I was installing Hadoop 2.7.0 recently on a Windows platform (8.1) and thought i'll document the steps, as the procedure isn't that obvious (existing documentation on how to do it, is outdated in few places)

Basic info:

- Official Apache Hadoop releases do not include Windows binaries, so you have to download sources and build a Windows package yourself.
- Do not run the installation from within Cygwin. Cygwin is not required/supported anymore
- I assume you have a JDK already installed (ver. 1.7+)
- I assume you have Unix command-line tools (like: sh, mkdir, rm, cp, tar, gzip) installed as well. These tools must be present on your PATH. They come with Windows Git package that can be downloaded from here or you can also use win-bash (here) or GnuWin32.
- If using Visual Studio, it must be Visual Studio 2010 Professional (not 2012).
- Do not use Visual Studio Express (It does not support compiling for 64-bit)
- Google's Protocol Buffers must be installed in exactly version 2.5.0 (not newer, this is a hard-coded dependency …weird)
- Several tests that are being executed while building hadoop widows package, require that the user must have the "Create Symbolic Links" privilege. Therefore, the 'mvn package' command must be executed from the Command Line in "Administrator mode".

Installation:

1. Download Hadoop sources tarball from here.
2. Make sure you have JAVA_HOME in your "Environment Variables" set up properly (in my case it was "c:\Program Files\Java\jdk1.8.0_40")
3. Download Maven binaries from here.
4. Add 'bin' folder of maven to your path (in "Environment Variables")
5. Download Google's Protocol Buffers in version 2.5.0 (no other version, including 2.6.1 will work) from here.
6. Download and install CMake (Windows Installer) from here.
7. Download and install "Visual Studio 2010 Professional" (Trial is enough) from here (Web Installer) or here (ISO Image)
8. Alternatively (to the step no 7 above), you can install "Windows SDK 8.1" from here.
9. Add the location of newly installed MSBuild.exe (c:\Windows\Microsoft.NET\Framework64\v4.0.30319;) to your system path (in "Environment Variables").
10. Because you'll be running the Maven 'package' goal from the Command Line (cmd.exe) in "Administrator mode" (aka. "Elevated mode"), it is important that in steps no 4 and 9 above, you're updating the "PATH" in "System variables" section, and not in "User variables for logged-in user" section.
11. Run cmd in "Administrator Mode" and execute: "set Platform=x64" (assuming you want 64-bit version, otherwise use "set Platform=Win32")
12. Now, while still in cmd, execute:

```
1   mvn package -Pdist,native-win -DskipTests -Dtar
```

13. After the build is complete, you should find hadoop-2.7.0.tar.gz file in "hadoop-2.7.0-src\hadoop-dist\target\" directory.

14. Extract the newly created Hadoop Windows package to the directory of choice (eg. c:\hdp\)