
Subject: FindFile::IsExecutable() [Feature request]
Posted by [dolik.rce](#) on Sun, 07 Mar 2010 20:51:42 GMT
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Hello,
Would it be possible to add IsExecutable() method to FindFile? Implementation is quite simple, for Linux: `bool FindFile::IsExecutable() const { return (!IsDirectory()) && ((S_IXUSR|S_IXGRP|S_IXOTH) & GetMode());}` And for windows (this could be optimized):`bool FindFile::IsExecutable() const { return ToLower(GetName()).EndsWith(".exe"); }`
What do you think?

Best regards,
Honza

Subject: Re: FindFile::IsExecutable() [Feature request]
Posted by [mirek](#) on Mon, 08 Mar 2010 15:55:38 GMT
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[dolik.rce](#) wrote on Sun, 07 March 2010 15:51Hello,
Would it be possible to add IsExecutable() method to FindFile? Implementation is quite simple, for Linux: `bool FindFile::IsExecutable() const { return (!IsDirectory()) && ((S_IXUSR|S_IXGRP|S_IXOTH) & GetMode());}` And for windows (this could be optimized):`bool FindFile::IsExecutable() const { return ToLower(GetName()).EndsWith(".exe"); }`
What do you think?

Best regards,
Honza

What about directory with .exe extension in Windows?

Mirek

Subject: Re: FindFile::IsExecutable() [Feature request]
Posted by [dolik.rce](#) on Tue, 09 Mar 2010 07:17:33 GMT
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[luzr](#) wrote on Mon, 08 March 2010 16:55What about directory with .exe extension in Windows?

Mirek
Hi Mirek,
You got me Actually I was hoping that someone who actually knows Windows will write better version using win API...

Now, after I gave it a bit more thinking I think the proper way would be reading PATHEXT environment variable and compare it to the extension of files. On Win98 (if you want to support it)

fixed list with .exe and .com should be used. What do you think about this? It is slow, but probably not as slow as opening the file and determining the executability from its contents.

Another solution would be omit this method on Windows the same way as some methods are omitted on Linux because they are not well defined (IsArchive, IsCompressed,...).

Best regards,
Honza

Subject: Re: FindFile::IsExecutable() [Feature request]

Posted by [mirek](#) on Tue, 09 Mar 2010 07:55:47 GMT

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Nah, I have just added the test for directory...

Mirek

Subject: Re: FindFile::IsExecutable() [Feature request]

Posted by [Mindtraveller](#) on Tue, 09 Mar 2010 10:14:59 GMT

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This is hard question because actually you may execute ANY file in Windows. You may rename your .exe into something like *.scr or even *.abcxyz and execute it with CreateProcess() - and it will work. There is no way to restrict using any file as executable.

So, what question you really want to answer on Windows? Is the file executable? Answer is: any file is executable.

Executable from Explorer? Then, the list from PATHEXT is not enough. There are still more executable types which are registered by Windows but not mentioned in any variables (like .scr which is heavily used by viruses).

Subject: Re: FindFile::IsExecutable() [Feature request]

Posted by [koldo](#) on Tue, 09 Mar 2010 10:39:25 GMT

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Hello all

Perhaps the simplest and most general way to detect an executable file in Windows is the "MZ" (0x4d, 0x5a) magic number in the first two bytes.

Now there are more complex formats but all of them have an MZ in the beginning.

I think the IsExecutable() in windows would work like this:

2. Check MZ signature

Subject: Re: FindFile::IsExecutable() [Feature request]
Posted by [dolik.rce](#) on Tue, 09 Mar 2010 11:08:49 GMT
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Hi,

Mirek:

Thank you, that is enough for me...

Mindtraveller:

Yes, PATHEXT contains extensions that can be executed from console. In some sense you could even call any file executable, if it has extension associated with some program (as there is no difference visible in some cases, e.g. opening file.py in python.exe). But for practical use, .exe is probably enough...

Koldo:

Checking the magic number is probably the safest (and slowest) method. Also I read somewhere that even "ZM" should work and some executables could even start with "PE".

Anyway, I'm happy now, whatever on top of this is just bonus

Honza

Subject: Re: FindFile::IsExecutable() [Feature request]
Posted by [koldo](#) on Tue, 09 Mar 2010 12:22:04 GMT
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Hello Honza

This is true:

Quote:Checking the magic number is probably the safest (and slowest) method. Also I read somewhere that even "ZM" should work

This is uncertain :

Quote:and some executables could even start with "PE".

The "PE" chars are inside the header but not in the beginning. In this case "MZ" will be also in the beginning of the file.

Subject: Re: FindFile::IsExecutable() [Feature request]
Posted by [mirek](#) on Wed, 10 Mar 2010 08:00:17 GMT

koldo wrote on Tue, 09 March 2010 07:22Hello Honza

This is true:

Quote:Checking the magic number is probably the safest (and slowest) method. Also I read somewhere that even "ZM" should work

This is uncertain :

Quote:and some executables could even start with "PE".

The "PE" chars are inside the header but not in the beginning. In this case "MZ" will be also in the beginning of the file.

As for this... Windows Shell will use "executable" icon for the file as soon as it has '.exe' extensions and tries to execute it on double-click. So what Windows Shell considers good practice is a good practice for me as well...

Mirek
