
Subject: Re: IDLVM and execute

Posted by [Michael Galloy](#) on Wed, 25 Jan 2012 00:25:26 GMT

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This problem has been a problem for me before so I wrote a simple arithmetic parser:

docs: http://docs.idldev.com/idllib/analysis/mg_evalexp.html

source: http://docs.idldev.com/idllib/analysis/mg_evalexp.pro

Evaluates a mathematical expression using the basic arithmetic operators +, -, *, /, and ^ along with parentheses for grouping and simple function calls of a single variable.

This routine does not use `EXECUTE`, so it is safe to use in the Virtual Machine.

For example, simple arithmetic expressions can be evaluated::

```
IDL> print, mg_evalexp('1 + 2 + 3', error=error), error
      6      0
```

Note that the `ERROR` keyword returns whether there was an error in evaluating the expression. Expressions can also take variables, if their values are provided via a structure or hash-like object::

```
IDL> print, mg_evalexp('exp(i * pi)', { pi: !dpi, i: complex(0, 1) })
(  -1.0000000,  1.2246468e-16)
```

Mike

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Michael Galloy

www.michaelgalloy.com

Modern IDL, A Guide to Learning IDL: <http://modernidl.idldev.com>

Research Mathematician

Tech-X Corporation
