

**HashFile** is an object class that implements a bridge between the hashed database library functions, `db(3)` (used to implement the 'defaults' database and Digital Librarian index files), and the HashTable object. It can be viewed as an alternate interface to the database library functions or as a type of HashTable that survives program execution.

See **HashFile.wn** for details. The **HashFile** binary code is included as both a **HashFile.o** object file and as a **libHashFile.a** archive file (see **Makefile** for usage). To rebuild the object and archive files, just do `'make'`.

The example program, **HashExample**, can be built by doing `'make HashExample'`. Its database can be built by doing `'HashExample -b < /usr/dict/web2'` (or any other word lists you want to use). It reads up to 7-digit (telephone) numbers from stdin and searches for them in the database file **PhoneWords.{DL}**, printing the result, if any, to stdout, eg:

```
> echo '2277666 227 7666' | HashExample
2277666 barroom bassoon cassoon
227      bap bar bas cap car cas CBS ccs
 7666    Pomo poon room roon soon
>
```

The **PhoneWords** database file has integer, "i", keys representing telephone digits and string, "\*", values (one to seven

characters) which are the equivalent words (from the `/usr/dict/web2` file) that can be dialed instead. (Not every string that matches from **web2** is necessarily a useful mnemonic--nor even in **Webster!**)

Note that, of the nearly 2.4 million possible seven or less digit numbers ( $8^7+8^6+\dots+8^1$  since zero and one don't have letter mappings), less than 2% have word mappings in **PhoneWords**, so you'll probably have to try a lot of numbers before you get a match. (Of the 2% of numbers that do have a match, over 15% have multiple matches).

Comments, suggestions and/or bug reports on the HashFile object and HashExample welcome.

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