



Downloading data from the SRA website

Sequence Read Archive Submissions Staff

General Information

Overview

SRA data may be downloaded using HTTP, FTP, or the Aspera Connect plugin. The easiest way to acquire SRA data is to (1) [search](#) for data sets of interest, (2) click on an Experiment of interest from the results to learn more, (3) click on one of the “SRR” accessions that comprise the experiment (this will lead you to the [SRA Run Browser](#)), and (4) click on the “Download” tab for this data set. You will be presented with the option to download the individual data set (“Run”), all related datasets within the same Experiment, and all data for the entire Study. HTTP, FTP, and Aspera links can be directly accessed through a web browser on this page. Please note that download via Aspera requires installation of the free [Aspera Connect](#) plugin. FTP links may be directly copied into a FTP client for browsing or download, if you prefer.

What is Aspera Connect?

Aspera Connect is a free software package that allows you to transfer data files using a browser plugin or a command line program called `ascp` (Aspera secure copy) on Linux, Windows, and Macintosh operating systems.

The Aspera Connect Fast And Secure Protocol (`fasp`) uses a [User Datagram Protocol](#) (UDP) rather than the [Transmission Control Protocol](#) (TCP) used by [File Transfer Protocol](#) (FTP) — making Aspera much faster than FTP, so a transfer over a long distance is less likely to end in the middle of the transmission.

When you want to systematically download a large number of files, use the `ascp` command line program that is included in the [Aspera Connect download](#) instead of the Aspera Connect web plugin.

Some important Aspera Connect Features:

- The ability to restart if your data transfer is interrupted midstream
- Will run as a lower priority task if there is other data traffic on your network connections to avoid starving other protocols that you have running.
- Effective throughput up to 600 Mbps to a single site.

Which version of Aspera Connect Software do I need? Do all versions work equally well?

Make sure you are running a current version of [Aspera Connect](#). If you experience any transfer problems or find that your transfer speed is below what you expect, update to the most recent version of Aspera Connect when you trouble-shoot your transfer problem.

Notes:

- There is no time limit on your Aspera Connect key; you can use it for downloading SRA data as long as NCBI/SRA contracts with Aspera.
- When you download the Aspera Software, be sure you are downloading the *Aspera Connect Client Software*, rather than the *Aspera Connect Server Software*.

When should I use Aspera Connect to download SRA data, and when should I use the Aspera secure copy (ascp) command line program?

Use Aspera Connect if you want to download files through an internet browser. If you want programmatically download of a large number of files, use the ascp command-line program.

Using the Aspera Connect Web Plugin Software

Downloading and configuring Aspera Connect

- Download Aspera Connect [here](#).
- Instructions for installing and configuring the Aspera Connect web plugin software are in the [SRA Aspera Transfer Guide](#).

Note: It is important to properly configure Aspera Connect, as the default transfer speed is only 10 Mbps. Please see the “Aspera Connect Configuration” section of the [Aspera Transfer Guide](#) for more information.

Note: Once you download Aspera Connect, it will run in the background so that when you click to download a file, the Aspera fasp protocol will automatically take precedence above the FTP protocol for your file transfer.

Note: We do **not** recommend running more than 4 Aspera Connect download sessions simultaneously.

Do I need to supply an ID or code key to use Aspera Connect web software to download NCBI data?

No. You do not need to supply an ID or code key. Since the key is already integrated into the software, when you click to download a file, the Aspera fasp protocol will start automatically.

Note: Your Aspera Connect key does not expire, and you can use it to download SRA data as long as NCBI/SRA contracts with Aspera.