How to build the CBIA i3dcore and i3dalgo libraries
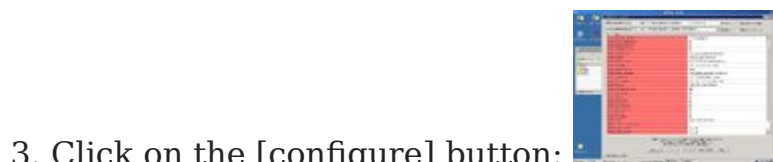
1. Download & install required libraries.
2. Download & install CMake tool. It provides semi-automatic configuration of the compilation process.
3. Locate the `i3dlibs` directory with the both libraries. The top-level `CMakeLists.txt` file and source directories `src-core` and `src` of the both libraries shall be found here.
   - In case only i3dcore was downloaded, locate the `i3dcore/src-core` instead of the `i3dlibs` as suggested above. Also find the `CMakeLists.txt` file present in this directory.
4. **Important:** Some subdirectories of the `i3dlibs` contain `CMakeLists.txt` file which is necessary for the CMake. Do not delete them!
5. Prepare a working directory where binaries and various other outputs will be collected. CMake will also place its own working files here.
6. Configuration and building:
   - under Win32 with MS Visual C++ compiler:
     1. Click on the *CMakeSetup* icon placed on your desktop.
     2. You'll be asked for setting *source* and *binary* paths. The *source* path shall lead to the `i3dlibs` directory which in turn must contain the top-level `CMakeLists.txt` file. It might look like `D:\devel\i3dlibs`. The *binary* path is the path to the working directory, e.q. `D:\devel\i3dlibs\bin`.

     3. Click on the [configure] button:
     4. Specify the optional features you would like your build to support.

     5. Click on the [configure] button:
     6. You'll be asked for setting appropriate paths to the required libraries. You may set the path of the directory where header files of the required libraries are stored in the GLOBAL_ALT_INC_DIR to avoid setting it individually in every line. The GLOBAL_ALT_LIB_DIR serves the same purpose for the library

        binaries. You may need to click on the [configure] button afterwards:
     7. After all the paths are correctly filled in you can click on the [OK] button. The Microsoft Visual C++ project file is created in your working directory.

     8. Use the project file to compile and build the libraries in the working directory:
   - under Linux/UNIX with GNU gcc compiler:
     1. Change the current directory to the working one, e.q. `cd ~/devel/i3dlibs/bin`.
     2. Launch the CMake with the command `ccmake dir` where `dir` is the path to the `i3dlibs` directory. For
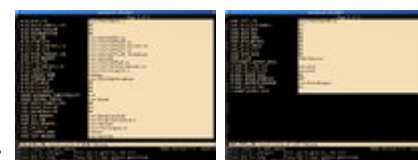

        example, `ccmake ~/devel/i3dlibs/`:
     3. Type "c" to run automatic configuration.
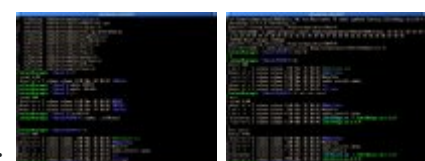   4. Specify the optional features you would like your build to support.
     5. Type "c" to run automatic configuration.
     6. You'll be asked for setting appropriate paths to the required libraries. The libraries are sought in the system libraries by default.

     7. If no required library is missing, type "g" to create the Makefile:

     8. Type `make` to compile and build the libraries in the working directory:
   - under Mac OS with GNU gcc compiler or Xcode:
     1. In the case of GNU gcc compiler, you need version >= 4.2 . Then proceed exactly the same way as in the situation *under Linux/UNIX with GNU gcc compiler*.

2. **Or:** Compile both libraries using Xcode project files as follows.
3. Change the current directory to the working one, e.q. `cd ~/devel/i3dlibs/bin`.
4. Launch the CMake with the command `ccmake -G Xcode dir` where `dir` is the path to the `i3dlibs` directory. For example, `ccmake -G Xcode ~/devel/i3dlibs/`.
5. Follow the steps from 3. to 7. of the situation *under Linux/UNIX with GNU gcc compiler*.
6. Type `open I3D.xcodeproj`. Alternatively, open the Finder at the current directory and double-click on the Xcode project.
7. Within the Xcode, choose the appropriate target. ALL_BUILD will build the libraries.
8. Run the Build (Command-B).

7. Additional steps for installing Bio-Formats support.
   1. Make sure you have Java Virtual Machine with the corresponding SDK installed.
   2. Make sure you have specified the location to the Bio-Formats library in the CLASSPATH environment variable.
   3. Re-configure the i3dcore library with CORE_WITH_BIOFORMATS option enabled. If CMake is not able to find the Java libraries, it will ask you to provide their location.
   4. Compile and build the i3dcore library.
   5. Optionally, compile and build the i3dalgo library.

8. Installation:
   - under Win32 with MS Visual C++ compiler:
     1. Launch the Microsoft Visual C++ and open the project file from the working directory.

     2. Build the *INSTALL* target:
   - under Linux/UNIX with GNU gcc compiler:
     1. Run `make install` as a *root* user.
   - under Mac OS with GNU gcc compiler:
     1. If you took the Makefile approach, run `make install`.
     2. If you took the Xcode approach, open the Xcode project and build the INSTALL target.

9. Documentation:
   1. Download & install Doxygen tool.
   2. You can create a documentation, after successful run of the CMake, of i3dcore and i3dalgo by building the targets *docs-core* and *docs*, respectively.
   3. The html documentations can be found in the `i3dlibs/docs-core/html/index.html` and `i3dlibs/docs/html/index.html` then.

Appendix - the required libraries

- LIBTIFF (optional) ... Handles TIFF fileformat. Available at http://www.libtiff.org/
- LIBICS (optional) ... Handles image cytometry standard fileformat. Available at http://libics.sourceforge.net/
- LIBJPEG (optional) ... Handles JPEG fileformat. Available at http://www.ijg.org/ The following changes in the file `jmorecfg.h` are required in order to succesfully compile with Microsoft Visual C++:

original code	new code
| ```
#ifndef XMD_H

typedef long INT32;

#endif
``` | ```
#if !defined(XMD_H) && !defined(_BASETSD_H_)

typedef long INT32;

#endif
``` |
| ```
#ifdef NEED_FAR_POINTERS
#define FAR far
#else
#define FAR
#endif
``` | ```
#ifndef FAR

#ifdef NEED_FAR_POINTERS
#define FAR far
#else
#define FAR
#endif

#endif
``` |

- LAPACK and BLAS (optional) ... Package for linear algebra computations. Linux users can use LAPACK that is part of their OS distribution. Windows users are highly recommended to download source codes adapted for Win32 environment and compile them on their own using Fortran compiler. For users with no accessibility to Win32 Fortran compiler, we recommend to download precomplied binares. We don't support cygwin and mingw generated LAPACK binares.
- FFTW (optional) ... C++ library providing Fast Fourier transform implementation. Available at http://www.fftw.org/.
- REGEX (mandatory in Win32) ... A package for regular expression manipulation. Available at

http://gnuwin32.sourceforge.net/packages.html. Spencer's version is recommended.

- BIO-FORMATS (optional) ... Java library which enables to read and write a wide variety of images. You will require a Java Virtual Machine with the corresponding SDK. You can download one from http://java.sun.com. To download the Bio-Formats library, you can either download the bioformats.jar or the loci_tools.jar, depending on your requirements. Please refer to the main page of Bio-Formats for details. If in doubt, download the loci_tools.jar which, although being larger, contains all the potential dependencies (needed for some formats). You can put the library in any location, but make sure that you specify its location in the CBIA_JAVA_CLASSPATH environment variable. To integrate the i3dcore library with the Bio-Formats one, you have to create a standalone library from C++ wrappers of the Bio-Formats library. For this purpose, we recommend to use the Java4CPP software. If you do not want to do it yourselves, you can download a package containing the latest version of the Bio-Formats library as well as the C++ wrappers and a CMake configuration file needed for building the standalone library.

- LIBPNG (optional) ... C library handling PNG fileformat. Available at http://www.libpng.org/pub/png/

- DCMTK (optional) ... C++ package handling DICOM fileformat. Available at http://dicom.offis.de/dcmtk

- HDF5 (optional) ... C/C++ library handling HDF5 fileformat. Available at http://www.hdfgroup.org/HDF5/

C:\Documents and Settings\xulman\Desktop\i3dcore-032009\INSTALL

File   Edit

Back

Name
- bin
- include
- lib

3 objects

C:\Documents and Settings\xulman\Desktop\i3dcore-032009\INSTALL\lib

File   Edit

Back

Name
- i3dcore.lib

1 objects

C:\Documents and Settings\xulman\Desktop\i3dcore-032009\INSTALL\include\i3d

File   Edit   View   Favorites   Tools   Help

Back

Name
- basic.h
- bioformatsreade
- i3d_config.h
- i3dio.h
- image3d.h
- imgDCM.h
- imgfiles.h
- imgI3D.h
- imgICS.h
- imgJPEG.h
- imgMETAIO.h
- imgTGA.h
- imgTIFF.h
- msdir.h
- resolution.h
- toolbox.h

18 objects

I3D - Microsoft Visual Studio

File   Edit   View   Project   Build   Debug   Tools   Window   Help

Release   Win32

Solution Explorer - INSTALL

Solution 'I3D' (4 projects)
- ALL_BUILD
- i3dcore

Output

Show output from: Build

```
1>------ Install configuration: "Release"
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/i3d_config.
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/basic.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/bioformatsr
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/i3dio.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/image3d.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/imgDCM.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/imgfiles.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/imgI3D.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/imgICS.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/imgJPEG.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/imgMETAIO.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/imgTGA.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/imgTIFF.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/msdir.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/resolution.
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/toolbox.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/vector3d.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/include/i3d/voi.h
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/lib/i3dcore.lib
1>-- Installing: C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL/bin/i3dcore.dll
1>Build log was saved at "file://c:\Documents and Settings\xulman\Desktop\i3dcore-032009\BUILD\INSTALL.d
1>INSTALL - 0 error(s), 0 warning(s)
========== Build: 1 succeeded, 0 failed, 3 up-to-date, 0 skipped ==========
```

Call Browser   Output

Build succeeded   Ln 28   Col 1   Ch 1   INS

of

OF_EXEfiles

Start | Desktop - ... | C:\Docum... | C:\Docum... | C:\Docum... | C:\Docum... | I3D - Mic... | C:\Docum... | C:\Docum... | EN

rdesktop - merops

C:\Documents and Settings\xulman\Desktop\i3dcore-032009\BUILD

File   Edit   View   Favorites   Tools   Help

Back

Name
CMakeFiles
ALL_BUILD.vcproj
cmake_install.cmake
CMakeCache.txt
I3D.sln
i3d_config.h
i3dcore.vcproj
INSTALL.vcproj
ZERO_CHECK.vcproj
I3D.ncb
i3dcore.dir
Release

Size: 4,10 KB Type: Microso

I3D - Microsoft Visual Studio

File   Edit   View   Project   Build   Debug   Tools   Window   Help

Release   Win32   OPEN

Solution Explorer - i3dcore

Solution 'I3D' (4 projects)
ALL_BUILD
i3dcore
INSTALL
ZERO_CHECK

Output

Show output from: Build

1>Compiling...
1>imgfiles.cc
1>imgTIFF.cc
1>imgTGA.cc
1>imgMETAIO.cc
1>imgJPEG.cc
1>imgICS.cc
1>imgI3D.cc
1>imgDCM.cc
1>i3dio.cc
1>Warning: No bioformats support
1>image3d.cc
1>toolbox.cc
1>resolution.cc
1>vector3d.cc
1>basic.cc
1>Generating Code...
1>Compiling...
1>msdir.c
1>Linking...
1>   Creating library C:\Documents and Settings\xulman\Desktop\i3dcore-032009\BUILD\Release\i3dcore.lib and object C:\Do
1>Embedding manifest...
1>Build log was saved at "file://c:\Documents and Settings\xulman\Desktop\i3dcore-032009\BUILD\i3dcore.dir\Release\Build
1>i3dcore - 0 error(s), 0 warning(s)
========== Build: 1 succeeded, 0 failed, 1 up-to-date, 0 skipped ==========

Call Browser   Output

Build succeeded

Ln 27   Col 1   Ch 1   INS

Start   Desktop - xulma...   C:\Documents a...   C:\Documents a...   C:\Documents a...   C:\Documents a...   I3D - Microsoft...   EN

OF_EXEfiles

Where is the source code: `C:\Documents and Settings\xulman\Desktop\i3dcore-032009\i3dcore\src-core`   Browse...   ☐ Show Advanced Values

Where to build the binaries: `C:\Documents and Settings\xulman\Desktop\i3dcore-032009\BUILD`   Browse...   ☐ Suppress dev Warnings

Cache Values

CMAKE_BACKWARDS_COMPATIBILITY	2.4
CMAKE_CXX_WARNING_LEVEL	1
CMAKE_INSTALL_PREFIX	C:/Documents and Settings/xulman/Desktop/i3dcore-032009/INSTALL
CORE_BUILD_SHARED_LIBS	ON
CORE_DEBUG_VERSION	OFF
CORE_DOCUMENTATION	OFF
CORE_ICS_HEADERS	C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_ICS_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/libics.lib
CORE_JPEG_HEADERS	C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_JPEG_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/jpeg.lib
CORE_LIBRARY_NAME	i3dcore
CORE_REGEX_HEADERS	C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_REGEX_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/libregex.lib
CORE_TIFF_HEADERS	C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_TIFF_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/libtiff.lib
CORE_WITH_BIOFORMATS	OFF
CORE_WITH_DCM	OFF
CORE_WITH_ICS	ON
CORE_WITH_JPEG	ON
CORE_WITH_METAIO	ON
CORE_WITH_TARGA	ON
CORE_WITH_TIFF	ON
CORE_WITH_ZLIB	ON
CORE_Z_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/zlib1.lib
EXECUTABLE_OUTPUT_PATH	
GLOBAL_ALT_INC_DIR	C:/Documents and Settings/xulman/Desktop/I3D_needs/include
GLOBAL_ALT_LIB_DIR	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib

Right click on a cache value for additional options (delete, ignore, and help).
Press Configure to update and display new values in red.
Press OK to generate selected build files and exit.

Configure   OK   Cancel   Delete Cache   Help

rdestop - merops

C:\Documents and Settings\xulman\Desktop\I3D_needs\include

File   Edit

Back

Name
cderror.h
cdjpeg.h
fftw3.h
jconfig.h
jdct.h
jdhuff.h
jerror.h
jchuff.h
jinclude.h
jmemsys.h
jmorecfg.h
jpegint.h
jpeglib.h
jversion.h
libics.h
libics_conf
libics_inter
libics_ll.h
libics_sensor.
libics_test.h
regex.h
tiff.h
tiffconf.h
tiffio.h
tiffvers.h
transupp.h

26 objects

C:\Documents and Settings\xulman\Desktop\I3D_needs\lib

File   Edit   View

Back

Name
blas.lib
jpeg.lib
lapack.lib
libfftw3-3.lib
libfftw3f-3.lib
libfftw3l-3.lib
libics.lib
libregex.lib
libtiff.lib
zlib1.lib

C:\Docu...

File   Edit   »

Back

Name
blas.dll
jpeg62.dll
lapack.dll
libfftw3-3.dll
libfftw3f-3.dll
libfftw3l-3.dll
libics.dll
libtiff3.dll
regex.dll
zlib1.dll

10 objec| 7,54 MB

OF_EXEfiles

CMake 2.6 - patch 3

Where is the source code: C:\Documents and Settings\xulman\Desktop\i3dcore-032009\i3dcore\src-cor   Browse...

Where to build the binaries: C:\Documents and Settings\xulman\Desktop\i3dcore-032009\BUILD   Browse...

☐ Show Advanced Values
☐ Suppress dev Warnings

Cache Values

CORE_JPEG_HEADERS   C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_JPEG_LIB   CORE_JPEG_LIB-NOTFOUND
CORE_LIBRARY_NAME   i3dcore
CORE_REGEX   C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_REGEX   CORE_REGEX_LIB-NOTFOUND
CORE_TIFF_HE   C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_TIFF_LIE   CORE_TIFF_LIB-NOTFOUND
CORE_WITH_B   OFF
CORE_WITH_D   OFF
CORE_WITH_IC   ON
CORE_WITH_JI   ON
CORE_WITH_M   ON
CORE_WITH_T   ON
CORE_WITH_T   ON
CORE_WITH_T   ON
CORE_WITH_Z   ON
CORE_Z_LIB   CORE_Z_LIB-NOTFOUND
EXECUTABLE_
GLOBAL_ALT_I   C:/Documents and Settings/xulman/Desktop/I3D_needs/include
GLOBAL_ALT_L   not_used   ...
GLOBAL_DOXY   GLOBAL_DOXYGEN_PROGRAM-NOTFOUND
LIBRARY_OUTPUT_PATH

Select Path

Setting Cache Value: GLOBAL_ALT_LIB_DIR

C:\Documents and Settings\xulman\Desktop\I3D_needs\lib

        Data (D:)
        CD Drive (E:)
        DVD Drive (F:)
    My Network Places
    I3D_needs
        dll
        include
        lib
    i3d_release
    i3dcore-032009
    i3dcore_and_i3dalgo-032009

OK   Cancel

Right click on a cache value for additional options (delete, ignore, and help).
Press Configure to update and display new values in red.
Press OK to generate selected build files and exit.

Configure   OK   Cancel   Delete Cache   Help

Path to headers of supplementary libraries.

Start   Desktop - xulman...   C:\Documents an...   CMake 2.6 - pa...   C:\Documents an...   C:\Documents an...   C:\Documents an...   EN

C:\Documents and Settings\xulman\Desktop\i3dcore_and_i3dalgo-032009

File   Edit   View   Fav...   ...

Back

Name

📁 BUILD
📁 i3dlibs
📁 INSTALL-debug
📁 INSTALL-release

4 objects

CMake 2.6 - patch 3

Where is the source code: C:\Documents and Settings\xulman\Desktop\i3dcore_and_i3dalgo-032009\i3dlibs   Browse...   ☐ Show Advanced Values

Where to build the binaries: C:\Documents and Settings\xulman\Desktop\i3dcore_and_i3dalgo-032009\BUILD   Browse...   ☐ Suppress dev Warnings

Cache Values

ALGO_BLAS_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/blas.lib
ALGO_BUILD_SHARED_LIBS	ON
ALGO_DEBUG_VERSION	OFF
ALGO_DOCUMENTATION	OFF
ALGO_FFTWF_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/libfftw3f-...
ALGO_FFTWL_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/libfftw3l-...
ALGO_FFTW_HEADERS	C:/Documents and Settings/xulman/Desktop/I3D_needs/include
ALGO_FFTW_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/libfftw3-...
ALGO_LAPACK_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/lapack.lil
ALGO_LIBRARY_NAME	i3dalgo
ALGO_WITH_BLAS	ON
ALGO_WITH_FFTW	ON
ALGO_WITH_LAPACK	ON
CMAKE_BACKWARDS_COMPATIBILITY	2.4
CMAKE_CXX_WARNING_LEVEL	1
CMAKE_INSTALL_PREFIX	C:/Documents and Settings/xulman/Desktop/i3dcore_and_i3dalgo-03...
CORE_BUILD_SHARED_LIBS	ON
CORE_DEBUG_VERSION	OFF
CORE_DOCUMENTATION	OFF
CORE_ICS_HEADERS	C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_ICS_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/libics.lib
CORE_JPEG_HEADERS	C:/Documents and Settings/xulman/Desktop/I3D_needs/include
CORE_JPEG_LIB	C:/Documents and Settings/xulman/Desktop/I3D_needs/lib/jpeg.lib

Right click on a cache value for additional options (delete, ignore, and help).
Press Configure to update and display new values in red.
Press OK to generate selected build files and exit.

Configure   OK   Cancel   Delete Cache   Help

Localization of LAPACK library.

OF_EXEfiles

Start   Desktop - xulman@sarap...   C:\Documents and Settin...   I3D - Microsoft Visual Stu...   CMake 2.6 - patch 3   EN

CMake 2.6 - patch 3

Where is the source code: `C:\Documents and Settings\xulman\Desktop\i3dcore-032009\i3dcore\src-core` Browse... ☐ Show Advanced Values

Where to build the binaries: `C:\Documents and Settings\xulman\Desktop\i3dcore-032009\BUILD` Browse... ☐ Suppress dev Warnings

Cache Values

CMAKE_INSTALL_PREFIX	C:/Program Files/I3D
CORE_BUILD_SHARED_LIBS	ON
CORE_DEBUG_VERSION	ON
CORE_DOCUMENTATION	ON
CORE_ICS_HEADERS	CORE_ICS_HEADERS-NOTFOUND
CORE_ICS_LIB	CORE_ICS_LIB-NOTFOUND
CORE_JPEG_HEADERS	CORE_JPEG_HEADERS-NOTFOUND
CORE_JPEG_LIB	CORE_JPEG_LIB-NOTFOUND
CORE_LIBRARY_NAME	i3dcore
CORE_REGEX_HEADERS	CORE_REGEX_HEADERS-NOTFOUND
CORE_REGEX_LIB	CORE_REGEX_LIB-NOTFOUND
CORE_TIFF_HEADERS	CORE_TIFF_HEADERS-NOTFOUND
CORE_TIFF_LIB	CORE_TIFF_LIB-NOTFOUND
CORE_WITH_BIOFORMATS	OFF
CORE_WITH_DCM	OFF
CORE_WITH_ICS	ON
CORE_WITH_JPEG	ON
CORE_WITH_METAIO	ON
CORE_WITH_TARGA	ON
CORE_WITH_TIFF	ON
CORE_WITH_ZLIB	ON
CORE_Z_LIB	CORE_Z_LIB-NOTFOUND
EXECUTABLE_OUTPUT_PATH	
GLOBAL_ALT_INC_DIR	not_used
GLOBAL_ALT_LIB_DIR	not_used

Right click on a cache value for additional options (delete, ignore, and help).
Press Configure to update and display new values in red.
Press OK to generate selected build files and exit.

Configure   OK   Cancel   Delete Cache   Help

Localization of regex library.

Start | Desktop - xulman@sarap... | C:\Documents and Settin... | CMake 2.6 - patch 3

```
cd /home/xulman/devel/BUILD/src && /usr/bin/cmake -E cmake_symlink_library libi3dalgo.so.1.1.0 l
ibi3dalgo.so.1.1.0 libi3dalgo.so
make[2]: Leaving directory `/home/xulman/devel/BUILD'
/usr/bin/cmake -E cmake_progress_report /home/xulman/devel/BUILD/CMakeFiles  15 16 17 18 19 20 2
1 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49
[100%] Built target i3dalgo
make[1]: Leaving directory `/home/xulman/devel/BUILD'
/usr/bin/cmake -E cmake_progress_start /home/xulman/devel/BUILD/CMakeFiles 0
xulman@sarapis ~/devel/BUILD $ echo $?
0
xulman@sarapis ~/devel/BUILD $ ll
total 40K
-rw-r--r-- 1 xulman xulman  14K Mar 26 16:42 CMakeCache.txt
drwxr-xr-x 3 xulman xulman 4.0K Mar 26 16:48 CMakeFiles
-rw-r--r-- 1 xulman xulman 5.8K Mar 26 16:43 Makefile
-rw-r--r-- 1 xulman xulman 1.7K Mar 26 16:43 cmake_install.cmake
drwxr-xr-x 3 xulman xulman 4.0K Mar 26 16:48 src
drwxr-xr-x 3 xulman xulman 4.0K Mar 26 16:45 src-core
xulman@sarapis ~/devel/BUILD $ ll src src-core/
src:
total 3.2M
drwxr-xr-x 5 xulman xulman 4.0K Mar 26 16:43 CMakeFiles
-rw-r--r-- 1 xulman xulman  26K Mar 26 16:43 Makefile
-rw-r--r-- 1 xulman xulman 9.9K Mar 26 16:43 cmake_install.cmake
lrwxrwxrwx 1 xulman xulman   19 Mar 26 16:48 libi3dalgo.so -> libi3dalgo.so.1.1.0
-rwxr-xr-x 1 xulman xulman 3.2M Mar 26 16:48 libi3dalgo.so.1.1.0

src-core/:
total 976K
drwxr-xr-x 5 xulman xulman 4.0K Mar 26 16:43 CMakeFiles
-rw-r--r-- 1 xulman xulman  14K Mar 26 16:43 Makefile
-rw-r--r-- 1 xulman xulman 4.6K Mar 26 16:43 cmake_install.cmake
-rw-r--r-- 1 xulman xulman 2.4K Mar 26 16:19 i3d_config.h
lrwxrwxrwx 1 xulman xulman   19 Mar 26 16:45 libi3dcore.so -> libi3dcore.so.1.1.0
-rwxr-xr-x 1 xulman xulman 938K Mar 26 16:45 libi3dcore.so.1.1.0
xulman@sarapis ~/devel/BUILD $
```

```
   inflating: i3dlibs/examples/resize.cc
   inflating: i3dlibs/examples/CMakeLists.txt
   inflating: i3dlibs/examples/regions.cc
   inflating: i3dlibs/examples/nucl_by_watershed.cc
   inflating: i3dlibs/examples/neighbours.cc
   inflating: i3dlibs/examples/decompose.cc
   inflating: i3dlibs/examples/metaio.cc
   inflating: i3dlibs/examples/fft.cc
   inflating: i3dlibs/examples/fmm.cc
   inflating: i3dlibs/examples/gauss.cc
   inflating: i3dlibs/examples/surface.cc
   inflating: i3dlibs/examples/bfb.cc
   inflating: i3dlibs/examples/emax.cc
xulman@sarapis ~/devel $ ll
total 4.0K
drwxr-xr-x 7 xulman xulman 4.0K Mar 24 16:02 i3dlibs
xulman@sarapis ~/devel $ mkdir BUILD
xulman@sarapis ~/devel $ mkdir INSTALL
xulman@sarapis ~/devel $ ll
total 12K
drwxr-xr-x 2 xulman xulman 4.0K Mar 26 16:00 BUILD
drwxr-xr-x 2 xulman xulman 4.0K Mar 26 16:00 INSTALL
drwxr-xr-x 7 xulman xulman 4.0K Mar 24 16:02 i3dlibs
xulman@sarapis ~/devel $ cd BUILD/
xulman@sarapis ~/devel/BUILD $ ccmake ../i3dlibs/


xulman@sarapis ~/devel/BUILD $ ll
total 40K
-rw-r--r-- 1 xulman xulman  14K Mar 26 16:42 CMakeCache.txt
drwxr-xr-x 3 xulman xulman 4.0K Mar 26 16:43 CMakeFiles
-rw-r--r-- 1 xulman xulman 5.8K Mar 26 16:43 Makefile
-rw-r--r-- 1 xulman xulman 1.7K Mar 26 16:43 cmake_install.cmake
drwxr-xr-x 3 xulman xulman 4.0K Mar 26 16:43 src
drwxr-xr-x 3 xulman xulman 4.0K Mar 26 16:43 src-core
xulman@sarapis ~/devel/BUILD $ make && make install
```

```
CORE_TIFF_LIB                    /usr/lib/libtiff.so
CORE_WITH_BIOFORMATS             OFF
CORE_WITH_DCM                    OFF
CORE_WITH_ICS                    ON
CORE_WITH_JPEG                   ON
CORE_WITH_METAIO                 ON
CORE_WITH_TARGA                  ON
CORE_WITH_TIFF                   ON
CORE_WITH_ZLIB                   ON
CORE_Z_LIB                       /lib/libz.so
EXECUTABLE_OUTPUT_PATH
GLOBAL_ALT_INC_DIR               not_used
GLOBAL_ALT_LIB_DIR               not_used
GLOBAL_BUILD_ALGO                ON
GLOBAL_BUILD_EXAMPLES            OFF
GLOBAL_DOXYGEN_PROGRAM           /usr/bin/doxygen
GLOBAL_USE_EFENCE                OFF
LIBRARY_OUTPUT_PATH
```

```
CORE_TIFF_LIB: Localization of tiff library.
Press [enter] to edit option                                    CMake Version 2.4 - patch 6

Press [c] to configure       Press [g] to generate and exit
Press [h] for help           Press [q] to quit without generating
Press [t] to toggle advanced mode (Currently Off)
```

```
ALGO_BLAS_LIB                      /usr/lib/libblas.a
ALGO_BUILD_SHARED_LIBS             ON
ALGO_DEBUG_VERSION                 OFF
ALGO_DOCUMENTATION                 ON
ALGO_F2C_LIB                       /usr/lib/libf2c.so
ALGO_FFTWF_LIB                     /usr/lib/libfftw3f.so
ALGO_FFTWF_THREADS_LIB             /usr/lib/libfftw3f_threads.so
ALGO_FFTWL_LIB                     /usr/lib/libfftw3l.so
ALGO_FFTWL_THREADS_LIB             /usr/lib/libfftw3l_threads.so
ALGO_FFTW_HEADERS                  /usr/include
ALGO_FFTW_LIB                      /usr/lib/libfftw3.so
ALGO_FFTW_THREADS_LIB              /usr/lib/libfftw3_threads.so
ALGO_LAPACK_LIB                    /usr/lib/liblapack.a
ALGO_LIBRARY_NAME                  i3dalgo
ALGO_PTHREAD_LIB                   /usr/lib/libpthread.so
ALGO_WITH_BLAS                     ON
ALGO_WITH_FFTW                     ON
ALGO_WITH_LAPACK                   ON
CMAKE_BACKWARDS_COMPATIBILITY      2.4
CMAKE_INSTALL_PREFIX               /usr/local
CORE_BUILD_SHARED_LIBS             ON
CORE_DEBUG_VERSION                 OFF
CORE_DOCUMENTATION                 ON
CORE_ICS_HEADERS                   /usr/local/include
CORE_ICS_LIB                       /usr/local/lib/libics.a
CORE_JPEG_HEADERS                  /usr/include
CORE_JPEG_LIB                      /usr/lib/libjpeg.so
CORE_LIBRARY_NAME                  i3dcore
CORE_TIFF_HEADERS                  /usr/include
```

ALGO_BLAS_LIB: Localization of BLAS library.

```
Press [enter] to edit option                                    CMake Version 2.4 - patch 6
Press [c] to configure        Press [g] to generate and exit
Press [h] for help            Press [q] to quit without generating
Press [t] to toggle advanced mode (Currently Off)
```

```
  inflating: i3dlibs/src-core/msdir.h
  inflating: i3dlibs/src-core/imgJPEG.h
  inflating: i3dlibs/src-core/bioformatsreader.cpp
  inflating: i3dlibs/src-core/toolbox.cc
  inflating: i3dlibs/CMakeLists.txt
   creating: i3dlibs/examples/
  inflating: i3dlibs/examples/nucl_by_edges.cc
  inflating: i3dlibs/examples/histogram.cc
  inflating: i3dlibs/examples/Canny2D.cc
  inflating: i3dlibs/examples/print.h
  inflating: i3dlibs/examples/shapetest.cc
  inflating: i3dlibs/examples/resize.cc
  inflating: i3dlibs/examples/CMakeLists.txt
  inflating: i3dlibs/examples/regions.cc
  inflating: i3dlibs/examples/nucl_by_watershed.cc
  inflating: i3dlibs/examples/neighbours.cc
  inflating: i3dlibs/examples/decompose.cc
  inflating: i3dlibs/examples/metaio.cc
  inflating: i3dlibs/examples/fft.cc
  inflating: i3dlibs/examples/fmm.cc
  inflating: i3dlibs/examples/gauss.cc
  inflating: i3dlibs/examples/surface.cc
  inflating: i3dlibs/examples/bfb.cc
  inflating: i3dlibs/examples/emax.cc
xulman@sarapis ~/devel $ ll
total 4.0K
drwxr-xr-x 7 xulman xulman 4.0K Mar 24 16:02 i3dlibs
xulman@sarapis ~/devel $ mkdir BUILD
xulman@sarapis ~/devel $ mkdir INSTALL
xulman@sarapis ~/devel $ ll
total 12K
drwxr-xr-x 2 xulman xulman 4.0K Mar 26 16:00 BUILD
drwxr-xr-x 2 xulman xulman 4.0K Mar 26 16:00 INSTALL
drwxr-xr-x 7 xulman xulman 4.0K Mar 24 16:02 i3dlibs
xulman@sarapis ~/devel $ cd BUILD/
xulman@sarapis ~/devel/BUILD $ ccmake ../i3dlibs/
```