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# Getting Started

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For this guide let's assume you have two machines between which you want to synchronise files. In keeping with Syncthing terminology they are going to be called “devices” in the rest of the documentation. The “local device” is the one you are configuring, viewing status for, etc., while the “remote device” is the other machine.

The best way to follow this guide is to do the install on both machines and configure them in parallel. If both machines aren't accessible simultaneously that's fine, the results will just be a little less immediately obvious.

A film version of this transcript is available on YouTube (contributed by @theincogtion). [This video](#) shows how to install Syncthing on Ubuntu/Debian/Mint using PPA, also available in [German](#). [This video](#) shows how to install Syncthing on Windows, also available in [German](#).



## INSTALLING

We suggest you have a look at the contributions which let you pick a flavor of Syncthing that best fits your scenario. For example, if you are interested in a cross-platform GUI application you can check out [Syncthing-GTK](#). The community has also developed Windows, Android and many more specific flavors that help you run Syncthing on your devices. Currently all community flavors run the same Syncthing core underneath, so don't worry about changing your flavor at a later point in time. The remainder of this page will explain how to set up two devices with the core Syncthing flavor.

### 1.1 Syncthing

Grab the [latest release](#) of Syncthing for your operating system and unpack it (if you use Debian/Ubuntu you may want to use the [Debian repository](#)). There will be a binary called `syncthing` (or `syncthing.exe` on Windows). Start this in whatever way you are most comfortable with; double-clicking should work in any graphical environment, but I'll use the command line to better illustrate what happens. At first start Syncthing will generate a configuration file, some encryption keys and then start the admin GUI in your browser. Something like the following will be printed in the command line:

```
> syncthing
[monitor] 22:56:32 INFO: Log output saved to file "C:\Users\User\AppData\
↳ Local\Syncthing\syncthing.log"
[monitor] 22:56:32 INFO: Default folder created and/or linked to new config
[start] 22:56:32 INFO: syncthing v1.7.1 "Fermium Flea" (go1.14.4 windows-386)
↳ teamcity@build.syncthing.net 2020-07-11 18:17:41 UTC
[start] 22:56:32 INFO: Default folder created and/or linked to new config
[start] 22:56:32 INFO: Default config saved. Edit C:\Users\User\AppData\Local\
↳ Syncthing\config.xml to taste (with Syncthing stopped) or use the GUI
[6FOKX] 22:56:33 INFO: My ID: 6FOKXKK-SKUBWFW-GSKX6IQ-ZC4SYUZ-5IEVZKE-TC42AAX-
↳ HW7IBW4-GAZFAQ7
[6FOKX] 22:56:34 INFO: Single thread SHA256 performance is 123 MB/s using
↳ crypto/sha256 (108 MB/s using minio/sha256-simd).
[6FOKX] 22:56:34 INFO: Hashing performance is 106.31 MB/s
[6FOKX] 22:56:34 INFO: Overall send rate is unlimited, receive rate is
↳ unlimited
[6FOKX] 22:56:34 INFO: Using discovery server https://discovery.syncthing.net/
↳ v2/?noannounce&id=LYXKCHX-VI3NYZR-ALCJBHF-WMZYSKP-QG6QJA3-MPFYMSO-U56GTUK-
↳ NA2MIAW
[6FOKX] 22:56:34 INFO: Using discovery server https://discovery-v4.syncthing.
↳ net/v2/?nolookup&id=LYXKCHX-VI3NYZR-ALCJBHF-WMZYSKP-QG6QJA3-MPFYMSO-U56GTUK-
↳ NA2MIAW
```

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```
[6FOKX] 22:56:34 INFO: Using discovery server https://discovery-v6.syncthing.  
↪net/v2/?nolookup&id=LYXKCHX-VI3NYZR-ALCJBHF-WMZYSKP-QG6QJA3-MPFYMSO-U56GTUK-  
↪NA2MIAW  
[6FOKX] 22:56:34 INFO: Ready to synchronize "Default Folder" (default)↪  
↪(sendreceive)  
[6FOKX] 22:56:34 INFO: QUIC listener ([::]:22000) starting  
[6FOKX] 22:56:34 INFO: TCP listener ([::]:22000) starting  
[6FOKX] 22:56:34 INFO: Relay listener (dynamic+https://relays.syncthing.net/  
↪endpoint) starting  
[6FOKX] 22:56:34 INFO: Completed initial scan of sendreceive folder "Default↪  
↪Folder" (default)  
[6FOKX] 22:56:34 INFO: GUI and API listening on 127.0.0.1:8384  
[6FOKX] 22:56:34 INFO: Access the GUI via the following URL: http://127.0.0.  
↪1:8384/  
[6FOKX] 22:56:34 INFO: My name is "This computer"  
[6FOKX] 22:56:45 INFO: quic://0.0.0.0:22000 detected NAT type: Symmetric NAT  
[6FOKX] 22:56:45 INFO: quic://0.0.0.0:22000 resolved external address quic://  
↪125.190.151.7:59296 (via stun.syncthing.net:3478)  
[6FOKX] 22:56:46 INFO: Detected 0 NAT services
```

At this point Syncthing will also have set up a folder called `Default Folder` for you, in a directory called `Sync` in your home directory (`%USERPROFILE%` on Windows). You can use this as a starting point, then remove it or add more folders later.



## CONFIGURING

The admin GUI starts automatically and remains available on `http://localhost:8384/`. Cookies are essential to the correct functioning of the GUI; please ensure your browser accepts them. It should look something like this:

The screenshot displays the Syncthing web interface. At the top, there's a header with the Syncthing logo, the text 'This computer', and links for 'English', 'Help', and 'Actions'. The main content is divided into two sections: 'Folders' and 'This Device'. The 'Folders' section shows a single folder named 'Default Folder' with a status of 'Unshared'. Below it are buttons for 'Pause All', 'Rescan All', and 'Add Folder'. The 'This Device' section shows a table of system metrics for 'This computer', including Download Rate, Upload Rate, Local State (Total), Listeners, Discovery, Uptime, and Version. Below this is a 'Remote Devices' section with a 'Pause All' button, a 'Recent Changes' button, and an 'Add Remote Device' button. At the bottom, there's a footer with links to 'Home page', 'Documentation', 'Support', 'Statistics', 'Changelog', 'Bugs', 'Source Code', and a 'Twitter' link.

This Device	
Download Rate	0 B/s (0 B)
Upload Rate	0 B/s (0 B)
Local State (Total)	0 0 ~0 B
Listeners	2/3
Discovery	3/5
Uptime	38m
Version	v1.7.1, Windows (32 bit)

On the left is the list of “folders”, or directories to synchronize. You can see the `Default Folder` was created for you, and it’s currently marked “Unshared” since it’s not yet shared with any other device. On the right is the list of devices. Currently there is only one device: the computer you are running this on.

For Syncthing to be able to synchronize files with another device, it must be told about that device. This is accomplished by exchanging “device IDs”. A device ID is a unique, cryptographically-secure identifier that is generated as part of the key generation the first time you start Syncthing. It is printed in the log above, and you can see it in the web GUI by selecting “Actions” (top right) and “Show ID”.

Two devices will *only* connect and talk to each other if they are both configured with each other’s device ID. Since the configuration must be mutual for a connection to happen, device IDs don’t need to be kept secret. They are essentially part of the public key.


To get your two devices to talk to each other click “Add Remote Device” at the bottom right on both devices, and enter the device ID of the other side. You should also select the folder(s) that you want to

share. The device name is optional and purely cosmetic. You can change it later if desired.

The screenshot shows the 'Add Device' dialog box in the Syncthing GUI. The 'General' tab is selected. The 'Device ID' field contains the text 'YUNYZV6-EFNM4HM-EIZPGMJ-7WJ6MRA-QCVD BG5-2EJIJUO-WPZOAH3-2NDNVQ6'. Below this, a message states: 'You can also select one of these nearby devices:' followed by a list item: '• YUNYZV6-EFNM4HM-EIZPGMJ-7WJ6MRA-QCVD BG5-2EJIJUO-WPZOAH3-2NDNVQ6'. A note explains: 'The device ID to enter here can be found in the "Actions > Show ID" dialog on the other device. Spaces and dashes are optional (ignored). When adding a new device, keep in mind that this device must be added on the other side too.' The 'Device Name' field is empty. A note below it says: 'Shown instead of Device ID in the cluster status. Will be updated to the name the device advertises if left empty.' At the bottom right are buttons for 'Save', 'Show QR', and 'Close'.


The screenshot shows the 'Add Device' dialog box in the Syncthing GUI, with the 'Sharing' tab selected. Under the 'Introducer' section, there is a checkbox and the text: 'Add devices from the introducer to our device list, for mutually shared folders.' Under the 'Auto Accept' section, there is a checkbox and the text: 'Automatically create or share folders that this device advertises at the default path.' The 'Share Folders With Device' section has the text: 'Select the folders to share with this device.' followed by 'Select All' and 'Deselect All' links. A checkbox is checked next to 'Default Folder'. At the bottom right are buttons for 'Save', 'Show QR', and 'Close'.

Once you click “Save” the new device will appear on the right side of the GUI (although disconnected) and then connect to the new device after a minute or so. Remember to repeat this step for the other device.

 This computer

English ▾ Help Actions ▾

## Folders












 Default Folder Up to Date

Pause All







Rescan All

+ Add Folder

## This Device

 This computer	
 Download Rate	0 B/s (163 B)
 Upload Rate	0 B/s (302 B)
 Local State (Total)	 0  0  ~0 B
 Listeners	2/3
 Discovery	3/5
 Uptime	43m
 Version	v1.7.1, Windows (32 bit)


## Remote Devices


 Other computer <span>Up to Date</span>	
 Download Rate	0 B/s (163 B)
 Upload Rate	0 B/s (151 B)
 Address	127.0.0.1:49912
 Version	v1.7.1
 Folders	Default Folder
<div><div>Pause</div><div>Edit</div></div>	


Pause All


Recent Changes


+ Add Remote Device


 Home page


 Documentation


 Support

 Statistics

 Changelog

 Bugs

 Source Code

 Twitter

At this point the two devices share an empty directory. Adding files to the shared directory on either device will synchronize those files to the other side.

If you are using a Syncthing flavor that adds OS specific functionality (e.g. the Android app), you may need to access the Web GUI to enable syncing folders, and other configuration options.

Good luck and have fun! There is more [documentation](#) and if you run into trouble feel free to post a question in the [support forum](#). If you have problems getting devices to connect, first take a look at firewall-setup, then look at any error messages in the GUI or on the console. Don't forget that configuration changes will not be reflected instantly - give Syncthing a little time, especially after a restart.