

MOSEK ApS

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## Introduction

This guide describes how to install the MOSEK Optimization Suite.

In general **MOSEK** Optimization Suite must be installed on any computer where **MOSEK** is used and this is called a *client installation*. In addition if a *floating license* is employed then a license token server must be set up, either on the client computer or on another computer. Note that trial licenses and academic licenses are NOT floating licenses.

# **Contact Information**

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	support@mosek.com	Technical support, questions and bug reports
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You can get in touch with  $\mathbf{MOSEK}$  using popular social media as well:

Blogger	https://blog.mosek.com/
Google Group	https://groups.google.com/forum/#!forum/mosek
Twitter	https://twitter.com/mosektw
$\mathbf{Google} +$	https://plus.google.com/+Mosek/posts
Linkedin	https://www.linkedin.com/company/mosek-aps

In particular **Twitter** is used for news, updates and release announcements.

## License Agreement

Before using the MOSEK software, please read the license agreement available in the distribution at <MSKHOME>/mosek/9.0/mosek-eula.pdf or on the MOSEK website https://mosek.com/products/ license-agreement.

MOSEK uses some third-party open-source libraries. Their license details follows.

#### zlib

MOSEK includes the zlib library obtained from the zlib website. The license agreement for zlib is shown in Listing 3.1.

## Listing 3.1: zlib license.

zlib.h -- interface of the 'zlib' general purpose compression library version 1.2.7, May 2nd, 2012

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### fplib

MOSEK includes the floating point formatting library developed by David M. Gay obtained from the netlib website. The license agreement for fplib is shown in Listing 3.2.

Listing 3.2: fplib license.

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#### **Zstandard**

**MOSEK** includes the *Zstandard* library developed by Facebook obtained from github/zstd. The license agreement for *Zstandard* is shown in Listing 3.3.

Listing 3.3: Zstandard license.

#### BSD License

For Zstandard software

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## Installation

## 4.1 Only Python

If **MOSEK** is *only* used from Python, then to easily install the latest version together with all the binary dependencies we recommend:

• Users of the Anaconda Python distribution can install MOSEK as an Anaconda package, see <a href="https://anaconda.org/MOSEK/mosek">https://anaconda.org/MOSEK/mosek</a>. The quick way is

```
conda install -c mosek mosek
```

• Alternatively use the PIP installer with:

```
pip install -f https://download.mosek.com/stable/wheel/index.html Mosek --user
```

(skip --user for a system-wide installation).

## 4.2 General setup

### 4.2.1 Linux

- 1. Download the Linux 64bit x86 MOSEK Optimization Suite distribution from https://mosek.com/downloads/ and unpack it into a chosen directory.
- 2. Optionally add the path

```
<MSKHOME>/mosek/9.0/tools/platform/linux64x86/bin
```

to the OS variable PATH, where <MSKHOME> is the directory where  $\mathbf{MOSEK}$  was installed.

### 4.2.2 Mac OS

- 1. Download the MAC OS 64bit x86 MOSEK Optimization Suite distribution from https://mosek.com/downloads/ and unpack it into a chosen directory.
- 2. Run the command

```
python <MSKHOME>/mosek/9.0/tools/platform/osx64x86/bin/install.py
```

where <MSKHOME> is the directory where MOSEK was installed. This will set up the appropriate shared objects required when using MOSEK.

3. Optionally add the path

<MSKHOME>/mosek/9.0/tools/platform/osx64x86/bin

to the OS variable PATH.

4. Troubleshooting: If running the install.py script produces errors such as:

then you need to install the command line tools, in particular otool. This can be done with

```
xcode-select --switch /Library/Developer/CommandLineTools
```

### 4.2.3 Windows, MSI installer

- 1. Make the right choice between the 32bit and 64bit versions. For instance if you plan to use **MOSEK** with 32bit Python or MATLAB the 32bit version of **MOSEK** should be selected. In general it is recommend to use the 64bit version though.
- 2. Download the Windows 32bit x86 or Windows 64bit x86 MOSEK Optimization Suite MSI installer from https://mosek.com/downloads/.
- 3. Run the installer to complete the installation.
- 4. Check that the path

```
<MSKHOME>\mosek\9.0\tools\platform\<PLATFORM>\bin
```

was added to the OS variable PATH, where <MSKHOME> is the directory where MOSEK was installed and <PLATFORM> is win64x86 or win32x86 depending on the version of MOSEK installed. This is necessary for Windows to locate the MOSEK shared libraries.

## 4.2.4 Windows, Manual installation

- 1. Make the right choice between the 32bit and 64bit versions. For instance if you plan to use **MOSEK** with 32bit Python or MATLAB the 32bit version of **MOSEK** should be selected. In general it is recommend to use the 64bit version though.
- 2. Download the Windows 32bit x86 or Windows 64bit x86 **MOSEK** Optimization Suite distribution from https://mosek.com/downloads/ and unpack it into a chosen directory.
- 3. Add the path

```
<MSKHOME>\mosek\9.0\tools\platform\<PLATFORM>\bin
```

to the OS variable PATH, where <MSKHOME> is the directory where MOSEK was installed and <PLATFORM> is win64x86 or win32x86 depending on the version of MOSEK installed. This is necessary for Windows to locate the MOSEK shared libraries, especially if MOSEK is to be used e.g. from MATLAB.

## 4.3 Setting up the License

Regardless of the method of installation, MOSEK requires a license file to run.

### Token server setup

If you are using a floating license with a token server then follow the instructions in the Licensing Guide. This step is NOT required for trial and personal academic licenses in particular.

### Client setup

In practice the license is contained in a file called

#### mosek.lic

which should typically be saved to a file called

%USERPROFILE%\mosek.lic	(Windows)
\$HOME/mosek/mosek.lic	(Linux, MacOS)

If the folder mosek in the home directory does not exists, then it should be created. The license can be tested with the program msktestlic. For further information about the license system, and other non-standard ways of setting up the license, please consult the License Guide.

## 4.4 Finishing up

## Important:

- See the Licensing Guide if you need more advanced help setting up the license.
- For most languages and interfaces some additional steps are required. Please follow the instructions in the relevant interface documentation available from https://mosek.com/documentation/.