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# **FEniCS Project Documentation**

*Release*

**FEniCS Project Team**

**May 11, 2017**



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This is experimental documentation for the [FEniCS Project](#). This version of the documentation on Read the Docs is under development.

FEniCS is a collection of inter-operating modules. Links to the documentation for each module are listed below. For end-users, the DOLFIN and UFL documentation is most relevant.

- [DOLFIN](#)
- [mshr](#)
- [UFL](#)
- [FFC](#)
- [FIAT](#)
- [Instant](#)
- [Dijitso](#)



### From source

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#### Todo

Document build from source

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### Debian/Ubuntu packages

FEniCS is available as a package for Debian and Ubuntu<sup>1</sup> in the official repositories. If you are using Ubuntu, we recommend the Ubuntu PPA.

#### Ubuntu PPA

The Ubuntu Personal Package Archives (PPA) version is the latest release of FEniCS. To install FEniCS from the Ubuntu PPA:

```
sudo add-apt-repository ppa:fenics-packages/fenics
sudo apt-get update
```

#### Official Debian/Ubuntu repositories

The version of FEniCS in the Debian/Ubuntu repositories<sup>1</sup> is not always the most recent FEniCS release. To install FEniCS from the official Debian/Ubuntu repositories:

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<sup>1</sup> mshr is not available from official Debian and Ubuntu repositories.

```
sudo apt-get update
sudo apt-get install fenics
```

## Containers/Docker (Linux, macOS and Windows - 64 bit)

A collection of Docker containers for FEniCS are available. To get started, install [Docker](#), and then run

```
docker run -ti -v $(pwd):/home/fenics/shared -w /home/fenics/shared quay.io/
↪fenicsproject/stable:current
```

A helper script is also available. Run the command:

```
curl -s https://get.fenicsproject.org | bash
```

To run the FEniCS Docker image, use the command *fenicsproject run*. For more options and features, see *fenicsproject help*.

For detailed instruction on the Docker containers and background, a see <http://fenics-containers.readthedocs.org/en/latest/> for how to run FEniCS inside a container.

## Conda (Linux and macOS - 64 bit)

To install the latest FEniCS release from using *conda*:

```
conda install -c conda-forge fenics
```

To install a development snapshot:

```
conda install -c conda-forge/label/prerelease -c conda-forge fenics
```

The packages are part of *conda forge* (see <https://anaconda.org/conda-forge/fenics>), and the recipes are maintained at <https://github.com/conda-forge/fenics-feedstock/>.

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**Note:** Conda support is experimental and subject to changes.

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## CHAPTER 2

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### Documentation build status

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Main	
DOLFIN	
FFC	
UFL	
FIAT	
Instant	
Dijitso	



## CHAPTER 3

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### Source code

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Source code for FEniCS is hosted on [bitbucket.org](http://bitbucket.org):

- [DOLFIN](#)
- [UFL](#)
- [FFC](#)
- [FIAT](#)
- [Instant](#)
- [Dijitso](#)