Theoretical Diary

Documentation

someretical

v3.0.6-alpha

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Installation

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Building

2.1 Linux (Ubuntu 22.04+)

The following packages are required. A C++17 compiler is required (which should be installed with `build-essential`).

```
$ sudo apt update
$ sudo apt install build-essential zlib1g-dev patchelf
$ sudo apt install qtbase5-dev libqt5charts5 libqt5charts5-dev
```

Download Git submodules.

```
$ git submodule update --init --recursive
```

Finally, build the AppImage. Python 3.10 is assumed to be installed. Lower versions might still work but have not been tested.

```
$ python3.10 build.py --build-botan
```

If there are no errors, then the resulting AppImage should be located in 🗀 `cmake-build-release ▸ bin`

2.2 Windows 10+

Under construction

2.3 macOS 10.15+

Under construction

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Development Log

3.1 QAction and CategoryListWidget Bug

Date   *Resolved*
2022-09-04   2022-09-04

Do not assign QActions the shortcuts ⌨↑, ⌨→, ⌨↓, ⌨←. Doing this causes CategoryListWidgets to stop working properly. If a CategoryListWidget is in focus and a QAction with ⌨↑ as its shortcut is also enabled, then the ⌨↑ key cannot reliably be used to navigate the CategoryListWidget.

3.2 Icon Scaling Bug

Date   *Resolved*
2022-09-04   2022-09-19

When the AppImage is run, some icons within CategoryListWidgets are displayed at 24×24 px instead of 32×32 px. This issue does not occur with the compiled binary itself. I have tried the following things:

(a) Adding `m_ui->categoryList->setIconSize(QSize(32, 32));` This does not seem to do anything.

(b) Re-download the "broken" icons from the internet because some more recently downloaded icons appear to be scaling properly.

(c) Rename the icons with proper Freedesktop names to invalid names. This one may require further testing.

This issue has been resolved by implementing an index.theme file with the corresponding icon directory structure that matches the implementation style used by KeePassXC. To fix the icons not rendering at all in the AppImage now, the following environment variables need to be set in build.py:

```
1  os.environ["DEPLOY_PLATFORM_THEMES"] = "dummy_value"
2  os.environ["EXTRA_QT_PLUGINS"] = "svg"
```

The svg plugin is extremely important because it loads the shared library at 🗁 ▸ usr ▸ lib ▸ x86_64-linux-gnu ▸ qt5 ▸ plugins ▸ iconengines ▸ libqsvgicon.so which is responsible for rendering the icons.

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Acknowledgements

Theoretical Diary is built with the Qt 5.12.8 framework.

The colour scheme used in *Theoretical Diary* is an adapted copy from the KeePassXC project. The encryption code is also adapted from KeePassXC.

The Botan library is used to provide cryptographic support.

The logging functionality is provided by the CuteLogger library.

The markdown editor is adapted from QMarkdownTextEdit.

The AppImage build of *Theoretical Diary* is created with the help of linuxdeploy, linuxdeploy-plugin-qt and appimagetool.

This documentation file was created with LATEX.