INCA-FLOW V4.18: What’s New

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Overview

New functionalities:
- Support of Vector CANape

New methods:
- MDF Add header data

Extension of methods:
- Visualization
- Configure SI Button
- Message Window
- Excel read
- ASCMO ODCM Next Experiment
- Start Stimulus generator

Other improvements:
- CAN Interface
- Model Interface
- Using environment variables in process
- Standalone process

New Functionalities

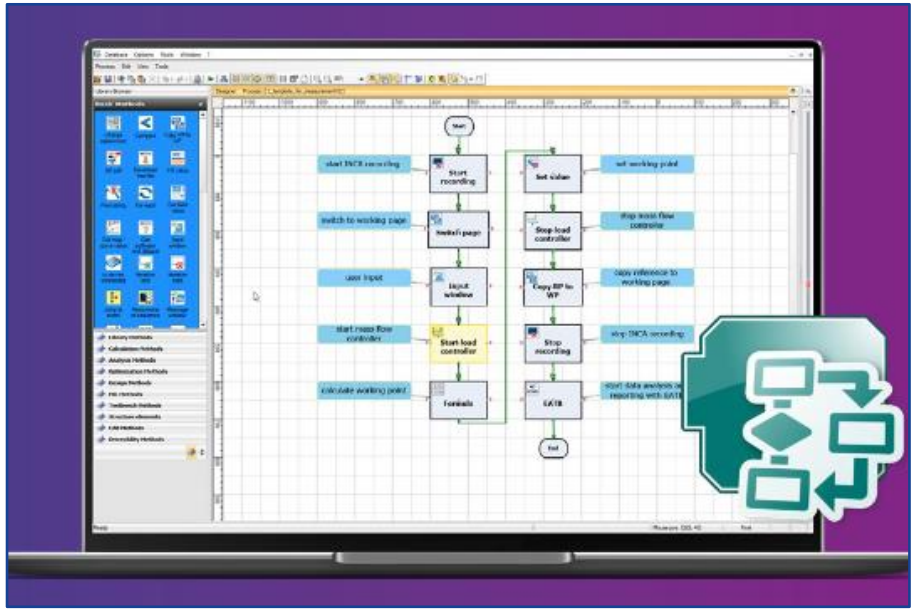
Support of Vector CANape

Motivation

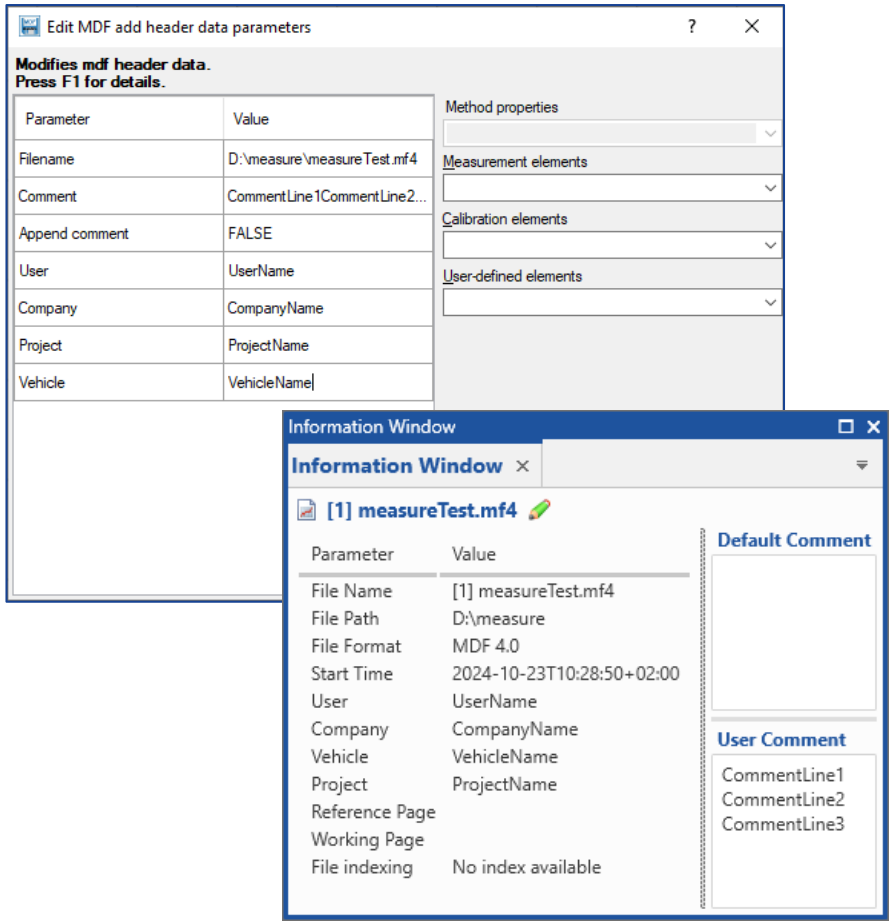
- Non-INCA user can also benefit of the functionalities offered by INCA-FLOW

Solution

- Support the application tool Vector CANape
- The same scripts are (re-)usable among the measure and calibration tools supported



New Methods
MDF add header data



Motivation

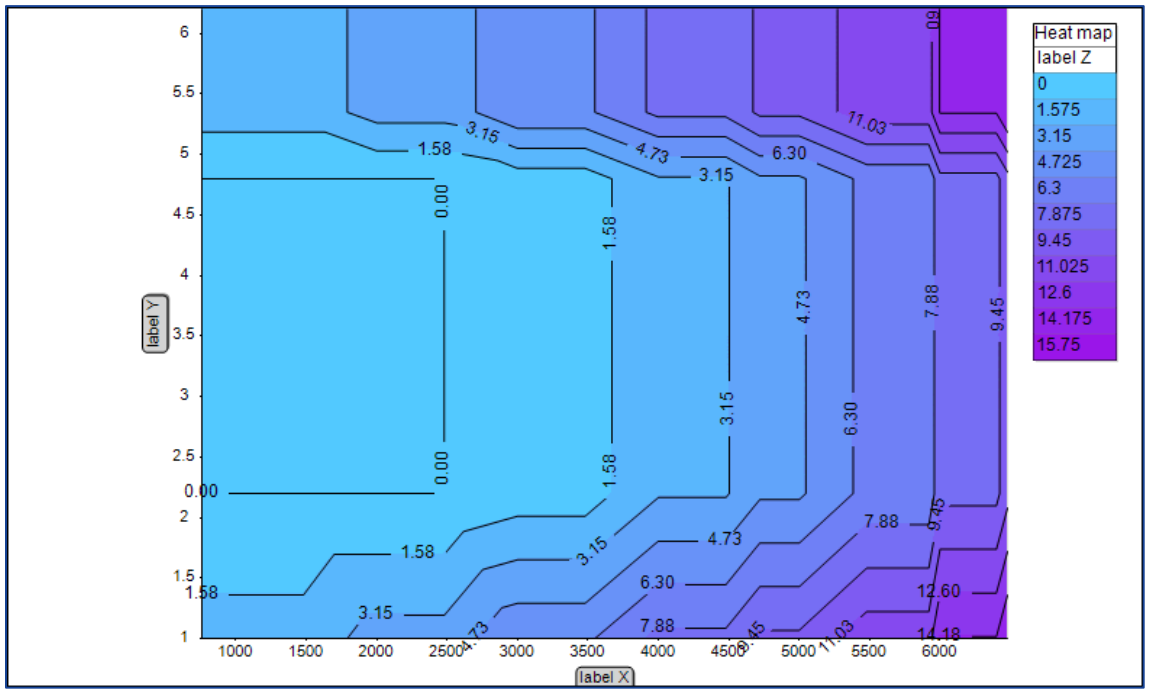
- The customer wants to add/overwrite the header data to an existing MDF file

Solution

- Implemented the new method “MDF add header data” to modify existing MDF meta data
- Currently, this is only possible for MDF4 files, that already have container for the respective data fields, e.g. already written by INCA or other tools. New data can only be set for MDF3 files

Extension of Methods

Visualization: New contour diagram (Heat map)



Motivation

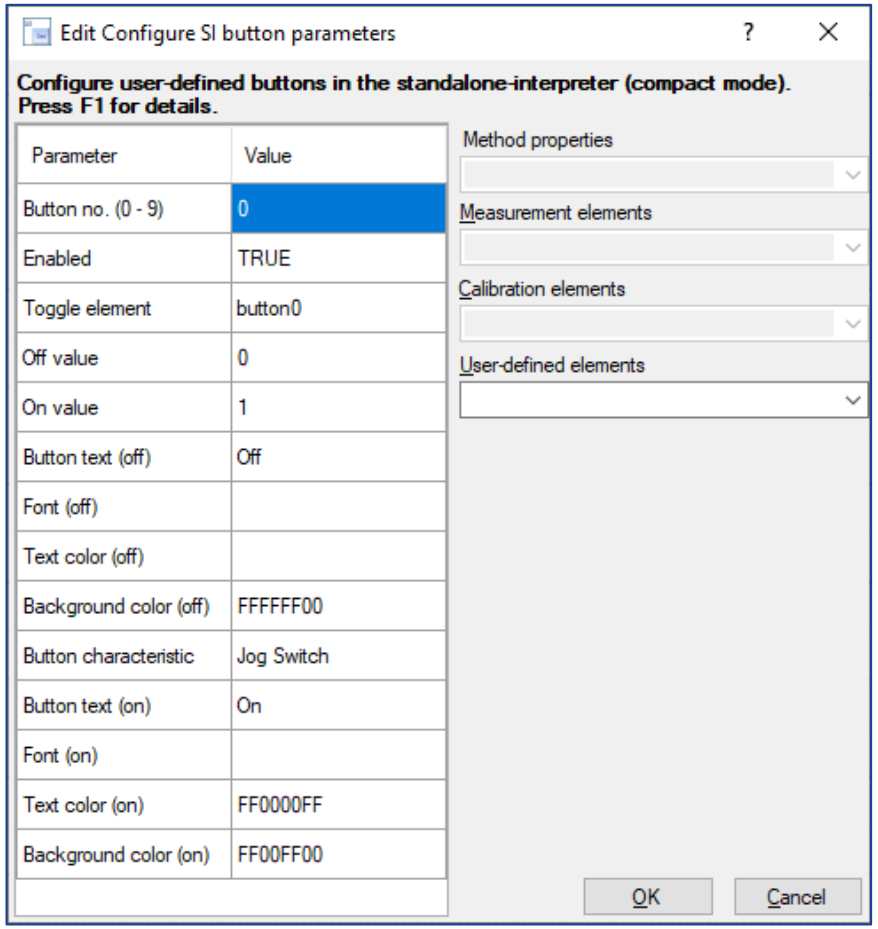
- The customer needs a new diagram type for the “Visualization” method: contour diagram

Solution

- Added the new diagram type to “Visualization”

Extension of Methods

Configure SI button: New parameters to set button style for on/off state



Motivation

- The customer needs to adjust the button styles in the stand-alone interpreter with „Configure SI button“ to make it more visible, if the button is pressed or released.

Solution

- Added parameters to „Configure SI button“ for adjusting the button styles (text, font, color) for on and off state.

Extension of Methods

Message window: New parameter ‘Window alignment’ and automatic sizing

Motivation

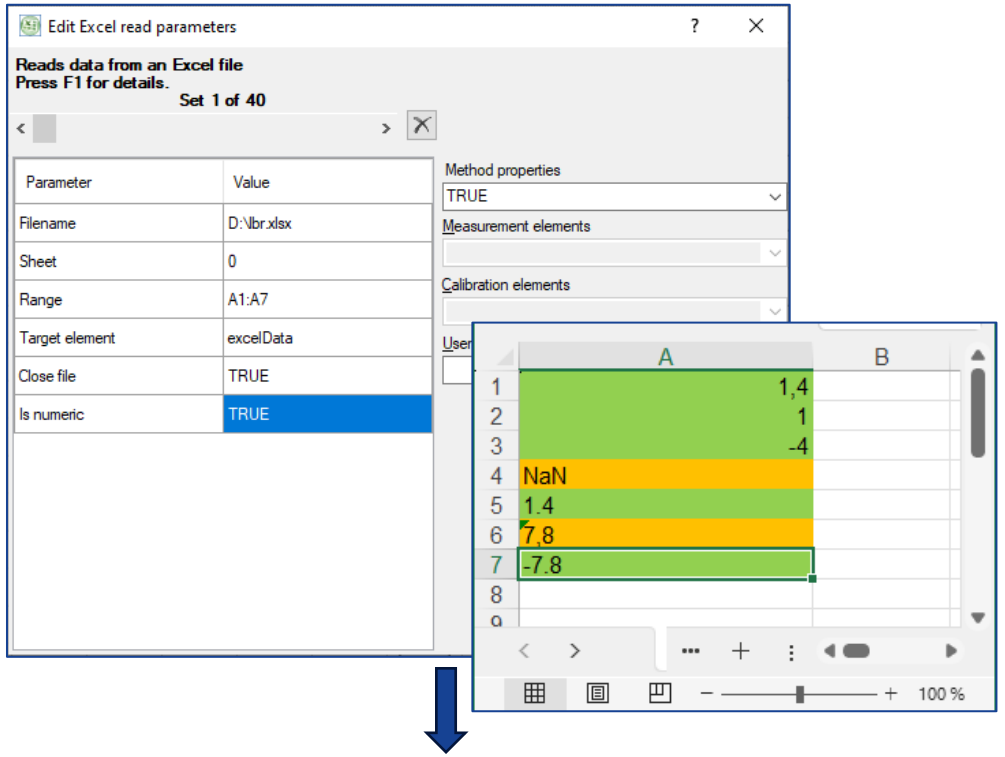
- The customer wants more control for placing the message window on the desktop. The window should be placeable on desktop edge.
- The window should adjust its size to the content automatically, because the text may change at runtime and can come from multiple sources. The user does not want to resize and reposition the window manually.

Solution

- Added parameter “Window alignment” for docking the window on the edge of the desktop (current monitor). Setting the alignment will override the “Location (x,y)” parameter.
- If the parameter „Size (width, height)“ is not set, the window size will grow automatically to fit the content.

Extension of Methods

Excel read: Optional verification of numeric values




```
Position 0: Excel read: non-numeric values encountered:
[0,3] = NaN, [0,5] = 7,8
```

Motivation

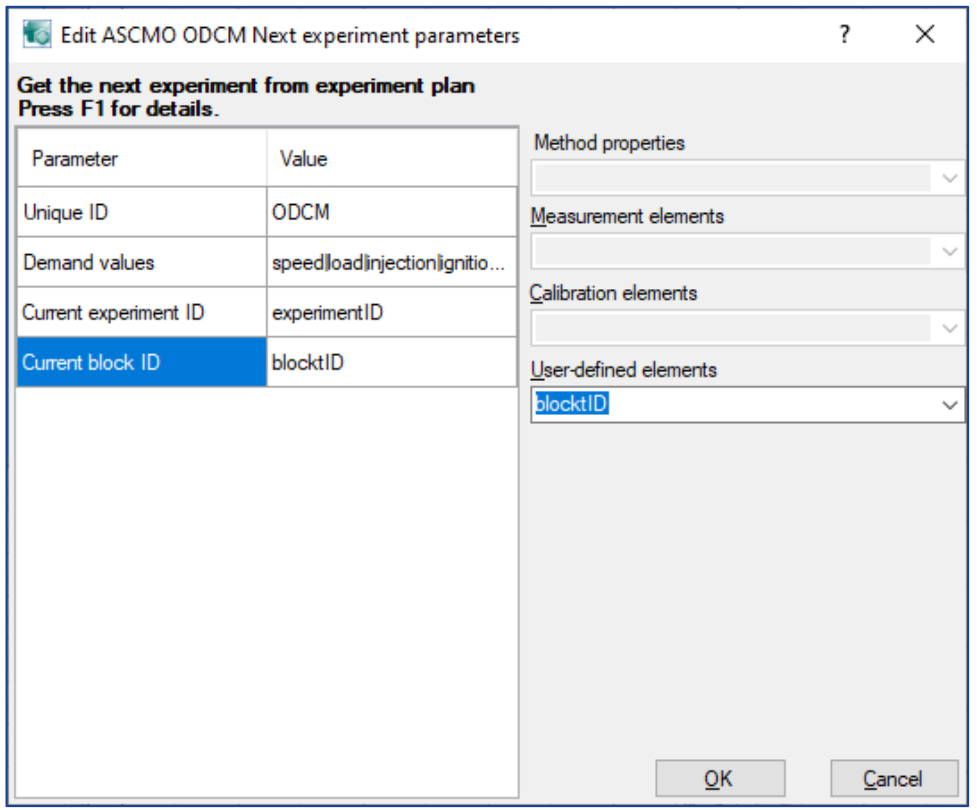
- The customer needs to verify, if the values read from Excel are numeric to reduce errors related to the handling of non-numeric data, and to simplify the data validation process.
- An additional parameter should be added to the “Excel read” method, to activate the verification and exit on F if it fails.

Solution

- Added the parameter ‘Is numeric’ to “Excel read” to verify the data after reading.

Extension of Methods

ASCMO ODCM next experiment: Return experiment and block id



Motivation

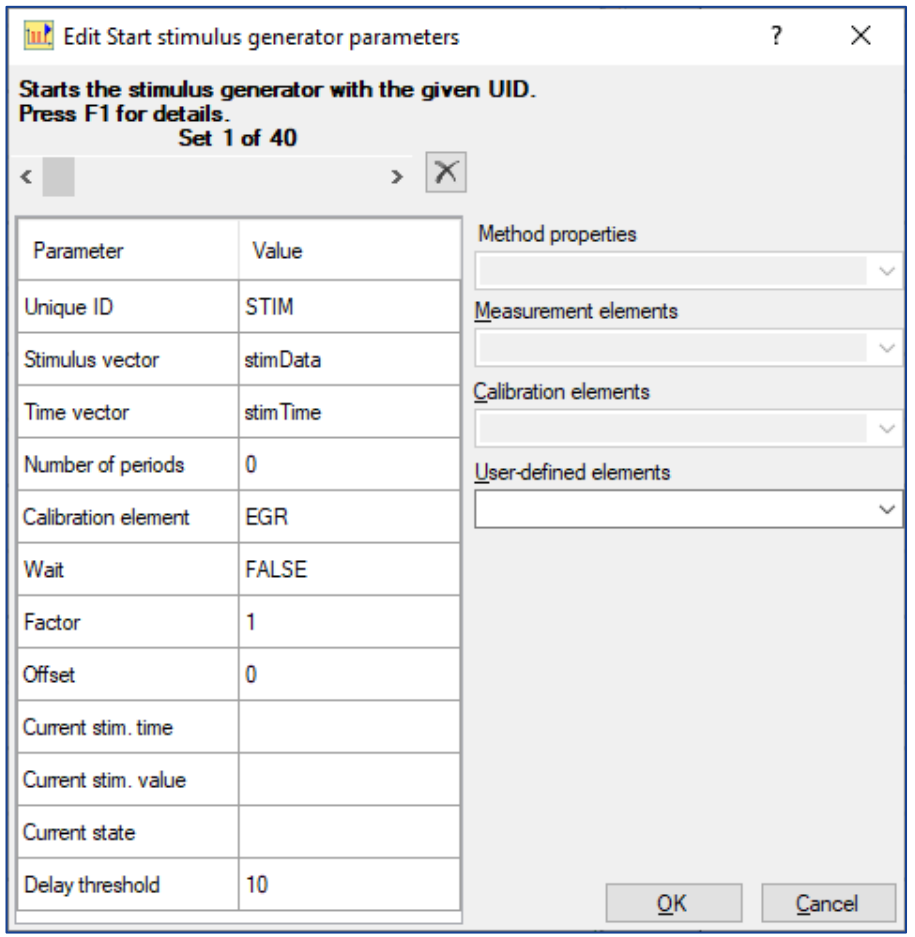
- The customer wants to associate the measured data with the experiment/block id of ASCMO. But the method cannot get the current experiment/block id.

Solution

- Added new parameters for “ASCMO ODCM next experiment” to retrieve the current experiment and block id.

Extension of Methods

Start stimulus generator: Option to abort if delay occurs



Motivation

- Sometimes the stimulus generator does not update the stimulus value. If it occurs, the test will be void and the customer must retest. The customer wants to detect the delay of the generator during the process execution and restart the recording immediately.
- A new optional parameter ‘Delay threshold’ is required. If the generator encounters the respective number of delays, it will abort with failure.

Solution

- Added the parameter ‘Delay threshold’ to “Start stimulus generator”.

Other Improvements

CAN interface: Native support of Vector drivers (vxlapi64.dll)

Motivation

- By adding the support for CANape automation, INCA-FLOW is able to access Vector CAN drivers without ETAS BOA.

Solution

- Implemented access to Vector CAN drivers via vxlapi64.dll.

Model interface: Support of FMI 3.0

Motivation

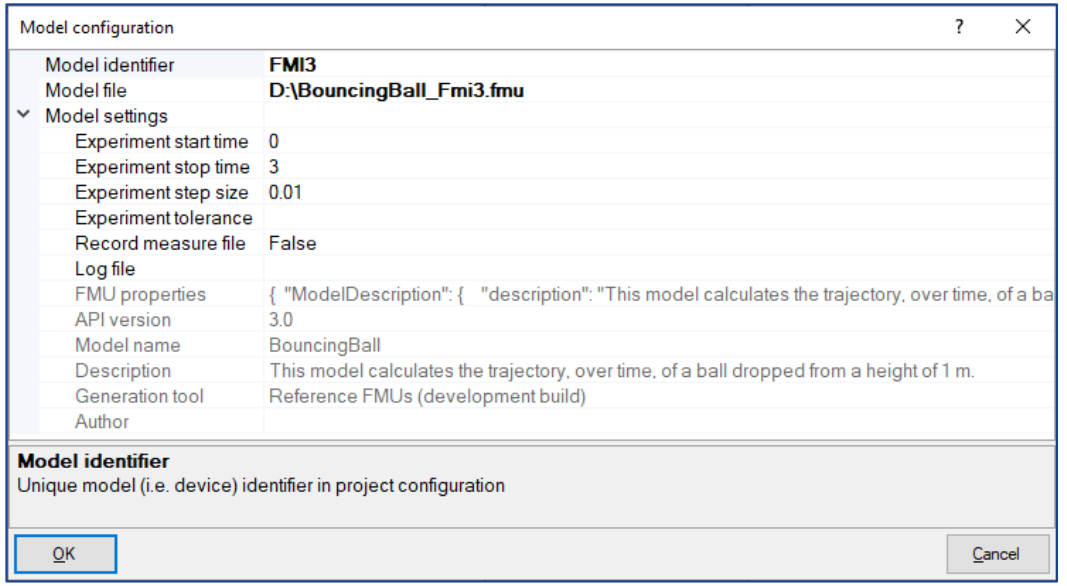
- The FMI 3.0 standard has been released in 2022.

INCA-FLOW should support the new model interface.

With FMI 3.0, arrays and matrixes are part of the standard.

Solution

- Implemented the new interface for FMI 3.0 according to the new standard.



Other Improvements

Using environment variables in processes

Motivation

- For automation it is practical, to use environment variables *e.g.,* for specifying path names dynamically. This makes processes more generic and portable.

Solution

- Environment variables can now be used with this syntax: $ENV%<NAME>, like $ENV%TEMP. They do not appear in the user-defined elements list and must be input manually into method parameters, like ::$ENV%RECORDINGPATH\measure.mf4

Stand-alone executable: Optional deactivate breakpoints at export, speed up loading time

Motivation

- Usually, breakpoints are used for process debugging. So, it makes no sense to export them with stand-alone processes.
- The loading of stand-alone processes takes much longer compared with the loading of processes in INCA-FLOW.

Solution

- Added an option for stand-alone exports, to export breakpoints, too (default).
- Changed the data format of *.si.cal* files. This **decreases the file size to about 10 times** and improves the loading time.

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For more information:

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