

## Add to Archive Dialog Box

Allows you to specify options for creating or updating an archive.

### How to call this dialog box

1. In Windows Explorer or in 7-Zip, right-click the file(s) or folder(s) you want to compress.
2. Point to **7-Zip**, and then click the **Add to archive...** command item.

### Parameters

#### Archive

Provides a space for you to specify a destination archive name. You can click "..." button to display "Open" dialog box that you can use to locate archive.

#### Archive format

Specifies a format of created archive. Some formats (gzip and bzip2) do not support compressing more the one file per archive.

#### Compression level

Specifies compression level. There are 6 levels of compression:

Value	Meaning
Store	Files will be copied to archive without compression.
Fastest	Fastest compression.
Fast	Fast compression.
Normal	Compression with balanced settings.
Maximum	Can give a higher compression ratio than Normal level. But it can be slower, and it can require more memory.
Ultra	Can give a higher compression ratio than Maximum level. But it can be slower, and it can require more memory.

#### Compression method

Specifies compression method. Each archive format can have its own compression methods:

Method	Description
LZMA	Default compression method of 7z format. It provides high compression ratio and very fast decompression.
LZMA2	LZMA-based compression method. It provides better multithreading support than LZMA. But compression ratio can be worse in some cases. For best compression ratio with LZMA2 use 1 or 2 CPU threads. If you use LZMA2 with more than 2 threads, 7-zip splits data to chunks and compresses these chunks independently (2 threads per each chunk).
PPMd	Dmitry Shkarin's PPMdH algorithm with small changes. Usually it provides high compression ratio and high speed for text files.
BZip2	Standard compression method based on BWT algorithm. Usually it provides high speed and pretty good compression ratio for text files.
Deflate	Standard compression method of ZIP and GZip formats. Compression ratio is not too high. But it provides pretty fast compressing and decompressing. Deflate method supports only 32 KB dictionary.
Deflate64	Modified version of Deflate algorithm with bigger dictionary (64KB).

Estimated 7-Zip performance and memory requirements for AMD Athlon 64 X2 3800+:

Method	Level	Dictionary Size	Compressing Speed	Decompressing Speed	Memory for Compressing	Memory for Decompressing
LZMA	fastest	64 KB	4.5 MB/s	15 MB/s	3 MB	3 MB
	fast	1 MB	3 MB/s		10 MB	3 MB
	normal	16 MB	2 MB/s		186 MB	18 MB
	maximum	32 MB	1.8 MB/s		376 MB	34 MB
	ultra	64 MB	1.6 MB/s		709 MB	66 MB

PPMD	fast	4 MB	1.4 MB/s		6 MB	
	normal	24MB	1.2 MB/s		26 MB	
	maximum	64 MB	1.0 MB/s		66 MB	
	ultra	192 MB	0.9 MB/s		194 MB	
Deflate	fast	32 KB	15 MB/s	40 MB/s	3 MB	2 MB
	normal		3.5 MB/s		4MB	
	maximum		1.5 MB/s			
	ultra		0.4 MB/s			
BZip2	normal	900 KB	3 MB/s	16 MB/s	20 MB	7 MB
	maximum		1.2 MB/s			
	ultra		0.4 MB/s			

### Dictionary size

Specifies Dictionary size for compression method.

Usually, a higher Dictionary size gives a higher compression ratio. But compressing can be slower and it can require more memory.

Memory (RAM) usage for LZMA compressing is about 11 times more than dictionary size. Memory usage for LZMA decompressing is close to value of dictionary size. Memory usage for PPMd compressing and decompressing is almost equal to dictionary size.

### Word size

Specifies the length of words, which will be used to find identical sequences of bytes for compression.

Usually for LZMA and Deflate, big Word size gives a little bit better compression ratio and slower compression process. A big Word size parameter can significantly increase compression ratio for files which contain long identical sequences of bytes. For PPMd, the Word size strongly affects both compression ratio and compression/decompression speed.

### Solid Block size

Specifies the size of a solid block. You can also disable solid mode. In solid mode all files will be compressed as continuous data blocks. Usually compressing to a solid archive improves the compression ratio. You can use this option only for 7z archives. The updating of solid .7z archives can be slow, since it can require some recompression.

### Number of CPU threads

Specifies the number of threads for compressing. A big number of threads can speed up compression speed on Multi-Processor systems. Sometimes it can increase speed even on single-core CPU.

### Split to volumes

```
{Size}[b | k | m | g]
```

Specifies volume sizes in Bytes, Kilobytes (1 Kilobyte = 1024 bytes), Megabytes (1 Megabyte = 1024 Kilobytes) or Gigabytes (1 Gigabyte = 1024 Megabytes). If you specify only {Size}, 7-zip will treat it as bytes. It's possible to specify several values. Example:

```
10k 15k 2m
```

The first volume will be 10 KB, the second will be 15 KB, and all others will be 2 MB.

### Parameters

Allows you to specify parameters for compression. See the [-m \(Method\)](#) switch description for more details. Omit the -m prefix (as in -m switch) when using this dialog box.

### Examples

```
0=PPMd
```

uses PPMd method for compressing files.

```
0=bcj2 1=lzma:d23 2=lzma 3=lzma b0:1 b0s1:2 b0s2:3
```

uses BCJ2 filter (for x86 executables) and LZMA.

### Update mode

Specifies update mode:

Value	Meaning
Add and replace files	Add all specified files to the archive.
Update and add files	Update older files in the archive and add files that are new to the archive.
Freshen existing files	Update specified files in the archive that are older than the selected disk files.
Synchronize files	Replace specified files only if added files are newer. Always add those files, which are not present in the archive. Delete from archive those files, which are not present on the disk.

### Options

Specifies compression options:

Option	Meaning
Create SFX archive	Create self-extracting archive. You can use this option only for 7z archives. Look to <a href="#">-sfx (Create SFX archive)</a> switch description for more details about SFX modules.
Compress shared files	Compress files open for writing by another applications.

### Encryption

Specifies password and encryption options.

#### Enter password

Specify password here

#### Reenter password

Reenter password here for verification

#### Show Password

Shows Password

#### Encryption method

Specifies the encryption method. For 7z format, it can be only AES-256. For ZIP format you can select ZipCrypto or AES-256. Use ZipCrypto, if you want to get archive compatible with most of the ZIP archivers. AES-256 provides stronger encryption, but now AES-256 is supported only by 7-Zip, WinZip and some other ZIP archivers.

#### Encrypt file names

Enables or disables archive header encryption, including file name encryption.