

Archiver III Version 3.03

Revised 4/09/89 by Barry Boone

Notes on improvements from V2.4

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At long last, 3.0 is finally out. Version 3.0 was completely re-written from scratch, since 2.4 was simply too large and complex to try and add other features without running out of memory. This is the primary reason for the long delay between v2.4 and v3.0, and also the reason that 2.4 did not have many of the options/improvements 3.0 now has.

The greatest improvement to v3.0 is that the Pack/Compress and Unpack/Decompress steps have been consolidated into one step, which means you may now simultaneously Pack and Compress a group of files, Decompress and Unpack a group of files, or even Extract selected files from a COMPRESSED ARCHIVE! The program is still 100% compatible with v2.4, and still allows the option of creating uncompressed archives. It will also automatically detect whether an archive is compressed or decompressed and react appropriately.

Finally, compression has been optimized, so that you may expect to get slightly higher compression yields over v2.4, which will vary according to the types of files you are compressing. For example, Arc 2.4 compressed 187 sectors of text down to 85 sectors, while v3.0 compressed it down to 78 sectors. The secret to this improvement is that v3.0 takes into account that the disk files, in general, waste a certain amount of space on each sector, which usually contains meaningless garbage that gets compressed along with the rest of the file. Version 3.0 fills this unused space with zeros, resulting in improved compression according to the amount of unused space in the files. Variable and certain Fixed files will show the best improvement, while program files, in general, will show little or no improvement.

A View Text file option has been added in addition to the other File Management options in version 3.0, and the input menu system is MUCH friendlier. FCTN 9 (BACK) will still take you back to the main menu, and the main menu now contains ALL options available... the Utility menu was done away with. You may now press FCTN 8 (REDO) at any point while entering input, and you will be able to either re-enter the answers to the prompts, or accept those you previously typed by entering over them... the program now uses defaults EVERYWHERE. Also, the Copy Files command now places the first filename you enter as the default for the second, no longer forcing you to type the same filename twice.

Finally, by popular demand, the Catalog disk and Arcfile

commands now allow you to dump catalogs to a printer, and also informs you of how many files were listed and how many sectors the files occupy, so that you can easily determine how many sectors are needed to Unpack/Decompress an Archive.

A number of other changes have been made here and there as well, and some very minor bugs in 2.4 are no longer present. The internal sector buffer has been increased to 50 sectors, so that single disk users should not have to do as much disk swapping.

#### Simple Instructions for new users of Archiver III

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Archiving of files is simply the process of taking a group of files and combining them into one single file, which can occupy much less space than the original file (compression from 30-70 percent is common, depending on the type of files you are dealing with.) The advantage of Archival is that you can store a group of related files together, and extract one or all of them at a later time... saving you considerable disk space, and allowing easy organization of your disk library, especially those programs you wish to keep, but don't use much, and also your backups of programs.

Modem users get an added incentive in that sending compressed archives over the phone can easily be 50% faster, (therefore 50% cheaper) than sending the original files.

To avoid confusion: Compressed Archives are stored in Internal/Fixed 128 format, and Uncompressed archives are Display/Fixed 128. When Uncompressed Archives are created, they are automatically write protected, since most Terminal Programs (modem programs) require that D/F 128 files be write protected either to work, or to transfer at an acceptable speed.

When you select "1) Archive files" from the main menu, you will be asked for pertinent information about the files you are about to Archive. When you see the "Compress? (Y/N)" prompt, you are being asked whether you wish to apply Data Compression to the files you are Arc'ing. In most cases the answer will be yes, however there are a very few kinds of files which cannot be compressed (attempting to compress them can actually make them LARGER! -- more on this later) so the option to not compress files is available.

If you choose the same disk drive for both input and output, you will be asked if you want to "Swap Disks". Answering Yes will cause you to be prompted to insert Source and Output disks at the appropriate times. Answering No will perform all operations on the same disk.

Extracting files is also quite simple. You may choose to remove any or all files from an archive by giving the appropriate instructions to Arc 3.0. The option "Catalog ArcFile" allows you to examine or print out the contents of an archive without having to extract it, and tells how many sectors are needed for extraction. The remaining options are self-explanatory, 'fill-in-the-blank' commands.

The Load FW command is a loader for the FUNNELWEB program, and the Filename it looks for is UTIL1, although if you are an experienced disk hacker, you may wish to alter it. I have reserved enough room there for a 10 character filename...

Files that are sufficiently random in nature may not compress. These are VERY RARE, and are almost always already compressed in some way. Known offenders are GIF pictures and Infocom games. Both of these kind of files are already compressed, in fact, GIF pictures use the same compression technique Archiver III uses! Which brings me to the next point: don't bother trying to compress a file twice... it'll just get larger the second time. Oh yes, Speech Synthesizer data tends to be unsqueezable as well, as it is itself squeezed using what is known as LPC code.

#### Miscellaneous

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Unlike Archiver 2.4, I have about 2K to play with in Archiver III, room enough to add a few more things, so I'm going to leave what will be added up to you: Persons sending donations for Archiver III should make suggestions if there is anything you'd like to see added to v3.0. Assuming there is sufficient response to Archiver III to make it worthwhile, I will add the most frequently-asked-for routines to Archiver III, assuming they will fit in the remaining memory.

Basically, unless response to Archiver increases considerably, there will probably not be any future releases of Archiver from me (or anything else for that matter.) I am a full time college student, and ANYTHING you send would help. Even a note saying how much you like the program, but that you can't afford to send anything would at least reassure me that this work is appreciated!

I would like to take this opportunity to thank those of you who contributed and supported the Archiver II series, especially the 5 User Groups who took group donations for the program. Without your support and suggestions, Archiver III could have never have been created. If you write me with questions or expect a reply, please allow a month or two, as the letters go to my parents, and I generally don't see the letters until I return home on break. If you need an answer and don't get a reply, PLEASE write again.

Oh yes, My address is: Barry Boone, Box 1233, Sand Springs, OK 74063.

#### POSTSCRIPT FOR MYARC 9640 USERS

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If you are currently using version 3.0 or 3.01, these are very unreliable on Geneve, 3.02 has been "fixed" to be compatible with MDOS. My apologies for any problems you may have encountered, please understand that A) I don't have a Geneve, and B) if the Geneve were truly 99/4A compatible, 3.0 and 3.01 would have worked. It is a bit difficult to debug around Geneve's quirks without actually owning one...

VERSION 3.03 NOTES

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Version 3.03 contains the following changes:

- o You may now list Display Variable 80 files to a printer
- o CTRL-C works just like FCTN-9 at all keypresses
- o A couple of minor (and extremely rare) bugs are fixed
- o Arc-catalog now includes the arcfile name (useful when printing)
- o Archiver now accepts drives 1-Z, for Ramdisk users
- o CTRL E and FCTN = both are used to exit archiver, and now only work from the main menu
- o The screen color changes to indicate error conditions and to indicate that Arcing and Dearcing is complete

These changes should hold you until the HFDC version of Archiver is completed.