

Tempus 1.0 User Manual

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Contents

1	Introduction	3
2	Usage	4
2.1	Formats and standards	4
3	Building	5
4	Version History	6
4.1	pre-release	6
4.2	1.0	6
5	Links and references	7
6	GNU GENERAL PUBLIC LICENSE	8

1 Introduction

Tempus is a free and open source utility for displaying the current time in various time systems for astronomical purposes. It is written for Linux systems in C++ using the `Qt` user interface toolkit for maximum compatibility in case someone wishes to port it.

A large portion of the calculations and conversions use the AA++ library by PJ Naughter, based on Jean Meeus' **Astronomical Algorithms**.

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2 Usage

This section explains a little of the ways you can use Tempus to view the current time.

Tempus runs as an ordinary desktop application, using familiar menus, windows, and controls. It has one window, displaying the time in a scalable view as the central information in big type. You run Tempus as you would any other program, by double-clicking its icon or running it from the command line.

The location obviously affects the time, so Tempus needs to know your location to calculate sidereal times. You can set your location in the **Location** menu.

2.1 Formats and standards

The current time formats supported are:

- Local Mean Time, 12 hour
- Local Mean Time, 24 hour
- Universal Time
- Local Sidereal Time
- Greenwich Sidereal Time

Tempus aims to adhere to the following scientific standards:

- World Geodetic System (WGS84, EPSG:4326) - in the `locations.xml` file, for example

3 Troubleshooting

If Tempus does not run, check the following:
That the execute bit is set.

4 Building

If you wish to build Tempus from scratch, you need to first obtain the source code, which may either be bundled with the application or can be obtained from Github at <https://github.com/larsnaesbye/tempus> by forking:

```
git clone https://github.com/larsnaesbye/tempus.git
```

For this, you will need a `git` client to make pull requests, and `Qt` version 4 or later (5.2 preferred) installed for compiling to work. In addition you may want to install `Qt Creator` to edit the base project.

5 Version History

This section is a TODO list for pre-release development. Afterwards, it'll become a version history.

5.1 pre-release

- Time display, updating
 - XML locations file
 - Location setting affects time
 - Chiming functionality
 - SVG icon

5.2 1.0

Release. This section becomes version history.

6 Links and references

- Distro Astro - Linux for Astronomers <http://distroastro.org>
- AA++ - <http://www.naughter.com/aa.html>

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```

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```
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