

# Get started with AzCopy

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AzCopy is a command-line utility that you can use to copy blobs or files to or from a storage account. This article helps you download AzCopy, connect to your storage account, and then transfer data.

## ⓘ Note

AzCopy **V10** is the currently supported version of AzCopy.

If you need to use a previous version of AzCopy, see the [Use the previous version of AzCopy](#) section of this article.

## Download AzCopy

First, download the AzCopy V10 executable file to any directory on your computer. AzCopy V10 is just an executable file, so there's nothing to install.

- [Windows 64-bit](#) (zip)
- [Windows 32-bit](#) (zip)
- [Linux x86-64](#) (tar)
- [Linux ARM64 Preview](#) (tar)
- [macOS](#) (zip)

These files are compressed as a zip file (Windows and Mac) or a tar file (Linux). To download and decompress the tar file on Linux, see the documentation for your Linux distribution.

For detailed information on AzCopy releases, see the [AzCopy release page](#) .

## ⓘ Note

If you want to copy data to and from your **Azure Table storage** service, then install **AzCopy version 7.3** .

# Run AzCopy

For convenience, consider adding the directory location of the AzCopy executable to your system path for ease of use. That way you can type `azcopy` from any directory on your system.

If you choose not to add the AzCopy directory to your path, you'll have to change directories to the location of your AzCopy executable and type `azcopy` or `.\azcopy` in Windows PowerShell command prompts.

As an owner of your Azure Storage account, you aren't automatically assigned permissions to access data. Before you can do anything meaningful with AzCopy, you need to decide how you'll provide authorization credentials to the storage service.

## Authorize AzCopy

You can provide authorization credentials by using Azure Active Directory (AD), or by using a Shared Access Signature (SAS) token.

Use this table as a guide:

Storage type	Currently supported method of authorization
Blob storage	Azure AD & SAS
Blob storage (hierarchical namespace)	Azure AD & SAS
File storage	SAS only

### Option 1: Use Azure Active Directory

This option is available for blob Storage only. By using Azure Active Directory, you can provide credentials once instead of having to append a SAS token to each command.

### Option 2: Use a SAS token

You can append a SAS token to each source or destination URL that use in your AzCopy commands.

This example command recursively copies data from a local directory to a blob container. A fictitious SAS token is appended to the end of the container URL.

AzCopy

```
azcopy copy "C:\local\path"  
"https://account.blob.core.windows.net/mycontainer1/?sv=2018-03-  
28&ss=bjqt&srt=sco&sp=rwddgcup&se=2019-05-01T05:01:17Z&st=2019-04-  
30T21:01:17Z&spr=https&sig=MGCXiyEzbttkr3ewJIh2AR8KrgHsy1DGM9ovN734bQF4%3D" --  
recursive=true
```

To learn more about SAS tokens and how to obtain one, see [Using shared access signatures \(SAS\)](#).

### ⓘ Note

The **Secure transfer required** setting of a storage account determines whether the connection to a storage account is secured with Transport Layer Security (TLS). This setting is enabled by default.

## Transfer data

After you've authorized your identity or obtained a SAS token, you can begin transferring data.

To find example commands, see any of these articles.

Service	Article
Azure Blob Storage	<a href="#">Upload files to Azure Blob Storage</a>
Azure Blob Storage	<a href="#">Download blobs from Azure Blob Storage</a>
Azure Blob Storage	<a href="#">Copy blobs between Azure storage accounts</a>
Azure Blob Storage	<a href="#">Synchronize with Azure Blob Storage</a>
Azure Files	<a href="#">Transfer data with AzCopy and file storage</a>
Amazon S3	<a href="#">Copy data from Amazon S3 to Azure Storage</a>
Google Cloud Storage	<a href="#">Copy data from Google Cloud Storage to Azure Storage (preview)</a>

Service	Article
Azure Stack storage	<a href="#">Transfer data with AzCopy and Azure Stack storage</a>

## Get command help

To see a list of commands, type `azcopy -h` and then press the ENTER key.

To learn about a specific command, just include the name of the command (For example: `azcopy list -h`).

```

Windows PowerShell
PS C:\> azcopy list -h
List the entities in a given resource. Blob, Files, and ADLS Gen 2 containers, folders, and accounts are supported.

Usage:
  azcopy list [containerURL] [flags]

Aliases:
  list, ls

Examples:
azcopy list [containerURL]

Flags:
  -h, --help                help for list
  --machine-readable        Lists file sizes in bytes.
  --mega-units              Displays units in orders of 1000, not 1024.
  --running-tally          Counts the total number of files and their sizes.

```

## List of commands

The following table lists all AzCopy v10 commands. Each command links to a reference article.

Command	Description
<a href="#">azcopy bench</a>	Runs a performance benchmark by uploading or downloading test data to or from a specified location.
<a href="#">azcopy copy</a>	Copies source data to a destination location
<a href="#">azcopy doc</a>	Generates documentation for the tool in Markdown format.
<a href="#">azcopy env</a>	Shows the environment variables that can configure AzCopy's behavior.
<a href="#">azcopy jobs</a>	Subcommands related to managing jobs.
<a href="#">azcopy jobs clean</a>	Remove all log and plan files for all jobs.

Command	Description
<code>azcopy jobs list</code>	Displays information on all jobs.
<code>azcopy jobs remove</code>	Remove all files associated with the given job ID.
<code>azcopy jobs resume</code>	Resumes the existing job with the given job ID.
<code>azcopy jobs show</code>	Shows detailed information for the given job ID.
<code>azcopy list</code>	Lists the entities in a given resource.
<code>azcopy login</code>	Logs in to Azure Active Directory to access Azure Storage resources.
<code>azcopy login status</code>	Lists the entities in a given resource.
<code>azcopy logout</code>	Logs the user out and terminates access to Azure Storage resources.
<code>azcopy make</code>	Creates a container or file share.
<code>azcopy remove</code>	Delete blobs or files from an Azure storage account.
<code>azcopy sync</code>	Replicates the source location to the destination location.
<code>azcopy set-properties</code>	Change the access tier of one or more blobs and replace (overwrite) the metadata, and index tags of one or more blobs.

### ⓘ Note

AzCopy does not have a command to rename files.

## Use in a script

### Obtain a static download link

Over time, the AzCopy [download link](#) will point to new versions of AzCopy. If your script downloads AzCopy, the script might stop working if a newer version of AzCopy modifies

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features that your script depends upon.

To avoid these issues, obtain a static (unchanging) link to the current version of AzCopy. That way, your script downloads the same exact version of AzCopy each time that it runs.

To obtain the link, run this command:

Operating system	Command
Linux	<code>curl -s -D- https://aka.ms/downloadazcopy-v10-linux   grep ^Location</code>
Windows (PowerShell Core 7)	<code>(Invoke-WebRequest https://aka.ms/downloadazcopy-v10-windows -MaximumRedirection 0 -ErrorAction silentlycontinue -SkipHttpErrorCheck).headers.location[0]</code>
Windows (PowerShell 5.1)	<code>(Invoke-WebRequest https://aka.ms/downloadazcopy-v10-windows -MaximumRedirection 0 -ErrorAction silentlycontinue ).headers.location</code>

#### ⓘ Note

For Linux, `--strip-components=1` on the `tar` command removes the top-level folder that contains the version name, and instead extracts the binary directly into the current folder. This allows the script to be updated with a new version of `azcopy` by only updating the `wget` URL.

The URL appears in the output of this command. Your script can then download AzCopy by using that URL.

Operating system	Command
Linux	<code>wget -O azcopy_v10.tar.gz https://aka.ms/downloadazcopy-v10-linux &amp;&amp; tar -xf azcopy_v10.tar.gz --strip-components=1</code>
Windows	<code>Invoke-WebRequest https://azcopyvnext.azureedge.net/release20190517/azcopy_windows_amd64_10.1.2.zip -OutFile azcopyv10.zip &lt;&lt;Unzip here&gt;&gt;</code>

## Escape special characters in SAS tokens

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In batch files that have the `.cmd` extension, you'll have to escape the `%` characters that appear in SAS tokens. You can do that by adding an extra `%` character next to existing `%` characters in the SAS token string.

## Run scripts by using Jenkins

If you plan to use [Jenkins](#) to run scripts, make sure to place the following command at the beginning of the script.

```
/usr/bin/keyctl new_session
```

## Use in Azure Storage Explorer

[Storage Explorer](#) uses AzCopy to perform all of its data transfer operations. You can use [Storage Explorer](#) if you want to apply the performance advantages of AzCopy, but you prefer to use a graphical user interface rather than the command line to interact with your files.

Storage Explorer uses your account key to perform operations, so after you sign into Storage Explorer, you won't need to provide additional authorization credentials.

## Configure, optimize, and fix

See any of the following resources:

- [AzCopy configuration settings](#)
- [Optimize the performance of AzCopy](#)
- [Find errors and resume jobs by using log and plan files in AzCopy](#)
- [Troubleshoot problems with AzCopy v10](#)

## Use a previous version

If you need to use the previous version of AzCopy, see either of the following links:

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- [AzCopy on Windows \(v8\)](#)
- [AzCopy on Linux \(v7\)](#)

## Next steps

If you have questions, issues, or general feedback, submit them [on GitHub](#) page.