



MOSEK Release notes
Release 11.0.2(BETA)

MOSEK ApS

13 December 2024

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Chapter 1

Supported platforms

Below are the **minimal requirements** for various **MOSEK** interfaces and operating systems. In some cases using **MOSEK** with older versions of the software will be possible, but is neither actively supported nor tested.

Operating systems

Table 1.1: Operating systems

Platform	Minimal OS version	Specific library dependencies
linux64x86	RHEL 8, Ubuntu 20.04 or compatible	GLIBC 2.17, GLIBCXX 3.4.21
win64x86	Windows 10, Server 2016	
linuxaarch64	Ubuntu 20.04 or compatible	GLIBC 2.29, GLIBCXX 3.4.26
osxaarch64	macOS 11	

Optimizer API and Fusion API

Table 1.2: Optimizer API and Fusion API (where available).

Platform	C	C++(Fusion)	Java	.NET	.NET Core	Python	Julia	Rust
linux64x86	Yes	C++11	1.8	–	netstandard2.0	3.9-3.13	1.6	1.59
win64x86	Yes	C++11	1.8	4.5	netstandard2.0	3.9-3.13	1.6	1.59
linuxaarch64	Yes	C++11	1.8	–	netstandard2.0	3.9-3.13	1.6	1.59
osxaarch64	Yes	C++11	17	–	netstandard2.0	3.9-3.13	1.6	1.59

API for MATLAB, Rmosek and other MOSEK tools

Table 1.3: Other APIs and tools.

Platform	API for MATLAB	Rmosek	OptServer	OptServerLight	Imgrd	Toolbox (old)
linux64x86	R2021a	3.6	Yes	Yes	Yes	R2019b
win64x86	R2021a	3.6	Yes	Yes	Yes	R2019b
linuxaarch64	–	–	–	Yes	Yes	–
osxaarch64	R2023b	4.1	–	Yes	Yes	R2022b

Other distribution channels

- pip package. <https://pypi.org/project/Mosek/>
- NuGet package. <https://www.nuget.org/packages/Mosek/>
- Julia package. <https://github.com/MOSEK/Mosek.jl>
- Rust package. <https://lib.rs/crates/mosek>

Other remarks

- Numpy is required in Python Fusion.

Chapter 2

Major changes

Specific information regarding particular APIs, parameters and portability of code from version 10 can be found in the section *Interface changes* towards the end of the respective manual. This section lists general changes throughout **MOSEK**.

2.1 Release notes for 11.0

2.1.1 New features

Mixed-integer optimizer

- Major performance improvement of the mixed-integer optimizer.
- Restarts can now be initiated at any point during the solution process if the solver estimates the remaining search space to be large (`MSK_IPAR_MIO_MAX_NUM_RESTARTS`).
- If a problem can be split into independent components the solver can exploit this structure by solving them in parallel (`MSK_IPAR_MIO_INDEPENDENT_BLOCK_LEVEL`).
- Improved separator for clique cuts
- Enhanced large neighborhood search heuristics and new rounding heuristics
- Increased presolve speed, particularly for large problems

New API for MATLAB

- A new **MOSEK** API for MATLAB, which supports linear and conic problems and their mixed-integer versions.
- The new API has a convenient syntax and allows for building the optimization problem in chunks in an intuitive way.
- See <https://docs.mosek.com/11.0/matlabapi/index.html>

Optimizers

- The interior-point optimizer can exploit folding for linear problems to reduce problem size.

Interface

- Introduced an option to write the dual of the current problem to a file (command-line tool, Optimizer API).

Platform support

- Python support is now 3.9-3.13.

Licensing

- FLEXlm is at version 11.19.6. Upgrade of floating license servers is required to use clients from **MOSEK** 10.1 or older.

2.1.2 Deprecations

- Conic constraints restricted to $x \in \mathcal{K}$ for a variable x are deprecated and will be removed in a future major version. Use affine conic constraints instead. This affects mainly the Optimizer API.
- The OPF file format for conic problems is deprecated in favor of PTF.
- The old **MOSEK** Optimization Toolbox for MATLAB remains supported, but will eventually be phased out and replaced by the new API.

2.1.3 Removed features

Platform support

- Dropped support for `osx64x86` (Apple Intel).
- Dropped support for `win32x86` (Windows 32bit).
- Dropped the `conda` package. Use `pip` instead.

Chapter 3

Bug fixes

11.0.2(BETA)

- Fixes in remote optimization, simplified client protocol, fixes in OptServerLight.
- Removed unneeded library dependencies on Windows.
- Fixed bug that incorrectly triggered an assert on some ill-posed conic problems.
- Fixes in the Optimzier API for Rust.
- Syntax change in `Var.repeat` in *Fusion*.
- Fixed a bug in task file reader.

11.0.1(BETA)

- Fixed an issue with an assert.
- OptServer upgrade, reorganization and documentation.
- Various small updates.
- Fixed an error allowing incorrect names in LP files.

11.0.0(BETA)

- First beta release.