NEW VISION

New Vision Engineering

Tips and Tricks for:

All Things Creo

ThingWorx

Windchill

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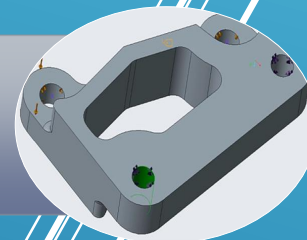# What is ThingWorx Navigate?

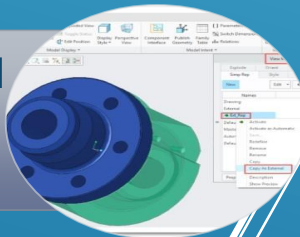ThingWorx navigate works a lot like OneDrive – but BETTER. It's a huge cloud of information that harnesses the power of the "Internet of Things" (IoT).

Using this amazing technology, you can easily transfer information over countless servers.

Most importantly, ThingWorx can take all of your data – no matter where it's stored – and upload it all on to one, crisp, clean, easy-to-use platform. Gone are the days of sifting through countless systems while valuable time is lost!

It's not just files and information, it's Creo and Windchill projects. It's an easy way to share and categorize all of your complicated data!

Top 7 Benefits of ThingWorx Navigate

Single sign-on support

- With single sign-on, users can log on just once to their device and get secure access to Windchill and all the connected systems with no additional log-in requests.

Available on any browser or device

- With a cross-platform viewer, users can access enterprise data on the go from whatever device they have available (whether laptop, tablet, or smartphone) on whatever browser is available (Chrome, Firefox, Internet Explorer, or Safari).

SAP integration

- ThingWorx Navigate boasts a new integration framework with an out-of-the-box SAP connector. Customers can also dynamically tailor for each role the SAP and Windchill information that is displayed together in a parts list, part structure or properties panel.

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Top 7 Benefits of ThingWorx Navigate

Download zip files of drawings

- With ThingWorx Navigate, users can quickly get all drawings associated with a list of parts needed by a supplier for a quote or to build purchased parts.

View document structures

- Users of ThingWorx Navigate can now view and navigate document structures and download content from any document within these structures.
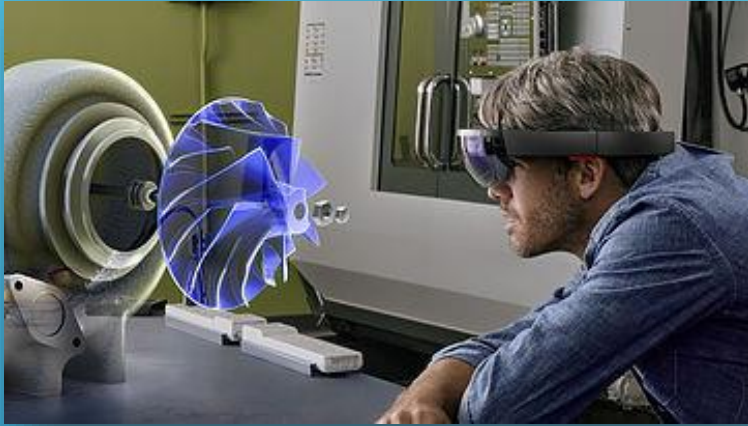
Easily data categorization

- Take all of your data – no matter where it's stored – and upload it all on to one, crisp, clean, easy-to-use platform.

Quickly teach new users

- Little to no training required!

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Augmented Reality –
The Vision of the Future

The future of technology is augmented reality!

Imagine moving huge pieces of machinery with just the swipe of a finger.

Imagine being able to physically visualize objects in real time! Among real, physical objects.
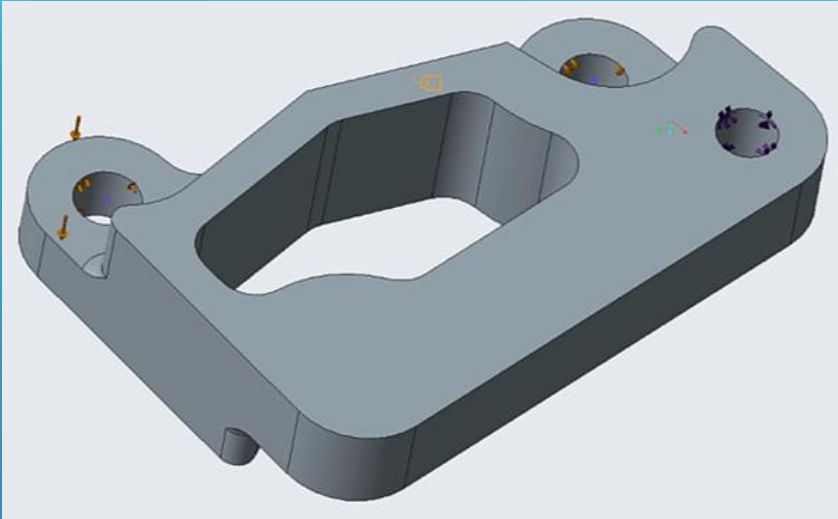
Augmented reality is the future of marketing and of sales. It's the future of engineering and of technology in general.

We can see what our products will look like in the real world. Imagine, for example, how design reviews would have an added level of realism.

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Augmented Reality – The Vision of the Future

The overall sales experience will be enhanced by showing our customers exactly what they can expect.

Accelerate time-to-market and gain a competitive edge with innovative technology.

We can provide enhanced training experiences to service technicians and end users.

We can provide better assembly and maintenance instructions so people can be guided step-by-step through exactly what they need to do, faster and with fewer errors.

How to Optimize Your Creo Simulations

Simulations can help you quickly find weaknesses in your designs as you work—long before analysis or prototype building.

But, how easily can you modify the model once you discover its flaws and then run another simulation?

If you use Creo Simulate and Creo Flexible Modeling Extension (FMX), now you can simulate and optimize your design all in one place.

How to Optimize Your Creo Simulations

Here's how the new integration, introduced in Creo 4, with Creo Simulate and Creo FMX, works:

To Remove a Feature Within Creo Simulate:

Using Creo FMX, highlight the feature you'll remove.

On the **Refine Model** ribbon bar, click **Remove**.

Select **Preview** and/or **Accep**t the change.

It's important to note that currently the change is only applied in Creo Simulate. You must promote changes made in Creo Simulate to apply them to the parametric model.

To promote a change:

In the **Model Tree**, expand **Simulation Features**.

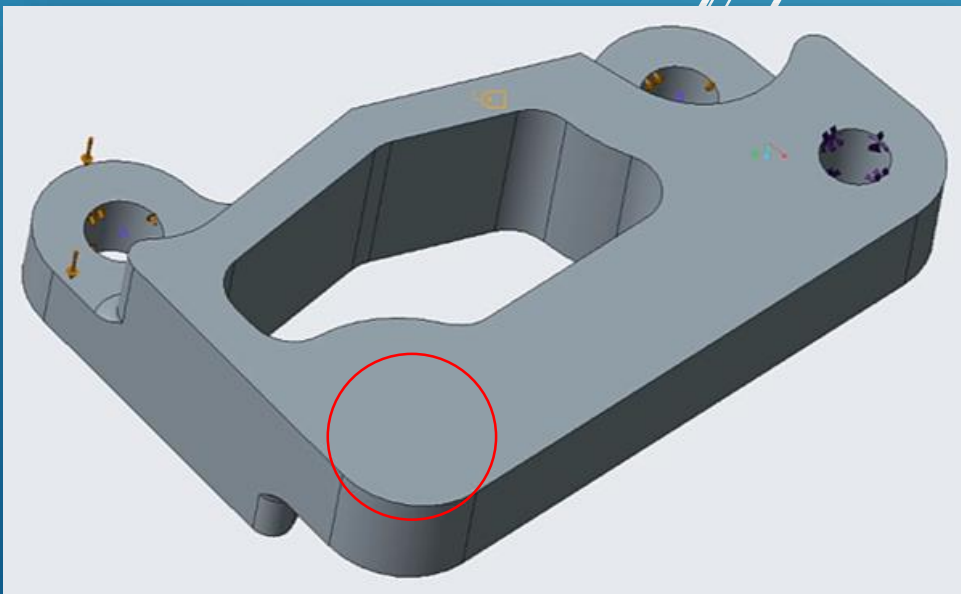Right-click the removed feature and select **Promote**.

The system applies the change to the parametric model.

How to Optimize Your Creo Simulations

BEFORE:
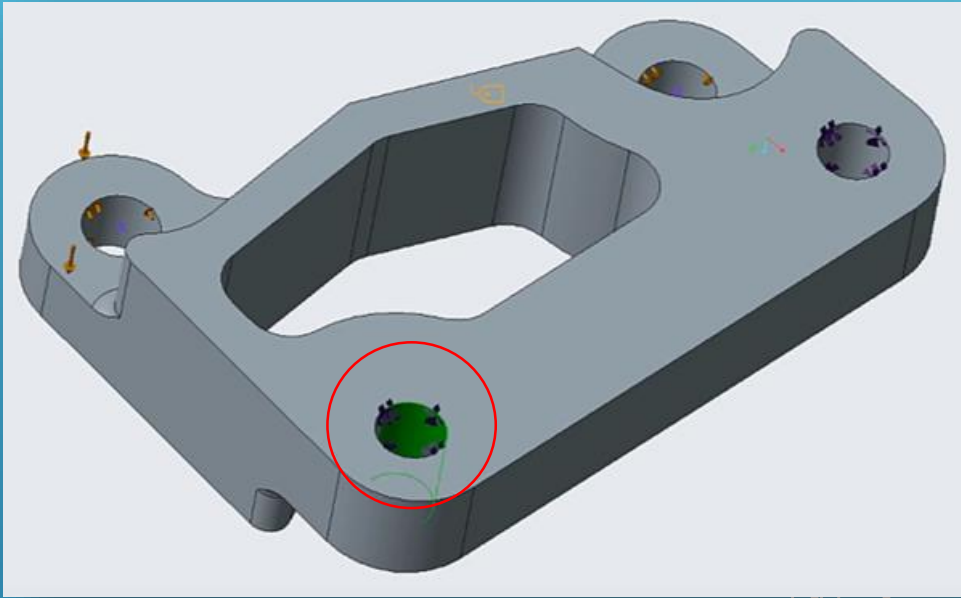
AFTER:

Externalizing Simplified Representations in Windchill

When working on a project, saving time is essential, especially when you have deadlines to meet.

An engineering consultant from New Vision Engineering shares a ridiculously simple 4 step shortcut to externalizing your simplified representations in your Windchill Workspace for easy access at any time!
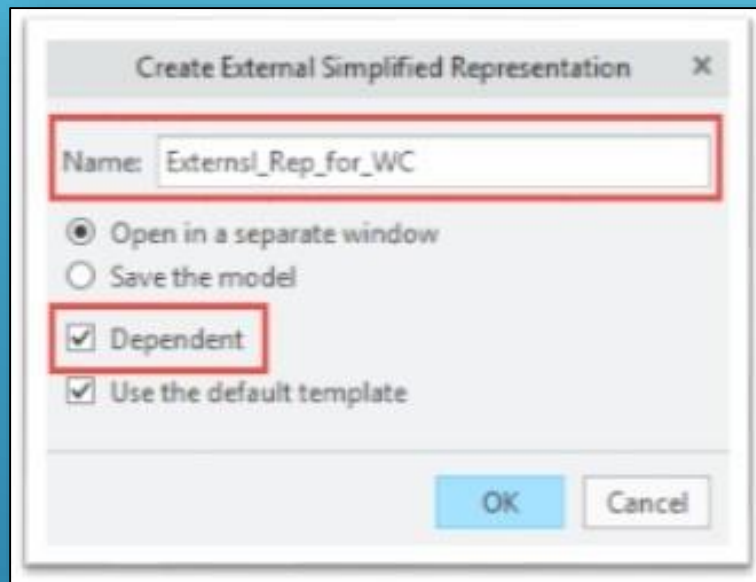
Externalizing Simplified Representations in Windchill

Within Creo, users can create Simplified Representations that allow them to look at a subset of an assembly:

1. While creating one of these **External Simplified Representation**, go to the **View Manager**, right-click a Simplified Representation and select **'Copy As External.'**
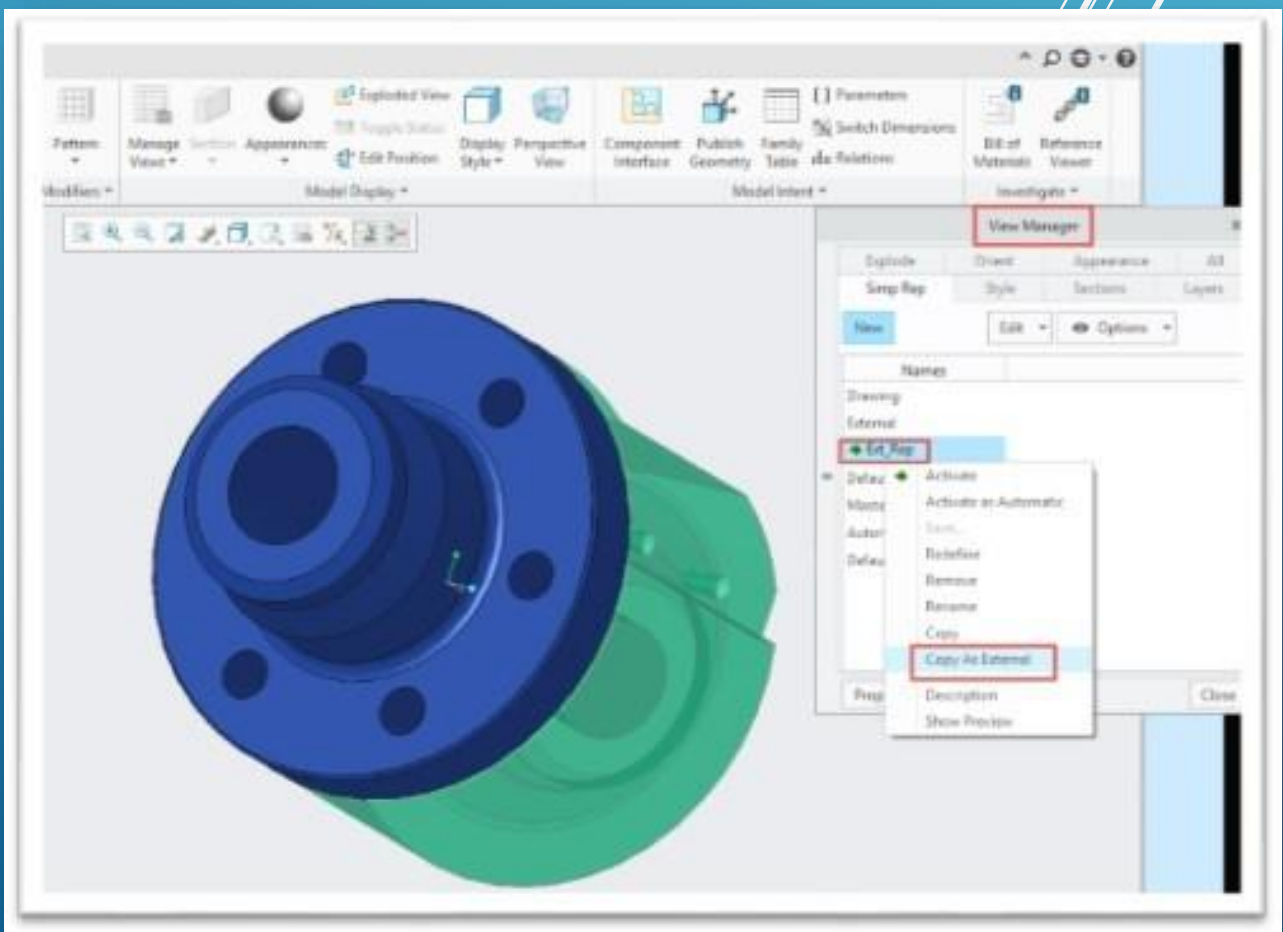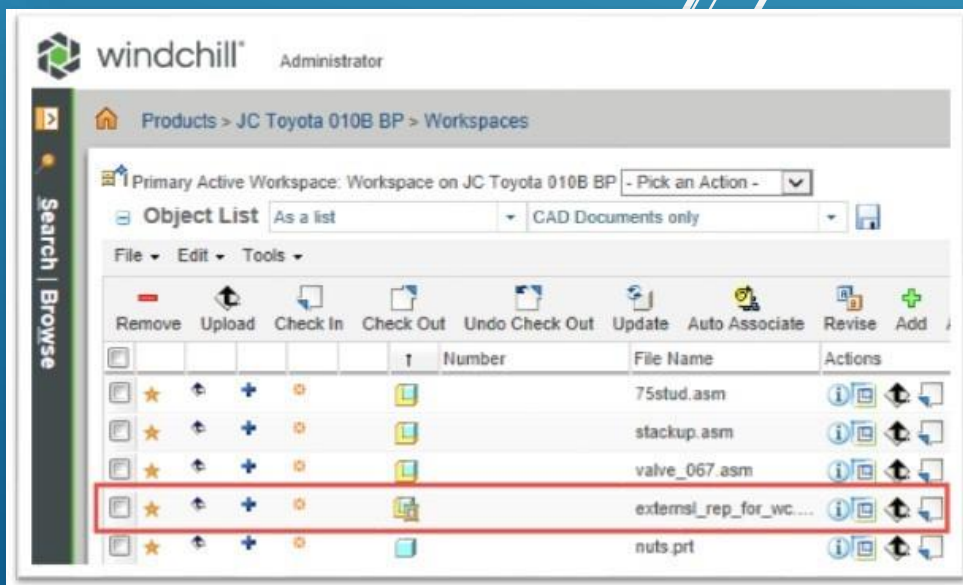
Externalizing Simplified Representations in Windchill

2. **Name the object** so that you can locate it when searching.   I like to check the **Dependent box** so that it is automatically updated when I change the master.


3.   This new Externalized Representation will show up in your **workspace browser** with an **External Simplified Rep icon**.

Externalizing Simplified Representations in Windchill

4.   You can now search and find that newly created **External Simplified Rep as its own object in Windchill.** When you add the External Simplified Representation to a Workspace, **only the components within the External Simplified Representation are added to the workspace.**
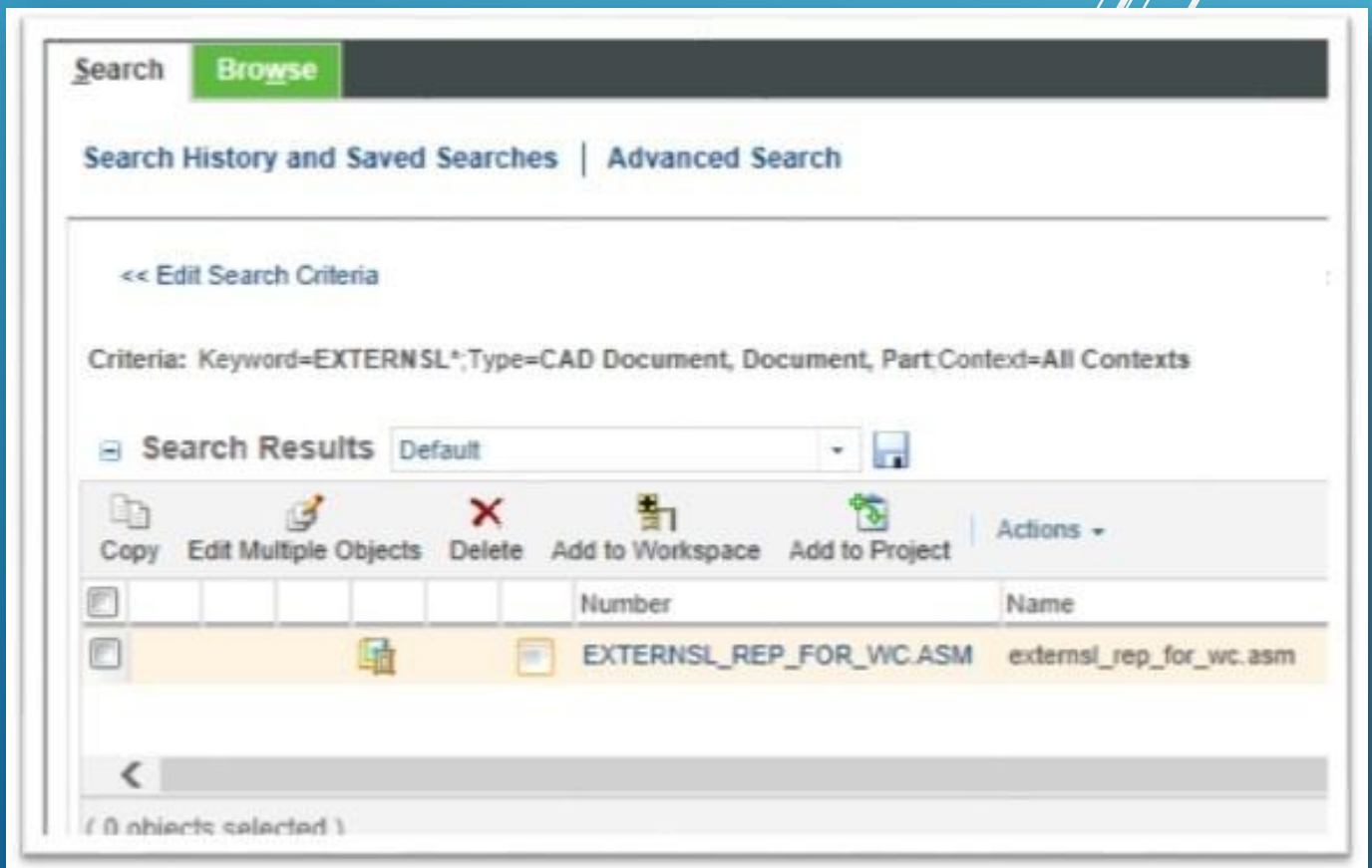
Augmented reality is quickly becoming a feasible option for many businesses. Showing products to customers has **NEVER been easier!**

You can send a picture, or even multiple pictures, but it just isn't the same as being able to see the parts and experience the product on a **3D level.**

This is especially true for large products that are difficult to transport. For example, if your company creates dump trucks, showing a dump truck to a client is rather difficult to do because you might have to transport a large object many miles.

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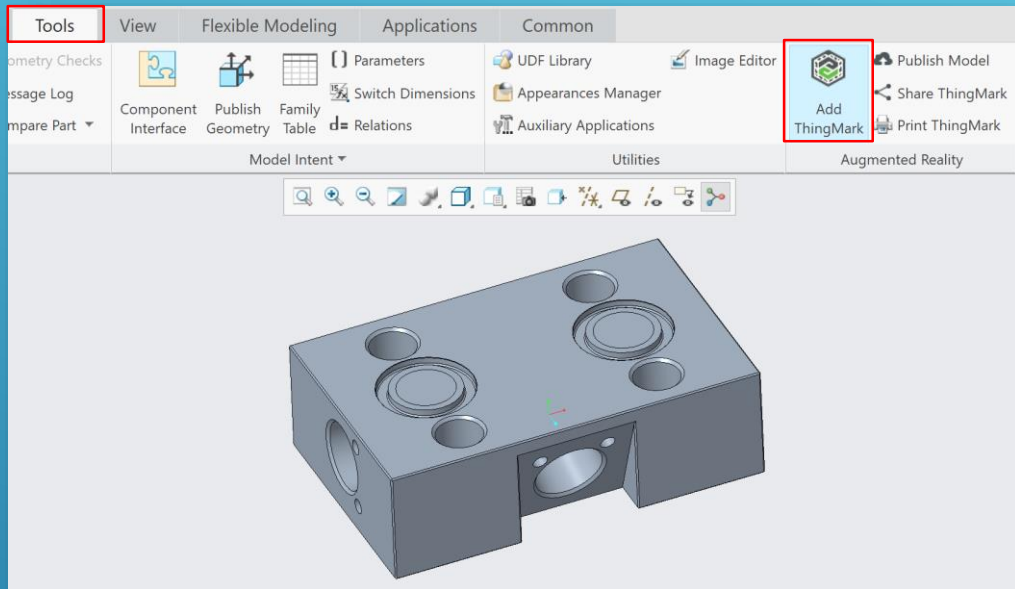# How to Publish and Share a ThingMark Using Creo 4.0

Here are the 7 steps to easily sharing your product using a ThingMark:
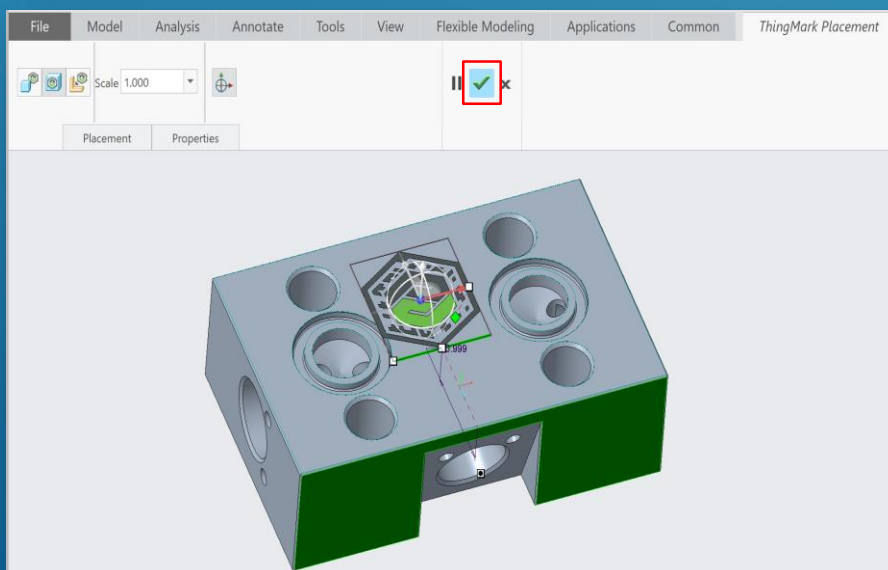
1. Select your project in Creo 4.
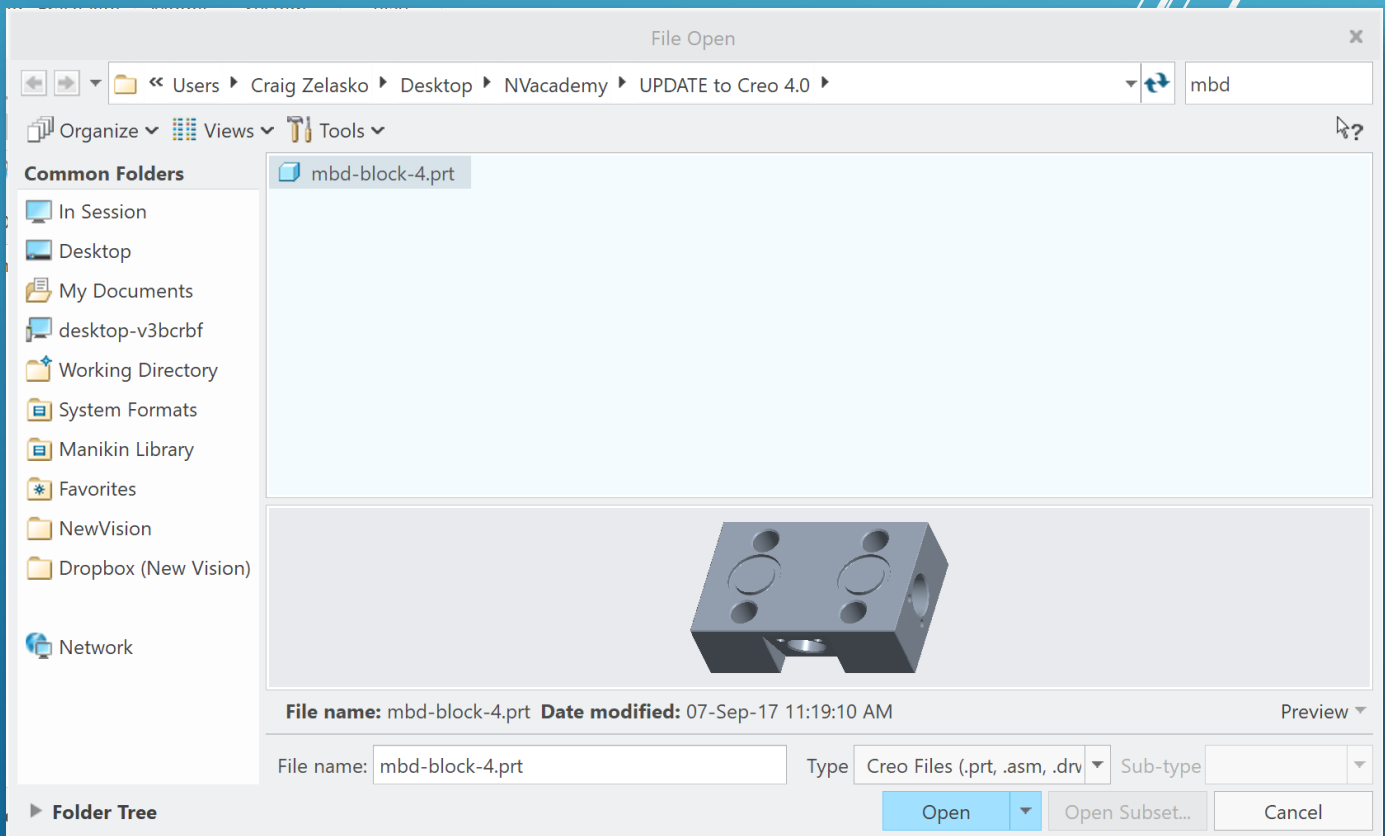
How to Publish and Share a ThingMark Using Creo 4.0
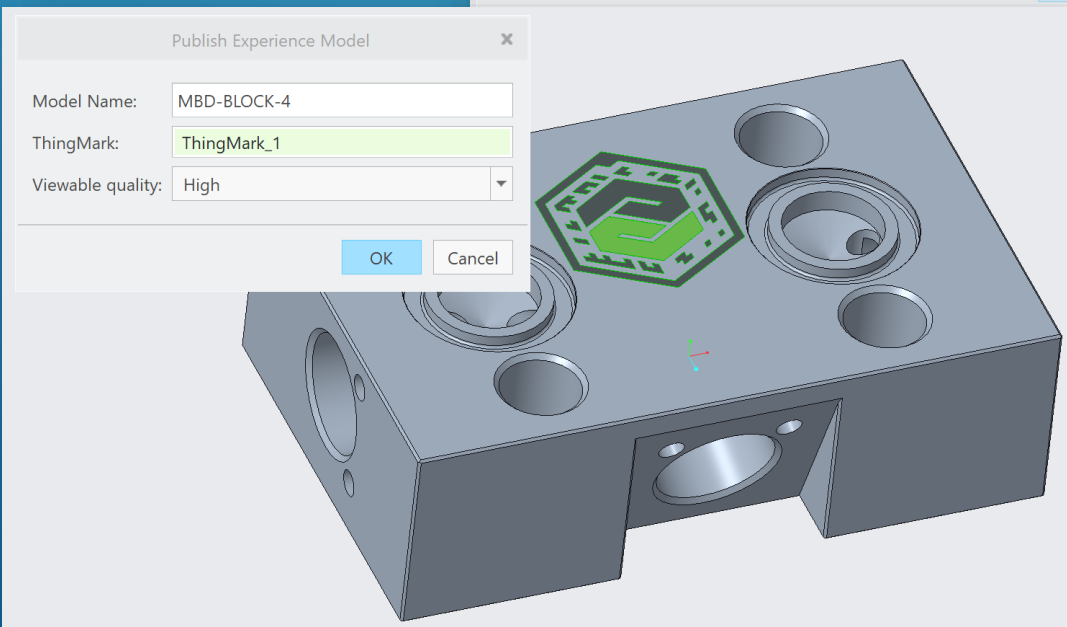
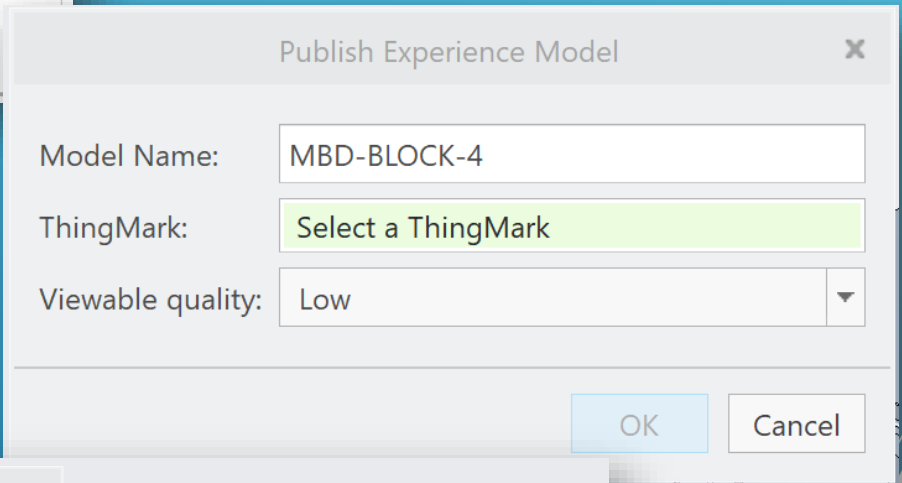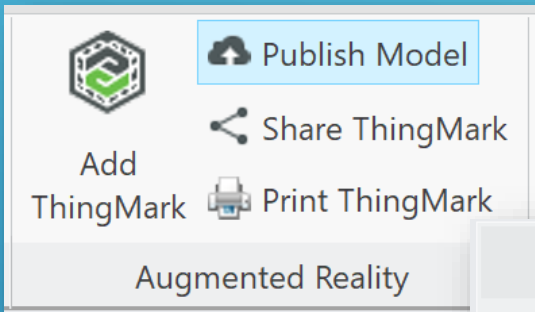2. Click on **Tools,** then **Add ThinkMark**.

3. Select your **orientation preferences for your ThingMark** as well as its **size** and hit the **check mark** when satisfied.
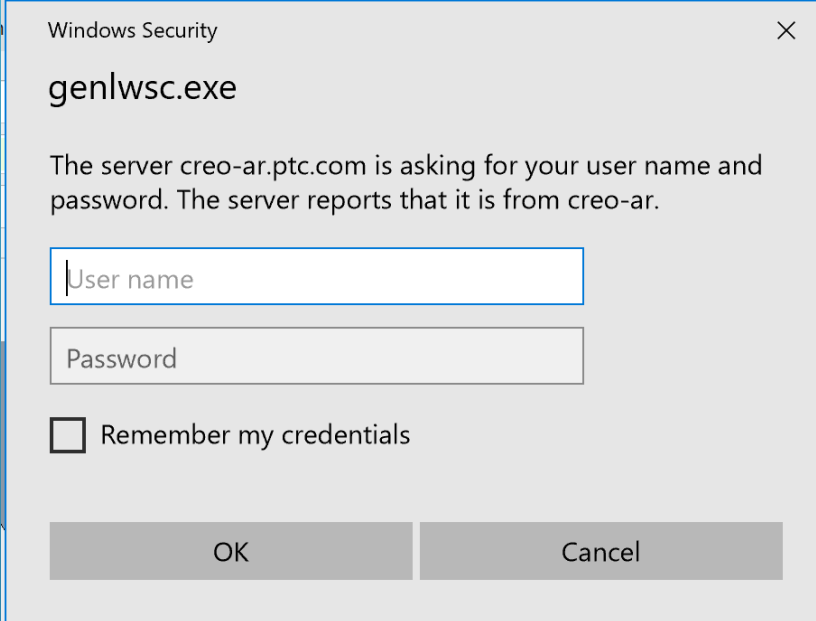
How to Publish and Share a ThingMark Using Creo 4.0

4. Click on **Publish** and then click on the **ThingMark** to select it, and hit **Ok.**

How to Publish and Share a ThingMark Using Creo 4.0

5. Log into your **PTC AR server.**

Windows Security ✕

genlwsc.exe

The server creo-ar.ptc.com is asking for your user name and password. The server reports that it is from creo-ar.
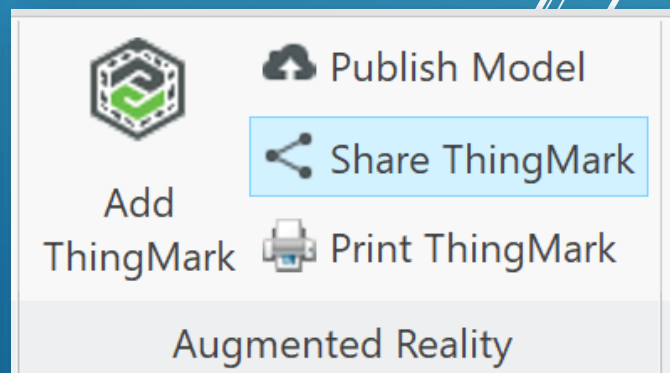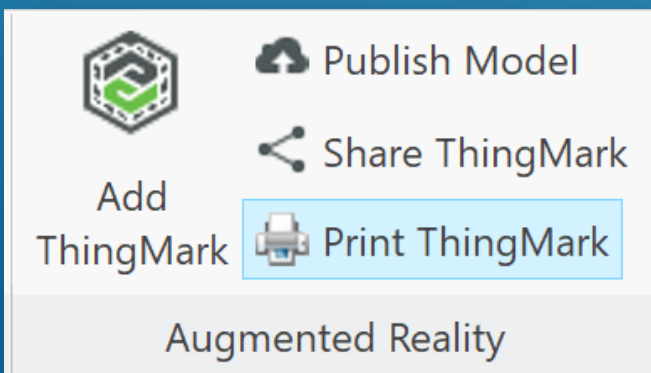
| User name |

| Password |

☐ Remember my credentials

| OK | | Cancel |

6. Select **Print ThingMark**, or select **Share ThingMark** (It all depends on your needs).

7. **If you selected Share:** an email will automatically pop up with instructions for the person you're sending it to, so that they will be able to view your product. You can edit it, or hit send after addressing it. It will be sent as a PDF that can be scanned easily from your client's screen.

Augmented Reality (AR) delivers new ways to perform design reviews, share ideas, and reduce development cycles, and to use, view, and experience CAD models.

Take a look at the AR Experience that I have recently created using Creo Parametric and ThingWorx View.

Complete the following steps to view this Creo model using AR:

1. Download and install ThingWorx View on your mobile device from:
   - App Store - https://itunes.apple.com/us/app/vuforia-view-enterprise/id1076700285?mt=8
   - Google Play - https://play.google.com/store/apps/details?id=com.ptc.vuforiaview
   - Microsoft Store (Windows 10) - https://www.microsoft.com/en-us/store/p/thingworx-view/9nblggh54wk8

2. Print the attached ThingMark.

3. Open the ThingWorx View app on your mobile device, scan the ThingMark, and select [Model Name] to be immersed in the associated Experience. Enjoy!

To learn how to build additional interactive AR experiences that support manufacturing, service, maintenance, and IoT use cases, visit https://www.thingworx.com/go/CreoWithAR.

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7. **If you selected Print:** the ThingMark will be downloaded as a PDF and can be easily printed immediately. From there, you can put your ThingMark on the wall or the floor, or any flat surface at your events for your clients to experience.

Contact Us

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f	http://www.facebook.com/NewVisionGO/
🐦	http://www.twitter.com/newvisionGO/