
cpptools

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cpptools is C++ library

cookiecutter,project_name provides:

- an API following the idioms of the **C++ standard library**.

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1.1 Installation

Although `cpptools` is a header-only library, we provide standardized means to install it, with package managers or with `cmake`.

Besides the `cpptools` headers, all these methods place the `cmake` project configuration file in the right location so that third-party projects can use `cmake`'s `find_package` to locate `xtensor` headers.

1.1.1 From source with `cmake`

You can also install `cpptools` from source with `cmake`. On Unix platforms, from the source directory:

```
mkdir build
cd build
cmake -DCMAKE_INSTALL_PREFIX=/path/to/prefix ..
make install
```

On Windows platforms, from the source directory:

```
mkdir build
cd build
cmake -G "NMake Makefiles" -DCMAKE_INSTALL_PREFIX=/path/to/prefix ..
nmake
nmake install
```

See the section of the documentation on build-options, for more details on how to `cmake` options.

1.2 Changelog

1.2.1 0.1.0

- initial version

1.3 Basic usage

Initialize a 2-D array and compute the sum of one of its rows and a 1-D array.

```
#include "cpptools/cpptools.hpp"
```

1.4 Examples

The hello world of cpptools

```
1 #include "cpptools/cpptools.hpp"
2 #include "cpptools/cpptools_config.hpp"
3
4 int main(int argc, char *argv[]){
5
6 }
```

Print the versions of cpptools

```
1 #include <iostream>
2
3 #include "cpptools/cpptools.hpp"
4 #include "cpptools/cpptools_config.hpp"
5
6 int main(int argc, char *argv[]){
7     std::cout<<"CPPTOOLS_VERSION_MAJOR "<<CPPTOOLS_VERSION_MAJOR<<"\n";
8     std::cout<<"CPPTOOLS_VERSION_MINOR "<<CPPTOOLS_VERSION_MINOR<<"\n";
9     std::cout<<"CPPTOOLS_VERSION_PATCH "<<CPPTOOLS_VERSION_PATCH<<"\n";
10 }
```

1.5 Compiler workarounds

This page tracks the workarounds for the various compiler issues that we encountered in the development. This is mostly of interest for developers interested in contributing to cpptools.

1.6 Related projects