

# WinInteropUtils

**WinInteropUtils** is a C# library written in .NET 8 that provides managed P/Invoke wrappers for tons of functions you can use, from reading file attributes to interacting with COM interfaces.

The base namespace is `FireBlade.WinInteropUtils`.

## ⚠ WARNING

WinInteropUtils is still in beta, so bugs may occur. If you experience any bugs, please report them on the [Issues](#) page.

## Features

- [WindowsFile](#) file info wrapper
- Full enums (1600+ values) for [HRESULTs](#) and [Win32 error codes](#)
- Dialog boxes
- Useful utility [User32](#) functions ([SendMessage](#), [SetWindowLongPtr](#)...)
- [Constants](#) and [Macros](#)
- [COM interfaces](#)
- Icon management ([DestroyIcon](#), ...)


# Namespace FireBlade.WinInteropUtils

## Classes

### [DefaultWindowLongPtrValues](#)

Defines default index values for [SetWindowLongPtr\(nint, int, nint\)](#) and [GetWindowLongPtr\(nint, int\)](#).


### [EnumExtensions](#)

Provides extension methods for [Enum](#) .

### [ExceptionExtensions](#)

Provides extension methods for [Exception](#) .

### [IconExtensions](#)

Adds extension methods to the [Icon](#)  class.



### [Macros](#)

Defines Win32 macros.

### [Shell32](#)

Declares P/Invoke functions from [Shell32.dll](#).

### [StockIconHelper](#)

Allows you to get a shell stock icon. Unlike the built-in .NET [GetStockIcon\(StockIconId, int\)](#)  or [GetStockIcon\(StockIconId, StockIconOptions\)](#)  functions, this wrapper allows you to enter any icon ID you want.

### [TitleBarInfo](#)

Stores data about a window's title bar.

### [User32](#)

Declares P/Invoke functions from [User32.dll](#).

### [Win32Constants](#)

Defines common Win32 constants.

### [WindowsFile](#)

Stores data about a Windows file.

## Structs

### [Shell32.SHFILEINFO](#)

The internal Windows API struct for [SHGetFileInfoW\(string, uint, ref SHFILEINFO, uint, uint\)](#) . Use with [GetFileInfoEx\(string, WindowsFileAttributes, SHGetFileInfoFlags, ref SHFILEINFO\)](#).

# Enums

## [HRESULT](#)

Defines common HRESULT values. Values starting with **S\_** indicate success, while those starting with **E\_** indicate an error.

## [Shell32.SHGetFileInfoFlags](#)

Provides flags for the Windows API function [SHGetFileInfoW\(string, uint, ref SHFILEINFO, uint, uint\)](#)<sup>↗</sup>. To use this function, call the [GetFileInfoEx\(string, WindowsFileAttributes, SHGetFileInfoFlags, ref SHFILEINFO\)](#) wrapper instead.

## [StockIcon](#)

Icon identifiers for the [GetIcon\(StockIcon, StockIconOptions\)](#) function.

## [TitleBarElement](#)

Defines elements on a title bar.

## [TitleBarElementState](#)

Defines the states of a title bar element.

## [Win32ErrorCode](#)

Defines Win32 error codes.

## [WindowState](#)

Defines states a window can be in.

## [WindowsFileAttributes](#)

Specifies attributes for Windows files.