

Atari Calculator CX8102#

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The Atari Calculator is an advanced non-programmable as well as programmable calculator that supports RPN, ALG and ALGN calculation modes. Calculator goes far beyond the limits of Atari Basic's mathematical capabilities, precision and has no bugs. Calculator has 100 memory registers, additionally a 42 number stack and is fully programmable up to 3072 bytes. Programs and memory registers can each be stored separately on disk or tape. It was the 'Mathematica', 'Maple', Mathcad' etc. of its time.

FEATURES OF THE ATARI CALCULATOR:#

- Built in 145 functions often used in science and finance
- The ability of hardcopy output using any of the ATARI printers
- The ability to save and load numerical data from disk or tape
- You can define whether to use standard input or RPN (Reverse Polish Notation). RPN is generally preferred in scientific work
- Easy conversion between Imperial/Metric systems: (Fahrenheit-Celsius, Degrees-Radians, Polar-Rectangular, etc.)
- Memory with displayable stack (you can see what's in memory)
- You have the ability to fix the amount of digits displayed to 8 places and also exponentiation
- The capability to easily enter numbers in Decimal, Octal, or Hex.
- The standard math functions of Pi, square root, rounding off, reciprocals, etc.
- Fundamental functions (absolute value function, fraction function, integer function, truncate function, etc.)
- Algebraic and trigonometric functions, statistics functions, financial functions, bit manipulation functions, etc.
- Algebraic functions including factorials, modulus, logarithm's
- Sine, Cosine, Tangent functions, and the Arc's of each
- Statistical functions with slope, mean functions, standard deviation, and much more including linear regression
- Financial applications with 14 different functions
- much more to explore...

The Calculator requires 24K of RAM.

Atari Calculator description 1

Atari Calculator description 2

Please do not use MEM.SAV with DOS. Instead use the SAVEM as well as the LOADM command of Calculator to store and load the user memory to other programs and/or devices.

Source Codes#

- [Atari Calculator source code](#) ; size: 295 KB ; Thank you so much Atari_Ace from AtariAge for your help in creating the code. We really appreciate your help, please go ahead! :-)))
- [Atari OS A Colleen Floating Point Routines](#) ; size: 45 KB ; Thank you so much Atari_Ace from AtariAge for your help in creating the code. We really appreciate your help, please go ahead! :-)))

ROM-Image#

- [Atari_Calculator.rom](#) ; Thank you so much Peter Dell for creating the ROM file. That was really a big one! :-)))

ATR-Images#

Atari Calculator disk image: [Atari Calculator/Calculator.atr](#)

Atari Calculator disk image with CX85 driver: [Atari Calculator/Calculator-CX85.atr](#)

Atari Calculator disk images with colored versions: [Atari Calculator/Color.zip](#)

Atari Calculator disk image for the Commodore 64: http://web.utahnet.at/nkehrer/atari_calc.html

Incredible porting from Dr. N. Kehrer, creator of the Atari Asteroids Emulator. Highly recommended!

Manuals#

In the content pages (page vii to xii in the manual or page 5 to 10 in the PDF-file) it is possible through a click on the line to directly jump to the desired page. The same is true for the index (page 187 to 190 in the manual or page 197 to 200 in the PDF-file). With the back button in Adobe Reader a direct jump from the desired page back to the content or index page is possible.

Screen optimized manual (22 MB): [Atari Calculator/Atari_Calculator_Manual_Optimized.pdf](#)

Printer optimized manual (117 MB): http://strotmann.de/~cas/download/atari/Atari_Calculator_Manual_Original.pdf.gz

Atari Calculator Cartridge Specifications from Carol Shaw from March 1979 (1.2 MB):
[Atari_Calculator_Cartridge_Specifications.pdf](#)

Atari Calculator Cheat Sheet [Atari_Calculator-Cheat_Sheet.pdf](#) from [inverseatascii](#)

Atari Calculator on the 14th Vintage Computer Festival Europe: [AtariCalculator-VCFe14](#)

References#

- [Atari Calculator source code](#) ; Thank you so much Harry & Kevin for your help in getting the code. We really appreciate your help, please go ahead! :-)))
- [Atari 400-800 Operating System Source Listing of the floating point routines](#) ; Thank you so much Harry & Kevin for your help in getting the code. We really appreciate your help, please go ahead! :-)))
- [WUDSN-site for Atari Calculator](#) ; Highly recommended, not only for Calculator! Thank you so much Peter Dell!
- [AtariAge site on Calculator and Colleen Floating Point source codes](#) ; Thank you so much Atari_Ace from AtariAge for your help in creating the code. We really appreciate your help, please go ahead! :-)))

Images#

Boxcover from the Atari Calculator

Atari Calculator cartridge: The Atari Calculator was originally scheduled as a cartridge. Because Atari did not manage it to sell this in 1979 and on top needed 2 more years to publish it on diskette in 1981, we decided to honor the author of Calculator, Carol Shaw, with the creation of a cartridge label, which matches best the design of those times. The next free CXL-number was assigned so, but you as the reader know, it should have been a CXL-number with a double zero "00" ;-). The creation of the label, its accuracy, its colors etc. would not have been possible without [Oliver Rapp](#). Oliver, we all thank you so much! Please go ahead with your outstanding work in graphics and design.

Calculator after starting with \$CA in \$02C5 and \$34 in \$02C6

Calculator after a little calculation

The different modes of Calculator

Calculator in programming mode

Calculator after return from programming mode

Calculator with \$00 in \$02C5 and \$0F in \$02C6

Calculator with \$0F in \$02C5 and \$00 in \$02C6

"Atari Blue"-Calculator with \$94 in \$02C6

Calculator with \$90 in \$02C6

Calculator with \$C3 in \$02C6

Calculator with \$46 in \$02C6

Calculator with \$FF in \$02C6

Precision of Calculator against Atari Basic

Precision of Calculator against different Basic versions

Precision of Commodore 64 Basic V2

Precision of Calculator (1979) in comparison with Visicalc (1980) and SpeedCalc (1986)

Precision of Calculator (1979) in comparison with MS Excel PC (2010) Mac (2011) (German edition) ; In late 2015 Microsoft finally fixed the problem. Thank you Microsoft. :-)

Calculator program example no. 2

Number of commands: Atari Basic (Rev. A) vs. Atari Calculator

Calculator original source code listing (1979)

Colleen original Floating Point Routines listing (1979)

Image of Carol Shaw when starting the cartridge

[Author: Carol Shaw, creator of River Raid, 3D Tic-Tac-Toe and many other programs.](#)