

**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 177545(8) (it was chosen to be unlikely to occur anywhere else). The header of each file is 26 bytes long:

```
struct archive {  
    char    a_name[14];    /* file name, null padded on right */  
    long    a_date; /* modification time of file */  
    char    a_uid;  /* user ID of file owner */  
    char    a_gid;  /* group ID of file owner */  
    int     a_mode; /* file mode */  
    long    a_size; /* file size */  
};
```

Each file begins on a word boundary; a null byte is inserted between files if necessary. Nevertheless the size given reflects the actual size of the file exclusive of padding.

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

**FILES**

/usr/include/archive.h

**SEE ALSO**

ar(I), ld(I)