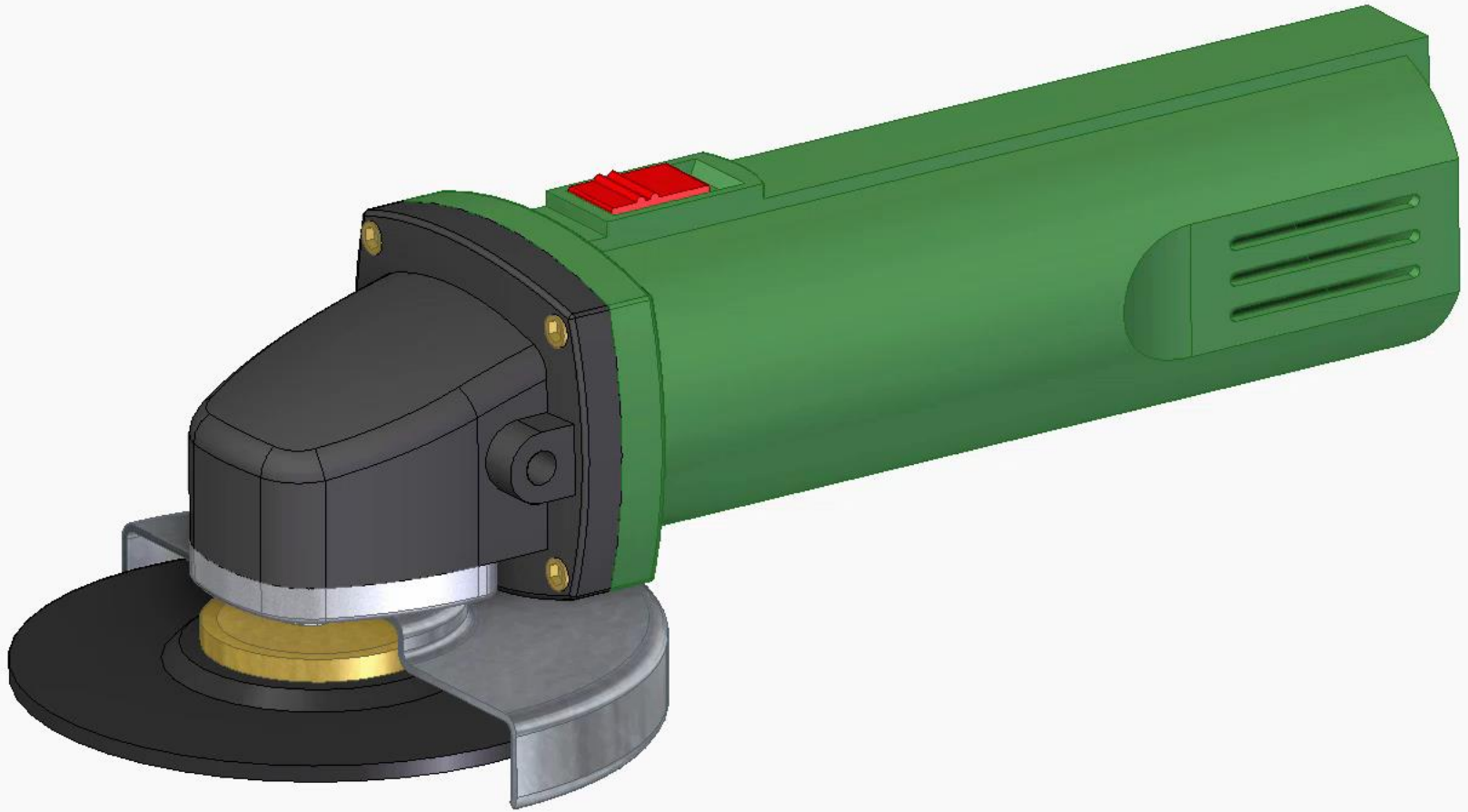
Simplify purchased or out-of-scope parts

Simplify subsystems for in-context design



- Simplify purchased or provided subsystems to a single part
- Define cohesive sets of parts, features and constraints as a single functional system
- Design in context without impeding performance

Demo 2.asm
Simplified Assembly
Coordinate Systems
Reference Planes
case1.par:1
switch1.par:1
head.asm:1
socket2.par:1
Pattern_1



No top level part selected.

Tips for Improving CAD Performance



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Tip 3: Improve your model

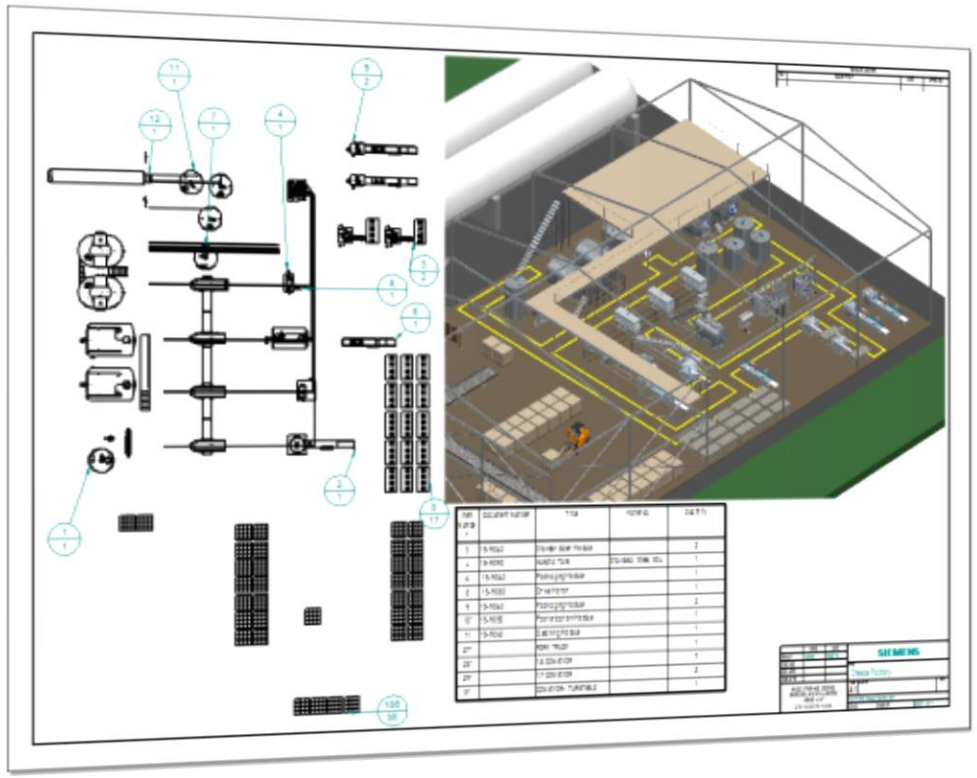
Tip 4: Take advantage of PDM

Tip 5: Optimize your display

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Pay attention to your drawings



Drawings have a big job

- Multiple views of each assembly
- Cutaway, detail or exploded views
- For each part, calculate every edge
- Decide if hidden, shown, grayed out or dashed

Help your CAD tool out by:

- Avoiding interferences where possible
- Balancing detail based on need

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Minimize costly assembly operations

Assembly features and interpart relationships take up more computational resources.

Use synchronous parts and assemblies.

Freeze links when you are done working.



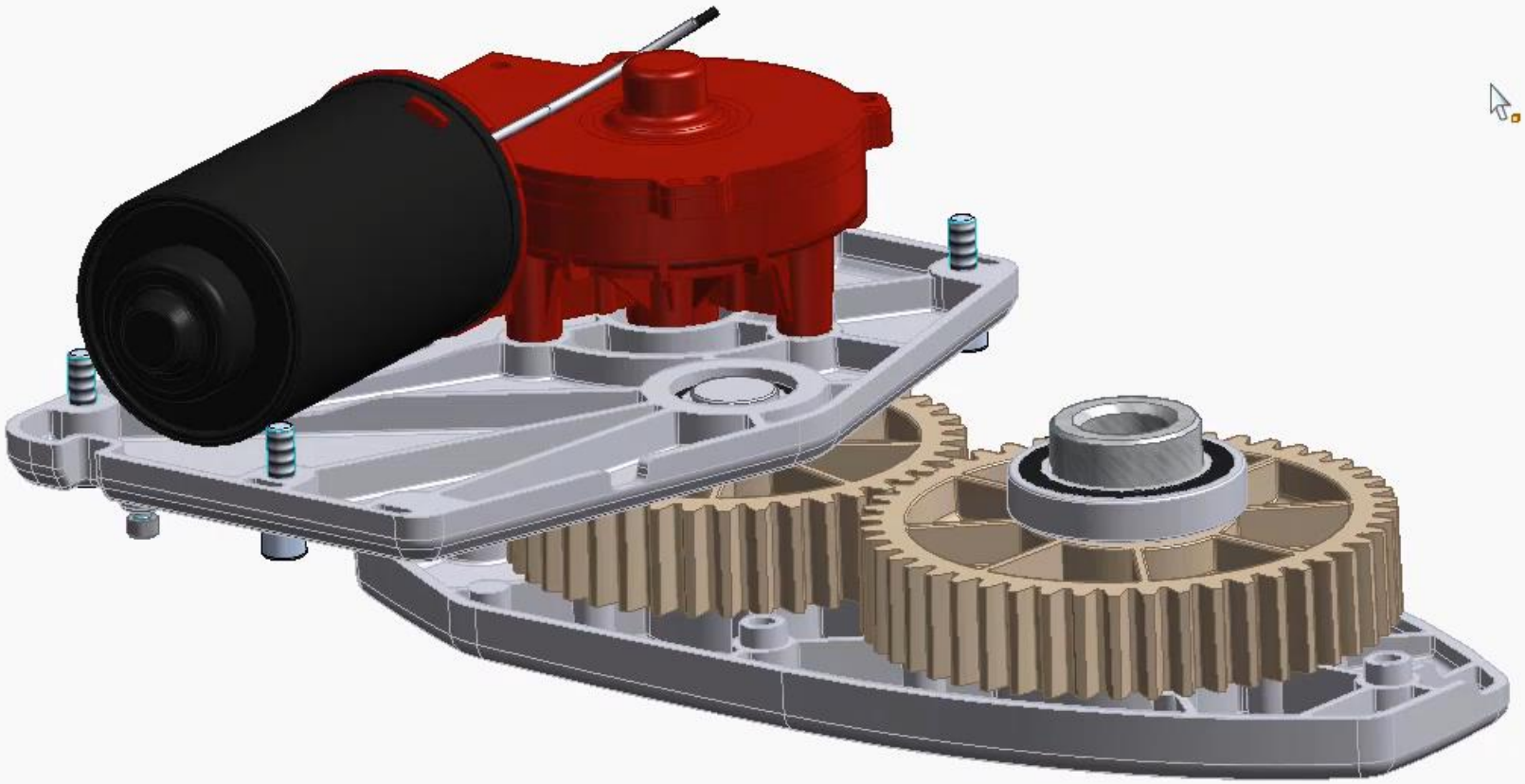
Create relationships between parts only when needed.

Solid Edge ST9 - Assembly - [ZX-0009_A.asm:1]

Home | Features | PMI | Simulation | Simulation Geometry | Inspect | Tools | View | Data Management

ZX-0001_A.asm | Draft1 | ZX-0009_A.asm:1

- ZX-0009_A.asm
  - Coordinate Systems
  - Reference Planes
  - Sketches
  - ZX-0030_A.par:1
  - ZX-0127_A.par:1
  - ZX-0115_A.par:1
  - ZX-0002_A.asm:1
  - ZX-0054_A.par:1
  - ZX-0116_A.par:2
  - ZX-0115_A.par:2
  - ZX-0115_A.par:3
  - ZX-0097_A.par:1
  - ZX-0138_A.par:1
  - ZX-0138_A.par:2
  - ZX-0138_A.par:3
  - ZX-0138_A.par:4
  - ZX-0137_A.par:1
  - ZX-0137_A.par:2
  - ZX-0137_A.par:3
  - ZX-0032_A.par:1
  - ZX-0138_A.par:5
  - ZX-0138_A.par:6
  - ZX-0138_A.par:7
  - ZX-0138_A.par:8
  - ZX-0138_A.par:10
  - ZX-0024_A.par:1
  - ZX-0024_A.par:2
  - ZX-0116_A.par:3
  - ZX-0026_A.par:2
  - ZX-0026_A.par:3
  - ZX-0026_A.par:4
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  - ZX-0026_A.par:10
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  - ZX-0083_A.par:1
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  - ZX-0037_A.par:1
  - ZX-0037_A.par:2
  - ZX-0120_A.par:1
  - ZX-0120_A.par:2
  - ZX-0121_A.par:1
  - ZX-0121_A.par:2
  - ZX-0008_A.asm:1



Select components to edit or click the Insert Component command, Create Part In-Place command, Parts Library tab or drag component | 0 items are selected | Find a command

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Improving the performance of shared files

Desktops and Laptops



Shared Drives



PDM



PLM



Use a product data management (PDM) system to avoid performance problems due to networked files.

Scalable data management solutions



Built-in Solid Edge data management

- Fast setup, no database software to maintain
- Instant searches and integrated properties management
- Easy revision and release management
- Flexible file vaulting and sharing

Teamcenter integration for Solid Edge

- Fast task completion
- Integrated revision management
- Higher design reuse to reduce costs
- Managed legacy CAD data
- Improved collaboration
- Growth path to comprehensive PLM


Teamcenter Share
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Reduce visual effects in upper-level assemblies

To optimize upper-level assembly performance…

…turn **OFF**

- × reflections
- × drop shadows
- × view transitions
- × cast shadows
- × silhouettes
- × glow

…and **USE**

- ✓ shaded (without edges)
- ✓ single edge color (if you use visible edges)
- ✓ culling
- ✓ low sharpness



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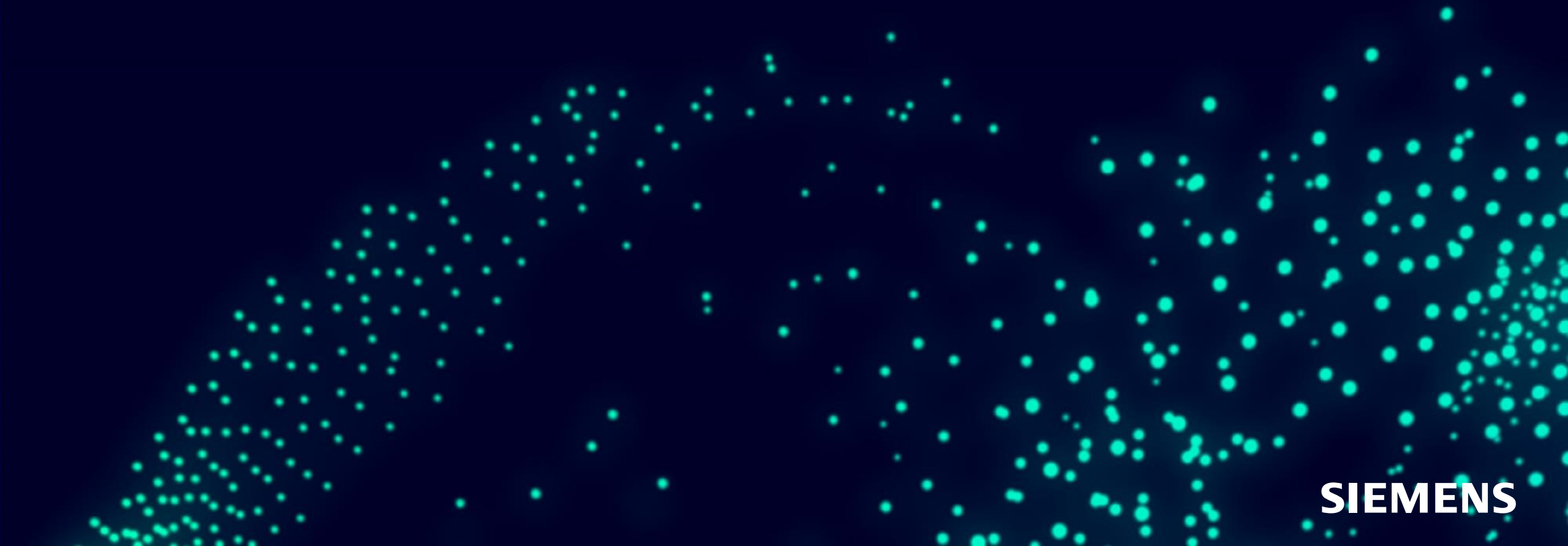
Ben Weisenberger

Senior Application Engineer
Solid Edge Global Technical Enablement - Siemens Digital Industries Software

E-mail ben.weisenberger@siemens.com

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Questions?



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