

Installing and Running MiKTeX on a Windows computer.

In order to get MiKTeX up and running on a Windows machine, there are two different programs you need and a number of things you need to do. If you are accessing from a computer lab, skip to the "Getting Started" section. If you need additional help, stop by my office.

(1) What is MiKTeX?

MiKTeX is a typesetting program with an inbuilt mathematical word processor used for creating scientific documents. It is used by most scientists and engineers not just because of its library of math symbols but also because the quality of document an experienced user can create.

MiKTeX probably works differently from most word processors you are familiar with. The biggest difference is that the file you write (called **the source file**) is a completely different file to the file which MiKTeX creates (called the **Output File**). When writing a MiKTeX document, you will use a text editor (called TeXnicCenter) to write the source code on the source file, and then the compiler (MiKTeX), which uses various packages to translate strings of letters into symbols, will transform the source file into a typeset file.

Therefore, the first thing we need to do is download all the necessary software. There are two major components - the text editor, TeXnicCenter, and the processor, MiKTeX.

(2) Getting MiKTeX

(a) Visit the webpage

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

and below Install/Download on the left hand side of the page, click on "MiKTeX 2.4".

(b) On the next, in the center of the page, click on "small-MiKTeX-2.4.1705.exe" which is the link to download and install the small version of MiKTeX (suitable for this class).

(c) The next webpage you see will give a list of different places in the world which have MiKTeX available for download. Click on the closest one (probably Phoenix, Arizona). Make sure you click on the link in the "download" column, otherwise you will be sent to the advertisement site! If you are given the option to "run" the installation immediately, then click "run" and jump to step (e). Otherwise, you need to "Save to Disk" and move to the next step. Make sure you keep track of where you download it (I usually download to my desktop)

(d) Once it is downloaded, go to the folder you have downloaded it to and double click the "small-MiKTeX-2.4.1705.exe" icon. The install wizard will commence.

(e) At this point, you will be asked a bunch of questions about how you want to set up MiKTeX. Hit "Next" on each screen unless you are an expert user who wants to organize the MiKTeX files yourself.

(f) When prompted, Hit "Finish" - you have now installed MiKTeX.

(3) Getting TeXnicCenter

(a) Visit the webpage

http://www.texniccenter.org/front_content.php?idcat=26
and click on "download" on the left hand's column of the page.

- (b) The next page will have a table of the different versions available. Click on the first link of the column on the main portion of the page "TeXnicCenter Setup, Version 1 Beta 6.31", (you need to click on the link under the column entitled "server"). You will be sent to a page with lots of different sites where you can download it. Click on the closest (Phoenix, Arizona). Make sure you click on the link under "download", otherwise you will be sent to the advertisement site! When prompted, choose "save to disk". I suggest putting it on your desktop. If you put it elsewhere, make sure keep track of where it is saved.
 - (c) Once it has downloaded, go to the folder you downloaded it to and click on the TeXnicCenter set up wizard icon. This will start the install wizard. Click next.
 - (d) You will now be asked to agree to the licensing terms. Agree to them and click next. For the remaining steps, the only time you may actually want to make a change to the set up is on the screen which asks if you would like to set up a short cut on your desktop. Unless you would not like such a short cut, select this option, and as with MiKTeX, click "next" through all other steps of the set up unless you have a particular way of organizing your computer.
 - (e) Once prompted, click "Finish". If TeXnicCenter does not automatically start, hit the new icon which has appeared on your desktop to start it. The first time you start it, you will have to configure it to work with MikTeX. As with the other set up and configuration wizards, just click next on each screen unless you have a particular way of setting things up.
 - (f) You now have TeXnicCenter!
- (4) Getting Started.
- (a) I suggest making a folder on the desktop called something like "MikTeXFiles" so you can store all the files you will be writing in that folder. Download all the files I have sent you through e-mail or you have downloaded from my website, and put them in this folder.
 - (b) A new icon for TeXnicCenter should have been placed on your desktop. If you are not already running it, double click this icon to start TeXnicCenter.
 - (c) If you are using a university computer with MikTeX already installed, use the "start" drag menu to access "Courseware", then "Math" (or mathematics) and then TeXnicCenter.
 - (d) After TeXnicCenter starts, if there is a file already open, you need to close it. Under the "File" drag down menu, you can close any documents using the command "close". For your information, **DO NOT** click the "x" button in the top right hand corner as it will close the program TeXnicCenter and not the document you are editing (unless of course you want to close the editor!).
 - (e) Under the "File" drag down, click on open. You should "browse" to the folder you have created which contains all the documents I e-mailed

you. One of the files I sent you is called "Practice1.tex". Click on this file to open it. If the screen is too small for you to view the text properly, click the expand window size icon in the top right corner of the window containing the text.

- (f) The four practice files I have sent you contain instructions on how to familiarize yourself with MiKTeX. Read the files carefully and follow the instructions throughout each file. DO NOT change the files except where instructed because the compiler is very sensitive to changes and you may corrupt the file. If in doubt, make a back up of each file.
- (g) Once you are done with the practice files, you should be ready to start writing your own documents in MiKTeX.

Remember, if you have any problems with this, come by and speak to me. TeX can be a very tricky thing to learn, and I don't want you to feel like you have to master it on your own - you will get frustrated and won't appreciate the real advantages of using it.

Good luck, and welcome to the world of TeX!!!!