

# The module <FLibMath> of the subsystem “Specials” <FLibMath>

<i>Module:</i>	FLibMath
<i>Name:</i>	The library of standard mathematical functions.
<i>Type:</i>	Specials
<i>Source:</i>	spec_FLibMath.so
<i>Version:</i>	0.5.1
<i>Author:</i>	Roman Savochenko
<i>Translated:</i>	Maxim Lysenko
<i>Description:</i>	Provides the library of standard mathematical functions.
<i>License:</i>	GPL

## Contents table

<a href="#">The module &lt;FLibMath&gt; of the subsystem “Specials” &lt;FLibMath&gt;</a> .....	1
<a href="#">Introduction</a> .....	1
<a href="#">1. Functions</a> .....	2

## Introduction

Special FLibMath module provides the library of standard mathematical functions into the system.

For addressing to the functions of the library you must use the path: <Special.FLibMath.\*>. Where '\*' – function's identifier in the library.

# 1. Functions

Table 1 provides a description of each function of the library. For each function the evaluation time of execution is measured. The measurement was made on a system with the following parameters: Athlon 64 3000 + (ALTLinux 3.0 (32bit)), by measuring the total time of execution of the function, while calling it 1000 times.

Table 1: The functions of the library of standard mathematical functions

<b>Id</b>	<b>Name</b>	<b>Description</b>	<b>Time (micro-seconds)</b>
abs	Module	Math. function – the number module.	81
acos	Anti-cosine	Math. function – anti-cosine.	149
asin	Anti-sine	Math. function – anti-sine.	140
atan	Anti-tangent	Math. function – anti-tangent.	109
ceil	Rounding up to a larger	Math. function – rounding up to a larger integer.	96
cos	Cosine	Math. function – cosine.	93
cosh	Hyperbolic cosine	Math. function – hyperbolic cosine.	121
exp	Exponent	Math. function – exponent.	145
floor	Rounding to the lower	Math. function – rounding to the lower integer	95
if	If Condition	Condition function – “If”.	92
lg	Common logarithm	Math. function – common logarithm.	168
ln	Natural logarithm	Math. function – natural logarithm.	185
pow	Power	Math. function – involution.	157
rand	Random number	Math. function – random number generator.	147
sin	Sine	Math. function – sine.	127
sinh	Hyperbolic sine	Math. function – hyperbolic sine.	199
sqrt	The square root	Math. function – the square root.	94
tan	Tangent	Math. function – tangent.	153
tanh	Hyperbolic tangent	Math. function – hyperbolic tangent.	177