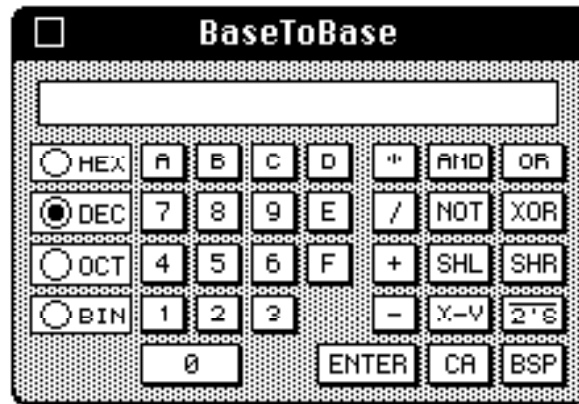


SOME INSTRUCTIONS  
FOR



A DESK ACCESSORY FOR THE MACINTOSH  
WRITTEN BY  
A. REMY MALAN  
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### INTRODUCTION TO VERSION 1.0

BaseToBase (v1.0) is a RPN (Reverse Polish Notation) Calculator DA (Desk Accessory) for the Macintosh. It features a four element stack that operates in the same manner as those found in HP calculators. BaseToBase can handle arithmetic and logical operations on unsigned 32-bit numbers in hexadecimal, decimal, octal, or binary. BaseToBase was written entirely in Rascal, a real-time Pascal developed at Reed College in Portland, Oregon.

### NUMERIC ENTRY

BaseToBase has a different numeric entry concept than other calculator DA's. When a number is being entered it is possible to edit the number in the regular Macintosh manner. Moving the cursor into the number window will result in the standard editor cursor appearing and will allow the regular Macintosh editing functions to take place. Cutting, copying, pasting, clicking, and dragging will do all the things normally expected of them in a text editing environment.

Numbers can be entered into BaseToBase by one of three methods; mouse

clicking, keyboard entry, and pasting via the Edit Menu. Clicking in the buttons of the keyboard display will result in the number being entered into the calculator. Typing the number on the keyboard will result in entering that number into the calculator. These two operations are identical to the way the standard Apple Calculator DA works. Pasting a number into the calculator will have one of two effects dependant on whether a number is being entered or not. Firstly, if a number is currently being edited, pasting will enter the contents of the clipboard into the number *at the cursor insertion point*. Secondly, if no number is being edited, pasting will push the numbers on the stack down by one and then enter the contents of the clipboard *onto the top of the stack as an entire number*. Understanding this behaviour is essential for using BaseToBase properly!

## DOING CALCULATIONS

### KEY FUNCTIONS (and SHORTCUTS)

Here is a list of key functions and shortcuts available from the keyboard:

<u>Key</u>	<u>Function</u>	<u>Keyboard Shortcut</u>
*	Multiply	* \ Divide
+	Add	+ - Subtract
AND	And	& OR Or
	Exclusive Or	NOT Not ~ XOR
<		@ SHL Shift Left
X-Y	Swap top 2 numbers	SHR Shift Right >
the stack		none 2'S 2's Complement
	none	CA Clear stack
none		BSP Delete at cursor
Backspace		

### A MESSAGE FROM THE AUTHOR

BaseToBase v1.0 is actually the second version of this DA that I have released. The first release had no version number and should be regarded as a pre-version release. It is important to note that the pre-version release has a bug that can cause erratic crashes when called from within

applications! *If you have the pre-version copy please delete it and use v1.0 instead.* (Note that v1.0 gives its version number in the startup string while the pre-version does not) I have tested BaseToBase v1.0 as extensively as humanly possible; it runs well from the Desktop and from applications. I have tested BaseToBase v1.0 with MacWrite, MacPaint, MacTerminal(1.0), Rascal (First Official Release), and various DAs such as Fade to Black, Calculator, and Note Pad. The only problem I had was with MacTerminal: calling the DA from the menu, hiding it behind the main window and calling it again from the menu caused an invalid pointer (error 2) bomb in 2 out of 3 sessions with MacTerminal. Apart from this I have found no problems with any BaseToBase/application combinations. (MacTerminal was fine except for the above sequence of events).

In spite of the testing, it is possible that some bugs may be residing in the software that cause erroneous behaviour in the DA or the resident application. If you do find such behaviour please inform me of the bug and the circumstances in which it was found. I would like BaseToBase to be USEFUL in addition to being FREE!

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              Oregon       97006               (503)-642-0919

P.S. Any comments or suggestions (for v2.0?) are also welcome! How about saving the state of the calculator so stack/base info is remembered?

#### APPENDIX: EXAMPLES OF RPN USEAGE

The following simple examples show RPN notation. A HP calculator manual would be a good source of detailed information. Note that Example B shows the non-edit use of cut and paste.

Try the following:

A.

2 [ENTER] /\* Push 2 onto stack  
/\* Push 3 onto stack and add to prior number on stack  
/\* Display will show the number 5

Example

\*/ 3 +  
\*/  
\*/

Example

B.

[CA]

/\* Clear

```
stack          */          4 [SHL]
  /* Put 4 onto stack and shift left */
  /* Display will show 8 */
  "CUT"        /* Choose CUT from Edit Menu or use <cmd>-x */
  /* Display will show 0. 8 is in clipboard. */ 7
[ENTER]       /* Push 7 onto stack */
"PASTE"       /* Push contents of clipboard onto stack. Display is 8. */
*             /* Multiply top two numbers on stack. Display is 56*/
```