Macintosh Technical Notes

#218: New High-Level File Manager Calls

See also: *Inside Macintosh*, Volumes IV & V, The File Manager
Technical Note #140, Why PHBSetVol is Dangerous

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This Technical Note describes some new high-level File Manager calls that make dealing with the Hierarchical File System (HFS) easier.

When the Hierarchical File System (HFS) was first introduced, a large number of low-level File Manager calls were documented. Unfortunately, higher-level equivalents to these calls were not present until now. The glue for these routines is built into MPW 3.0. They are provided as a convenience for those of you who hate filling in parameter blocks.

The new routines can be divided into two groups: routines which provide new high-level capabilities for working with HFS volumes and routines which work like the existing high-level calls, but let you use a directory ID as a parameter.

New High-Level Routines

```
FUNCTION AllocContig(refNum: INTEGER; VAR count: LONGINT) : OSErr;
```

This routine works like the `Allocate` routine, except that it allocates contiguous space on disk for the specified file. If the required space cannot be allocated, a `dskFullErr` will be returned.

```
FUNCTION HCreate(vRefNum: INTEGER; dirID: LONGINT; fileName: Str255;
         creator: OSType; fileType: OSType) : OSErr;
```

This routine creates a new file like `PBHCreate`, and then sets the type and creator of the file for you.

```
FUNCTION DirCreate(vRefNum: INTEGER; parentDirID: LONGINT;
           dirName: Str255; VAR createdDirID: LONGINT) : OSErr;
```

This routine creates a directory for you. It returns the new directory ID in the `createdDirID` parameter.

```
FUNCTION CatMove(vRefNum: INTEGER; dirID: LONGINT; oldName: Str255;
         newDirID: LONGINT; newName: Str255) : OSErr;
```

This routine moves a file or directory to a new location on the same volume.

```
FUNCTION OpenWD(vRefNum: INTEGER; dirID: LONGINT;
        procID: LONGINT; VAR wdRefNum: INTEGER) : OSErr;
```

This routine opens a new working directory. It returns the working directory’s reference number in the `wdRefNum` parameter.

```
FUNCTION CloseWD(wdRefNum: INTEGER) : OSErr;
```

This routine closes a working directory.

```
FUNCTION GetWDInfo(wdRefNum: INTEGER; VAR vRefNum: INTEGER;
           VAR dirID: LONGINT; VAR procID: LONGINT) : OSErr;
```

This routine returns information about an existing working directory.

Hierarchical Versions of Existing High-Level Routines

```
FUNCTION HGetVol(volName: StringPtr; VAR vRefNum: INTEGER;
         VAR dirID: LONGINT) : OSErr;

FUNCTION HSetVol(volName: StringPtr; vRefNum: INTEGER; dirID: LONGINT) : OSErr;
```

Note: `_HSetVol` can be hazardous to your health (see Technical Note #140, Why PBHSetVol is Dangerous).

```
FUNCTION HGetFInfo(vRefNum: INTEGER; dirID: LONGINT;
           fileName: Str255; VAR fndrInfo: FInfo) : OSErr;

FUNCTION HSetFInfo(vRefNum: INTEGER; dirID: LONGINT;
           fileName: Str255; fndrInfo: FInfo) : OSErr;

FUNCTION HOpen(vRefNum: INTEGER; dirID: LONGINT; fileName: Str255;
             permission: SignedByte; VAR refNum: INTEGER) : OSErr;

FUNCTION HOpenRF(vRefNum: INTEGER; dirID: LONGINT; fileName: Str255;
         permission: SignedByte; VAR refNum: INTEGER) : OSErr;

FUNCTION HDelete(vRefNum: INTEGER; dirID: LONGINT; fileName: Str255): OSErr;

FUNCTION HRename(vRefNum: INTEGER; dirID: LONGINT;
         oldName: Str255; newName: Str255) : OSErr;

FUNCTION HSetFLock(vRefNum: INTEGER; dirID: LONGINT; fileName: Str255) : OSErr;

FUNCTION HRstFLock(vRefNum: INTEGER; dirID: LONGINT; fileName: Str255) : OSErr;
```