Image Not
Available

Appendix 5B
FileDir Structures and Definitions

Definitions

```
#define   GLOBAL_ACCESS                    0xFFFFFFFF

#define   MAX_PATH_LENGTH                  260  // 0x104 includes null
#define   MAX_SERVER_NAME_LENGTH           50   // includes null and slash
#define   MAX_VOLUME_NAME_LENGTH           18   // includes null and slash
#define   MAX_SEMA4_NAME_LENGTH 512  // does not include null

#define   NAME_SPACE_DOS           0
#define   NAME_SPACE_MAC           1
#define   NAME_SPACE_UNIX      2
#define   NAME_SPACE_FTAM      3
#define   NAME_SPACE_OS2           4
#define   NAME_SPACE_NT            5

#define   DEVICE_TYPE_EXCLUSION            0x01
#define   DEVICE_TYPE_PRINTER             0x02
```

File System flags

```
#define   FS_CASE_SENSITIVE_SEARCHES       0x0001
#define   FS_CASE_PRESERVED_NAMES          0x0002
#define   FS_UNICODE_ON_DISK               0x0004
#define   FS_LONG_FILENAME_APIS            0x4000
#define   FS_VOLUME_COMPRESSED             0x8000
```

DIB flags

```
#define   DIB_FLAG_PERMANENT               0x01
#define   DIB_FLAG_ROOT                    0x02
#define   DIB_FLAG_TEMP_PRIVATE            0x03
```

File Open Mode

```
#define   ACCESS_READ_ONLY             0x00
#define   ACCESS_WRITE_ONLY            0x01
#define   ACCESS_READ_WRITE            0x02
#define   ACCESS_BACKUP                0x04
#define   ACCESS_PRINT_JOB             0x08
#define   ACCESS_DENY_READ_WRITE 0x10
#define   ACCESS_DENY_WRITE            0x20
#define   ACCESS_DENY_READ             0x30
#define   ACCESS_DENY_NONE             0x40
#define   ACCESS_INHERITANCE_FLAG      0x80  0= child, 1=private
#define   ACCESS_NO_LOCK_CRITICAL_ERROR  0x4000
#define   ACCESS_DONT_CACHE            0x10000
#define   ACCESS_DONT_COMPRESS         0x20000
#define   ACCESS_MEMORY_MAPPED         0x40000
#define   ACCESS_TEMPORARY_FILE        0x80000
```

Open/Create Action Flags

```
#define  ACTION_EXIST_FAIL_ELSE_CREATE      0x01
#define  ACTION_EXIST_OPEN_ELSE_FAIL        0x02
#define  ACTION_EXIST_OPEN_ELSE_CREATE      0x03
#define  ACTION_EXIST_REPLACE_ELSE_FAIL     0x04
#define  ACTION_EXIST_REPLACE_ELSE_CREATE   0x05
```

File Attributes

```
#define  ATTRIBUTE_NORMAL         0x0000
#define  ATTRIBUTE_READONLY       0x0001
#define  ATTRIBUTE_HIDDEN         0x0002
#define  ATTRIBUTE_SYSTEM         0x0004
#define  ATTRIBUTE_VOLUMELABEL    0x0008
#define  ATTRIBUTE_SUBDIRECTORY   0x0010
#define  ATTRIBUTE_ARCHIVE        0x0020
#define  ATTRIBUTE_UNKNOWN        0x0040
#define  ATTRIBUTE_SHAREABLE      0x0080
#define  ATTRIBUTE_FIND_ONLY      0x1000
```

NetWare File Access Rights

```
#define  NW_FACC_DENY_NONE        0x00
#define  NW_FACC_READ_ENABLE      0x01
#define  NW_FACC_WRITE_ENABLE     0x02
#define  NW_FACC_DENY_READ        0x04
#define  NW_FACC_DENY_WRITE       0x08
#define  NW_FACC_COMPATIBILITY    0x10
#define  NW_FACC_WRITE_THROUGH    0x40
```

NetWare Directory Access Rights

```
#define  NW_DACC_READ_FILES          0x01
#define  NW_DACC_WRITE_FILES         0x02
#define  NW_DACC_OPEN_FILES          0x04
#define  NW_DACC_CREATE_FILES        0x08
#define  NW_DACC_DELETE_FILES        0x10
#define  NW_DACC_PARENTAL            0x20
#define  NW_DACC_SEARCH              0x40
#define  NW_DACC_MODIFY_RENAME_FILES 0x80
```

Synchronization Types

#define	SYNC_TYPE_LOG	0x00	Just logs for later locking
#define	SYNC_TYPE_LOCK_EXCLUSIVE	0x01	locks file exclusive
#define	SYNC_TYPE_LOCK_SHARE	0x02	locks file read shareable
#define	SYNC_TYPE_RELEASE	0x03	releases file locks, but still logged
#define	SYNC_TYPE_CLEAR	0x04	clears locks and logs

Seek Type Flags

#define	SEEK_FROM_START	0x00
#define	SEEK_FROM_CURRENT	0x01
#define	SEEK_FROM_END	0x02
#define	TRUE	1
#define	FALSE	0
#define	ON	1
#define	OFF	0

Structures

BuildFIBTag

```
typedef struct BuildFIBTag {
    UINT8       FileHandle[6];
    UINT16      Reserved;
    UINT8       NameZ[14];
    UINT8       AccessRights;
    UINT8       Reserved2;
    UINT32      Size;
    UINT16      CreationDate;
    UINT16      LastAccessDate;
    UINT16      LastUpdateDate;
    UINT16      LastUpdateTime;
    UINT16      CreationTime;
} BuildFIB;
```

DirEntryInfoTag

```
typedef struct DirEntryInfoTag {
    UINT16      Reserved;
    UINT8       Name[14];
    UINT32      Attributes;
    UINT32      SizeLo;
    UINT32      SizeHi;
    NDate       CreationDate;
    NDate       AccessDate;
    NDate       UpdateDate;
    UINT8       LongName[MAX_PATH_LENGTH];
} DirEntryInfo;
```

DirMapInfoTag

```
typedef struct DirMapInfoTag {
    UINT32       DirHandle32;
    UINT32       VolumeID;
    CONN_HANDLE  ConnHandle;
    UINT32       AliasHandle;
    ModHdlP      ModHandle;
    UINT32       PG_ID;
    UINT32       ProcessID;
    UINT32       FakeRootDepth;
    UINT32       CDDepth;
    UINT16       Flags;          (DIB_FLAG_...)
    UINT8        DirHandle8;
    UINT8        DirHandleName;
    UINT8        NameSpace;
} DirMapInfo;
```

DiskSpaceTag

```
typedef struct DiskSpaceTag {
    UINT64  TotalSpace;
    UINT64  FreeSpace;
} DiskSpace;
```

FileInfoTag

```
typedef struct FileInfoTag {
    CONN_HANDLE   ConnHandle;
    ModHdlP       ModHandle;
    UINT32     FileHandle[2];
    UINT32     Attributes;
    UINT64     Size;
    NDate         CreationDate;
    NDate         LastUpdateDate;
    NDate         LastAccessDate;
    UINT32     SeekPositionLo;
    UINT32     SeekPositionHi;
    UINT32     OpenCount;
    UINT8         DOSFileName[16];
    UINT32     LongNameLength;
    UINT8         LongName[MAX_PATH_LENGTH];
} FileInfo;
```