

# Epics Tutorial 2b: Installation on windows

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- This tutorial was based on the epics documentation. For more information on installing epics on windows check:

<http://www.aps.anl.gov/epics/base/R3-15/3-docs/README.html>

- Don't hesitate to send me questions, comments and suggestions.

## Before Start

Before start we need to install a few things:

- Cygwin: It gives a linux feel on windows. When installing select the following Cygwin packages for installation:

- gcc-core
- gcc-g++
- make
- perl

<https://www.cygwin.com/>

- Perl: Needed to run some scripts in the installation process.

<https://www.perl.org/get.html>

- Visual studio express: We need a C compiler.

<https://www.visualstudio.com/products/visual-studio-dev-essentials-vs#>

Click in <join now> and then <downloads>, I've selected this:

`visual_studio_express_2013_for_windows_desktop_with_update_5`

- Mingw: GNU make for windows. After installing, use the Installation manager and install everything on the Basic Setup (maybe you don't need, I have to test).

<http://www.mingw.org/>

I suggest saving then directly in the C:\ drive (in this tutorial I'll assume you did that). After installing them, add the binaries to the PATH variable. Go to:

Control panel > System and security > System > Advanced system settings > Advanced > Environments variables

If they aren't there yet, add the following paths to the system path variable:

```
C:\cygwin64\bin
C:\Strawberry\perl\bin
C:\MicrosoftVisualStudio12.0\VC\bin
C:\MicrosoftVisualStudio12.0\VC\include
```

Be careful, note that you might have installed the program in different paths. Now, don't forget to create this variable:

```
EPICS_HOST_ARCH = cygwin-x86_64
```

Use `cygwin-x86` for 32bit windows and `cygwin-x86_64` for 64bit.

## Preparing files

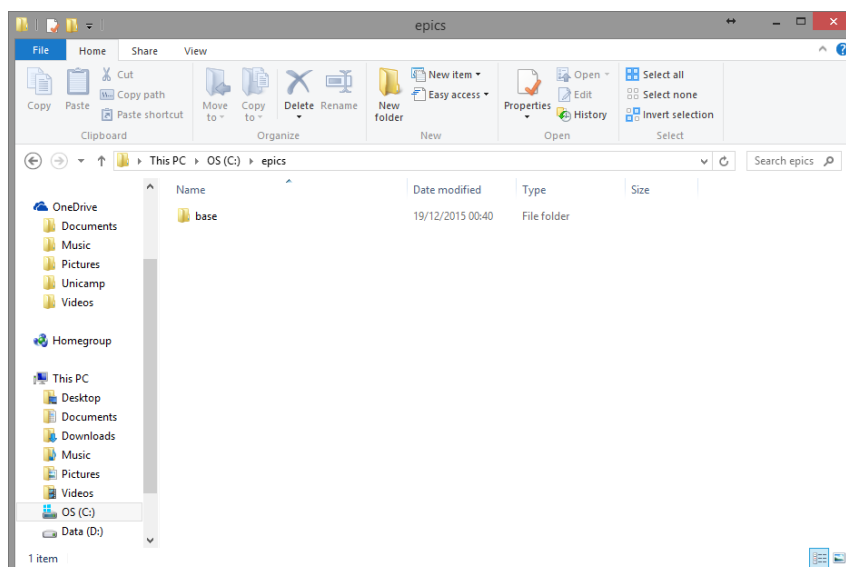
Now go to epics website and download epics base:

<http://www.aps.anl.gov/epics/base/R3-15/3.php>

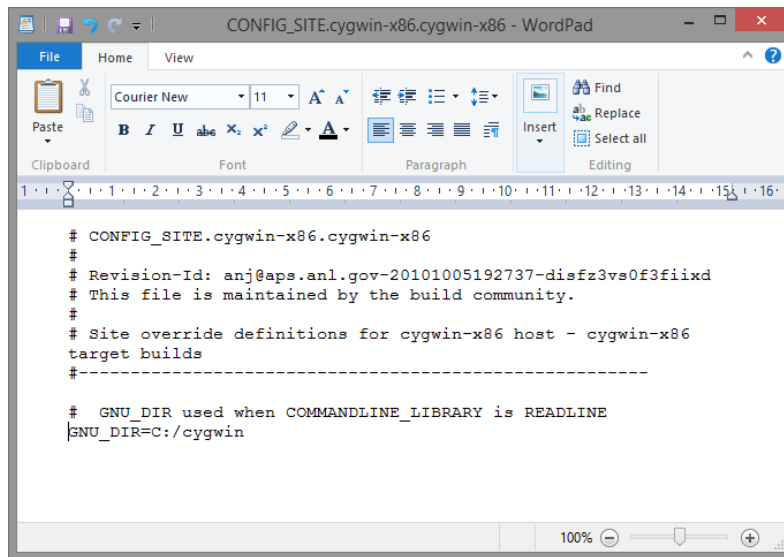
Open the Cygwin terminal (as ADMINISTRATOR). Go to C:\ and make a new folder named "epics" or "myEpics" or whatever (do not use spaces). Note the way you reference the C:\ folder using Cygwin paths (/cygdrive/c/), also note that my user name has a space (Carlos Galdino) and I need to use a bar "\". Unzip the files inside the folder epics folder:

```
cd /cygdrive/c/
mkdir epics
cd epics
tar -zxvf /cygdrive/c/Users/Carlos\ Galdino/Downloads/base-3.15.3.tar.gz
```

Create the name of the folder from base-3.15.3 to only base.



Go to << C:\Program Files\epics\base-3.14.12.5\configure\os\ CONFIG\_SITE.cygwin-x86.cygwin-x86 >> And comment out the `COMMANDLINE_LIBRARY` setting (last line). See print screen below:



## Building BASE

Go to the base folder:

```
cd base
```

Run make

```
make
```

Have a coffee.

You might find some error along the way, mostly because of missing libraries. Don't panic, use the command `make clean uninstall` to undo the build.

```
make clean uninstall
```

Try figure out what is missing, correct it and run the command `make` again.

## Congratulations

You have successfully installed epics. Go have fun.

Don't forget to add epics binaries to the system variable path - C:\epics\base\bin\cygwin-x86\_64