

Working with File Attributes

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Introduction

Here I'm going to show in this small blog how one can manipulate attribute(s) of a file.

```
string _path = @"d:\files\sample.doc";
```

Getting file's attribute(s)

Attributes of a file can be getting by using `GetAttributes` static method of `File` class. This method returns `FileAttributes` enum which is a bitwise combination of file attribute flags.

```
FileAttributes fileAttributes = File.GetAttributes(_path);
```

Setting file's attribute(s)

Attributes of a file can be set by using `SetAttributes` static method of `File` class. This method takes bitwise combination of `FileAttributes` enumeration as parameters.

```
File.SetAttributes(_path, FileAttributes.Hidden | FileAttributes.ReadOnly | FileAttributes.System);
```

Clearing file's attribute(s)

It can be done by simply invoking `SetAttributes` static method by passing `FileAttributes.Normal` enum as a parameter.

```
File.SetAttributes(_path, FileAttributes.Normal);
```

Getting a specific attribute

To check whether a file has a particular attribute or not, simply use bitwise **AND (&)** operator

with a mask of specific attributes.

```
bool isReadOnly = ((File.GetAttributes(_path) & FileAttributes.ReadOnly) == FileAttributes.ReadOnly);  
bool isSystem = ((File.GetAttributes(_path) & FileAttributes.System) == FileAttributes.System);
```

Adding a attribute(s) in a current file

To add attribute(s) to the current file, simply get the current file attribute(s) first and then use bitwise **OR (|)** with the desired attributes.

```
File.SetAttributes  
(  
    _path,  
    File.GetAttributes(_path) | (FileAttributes.ReadOnly | FileAttributes.Hidden)  
);
```

Deleting a attribute(s) from a current file

To remove attribute(s) from the current file, simply get the current file attribute(s) first and then use bitwise **AND (&)** with a bitwise **complement (~)** of desired attribute(s).

```
File.SetAttributes  
(  
    _path,  
    File.GetAttributes(_path) & ~(FileAttributes.ReadOnly | FileAttributes.Hidden)  
);
```

Conclusion

Hope all of you will like this blog.