I noticed it today when migrating to Time in my library but DateTime somehow parses incorrect ISO8601 dates. Technically that’s a feature but I believe this behaviour is incorrect. Time#iso8601 behaves correctly in this case.

Steps to reproduce

```ruby
require 'time'
date = "2018-05-17T12:17:11+0200"
DateTime.iso8601(date)
# => #<DateTime: 2018-05-17T12:17:11+02:00 ((2458256j,37031s,0n),+7200s,2299161j)>
Time.iso8601(date) # ArgumentError: invalid date: "2018-05-17T12:17:11+0200"
```

Associated revisions

Revision 71fed537 - 05/28/2018 03:19 PM - nobu (Nobuyoshi Nakada)

time.rb: fix parsing time zone in iso8601

- lib/time.rb (Time.xmlschema): a colon in time zone designator can be omitted. [ruby-core:87277] [Bug #14790]

`git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@63512 b2dd03c8-39d4-4d8f-98ff-823fe69b080e`

Revision 63512 - 05/28/2018 03:19 PM - nobu (Nobuyoshi Nakada)

time.rb: fix parsing time zone in iso8601

- lib/time.rb (Time.xmlschema): a colon in time zone designator can be omitted. [ruby-core:87277] [Bug #14790]

Revision 63512 - 05/28/2018 03:19 PM - nobu (Nobuyoshi Nakada)

time.rb: fix parsing time zone in iso8601

- lib/time.rb (Time.xmlschema): a colon in time zone designator can be omitted. [ruby-core:87277] [Bug #14790]

Revision dc2a979b - 05/28/2018 03:35 PM - nobu (Nobuyoshi Nakada)

time.rb: fix parsing time zone in iso8601

- lib/time.rb (Time.xmlschema): the minute in time zone designator can be omitted together with the preceding colon. [ruby-core:87277] [Bug #14790]

`git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@63514 b2dd03c8-39d4-4d8f-98ff-823fe69b080e`

Revision 63514 - 05/28/2018 03:35 PM - nobu (Nobuyoshi Nakada)

time.rb: fix parsing time zone in iso8601

- lib/time.rb (Time.xmlschema): the minute in time zone designator can be omitted together with the preceding colon. [ruby-core:87277] [Bug #14790]

Revision 63514 - 05/28/2018 03:35 PM - nobu (Nobuyoshi Nakada)

time.rb: fix parsing time zone in iso8601

- lib/time.rb (Time.xmlschema): the minute in time zone designator can be omitted together with the preceding colon. [ruby-core:87277] [Bug #14790]
Revision 9f86a436 - 07/31/2018 02:12 PM - usa (Usaku NAKAMURA)
merge revision(s) 63512,63514: [Backport #14790]

```ruby
* lib/time.rb (Time.xmlschema): a colon in time zone designator can be omitted. [ruby-core:87277] [Bug #14790]
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_4@64148 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 64148 - 07/31/2018 02:12 PM - usa (Usaku NAKAMURA)
merge revision(s) 63512,63514: [Backport #14790]

```ruby
* lib/time.rb (Time.xmlschema): a colon in time zone designator can be omitted. [ruby-core:87277] [Bug #14790]
```

Revision 36045438 - 08/18/2018 03:07 AM - nagachika (Tomoyuki Chikanaga)
merge revision(s) 63512,63514: [Backport #14790]

```ruby
* lib/time.rb (Time.xmlschema): a colon in time zone designator can be omitted. [ruby-core:87277] [Bug #14790]
```

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/branches/ruby_2_5@64431 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 64431 - 08/18/2018 03:07 AM - nagachika (Tomoyuki Chikanaga)
merge revision(s) 63512,63514: [Backport #14790]

```ruby
* lib/time.rb (Time.xmlschema): a colon in time zone designator can be omitted. [ruby-core:87277] [Bug #14790]
```

History

#1 - 05/28/2018 01:36 PM - Hanmac (Hans Mackowiak)
you mean the offset right?

https://en.wikipedia.org/wiki/ISO_8601#Time_zone_designators says that "±hhmm" is valid too in iso8601

so i think the bug is more in Time because the offset should be valid?

Time itself does print it as "+0200" on inspect
time.rb: fix parsing time zone in iso8601

- lib/time.rb (Time.xmlschema): a colon in time zone designator can be omitted. [ruby-core:87277] [Bug #14790]

#3 - 05/28/2018 03:39 PM - nobu (Nobuyoshi Nakada)
- Backport changed from 2.3: UNKNOWN, 2.4: UNKNOWN, 2.5: UNKNOWN to 2.3: REQUIRED, 2.4: REQUIRED, 2.5: REQUIRED

#4 - 05/28/2018 07:06 PM - Quintasan (Michał Zając)
Yes, you are right. It was a bug after all but not in the way I originally thought :D.

Hanmac (Hans Mackowiak) wrote:

you mean the offset right?

https://en.wikipedia.org/wiki/ISO_8601#Time_zone_designators says that "±hhmm" is valid too in iso8601

so i think the bug is more in Time because the offset should be valid?

Time itself does print it as "+0200" on inspect

#5 - 07/31/2018 02:12 PM - usa (Usaku NAKAMURA)
- Backport changed from 2.3: REQUIRED, 2.4: REQUIRED, 2.5: REQUIRED to 2.3: REQUIRED, 2.4: DONE, 2.5: REQUIRED

ruby_2_4 r64148 merged revision(s) 63512,63514.

#6 - 08/18/2018 03:07 AM - nagachika (Tomoyuki Chikanaga)
- Backport changed from 2.3: REQUIRED, 2.4: DONE, 2.5: REQUIRED to 2.3: REQUIRED, 2.4: DONE, 2.5: DONE

ruby_2_5 r64431 merged revision(s) 63512,63514.