openTemplot : 'Getting Started' Guide

Introduction

This document is intended to help those wishing to work with the OpenTemplot software, whether it be coding, documenting, testing or just perusing the code.

There are a number of components required to set up the environment, and we will describe each of them here.

You may not require all of these components. It will depend on what you wish to do, and we will indicate here which of the pieces you will need.

We will not describe the installation of all components in detail, since the projects which maintain them already have thorough documentation to which you can refer.

The processes described here has been developed and tested using a clean install of Xubuntu, so it is known to work on that platform. However, it is entirely possible that other operating systems, and even other Linux distributions, may differ in detail.

If you find that slight variations from what is described here are required in your environment, we would be grateful if you could let us know so that this document can be updated. (Or, better still, edit the document yourself and raise a Pull Request!)

1. Lazarus

What is it?

Lazarus is an Integrated Development Environment (IDE) for the FreePascal compiler (FPC), the combination of which is used in the the development of OpenTemplot. Lazarus and FPC are available for most platforms.

Do I need it?

If you plan to run the code, either to enhance or for testing, then you will need Lazarus.

Strictly speaking, it is possible to run FPC stand-alone from the command line, but if you know enough to do this you will probably get very little from this document!

How do I get it it?

Installing Lazarus is well described at:

```
https://www.lazarus-ide.org/index.php?page=downloads
```

There are versions for a number of different Windows releases, MacOS X, and Linux in DEB and RPM formats. You will need to pick the one suitable for you, and follow the instructions.

Note that YouTube is a good resource if you prefer the video-tutorial style of instruction.

2. HtmlViewer

What is it?

HtmlViewer is one of the optional packages which the project uses.

Do I need it?

If you intend to run OpenTemplot via Lazarus (e.g. for developing or testing) you will need this additional module.

How do I get it it?

Additional modules are easily installed using Lazarus' built-in package manager. Install HtmlViewer as follows:

- Start Lazarus

- Go to menu Packages/Online Package Manager

- In the package manager look for HtmlViewer, select it and click 'Install' and rebuild the IDE when prompted

2. Git

What is it?

Git is the source tracking system used by the project. The source for OpenTemplot is kept in a git repository, currently hosted on Github, so you will need a working copy of git in your environment. Again, versions of git are available to run pretty much anywhere.

Do I need it?

If you wish to contribute to the code itself or the documentation, then yes, you will need git to do so.

If you just wish to test or peruse the code, then strictly speaking you do not need git, since github provides a way to download the sources in the form of a zip file. See the next section (OpenTemplot Sources) for details

How do I get it?

Git may be installed in your environment already. If it is not, the instructions at https://git-scm.com/book/en/v2/Getting-Started-Installing-Git are comprehensive for Linux, MacOS and Windows.

Again, this should be easy enough, but YouTube has many videos and may be a good place to check if you have problems.

3. OpenTemplot sources

What is it?

The source code is the code used to build OpenTemplot - but if you plan to work with it you knew that already. ;-)

Do I need it?

Yes. If you plan to work with the code, then you will need the code. :-)

How do I get it it?

Using Git (recommended)

To pull a copy of the project sources, simply open a command line, go to the folder in which you wish to install the project and enter the command:

```
git clone https://github.com/openTemplot/templot3.git
```

If you prefer not to use the command line, the version of git loaded on your platform may have a GUI in front of it, in which case you will need to find the facility which corresponds to the git 'clone' command.

This will create a folder called 'templot3' and copy the project sources into it.

Alternative method without using Git

If you do not wish to push changes to github (perhaps you just want to browse the sources or pull down a copy for testing purposes, etc.) you can get a copy of the source from github as follows:

- go to https://github.com/openTemplot/templot3
- click on the green 'Code' button
- click on 'Download ZIP

This will allow you to download a normal zip archive which contains all the project sources This zip file can then be unzipped in the usual way in a location of your choosing.

4. jcfsetting.cfg

What is it?

jcfsetting.cfg is a file which holds the standard code formatting settings for the project. If you intend to submit code changes they should be formatted as per these settings.

Do I need it?

You will need it if you plan to submit code changes.

How do I get it it?

Actually, if you have copied the sources you have it already. It is in the root directory of the project called OT-jcfsettings.cfg.

However, you need to copy this into the appropriate Lazarus directory, which may vary from system to system.

To find the correct directory for your system,

- Start Lazarus
- Go to menu Source/JEDI Code Format/Format Settings
- Note the current value of 'Settings File Is:'

This shows the directory as well as the file name. Copy the OT-jcfsettings.cfg file mentioned above to this directory. You can either rename it to replace the current file, or (probably better) copy it under its OT-jcf..... name and change Lazarus to make use of it.

4. pasdoc

What is it?

PasDoc is a utility which extracts documentation from within pascal source code, and is a standard tool of the OpenTemplot project

The root directory of the project contains a script (gendocs) which will run the pasdoc utility with appropriate parameters.

Do I need it?

If you plan to develop enhancements to the project you will need this for your own documentation and that of others.

How do I get it it?

PasDoc may be downloaded from https://pasdoc.github.io/

4. asciidoctor

What is it?

The OpenTemplot documentation not embedded in the source is written in a format known as 'asciidoc'. Files have an '.adoc' suffix.

Asciidoctor provides for the generation of documentation in pdf, html and a number of other formats from the same adoc sources.

Do I need it?

If you intend to write documentation you will need asciidoctor.

How do I get it it?

asciidoctor is written in ruby, so you will need the ruby language installed as a prerequisite.

Ruby is available for virtually all platforms and its installation is well documented on the ruby web site (https://www.ruby-lang.org/en/downloads/)

Once ruby is installed, asciidoctor may be installed as a ruby 'gem'. A link is given on the asciidoctor home page (https://asciidoctor.org/)

Next Steps

If you have installed all the neccessary components, you should now be able to run OpenTemplot by

- starting Lazarus,
- opening the menu File/Open...
- navigating to the templot3 directory
- opening "templotmec.lpi", and
- running OpenTemplot via either menu run/run or by pressing F9.