LuaJIT, LuaRocks, Torch 7 のインストール

LuaJIT, LuaRocks, Torch7 の 64 ビット販を, Visual Studio を用いてビルドする.

謝辞:ここで紹介しているソフトウエアの作者に感謝します.

1. LuaJIT, LuaRocks のインストール

cd C:¥ git clone https://github.com/torch/luajit-rocks.git cd luajit-rocks mkdir build

cd build cmake .. -DCMAKE_INSTALL_PREFIX=**C:/luajit-rocks/install** -G "NMake Makefiles" -DCMAKE_BUILD_TYPE=Release

C:¥luajit-rocks>cd build C:¥luajit-rocks>build>cmake .. -DCMAKE_INSTALL_PREFIX=C:/luajit-rocks/install -G "NMake Makefiles" -DCMAKE_BUILD_TYPE=Re lease -- The C compiler identification is MSVC 19.0.24215.1 -- The CXX compiler identification is MSVC 19.0.24215.1 -- Check for working C compiler: C:/Program Files (x86)/Microsoft Visual Studio 14.0/VC/bin/amd64/cl.exe -- Check for working C compiler: C:/Program Files (x86)/Microsoft Visual Studio 14.0/VC/bin/amd64/cl.exe -- Check for working C compiler: C:/Program Files (x86)/Microsoft Visual Studio 14.0/VC/bin/amd64/cl.exe -- Detecting C compiler ABI info -- Detecting C compiler ABI info -- Check for working CXX compiler: C:/Program Files (x86)/Microsoft Visual Studio 14.0/VC/bin/amd64/cl.exe -- Check for working CXX compiler: C:/Program Files (x86)/Microsoft Visual Studio 14.0/VC/bin/amd64/cl.exe -- Check for working CXX compiler: C:/Program Files (x86)/Microsoft Visual Studio 14.0/VC/bin/amd64/cl.exe -- Check for working CXX compiler: C:/Program Files (x86)/Microsoft Visual Studio 14.0/VC/bin/amd64/cl.exe -- Check for working CXX compiler: C:/Program Files (x86)/Microsoft Visual Studio 14.0/VC/bin/amd64/cl.exe -- Detecting CXX compiler ABI info

nmake

次のコマンドで1行

cmake -DCMAKE_INSTALL_PREFIX=**C:/luajit-rocks/install** -G "NMake Makefiles" -P cmake_install.cmake -DCMAKE_BUILD_TYPE=Release



orC:¥luajit-rocks¥build>cmake -DCMAKE_INSTALL_PREFIX=C:/luajit-rocks/install -G "NMake Makefiles" -P cmake_install.cmake -DCMAKE_BUILD_TY stE=Release st=- Installing: C:/luajit-rocks/install/include/luaconf.h -- Installing: C:/luajit-rocks/install/include/lua.h at-- Installing: C:/luajit-rocks/install/include/lauxlib.h ua-- Installing: C:/luajit-rocks/install/include/lualib.h ua-- Installing: C:/luajit-rocks/install/include/lualib.h ua-- Installing: C:/luajit-rocks/install/include/lualib.h ua-- Installing: C:/luajit-rocks/install/include/lualib.h

システム環境変数

LUA_CPATH = C:/luajit-rocks/install/?.DLL; C:/luajit-rocks/install/LIB/?.DLL;?.DLL LUA_DEV = C:/luajit-rocks/install LUA_PATH = ;; C:/luajit-rocks/install/?; C:/luajit-rocks/install/?.lua; C:/luajit-rocks/install/lua/?; C:/luajit-rocks/install/lua/?.lua; C:/luajit-rocks/install/lua/?/init.lua

システム環境変数 PATH の末尾に C:¥luajit-rocks¥install

を追加

2. Torch のインストール

C:¥luajit-rocks¥install¥cmake.cmd を作成

PC > ローカルディスク (C:) > luajit-rocks > install							
^ 名前	更新日時	種類	サイズ				
📜 include	2017/03/21 22:20	ファイル フォルダー					
📜 lua	2017/03/21 22:20	ファイル フォルダー					
📕 luarocks	2017/03/21 22:25	ファイル フォルダー					
📜 tools	2017/03/21 22:20	ファイル フォルダー					
💁 cmake.cmd	2017/03/21 22:30	Windows コマンド	0 KB				
libluajit.dll	2017/03/21 22:25	アプリケーション拡張	483 KB				

if %1 == -E (

```
cmake.exe %*
```

) else (

cmake.exe -G "NMake Makefiles" -DCMAKE_LINK_FLAGS:implib=libluajit.lib -DLUALIB=libluajit %*

※ あとで次のようなエラーが出るのを回避するため.

```
C:¥luajit-rocks¥torch7>luarocks make ../torch-scm-1.rockspec

Missing dependencies for torch:

paths >= 1.0

-Using https://raw.githubusercontent.com/torch/rocks/master/paths-scm-1.rockspec... switching to 'build' mode

Cloning into 'paths'...

"remote: Counting objects: 18, done.

remote: Counting objects: 11% (2/18)

Receiving objects: 11% (2/18)

Receiving objects: 10% (18/18), 14.46 KiB | 0 bytes/s, done.

cmake -E make_directory build && cd build && cmake ... -DCMAKE_BUILD_TYPE=Release -DLUALIB=libluajit.lib -DLUA_INCDIR="C:

/luajit-rocks/install/include" -DLUA_IBDIR="C:/luajit-rocks/install/..." -DLUADIR="C:/luajit-rocks/install/luarocks/paths/scm-1/lib" -DLUADIR="C:/luajit-rocks/install/luarocks/paths/scm-1/lib"

/luarocks/paths/scm-1" && nmake

指定されたバスが見つかりません。

'Error: Failed installing dependency: https://raw.githubusercontent.com/torch/rocks/master/paths-scm-1.rockspec - Build e

/rror: Failed building.

C:¥luajit-rocks¥torch7>
```

環境変数を変更したので,再度, VS2015 x64 Native Tools Command Prompt を管理者として実行.確認のため次のコマンドを実行.

which luajit



cd C:¥luajit-rocks luarocks download torch git clone git://github.com/torch/torch7.git

C:¥Windows¥system32>cd C:¥luajit-rocks ¹C:¥luajit-rocks>git clone git://github.com/torch/torch7.git Cloning into 'torch7'... remote: Counting objects: 6158, done. -remote: Total 6158 (delta 0), reused 0 (delta 0), pack-reused 6158 96% (Receiving objects: 100% (6158/6158), 2.36 MiB | 1.02 MiB/s, done. -Resolving deltas: 100% (3841/3841), done. ²C:¥luajit-rocks>

cd torch7 luarocks make ..¥torch-scm-1.rockspec

	🚾 管理者: VS2015 x64 Native Tools コマンドプロンプト	-	×
	Testalling: C:/luajit-rocks/install/include/TH/generic/THBlas.h Installing: C:/luajit-rocks/install/include/TH/generic/THBlas.h Installing: C:/luajit-rocks/install/include/TH/generic/THBlas.h Installing: C:/luajit-rocks/install/include/TH/generic/THBtorage.c Installing: C:/luajit-rocks/install/include/TH/generic/THStorageCopy.c Installing: C:/luajit-rocks/install/include/TH/generic/THBtorageCopy.c Installing: C:/luajit-rocks/install/include/TH/generic/THBtorageCopy.c Installing: C:/luajit-rocks/install/include/TH/generic/THStorageCopy.c Installing: C:/luajit-rocks/install/include/TH/generic/THBtorageCopy.c Installing: C:/luajit-rocks/install/include/TH/generic/THBensor.c Installing: C:/luajit-rocks/install/include/TH/generic/THTensorConv.c Installing: C:/luajit-rocks/install/include/TH/generic/THTensorConv.c Installing: C:/luajit-rocks/install/include/TH/generic/THTensorConv.h Installing: C:/luajit-rocks/install/include/TH/generic/THTensorRandom.c Installing: C:/luajit-rocks/install/include/TH/generic/THTensorRandom.h Installing: C:/luajit-rocks/install/include/TH/generic/THTensorRandom.h Installing: C:/luajit-rocks/install/include/TH/generic/THTensorRandom.h Installing: C:/luajit-rocks/install/include/TH/generic/THTensorRandom.h Installing: C:/luajit-rocks/install/include/TH/gene		×
° C	C:¥luajit-rocks¥torch7>	ļ	-

Visual Studio を起動し、次のように操作する.

- (1) Visual Studio で, Create a new task
- (2) Go to Settings -> Startup -> Tasks and create a new task.
- (3) Name it "VS2015 x64" or something
- (4) add the following string as the startup command (replace the project path with whatever you have):

cmd /k ""%VS140COMNTOOLS%..¥..¥VC¥vcvarsall.bat" amd64 & "%ConEmuDir%¥..¥init.bat"" -new_console:d:"X:¥work":t:"VS2015 x64"

※ これ全体で1行です.

Create a new task for Torch: Go to Settings -> Startup -> Tasks and create a new task. Name it Torch or something and add the following string as the startup command (replace the paths with whatever you are going to use): X:¥torch¥install¥luajit.exe -new_console:d:"X:¥work¥torch_projects":t:"Torch"