
Subject: Testing validity of numerical content of a string

Posted by Y.T. on Thu, 07 Dec 2006 01:29:03 GMT

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Maybe this is a stupid question, but is there a way in IDL to tell whether a string contains a valid representation of a particular data type? For example an integer? I can do something like

```
test = fix(str)
```

which will return zero (and throw an error message) if str is, say, "hello". But is there a way to tell whether type conversion of a string will work if attempted?

The context is a bunch of (ascii formatted) data that's been transmitted through various channels and could conceivably be broken on a bit-level. So the first sanity check I'd like to perform is to test whether the received data still "looks like a number" (and then in the second step I'll perform a couple sanity checks on whether the number is in a valid range and such).

I am perfectly able and willing to write my own parser that looks at the individual aspects of the string step-by-step (is the string empty? Is the first character a digit? etc etc) but parsing for something like a double (that could be '-.3e-4' or such) would be a major pain.

(I tried "execute" but by itself it just throws the same errors and at least 6.3/Win it appears that the "quiet" stuff fails:

```
IDL> test = execute(s)
```

```
Type conversion error: Unable to convert given STRING to Double.
```

```
Detected at: $MAIN$          1 C:\Documents and  
Settings\idl\test.pro
```

```
IDL> test = execute(s,/QuietExecution)
```

```
test = execute(s,/QuietExecution)
```

```
^
```

```
Keyword parameters not allowed in call.
```

Dunno.)

Anybody have something clever at hand?
