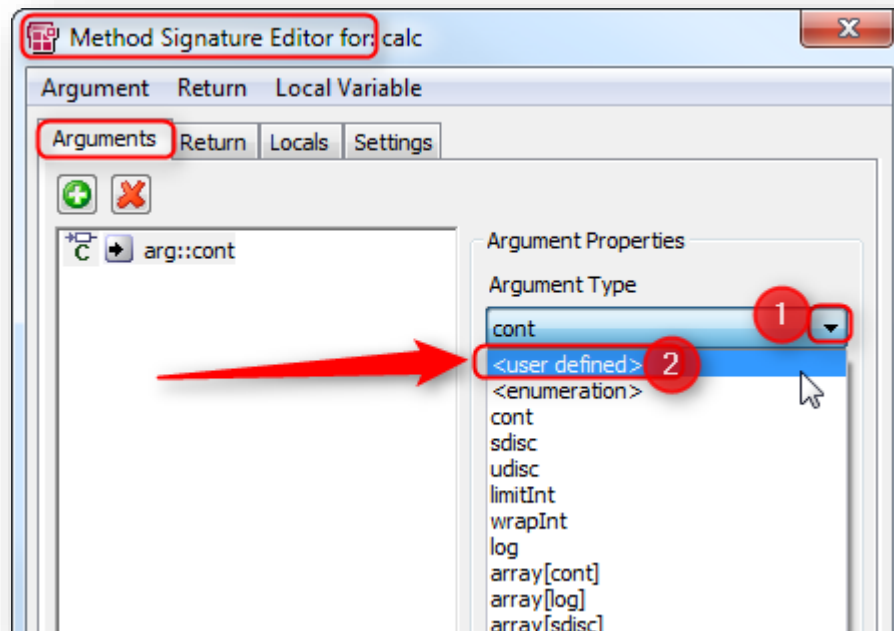## ASCET: Define and use a user defined type

? Question:

- I would like to assign a user defined type for a method return type and argument
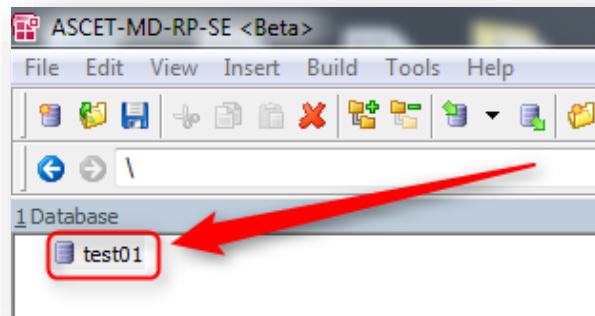

- In ASCET there is an option to choose the user defined type
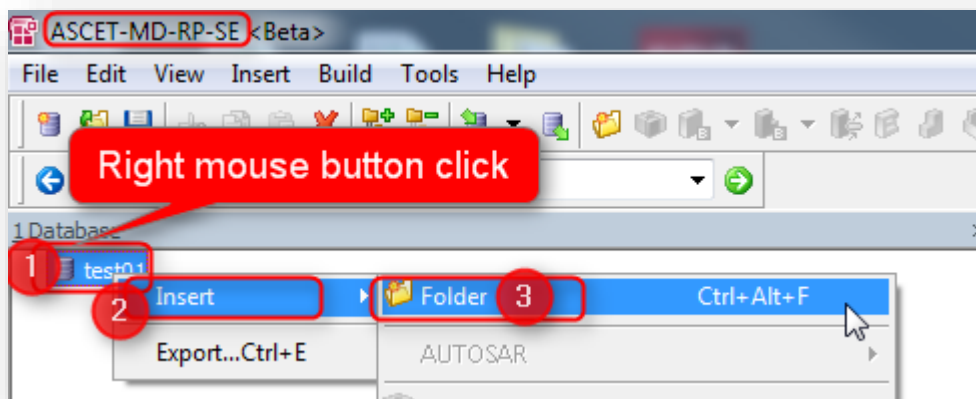- But looking for definition: how to define a user defined type?

💡 **Answer:**

Following is a step by step walk through creation and usage of a user defined data type in ASCET
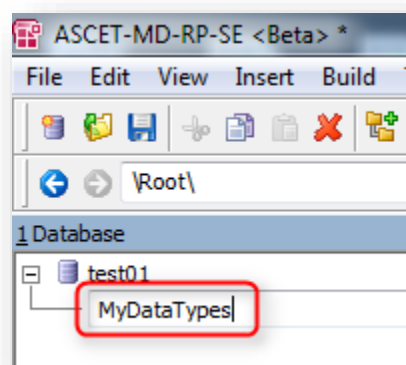
1. For this example, we start with a newly created empty database (named "test01")

2. Move mouse pointer to the database ("test01")
3. **Right** mouse button click, then move mouse pointer over **Insert,** and then left mouse button click on **Folder**
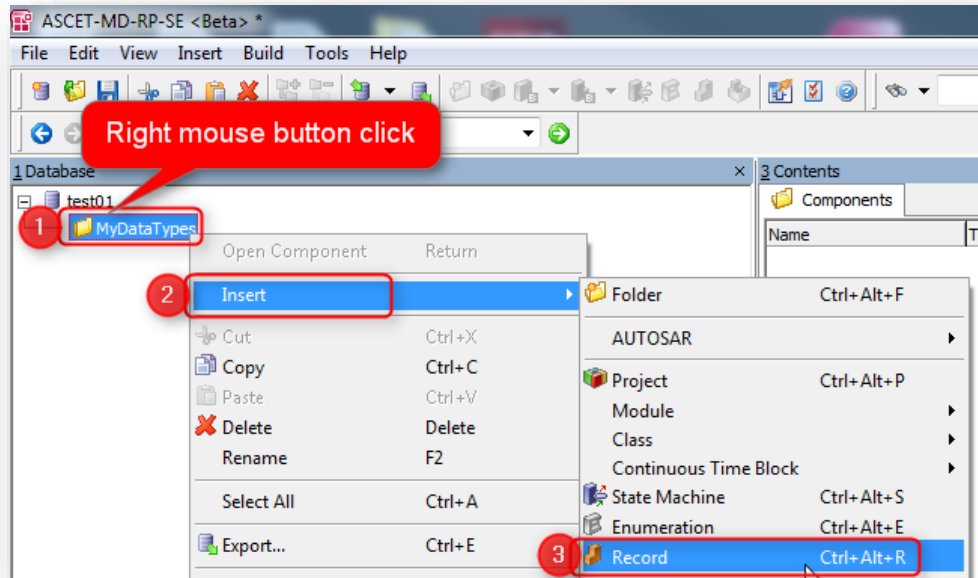

4. Type a meaningful name for the newly created folder (we use "MyDataTypes" here)
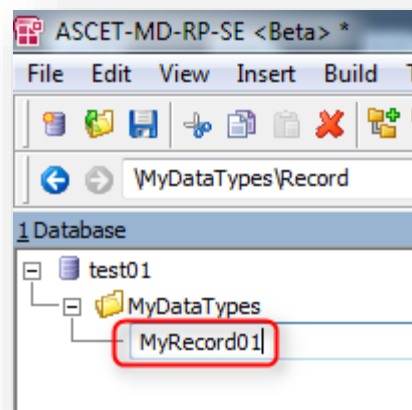
Create a user defined type

5. Create a user defined type:
    1. Move the mouse pointer on the newly created folder
    2. On folder: right mouse button click > **Insert** > **Record**
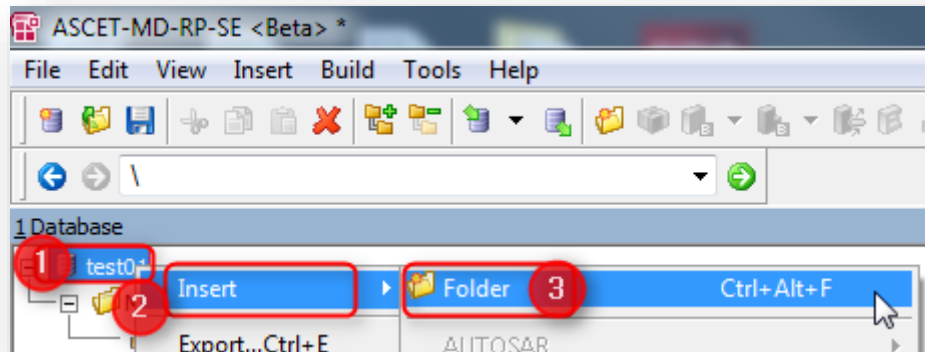

3. Remarks:

    - There are several options here like **Class**, **Enumeration** or **Record**
    - To keep this article simple we will just use one
    - We use **Record** in this example
    - Of course, it is possible to use several user defined types at the same time

6. Type a name for the newly created record (we use "MyRecord01")
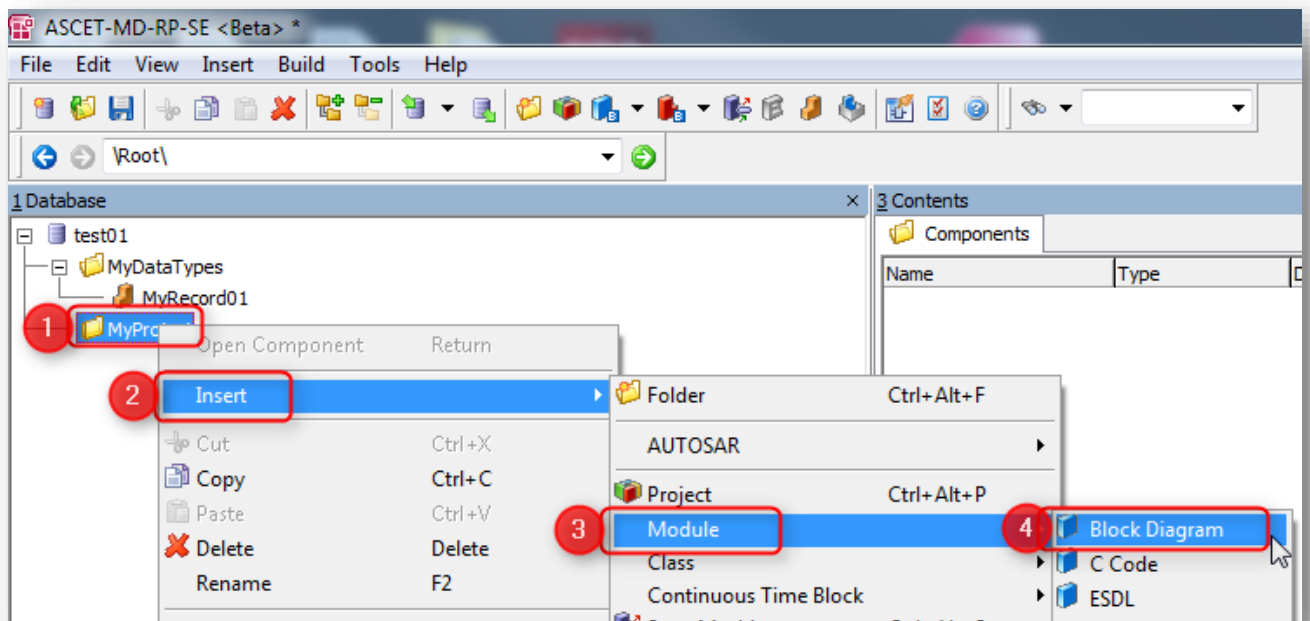
Insert a user defined type:

    7.   Now, create a folder for the ASCET model

        1.   Move mouse pointer to the database ("test01")
        2.   **Right** mouse button click, then move mouse pointer over **Insert,** and then left mouse button click on **Folder**
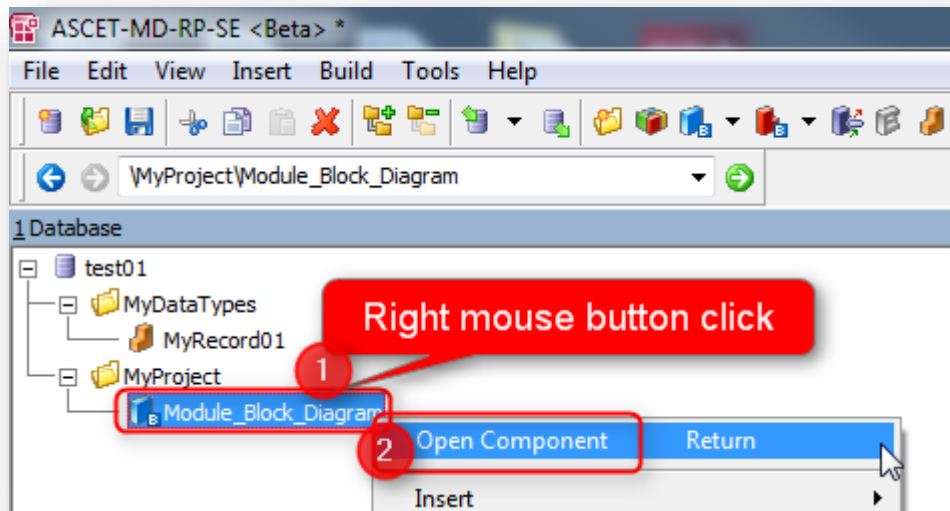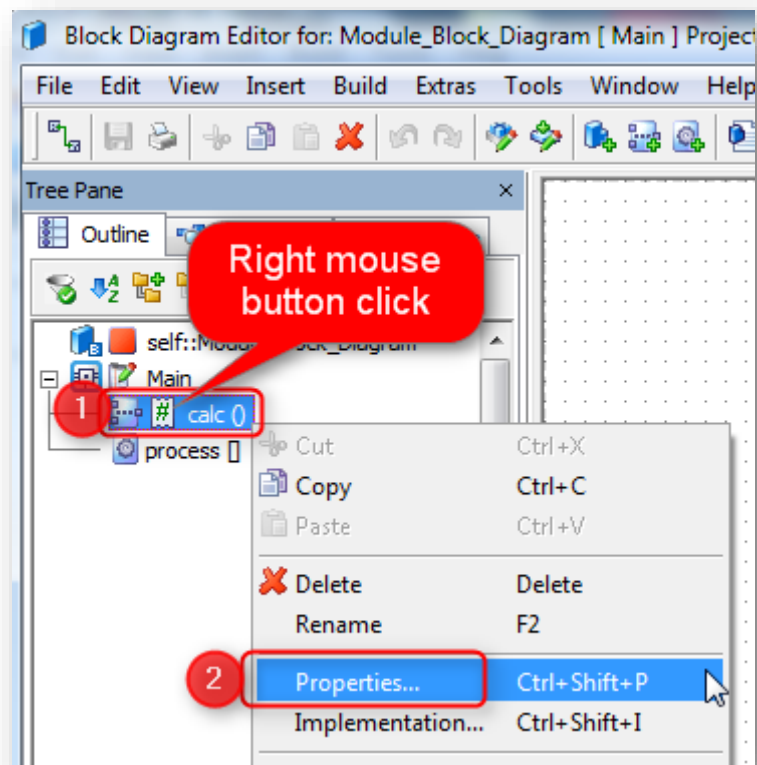

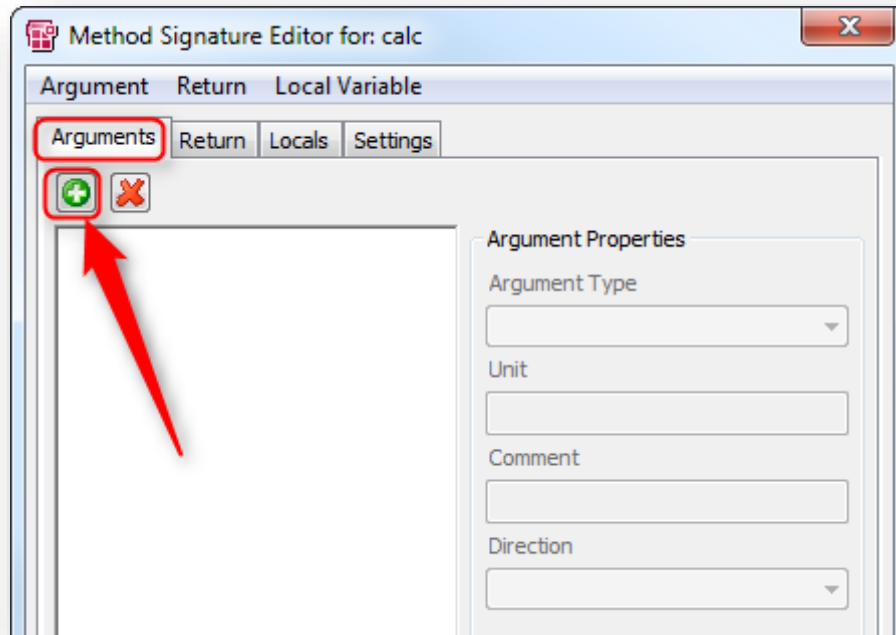   3.   Type a name for the project (we use "MyProject")

    8.   On the newly created project: Right mouse button click **> Insert > Module > Block Diagram**
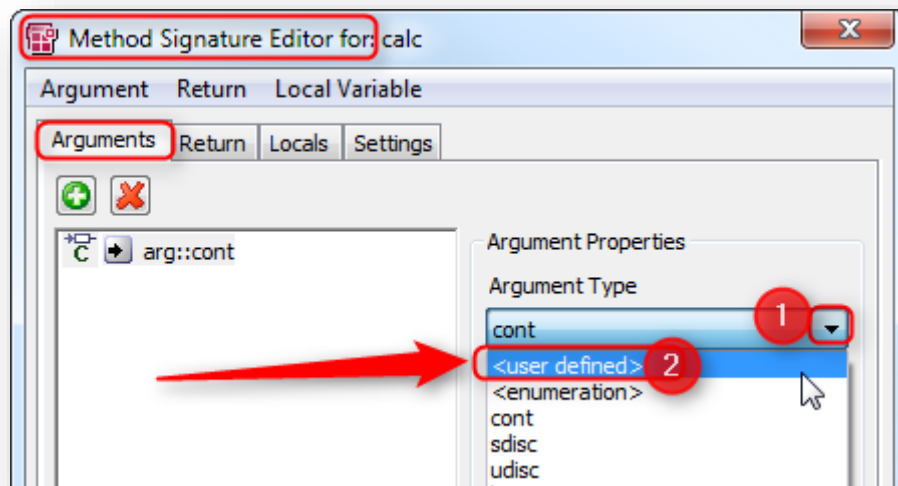
9. Open Block Diagram Editor

10. Under **Main** on **<method_name>**: Right mouse button click > **Properties...**
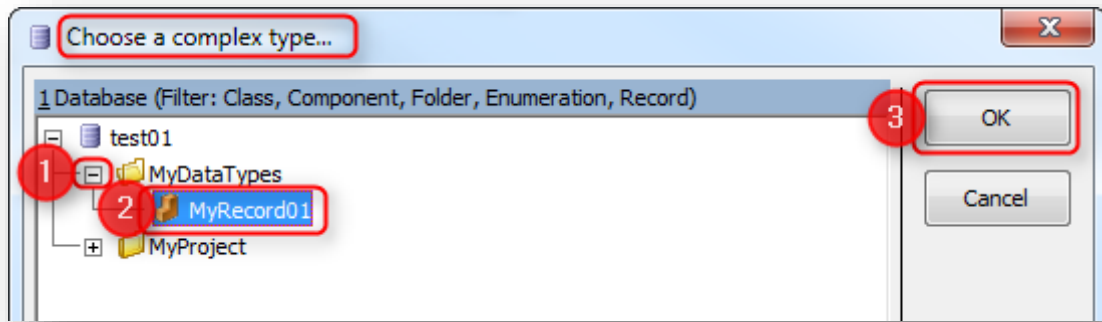
11. Dialog **Method Signature Editor for: <method_name>** opens
12. On tab **Arguments**: Click on white plus symbol on green circle
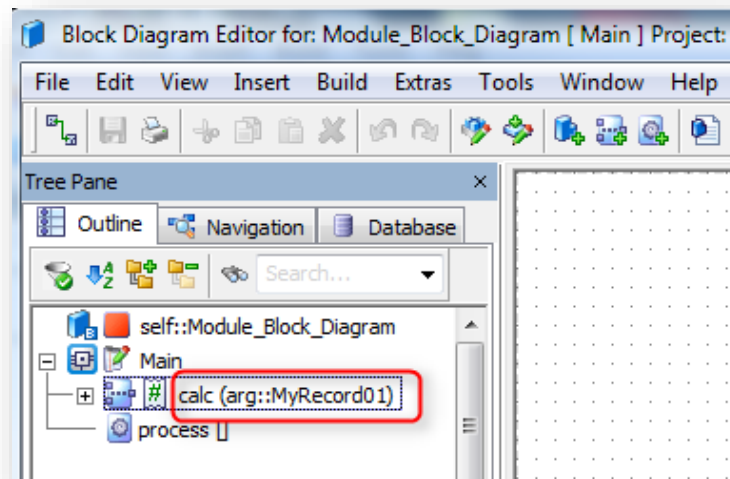

13. On panel **Argument Properties**: at field **Argument Type**: click on black triangle
14. Click on **<user defined>**

15. In Dialog **Choose a complex type...**: Select user defined type, and click **OK** button

16. In **Block Diagram Editor**: method call is displayed with user defined data type as argument

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 as well
- 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