Searching All Directories on an HFS Volume How to and why not

Under some circumstances, it may be necessary to search an entire volume. Remember that with the advent of large CD-ROMs and other large storage mediums, this may be a time consuming process, especially over a network. Apple recommends relying on files being in specific directories (such as the same directory as the application, or in the "blessed folder") or on having the user find files with **SFGetFile**.

The example given below recursively calls PBGetCatInfo to get information about every file and folder on a volume. You can use this code to do a partial search of a volume by specifying a starting dirID other than fsRtDirID.

Example

```
// Assumes inclusion of MacHeaders
#include <stdio.h>

void EnumerateCatalog(long);

HFileInfo   myCPB;          // for the PBGetCatInfo call

char    fName[256];         // buffer to hold file names
short   TotalFiles = 0;
short   TotalDirectories = 0;

main()
{
    WindowPtr     oldWindow, MyWindow;
    Rect     myWRect;
    myCPB.ioNamePtr = (unsigned char *)fName;
    myCPB.ioVRefNum = 0;

    EnumerateCatalog(fsRtDirID);    // start at the root
    // done with recursive call to print all file names on disk
    printf("Total Files = %d\n",TotalFiles);
    printf("Total Directories = %d\n",TotalDirectories);

}

void EnumerateCatalog(long dirIDToSearch)
{
    short index = 1;            // for ioFDirIndex
    OSErr err;

    do {
        myCPB.ioFDirIndex = index;  // set up index
        // do this every time since PBGetCatInfo returns ioFlNum
        // in this field
        myCPB.ioDirID = dirIDToSearch;
        err = PBGetCatInfo(&myCPB, false);
        if(err == noErr) {
            PtoCstr((char *)fName);
            printf("%s\n",fName);
            // check to see if the file is a folder
```

```
            if(((myCPB.ioFlAttrib >> 4) & 0x01) == 1) {
                // found a directory
                TotalDirectories += 1;
                EnumerateCatalog(myCPB.ioDirID);
                err = 0;
            } else
                // found a file
                TotalFiles += 1;
            index += 1;
        }
    } while(err == noErr);
}
```