Guide to exporting Siemens NX files to JigSpace

Current version: 2/4/2025

Contents

1 Introduction

Who is it for?

Siemens NX is a versatile CAD software offering advanced tools for 3D modeling and design.

This guide will show you how to structure 3D models into well-organized assemblies and optimize complex CAD models, minimizing file sizes to ensure smooth performance on the JigSpace platform across all devices.

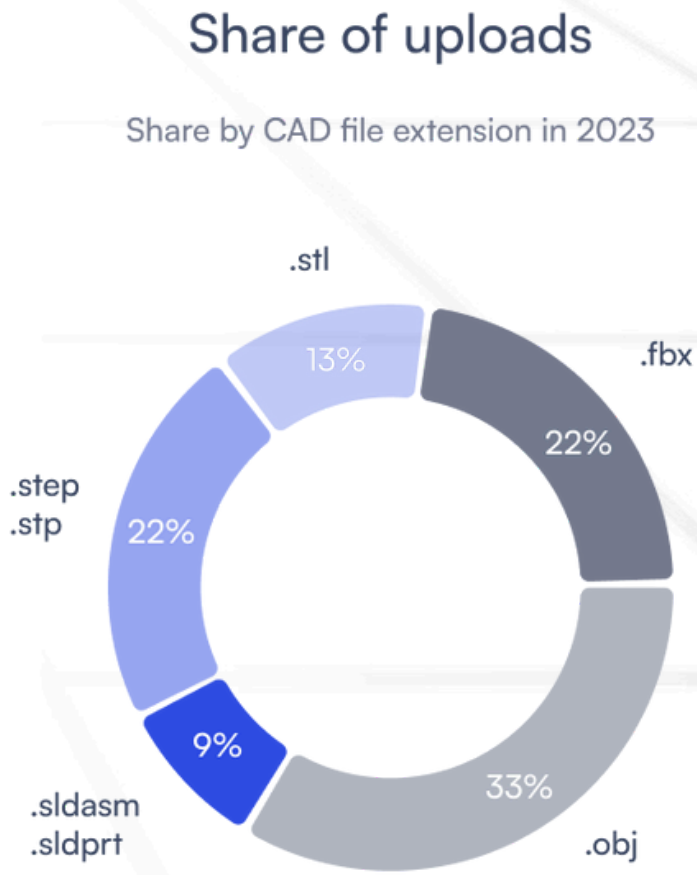
> ***"It's highly valuable in my line of work to be able to quickly and easily visualise - in 1:1 scale - CAD models that I'm working on.***
>
> ***These tools are essential to making that happen."***
>
> *Kaitlyn Lee*
> *Industrial Designer at DTCo*

2 CAD data imported

File formats accepted by JigSpace

CAD file	3D mesh	Scale	Color	Labels
.fbx	✓	✓	✓	✓
.gltf / .glb	✓	✓	✓	✓
.obj	✓	✓		✓
.step / .stp	✓	✓	✓	✓
.stl	✓	✓		
.sldasm / .sldprt	✓	✓	✓	✓
.usdz	✓	✓	✓	✓

Recommended for Siemens NX and JigSpace



3 Simplify assemblies

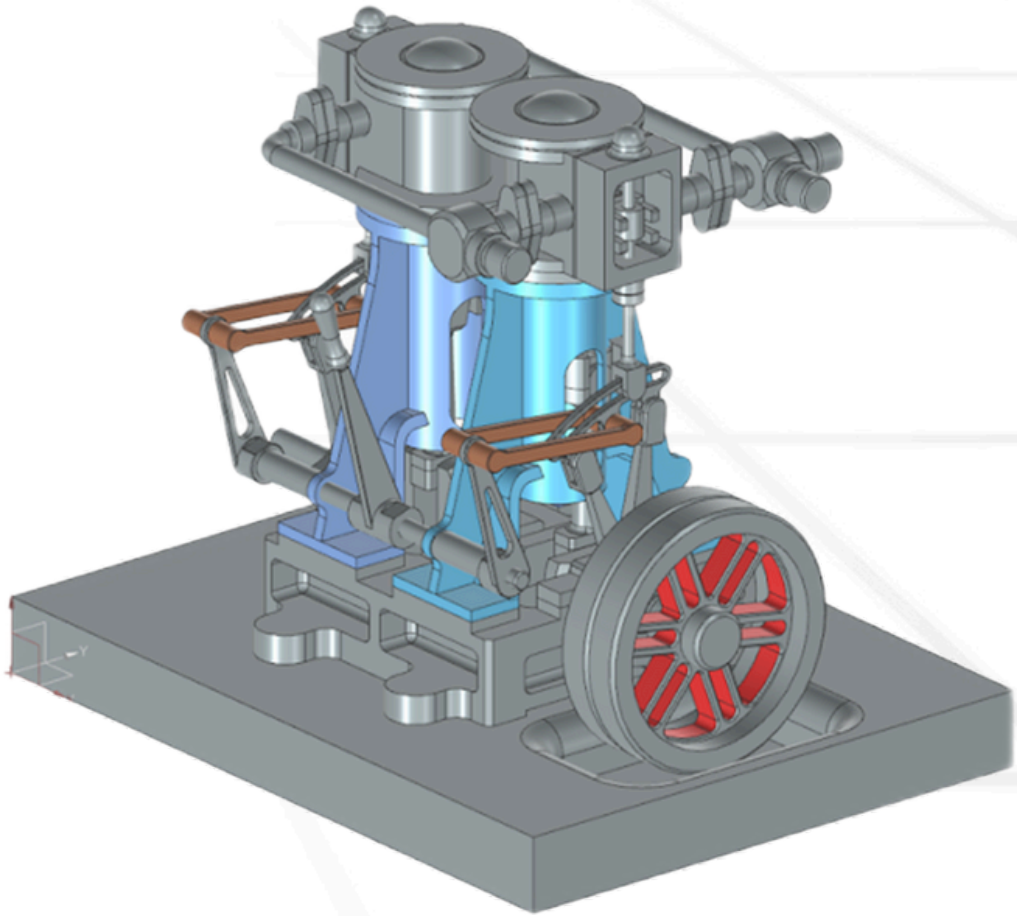
Create a simplified representation

The following process works for both parts and assemblies in Siemens NX.

Due to the nature of file conversion, this approach is recommended to retain as much geometry and metadata as possible while giving you greater control over the output.

Before you begin, consider which components, sub-assemblies, or features will need independent movement in JigSpace, as these should be simplified separately.

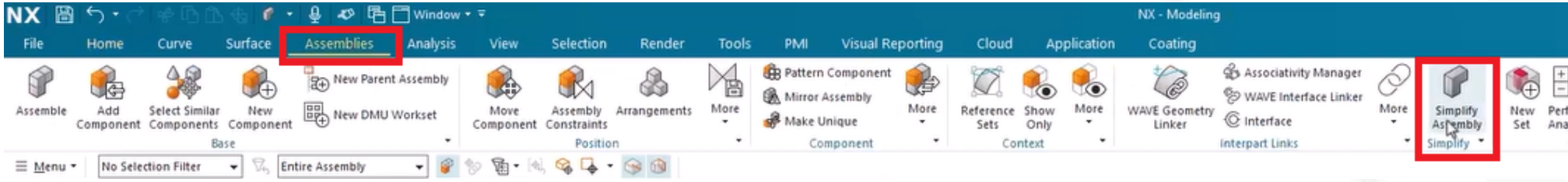
For example if you want to create an animated exploded view of some parts, they will need to be seperate parts when exported.



3 Simplify assemblies

1. Open your model file in NX and navigate to Assemblies > Simplify

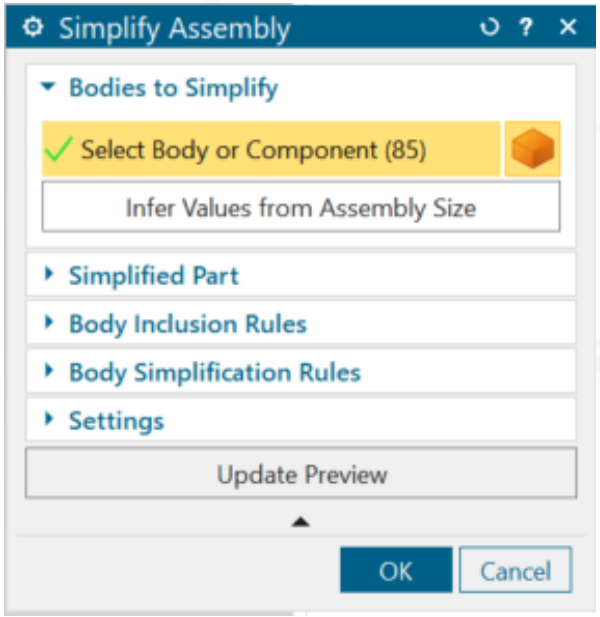
   If this option is not in your toolbars simply search “simplify” and click on “Simplify Assembly”



3 Simplify assemblies

1. Open your model file in NX and navigate to Assemblies > Simplify

2. A small popup window will appear, if you can't immediately see it - it could be on another monitor/screen

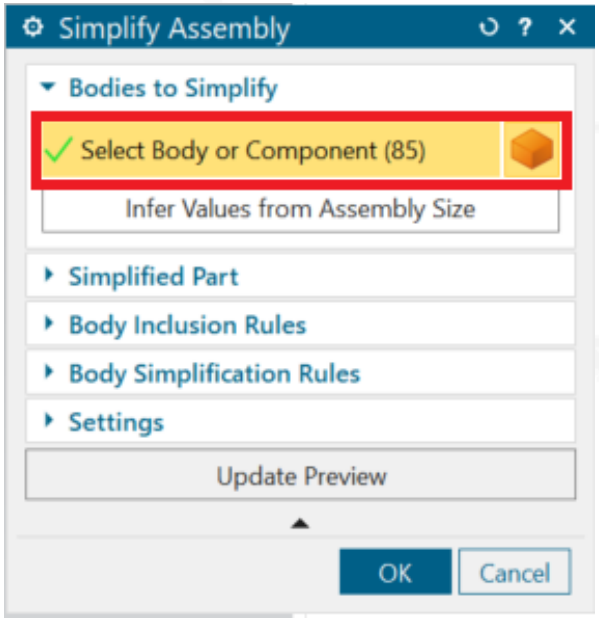


3 Simplify assemblies

1. Open your model file in NX and navigate to Assemblies > Simplify

2. A small popup window will appear, if you can't immediately see it - it could be on another monitor/screen

3. Next, select the bodies/components that you'd like to simplify. By default it will select all of them



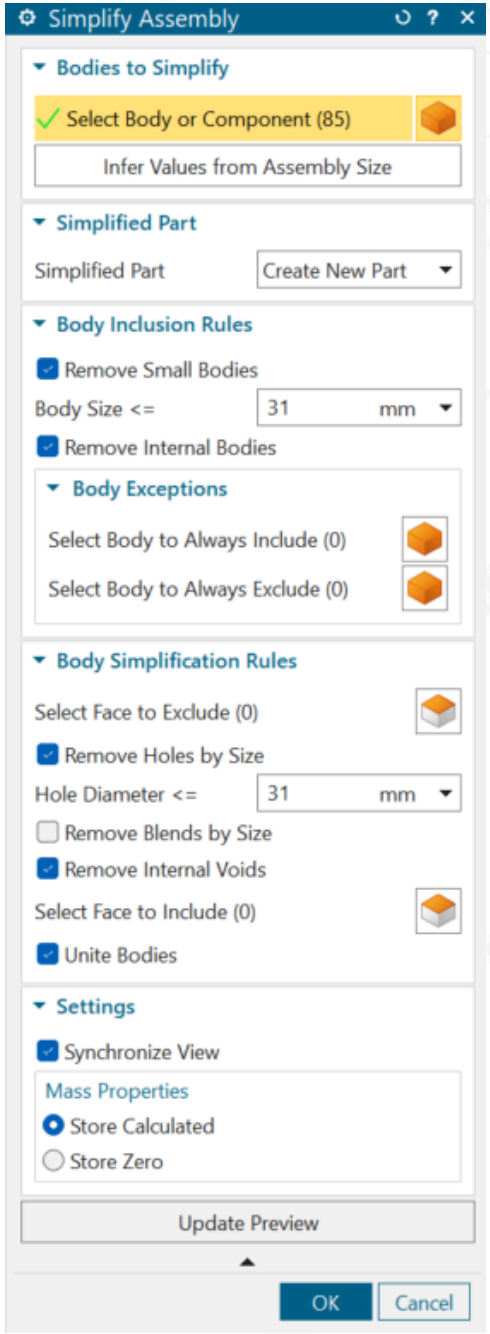
3 Simplify assemblies

1. Open your model file in NX and navigate to Assemblies > Simplify

2. A small popup window will appear, if you can't immediately see it - it could be on another monitor/screen

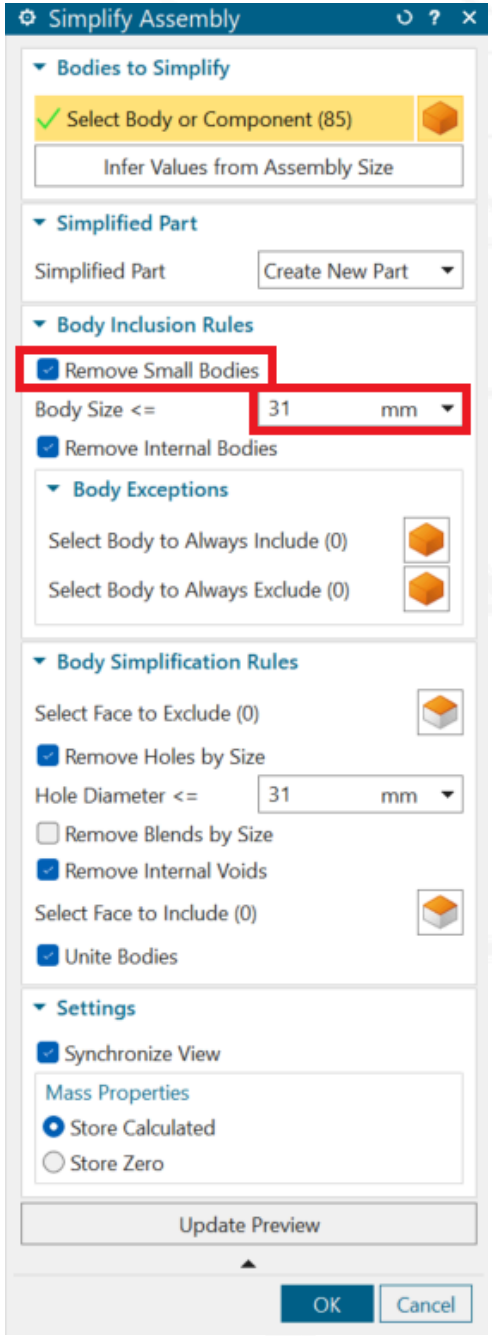
3. Next, select the bodies/components that you'd like to simplify. By default it will select all of them

4. Expand all of the drop down menus



3 Simplify assemblies

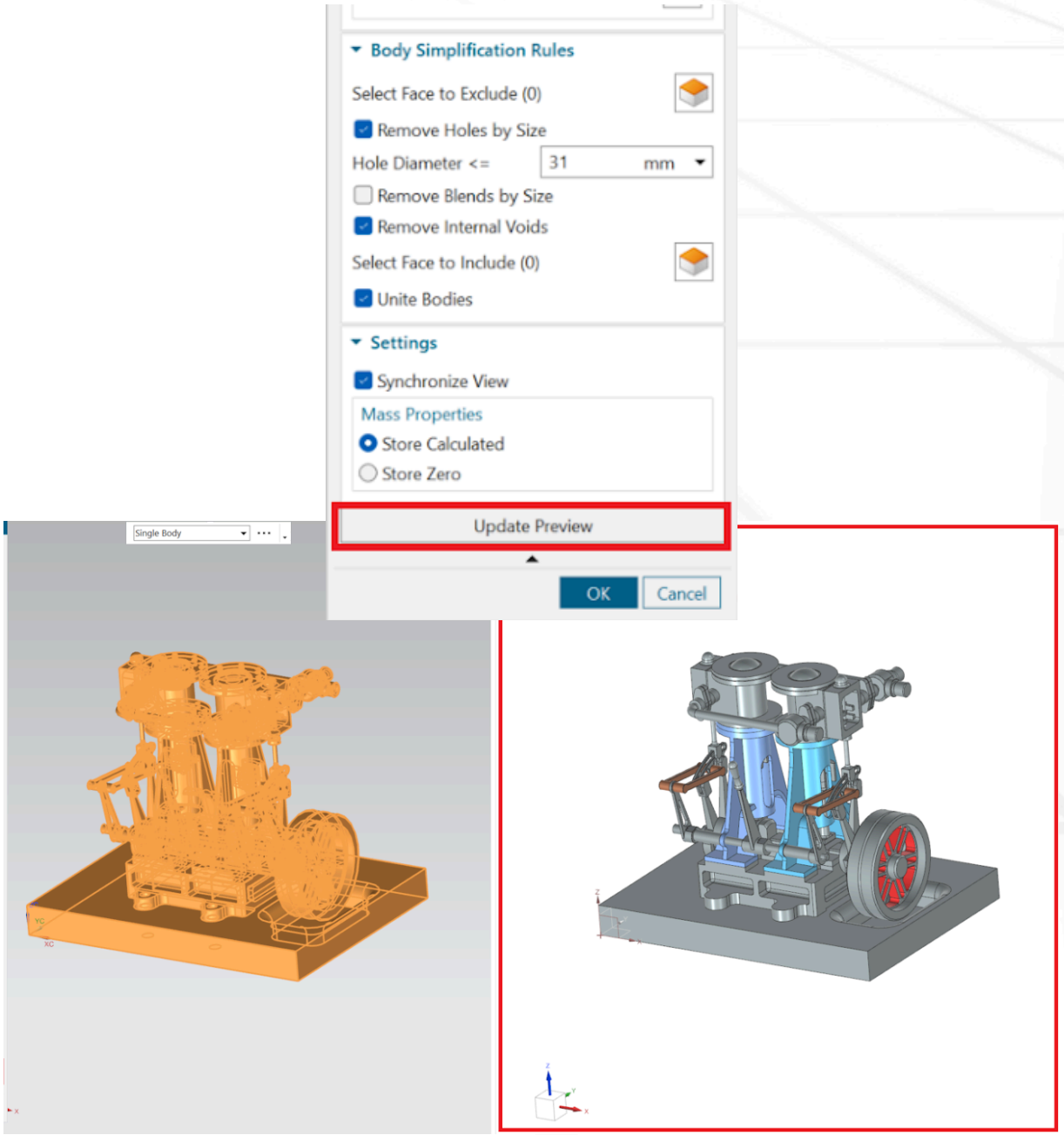
5. Under body inclusion rules > remove small bodies > ensure this box is ticked > input the maximum body size to remove



3 Simplify assemblies

5. Under body inclusion rules > remove small bodies > ensure this box is ticked > input the maximum body size to remove

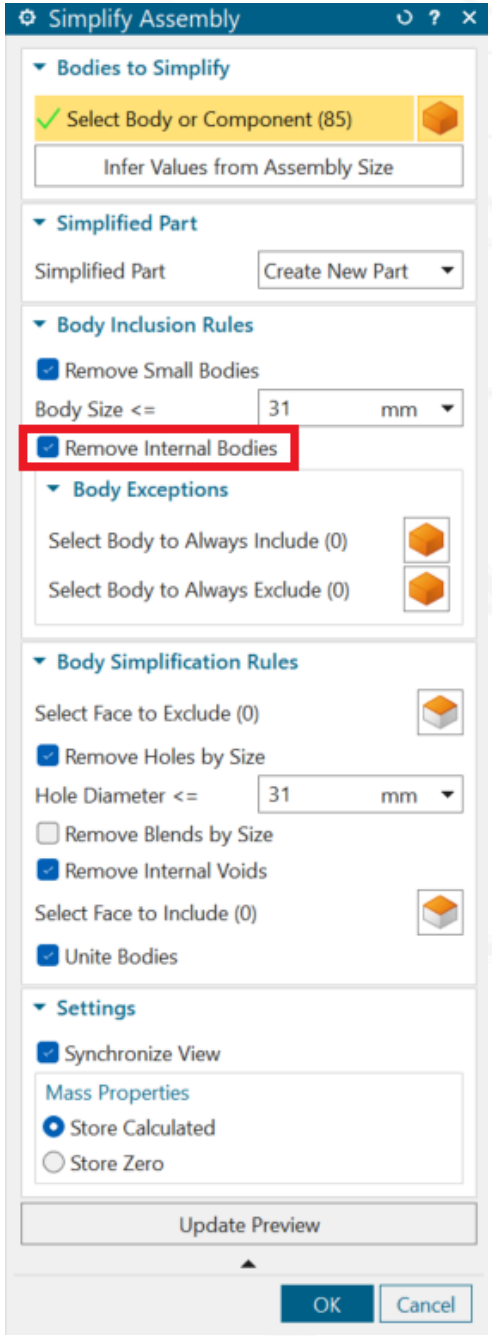
   This value will depend on your model, however after you input a value > **click update preview** > and determine from the preview window whether you're satisfied with the value



3 Simplify assemblies

5. Under body inclusion rules > remove small bodies > ensure this box is ticked > input the maximum body size to remove

6. Depending on the intended use of your model, it is also good to tick Remove Internal Bodies

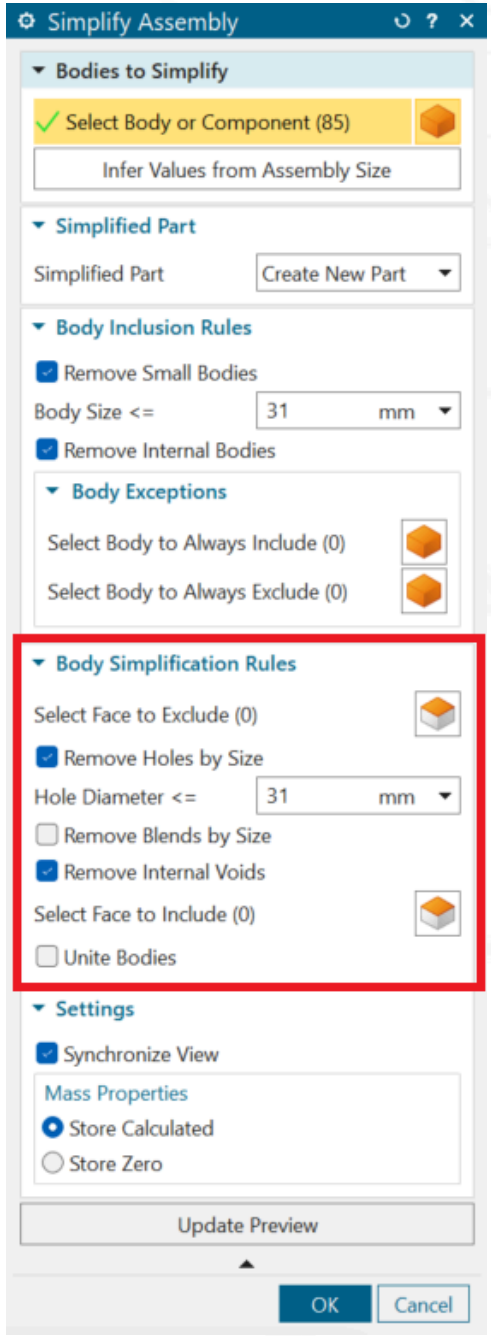


3 Simplify assemblies

5. Under body inclusion rules > remove small bodies > ensure this box is ticked > input the maximum body size to remove

6. Depending on the intended use of your model, it is also good to tick Remove Internal Bodies

7. Optional further simplification steps under Body Simplification Rules



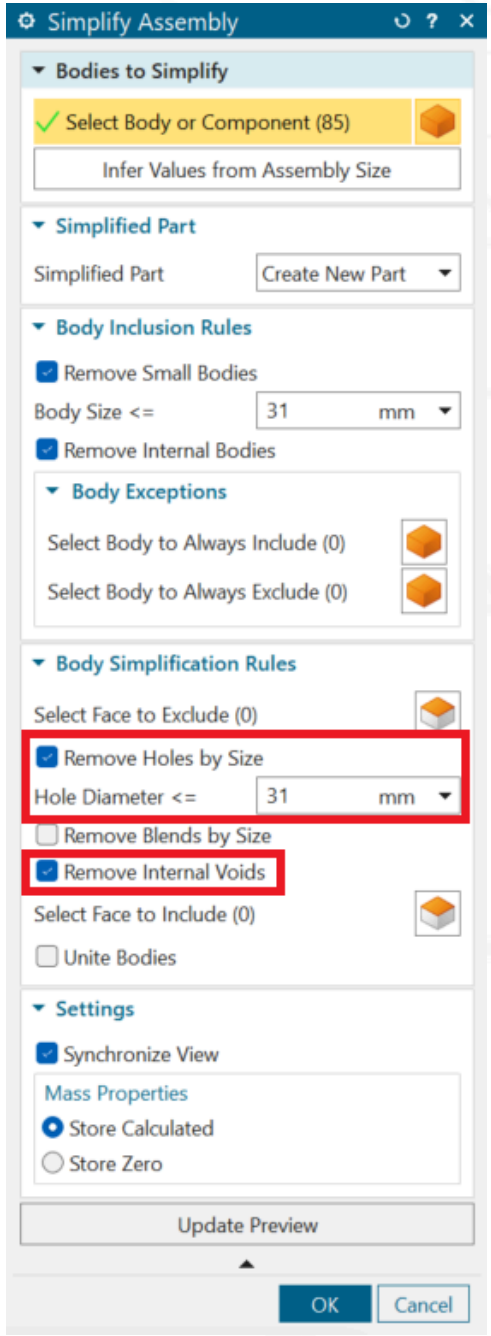
3 Simplify assemblies

5. Under body inclusion rules > remove small bodies > ensure this box is ticked > input the maximum body size to remove

6. Depending on the intended use of your model, it is also good to tick Remove Internal Bodies

7. **Optional further simplification steps under Body Simplification Rules**

   In this example we are ticking Remove Holes by Size Hole Diameter and Remove Internal Voids



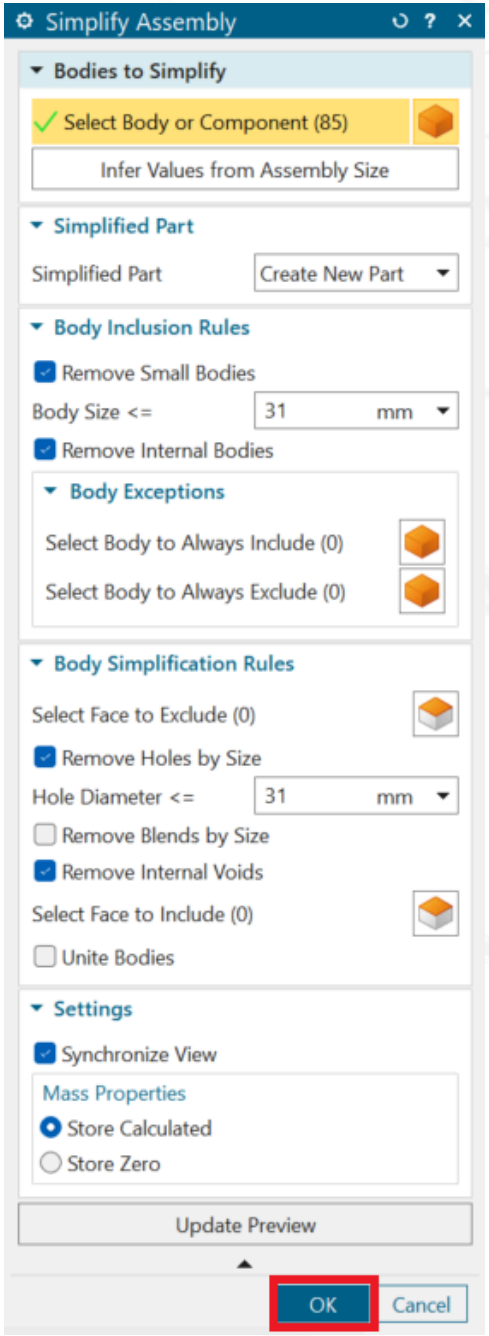
3 Simplify assemblies

5. Under body inclusion rules > remove small bodies > ensure this box is ticked > input the maximum body size to remove

6. Depending on the intended use of your model, it is also good to tick Remove Internal Bodies

7. Optional further simplification steps under Body Simplification Rules

8. Optional further simplification steps under Body Simplification Rules



3 Simplify assemblies

5. Under body inclusion rules > remove small bodies > ensure this box is ticked > input the maximum body size to remove

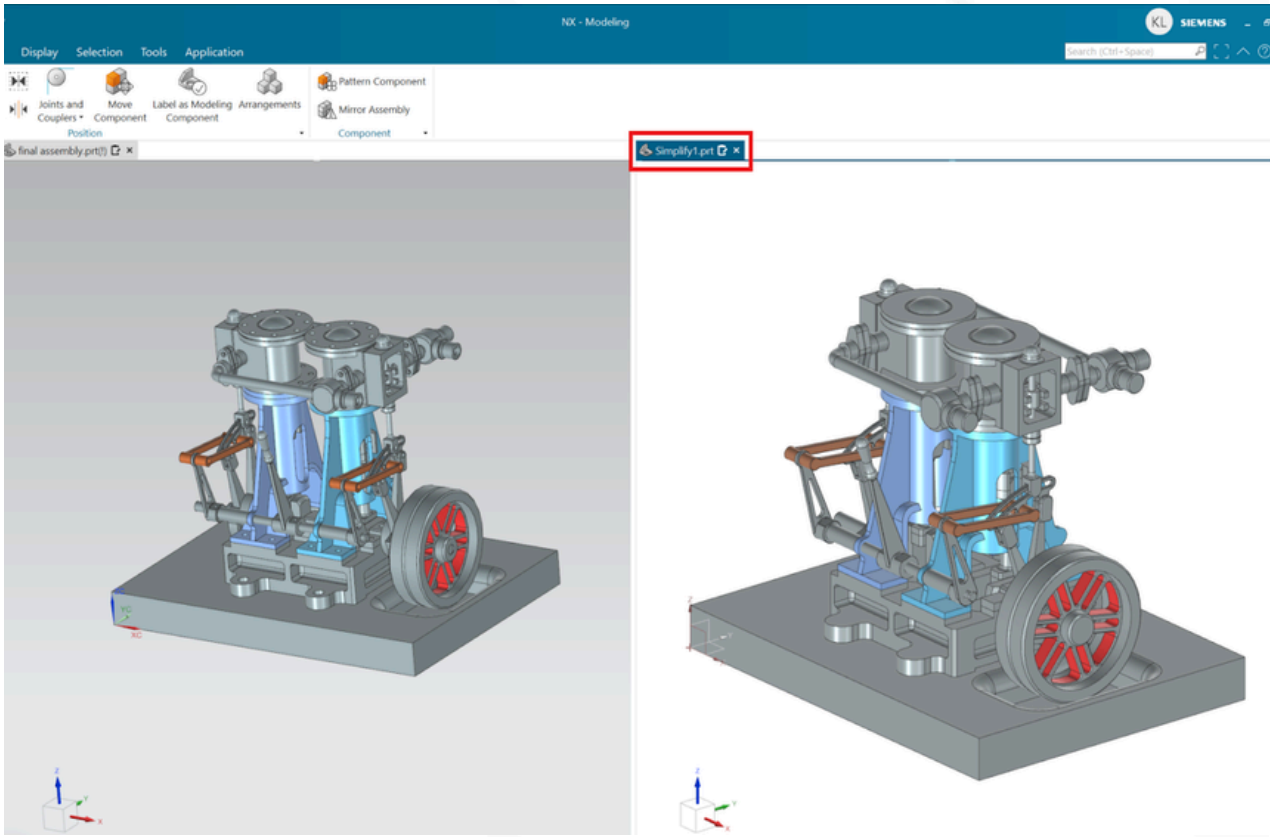
6. Depending on the intended use of your model, it is also good to tick Remove Internal Bodies

7. Optional further simplification steps under Body Simplification Rules

8. Optional further simplification steps under Body Simplification Rules

9. To export your new model

   a. Click on the model tab



3 Simplify assemblies

5. Under body inclusion rules > remove small bodies > ensure this box is ticked > input the maximum body size to remove

6. Depending on the intended use of your model, it is also good to tick Remove Internal Bodies

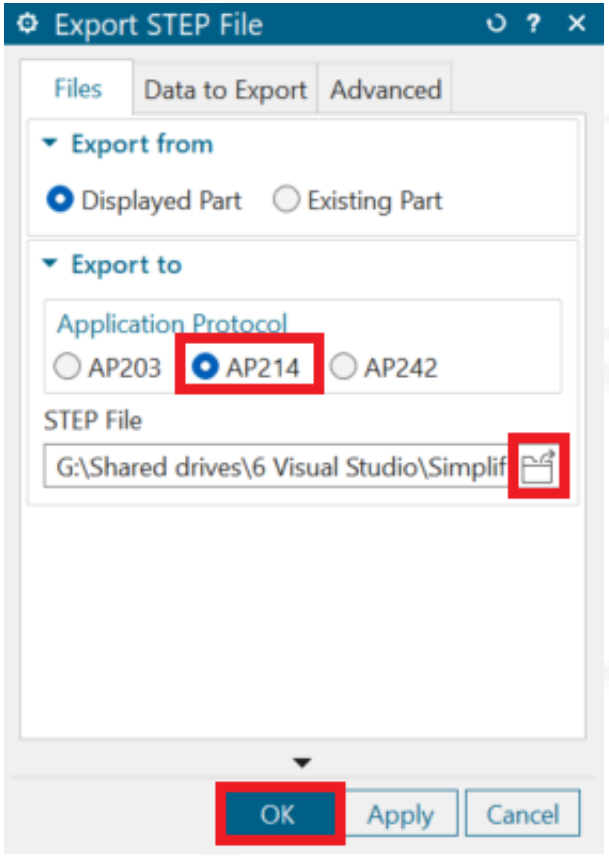
7. Optional further simplification steps under Body Simplification Rules

8. Optional further simplification steps under Body Simplification Rules

9. To export your new model

   a. Click on the model tab

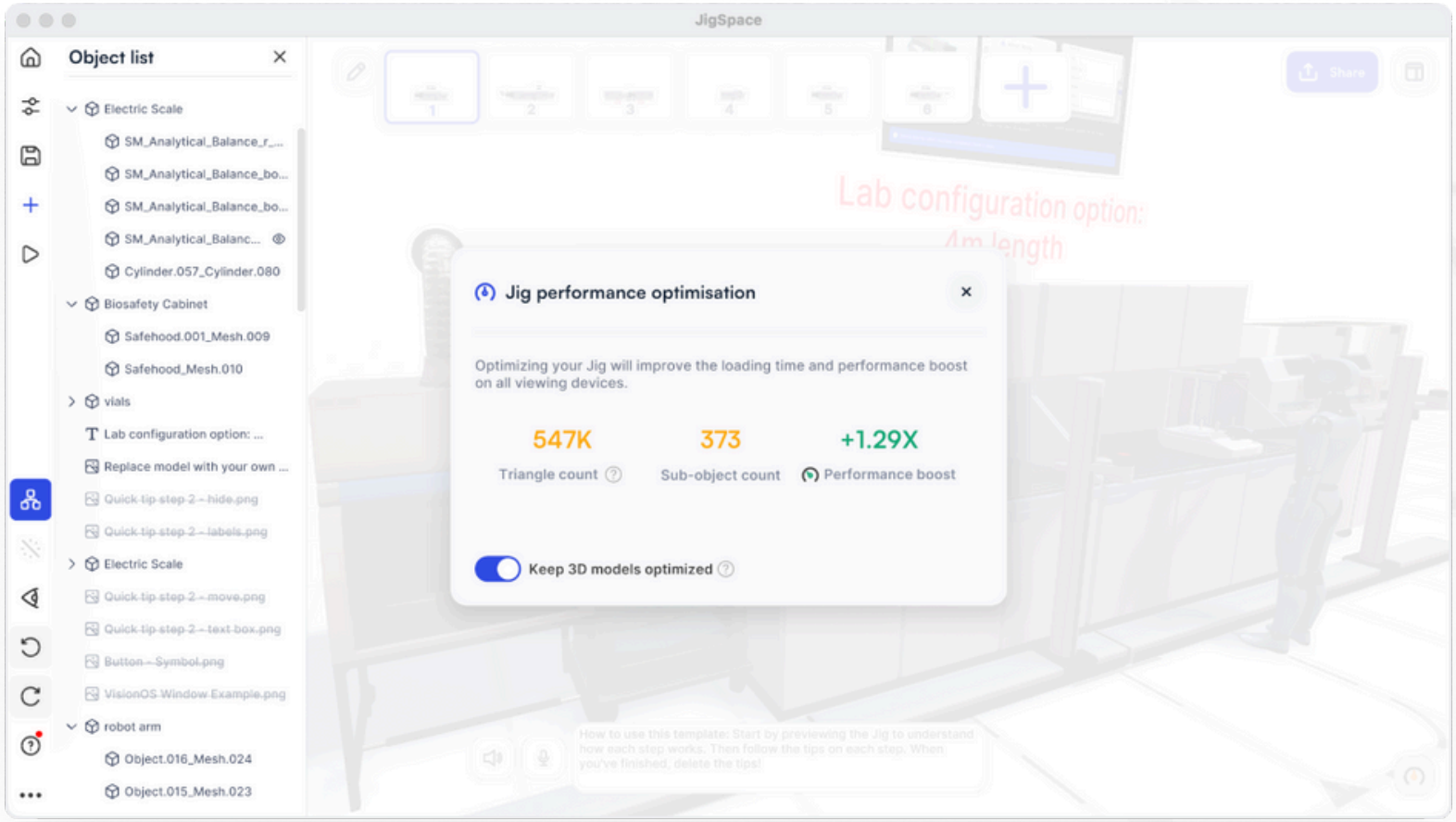
   b. File > Export > STEP File > select Step214 > specify your file location > OK



4 Using the performance indicator

When uploading 3D models to your Jigs, the performance indicator displays a read out of your current triangle count and number of meshes (or sub-objects). This helps you determine when to optimize or simplify the 3D models in your Jig.

For best results we recommend less than 200,000 triangles (or polygons) and less than 50 sub-objects. Jigs also have an option to automatically keep your 3D models optimized, which we recommend keeping toggled on.



5 Jig Certification Program

Take your 3D optimization to the next level with our training Certification Program.

How to earn certification

1. Contact us: Contact us about upgrading to an Enterprise license
2. Schedule Training: Complete the required training modules with your customer success manager
3. Submit a Jig: Submit a Jig for evaluation (required for editor and creator certifications).

Issuing your certificate

After successfully completing your certification, you will be issued with:

- a certification badge to add to your LinkedIn profile or CV to show to your peers and current employer
- a certificate of achievement is available upon request, confirming your skills have passed assessment.

If you are being certified as part of a team-wide program, we will also notify your team manager and admins.

About DTCo

This guide was prepared in collaboration with Design Technology Company (DTCo).

DTCo provides a low risk, easy to engage, scalability option for mechanical design teams. Our literacy with design technologies makes us an essential part of any engineering project.

With over 20 mechanical designers have deep Computer Aided Design experience that is enhanced by a team with a broad understanding of the currently available design technologies. These include laser scanning, photogrammetry, cloud based collaboration for CAD, virtual reality (VR) and augmented reality (AR).

Learn more: www.designtechco.com.au

About JigSpace

JigSpace enables teams with big ideas to create and share stunning 3D presentations and augmented reality experiences - we call them “Jigs” - in seconds They can be viewed on any device, from mobile to web browsers to the Apple Vision Pro.

Create a free account to try for your self.

Showcase what makes your product unique, go deep with step-by-step instructions, and make it engaging training simulations in augmented reality.

Learn more: www.jig.com