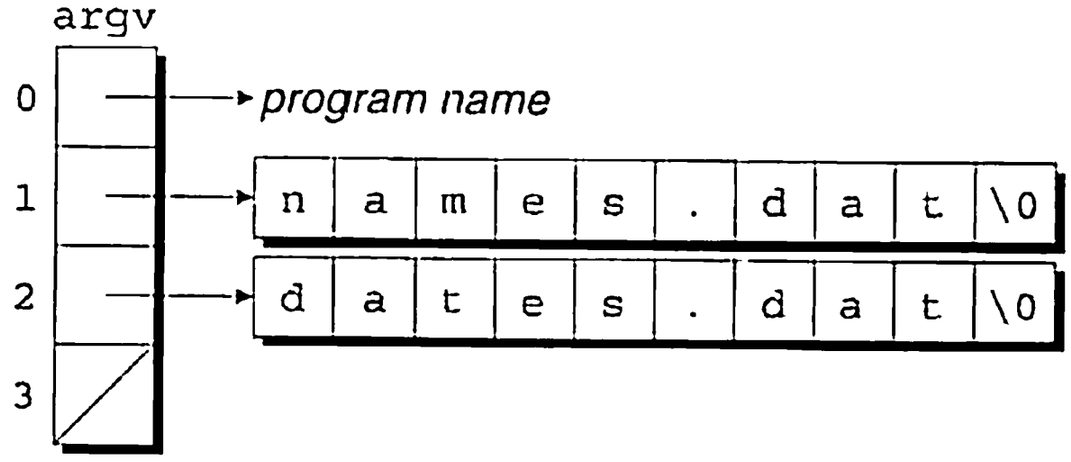
`argc` is the number of command-line arguments; `argv` is an array of pointers to the argument strings. `argv[0]` points to the program name, `argv[1]` through `argv[argc-1]` point to the remaining arguments, and `argv[argc]` is a null pointer. In the example above, `argc` is 3, `argv[0]` points to a string containing the program name, `argv[1]` points to the string `"names.dat"`, and `argv[2]` points to the string `"dates.dat"`:



PROGRAM

Checking Whether a File Can Be Opened

The following program determines if a file exists and can be opened for reading. When the program is run, the user will give it a file name to check:

`canopen` *file*

The program will then print either *file* `can be opened` or *file* `can't be opened`. If the user enters the wrong number of arguments on the command line, the program will print the message `usage: canopen filename` to remind the user that `canopen` requires a single file name.

canopen.c

```
/* Checks whether a file can be opened for reading */

#include <stdio.h>
#include <stdlib.h>

int main(int argc, char *argv[])
{
  FILE *fp;

  if (argc != 2) {
    printf("usage: canopen filename\n");
    exit(EXIT_FAILURE);
  }

  if ((fp = fopen(argv[1], "r")) == NULL) {
    printf("%s can't be opened\n", argv[1]);
    exit(EXIT_FAILURE);
  }

  printf("%s can be opened\n", argv[1]);
  fclose(fp);
  return 0;
}
```