List Files and Directories

The following code snippet shows how to get list of files and directories from a given drive(example C:\,D:\ etc).

File rfsengine.h with declaration of CRFsEngine is a part of FileBrowser example. You can find it in 3rd FP1 SDK onward.

```
#include <e32base.h>
#include <e32cons.h>
#include <e32debug.h>
#include <f32file.h>
#include "rfsengine.h"

_LIT(KFileBrowseTest, "FileBrowser");
_LIT(KCDrive, "C:\\");
_LIT(KPermissionDenied, "Permission Denied");
_LIT(KBackSlash, "\\");


GLDEF_C TInt E32Main()
{
 // Create the cleanup stack
 CTrapCleanup* cleanup = CTrapCleanup::New();
 TRAPD(result, CallBrowseDirsL());
 // Destroy the cleanup stack
 delete cleanup;

 return 0;
}

LOCAL_C void CallBrowseDirsL()
{
 console = Console::NewL(KFileBrowseTest, TSize(KConsFullScreen, KConsFullScreen));
 CleanupStack::PushL(console);

 ListDirectoriesL(KCDrive);

 CleanupStack::PopAndDestroy(); // close console
}
```

```
// Recursive function to list files and directories
LOCAL_C void ListDirectoriesL(const TDesC& aPath)
{
 CRFsEngine* engine = CRFsEngine::NewL();
 CleanupStack::PushL(engine);

 RDebug::Print(aPath);

 TInt result = engine->GetDirectoryAndFileList(aPath);

 if (result==KErrNone)
        {
     TInt dirCount = engine->DirectoryCount();
     TInt index = 0;

     for (index=0; index<dirCount; index++)
      {// Get directories
         HBufC* subDirPath = SubDirPathLC(aPath, engine->DirectoryName(index));
      ListDirectoriesL(*subDirPath);
      CleanupStack::PopAndDestroy(subDirPath);
      }

     // List files in the directory
     TInt fileCount = engine->FileCount();
     index = 0;
     for (; index<fileCount; index++)
      {
      RDebug::Print(engine->FileName(index));
      }
     }
 else if (result==KErrPermissionDenied)
     {
     RDebug::Print(KPermissionDenied);
     }
    else
        User::Leave(result);

 CleanupStack::PopAndDestroy(engine);
}


// Allocates a heap buffer from aPath and aSubdir, with backslash terminator
LOCAL_C HBufC* SubDirPathLC(const TDesC& aPath, const TDesC& aSubDir)
{
    HBufC* subDirBuf = HBufC::NewLC(aPath.Length() + aSubDir.Length() +1);
 TPtr subDirPtr(subDirBuf->Des());
 subDirPtr.Copy(aPath);
 subDirPtr.Append(aSubDir);
 subDirPtr.Append(KBackSlash);
 return (subDirBuf);
}
```


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