

# Viper User Manual

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# About this manual

This manual is currently being written. As a consequence, some sections may be incomplete or inaccurate.

## Intended audience

This manual is written both for the beginning and the advanced user. There is also some useful information for developers. More advanced topics are treated at the end of the manual or in the appendix.

## Typographic conventions

- Code is written in monospace (typewriter) like `this`.
- Commands that should be entered in a Unix shell are displayed as follows:

```
# ./configure
# make
```

Commands are written in the dialect of the `bash` shell. For other shells, such as `tcsh`, appropriate translations may be needed.

## Enumeration and list indices

Throughout this manual, elements  $x_i$  of sets  $\{x_i\}$  of size  $n$  are enumerated from  $i = 0$  to  $i = n - 1$ . Derivatives in  $\mathbb{R}^n$  are enumerated similarly:  $\frac{\partial}{\partial x_0}, \frac{\partial}{\partial x_1}, \dots, \frac{\partial}{\partial x_{n-1}}$ .

## Contact

Comments, corrections and contributions to this manual are most welcome and should be sent to

`viper-dev@fenics.org`

# Chapter 1

## Introduction

Viper is a light-weight runtime visualization package for scalar and vector fields over unstructured meshes. The intended use is simple plotting, not advanced post-processing. As a consequence, Viper does not have a GUI, and only a few key-bindings are available in the interactive mode.

### 1.0.1 Key-bindings

In interactive mode, the following key bindings are available:

- w: Wireframe
- s: Solid
- o: Outline
- p: Write scene to file in png-format
- v: Write vtk
- r: Reset camera view along current view direction
- q: Quit interactive mode





# Appendix A

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