


Importing ENOVIA model version variability data

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The 3DEXPERIENCE ENOVIA Model Definition Integration plugin is available for your modeling tool (together with the Product Line Engineering plugin). [Install this plugin](#) to be able to import the variability data to your modeling tool project directly from the ENOVIA Model Definition application on the 3DEXPERIENCE platform.

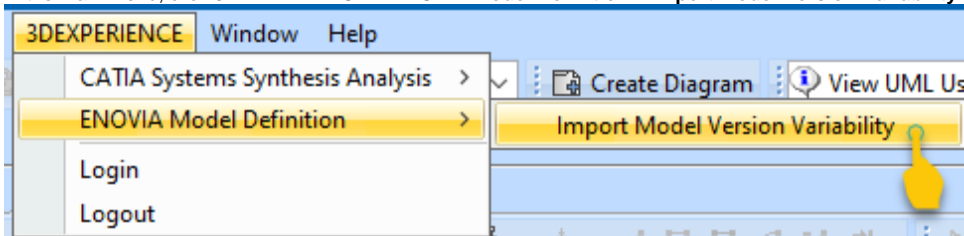
 To avoid connection issues when the certificate is not trusted, we recommend installing the self-signed certificate to JRE. For the solution, refer to [Connecting issues when the certificate is not trusted](#).

Importing model version variability

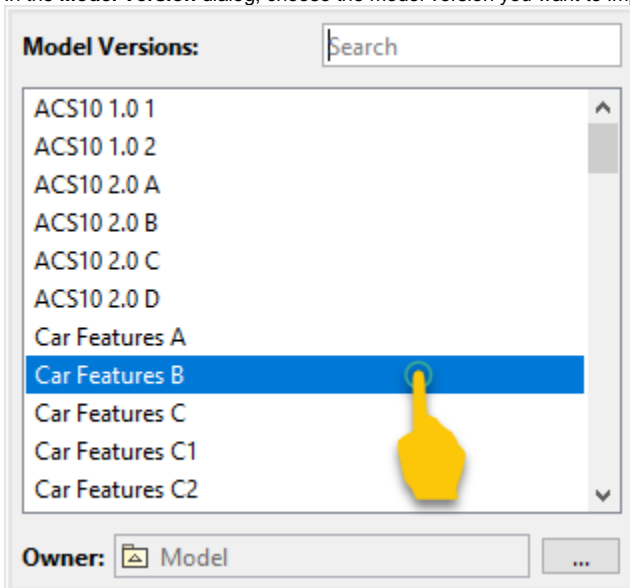
There are two ways you can import variability data from the ENOVIA Model Definition application. You can either initiate import through the modeling tool menus or drag the Model Version from the 3DEXPERIENCE platform search results and drop it to the modeling tool's Model Browser.

To import the variability data from the ENOVIA Model Definition application through the modeling tool

1. [Login to the 3DEXPERIENCE](#) platform.
2. In the main menu, click **3DEXPERIENCE > ENOVIA Model Definition > Import Model Version Variability**.

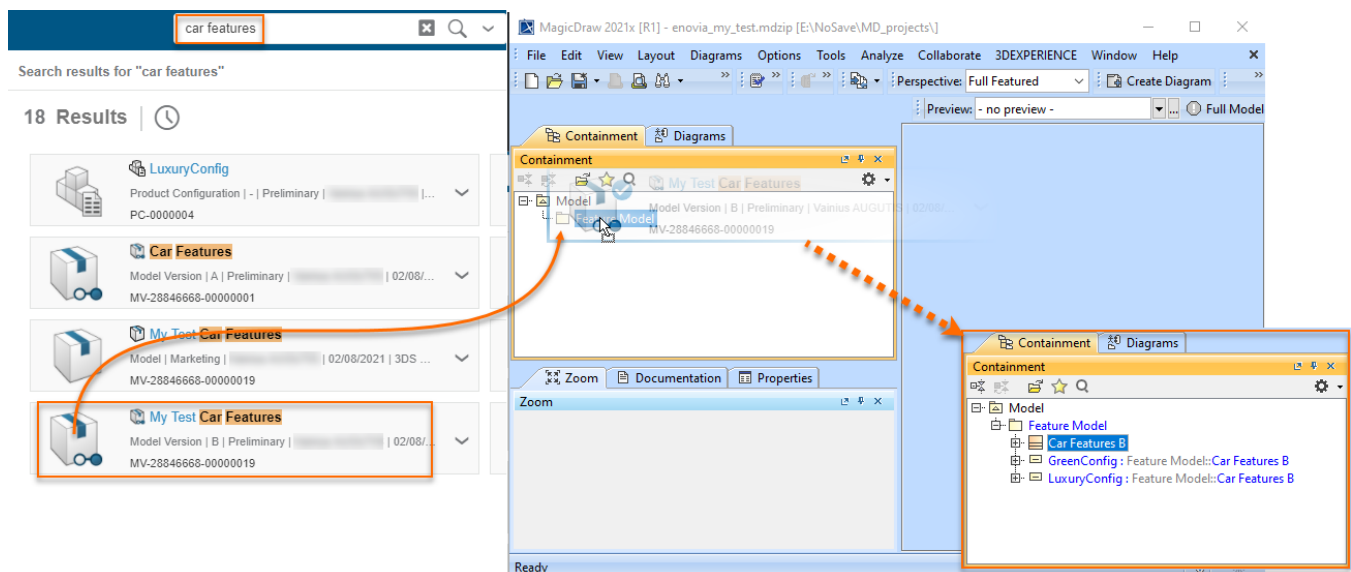


3. In the **Model Version** dialog, choose the model version you want to import.



To import the variability data by dragging the Model Version from the 3DEXPERIENCE platform search results

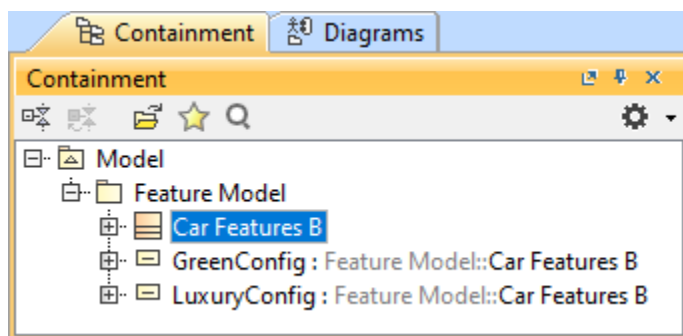
1. In the ENOVIA Model Definition application, search for the desired model version.
2. From the search results page, choose the desired model version revision and drag it to the modeling tool's Model Browser.



After importing is completed, the variability elements are mapped as follows:

ENOVIA model version	Modeling tool project
Model Version	Feature Model, Root Feature Group
Option Group	Feature Group
Option	Feature (UML property with Boolean type)
Variant	Feature (UML property with Enumeration type)
Variant Value	UML Enumeration literal
Configuration	Configuration (UML Instance Specification)
Chosen criteria	Feature value (UML Slot value)
Mandatory (on/off)	Multiplicity. If Mandatory, the multiplicity is 1. Otherwise, the multiplicity is 0..1.

The variability model is imported into your project as a Feature Model (these are just two different terminologies being used on the platform and in the modeling tool). You can see the imported elements in the Containment tree.



You can display the feature model in the Class diagram. Simply drag the Root Feature Group (Class element) from the Containment tree to the diagram pane. Once the Root Feature Group is in the diagram pane, you can [display its structure](#).



Car Features B

Responsible :

Modification Date : Feb 12, 2021, 8:11:35 AM

Maturity State : Preliminary

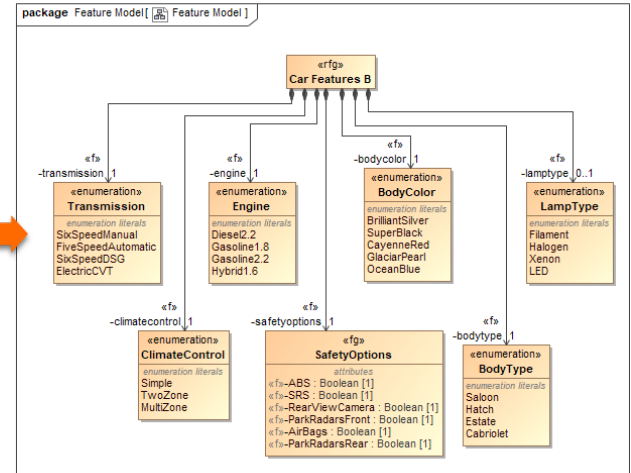
Base Price : 0

Creation Date : Feb 8, 2021, 2:45:22 PM

Variability Rules Product Configurations Documents Requirements

12 Items

Title	Type	Mandatory	Sequence Number	Range	Maturity State
Transmission	Variant	<input checked="" type="checkbox"/>	1		Preliminary
Engine	Variant	<input checked="" type="checkbox"/>	1		Preliminary
Diesel2.2	Value		1		Exists
Gasoline1.8	Value		1		Exists
Gasoline2.2	Value		1		Exists
Hybrid1.6	Value		1		Exists
BodyType	Variant	<input checked="" type="checkbox"/>	1		Preliminary
Saloon	Value		1		Exists
Hatch	Value		1		Exists
Estate	Value		1		Exists
Cabriolet	Value		1		Exists
EngineOptions	Options Group		1		Preliminary
LampsOptions	Options Group		1		Preliminary
SafetyOptions	Options Group		1		Preliminary
ABS	Option		1		Exists
SRS	Option		1		Exists
RearViewCamera	Option		1		Exists
ParkRadarsFront	Option		1		Exists
AirBags	Option		1		Exists
ParkRadarsRear	Option		1		Exists



The Product Configurations in the modeling tool project are imported as UML Instance Specifications. You can also display them in the diagrams.

LuxuryConfig

Responsible :

Modification Date : Mar 10, 2021, 10:16:43 AM

Maturity State : Preliminary

Creation Date : Feb 8, 2021, 2:49:43 PM

#12 12 0 0

LampType

LED

×

ClimateControl

TwoZone

×

BodyColor

CayenneRed

×

Transmission

SixSpeedDSG

×

Engine

Gasoline2.2

×

BodyType

Saloon

×

EngineOptions

Turbo

×

Type...

LampsOptions

FogLamps

×

Type...

SafetyOptions

ABS

×

SRS

×

RearViewCamera

×

Type...

InteriorOptions

Navigation

×

DvDChanger

×

SunRoof

×

BoseAudioSystems

×

Type...

CruiseOptions

CruiseControl

×

AdaptiveCruiseControl

×

Type

ChromeOptions

AlloyWheels

×

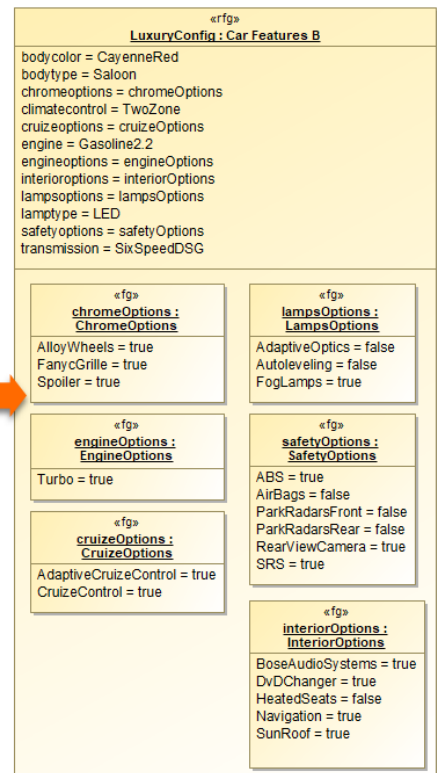
Spoiler

×

FancycGrille

×

Type...

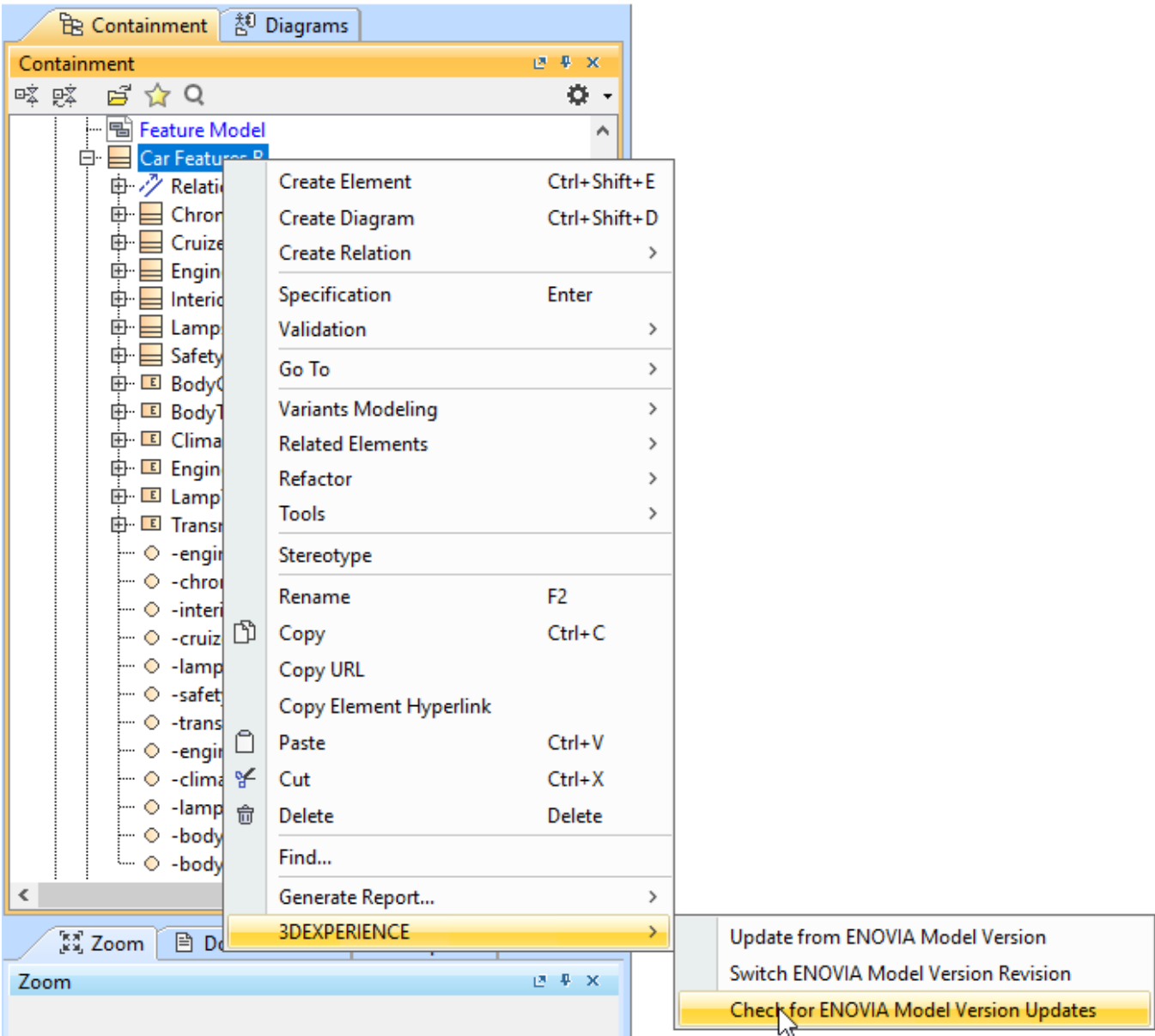


Checking for updates and updating from ENOVIA Model Version

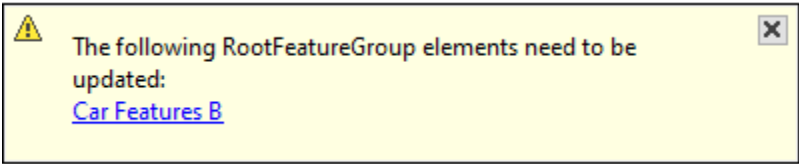
After working with the imported data for some time, you might want to check if the data on ENOVIA has some changes.

To check for the updates

- 1. In the Containment tree, right-click the Root Feature Group element.
- 2. From the open shortcut menu, select 3DEXPERIENCE > Check for ENOVIA Model Version Updates.



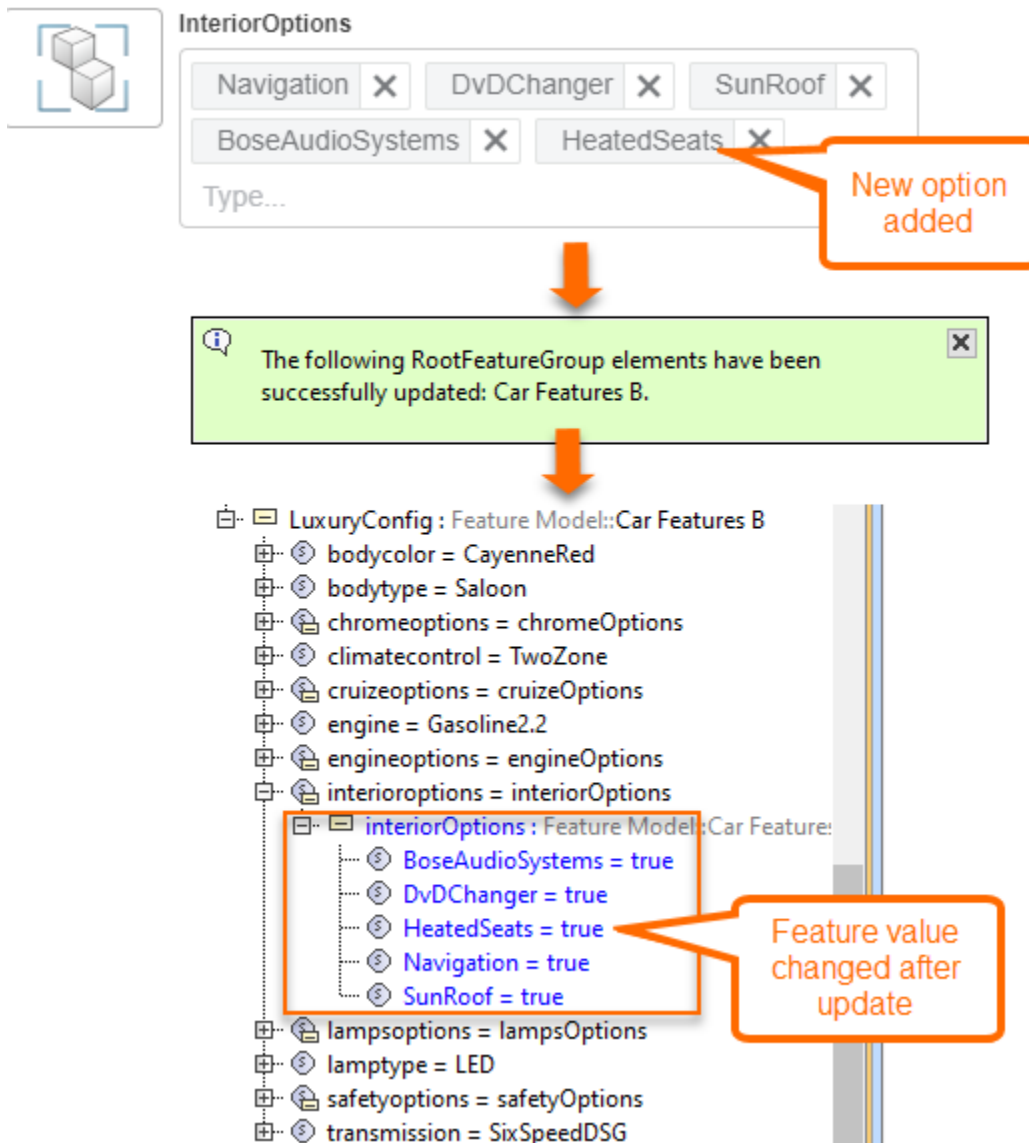
After the checking for updates operation is complete, you will get a notification informing you about the status.



If you get the notification, that there are updates for the listed elements, you can then update the model.

To updates from ENOVIA Model Version

1. In the Containment tree, right-click the Root Feature Group element.
2. From the open shortcut menu, select **3DEXPERIENCE** > **Update from ENOVIA Model Version Updates**.

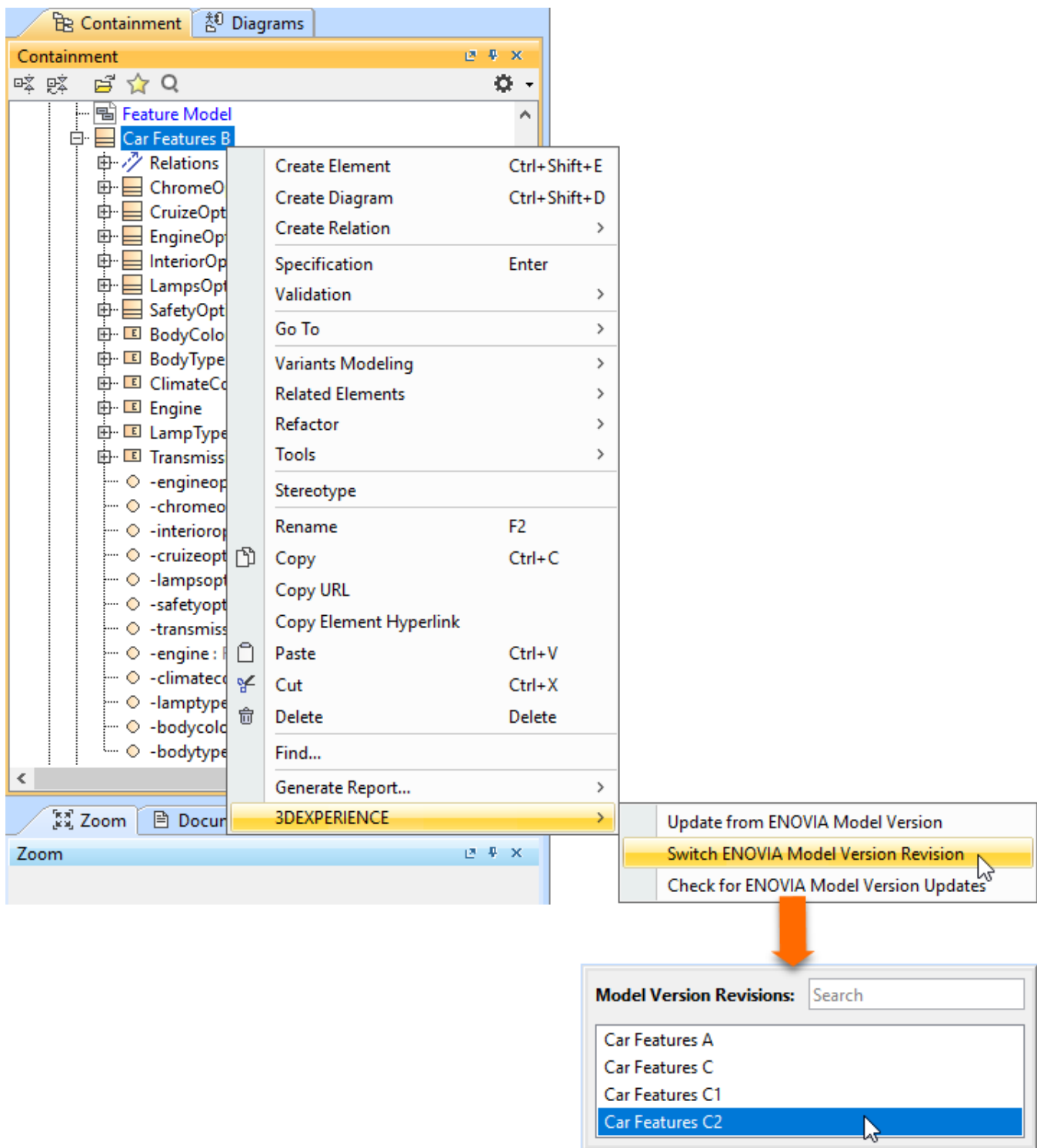


Choosing another ENOVIA Model Version revision

When you are importing data from the ENOVIA Model Definition application, you choose a particular revision of the model. At any moment, you can choose to replace the imported revision with the different one.

To switch ENOVIA Model Version revision

1. In the Containment tree, right-click the Root Feature Group element.
2. From the open shortcut menu, select **3DEXPERIENCE** > **Switch ENOVIA Model Version Revision**.
3. In the open **Model Version Revisions** dialog, choose the desired model version.



During the process of switching revision, the main goal is to retain as many of the existing model elements as possible, changing them as necessary instead of deleting and re-creating them. Only the Product Configurations (Instance Specifications) will be added anew.

When you have imported the data from the ENOVIA Model Definition application to your project in the modeling tool, you can start working with it. For more information, refer to [Model-Based Product Line Engineering](#).