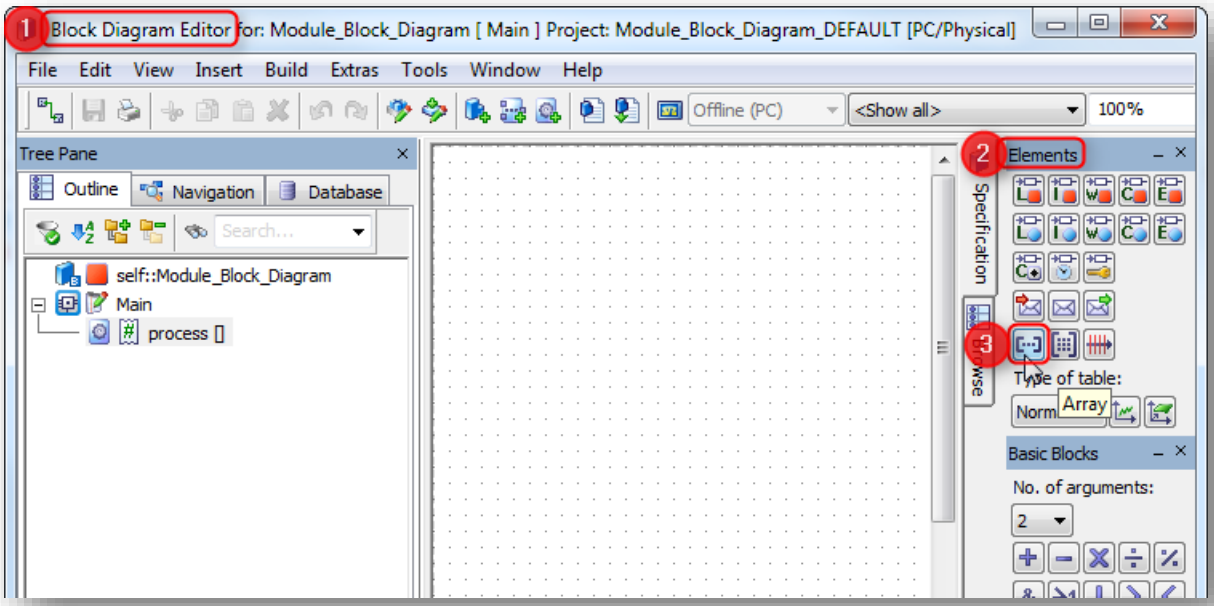
[ASCET] How to use an array as message

Question:

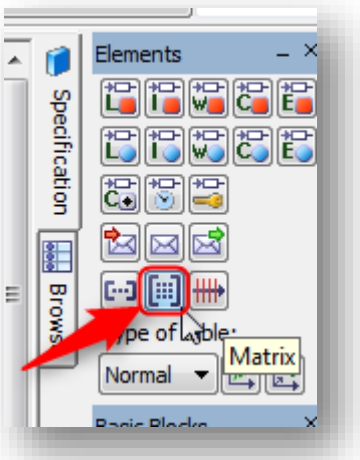
- How to use an array as message?
- Is it possible to use an array as message?
- How to use non-scalar messages?
- How to create a non-scalar message, i.e. a message of array, matrix or record type?

Answer:

- This is possible with **ASCET V6.4** and newer versions
- In **ASCET** in **Block diagram editor**: Create an array or matrix, or include a record
  - Array



  - Matrix



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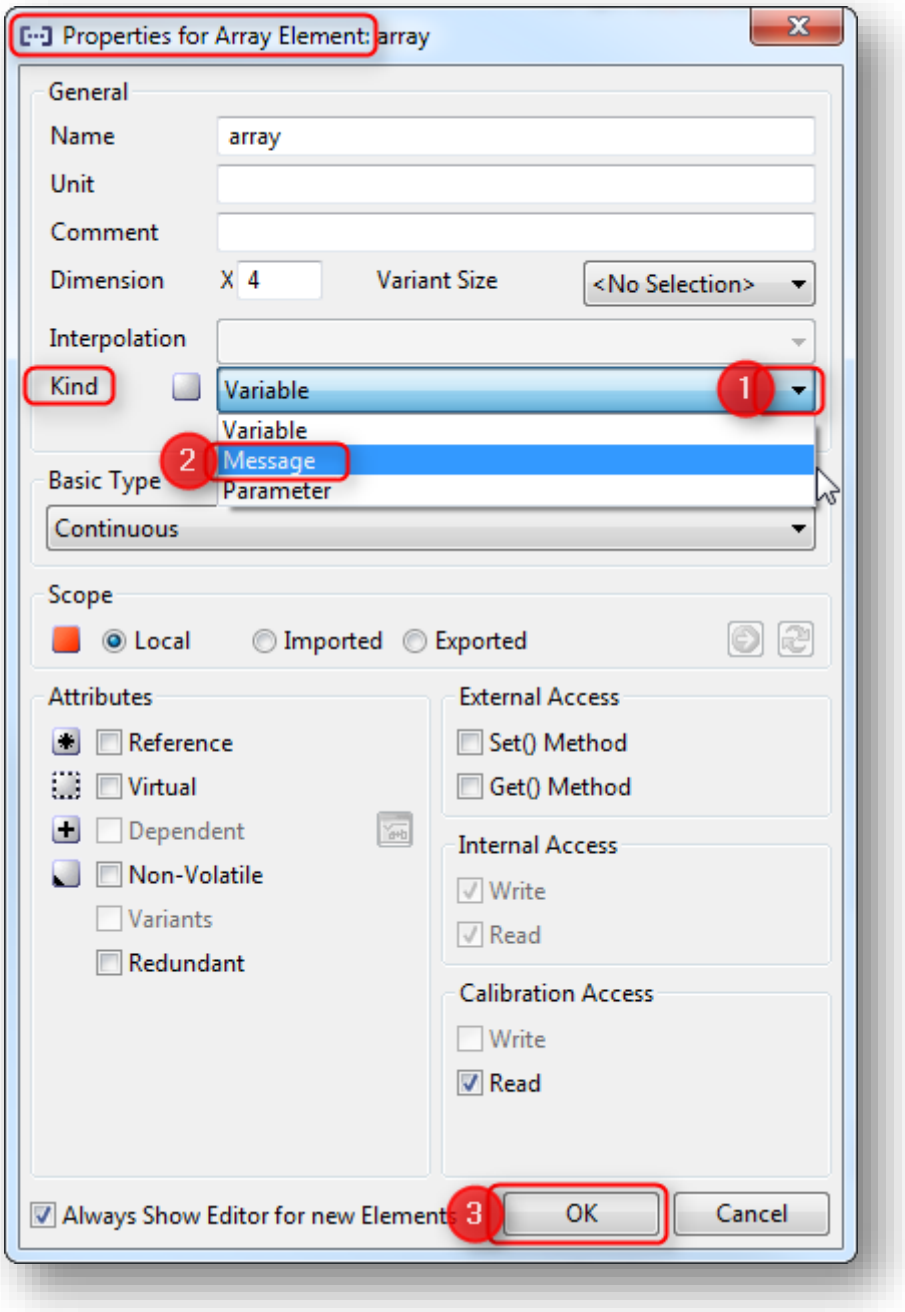
- Record: Include a record manually or via the block library

- In the **Properties for ... Element** editor at field **Kind**: Left mouse button click on **black triangle**, then click on **Message**



- Finally, click **OK** button

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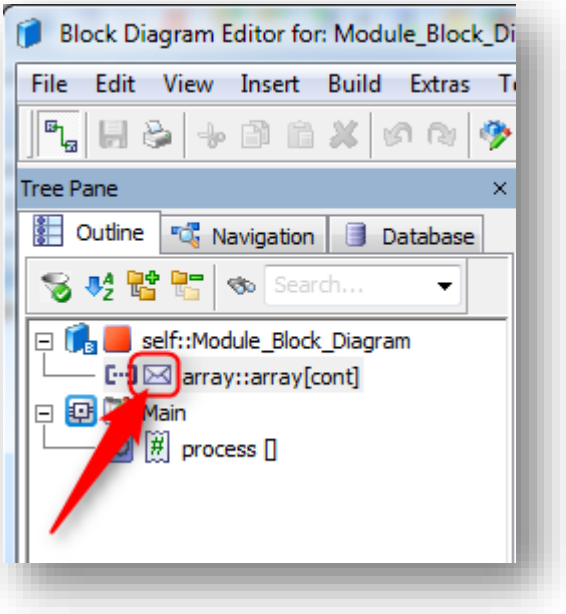

  - The array, matrix or record is now a message
  - The **Internal Access** area of the properties editor is changed accordingly
  - The **Reference** option is deactivated and disabled
- If you want to: Select scope of the message in the **Properties** editor at field **Scope**
  - Messages with scope **Local** are always **SendReceive** messages
  - Use the options in the **Internal Access** area to fine-tune the kind of an imported or exported message
    - Activate one or both options
    - It is not possible to deactivate both options at the same time

- You can change the properties of a message later via re-opening the properties editor

Additional information:

- Workaround for older ASCET versions
  - Use a global array, matrix or record
  - **WARNING:**
    - Global variables are not protected variables in preemptive scheduling
    - If two concurrent processes both access the same global variable, data consistency cannot be guaranteed

Do you still have questions?

- You will find further FAQ here: www.etas.com/en/faq
- 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

2017-11-03
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