

**NAME**

*ar* – archive (library) file format

**DESCRIPTION**

The archive command *ar* is used to combine several files into one. Archives are used mainly as libraries to be searched by the link-editor *ld*.

A file produced by *ar* has a magic number at the start, followed by the constituent files, each preceded by a file header. The magic number is 177555(8) (it was chosen to be unlikely to occur anywhere else). The header of each file is 16 bytes long:

0-7	file name, null padded on the right
8-11	modification time of the file
12	user ID of file owner
13	file mode
14-15	file size

If the file is an odd number of bytes long, it is padded with a null byte, but the size in the header is correct.

Notice there is no provision for empty areas in an archive file.

**SEE ALSO**

*ar*, *ld* (I)

**BUGS**

Names are only 8 characters, not 14. More important, there isn't enough room to store the proper mode, so *ar* always extracts in mode 666.