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alConvert 1.2.3 documentation - April 1995

• Shareware: \$5

- ◇ This utility is distributed as **shareware**: if you like it please honor the shareware system by sending **\$5** to the author at the address above. Since cashing international cheques is very expensive, please send **cash only** (U.S. dollars are best, but any other currency is fine).
- ◇ If you work on the Macintosh, there are many things you can send me **instead of the money**. Here are some suggestions: **original software** (but don't send any shareware/freeware unless you're the author), **books** or computer-related **magazines** (any free issue or subscription is welcome), **CD-ROMs**, any piece of new or used **hardware**, or anything else you've created.
- ◇ There's still another thing you could do: I'll finish my physics studies sometime in 1996 and I'm looking for a **one-year job** as a programmer (or maybe a scientist?) outside of Italy. Let me know if you have anything to offer.
- ◇ If you can't afford any of the above an **e-mail**, a **postcard** or a **letter** is welcome. I speak English, French and Italian. Please forgive me if I don't answer to all of your letters - I am often overloaded with my school work.

• Introduction

- ◇ CalConvert is a small shareware utility that does **integer arithmetic calculations** and converts **integer values** to **different bases** (decimal, hexadecimal, binary, octal or any custom base between 2 and 32) or to an OSType (a sequence of four ASCII characters). The conversion may be **signed** or **unsigned** (you can always enter a signed value, it gets converted to unsigned if needed); the result may be interpreted either as a **word** (2 bytes) or as a **long word** (4 bytes). The Return and Enter keys start the conversion; Tab, shift-Tab and the four arrow keys have their usual meaning.

• Configuration

- ◇ Choosing the "Fields" item from the "Options" menu brings up a **configuration dialog** that can be used to fully customize CalConvert. CalConvert can show up to 8 fields; each field contains either a **mathematical expression**, a sequence of 1 to 4 **characters** (OSType) or an **integer number** in any base from 2 to 32.

• The calculator

- ◇ You may enter **mathematical or logical expressions** in fields labeled "Math" (things like $(12 * (128 - \$20)) < < 2 + 2^8$); the result is shown in all the other fields of the window when you press Return. If the expression can't be parsed correctly, you hear a beep and all other fields change to zero. The next paragraphs explain the syntax and operators you may use in your mathematical expressions.

• Syntax of the math field

- ◇ **xxx** (x=0-9) is a number
- ◇ **\$xxx** (x=0-9,A-F) is an hexadecimal number
- ◇ **-xxx**, **-\$xxx**, **\$-xxx** are negative numbers
- ◇ **'(** and **)'** can be used as usual, nesting allowed
- ◇ **spaces** are allowed between numbers and operators
- ◇ **no spaces** are allowed inside numbers or operators
- ◇ all numbers are interpreted as **32-bit signed integers**

• Order of operators

- ◇ Operators in the **upper lines** are calculated **first**.
- ◇ Operators in the **same line** are calculated **sequentially**.

```

^    **
*    /    :    %    <<    >>
&    |    \    AND OR XOR
+    -
=    ==    !=    <>    <    >    <=    >=

```

• Arithmetic operators

```

+    add
-    subtract
*    multiply
/    divide
:    divide
%    remainder
^    power
**   power

```

• Logical operators

(return 1 if true, 0 if false)

```

=    equal to
==   equal to
!=   not equal to
<>   not equal to
<    less than
>    greater than
<=   less or equal
>=   greater or equal

```

• Bitwise operators

```

<<   bit shift left
>>   bit shift right
&    bit and
AND   bit and
and   bit and
|    bit or
OR    bit or
or    bit or
\    exclusive or
XOR   exclusive or
xor   exclusive or

```

• Version history

- ◇ 1.2.3 - CalConvert now refuses exponents larger than 32.
- ◇ 1.2.2 - Made the fields dialog movable.
- ◇ 1.2.1 - Cleaned up the code and updated documentation.
- ◇ 1.2 - Recompiled as a **fat binary**, runs native on Power Macs.
- ◇ 1.1 - Removed System 7 dependance and custom window definition.
- ◇ 1.06 - Added online help, changed menu keys to follow Apple guidelines.
- ◇ 1.05 - Fixed incoherent behavior of the "Fields" dialog.
- ◇ 1.04 - Changed name to CalConvert.
- ◇ 1.03 - First shareware version with arithmetic parser.
- ◇ 1.02 - First public release as QuickConvert.
- ◇ 1.01 - Menus added, still looks like a quick hack.
- ◇ 1.0 - Written for my personal use only, very poor interface.

• Distribution

- ◇ CalConvert is ©1994-95 **Alessandro Levi Montalcini**. It can be freely distributed as long as it is not modified and there's no charge for it, but it may not be included in any commercial package without my consent.

- ◇ You may find the latest version of all my shareware programs by anonymous ftp to <ftp.alpcom.it>, inside the [/software/mac/LMontalcini](#) directory. The complete [ShareDisk](#) package, which contains all my stuff and can be registered at a very low price, is also available there.
- ◇ All [online services](#) and [bulletin boards](#) may make it available to their users at no charge other than the normal connection fees.
- ◇ All non-profit [user groups](#) may distribute it at no charge.
- ◇ All [magazines](#) may publish it on floppy disk without asking me first, as long as I get a copy of the issue containing my software.
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- ◇ All [redistribution companies](#) such as Educorp may distribute it, as long as I get a copy of each media containing my software and a catalog of the company's offerings (where applicable).

• Disclaimer

- ◇ CalConvert shouldn't cause any damage, but you're using it at your own risk. As an independent software developer, I can make [no warranties](#) whatsoever on it.

• Have fun!

- ◇ And don't forget to [\\$\\$\\$ send your contribution \\$\\$\\$](#) so that more cool utilities will see the light in the near future, at the low-low-low costs of shareware.