

imcStudio 3.0



TEST MANAGEMENT FRAMEWORK FOR MEASUREMENT AND CONTROL

Hardware Setup
Real Time Analysis
Test Sequencing
Live Reporting



..... integrated measurement & control

imcStudio: Hardware Setup, Test Sequencing, Real Time Analysis, and Live Reporting

Configure Hardware Settings **2 min**

Drag & Drop GUI Design and data visualization **5 min**

Test sensors at in-situ calibration

Beyond Data Logging



It is 3:00 on Friday afternoon. You just heard that the test vehicle for Monday's test isn't available as planned. But good news: they found you a substitute. Never mind the sensor package is completely different, so you'll need new calibration information for everything, and a new DBC file for the CAN Bus data. Oh, yeah, and a dozen entirely new analog signals, since this vehicle's ECU doesn't have all the signals you need...

COMPREHENSIVE:

Integrating the Basics

- Hardware Configuration
- Data Visualization
- Interactive Analysis
- Synched Video Capture
- Live View Test Reports

Advanced Workflow

- Test Sequence
- Automated Analysis, both Online and Offline
- Test Stand Automation

No problem: you developed your test strategy with **imcStudio!** Initial configuration – and later changes – are quick & easy...

CASE STUDY: FRIDAY AFTERNOON'S NEW TEST SPECIFICATION

Our *Friday Afternoon Test Engineer* first opens the existing test configuration in **imcStudio**, and simply uses Save As to create a new, alternate configuration.

Using the **imcSetup** component of imcStudio to update the CAN channels: updating the DBC settings through the CAN Assistant.

Additional analog channels are enabled in imcSetup, if available. Or if not, can be easily added externally with **CANSAS** modules or **Flex Modules**, depending on the imc system being used.

Name	Connector	Status	Current value	Measurement mode	Range & Scaling	Sampling & Filter
Channel type: Analog inputs						
Acceleration	[01] B001	Active		DC - Linear	#5 V	50 Hz - AAF
IEPE_Microphone	[01] B002	Active	-0.002 Pa	DC - Linear	#1 Pa	50 Hz - AAF
Angle	[01] B003	Active	-2.35 °	DC - Linear	#5000 °	100 Hz - AAF
Main_Temperature	[01] B004	Active		DC - Type K Ni-Cr / Ni	-270...1370 °C	100 Hz - AAF
Channel_05	[01] B005	Passive		DC - Linear	#5 V	100 Hz - AAF
Channel_06	[01] B006	Passive		DC - Linear	#5 V	100 Hz - AAF
Channel_07	[01] B007	Passive		DC - Linear	#5 V	100 Hz - AAF
Channel_08	[01] B008	Passive		DC - Linear	#5 V	100 Hz - AAF

Test meta data is also be updated in imcSetup for this configuration, to help track the necessary changes.

Second, the GUI created for running the test has to be updated. Again, no problem, and no programming, as each element in the **imcPanel** includes an easily configured **property list**. Relinking the gauges to the new analog channels takes only seconds, and adding a new slider display element for a new pressure channel is only a matter of drag & drop.

Third, the test report will also need some additions. While all of the updated channels

are dynamically incorporated, this substitute vehicle also requires some additional documentation. Cloning one of the existing live report pages in imcPanel, our *Friday Afternoon Engineer* can quickly adapt the embedded curve windows to reflect the desired display of new data.

In addition, since our engineer is using **FAMOS** to immediately post process the measurement data, the **FAMOS macros** are extended to include maximum, minimum and average values of the new parameters.



Test Management Framework for Data Acquisition and Control: imcStudio

Apply configurations 7 min

Create printable live test reports 9 min

Incorporate Analysis Macros 11 min

Automate Test Steps 14 min

Deploy! From configuration to deployment in 15 minutes...

...and now you can create your own "Everything-I-Want-and-Nothing-More" App for physical test and measurement

What is imcStudio?

imcStudio 3.0 is the modular software framework for test & measurement engineers. From quick and simple data capture tasks, to fully automated durability tests, imcStudio is built with over 20 years of experience, with one singular goal in mind: **improve your Time to Test.**

imc's approach elegantly solves the seemingly impossible: providing both the broad functionality of a general purpose test and measurement tool, and the pinpoint precision of a customized, integrated data acquisition and control solution – all within the same software environment.

We call it **adaptable complexity**. You'll simply call it amazing.

Combined with any of the imc Measurement and Control Platform based systems, imcStudio allows you can capture, process and visualize any combination of analog and digital signals; in tests that last just a second, or an entire year; perform open and closed loop control; and even integrate existing automation and simulation environments.



Data analysis completes the test and measurement workflow, and imcStudio accomplishes this through the proven **FAMOS** analysis environment. FAMOS Macros may be integrated

through test sequencing, increasing both efficiency and reliability.

These calculated results are then dropped into the new report page.

Since the test sequence is configured independent of the hardware configuration, there is nothing to change in the **imcSequencer**; all channel and FAMOS macro changes will be incorporated automatically.

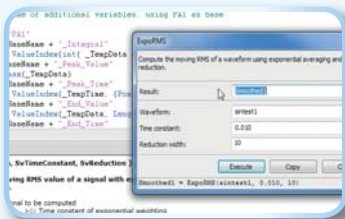
So, there is no need to stay late or work this weekend: everything is ready to go. Come Monday morning, when the test vehicle arrives, our engineer connects the new sensor package and taps into the vehicle's CAN bus. Through imcSetup a quick check is made of the current values of live signals, verifying correct calibration values.

From there, the test technician takes over. As an **Standard imc User**, our technician is locked out of most of the underlying configurations that our engineer, an **Advanced imc User**, can access.

But this security mechanism doesn't present any problems: pressing the

"Start" button in the imcPanel, the test technician is asked (via text-to-speech support) to do the necessary 2-point calibrations (string pots) and bridge balancing (strain gauges).

Back on schedule, the testing can now proceed. As normal. The Friday afternoon surprise didn't present any problems for this test department, exactly because imcStudio is so easy to (re)configure.



HINT:

The successful test strategy is determined by more than channel count and sample rates.

It is all about your Time to Test.



imcStudio: Hardware Setup, Test Sequencing, Real Time Analysis, and Live Reporting

IMCSTUDIO: EDITIONS & OPTIONS

Available in three different editions, imcStudio 3.0 not only meets every physical and mechanical testing environment, but editions are scaled to fit into your budget!

FREE!

	imcSetup	imcPanel	imcControls	Function Repository	Parameter Definition	User Rights Mgr.	Menu & Toolbar Cfg.	imcSequencer	Service Functions	Layout Editor	imcAutomation	imcSensors	imcMonitoring	imcVideo
 <p>"I need to configure and use my imc system for basic data logging and reporting, or running setups from others."</p> <p>Studio Standard</p>	S	S	S R	✓	✓			R			R			
 <p>"Visualization is cool, but I need to create and deploy a measurement app with automatic analysis & report."</p> <p>Studio Professional</p>	✓	✓	✓	✓	✓	✓	✓	✓			○	○	○	○
 <p>"I need to integrate all test stand measurement and control, deploying robust apps for non-experts to use"</p> <p>Studio Developer</p>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓: Included; ○: Optional Extra; S: Subset of the full feature set. R: Runtime feature of Standard Edition can use, but not modify, configurations created with higher editions of Studio. Note: imc FAMOS and/or Online FAMOS must be purchased separately if analysis functionality is desired.

STUDIO LICENSING FOR YOUR ENTIRE GROUP

Quantity Discounts!



Single User	License is assigned to each user's PC
Network	Concurrent licenses for unlimited PCs sharing a pool of licenses via your network

Multiple computers per user or license? Not to worry: we have you covered. Contact us for details.

TRY IT YOURSELF: FREE DEMO

imcStudio Standard is included with every imc measurement system.

Experience the full power of Studio for yourself: **30-day free FULL INTEGRATOR** edition included with Studio Standard.

And be sure to tell your colleagues about the **free FAMOS Reader** for offline data viewing: save even more time by avoiding time wasting data exporting!

HOTLINE

Questions on Setup and Operation, Repairs, Updates, Calibrations, and System Upgrades

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