

FastMaxwell Installation Guide

STEP 0

Download FastMaxwell (<http://web.mit.edu/tmoselhy/www/FastMaxwell>) and uncompress it using:

```
%> tar -xvf FastMaxwell
```

Before proceeding with the installation of FastMaxwell you need to first to install 4 external programs:

1. FFTW-2.1.5: <http://www.fftw.org/download.html>
2. LAPACK: <http://www.netlib.org/lapack/>
3. IT++: <http://itpp.sourceforge.net/>
4. SuperLU: <http://crd.lbl.gov/~xiaoye/SuperLU/>

For detailed instructions on the installation of the external packages please consult the appropriate installation manuals. These packages should be installed in the lib dir.

We have a couple of remarks regarding the installation of the external packages:

1. FFTW: You have to install the old version 2.1.5. Unfortunately, the new version is not backwards compatible.
2. SUPERLU: Edit make.linux by changing CDEFS=-Dadd__ to -Dadd_ (note only a single underscore). We have observed that without such change sometimes SuperLU and it++ result in a conflict. We have further observed that sometimes you need to make SuperLU twice.

At this point you are ready to install FastMaxwell

STEP 1

Install FastMaxwell:

Edit the makefile to point to the proper location of the include files and libraries:

1. FFTW: `./lib/fftw-2.1.5/include`
2. itpp: `./lip/itpp-4.0.1/include`

If the external packages are located in the lib directory then you should be fine and no changes are required.

```
%> make
```