

# COMSOL 4.2a Update 1

This update corrects several bugs and stability issues in COMSOL 4.2a. [Update Details](#).

## Installation

### Check your version

Make sure that you run COMSOL version 4.2.1.110 or later. On the **Help** menu, click **About COMSOL Multiphysics** to check your version.

If you have an earlier build number, contact your COMSOL sales representative to get the official release of COMSOL 4.2a before you proceed.

### Download Update

↳ <a href="#">Windows</a>	<a href="#">comsol_4.2.1.134_win.exe</a>	29.4 MB
↳ <a href="#">Linux</a>	<a href="#">comsol_4.2.1.134_linux.zip</a>	42.0 MB
↳ <a href="#">Mac OS X</a>	<a href="#">comsol_4.2.1.134_mac.dmg</a>	41.2 MB

If you have a license for LiveLink™ for AutoCAD®, also download the additional update for this product

↳ <a href="#">Windows</a>	<a href="#">comsol_4.2.1.134_cad_win.exe</a>	454 KB
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If you have a license for LiveLink™ for MATLAB®, also download the additional update for this product

↳ <a href="#">Windows</a>	<a href="#">comsol_4.2.1.134_mli_win.exe</a>	522 KB
↳ <a href="#">Linux</a>	<a href="#">comsol_4.2.1.134_mli_linux.zip</a>	116 KB
↳ <a href="#">Mac OS X</a>	<a href="#">comsol_4.2.1.134_mli_mac.dmg</a>	141 KB

If you have a license for LiveLink™ for SolidWorks®, also download the additional update for this product

↳ <a href="#">Windows</a>	<a href="#">comsol_4.2.1.134_llsw_win.exe</a>	2.2 MB
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## Install

Before you proceed with the installation, make sure to exit any running COMSOL process.

### Windows

Run the downloaded .exe file to extract the update to the COMSOL 4.2a installation directory, for example: `C:\Program Files\COMSOL\COMSOL42a`.

#### For network administrators:

For deployment on clients on a network, the command line alternative

```
comsol_4.2.1.134_win.exe /auto h:\COMSOLROOT
```

can be used, where `h:\COMSOLROOT` is the COMSOL installation directory.

### Linux

Copy the downloaded .zip file to the COMSOL 4.2a installation directory:

```
cp comsol_4.2.1.134_linux.zip [installdir]/comsol42a
```

where `[installdir]` is the root of the installation, for example `/usr/local`. Unzip it using the commands:

```
cd [installdir]/comsol42a
unzip -o comsol_4.2.1.134_linux.zip
```

If you have not disabled SELinux, run the following command:

```
chcon -t textrel_shlib_t [installdir]/comsol42a/lib/[platform]/lib*
```

where platform is glnx86 or glnxa64.

## Macintosh

Double-click the downloaded .dmg file to mount the disk image. In the Finder, open the mounted disk and double-click the COMSOL installer icon. Select your COMSOL installation folder, usually called COMSOL42a.

## Check your installation

1. Start COMSOL Multiphysics.
2. On the **Help** menu, click **About COMSOL Multiphysics**.
3. Check that the version number is 4.2.1.134 (If not, the installation did not succeed).

## Update Details

### General

- Improved display of numerical values.
- Progress information is now displayed also when running Client-Server on Mac OS.
- General stability improvements.

### CAD Import Module

- Several stability improvements.

### CFD Module

- Enhanced regularization of wall temperature equation when using wall functions in the Non-Isothermal Flow interface.

### Chemical Reaction Engineering Module

- Stability improvements.
- The Nernst-Planck Equations interface has been corrected.
- Corrected CHEMKIN® file import.

### Heat Transfer Module

- Stability improvements.
- Inlet, Outlet, and Fan boundary conditions now work as expected also for the case when unit system is "None".
- Corrected the interior wall boundary condition for turbulent flow.
- Improved handling of radiation groups for double-sided radiation.

### Microfluidics Module

- Improved mass conservation for 3D molecular flow models with high curvature and high aspect ratio.

## **RF Module**

- Corrected Far-Field calculations.
- Corrected a problem occurring in the Electromagnetic Waves interface when using the Perfect Magnetic Conductor feature together with the Scattered Field formulation or Mode Analysis.

## **Structural Mechanics Module**

- Corrected effective plastic strain computations.
- Rotation and Stretch tensors are now available for all solid mechanics materials.
- Mixed Formulation for 2D-axisymmetric models have been stabilized.

## **LiveLink™ for AutoCAD®**

- Improved stability for synchronizing geometries with many parts.

## **LiveLink™ for MATLAB®**

- Corrected the `mphsave` command.
- Corrected handling of the `outersolnum` property.
- Custom color tables can now be added in preference directory.

## **LiveLink™ for SolidWorks®**

- The One Window Interface now also supports SolidWorks® 2012.
- Stability improvements.