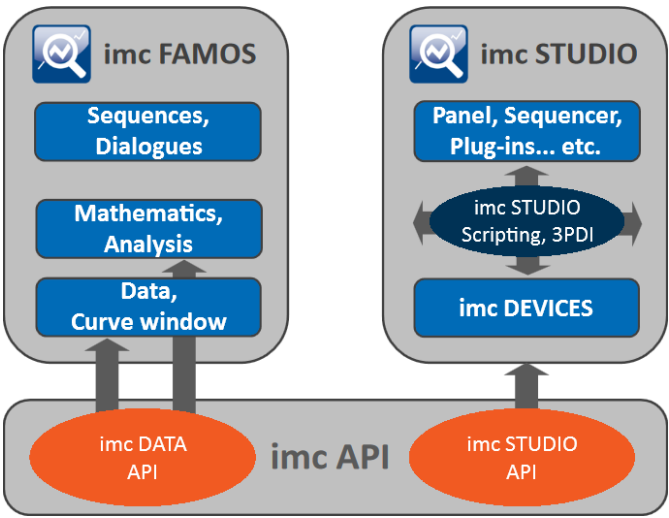


imc API

Software Development Components



imc API offer a collection of .NET-components particularly designed to solve issues associated with measurement engineering and measurement data processing. The functionality provided covers broad ranges of the fields of managing, presenting and evaluating data. The components can be used by any Windows programming environment that supports .NET technology (C#, Managed C++, Visual Basic).

The imc DATA API provides functions for data objects (Data Manager), curve windows (Curve Control / Window) and imc FAMOS mathematics (including ClassCounting, SpectralAnalysis, OrderTracking).

The imc STUDIO API allows to launch, operate and control imc STUDIO from within an external application. It can be viewed as a "remote control" of imc STUDIO, to be embedded into an independent customers master application (supported from imc STUDIO 5.2).

Order code	description	article no.
API-DEV	imc API Developer license Complete Developer package with Developer license <i>Only in conjunction with application projects and with direct consulting of department imc CustomerSolutions</i>	10100199
API-RUN	imc API Runtime license Execute application on one dedicated target system (no secondary activation allowed) supervised by imc LICENSE Manager	10100202
API-DEV-UP1	imc API Update (for Developer license) from 32 Bit to 64 Bit version <i>Only in conjunction with application projects and with direct consulting of department imc CustomerSolutions</i>	10100257

The imc API is comprised of the two packages:

- imc DATA API (data, maths, visualization)
- imc STUDIO API (remote controlled operation of imc STUDIO as a component)

Data object management (Data Manager)

.NET Assembly	imc.Common.Components.DataObjects.dll
Contents	<ul style="list-style-type: none"> • Loading and saving of measured data in the FAMOS (*.dat) format • Import and export in other formats (e.g. MDF, ATFX) • Easy processing of channel data by means of specialized data objects with adapted methods (e.g. for events, segments, properties) • Simple data objects for texts, text arrays as well as groups

Curve window (Curve control / window)

.NET Assembly	imc.Common.Controls.ImcCurves.dll
Contents	<ul style="list-style-type: none"> • Display of measured data in a separate window or as a control widget in an arbitrary user-designed window • Configuration of the window or control widget using an extensive set of methods and properties of the window/widget object (e.g. adding channels, setting the display type, ...) • Configuration of the display elements within the curve window by means of specialized objects and their methods (e.g.: coordinate system, axes, lines) • Loading and saving of pre-defined window configurations (*.ccv files) • Support of the MS Visual Studio development environment's Designer

imc FAMOS Analysis functions (signal analysis)

.NET Assembly	imc.Common.Components.Famos.dll
Contents	<ul style="list-style-type: none"> • Standard mathematic functions (e.g. trigonometry, arithmetic, ...) • Calculus functions (e.g. differentiation, integration, ...) • Comparator functions • Signal editing functions (e.g. ramp, set bit, ...) • Filtering functions (e.g. low-pass, smoothing, bandpass, digital filters, ...) • Interval calculations • Power calculations (single- and multi-phase signals) • Matrix calculations • Mathematics with complex data (e.g. Nyquist plots, transfer functions)

Class counting

.NET Assembly	imc.Common.Components.ClassCounting.dll
Contents	<ul style="list-style-type: none"> • Counting functions in accordance with DIN 45667 (Peak, Range, ...) • 1- und 2 dimensional histograms • Rainflow analysis, damage accumulation

Spectral analysis

.NET Assembly	imc.Common.Components.SpectrumAnalysis.dll
Contents	<ul style="list-style-type: none"> • Narrow band spectra, power density, Cepstrum, cross-power • 1/3-octave spectra • Advanced filter functions • Loudness • Noise evaluation (e.g. ISO 2631)

imc STUDIO API

- The imc STUDIO API is provided as part of the installation of imc STUDIO Developer.
- The programming language is a .NET programming language (e.g. C#, Visual Basic .NET) .
- API of imc STUDIO 5.2: The projects must be build as 32-bit version.
- API of imc STUDIO 202x: The projects must be build as 64-bit version.

Contents	<p>Content: The imc STUDIO API (ApplicationInterface) is a programming interface which provides both the ability to freely develop programs and also fundamental functions belonging to imc STUDIO, such as:</p> <ul style="list-style-type: none"> • reading and writing of device and channel settings (Setup), • access to the Panel and the Widgets, • access to the Data Browser: creating, reading and writing variables, • executing menu actions in the ribbon, • executing Sequencer commands, • reaction to events.
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System requirements

Supported operating systems - imc DATA API	Minimum requirements for the PC
Windows 10*/11**	Hyper-Threading or Dual Core processor with 2 GHz clock rate
Windows 8.1	4 GB RAM
Windows 7	100 MB free hard disk space (recommended: SSD)
Supported operating systems - imc STUDIO API 5.2	Microsoft .NET Framework
Windows 10*	version 4.0.30319 for imc STUDIO API 5.2
Windows 8.1	version 4.8 for imc STUDIO API 202x
Windows 7	
Supported operating systems - imc STUDIO API 202x	
Windows 10*/11* (64 bit)	
*released in conformance with the version of Windows 10/11 applicable at build date of imc software	
**verified with Windows 11 22H2	

Recommended development environment

- Microsoft Visual Studio 2019 or higher

Licensing

Each license is issued for a single workstation. The imc LICENSE Manager supervises the licenses for: API-DEV und API-RUN

imc API is not included in the imc STUDIO Developer license:

- separate license contract for imc API

Enables the following functionalities:

- imc DATA API and imc STUDIO API (not available separately)

Product package

Download link to the packages:

- imc DATA API
- imc STUDIO API

Both packages can be found on the imc STUDIO installation media in the "*Products\Development*" subdirectory.



An Axiometrix Solutions Brand

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imc ACADEMY - Training center

The safe handling of measurement devices requires a good knowledge of the system. At our training center, experienced specialists are here to share their knowledge.

E-Mail: schulung@imc-tm.de

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International partners

You will find the contact person responsible for you in our overview list of imc partners:

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