



How to Copy Files Between Computers with SCP

(If You Already Set Up SSH, You Already Have This)

SCP Rides on SSH

SCP stands for "secure copy." It moves files over the exact same encrypted connection that SSH uses to log in. If you have already set up SSH (see the SSH on Linux and SSH on Windows tips on the tools page), SCP works right now; there is nothing new to install. The file goes straight from your machine to the other one, encrypted the whole way. No cloud, no third-party upload site, no account, no file-size limit but your own disk.

Step 1: Confirm SSH Already Works

Before copying anything, make sure a plain login succeeds. From the machine you are sitting at, run:

```
ssh your-username@192.168.1.112
```

If that logs you in, SCP will copy to and from that same machine without any extra setup. If it does not connect, fix SSH first; the SSH tips walk through it. Replace the username with your real account and the address with the other computer's IP.

Step 2: Learn the Shape of the Command

Every SCP command is just two pieces, in this order:

```
scp [the file you want] [where it should go]
```

Source first, destination second, exactly like the everyday copy command. The one new idea is how you write a spot on another computer:

```
username@ip-address:/path/to/folder
```

Step 3: Send a File TO Another Computer (Upload)

The colon after the address is the important part. It is what tells SCP "this side is a remote machine, not a folder on my own computer."

```
scp report.pdf your-username@192.168.1.112:/home/your-username/
```

In plain English: take report.pdf from where I am now and drop it into that user's home folder on the other machine. Run it from the folder that actually holds the file, or type the file's full path instead of just its name.

Step 4: Pull a File FROM Another Computer (Download)

Flip the two halves. The remote location comes first now, and the destination is your own machine:

```
scp your-username@192.168.1.112:/home/your-username/report.pdf .
```

That single dot at the end means "into the folder I am sitting in right now." It is the most useful shortcut in the whole tool.

Step 5: Copy a Whole Folder

Add -r (for "recursive") and point at a folder instead of a file. Everything inside comes along:

```
scp -r ./case-files your-username@192.168.1.112:/home/your-username/
```

Tip: The colon is everything. user@ip:/path is a remote machine; /path with no user@ip: in front is a file on your own computer. Forgetting the colon is the single most common SCP mistake, and it usually ends up creating an oddly named local file instead of sending anything.

Tip: Names with spaces need quotes around the whole remote side, like scp "fee agreement.pdf" "user@ip:/home/user/My Files/" . Without the quotes the space breaks the command in half.

The One Gotcha Everyone Hits: The Port Flag

If the other computer runs SSH on a non-standard port, SCP sets it with a capital -P . Plain SSH uses a lowercase -p for the same thing. This mismatch trips up nearly everyone the first time:

```
scp -P 2222 report.pdf your-username@192.168.1.112:/home/your-username/
```

Quick Reference

If you set up key-based login in the SSH tip, SCP uses your key automatically, so it will not ask for a password. And when a transfer fails for no obvious reason, add -v to any command to watch exactly what it is doing and where it stops.

Task Command

Send a file up (upload) `scp file.pdf user@ip:/home/user/`

Pull a file down (download) `scp user@ip:/home/user/file.pdf .`

Send a whole folder `scp -r ./folder user@ip:/home/user/`

Pull a whole folder `scp -r user@ip:/home/user/folder .`

Use a custom SSH port `scp -P 2222 file.pdf user@ip:/home/user/`

See why it failed add -v to any command

HAND THIS TO YOUR AI

"I want to copy a file from my computer to another machine over SSH using scp. My username on the other machine is __, *its address is* __, and the file is _____. Give me the exact command, explain each part, and tell me how to copy it back the other way."