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# How to Use BitTorrent

## Definition

### Bittorrent guide

Bittorrent is a protocol for networked file transfer (file-sharing) via the internet. Bittorrent is economical in terms of bandwidth use, because the load of uploading the file is distributed across the network of users.

To use bittorrent you need three things :

A tracker - a website where torrent (.tnt) files are available. The tracker hosts the torrent file to be downloaded by users, gives information about the media files and manages the connections between all users, peers (users downloading the media file) and seeds (users uploading the media file).

A bittorrent client - the client is the software used on your local machine to download or upload files from/to multiple users. Opening a torrent file in your client program allows the client to connect to peers and seeds sharing the file.

A torrent file - torrent files are effectively a map or path to the tracker that tracks the connections made between owners or prospective owners of a particular file. You can download torrent files from the Public Library Tracker. You can make your own torrents and upload them to the tracker to share.

## Clients

For Windows or Macintosh get Azureus [ <http://azureus.sourceforge.net/>] or Bittorrent [ <http://www.bittorrent.com/>] , both are free to download. If you are running Linux I recommend bittorrent, which can be run from the command line, or bittorrent-gui. Both Azureus and Bittorrent use set up wizards to help you open the right port in your firewall (6881) and configure your download and upload settings to suit your connection if you've got a 512k connection and you set maximum of 30 down and 15 up this will probably not interfere with your internet browsing or other network services. You will be asked by the set up wizard to make a folder called torrent or the program will make this happen automatically, make sure you are aware where this folder is it will be important later

## How to download

Search for a film, music or cookery book that you want to download. (Tip: usually the page holding the file gives some info about the format, size and health of the file, and how many peers there are - it is easier to download a popular file. The comments gives information on the file, the link links you to either a review related to the media file in the Public Library area or to a site with information related to the file.

Download the torrent file to your Desktop or to an easily accessible folder

Launch bittorrent application File > open torrent file > folder where you downloaded the torrent file to

When you open a torrent the client will ask you where you want to save the media file to (the movie, music or cookery book). Its important that you look at the file size to make sure you have enough space on your machine before you start to download (movie files are large!).

Nothing happening? Don't panic, it will take time for your download to start, give it 10mins if there is no icon in your Client try to open the torrent again. Be patient, your download depends on the availability of the file, it may take a day to get the first kb of a file then just an hour to get the rest.  
How To Make and Upload a Torrent

Register with a tracker : e.g. public library [<http://publiclibrary.metamute.org:6969/>] Note tracker announce url. This is important, you need to have this address BEFORE you make a torrent. When you have made the torrent you can return to the site to upload the file to the Public Library tracker.

Open Azureus File > new torrent

enter tracker announce url: <http://publiclibrary.metamute.org:6969/announce>

browse to file or directory make torrent - (will appear in torrent folder)

go to tracker -> upload torrent browse for torrent file

make description Give the torrent a sensible name, preferably matching the name of the media file

## UPLOAD

To begin seeding:

1. In Azureus Click File >> Open >> Torrent File (For Seeding)
2. Select the .torrent file you want to seed
3. Once selected, a window will popup for you to select the exact file / folder you want to share.
4. The torrent will initially load at the upper section of Azureus. Then after it checks your torrent it will load to the seeds section below

You upload as you download so when you complete the file you become a "seed" your torrent will automatically appear in the bottom bar where files normally show after you have downloaded you will continue to make a complete copy of the file available by just leaving the client application open.  
Upload to the tracker

Now you have made the torrent return to the site to upload the file to the Public Library tracker

Click on the upload button

Insert information about the media file you are uploading, title, author, date etc. And a link to a review in the Public Library or to a site with relevant information.

Browse to the directory where you made the torrent file

Upload

Other clients

bittorrent (command line)

To make a torrent file use the command [ `btmakemetafile` ]. `btmakemetafile` takes two arguments. Both are required. The first is the file that the torrent info file will be generated for. The second is the "announce" address of a tracker

(example)

```
btmakemetafile /home/me/media.avi http://publiclibrary.metamute.org:6969/announce
```

To seed the file, cd to the directory (the .tnt file and media file need to be in the same directory)

btlaunchmany dirname [ option ... ]

(example)

btlaunchmany /home/me/ http://publiclibrary.metamute.org:6969/announce

Ports, players and more

The above describes the basics to get bittorrent working on GNU/Linux, Mac OSX and Windows OS. To customize your use of the bittorrent protocol to suit your connection speed, security requirements, specific machine and network setup you should read around to find guides, we cannot cover all the possible permutations here. However, here are a few short guides, tips and links that may help you.

Configuring Windows XP firewall

Here are the directions for opening ports in the **Windows XP firewall**:

1. Open the 'Network Connections' folder (click **Start**, then **Control Panel**, then **Network and Internet Connections**, then **Network Connections**.)
2. Click the shared connection or the Internet connection that is protected by Internet Connection Firewall, and then, under **Tasks**, click **Change settings of this connection**.
3. On the **Advanced** tab, click **Settings**.
4. For each port you wish to forward, (i.e. 6881, 6882, ... 6889) do the following:
  1. On the **Services** tab, click **Add** and enter all of the following information:
  2. In **Description** of service, type an easily recognized name for the service, such as "BitTorrent".
  3. In **Name or IP address** of the computer hosting this service on your network, enter 127.0.0.1 (this means "the local machine.")
  4. In both **External** and **Internal port number for this service**, enter the port number, e.g. 6881.
  5. Select **TCP**, then **OK**.

Configuring OSX firewall for bittorrent (with pictures)

[http://homepage.mac.com/carlson/static\\_port\\_fwd\\_firewall.html](http://homepage.mac.com/carlson/static_port_fwd_firewall.html)

Other Useful Links

How to configure your router for fast torrent downloads

<http://p2p.weblogsinc.com/2005/04/24/how-to-configure-your-router-to-allow-fast-bittorrent-downloads/>

VLC Media player - a free open source and cross-platform media player, plays most movie and music formats as well as subtitles

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

Audacity - a free open source cross-platform audio player and editor converts aiff, wav, ogg and mp3 audio files.

<http://audacity.sourceforge.net/>