

“Conversion 1.5.6”

by Rick Johnson

2216 Allen Lane

Waukesha, WI 53186

GEnie: RICK.JOHNSON

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Requires Mac Plus or better (for popup menus)!

Revision History:

Version 1.5.6 accomplishes the following:

- Adds this note of caution to the documentation: the MultiFinder DA Handler doesn't like Conversion's equation parser. If you plan to enter numbers as equations, hold down the Option key while selecting Conversion from the Apple menu. This forces the current application (or the Finder) to host the DA, and seems to offer a workaround for the problem.
- Allows the About/Help window to come up with 12k memory available instead of 20. If you don't have 12k available and still want to see the Help window, save your work and call Help while holding down the Option key. The worst that will _usually_ happen is that some elements of the window (including the help text) may not draw.

Version 1.5.5 accomplishes the following:

Conversion 2.0 is now in beta testing, so I hadn't planned on producing this version of Conversion, but I've found that my time will be limited over the next couple of months and my schedule for the Conversion 2.0 release is certain to slip. In the interim, a bug fix was still needed for 1.5.4, so here's 1.5.5.

- Corrects a bug in 1.5.4 that prevented the use of negative numbers in temperature conversions. Earlier versions didn't have this problem. I can't allow Conversion to lie to people about the weather!
- Allows entering numbers as equations. See the instructions in the DA's Help/About box.
- Improved clipboard support for MultiFinder. Now cut, copy or paste text between Conversion and applications, or paste Conversion's Result or Calc List directly into an application. When pasting information into Conversion, any characters not allowed by typing will also be filtered out.
- Command-Up Arrow now sets the input units to the output units as well as copying the output value. The entire field is also selected so you can immediately copy it to the clipboard to paste the number into an application without the accompanying unit name (e.g. "2" rather than "2 feet").
- The Help/About window now redraws after screen savers have kicked in.

Version 1.5.4 is based on Michael J. Conrad's DA Skeleton version 2, rather than version 1, which should improve reliability. Improved auto-selection of input units when converting lengths:

- Mixed numbers and fractions (i.e. "1 1/2") now works in all calculations that allow input of a "/" character.
- Improved specification of input units by:
 - [p] or [pi] for picas
 - [P] or [Pi] for PostScript picas
 - [f], [ft], [i], [in], ['] or ["] for feet/inches
 - [mm] for millimeters
 - [cm] for centimeters
 - [m] for meters

Version 1.5.3 was a minor modification to an area that could possibly cause the DA to hang on some systems. Unfortunately, the DA still has conflicts on some systems.

Version 1.5.2 corrects an error in the conversion factor for Fathoms in 1.5.1.

Version 1.5.1 runs so many circles around any previous version, who cares what came before it!

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I wrote this Macintosh desk accessory because I work as an “electronic illustrator” and, for technical drawings, it's always a pain to have to convert between inches and millimeters. I included points and picas to make it easier for people without a graphic arts background to work with desktop publishing software. After pressing the Enter or Return key, the DA will calculate your measurement in the chosen units and then select the entire edit box so you can immediately type in the next number without having to mouse around.

Clipboard support: In the Options menu, you can select Copy Result to put the current result in the clipboard for other applications or desk accessories. Selecting Copy Calc List will copy all of your current session's input and conversion results to the clipboard. Changing unit types triggers a calculation, but only calculations you trigger with Return or Enter will be added to the list. All of the standard Cut, Copy and Paste functions also work in the input box. Pressing the Command key and the Up Arrow (cursor up) will copy the current result to the Input Units edit box. MultiFinder users, Conversion now fully supports the clipboard even under MultiFinder!.

Keyboard entry: When using lengths, you can enter distances as “1p6” for one pica six points (Conversion will switch to points as your input units, or PostScript points if you use a capital “P”), 1'6" or “1 1/2ft” for one foot six inches (input units switches to inches), 2m for two meters (input units switches to meters), 2mm for two millimeters (input units switches to millimeters). Fractions can now be entered as well as decimals. For example, “1/2” can be substituted for “.5” and “1/3p” is equal to 4 points in lengths conversions. Fraction conversion is two way: fraction to decimal and decimal to fraction.

You can enter numbers as equations. For example, the following all equal “12”:

$$4*3$$

$$2x6$$

$$36\div 3$$

$$24/2$$

$$8+4$$

$$13-1$$

$$26-(7*2)$$

Conversion performs all calculation from left-to-right, but parentheses can be used to alter calculation order. Parentheses may also be nested as needed. Please note that “*” or “x” may be used interchangeably for multiplication. Either “/” or “÷” (the division symbol is an Option-Slash) may be used for division, although it's important to be aware that Conversion treats numbers separated by slashes as fractions, and that whole numbers and fractions must be separated by a space (not a hyphen). In general, don't use slashes in equations unless you're defining a fraction. To be safe, eTo be safe, enter your equation with the same input and output units to test the equation's result before converting it.

The DA remembers your favorite menu selections and its location on the screen. If it finds its window outside the screen size, it'll center it on the screen.

Scrollable Help: the About... box, which can be accessed by typing a question mark, command-slash or clicking on the “?” button, has lots of helpful information because it scrolls!

If you have less than the 20k necessary to open the help/about... window, then Conversion will beep. If you have less than 2k memory available when you press Enter or Return, then Conversion will beep to remind you there isn't enough memory to safely continue adding data to the Calc List. If you frequently run into memory shortages while converting lengths, use MiniConversion instead: it's a smaller, lengths-only version of this DA.

Fractions: The Fraction-to-Decimal feature converts all of your favorite fractions to decimals. The Decimal-to-Fraction feature converts your input to the nearest 1/64th and then let you know if it was an exact fit or not.

Numerics: Convert between hexadecimal, octal, decimal and binary.

Volume: Convert between liters, cords and various English and metric cubic units.

Area: Convert between square miles, acres and various squared English and metric units.

Geographical Units: Similar to lengths, but in larger units such as miles, kilometers, chains, links and leagues.

Temperatures: Convert between Celsius, Fahrenheit and Kelvins.

Model Railroad: Convert between the major model railroad scales, including prototype. This one assumes input in inches to format the alternate result display, so it may help to use foot and inch marks when you enter dimensions.

If you've uploaded any earlier version of Conversion to another BBS, I'd really appreciate it if you could delete it and upload this one in its place. It's more useful and more reliable than any earlier version.

=== Conversion 2.0 ===

Conversion DA version 2.0 is now in beta testing. If you'd like to help test it, please send a stamped (two stamps), self-addressed envelope and a couple of extra stamps to cover the cost of the floppy disk to:

Rick Johnson

Graffix

2216 Allen Lane

Waukesha, WI 53186

Planned for version 2 (early 1991) are more menu items and more conversion types, including power output, torque, light, pressure and fuel consumption. A utility is in the works that will allow you to edit most of the conversion tables and their related menu items. Entire menus or individual menu items can be turned off, and conversion factors can be changed. A French version is also available.

If you have any suggestions or comments, I'd like to hear from you. My thanks to those of you who have made suggestions or located trouble spots for me. I've just completed and am torture-testing a "proportion wheel"-like DA to help graphic artists size art and photos for reproduction. If you have a need for something like this, or suggestions as to what you'd like to see in it, please let me know and I'll contact you when it's ready.

FYI—How Conversion works: For every type of conversion except temperature, fractions and numeric, there's a table that gives each unit's equivalent in one common denominator (either feet, liters, kilograms or kilometers), calculated to a precision of 20 decimal places. When it's converted to the chosen output units, it's again calculated and rounded to the nearest 20th digit. Its calculations aren't always perfect, but they're at least pretty darn close!

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