

How to Create a Bootable Backup on macOS

Creating a bootable backup is an essential task for any macOS user who wants to ensure that their data is safe and their system can be quickly restored in case of a failure. A bootable backup is a clone of your hard drive that can be used to boot your Mac, providing a complete copy of your operating system, applications, and files. This article will guide you through the steps to create a bootable backup on macOS using built-in tools and third-party software.

Examples:

Using Disk Utility

1. Prepare an External Drive:

- Connect an external hard drive to your Mac. Ensure that it has enough space to hold all the data from your internal drive.
- Open Disk Utility (found in Applications > Utilities).
- Select the external drive from the list on the left and click "Erase."
- Choose a format (APFS or Mac OS Extended (Journaled)) and give it a name. Click "Erase" to format the drive.

2. Clone the Internal Drive:

- In Disk Utility, select your internal drive from the list.
- Click the "Restore" tab.
- Drag the external drive from the list to the "Destination" field.
- Click "Restore" to start the cloning process.

Using Carbon Copy Cloner (CCC)

1. Download and Install CCC:

- Visit the official Carbon Copy Cloner website and download the application.
- Install CCC by dragging it to your Applications folder.

2. Create a Bootable Backup:

- Open Carbon Copy Cloner.
- In the main window, select your internal drive as the "Source."
- Select your external drive as the "Destination."
- Click "Clone" to start the process.



3. Verify the Bootable Backup:

- Once the cloning process is complete, restart your Mac.
- Hold down the Option (?) key during startup to access the Startup Manager.
- Select your external drive to boot from it and verify that the backup is working correctly.

Using Terminal

1. Prepare an External Drive:

- Follow the same steps as in the Disk Utility section to format your external drive.

2. Clone the Internal Drive:

- Open Terminal (found in Applications > Utilities).
- Use the asr (Apple Software Restore) command to clone the drive:

```
sudo asr restore --source /Volumes/MacintoshHD --target /Volumes/ExternalDrive --erase --noprompt
```

- Replace /Volumes/MacintoshHD with the name of your internal drive and /Volumes/ExternalDrive with the name of your external drive.