**UFP #12 - Directory Tools**

**Purpose:**

C++ provides very little in the way of directory management – none in the language and very little in the std::library. The purpose of this project is to fill that gap. I’ve made a start with the DirectoryTools packages[[1]](#footnote-1): WinTools, FileInfo, Nav, SysTime, and StringConversion. However, they are harder to use than necessary due to two things:

1. The fileInfo class which is used in many places in Win32Tools is useful but too big and complex.
2. The WinTools class depends on fileInfo.

The small amount of functionality from fileInfo used in WinTools can easily be removed. The FileSystem package[[2]](#footnote-2) shows how to do that.

**Requirements:**

For the Directory Tools project you will:

1. Analyze the Win32Tools facility looking for missing functionality and for needed corrections.
2. Re-implement finding files and directories in WinTools by extracting that functionality from fileInfo, making them independent.
3. Simplify fileInfo class as much as practical.
4. Port all of the above to linux, substituting Win32 API calls with Linux API calls.

**Here are some references:**

<http://www.ecs.syr.edu/faculty/fawcett/handouts/CoreTechnologies/Win32SystemProgramming/code/DirectoryTools/>

<http://www.ecs.syr.edu/faculty/fawcett/handouts/CoreTechnologies/Win32SystemProgramming/code/Win32Tools/win32namespace.vsd>

<http://www.ecs.syr.edu/faculty/fawcett/handouts/CoreTechnologies/Win32SystemProgramming/presentations/win32programming.ppt>

<http://www.gnugeneration.com/books/linux/2.6.20/kernel-api/>

<http://www.makelinux.net/kernel_map>

1. http://www.lcs.syr.edu/faculty/fawcett/handouts/CoreTechnologies/Win32SystemProgramming/code/DirectoryTools/ [↑](#footnote-ref-1)
2. http://www.lcs.syr.edu/faculty/fawcett/handouts/CoreTechnologies/Win32SystemProgramming/code/FileSystem/ [↑](#footnote-ref-2)