BOOSTING CDT BUILDS

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Mentor Embedded
BUILDING CDT PROJECTS

Managed Build System (MBS)

or

External Build
MANAGED BUILD SYSTEM
## Sourcery CodeBench Configuration

Specify the desired Sourcery CodeBench project properties below

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td>TI Tiva TM4C123G LaunchPad</td>
</tr>
<tr>
<td>Profile</td>
<td>RAM</td>
</tr>
<tr>
<td>Hosting</td>
<td>Hosted</td>
</tr>
<tr>
<td>Processor</td>
<td>TI Tiva TM4C123GH6PM</td>
</tr>
<tr>
<td>Endianness</td>
<td>Little-endian</td>
</tr>
<tr>
<td>ARM/Thumb Mode</td>
<td>Default for Processor</td>
</tr>
<tr>
<td>Hard/Soft Float</td>
<td>Software Emulation</td>
</tr>
<tr>
<td>FPU</td>
<td>VFP</td>
</tr>
<tr>
<td>Selected libraries</td>
<td>ARMv7E-M Thumb-2 - Little-Endian, Soft-Float</td>
</tr>
</tbody>
</table>
THE CATCH

Only one target

Just compiler

Extending via XML

Not friendly to version control
NO LONGER MAINTAINED

95K SLOC

Complicated structure

Patches ignored
EXTERNAL BUILD SYSTEM

Automake
CMake
Boost.Build
SCons
Waf
LANGUAGES OF YORE

for i in build/plugins/'; do 
  if [ -e "$$i/META-INF/MANIFEST.MF" ]; then \ 
    sed -i $(replace_version) "$$i/META-INF/MANIFEST.MF"; \ 
    fi; \ 
done
if(CMAKE_CONFIGURATIONS)
    list(APPEND CMAKE_CONFIGURATIONS SuperDuper)
    list(REMOVE_DUPLICATES CMAKE_CONFIGURATIONS)
    set(CMAKE_CONFIGURATIONS "${CMAKE_CONFIGURATIONS}
                      CACHE STRING
                      "Add the configurations that we need"
                      FORCE)
endif()
MAKE A WISH

CFLAGS=' -O0  -g'  make
  cmake  -DCMAKE_BUILD_TYPE=Debugfull
  b2  variant=debug
  scons  debug=1
ASK NO QUESTIONS

Checking for pkg-config executable ... yes
Checking for libtorrent-rasterbar >= 0.16.0 ... yes
Checking for libboost ... Could not find boost system library!
TALKING TO GENIES

Possibly entertaining for humans

Really bad for IDEs
STARTING WITH API

What is the minimal API IDE can use
DEMO, PT. 1 (HTTP://LOCALHOST:3000)
PT. 2
STATISTICS

API: 4 functions, 5 events
Web UI: 1K SLOC
CDT plugin: 2K SLOC
(Boost.Build: 10K + 44K)
WHAT'S NEXT

Advanced prototype

All open-source

Might be already better than MBS
THANKS

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Evaluate this session at www.eclipsecon.org (http://www.eclipsecon.org)