



FASTBUILD

A Short Introduction

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What is FASTBuild?

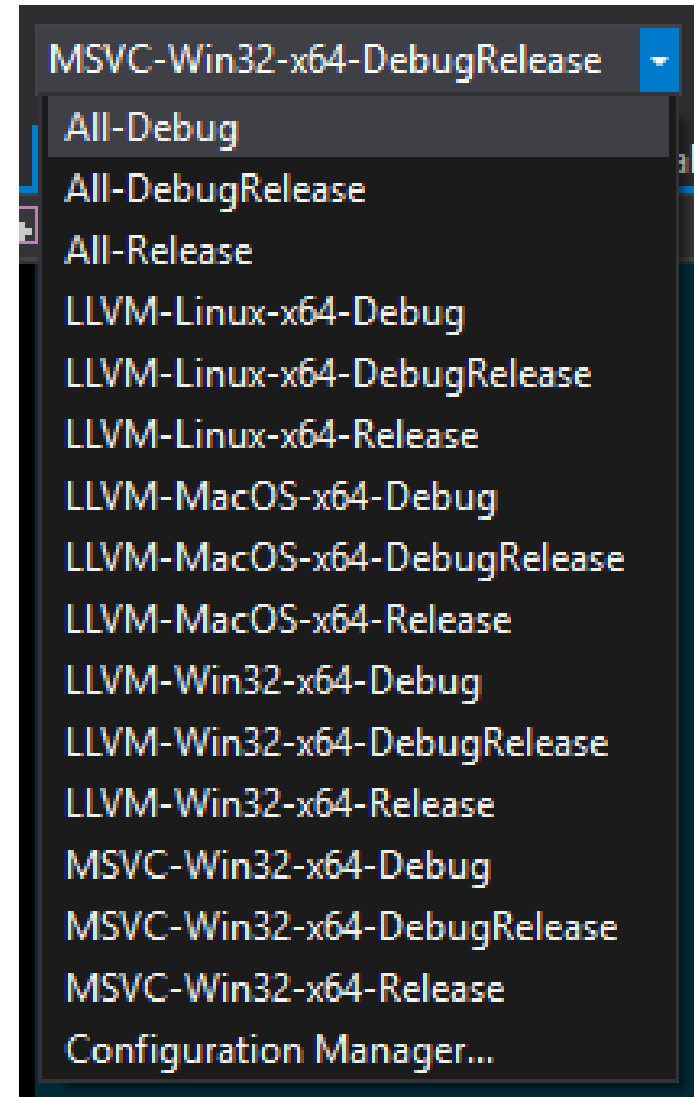
What is FASTBuild?

- Fast
- Cross-platform
- Distributed
- Lightweight
- Simple & Easy to Use
- Visual Studio & Xcode project generation
- Statistics

Compared to CMake

Compared to CMake

- FASTBuild is no meta build system
- Visual Studio & Xcode projects are „manual“
- Can build multiple platforms & targets at once
- Allows you to use native clang on Windows
- Has built-in Precompiled Header support
- Written in highly-optimized C++



Getting Started

```
; Include the compiler definitions
#include "config.bff"

; Compile all .cpp files in the root directory
ObjectList('HelloWorld-Cpp')
{
    .CompilerInputPath = '/'
    .CompilerOutputPath = '_out/'
}

; Link the executable
Executable('HelloWorld')
{
    .Libraries          = { 'HelloWorld-Cpp' }
    .LinkerOutput       = '_bin/helloworld.exe'
}

; Create a default target
Alias('all') { .Targets = { 'HelloWorld' } }
```

Tips & Tricks


```

; Composing variables dynamically
.BuildType          = 'Release'
.FlagsDebug         = ' -Od -g'           ; Mind the space!
.FlagsRelease       = ' -O3'             ; Mind the space!
.CompilerOptions    + .'Flags$BuildType$' ; Appending to .CompilerOptions!

; Import environment variables
.ExtraFlags         = ''
#if exists(EXTRA_FLAGS)
    #import EXTRA_FLAGS
    .ExtraFlags     + .EXTRA_FLAGS
#endif

; Structs & scoping
.StructA = [ .Foo = 'Value1' ]
.StructB = [
    Using(.StructA) ; StructB now has a .Foo property
    .Bar = 'Value2' ; "Extend" StructB, by adding .Bar
]

```

```

; Create all target configurations.
.ConfigX86 = [
    .Compiler    = 'bin/x86/cl.exe'
    .ConfigName  = 'x86'
]
.ConfigX64 = [
    .Compiler    = 'bin/x64/cl.exe'
    .ConfigName  = 'x64'
]
.Configs = { .ConfigX86, .ConfigX64 }

; Looping through all configurations to minimize duplicated work.
ForEach(.Config in .Configs)
{
    Using(.Config)
    Library('Util-$ConfigName$')
    {
        .CompilerInputPath  = 'libs/util/'
        .CompilerOutputPath = 'out/$ConfigName$/'
        .LibrarianOutput    = 'out/$ConfigName$/util.lib'
    }
}

```

More Information

- FASTBuild Website: fastbuild.org
- Minimal Example: github.com/leandros/fastbuild-example
- Fully-Featured Template: github.com/PyrekP/FastBuildTemplate
- Find me, and I'll be happy to answer all your FASTBuild questions

Thank You!

Find me on:

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