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Ai Modules

Formula

| section | Math |
|-------------------|---|
| short description | Outputs a value calculated from the input value(s), with an easy-to-use formula |
| | language. |
| licence level | Anjuna |
| ports | Input A [numeric/control] |
| | Input B [numeric/control] |
| | Input C [numeric/control] |
| | Input D [numeric/control] |
| | Out [numeric/control] |
| | Compile Formula [pushbutton] |
| skins | Small, Medium |

used in example

- Artnet Video Switch
- Midi Layer Select
- Visualiser: Moving Matrix
- Visualiser: Moving RGB Matrix
- Moving Screens
- Modules

Manual

Applies a user defined formula to the inputs and outputs the value on the Out port. The formula syntax follows the mu parser format as specifed here: http://muparser.beltoforion.de/ with a few additional functions such as the Modulus function mod(a, b) and the addition of vector component access in the Vector Formula module.



Skins

Medium

4 inputs, medium-sized formula textfield. Can be resized.

Small

2 inputs, slightly smaller formula textfield. Can be resized.

Formula language

Currently a list of the available commands is available here: http://beltoforion.de/article.php?a=muparser&hl=en&p=features&da=1.

For ease of use it is replicated here, however, as always you are reeferred to the original source.

| Name | Argc. | Explanation | | П |
|---|---|---|---------------|---|
| sin | 1 | sine function | | П |
| cos | 1 | cosine function | | T |
| tan | 1 | tangens function | | Т |
| asin | 1 | arcus sine function | | Т |
| acos | 1 | arcus cosine function | | П |
| atan | 1 | arcus tangens function | | П |
| sinh | 1 | hyperbolic sine function | | Т |
| cosh | 1 | hyperbolic cosine | | Т |
| tanh | 1 | hyperbolic tangens function | | Г |
| asinh | 1 | hyperbolic arcus sine function | | Г |
| acosh | 1 | hyperbolic arcus tangens function | | Г |
| atanh | 1 | hyperbolic arcur tangens function | | Г |
| log2 | 1 | logarithm to the base 2 | | Г |
| log10 | 1 | logarithm to the base 10 | | Г |
| log | 1 | logarithm to base e (2.71828) | | Г |
| In | 1 | logarithm to base e (2.71828) | | |
| exp | 1 | e raised to the power of x | | |
| sqrt | 1 | square root of a value | | |
| sign | 1 | sign function -1 if x<0; 1 if x>0 | | |
| rint | 1 | round to nearest integer | | |
| abs | 1 | absolute value | | |
| min | var. | min of all arguments | | |
| max | var. | max of all arguments | | |
| sum | var. | sum of all arguments | | |
| avg | var. | mean value of all arguments | | |
| Built-in binary operators | Built-in binary operators | Built-in binary operators | | |
| The following table lists the default binary operators supported by the parser. | The following table lists the default binary operators supported by the parser. | The following table lists the default binary operators supported by the parser. | | |
| Operator | Description | Priority | | |
| = | assignement | -1 | | |
| && | logical and | 1 | | |
| | | | logical or | 2 |
| ← | less or equal | 4 | | |
| >= | greater or equal | 4 | | |
| != | not equal | 4 | | Г |

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| == | equal | 4 | |
|--|--|--|---|
| > | greater than | 4 | |
| < | less than | 4 | |
| + | addition | 5 | |
| - | subtraction | 5 | |
| * | multiplication | 6 | |
| 1 | division | 6 | |
| | | raise x to the power of y | 7 |
| *The assignment operator is special since it changes one of its arguments and can only by applied to variables. | special since it changes one | arguments and can only by applied | |
| Ternary Operators | Ternary Operators | Ternary Operators | |
| muParser has built in support for the if then else operator. It uses lazy evaluation in order to make sure only the necessary branch of the expression is evaluated. | muParser has built in support for the if then else operator. It uses lazy evaluation in order to make sure only the necessary branch of the expression is evaluated. | muParser has built in support for the if then else operator. It uses lazy evaluation in order to make sure only the necessary branch of the expression is evaluated. | |
| Operator | Description | Remarks | |
| ?: | if then else operator | C++ style syntax | |

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https://avosupport.de/wiki/ - **AVOSUPPORT**

Permanent link:

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