

ASCET: How to export an ASCET model to FMU?



Question

- I heard that people are running (like crazy) after a feature in ASCET-DEVELOPER called FMU export
- What is FMU?
- What is this FMU export?
- How to export an ASCET model to FMU?
- Where do I find the FMU export?



Answer

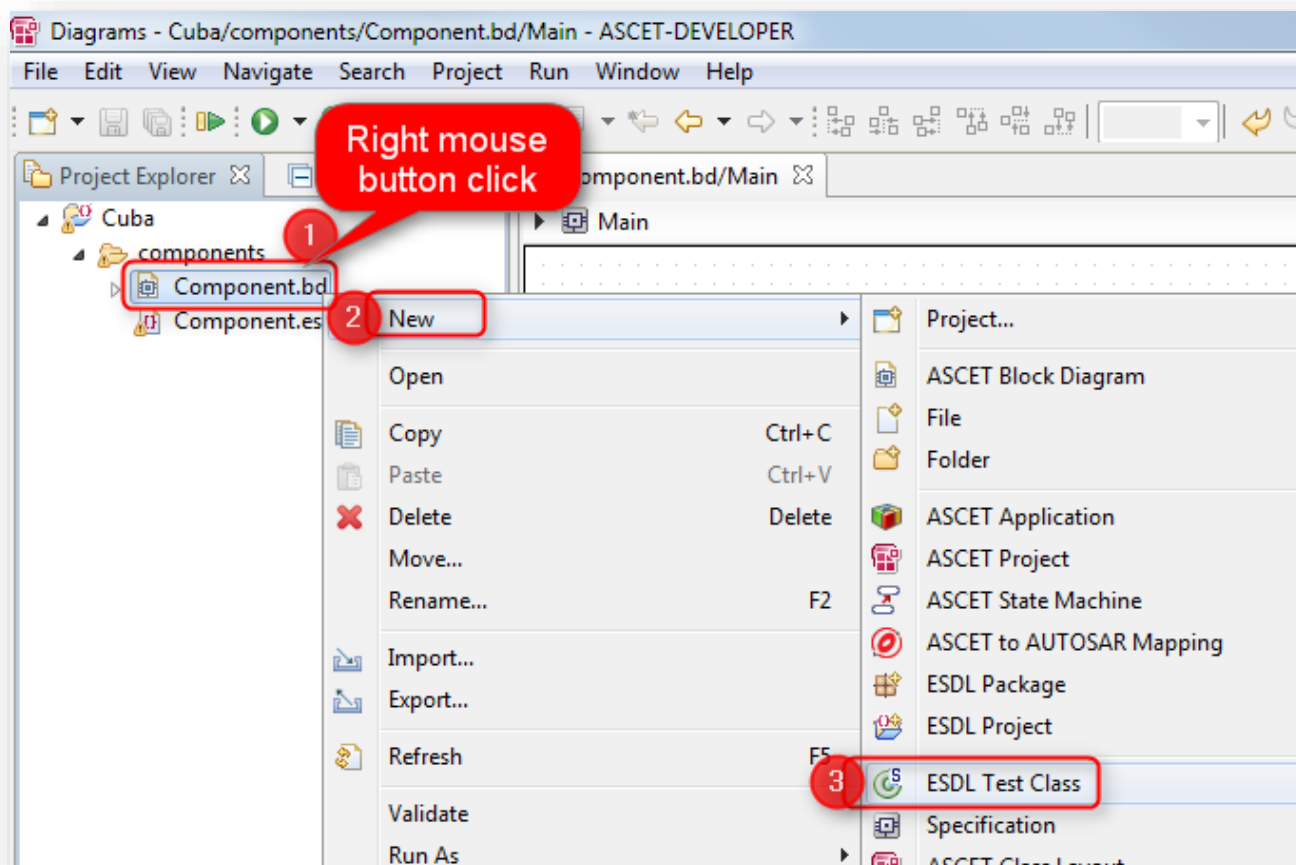
- **FMU** is an abbreviation for **F**unctional **M**ock-up **U**nit
- FMU is an implementation of C interfaces defined by **FMI** (**F**unctional **M**ock-up **I**nterface).
- Detailed information about the standard and documentation can be found at:
 - <http://fmi-standard.org/>
 - "[...] *Functional Mock-up Interface (FMI) is a tool independent standard to support both model exchange and co-simulation of dynamic models using a combination of xml-files and compiled C-code [...]*"

- ASCET can generate an FMU for you
- For example for **closed loop simulation** with some driver, vehicle or environment model
- You can use this FMU in another tool which supports co-simulation based on the FMI interface
- For example: Import the FMU to **ETAS COSYM**

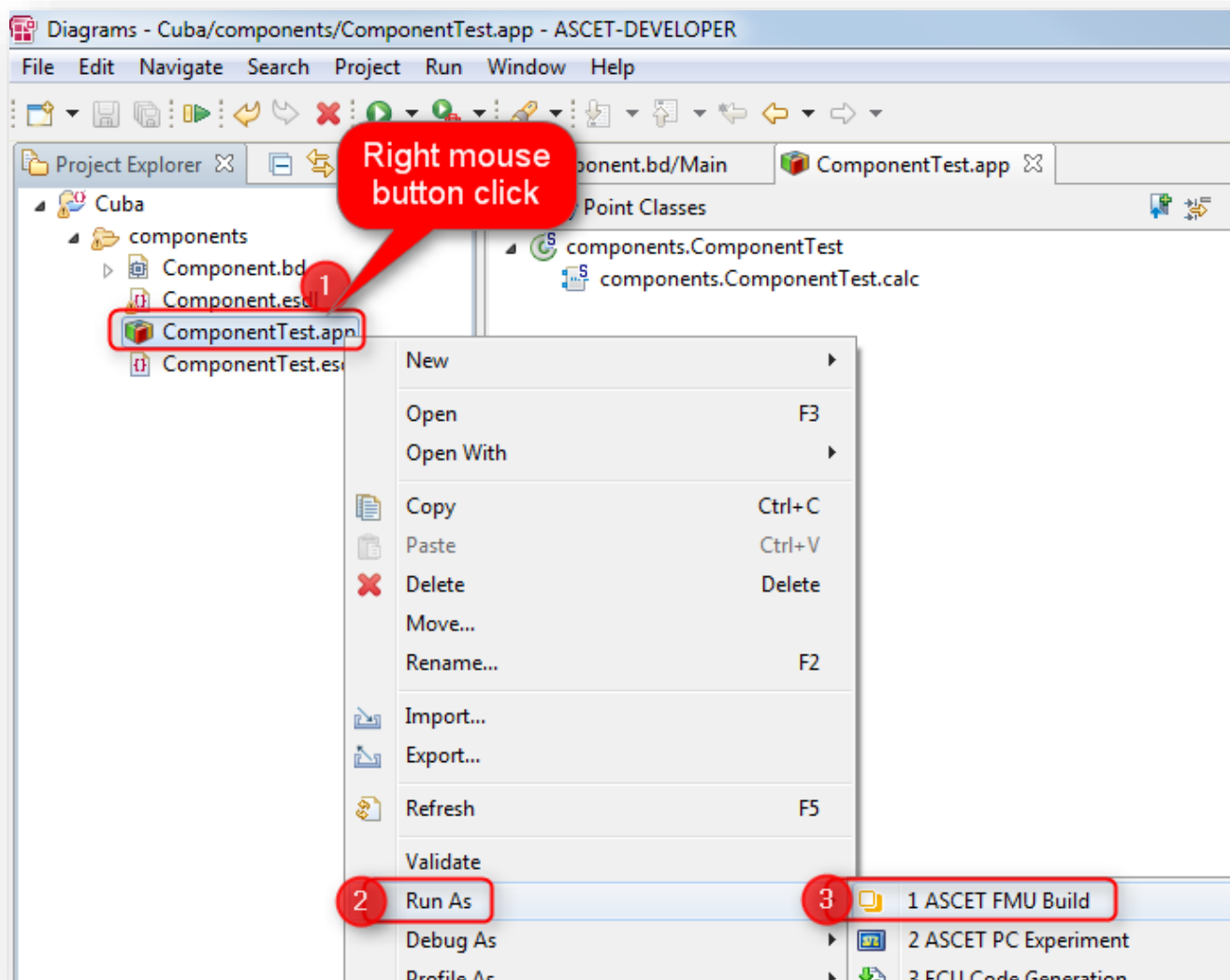
- On the following pages you will find these instruction sets:
 - **Create FMU in ASCET-DEVELOPER**
 - **Import FMU in COSYM**

Create FMU (in ASCET-DEVELOPER)

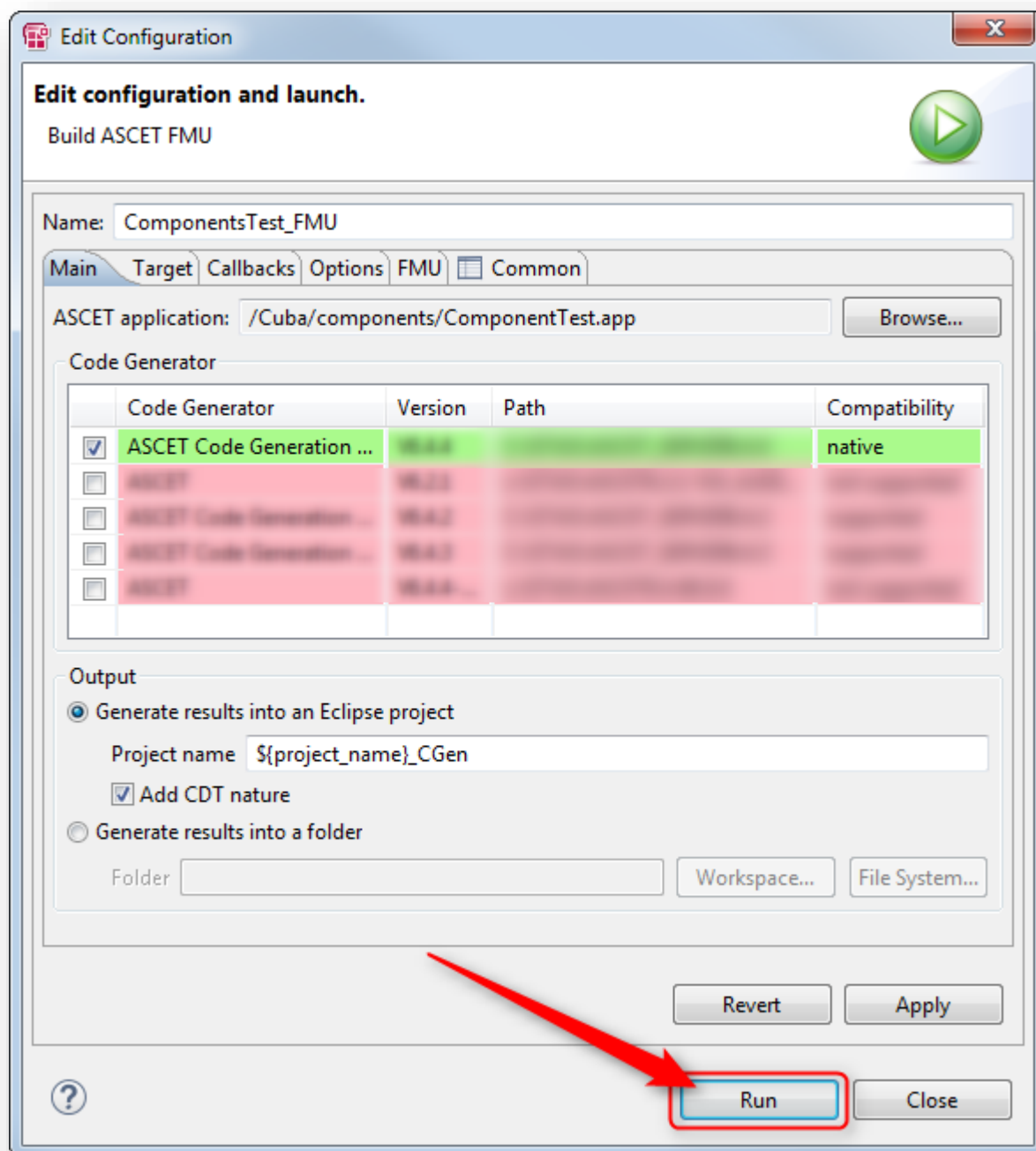
- The "ASCET FMU Build" let's you generate a Functional Mockup Unit for Co-Simulation from an ASCET application
1. In **ASCET-DEVELOPER** → **Project Explorer** → If there is no existing **application** (ending ".app"): Create one (for example **ESDL Test Class**)



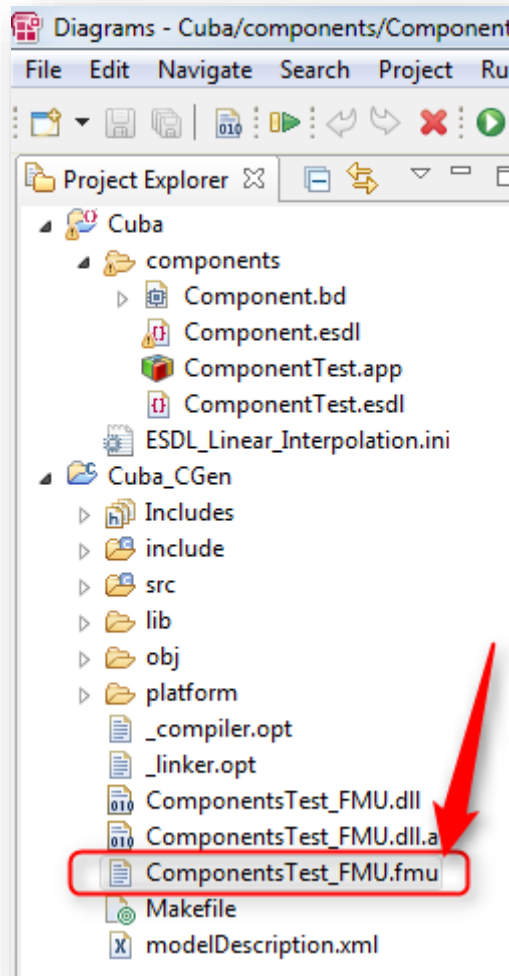
2. In **ASCET-DEVELOPER** → **Project Explorer** → On application: Click right mouse button
 → **Run As** → **1 ASCET FMU Build**



3. In dialog **Edit Configuration** → Adjust settings if you want → Click **Run** button



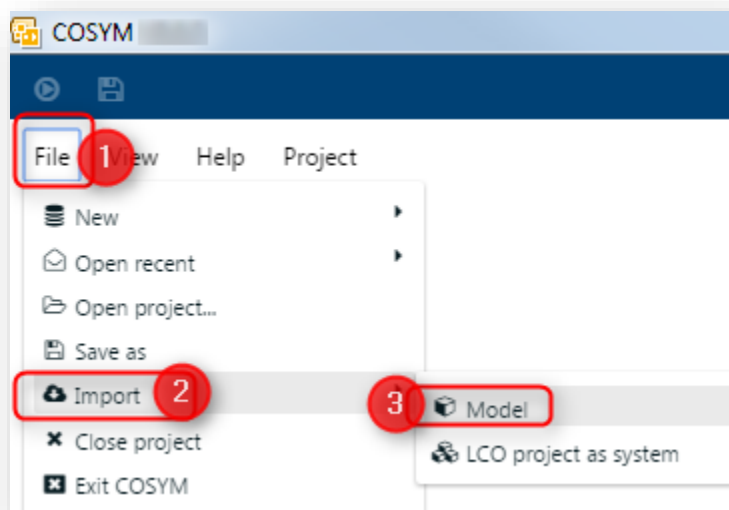
4. In the specified output folder: among others a file with ending **.fmu**



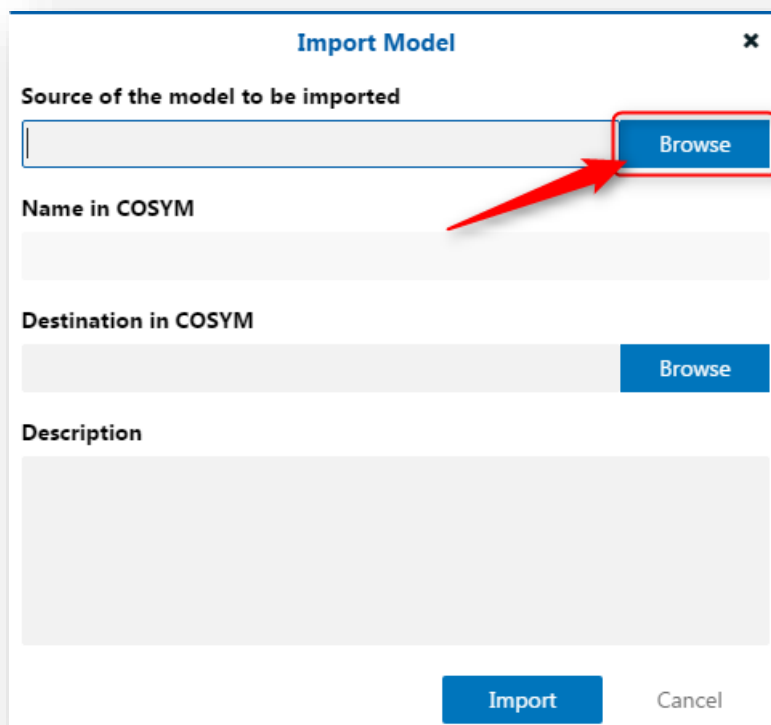
5. Find further information in **ASCET-DEVELOPER** → Menu bar → **Help**

Import FMU (in ETAS COSYM)

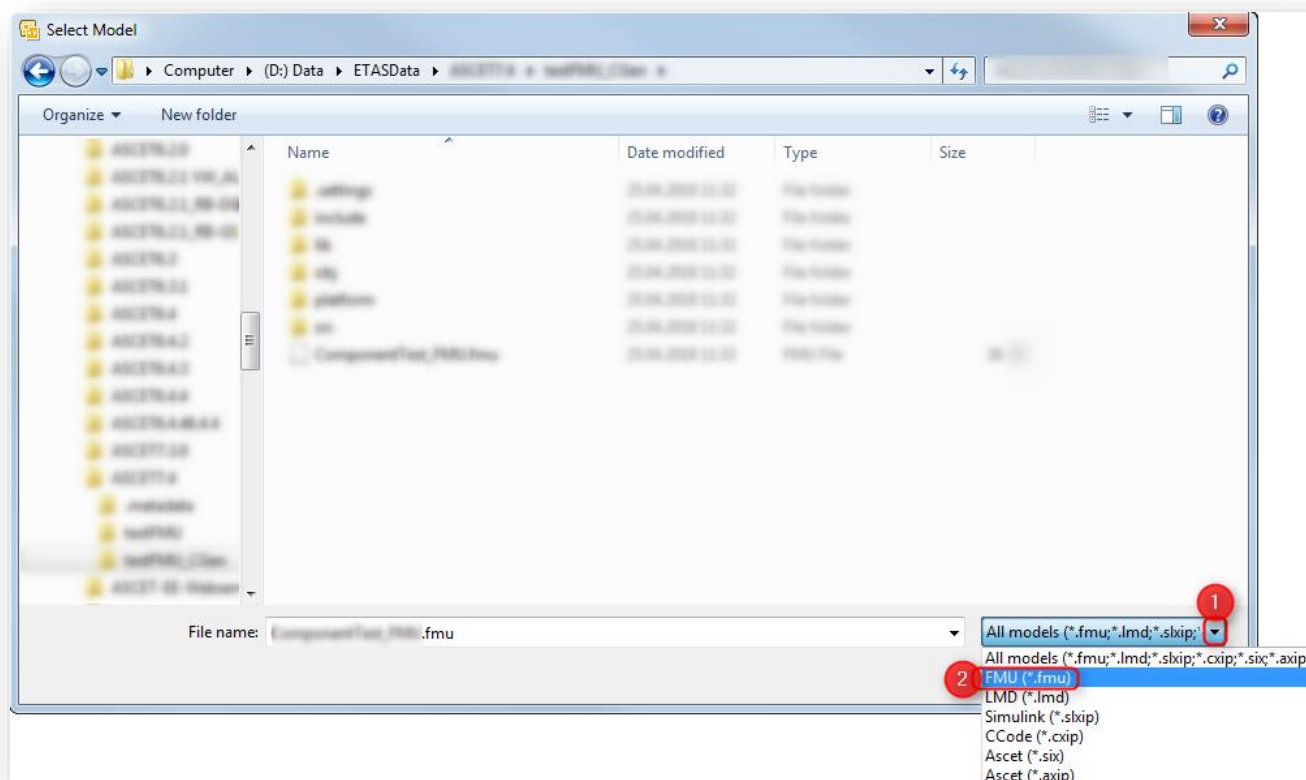
- In **ETAS COSYM** you can import FMU files
- 1. In **COSYM** → Menu bar → **File** → **Import** → **Model**



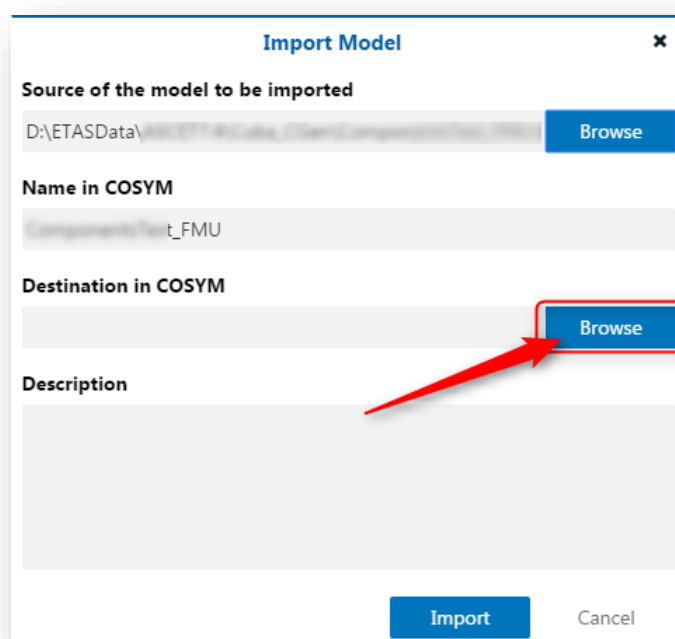
- 2. In dialog **Import Model** → At **Source of the model to be imported**: Click **Browse** button



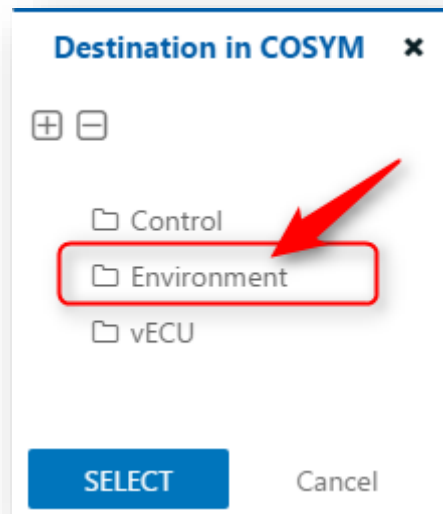
3. In dialog **Select Model** → Navigate to location of the FMU file (file extension ".fmu")



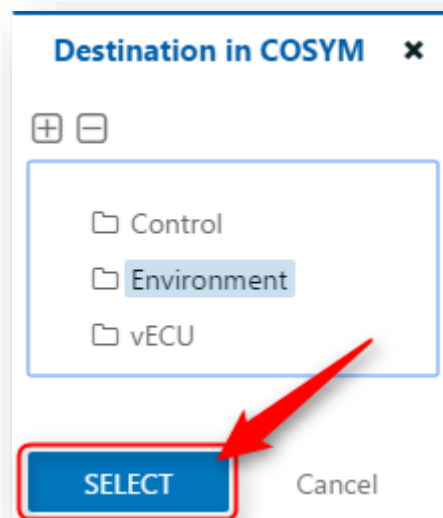
4. Back in dialog **Import Model** → At **Destination in COSYM** → Click **Browse** button



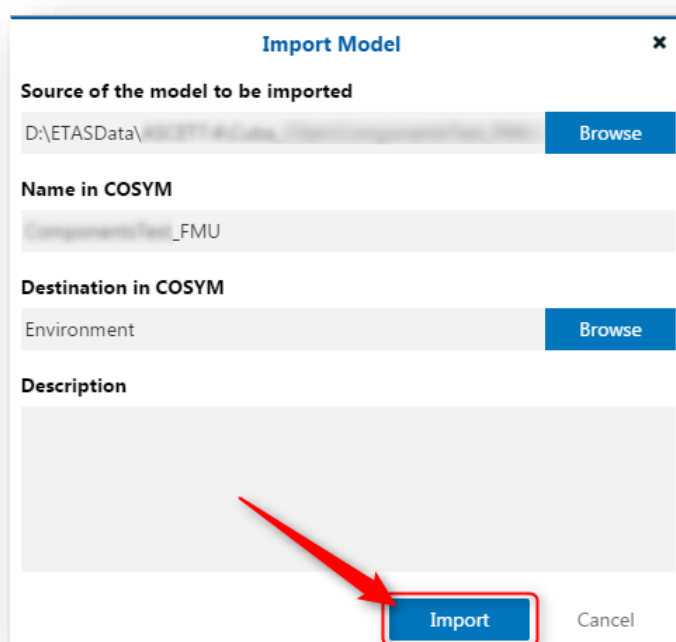
5. In dialog **Destination in COSYM**→ Click on a destination: for example **Environment**



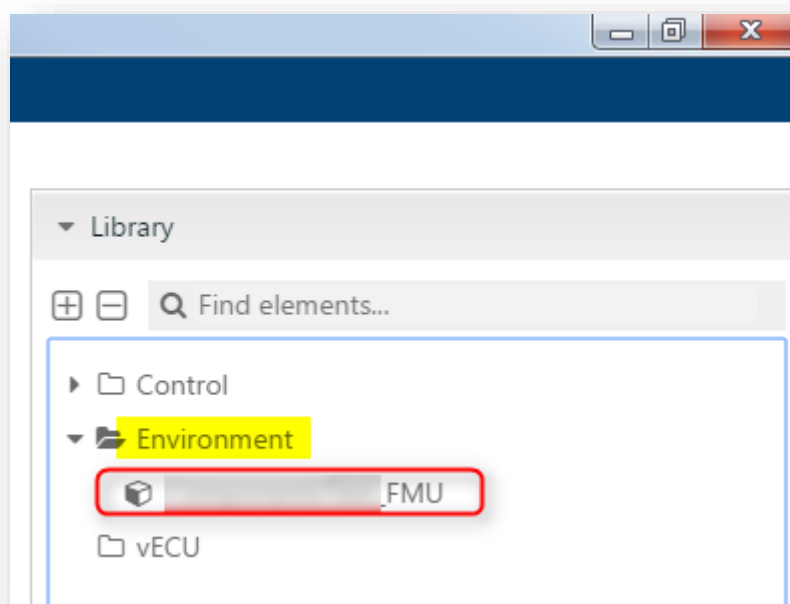
6. Then click **SELECT** button



7. Back in dialog **Import Model** → Click **Import** button



8. Finally, the imported FMU is displayed in COSYM in panel **Library** under the selected destination (**Environment**)





Do you still have questions?

- You will find **further FAQ articles** on the ETAS homepage: www.etas.com/en/faq
- **Movies** corresponding to FAQ articles can be found on the [ETAS YouTube channel](#)
- Please feel free to contact our Support Center, if you have further questions.
- Here you can find all information: <http://www.etas.com/en/hotlines.php>

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