

libslatec builder

About

This dirty script helps to build SLATEC (<http://www.netlib.org/slatec/>), a comprehensive mathematical library written in Fortran.

Dependencies

This package has three dependencies. The `install` script can download them automatically for you. The dependencies are:

1. John Burkardt's F90 version of slatec, available from

http://people.sc.fsu.edu/~jburkardt/f_src/slatec/slatec.html.

Direct link: http://people.sc.fsu.edu/~jburkardt/f_src/slatec/slatec.f90

2. John Burkardt's tool `f90split`, available from

http://people.sc.fsu.edu/~jburkardt/f_src/f90split/f90split.html

Direct link: http://people.sc.fsu.edu/~jburkardt/f_src/f90split/f90split.f90

3. The files `d1mach.f90`, `r1mach.f90`, `i1mach.f90` available from

<http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/einarsson/f90/>

These files use F90 routines to determine some machine parameters.

Direct links:

<http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/einarsson/f90/d1mach.f90>

<http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/einarsson/f90/r1mach.f90>

<http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/einarsson/f90/i1mach.f90>

All dependencies can be downloaded by

```
wget http://people.sc.fsu.edu/~jburkardt/f_src/slatec/slatec.f90
wget http://people.sc.fsu.edu/~jburkardt/f_src/f90split/f90split.f90
wget http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/einarsson/f90/d1mach.f90
wget http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/einarsson/f90/r1mach.f90
wget http://www.nsc.liu.se/~boein/ifip/kyoto/workshop-info/proceedings/einarsson/f90/i1mach.f90
```

How it works

The script `install` downloads the dependencies if necessary, and then copies all files needed to a temporary directory. There, `slatec.f90` will be spilt into many `f90` files, each containing one single function. Then, files that would compile into object files with unresolvable dependencies (missing user supplied functions) will be removed. All files will be compiled and finally linked together. The shared object is then installed to the path specified by the user.

To run the script, type

```
./install -p installation path
```

Notes

The `install` scripts assumes you use a `gfortran` version that supports `-march=native`. Changes can be made in the source file.