

Uploading large files to Galaxy from FTP

A very simple tutorial of how to upload files to Galaxy using FTP client.

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Install FTP client

There are several ways to install a FTP client on Linux and Windows. Here we describe how to install the Filezilla FTP client on Ubuntu and Windows.

If you use another platform, you can download the source code and compile it by yourself. Google has a lot of instructions.

Feel free to use a different FTP client instead of Filezilla, it is not a rule.

Linux

From apt-get

```
sudo apt-get -y install filezilla filezilla-common
```

From Ubuntu Software Center

Open the Ubuntu Software Center and search for Filezilla.

After this, click at Install button and the software will be installed.

Windows

Download the file and follow the wizard.

Link: https://filezilla-project.org/download.php?show_all=1

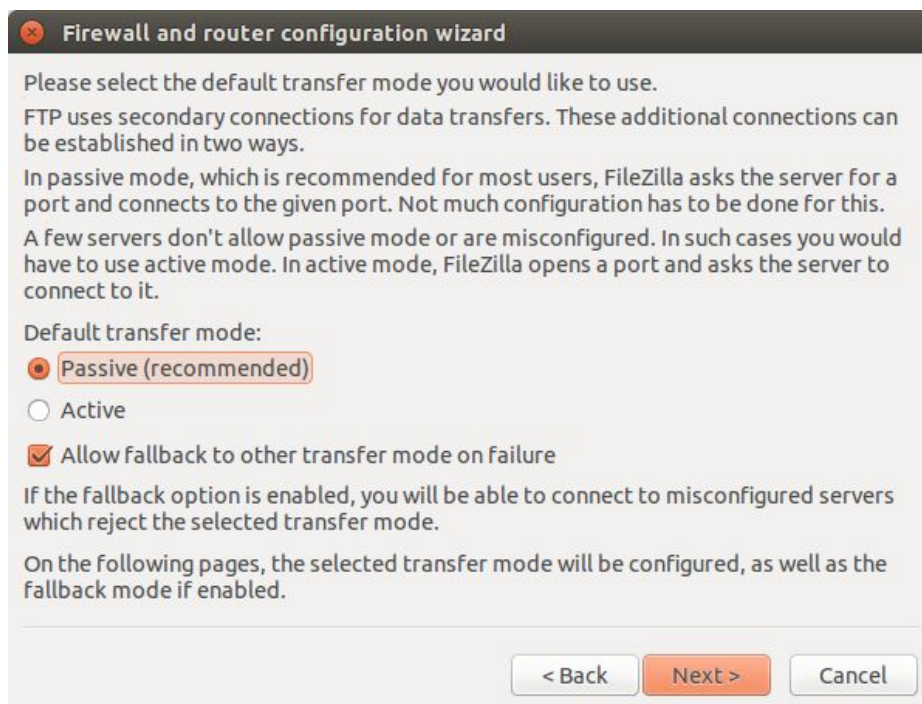
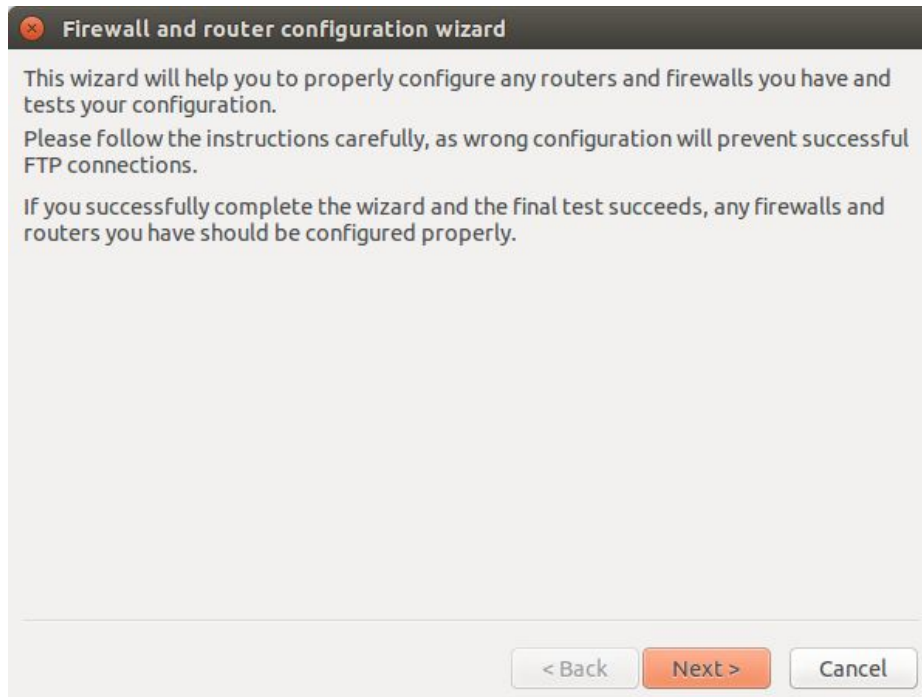
Configure the FTP Client

Once Filezilla client is installed, you can configure the FTP client before connect to the server.

On Windows, the process may be the same.

Open the Filezilla and click at Edit -> Network configuration wizard.

Set your instance according to the next images.



✖ Firewall and router configuration wizard

Configure passive mode

Please configure any firewalls and routers so that FileZilla can establish outgoing connection to arbitrary ports.

Please note that FileZilla has no influence on the port the server chooses. So the server might choose a port which your firewall thinks is only used by trojans or other malware. This might raise a false alarm you can safely discard.

If the automatic test at the end of this wizard succeeds, but you cannot transfer files to a particular server, the server might be misconfigured and you should try active mode. You can set the transfer mode on a per-server basis in the Site Manager.

Some misconfigured remote servers which are behind a router, may reply with their local IP address.

☐ Use the server's external IP address instead

☒ Fall back to active mode

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Next >

Cancel

✖ Firewall and router configuration wizard

In order to use active mode, FileZilla needs to know your external IP address.

☐ Ask your operating system for the external IP address

This only works if you are not behind a router, else your system would just return your internal address.

☐ Use the following IP address:

Use this if you're behind a router and have a static external IP address.

☒ Get external IP address from the following URL:

Default: <http://ip.filezilla-project.org/ip.php>

Use this option if you have a dynamic IP address. FileZilla will contact the above server once each session as soon as you use active mode for the first time. Only the version of FileZilla you're using is submitted to the server.

☐ Don't use external IP address on local connections.

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Cancel

✖ Firewall and router configuration wizard

Configure port range

In active mode, FileZilla has to listen on a port for data transfers. You have to specify which ports FileZilla will use.

☒ Ask operating system for a port.

In case you have a router, you will have to forward all available ports, as FileZilla has no influence on the ports your system chooses.

☐ Use the following port range:

-

All ports in the given range have to be between 1024 and 65535.

For reliability you should specify a range of at least 10 ports.

If you use a router, make sure all these ports are forwarded to the machine you're running FileZilla on.

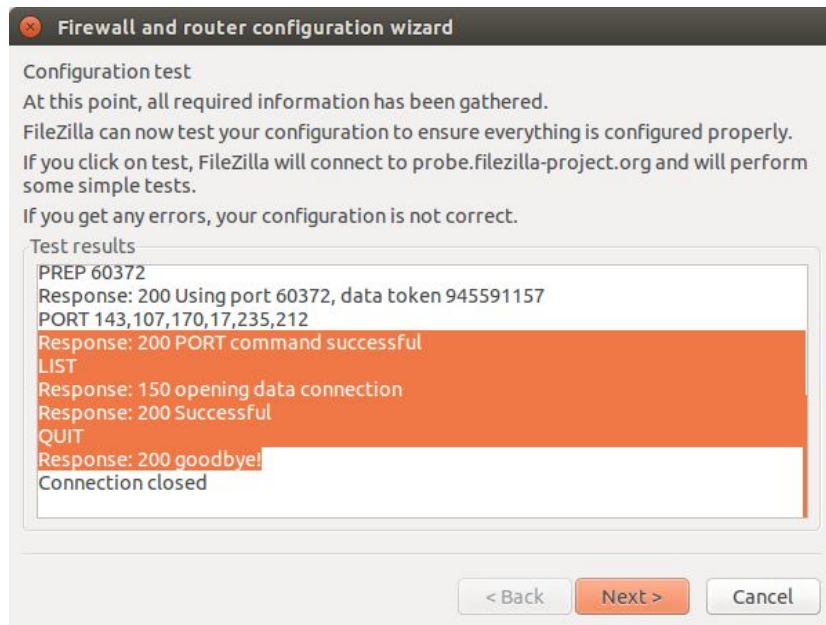
If you use a firewall, make sure FileZilla is allowed to accept connection on all given ports.

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Next >

Cancel

Press test and compare the results. You should see an output like this.



If everything is ok, finish the wizard. Now you have a FTP client configured and it should connect to our server with no error.

Uploading files to FTP server

You can upload either one or several files to our server using FTP protocol.

It is recommended to use this way to upload files larger than 2GB instead of using HTTP protocol, which can transfer only files less than 2GB.

You will use the Filezilla FTP client to connect to our server and transfer the files more quickly.

Connect to FTP server

To connect to our server, insert your Galaxy credential and the FTP address. If you don't have a Galaxy credential, you can request it emailing us: geninfo@icb.usp.br.

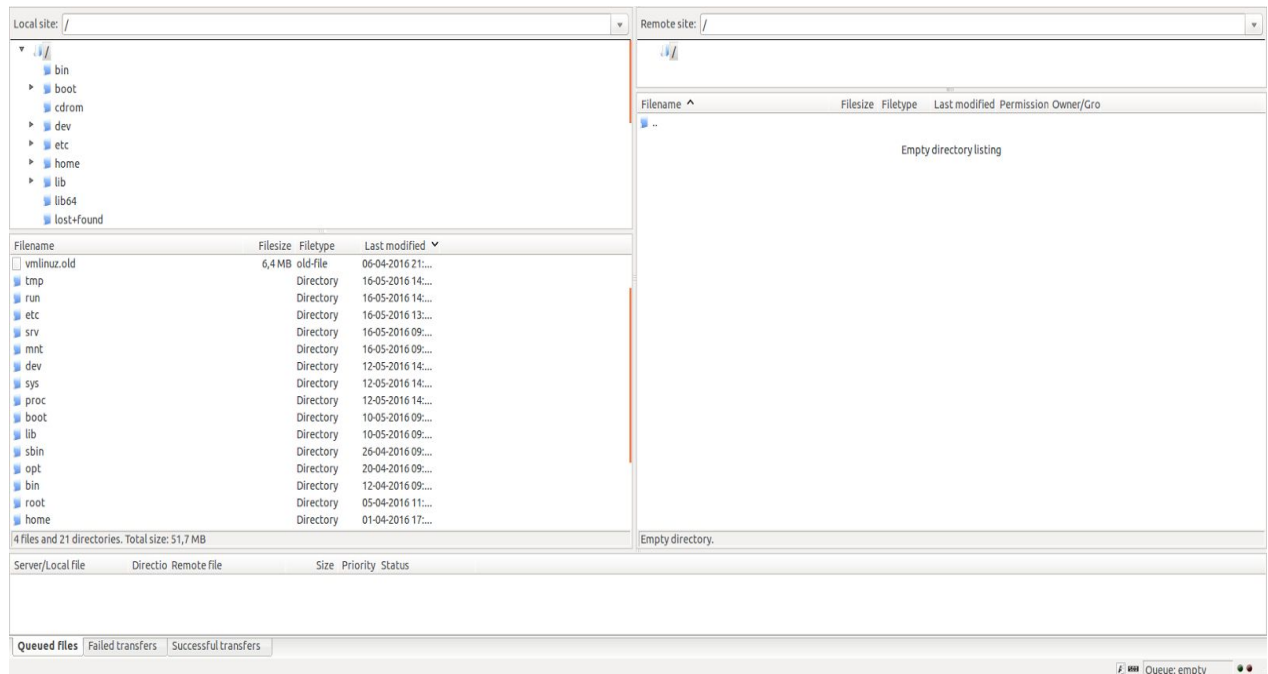
Host: cefap.icb.usp.br Port: 8021



Clicking at Quickconnect, Filezilla will try to connect to our server using the provided information. If everything is ok, you will receive the results above.

```
Status:      Disconnected from server
Status:      Resolving address of cefap.icb.usp.br
Status:      Connecting to 143.107.170.12:8021...
Status:      Connection established, waiting for welcome message...
Response:    220 ProFTPD 1.3.5rc3 Server (Public Galaxy FTP) [::ffff:172.17.0.2]
Command:     USER admin@galaxy.org
Response:    331 Password required for admin@galaxy.org
Command:     PASS *****
Response:    230 User admin@galaxy.org logged in
Command:     OPTS UTF8 ON
Response:    200 UTF8 set to on
Status:      Connected
Status:      Retrieving directory listing...
Command:     PWD
Response:    257 "/" is the current directory
Status:      Directory listing successful
```

Filezilla has two panels. Your local files are on the left panel and the server files are on the right panel. To transfer a file from local to server, just click at file twice. You can see the transfer queue and status at the bottom. Once the transfer is done, the file will appear at the right panel.



In this test, we've upload a file named fasta.fasta. Now you can go back to Galaxy and upload the file to your history.

Uploading file to Galaxy

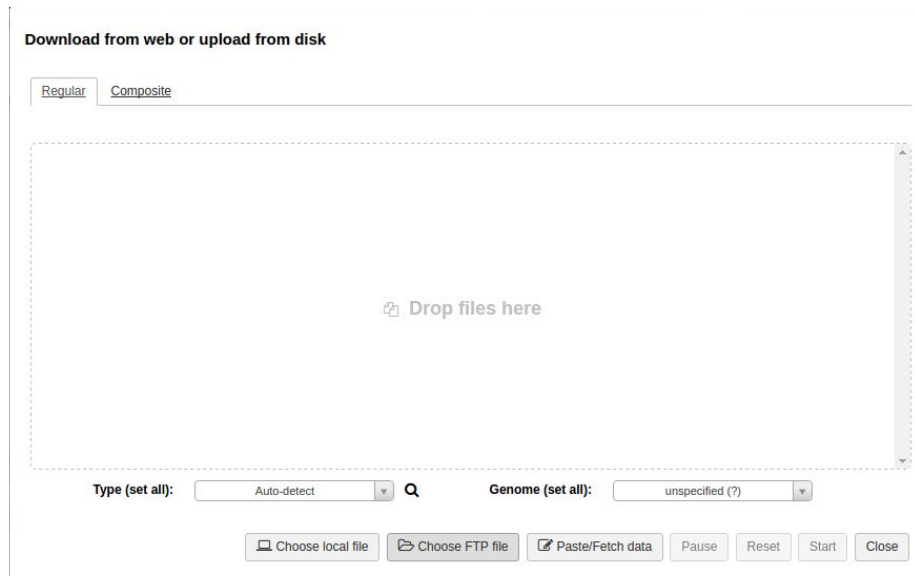
Now, you have a file on the server waiting to be uploaded to your history. While you don't upload this file to Galaxy, it will be at the FTP folder.

Only the owner of the file can see them at the upload tool.

So, to upload the file in FTP folder to your history, go to Galaxy and click at the tool Upload file or at the upload icon (shown above).

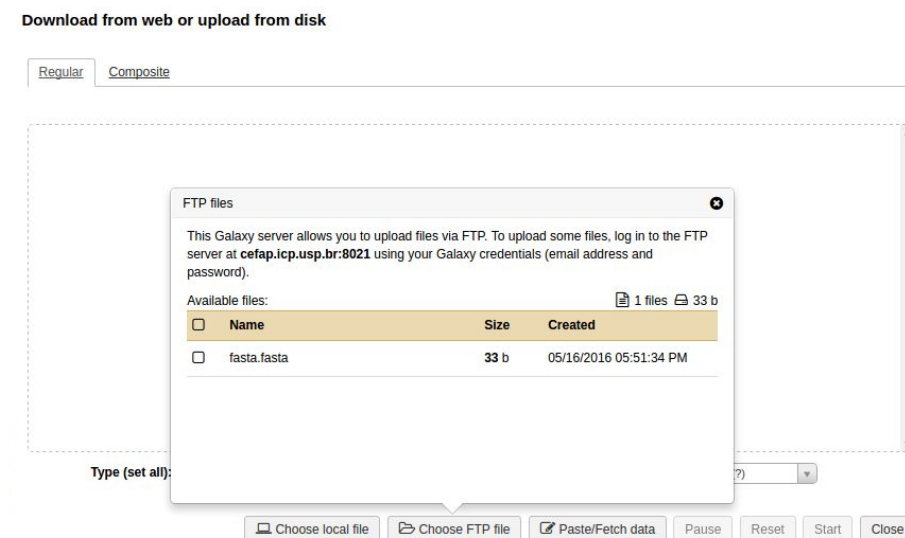


The Upload tool will open and show three options to upload a file. Click at Choose FTP File to open the files in FTP folder.



At this time, all the files that you have upload to FTP folder will be listed. You can select as many files as you want at once. If you don't select a file, it will be left in the folder and you can upload it later.

So, you have a file waiting to be upload to your history called fasta.fasta. You select the file and close the window. The file will be in the upload queue. Just click at Start button and the process of upload will start.



After the upload, the selected files are purged from the FTP folder.

If you have troubles to use FTP transfer, please contact us: geninfo@icb.usp.br.