
Subject: Re: convert hex string to ascii

Posted by [Craig Markwardt](#) on Sat, 07 Apr 2007 18:41:24 GMT

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"metachronist" <rkombiyil@gmail.com> writes:

- > Dear list members,
- >
- > Sorry to bother with a trivial (?) question.. I was wondering if there
- > is a way to convert a hex byte string to corresponding ascii string?
- > i.e., 'ABC ' would be coded as:41424320 (long int), I need to convert
- > this back as ascii..
- > What I did was to read in the corresponding long integer
- > representation and then use the "Z" format specifier to get the hex
- > representation and look up the "ASCII" table for the characters. But
- > in this case, the order in which these (ascii characters comprising
- > the string) appear reversed (?!, i.e., 'ABC ' as ' CBA'), which I
- > suspect is due to the way hex is computed from its corresponding
- > binary representation?
- >
- > I am confused. Any suggestions / where can I find some examples to
- > clear up this hex muddle in my head? :-)

I would have decoded your actual data to a string with,

```
data = '41424320'\xl
str = string(byte(data,0,4))
```

However, your real problem is an "endian" (byte-order) problem. For example, the integer '41424320'\xl can be stored in two different byte strings, depending on the CPU architecture. You need to find out what endianness your data was encoded with, and what endianness your computer is. In all likelihood you can use BYTEORDER to fix the problem. A more brutish solution could be achieved with REVERSE() in the expression above.

Good luck,
Craig

P.S. On my Mac, STR = 'ABC '. On my PC, STR = ' CBA'

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: convert hex string to ascii

Posted by [rkombiyil](#) on Sun, 08 Apr 2007 00:44:27 GMT

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On Apr 8, 3:41 am, Craig Markwardt

<craigm...@REMOVEcow.physics.wisc.edu> wrote:

> "metachronist" <rkombi...@gmail.com> writes:

>> Dear list members,

>

>> Sorry to bother with a trivial (?) question.. I was wondering if there

>> is a way to convert a hex byte string to corresponding ascii string?

>> i.e., 'ABC ' would be coded as:41424320 (long int), I need to convert

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>> the string) appear reversed (?!, i.e., 'ABC ' as ' CBA'), which I

>> suspect is due to the way hex is computed from its corresponding

>> binary representation?

>

>> I am confused. Any suggestions / where can I find some examples to

>> clear up this hex muddle in my head? :-)

>

> I would have decoded your actual data to a string with,

> data = '41424320'\x1

> str = string(byte(data,0,4))

>

> However, your real problem is an "endian" (byte-order) problem. For

> example, the integer '41424320'\x1 can be stored in two different byte

> strings, depending on the CPU architecture. You need to find out what

> endianness your data was encoded with, and what endianness your

> computer is. In all likelihood you can use BYTEORDER to fix the

> problem. A more brutish solution could be achieved with REVERSE() in

> the expression above.

>

> Good luck,

> Craig

>

> P.S. On my Mac, STR = 'ABC '. On my PC, STR = ' CBA'

>

> --

> -----

> Craig B. Markwardt, Ph.D. EMAIL: craigm...@REMOVEcow.physics.wisc.edu

> Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

> -----

Hi Craig,

Thanks for the help! In fact, I have checked the endian-ness before I posted with /swap_if_little_endian. On my intel machine, I got garbage

for known values like year. I was confused because only the strings seem to be reversed. The other values (like year,day,or the plots of data) looked right.. So I was wondering if there is any mismatch between encoding and endian-ness. I reset all sessions and tried again - now the string looks alright and no reversing?!! WEIRD! Looks like there is a lateral swapping going on within my brain :P

Thanks for taking time off to reply. I appreciate it.
~rk
