CalcService

Thank you for using CalcService. This service calculates the result of a selected formula within all Mac applications supporting services, e.g., TextEdit, Mail, Messages, or DEVONthink.

The result is appended to the formula or replaces the formula. In addition there's the possibility to display the result in a panel or to copy the result to the clipboard without modifying the text. So there's no more need to start Calculator or open the Dashboard if you only want to calculate some values immediately within text windows or dialog fields.

System requirements

OS X El Capitan or later.

Installing and updating

Simply move CalcService into your *Applications* or *Applications/Utilities* folder, or into the folder *Services* (in the Finder visit the *Go* menu with the *Option* key pressed; choose *Library*; locate a folder named *Services*; if there is none, you can safely create it manually). Double-clicking CalcService lets your Mac learn about its new abilities; alternatively log out and in again.

In addition you may need to switch on the new *Services* menu options. Open *System Preferences*, then navigate to *Keyboard > Keyboard Shortcuts > Services > Text*. Turn on all options you want and optionally add a keyboard shortcut.

Using the CalcService services

Select a formula (may contain white characters like space, tabulator, new line, carriage return), choose *Calculate & Append*, *Calculate & Replace*, *Calculate & Show* or *Calculate & Copy* in the *Services* menu or or press the associated shortcuts if available. If the formula is not correct (or the result is undefined) CalcService just beeps or displays an error message in the panel.

To remove unnecessary entries from your *Services* menu, use the *Services Preferences* option from the *Services* menu.

Operators/Numbers

- Floating point values: x.y or x,y
- Add, subtract, multiply, divide, modulo, exponential: +-*/%^
- Assign: =
  Assigned variables are persistent and still available the next time you're going to use CalcService. To define multiple variables in one formula, separate the definitions with a semicolon (';'), as part of a formula use parenthesis around the definition (see examples below).
- Sign: + -
- Parenthesis: ()

Functions (case-insensitive)

- exp (base e)
- exp10 (base 10)
- exp2 (base 2)
- ln (base e)

- log or log10 (base 10)

- log2 (base 2)

- sin (RAD)

- asin (-1 ... 1)

- cos (RAD)

- acos (-1 ... 1)

- tan (RAD)

- atan

- sqrt (square-root)

- abs (absolute)

- sign

- fact (factorial for statistics, combinations and variations etc.)

- ceil

- floor

- round

- sinh

- asinh

- cosh

- acosh

- tanh

- atanh

Constants (case-insensitive)

- pi (3.1415926535897932385)

- e (2.7182818284590452354)

- c (299792458.0 m/s)

- g (66.732e-12 N*m^2/kg^2)

- e0 (1.6021892e-19 As)

- u0 (1.2566e-6 V*s/A*m)

- q (1.602189e-19 C)

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- me (9.109534e-31 kg)

- mp (1.672614e-27 kg)

- mn (1.67492e-27 kg)

If you want to change those values or define new constants, set one ore more variables using the assignment-operator (see below).

Examples

Simple examples

- 5+4-3*(pi+6,3)

- 3*+5

- 7/--2

- 9/.125

- mp*(c*c)

- sqrt(exp(sin(pi/2))+7.5)

- cos(ln(e)*pi)

- exp(1)

- abs(sin(sqrt(2)))*sign(cos(pi*pi))

- 9.3%2.5

- 2*3^-(1+1)

Single assignments

- x=2   => 2
- y=x+3;   => 5
- (x=4)*y   => 20

Multiple assignments

- x = 5; y = 7+3; z = x+y   => 15
- x = 1; y = 3;   => 3
- x = 5; y = 3; x*exp(y)   => 100.428

- (x=y=4)*7 => 28
- (x=4;y=5;)*7+x-y => 34

Known bugs and limitations

Do not use another CalcService command while a results panel is displayed.

Version history

3.5.1	NEW	Full support for M1-based Macs.
	Improved	The parser supports now x instead of * too (only if x is a not a defined variable), e.g. 2x3+1 can be used instead of 2*3+1.
	Fixed	Minor memory leak.
	Required	OS X El Capitan or later.
3.5	NEW	Numbers like 1.234,56 or 1,234.56 are now supported.
	Improved	Optimized for OS X Yosemite through macOS High Sierra.
	Required	OS X Yosemite or later.
3.4.1	NEW	Can be double-clicked and installed like an application.
	Improved	Updated services names optimized for OS X Lion or later.
	Improved	Appearance of alert dialogs.
	Improved	New icon.
	Required	Intel-based Mac, OS X 10.6.8 or later.
3.4	NEW	Copy button added to Calculate & Show alert to copy the result to the clipboard.
	NEW	Compatibility to Mac OS X 10.6 'Snow Leopard'.
	Improved	Optimized for Mac OS X 10.5 'Leopard' and 10.6.
	Fixed	Rare memory management issue.
	Required	Mac OS X 10.5 or later.
3.3	Fixed	Typos in Read Me.
	Fixed	Statements like x=0; and x; afterwards returned a syntax error instead of 0.
	Fixed	Variable names were sometimes handled case sensitive.

	Fixed	Persistent variables were not always immediately written back to disk and therefore their usage was unreliable.
	NEW	Universal binary for Intel- and PowerPC-based Macs.
	Required	Mac OS X 10.3.9 or later.
3.2	Fixed	Bug of Mail.app on Mac OS X 10.4 bypassed.
	Fixed	Bug of evaluating exponential terms fixed (e.g. the result of -3^2-4^2 was -7 instead of -25).
	Fixed	Typos in Read Me.
3.1	NEW	ceil(), floor(), round(), acosh(), asinh(), atanh(), cosh(), sinh() and tanh() functions added.
	Removed	Shortcut of Calculate & Copy.
3.0	NEW	Calculate & Copy, sends the result to the clipboard.
	NEW	Exponential operator (^).
2.7.1	Skipped	
…		
1.0	Initial release.	

Contacting us

Do you want to send us comments, bug reports or feature requests concerning CalcService? Do you have any questions about our products, our technology, or our company? Do you work for the press? Please do not hesitate and feel free to contact us at any time.

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