File system

Windows programming

Working with drive

- **GetLogicalDrives**, return an integer (drive bit map)
  - 11100 : We have drives E, D and C but no B, no A
- **GetLogicalDriveStrings**, return a string with double zero terminated
  - "C:\\0D:\\0E:\\0\0"
- GetDiskFreeSpaceEx
- GetDriveType DRIVE_FIXED | DRIVE_REMOVABLE
- GetVolumeInformation

Quiz

❑ How to get dynamic size from bytes?

- 1.5 GB
- 426.13 MB
- 7 KB

Iterate through all files

```
WIN32_FIND_DATA fd;
HANDLE hFile = FindFirstFileW(path, &fd);
BOOL bFound = true;
while (bFound) {
    if ((fd.dwFileAttributes & FILE_ATTRIBUTE_DIRECTORY)
        &&    (StrCmp(fd.cFileName, L".") != 0) &&
              (StrCmp(fd.cFileName, L"..") != 0) )
    {
        bFound = FALSE;
    }
    else
        bFound = FindNextFileW(hFile, &fd);
    }
}
```

Working with folder

❑ CreateDirectory

❑ RemoveDirectory

❑ MoveFile

CreateDirectory(path, NULL);

RemoveDirectory(path);

MoveFile(path, L"D:\\NEWNEW");

Working with files

❑ CopyFile

❑ DeleteFile

❑ MoveFile

❑ FindFirstFile

❑ FindNextFile

❑ **SHFileOperation!**

❑ CreateFile

❑ ReadFile

❑ WriteFile

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Examples

CopyFile(L"d:\\new\\test.cpp", L"d:\\test.cpp"), FALSE);

DeleteFile(L"d:\\test.cpp");

ReadFile(hFile, &inBuffer, nBytesToRead, &nBytesRead, NULL)

- GetFileAttributes
- SetFileAttributes
- GetFileSize
- GetFileType
- GetFileTime
- GetTempFileName

File time

```
FILETIME ftCreate, ftAccess, ftWrite, ftLocal;
SYSTEMTIME stCreate;
if(!GetFileTime(hFile, &ftCreate, &ftAccess, &ftWrite))
    return FALSE;
FileTimeToSystemTime(& ftCreate, &stCreate);
wsprintf(lpszString, "%02d/%02d/%d %02d:%02d",
    stCreate.wDay, stCreate.wMonth, stCreate.wYear,
    stCreate.wHour, stCreate.wMinute);
```