

Ruby - Bug #18956

Kernel#sprintf - %c handles negative Integer argument in a confusing way

08/06/2022 11:41 AM - andrykonchin (Andrew Konchin)

Status:	Closed	Backport: 2.7: UNKNOWN, 3.0: UNKNOWN, 3.1: UNKNOWN
Priority:	Normal	
Assignee:		
Target version:		
ruby -v:	3.0.3	
Description		
Integer argument for %c means a character codepoint.		
I've noticed two outcomes when argument is negative:		
• exception • broken/incorrect string		
When exception is raised - its message a bit misleading and confusing:		
<pre>sprintf("%c", -1000) # => invalid character (ArgumentError)</pre>		
<pre>sprintf("%c".encode('ascii'), -1) # => 4294967295 out of char range (RangeError)</pre>		
invalid character means there is a character, but actual argument is a codepoint. 4294967295 out of char range is about codepoint, but it mentions 4294967295 instead of actual argument -1.		
<pre>sprintf("%c", -1) # => "\xFF"</pre>		
In this case no exception is risen but the string is not valid:		
<pre>sprintf("%c", -1).codepoints # => invalid byte sequence in UTF-8 (ArgumentError) sprintf("%c", -1).valid_encoding? # => false</pre>		

Associated revisions

Revision d2483393cbcb4dcfa0000fa8166bb7fa7ed9f7b4 - 08/20/2022 01:06 AM - nobu (Nobuyoshi Nakada)

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History

#1 - 08/12/2022 02:50 PM - andrykonchin (Andrew Konchin)

- Description updated

#2 - 08/18/2022 09:44 AM - mame (Yusuke Endoh)

[@naruse \(Yui NARUSE\)](#), [@nobu \(Nobuyoshi Nakada\)](#), and [@matz \(Yukihiro Matsumoto\)](#) agreed that a negative integer to %c should raise an explicit exception.

#3 - 08/20/2022 01:06 AM - nobu (Nobuyoshi Nakada)

- Status changed from Open to Closed

Applied in changeset [gitId2483393cbcb4dcfa0000fa8166bb7fa7ed9f7b4](#).

[Bug [#18956](#)] Negative codepoints are invalid characters