

INCA-FLOW V4.17: What's New

New functionalities:

- Support of INCA v7.5
- Licensing: Feature version upgrade
- Interface to data management and collaboration tool

New methods:

- DoE plan init
- DoE plan add ramp
- DoE plan add monitor
- DoE plan run
- Restart Jump at event

Extension of methods:

- Backup elements
- ASCMO Train model
- Start stimulus generator
- Visualization

Other improvements:

- Station settings
- Interpreter options
- Stand-alone executable
- VDT

New Functionalities

General

Support of INCA v7.5.x

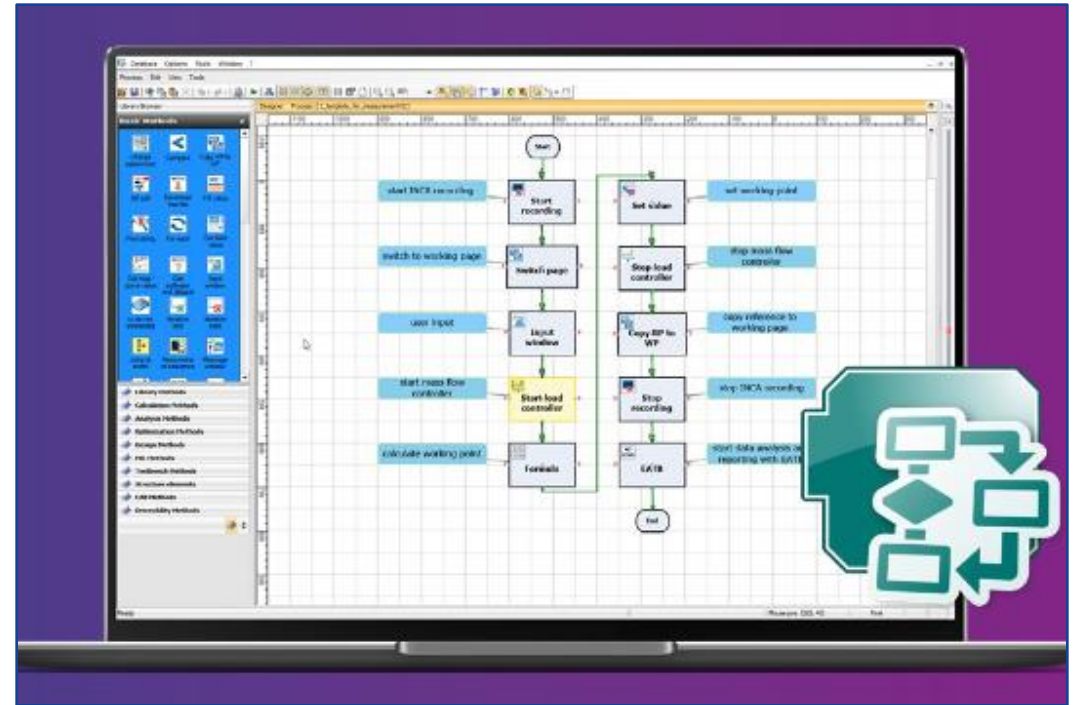
- Support the newest version of INCA

Licensing

- Feature version upgrade from v3.0 to v4.0 for all licenses incl. toolboxes

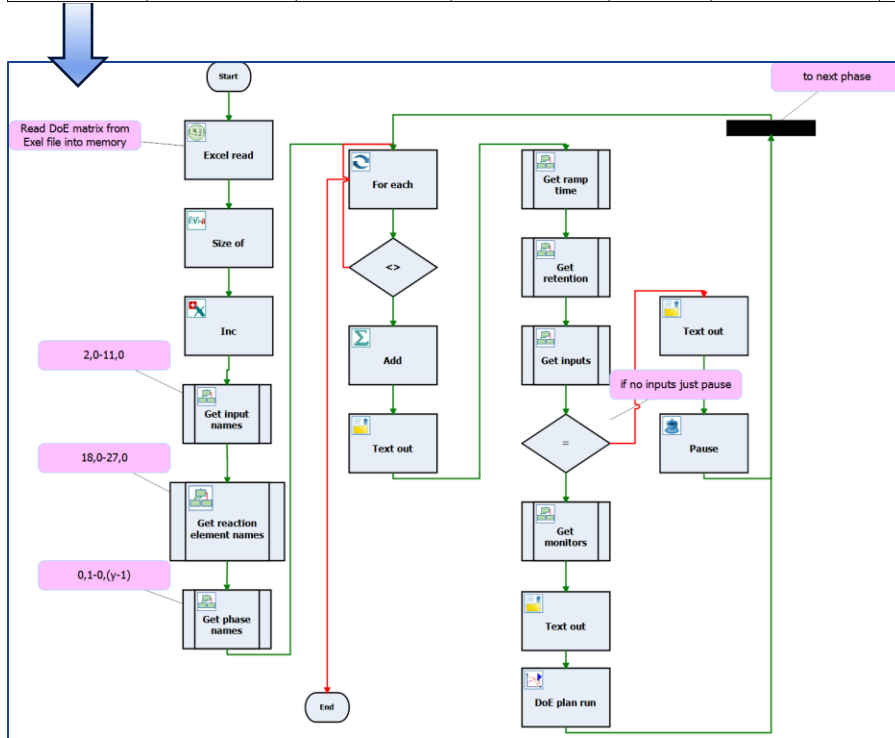
Interface to data management and collaboration tools

- as e.g., dSpace SYNECT
- additional options for automating stand-alone executables, new DoE methods, extension of stimulus generator



New testbench methods for DoE plan creation and execution I

Step No.	Ramp time [sec]	Parameter A	Parameter B	Time [sec]	Variable name	Threshold (Upper)	Threshold (Lower)	Judgment time [sec]	Reaction type
1		1	100	180	Variable A		50	1	Abort
2	10		200	180	Variable A		70	1	Abort
3				60					
4	10		400	180	Variable B	85	75	60	Continue



Motivation

- The current method “*Execute DoE plan*” requires the complete plan to be defined at design-time and, therefore, it cannot be used to process dynamic content.

Solution

- Implementation of the new methods “*DoE plan init*”, “*DoE plan add ramp*”, “*DoE plan add monitor*” and “*DoE plan run*” to create and execute the plan dynamically at run-time.
- The user can read the respective plan with the method “*Excel read*” and process the data iteratively to build and execute the desired ramps.

New Methods

New testbench methods for DoE plan creation and execution II

DoE plan init

Initialize a new empty DoE plan.

DoE plan add ramp

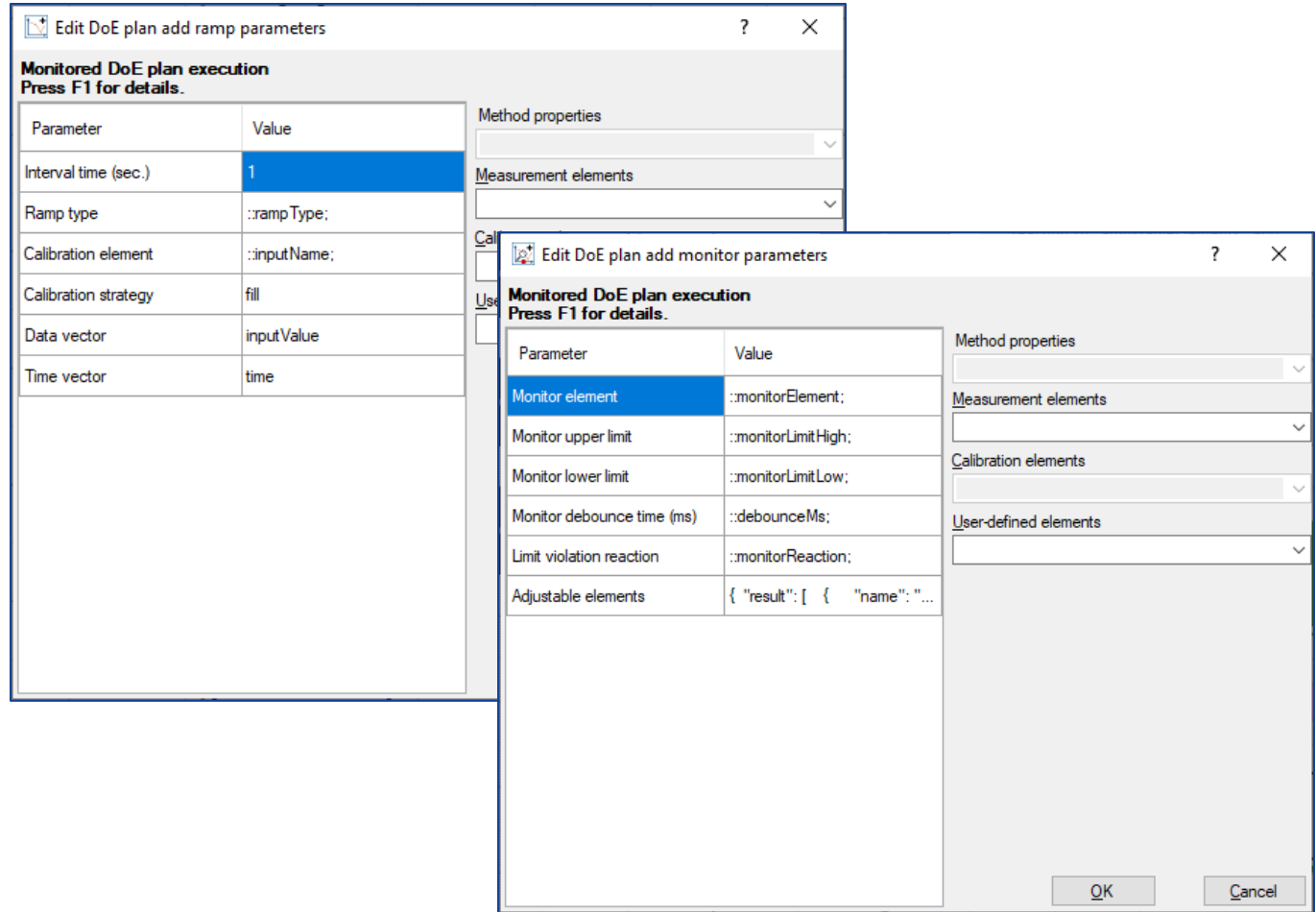
Add a ramp definition to an initialized DoE plan.

DoE plan add monitor

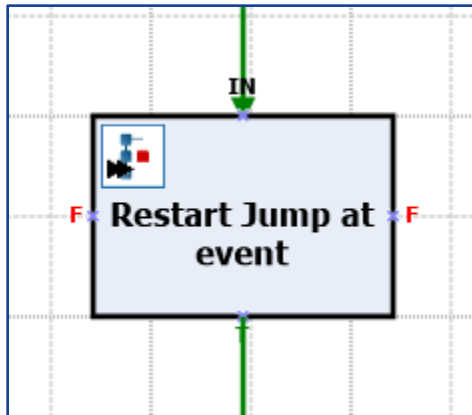
Add limit monitoring to an initialized DoE plan.

DoE plan run

Run the configured DoE plan.



New basic method “Restart jump at event”



Motivation

- In order to re-enable a “*Jump at event*” or “*Event monitor*” trigger after the event has been resolved, it was required to pass through the “*Jump at event*” method again in the process. This is sometimes inconvenient, especially in complex processes.

Solution

- Implementation of the method “Restart jump at event” to re-enable the monitoring anywhere in the process.

Extension of Methods

Backup elements: use .dcm or .lab file to get element names

Parameter	Value
Backup name	Base values
Elements	
Element names from file	d:\mydata.dcm
Target device	ETKC:1

Motivation

- For some use-cases, e.g., multiple test conditions, it is useful to have the option of specifying a *.dcm* or *.lab* file which defines the elements that should be backed up.

Solution

- Added the optional parameters “*Element names from file*” and “*Target device*” to the “*Backup elements*” method.

Extension of Methods

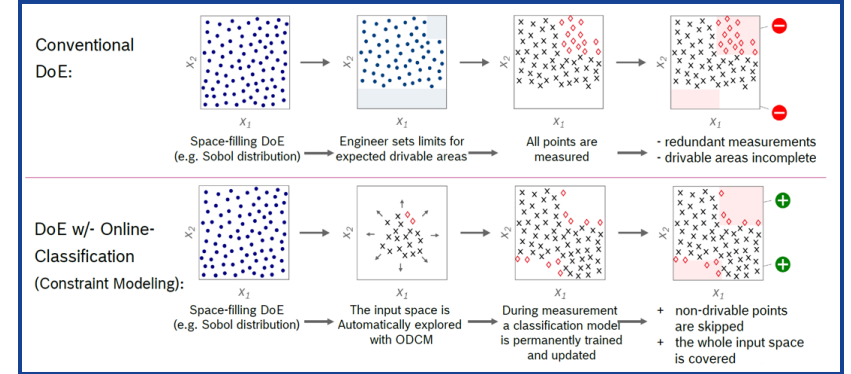
ASCMO Train model: Allow training with data from ODCM

Motivation

- ASCMO model training is not only needed for ASCMO ExpeDes, but also for ASCMO ODCM ExpeDes.

Solution

- Added optional parameter “Outputs” to the method “ASCMO ODCM Set measure state” to provide the output data for the model training.
- "Unique ID" of "ASCMO Train model" can now refer to the ID of an ExpeDes ("ASCMO Load ExpeDes") or ODCM session ("ASCMO ODCM Initialize").



Extension of Methods

Start stimulus generator: New feedback parameters

Starts the stimulus generator with the given UID.
Press F1 for details.

Set 1 of 40

Parameter	Value
Unique ID	MyGenerator
Stimulus vector	stimData
Time vector	stimTime
Number of periods	0
Calibration element	calTarget
Wait	FALSE
Factor	1
Offset	0
Current stim. time	curTime
Current stim. value	curVal
Current state	stimState

Method properties
Measurement elements
Calibration elements
User-defined elements
curTime

OK Cancel

Motivation

- For running multiple stimulus generators in parallel, it is desired to get some feedback of the current generator state.

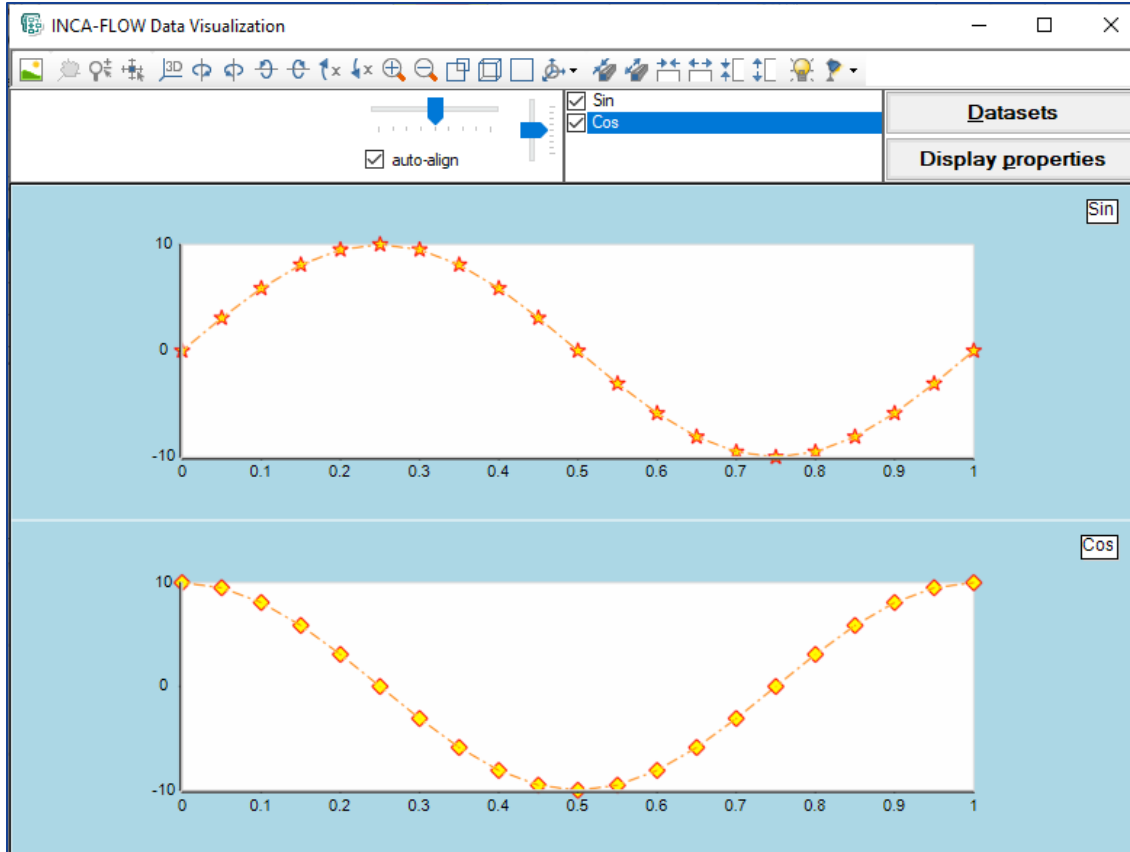
Solution

- Added optional parameters “Current stim. time”, “Current stim. value” and “Current state” to the “*Start stimulus generator*” method.
- The specified elements will reflect the current time, value and state* of the respective stimulus generator.

*(0 = running, 1 = finished, 2 = paused, 3 = stopped, 4 = interrupted, 5 = fail)

Extension of Methods

Visualization: New parameters for background color, line style and markers



Motivation

- Enhanced settings to configure the display of the diagrams with the method “Visualization”.

Solution

- New parameters for “Visualization” for the line style, markers and background color settings for the diagrams.

Other Improvements

Station Settings

Database backup when closing INCA-FLOW

Motivation

- Frequent and automatic database backup.

Solution

- New option in station settings to backup the database when closing INCA-FLOW.

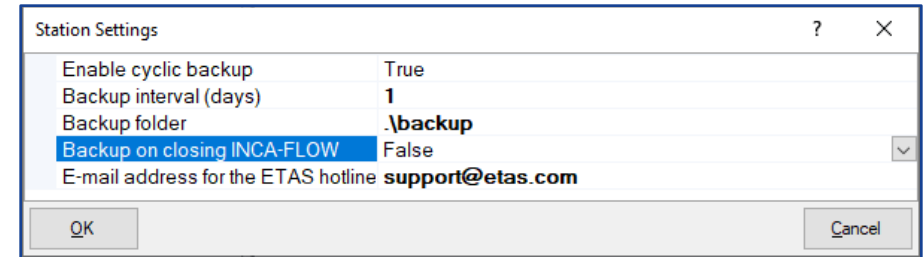
Local ETAS Hotline e-mail address

Motivation

- The local ETAS support e-mail address for automatic email creation after an issue should be configurable, like it is in INCA.

Solution

- The e-mail address can now be set for rollout in the file *setup.ini*, and in the station settings afterwards, too.



Other Improvements

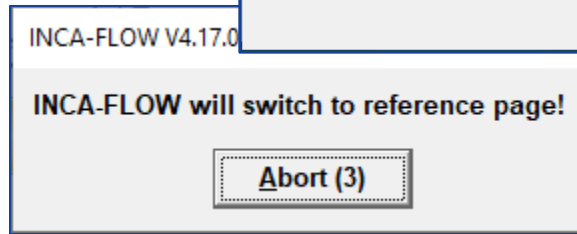
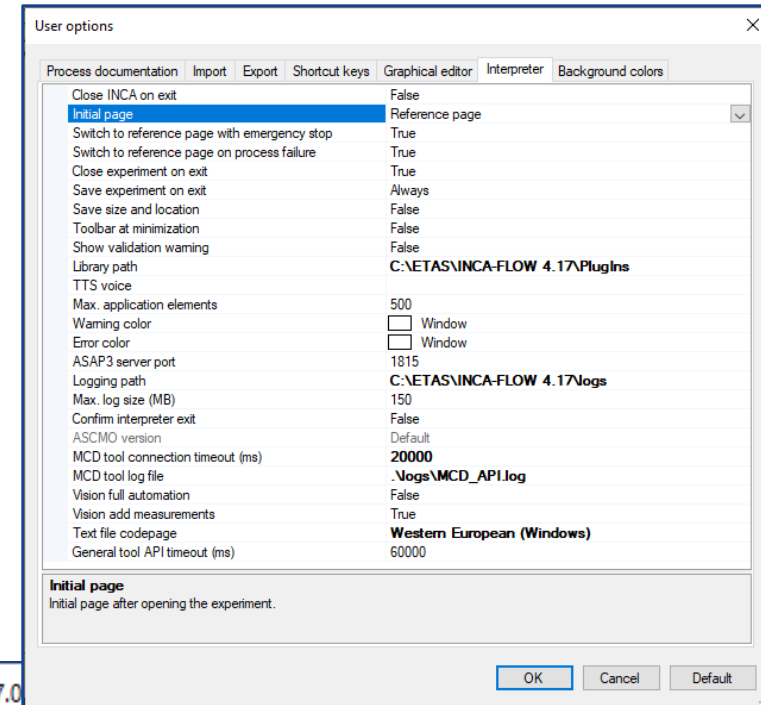
Interpreter option: Initial ECU page

Motivation

- INCA-FLOW was always setting the ECU page to reference page (RP) after connecting to the INCA experiment, but it should be possible to define the initial page.
- When connecting to an open experiment, no ECU page switch should be performed.

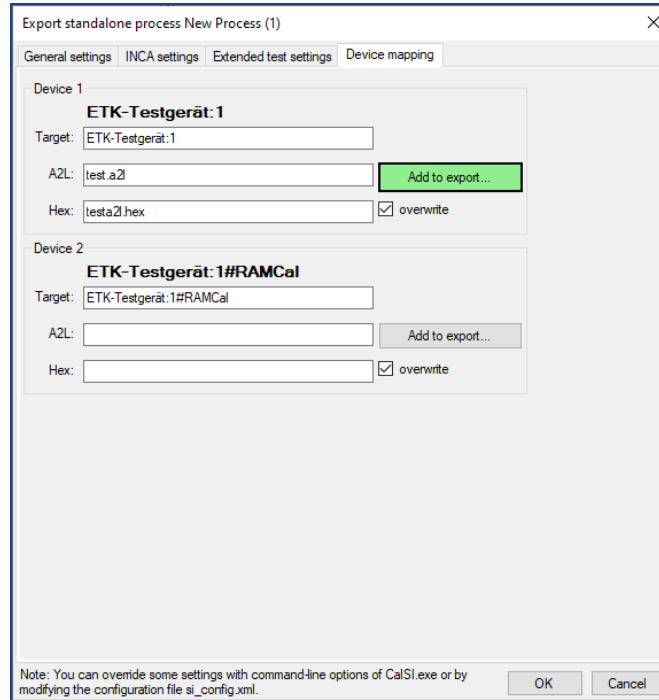
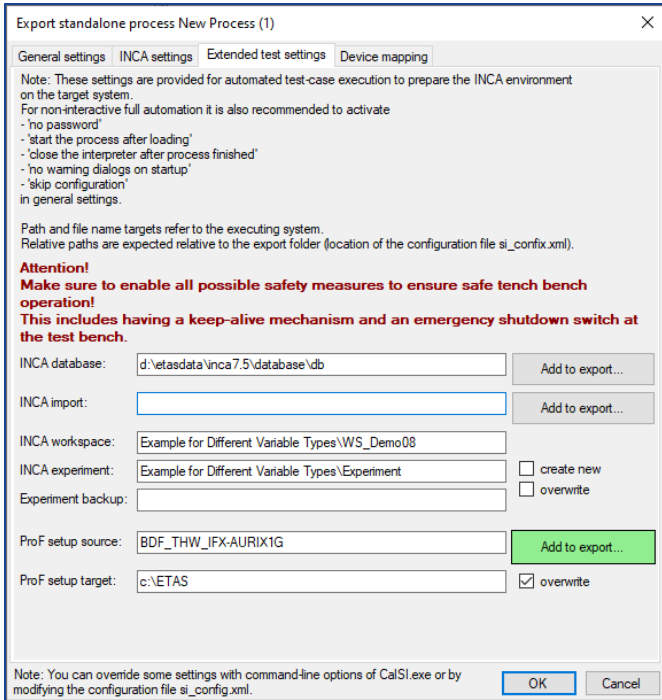
Solution

- Added the interpreter option “Initial page”: Reference Page (default), Working Page or Current page (as defined in INCA Experiment). This setting can also be overridden in the process properties.
- A modeless dialog will be displayed before opening the experiment for 5 seconds, to show the current setting and to allow the user to abort.
- If the required experiment is already open when INCA-FLOW connects, no dialog will be displayed, and no page switch will be performed.



Other Improvements

Stand-alone executable: additional options for automation



Motivation

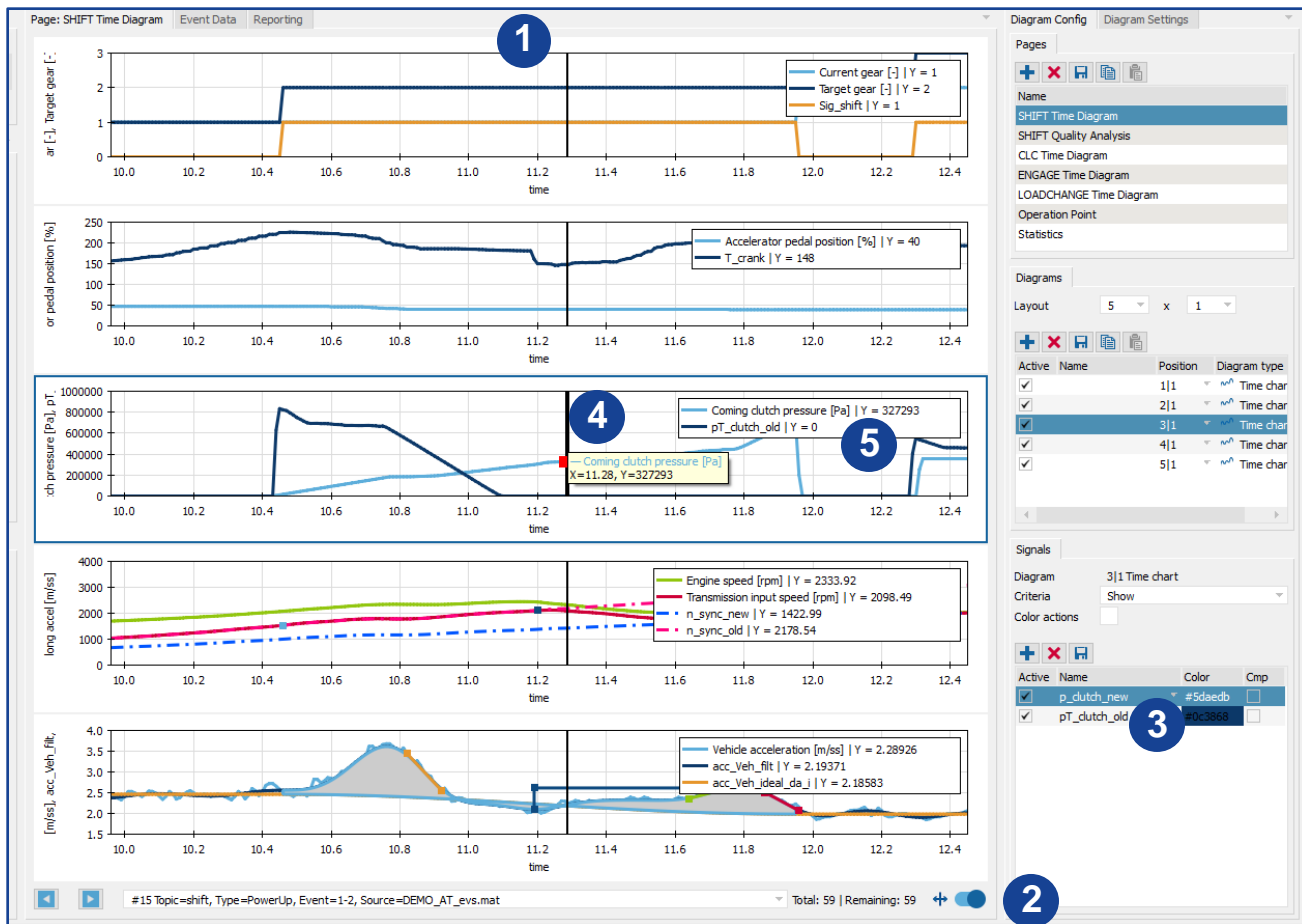
- For interfacing with data management and collaboration tools, it is required to extend the automation capabilities of stand-alone processes.

Solution

- Added options for stand-alone processes to
 - assign new ECU projects to devices
 - create a new empty experiment for the test
 - install a ProF configuration
- These settings are available in the configuration file `si_config.xml` that can be adjusted to adapt the process to the respective test-case.

Other Improvements

VDT: Global Measurement Cursor



Motivation

- Analyzing the drivability test results more in detail

Solution

- An optional global measurement cursor was implemented

1 Cursor appears as a black vertical line

2 Switch to activate/deactivate the cursor

3 Active signal

4 Info box with current values (X/Y axes)

5 All values are displayed in the legend

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For more information

Please visit: https://www.etas.com/en/portfolio/inca_flow.php

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