FeenoX documentation index

Contents

Every bit of FeenoX documentation is written in Pandoc-flavored Markdown. It is then converted to HTML, PDF, Unix manpage or Texinfo as needed.

1 FeenoX manual and description

As per the GNU Coding Standards, "a manual should serve both as tutorial and reference." Due to the formatting restrictions, the Texinfo version contains only the description and not the full reference.

- HTML manual
- PDF manual
- Texinfo description
- HTML description
- PDF description

The sources are in the doc directory of the Git repository.

1.1 Design

1. The FeenoX project starts as an offer to an imaginary "request for quotations" that defines software requirements specifications for an open source computational tool.
2. Then a fictitious "offer" to the above tender is given in a software design specifications document that explains the design decisions and features included in FeenoX.

- Software Requirements specifications PDF (Fictitious RFQ)
- Software Design specifications PDF (Imaginary FeenoX' offer)
- Mid-term PhD review presentation slides with the SRS/SDS explanation in PDF (August 2021).
  - Video recording of the presentation (Slides are in English but audio is in Spanish).
  - Browse the repository with the sources of the examples in the presentation here
- A free and open source computational tool for solving (nuclear-related) differential equations in the cloud (INAC/ENFIR Congress, December 2021).
  - Video recording of the presentation (Turn on the CCs, I am not a native English speaker).
  - Browse the repository with the sources of the examples in the presentation here

1.2 Frequently Asked Questions

Check out FeenoX' Frequently Asked Questions * Ask yours on GitHub Discussions * Check also the GitHub Issues

1.3 UNIX manpage

See UNIX manpage converted to HTML. It should be accessible with `man feenox` after (global) installation and its sources are available in the Git repository.

2 Hands on

Go directly to the point and see how to solve problems with FeenoX. Everything (except the case files) is included in the Git repository.

2.1 Quick examples

Annotated examples can be found in the examples directory of the Github repository.

- Online annotated examples
- Github examples directory

These are simple and quick (but varied) cases. They are based on the August 2021 presentation:

- Recording (audio in Spanish, slides in English)
- Slides in PDF
- Markdown examples sources

The regression tests can also be used as quick examples:

- Regression tests

2.2 Tutorials

Step-by-step instructions and explanations to solve increasingly-complex problems are given in the tutorials directory.

2.2.1 Introduction

1. Setting up your workspace

2.2.2 General tutorials

1. Overview: the tensile test case
2. Fun & games: solving a maze without AI

3 Background and generalities

3.1 Software requirements specifications

The FeenoX project starts as an offer to an imaginary "request for quotations" that defines software requirements specifications for a computational tool.

3.2 Software design specifications

The "quotation" to the above tender is given in a software design specifications document that explains the design decisions and features included in FeenoX.

3.3 History

See the FeenoX history.

4 Programming and contributing

4.1 Asking questions & reporting bugs

- Use Github discussions to ask for help,
- Use the Github issue tracker to report bugs.

4.2 Compiling from source

- See the Compilation guide for a full explanation and of the steps above.
- See the Programming guide for more details.

4.3 Contributing guidelines

Any contribution is welcome, especially new types of PDEs and new formulations of existing PDEs. For elliptic operators feel free to use the Laplace equation as a template.

1. Read the programming guide
2. Browse Github discussions
3. Fork the Github repository
4. Create a pull request

It is mandatory to observe the Code of Conduct.

4.4 How FeenoX documentation system works

TO BE DONE