

imc STUDIO Scaling Issue (Summary)

Reference #044826

What is it?

When using CRONOS amplifiers with **changing user-defined scaling**, there were rare situations where you could experience inconsistent updating of that scaling. **Loading and directly starting an Experiment has always been safe and not affected by the following scenario!** Only, when manually modifying an existing experiment, resulting data could have been erroneous, differing from indicated scaling in the GUI. Typical situations to be considered are the **use of load cells and pressure sensors**.

A simple **workaround (“Reconfigure”)** could fix the situation and is applicable with all former Software versions. Starting with **imc STUDIO 2026 R1**, **this workaround is no longer necessary**; scaling errors have been fixed, and experiments with such issues are no longer generated.

What do I need to know?

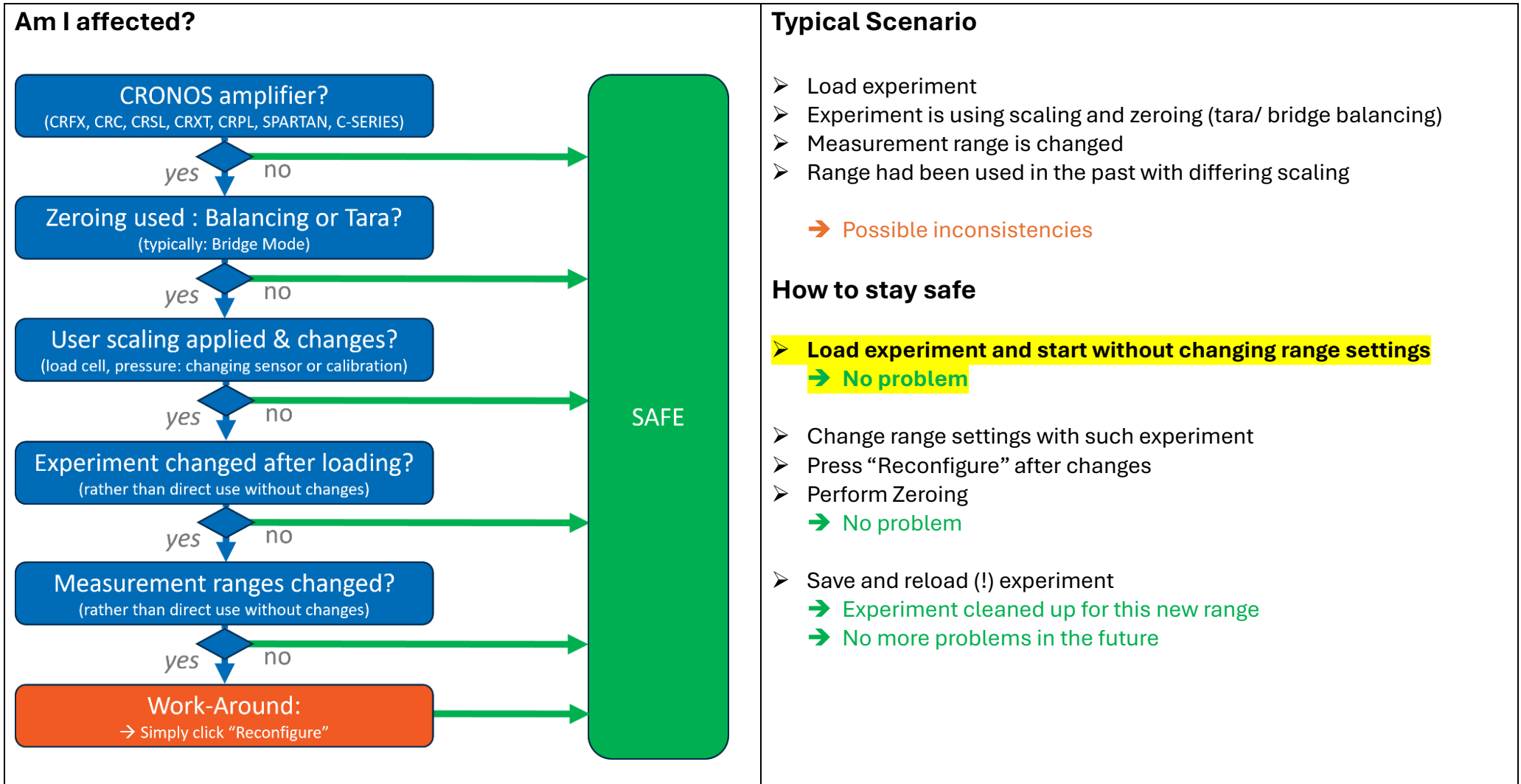
In any case, we recommend updating to the latest version of **imc STUDIO 2026 R1**, which also offers a wide range of improvements in performance, user-friendliness, functionality, and stability.

Bug fixes and service packs for older versions, particularly **STUDIO 2025 R5** and **STUDIO 5.2** are also available.

The likelihood of being affected by this error is rather low, as many prerequisites and operating conditions must be met simultaneously. The following information will help you accurately assess this **likelihood and plan workarounds** when using older software versions.

What to do when using older STUDIO Versions?

Overview:



When can it happen?

All of the following conditions must be fulfilled (AND) - *otherwise there is no problem:*

Condition	Aspect	Details	Relevance, typically affected workflow
	CRONOS amplifier	Modules and Devices of CRONOS platform: • CRONOSflex (CRFX) • CRONOScompact (CRC) • CRONOS-SL (CRSL) • CRONOS-XT (CRXT) • SPARTAN (SPAR) • C-SERIES (CS, CL)	• Data Logger Systems • ARGUS and EOS platform not affected. • CANSAS modules not affected
AND	Bridge balancing or Tara	Measurement mode involving manual zeroing mechanism	Typically bridge mode, Tara not used that often
AND	User scaling	Manually edited scaling factors involved like sensor with 10.2 kN / mV/V	• Typically load cells, pressure sensors and physical sensors based on bridge mode. • Tara is seldom used, except for fully conditioned 10V transducers for force and pressure • K-factor scaling with strain gauge is NOT affected!
AND	Scaling changes	Editing of changed scaling factors might as well have occurred back in the past, during the entire history of the experiment configuration.	• Change of sensor type with differing sensitivity. • Re-calibration of transducers
AND	Change of measurement range	Changing the range of a channel AFTER scaling changes have occurred in the past	• Aiming for well adapted range that best matches changing load conditions of a test
AND	New range had previously been used	New target range had been in use before – back then with old, outdated scaling, and it had undergone zeroing procedure at that time	• Experiment might have been used and refined for a long time and been operated with different scalings and ranges in the past • Inconsistent internal backup of involved parameters is the root cause of the discussed issue...
AND	Changing an existing experiment	Range changes are conducted, when starting from an existing experiment and modifying it	• Only interactive changes of range are critical • Directly loading and operating a stored experiment is always safe. Even changing the experiments ranges, Reconfigure, saving and reloading it will prevent any such errors.

What can happen and how to prevent it?

- The imc **STUDIO GUI (amplifier setup menu)** will show the new range with **correct scaling**, reflecting the latest setting which should be “globally” valid for that channel, regardless of selected range setting.
- Inconsistency occurs such that the **acquired data as shown in curve window and stored to disk are scaled with incorrect scaling** data, thus not fully reflecting reality. The applied scaling values actually correspond to the outdated scaling that had been in place in the past, when this range had been used before and zeroing operation had been carried out

Workaround: immediate fix with former Software versions (before 2026 R1)

First of all, this error can only occur when a loaded experiment configuration is not operated immediately but undergoes changes in range settings. Otherwise, there should be no concerns at all!

- **Manually enforcing a “Reconfigure” action will clean up and settle any inconsistencies** at any time and establish a correct state for measurement

Consequently, we advise carrying out this extra step in any situation that might be affected:

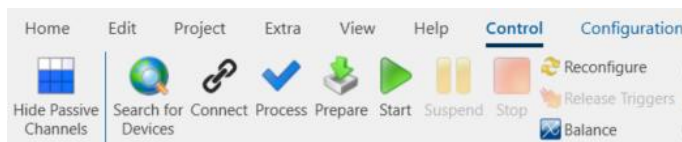
Following changes in range settings and provided that all the other “required” relevant conditions are fulfilled (*AND*, as mentioned above) that define a situation that might be risky at all.

This will ensure consistent and correct data until the comprehensive solution is in place which will consist in a new software update.

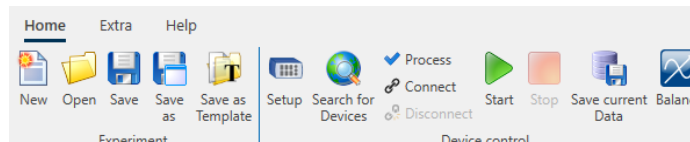
The **improved software is of course no longer requiring that extra “Reconfigure”** step and will no longer create such prone experiments.

In the imc STUDIO GUI, the menu button for “Reconfigure” is available only in the **“Complete” view setting**. It is not provided in the “Standard” view setting. So please change the view to “complete” to make it accessible:

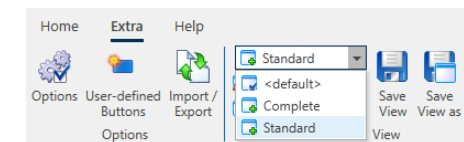
“Complete” view



“Standard” view



Change view



Background information

Tara and bridge balancing

Tara and bridge balancing operation and the resulting offset values to be compensated do in fact depend on the chosen measurement range. This is due to electrical amplifiers multistage architecture. The imc STUDIO software does actually preserve these zero compensation values in internal backup structures after each successful zeroing action. This is intended to even **allow range switching without redoing the zeroing procedure** (which can be difficult in real life as neutral conditions need to be established), provided a valid backup value already exists that can be restored. So, this is in fact a very **beneficial feature**. However, the currently implemented messages that are issued in that context may be rather misleading as they are indicating otherwise.

Technical background

When restoring historical calibration values that depend on the measurement range, the scaling factors that were valid at that time may also become effective again under the described conditions.

Legal note

The information set out in this document reflects the current status of the technical investigation and is provided, for the sake of completeness, without admission of any legal obligation and without prejudice.

Software Release Roadmap and Updates

Software Versions and Bug-Fix Revisions

imc STUDIO 2026 R1 released in Sept. 2026 is the latest version. It is fully compliant to correct handling of scaling issues. This is the version that we do **recommend in all cases**.

For the predecessor imc STUDIO 2025 R5 we are offering a bug fix service pack, free of charge.

We explicitly **recommend an update** to the latest 2026 version for all users that still work with former versions like 2022 ... 2025. This is not only for the mentioned scaling issue but in particular because the version progressions of the last years have provided step by step a whole lot of important and useful feature extensions as well as much progress in terms of **performance, stability and usability**.

Version	Scaling issue	Release date	Solution options	Update Pricing	Remarks
imc STUDIO 2026 R1	Clean	Sept 2026			Recommended latest version
imc STUDIO 2025 R5	affected	21.05.2026	2025 R5 Service Pack ("R6") 2026 R1	Free of charge for 2025 customer imc STUDIO-xx-UP1	Bug fix for 2025 Regular Update to latest 2026
imc STUDIO 2024	affected	2024	2026 R1	2 x imc STUDIO-xx-UP1	
imc STUDIO 2023	affected	2023	2026 R1	3 x imc STUDIO-xx-UP1	
imc STUDIO 2022	affected	2022	2026 R1	90 % of full license (STUDIO-UP4+)	Special discount for >= 4 steps
imc STUDIO 5.2	affected	27.02.2024	5.2 R25 Service Pack ("R26") 2026 R1	Free of charge for 5.2 customer 90 % of full license (STUDIO-UP4+)	Some applications still require 5.2
imc STUDIO 5.0	affected				
imc DEVICES	Clean	any			

Older Versions imc STUDIO 5.x

While some applications still require imc STUDIO 5.x , (compatibility with certain custom extensions or video support), we also offer a solution service pack to update and operate on imc STUDIO 5.2 R25. Transition to STUDIO 2026 is encouraged by an extra discount of 10% on the full license price.

Use of older versions imc DEVICES without imc STUDIO (outdated GUI and limited functionality) is not affected.