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Subject: Building TheIDE with using CMake

Posted by [Sender Ghost](#) on Sat, 07 May 2011 18:32:13 GMT

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I see more people interested using CMake to build U++ applications.

This topic was mentioned a long time ago, discussed on U++ meetings, etc. Therefore, now I want to show what was done (in cross-platform way).

For the example, I took TheIDE application, which can be used to build other U++ applications, after its build.

Tested on Windows (for MSC9 and TDM-GCC 4.6.1 compilers) for 4179 svn revision (release version).

How to build:

1. Get uppsrc sources, either:
  - a) Download src archive from SourceForge.
  - b) Using svn checkout:

```
svn checkout -r 4179 http://upp-mirror.googlecode.com/svn/trunk/uppsrc upp
svn export upp uppsrc
```

- c) Export ide packages using existing TheIDE, by clicking on "Output mode" drop list and then clicking on "All" button for selected export project directory.

2. If you want to build with rainbow support, get rainbow sources using svn checkout:

```
svn checkout -r 4179 http://upp-mirror.googlecode.com/svn/trunk/rainbow rainbow
svn export rainbow uppsrc/rainbow
```

In case of 1.c) you also need to copy Painter package directory to exported uppsrc directory.

3. Rename all \*.icpp files to \*.cpp files inside following directories (or use CMakeLists.txt files for reference from ISRC\_LIST list):

CtrlCore, CtrlLib, ide/Browser, ide/Builders, PdfDraw, plugin/bmp, plugin/gif, plugin/jpg, plugin/png, RichEdit, RichText, Web.

In case of 2.: Painter.

Also, you can use following RenameFiles.cmake script:

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```
# Recursive renaming of *.icpp to *.cpp files for specified directory
# Usage:
# cmake -P RenameFiles.cmake
# or
# cmake -DRENAME_PATH="SomePathWithFilesToRename" -P RenameFiles.cmake
# Note: -D options need to be specified before -P option, to apply.
```

```

cmake_minimum_required(VERSION 2.8)

if(NOT RENAME_PATH)
  # uppsrc directory by default
  set(RENAME_PATH uppsrc CACHE STRING "Directory with *.icpp files to rename" FORCE)
endif()

if(NOT EXISTS ${RENAME_PATH})
  message(FATAL_ERROR "Selected directory doesn't exists: ${RENAME_PATH}")
else()
  message("Selected directory: ${RENAME_PATH}")
endif()

file(GLOB_RECURSE FILE_LIST "${RENAME_PATH}/*.icpp")

list(LENGTH FILE_LIST files_count)

foreach(icppfile ${FILE_LIST})
  get_filename_component(filename ${icppfile} NAME_WE)
  get_filename_component(filepath ${icppfile} PATH)

  set(cppfile ${filepath}/${filename}.cpp)

  file(RENAME ${icppfile} ${cppfile})
endforeach()

if(${files_count} GREATER 0)
  message("Files renamed: " ${files_count})
else()
  message("No files to rename")
endif()

```

4. Copy CMakeLists.txt, \*.cmake and build scripts files from attachments to source directory relative to uppsrc.

5. On Windows:

```

_start_here.bat
rem For GCC compiler
build.bat
rem For Microsoft Visual C++ 9.0 compiler
build_MSC9.bat
rem For rainbow support
build_MSC9_RAINBOW.bat

```

## 6. On FreeBSD (Linux, Unix, etc.):

```
./build.sh  
# For rainbow support  
./build_RAINBOW.sh
```

If all runs ok, ide(.exe) executable would be found inside install directories, relative to running commands.

CMakeLists.txt files and build scripts could be downloaded from attachments.  
Full archive could be found here.

To note:

There were linking problems for MinGW version of build script with rainbow support, which I didn't include to attachment. The MSC9 version as is.

Edit:

Updated links to 4179 release version. But also applicable to 4193 release version.

### File Attachments

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1) [TheIDE\\_CMakeLists\\_r4179.zip](#), downloaded 746 times

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