SFS reader documentation:

The SFS file format reader is located in the online CVS:

online/RTS/src/FSR
online/RTS/include/FSR

The main reader class is "sfs_index." This class is used for both reading and writing of the SFS file structure. This class provides a standard unix "dirent" style directory interface for reading. This document currently only describes the use of this class for READING files…

Initialization:

The constructor is a "donothing" constructor, so that error conditions are easy to and to make the class lightweight. To initialize call one of the mount commands.

int mountmem(char *buffer, int sz, int flags);
int mount(char *filename, int flags, int perms);

Flags should be O_RDONLY, for both calls. The first operates on a image that has been loaded into memory or memory mapped. The second operates on a standard unix file. Both functions return -1 if the file is not a valid SFS file.

Directory Browsing:

The directory browsing classes are a near copy of the unix dirent interface. There is an important helper structure:

```
struct fs_dirent {
  char full_name[256];
  char d_name[256];
  int sz;
  int offset;
  int has_child;
  int swap;
};
```

containing information about directory entries.

To open a directory:

```
sfs_index sfs;
int ret = sfs.mount("filename", O_RDONLY);
```

```
fs_dir *dir = sfs.opendir(“/”);
```

To read directory:

```
fs_dirent *entry;
while( (entry = sfs.readdir(dir)) != NULL) {
     // entry points to dirent….
}
```

To read a specific file into a memory buffer:

```
int sz = sfs.fileSize(“/#1/myfile”);
if(sz <= 0) {  // forget it! };
char *buff = malloc(sz);
sfs.read(“/#1/myfile”, buff, sz);
```