

Software Distribution

- ▶ **Video:** Module Introduction
33 sec
- ▶ **Video:** Windows: Software Packages
5 min
- ⌘ **Reading:** Supplemental Reading for Windows Software Packages
10 min
- ▶ **Video:** Linux: Software Packages
2 min
- ▶ **Video:** Mobile App Packages
3 min
- ⌘ **Reading:** Supplemental Reading for Mobile App Packages
10 min
- ⌘ **Reading:** Supplemental Reading for Updating Mobile Apps
10 min
- ⌘ **Reading:** Supplemental Reading for Mobile Device Storage
10 min
- ▶ **Video:** Windows: Archives
3 min
- ⌘ **Reading:** Supplemental Reading for 7-Zip and PowerShell Zips
10 min
- ▶ **Video:** Linux: Archives
1 min
- ⌘ **Reading:** Supplemental Reading for the Linux Tar Command
10 min
- ▶ **Video:** Windows: Package Dependencies
6 min
- ⌘ **Reading:** Supplemental reading for Windows Package Dependencies
10 min
- ▶ **Video:** Linux: Package Dependencies
1 min
- ⌘ **Reading:** Supplemental Reading for Linux Package Dependencies
10 min
- ⌘ **Practice Quiz:** Software Distribution
5 questions

Package Managers

What's happening in the background?

Device Software Management

Graded Assessments

Supplemental Reading for Mobile Device Storage

Mobile Device Storage Space

In this reading, you will learn how to check mobile devices for available storage space and how to free up storage when space is low. Storage space on mobile devices is often limited. It is a best practice to ensure that there is sufficient space on a mobile device before installing new apps or saving new files. As an IT Support Specialist, checking storage space is an important troubleshooting step. Like PCs, mobile devices can experience unusual errors when storage space runs low. Imagine a user is trying to install an app or save a file to a mobile device and an unexpected error occurs. If the error does not generate an informative error message, you will have to investigate the problem. The first troubleshooting step for an installation or saving problem should be to check if there is enough storage space for the new app or file.

Sometimes, limitations may be reached without the user intentionally adding programs or files to their device. Automatically generated temporary cache files, for instance, can fill up the last bit of storage space and cause unusual performance problems. Fortunately, unused or rarely used apps and files can be uninstalled or deleted to make space for new items. Users should also be encouraged to use cloud storage for photos, videos, and other important files, instead of storing the files locally on the mobile device. This not only saves storage space, but it also helps in protecting the files if the mobile device is lost, stolen, or broken.

Apple mobile devices

Both iOS and iPadOS automatically analyze how much space apps occupy in storage on iPhones and iPads. You can see how much storage is available through the device's Settings menu, on iTunes, or through a computer with a connection to the mobile device. Apple mobile devices can be configured to free up space automatically when they are low on storage space. The devices will select files that can be downloaded again if needed for removal. These files can include cache, local copies of files that are stored in the cloud, streamed videos and music, and temporary files. Apple devices should also generate an alert when storage space is almost full to give the user an opportunity to select specific apps and files for removal.

The following steps should be followed to check the storage space available on iPhones and iPads (*note that instructions may vary by OS version; iPadOS 15 was used for these instructions*):

1. Navigate to **Settings > General > iPhone Storage** or **iPad Storage**.
2. The first item on the Storage screen should be a visual indicator of how much storage space has been used out of the total storage space available on the device. It might be color coded to delineate which types of items are occupying the used storage space, such as apps, messages, media, system data, etc.
3. Check the RECOMMENDATIONS section near the top of the screen (if available). This section might suggest automatically deleting messages that are over a year old or automatically uninstalling unused apps when space is running low. Be sure to investigate the suggested items for deletion to ensure that the items will not be missed before clicking **Enable**.
4. Review the next section, which lists the apps installed on the device. The file size and date last used will be listed for each app. If you open the detailed view for an app, you might see options like:
 - a. **Offload the app** - Removes the app only, but keeps app data and documents.
 - b. **Delete the app** - Removes the app, its data, and related documents.
5. Select the best option that suits the device user's needs.
6. Move any photos, videos, and other user-created files to iCloud storage and remove the copy stored on the device's storage space.

Android mobile devices

Android is an open operating system (OS), which allows manufacturers to change the OS configuration. These changes can include how system settings are accessed. For example, most versions of Android should have **Storage** listed immediately under **Settings**. However, Samsung Android phones have **Storage** settings listed under either **Device Maintenance** or **Device Care**. If an Android device's Storage settings cannot be located easily, it is best to consult the device manufacturer's manual. Mobile device manuals can often be found online.

Instructions for most Android phones and tablets (*note that instructions may vary by OS version; Android 12 was used for these instructions*):

1. Navigate to **Settings > Storage**
2. The Storage screen may display a visual indicator illustrating how much storage space has been used out of the total storage space available on the device. Like Apple devices, the graphic might be color coded to indicate which types of **USER DATA** are occupying the used storage space, such as images, videos, audio, documents, apps, etc.
3. Click the **CLEAN UP** button under the graphic (if available).
4. A new window should open to show a list of items that Android has analyzed and **RECOMMENDED FOR CLEANUP**. Next to each item may be a button labeled **CLEAN UP**. Scroll down to the bottom of the list to find the **SPECIAL CLEANUPS** section.
 - a. For some items, like **Junk Files**, clicking the **CLEAN UP** button will automatically remove the files.
 - b. For other items, like **Images** or **Videos**, clicking the **CLEAN UP** button will give the user a checklist of specific items to select for removal. Be sure to investigate the suggested items for deletion to ensure that the items will not be missed by the user.

Mark as completed

- 👍 Like
- 👎 Dislike
- 📄 Report an issue