

**NAME**

function\_plotter.lua – function plotter for Lua-AKFAvatar

**SYNOPSIS**

**function\_plotter.lua** [*function*]

**DESCRIPTION**

Function plotter for Lua-AKFAvatar. You can enter a function for the variable  $x$ , which will then be plotted. For example, enter something like this: "(x/5)^3"

You can use the following operators:

+	plus (addition)
-	minus (substraction)
*	multiply (multiplication)
/	divide (division)
^	exponentation (for example use "x^3" for $x^3$ )
%	modulo (the rest of a division)

For fractions you can use either a point or a comma as decimal mark. So "0.5" or "0,5" is the same. You cannot use a thousands separator. The number  $\pi$  can be written as "pi".

You can use the following functions:

<b>sqrt</b> ( $x$ )	square root ( $\sqrt{x}$ )
<b>exp</b> ( $x$ )	$e^x$
<b>log</b> ( $x$ )	natural logarithm
<b>log10</b> ( $x$ )	base-10 logarithm
<b>deg</b> ( $x$ )	convert to degree ( $x$ in radians)
<b>rad</b> ( $x$ )	covert to radians ( $x$ in degree)
<b>sin</b> ( $x$ )	sine ( $x$ in radians)
<b>sinh</b> ( $x$ )	hyperbolic sine ( $x$ in radians)
<b>asin</b> ( $x$ )	arc sine ( $x$ in radians)
<b>cos</b> ( $x$ )	cosine ( $x$ in radians)
<b>cosh</b> ( $x$ )	hyperbolic cosine ( $x$ in radians)
<b>acos</b> ( $x$ )	arc cosine ( $x$ in radians)
<b>tan</b> ( $x$ )	tangent ( $x$ in radians)
<b>tanh</b> ( $x$ )	hyperbolic tangent ( $x$ in radians)
<b>atan</b> ( $x$ )	arc tangent ( $x$ in radians)

**ATTENTION:** The argument for these functions must always be put in parentheses!

If you often need special functions or constant, it's easy to add them to the script.