

# chooru.code

## Notes and marginalia from a programmer's journal

### How to use Armadillo on Windows

NOVEMBER 15, 2013NOVEMBER 15, 2013ASHWIN

**Armadillo** (<http://arma.sourceforge.net/>) is a C++ template library for linear algebra. It is built upon **LAPACK** and **BLAS**. It offers a simple API that is similar to that of **Matlab**.

1. Download the source code of Armadillo from [here](http://arma.sourceforge.net/download.html) (<http://arma.sourceforge.net/download.html>). Unzip the source code of Armadillo to a directory.
2. Create an environment variable named `ARMADILLO_ROOT` with a value of the Armadillo directory.
3. Armadillo requires LAPACK and BLAS libraries for any non-trivial matrix operation. To enable it to use these libraries, open `$(ARMADILLO_ROOT)/include/armadillo_bits/config.hpp` and uncomment the defines of `ARMA_USE_LAPACK` and `ARMA_USE_BLAS`.
4. To use Armadillo in your Visual C++ project, add `$(ARMADILLO_ROOT)/include` as an Include directory.
5. Since Armadillo source code uses LAPACK and BLAS, your project needs to link with these libraries. Armadillo ships with pre-built 32-bit `.lib` and `.dll` files for LAPACK and BLAS. Add `$(ARMADILLO_ROOT)/examples/lib_win32` as Library directory to your project. Add `blas_win32_MT.lib` and `lapack_win32_MT.lib` as additional dependencies to your project.
6. Include the `armadillo` header file in your source code. Use the Armadillo classes and methods in your code. Remember to use the namespace `arma::`. Your code should compile to an EXE file without any further problems.
7. Copy the `blas_win32_MT.dll` and `lapack_win32_MT.dll` files from `$(ARMADILLO_ROOT)/examples/lib_win32` to the directory that contains your EXE file. Your program should execute successfully now.

**Triad with:** Armadillo 3.920.2 and Visual Studio 2010

Tags: [armadillo](#), [blas](#), [cpp](#), [lapack](#), [linear algebra](#), [visual c++](#)

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## 2 thoughts on “How to use Armadillo on Windows”

1. **okbalogy** says:

JULY 24, 2014 AT 10:58

thanks for the article, I followed the instructions and tested a simple 2 matrices multiplication program and it worked fine

REPLY

2. **Pushkar** says:

DECEMBER 31, 2014 AT 06:26

Hi,

Is there a trick to get this working on Eclipse IDE? I followed your instructions but Eclipse does not seem to recognize the armadillo file. I can see the armadillo\_bits in my includes but not the header.

When I try to #include , it says no such file or directory found.

Thanks!

REPLY

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