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Subject: Writing Float big-endian on Windows  
Posted by [RedDevil](#) on Fri, 25 Feb 2011 01:04:54 GMT  
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I am just starting to use U++ and find the experience very satisfying so far. I need to be able to read and write floats (SP) in big-endian format. I could not find the equivalent to something like 'Put32be'. Any help would be appreciated - thanks.

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Subject: Re: Writing Float big-endian on Windows  
Posted by [dolik.rce](#) on Fri, 25 Feb 2011 06:19:55 GMT  
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RedDevil wrote on Fri, 25 February 2011 02:04: I am just starting to use U++ and find the experience very satisfying so far. I need to be able to read and write floats (SP) in big-endian format. I could not find the equivalent to something like 'Put32be'. Any help would be appreciated - thanks.

Hi RedDevil

You can use the Put32be for this as well. All you have to do is to (carefully) cast the number into integer. Something like this should work:

```
stream.Put32be*((int*)&f); //where f is your float
```

Note that you must cast pointers, not the float directly, otherwise the value would be converted (and the bits would change). Similar trick is possible when reading as well, just the other way around.

Best regards,  
Honza

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Subject: Re: Writing Float big-endian on Windows  
Posted by [gprentice](#) on Sat, 26 Feb 2011 05:28:42 GMT  
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If you care about portability you shouldn't assume that int is 32 bits or that float is 32 bits. They don't have to be the same size.

Also, I don't know why stream provides big endian and little endian functions instead of choosing automatically but assuming that float is big endian isn't exactly portable either. If you use Get and Put I wonder why would you care about how it's stored?

Graeme

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Subject: Re: Writing Float big-endian on Windows

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Posted by [dolik.rce](#) on Sat, 26 Feb 2011 06:27:00 GMT

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Oups, gprentice is right about the int In U++ you should use int32 or some similar type where the length is guaranteed. In standard c++ there is int32\_t defined somewhere.

As for to reason for using certain endianness, I can see at least two First, if you want to store data on one machine and read them on other, which has possible different architecture. Second, there is many standard file formats which have prescribed endianness (it is actually related to the first case), so that you have to obey it, even if you will always run it on the same machine, because otherwise other application wouldn't interpret the file correctly.

Honza

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Subject: Re: Writing Float big-endian on Windows

Posted by [RedDevil](#) on Wed, 02 Mar 2011 23:57:42 GMT

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Thanks for the replies guys. As Honza indicated I am writing to a format that is defined to be BigEndian, but doing it on a Intel PC.

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