

# CTAN for Starters

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Newcomers to  $\TeX$  can have trouble finding their way around. As with many other community-supported projects, beginners can get the sense that only insiders or old-timers can get the tool to do its magic.

One of the secrets to  $\TeX$  success is to know where on the Internet there are resources that you can use. This article takes you through how to find and use our community's archive.

## 1 On your mark ...

All  $\TeX$  users should know: *if you need something then the right place to look is the Comprehensive  $\TeX$  Archive Network.*

CTAN is authoritative — if something  $\TeX$ -related is out there then chances are that it is in here. And, most of CTAN's holdings are freely available so you can just pick them up and use them.

This article will take you around the site a bit, so that you can get an idea of what is here. Start by browsing to the top page <http://www.ctan.org>.

## 2 Get ready ...

On the home page, click on the "Look through" link, which takes you to <http://www.ctan.org/tex-archive>. There you see the CTAN's top-level organization, with a description of each branch. If you click around a bit you will get some sense of the great deal of material, and of the wide variety of material, that is available to you.

As a beginner, the first thing that you must have is a distribution — a collection of packages, suitable for your computer platform, with what you need to start working. CTAN has all of the major free and shareware  $\TeX$  distributions: MiK $\TeX$  for Windows, te $\TeX$  for

Unix and Macintosh OS X, gw $\TeX$  with i-Installer for OS X, and  $\TeX$ Live for Windows, Macintosh, and Unix.

Go back to the “Look through” page and click on “systems” to go to where system-specific software lives. Click on the type of system that you have. For instance, if you work under Windows then you can follow the win32 link (or the texlive link). One of the options there is miktex, and the material on that page tells you to install by reading what is in the setup directory. By following those directions you will get a complete  $\TeX$  system on your computer.

### 3 Get set ...

After you’ve installed a distribution, you next need a tutorial. There is no substitute for a good book, but CTAN can help you here, too. Go back to the the top page and again follow the “Look through” link <http://www.ctan.org/tex-archive> to the top of the file structure.

Since you want “info”, click on that link to go to <http://www.ctan.org/tex-archive/info>. Here are many tutorials, and a great deal of documentation also.

Most beginners do their  $\TeX$  work via the  $\LaTeX$  macro package, and one of the choices now on your screen is “lshort”. Click on it to get to <http://www.ctan.org/tex-archive/info/lshort>, which contains the widely-recommended *The (Not So) Short Guide to  $\LaTeX$ 2e* (the current version of  $\LaTeX$  is called  $\LaTeX$ 2e). There are many translations there; select one and save or print it.

### 4 Go!

With that, you now have a full  $\TeX$  system and enough documentation to do tremendous things.

### 5 Through the back straightaway ...

CTAN is not just for getting up to speed, it can also help you move ahead in your  $\TeX$  work.

Imagine that you’ve used  $\LaTeX$  a bit and have gotten comfortable with the tutorial. A colleague sends you a file to use, but running it gives you an error message that your system cannot find “SIunits.” This package might not have come with your distribution (the distribution’s builders try to balance completeness and size). However, CTAN has it.

From the top page <http://www.ctan.org>, click on the “search” link to <http://www.ctan.org/search>.

In the first text box, type `SIunits` and hit Enter. You get a list of files with that name, and one is obviously the source: a directory called `macros/latex/contrib/SIunits`. Click on the directory name to see what’s there. You get a page listing the files.

Also on that directory page is a link to get the contents of the “entire directory”. Click on it, and you will be offered the files from the directory, bundled up as `SIunits.zip` or `SIunits.tar.gz`. That’s the right way to get the materials, so that you will not miss any.

Click on one of the links to get it to your machine (if you don’t know which to use, get `SIunits.zip`). You may get a page that asks you to select a mirror from a list. Many sites around the world generously help out by offering the contents of CTAN to the public; you are seeing a list of these. Choose one from the list that says it offers the kind of archive that you want, `.zip` or `.tar.gz`, and you will be sent a cookie so that your browser can remember your preference in the future.

With that, you have the bundle on your computer containing the files that you want. What you need next is directions to install the material; CTAN can help you find those directions. Back at the search page <http://www.ctan.org/search>, look for the “Frequently Referenced Links”. One of these is to Robin Fairbairns’s English language FAQ, <http://www.tex.ac.uk/cgi-bin/texfaq2html>. One of the answers on that list, “Installing a new package”, tells you just what you need to know.

You may want to bookmark the search page <http://www.ctan.org/search>; there is a great deal of information available from there.

## 6 Out of the final turn ...

Now you know how to get publicly available materials, if you know exactly what files you want. What if you instead want to look for something with a functionality but don’t know a name? As with the documentation, there is no substitute for a good book, but the search page can help.

Suppose that you need to work with your page footers. Go to <http://www.ctan.org/search> and use the “Search the Catalogue” box (the *Catalogue* is a large collection of  $\TeX$  package descriptions). Enter `footer`. You get a page of links, one of which is `fancyhdr`, with the abstract “Extensive control of page headers and footers in LaTeX2e.” Also there is a link to the directory, so you can look through the documentation file.

Note that your distribution already has this package, so there is no need to download it. Nonetheless, the lesson here is that CTAN is useful for things other than getting materials; it is also a source of information on those materials.

## 7 Across the line

One thing that places an experienced person ahead of a beginner is an awareness of what resources to use to solve problems. For T<sub>E</sub>X users, CTAN is one of the most important resources.

## 8 Closing note: a set of sites

CTAN is a network because it consists of a number of cooperating sites. This article has consistent URL's but you have other options, which may give you better network access.

There are three core sites, <http://dante.ctan.org> in Germany, <http://cam.ctan.org> in England, and <http://tug.ctan.org> in the US, which is an alias for <http://www.ctan.org> (the three have different interfaces, but have the same holdings).

Those three sites are active—they install newly uploaded material, etc. There are also many mirror sites that help out by just copying the content from a core site and then also offering the material to the public. Please use a mirror if you can; see <http://www.ctan.org/tex-archive/README.mirrors> for a list.