

# A Brief Derive Version History

Martin Hepperle - 2022-2025



1980



1985

The following pages present a tabulation of versions of Derive and associated products like muLISP, muSIMP and, muMath. Derive was implemented in muLISP.

Unfortunately, most printed manuals for these software products seem to be unavailable in scanned form, which is a pity. For example, scans of the following manuals would be very welcome:

- “muLISP-81 Reference Manual”
- “muLISP-82 Reference Manual”
- “muLISP-85 Reference Manual”
- “muLISP-86 Reference Manual”, The Soft Warehouse, 408 p., 1986, Honolulu, Hawaii
- “muLISP-87 Reference Manual”, The Soft Warehouse , 439 p., 1987, Honolulu, Hawaii

The following table highlights the growth of primitives implemented in muLISP systems (MS-DOS version, if not noted otherwise, without extensions loaded). Additional functions were included through external files, as needed.

**Table 1: Number of LISP primitives available in the various muLISP versions.**

muLISP-80 (CP/M)	89 primitives (version before Microsoft licensing)
muLISP-80 2.0 (CP/M)	88 primitives (version licensed to Microsoft)
muLISP-83 4.11 (CP/M)	118 primitives (version licensed to Microsoft)
muLISP-83 4.11	121 primitives
muLISP-85 5.01	303 primitives
muLISP-86 5.10	354 primitives
muLISP-87 6.00	411 primitives, irrational and transcendental functions: IRRATNAL.LSP
muLISP-87 6.10	415 primitives, irrational and transcendental functions: IRRATNAL.LSP
muLISP-90 7.20	421 primitives, irrational and transcendental functions: IRRATNAL.LSP

## DOS Extender (XM) Versions

These versions became available with muLISP-90 and use Extended Memory. The following numbers were obtained in DOS-Box.

muLISP-90 (RECLAIM) gives 340'467 bytes free  
muLISP-90 XM (RECLAIM) gives 15'002'227 bytes free


# muLISP™ An unCOMMON LISP!

muLISP™ is an uncommonly good AI programming environment for MS-DOS™ and PC-DOS™ computers. Compare it with a merely COMMON LISP (Golden Common Lisp® Version 1.00):

Category	muLISP	GCL
Execution Time	40 sec.	143 sec.
Memory Required	128K	512K
Retail Price	\$250	\$495

Write for a more detailed comparison. We also offer muMATH™, the symbolic math calculator for micros.

Golden Common Lisp is a registered trademark of Gold Hill Computers.



**Soft Warehouse** Founded 1979

P.O. Box 11174, Honolulu, HI 96828-0174 • (808) 734-5801 (After Noon PST)  
MC/VISA MCI/ID: 241-7437 © 1985 Soft Warehouse

**YES!** I'd like to know more about muLISP and muMATH. Please send me more information today.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Company \_\_\_\_\_

Position \_\_\_\_\_

## No matter how you express it, it still means **DERIVE® is half price.**

$$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2} \quad \lim_{x \rightarrow 0} \frac{x}{\sin(2x)} \quad \frac{1}{2}$$

$$50\% \quad \sum_{n=1}^{\infty} \frac{1}{2^{n+1}} \quad 0.5 \quad \int_0^1 x \, dx$$

# DERIVE

The *DERIVE A Mathematical Assistant* program lets you express yourself symbolically, numerically and graphically, from algebra through calculus, with vectors and matrices too—all displayed with accepted math notation, or 2D and 3D plotting. *DERIVE* is also easy to use and easy to read, thanks to a friendly, menu-driven interface and split or

overlay windows that can display both algebra and plotting simultaneously. Better still, *DERIVE* has been praised for the accuracy and exactness of its solutions. But, best of all the suggested retail price is now only \$125. Which means *DERIVE* is now half price, no matter how you express it.

**System requirements**  
*DERIVE*: MS-DOS 2.1 or later, 512K RAM, and one 3½" disk drive. Suggested retail price now **\$125 (Half off!)**.  
*DERIVE ROM card*: Hewlett Packard 95LX & 100LX Palmtop, or other PC compatible ROM card computer. Suggested retail price now **\$125!**  
*DERIVE XM (eXtended Memory)*: 386 or 486 PC compatible with at least 2MB of *extended* memory. Suggested list price now \$250!

**Soft Warehouse**  
3660 Wai'alea Ave.  
 Ste. 304 • Honolulu, HI, USA 96816-3236  
 Ph: (808) 734-5801 • Fax: (808) 735-1105

Figure 1: Advertisements for muLISP and muMATH in 1985 and Derive in 1994.



Figure 2: Derive was also available as a PCMCIA ROM card for the HP 95LX Palmtop.

Year	Product/Version	Operating System and Comments
1977	muLISP-77	first version of muLISP functional, IMSAI 8080
1977	muSIMP-77	first version of muSIMP (“micro Symbolic Implementation Language”), written in muLISP-77
1979	January 1	<i>The Soft Warehouse</i> founded by Albert D. Rich, David R. Stoutemyer
1979	muMath-79	CP/M (8080, Z80), TRS-80 DOS, implemented in muSIMP-77
1980	muLISP-80	CP/M, with muStar, (8080), 10/06/80, before licensing to Microsoft
1980	muMath-80	Apple II (native 6502), Apple II (Z80 card with CP/M), and TRS-80
1980	muLISP-80	CP/M, Version 2.0, licensed by Microsoft
1980	muMath-80	CP/M, written in muSIMP-80 2.02 (Microsoft)
1980	muMath-80	CP/M, written in muSIMP 2.03, licensed by Microsoft
1981	muMath-80	CP/M, written in muSIMP 2.10, 04/25/81, licensed by Microsoft
1981	muMath-80	CP/M, written in muSIMP 2.12, 07/09/81, licensed by Microsoft
1981	muMath-80	CP/M, Osborne 1, written in muSIMP-80 2.14, 12/19/81 (Microsoft)
1981	muLISP-80	CP/M, Version 2.15, licensed by Microsoft
1981	muLISP-81	IBM PC and CP/M
1982	muLISP-82	IBM PC and CP/M, see Micro/Systems Journal Review, May/June, 1985
1982	muMath-82	IBM PC, see PC-Magazine Review, December, 1983
1982	muSIMP-80	Apple II, ADIOS, Version 2.15 (03/01/82), 6502, licensed by Microsoft
1984	muLISP-83	CP/M-80, Soft Warehouse Version 4.11 03/22/84, licensed by Microsoft
1984	muLISP-83	IBM PC, Soft Warehouse Version 4.11 03/22/84, licensed by Microsoft
1984	muMath-83	IBM PC, Version 4.12 (8088)
1985		company name changed to <i>Soft Warehouse Hawaii</i> .
1985	muLISP-85	IBM PC MS-DOS, Microsoft LISP Version 5.01 09/15/85
1986	muLISP-86	IBM PC MS-DOS, Microsoft LISP Version 5.10 01/06/86
1987	muLISP-87	IBM PC MS-DOS, Soft Warehouse Version 6.01 06/17/87
1988	muLISP-87	IBM PC MS-DOS, Soft Warehouse Version 6.03, 07/12/88
1988	muLISP-87	IBM PC, MS-DOS, Soft Warehouse Version 6.10, 12/07/88
1988	1.00	MS-DOS, implemented in muLISP, released on October
1988	1.02	MS-DOS, written in muLISP-87 (© 1983, 1985, 1986, 1987)
1988	1.51	MS-DOS, written in muLISP-87 (© 1983, 1987, 1989)
1988	1.53	MS-DOS, written in muLISP-87 (© 1983, 1987, 1989)
1988	1.56	MS-DOS, written in muLISP-87 (© 1983, 1987, 1989)
1988	1.60	MS-DOS, written in muLISP-87 (© 1983, 1987, 1989)
1988	1.61	MS-DOS
1988	1.62	MS-DOS, written in muLISP-87 (© 1983, 1987, 1989)
1989	2.00	MS-DOS, price \$200
1990	muLISP-90	IBM PC, Version 7.20 (02/07/94)
1990	2.013	MS-DOS, written in muLISP-87 (© 1983, 1987, 1989)
1990	2.033	MS-DOS, written in muLISP-87 (© 1983, 1987, 1990)
1990	2.05	MS-DOS, written in muLISP-90
1990	2.053	MS-DOS, written in muLISP-90 (© 1983, 1987, 1990)
1990	2.083	MS-DOS, written in muLISP-90
1991		Derive User Group (DUG) founded, newsletter published up to 2024
1992	2.50	MS-DOS, written in muLISP-90 (© 1983, 1987, 1990), HP 95LX Card
1992	2.54	MS-DOS, written in muLISP-90
1992	2.55	MS-DOS, written in muLISP-90

Year	Product/Version	Operating System and Comments
1992	2.55 XM	MS-DOS, uses EMS, written in muLISP 90 XM Version 7.16 (02/10/93)
	2.58	MS-DOS, written in muLISP-90
1993	muLISP-90 XM	IBM PC, Version 7.16 (02/10/93)
1993	2.60	MS-DOS, written in muLISP-90
1993	2.60 XM	MS-DOS, uses EMS
1994	muLISP-90 XM	IBM PC, Version 7.20 (02/07/94)
1994	3.00	MS-DOS, first version to support Acrospin for 3D graph visualization
1994	3.00y	MS-DOS, written in muLISP-90
1994	3.00y XM	MS-DOS, written in muLISP-XM 7.21, uses PharLap extender for EMS
1994	3.02	MS-DOS
1994	3.05	MS-DOS, written in muLISP-90
1995	3.06 XM	MS-DOS, written in muLISP-XM 7.21, uses EMS
1995	muLISP-90 XM	MS-DOS, Version 7.30 (10/13/95)
1995	3.10	MS-DOS
1995	3.10	MS-DOS, written in muLISP-XM 7.30 (10/13/95), uses EMS
1995	3.10 G	MS-DOS, written in muLISP-XM 7.30 (10/13/95), uses EMS, <u>G</u> erman
1995	3.10 XM	MS-DOS, written in muLISP-90 (© 1983, 1987, 1990), EMS
1995	3.10 XMG	MS-DOS, written in muLISP-90 (© 1983, 1987, 1990), EMS, <u>G</u> erman
1995	3.11 XM	MS-DOS, uses EMS
1995	3.12	MS-DOS
1995	3.13	MS-DOS, written in muLISP-90 (© 1983, 1987, 1990)
	3.14	MS-DOS
1996		new versions for Windows written in “muLISP for Derive”
1996	4.00	MS-DOS; first Version for Windows released in October
1996	4.01	MS-DOS; Windows, but not for Windows XP
1996	4.02	MS-DOS; Windows, but not for Windows XP
1996	4.03	MS-DOS; Windows, but not for Windows XP
1996	4.04	MS-DOS, written in muLISP 7.40 (08/28/96), 16/32-bit; Windows
1996	4.05	MS-DOS, 16/32-bit (muLISP Version 7.40 (04/15/97)); Windows
1996	4.05a	MS-DOS, 16/32-bit; Windows 3.x
1996	4.06	MS-DOS, written in muLISP-XM 7.40 (06/25/97), 16/32-bit; Windows
1996	4.07	MS-DOS, written in muLISP-XM 7.40, 16/32-bit; Windows
1996	4.09	MS-DOS, 32-bit Extender; Windows (have update only)
1996	4.10	MS-DOS, 32-bit Extender; Windows (have update only)
1996	4.11	MS-DOS, written in muLISP 7.40 (06/04/98); Windows
	4.13	MS-DOS; Windows, but not for Windows 2000
1999		takeover by Texas Instruments, rewrite in “C”, MS-DOS dropped?
2000		TI-92
2000	5.00	Windows 3.x
2000	5.01	Windows 95, 98, NT (16 June 2000)
2000	5.02	Windows 95, 98, NT (30 June 2000)
2001	5.03	Windows 95, 98, NT, 2000 (15 January 2001)
2001	5.04	Windows 95, 98, NT, 2000 (11 April 2001)
2001	5.05	Windows 95, 98, NT, 2000 (5 December 2001)
2002	5.06	Windows 95, 98, ME, NT, 2000, XP (10 October 2002), written in muLISP for DERIVE 7.43 (03/06/01)
2003	6.00	Windows 98, ME, 2000, XP

Year	Product/Version	Operating System and Comments
2004	6.01	Windows (not: 98, ME) 2000, XP (1 March 2004)
2004	6.10	Windows 98, ME, 2000, XP, connects to TI-89, TI-89 Titanium, TI-92+, TI Voyage 200, written in muLISP for DERIVE 7.45 (08/17/04)
2007		Texas Instruments ends development and distribution of Derive

Notes:

- red: I have archived a copy of the files (which may be incomplete).
- black: must exist “somewhere”, I found references to or screenshots of these versions.
- The prefix “mu” stands for “micro”.
- There are probably many intermediate versions not listed here, as Soft Warehouse often provided small updates to fix problems reported by users.

## Companion Programs

The Derive versions for MS-DOS since Derive 3.0 supported the external program *Acrospin*. *Acrospin* could display 3D line meshes of three dimensional graphics. The data was transferred from the Plot menu via a \*.ACD text file which contains lists of coordinates and straight line connectivities.

## Localization

Most messages from Derive versions since 2.053 can be localized by adding a language file “DERIVE.LAN”. This file contains pairs of English and foreign translations for the Prompt and Message Lines, but not for the menus. The menu bar is still in English and some of the prompts are not fully translated, for example the yes/no question prompt “Y/N” which expects a ‘Y’ or ‘N’ key to be pressed.

Derive versions since 3.05 allowed for localization of the menus by adding a menu file “DERIVE.MNU” which contains a hierarchical LISP list of the translated menu structure and the English commands to execute.

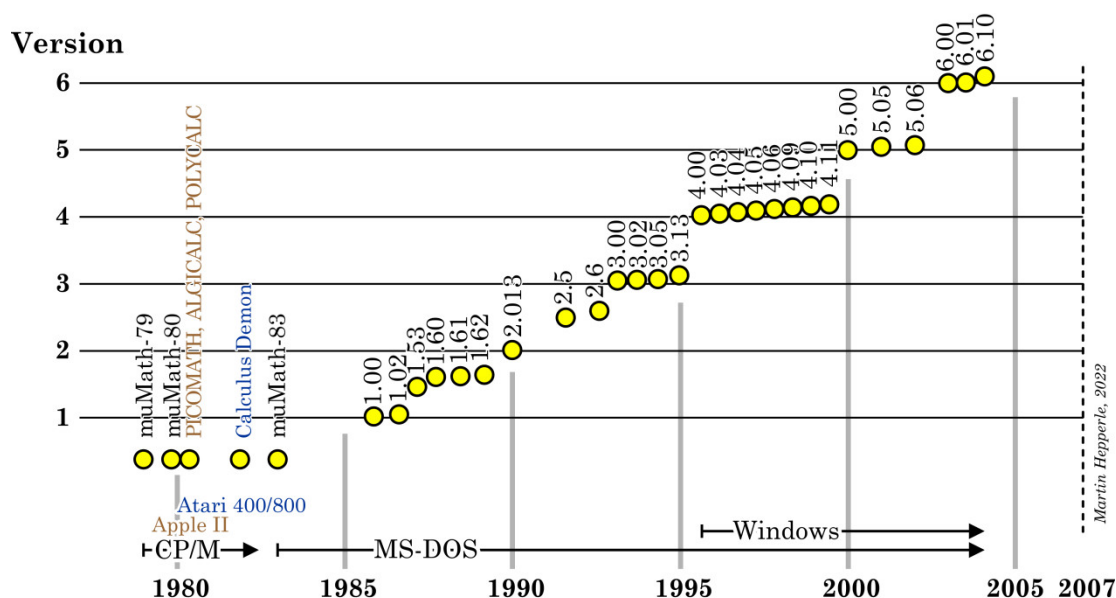


Figure 3: Derive version numbers versus publication year.



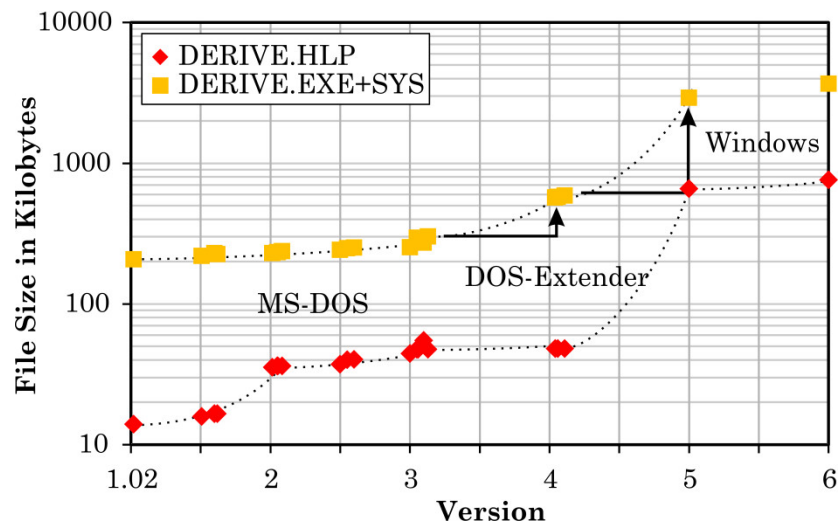
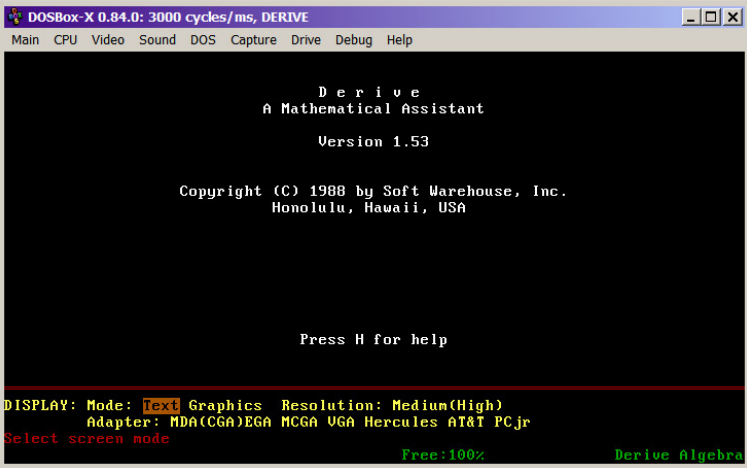
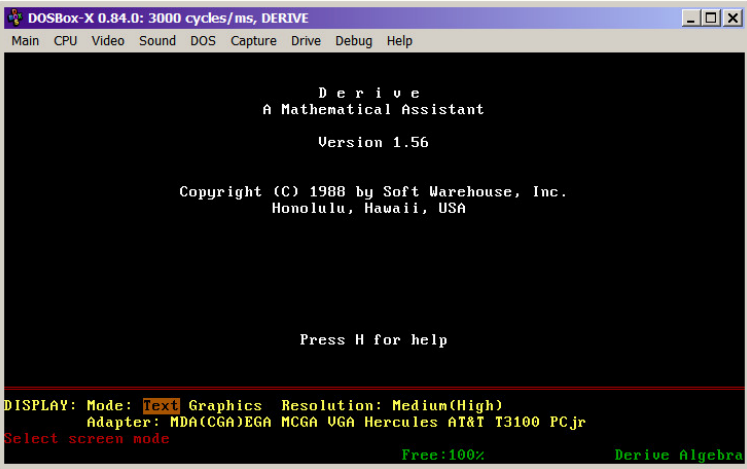
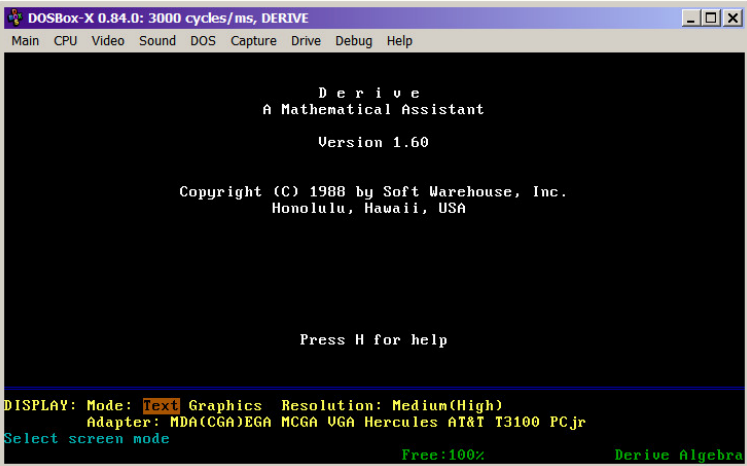


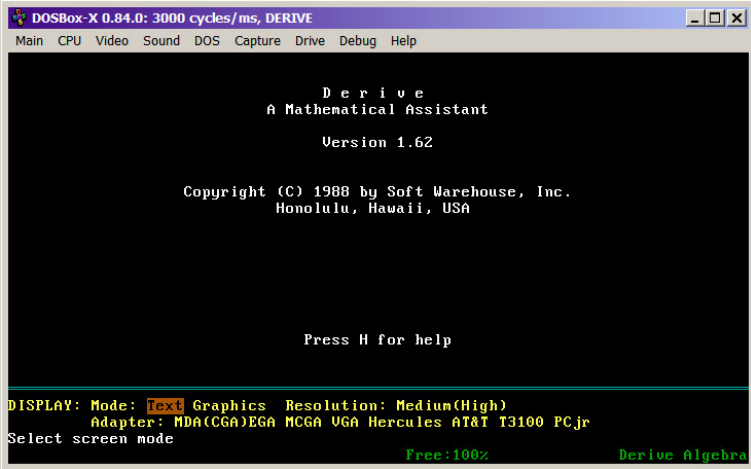
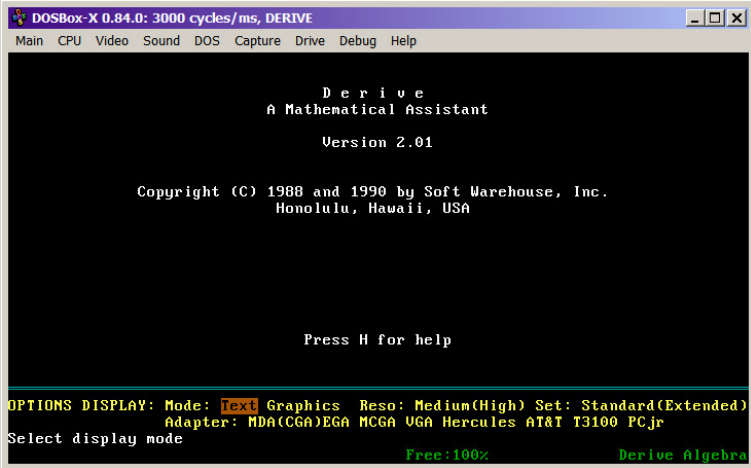
Figure 4: Growth of the main Derive files versus publication year.

## Derive Opening Screens

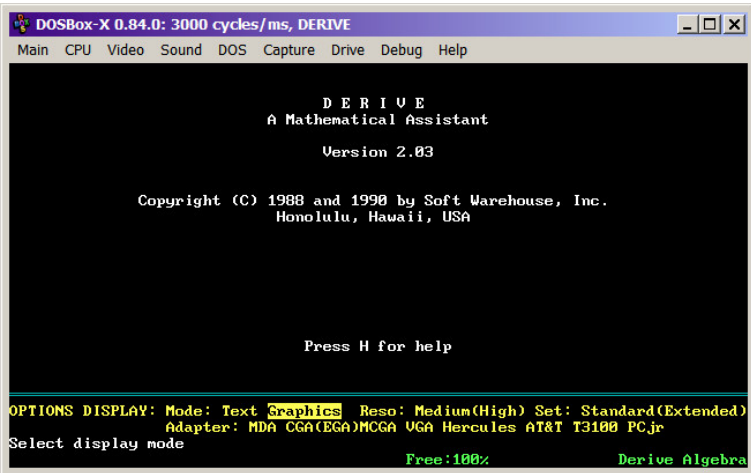
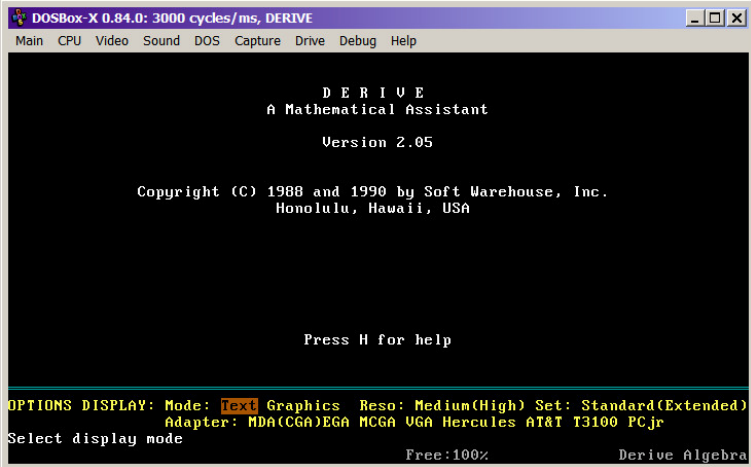
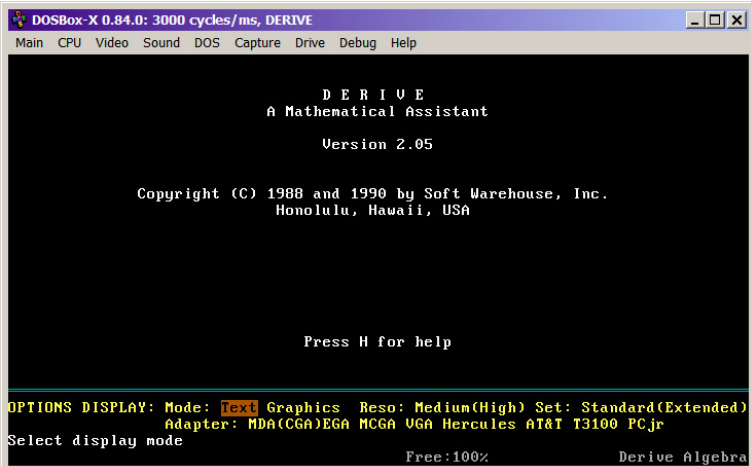
Derive can be installed and run on modern systems using the a DOSBox simulation environment. The following screenshots were taken with Options / Display active to show the graphics cards supported by each version.

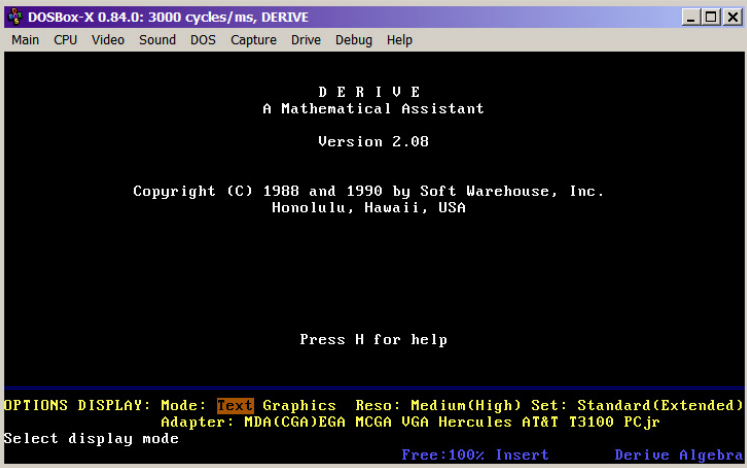
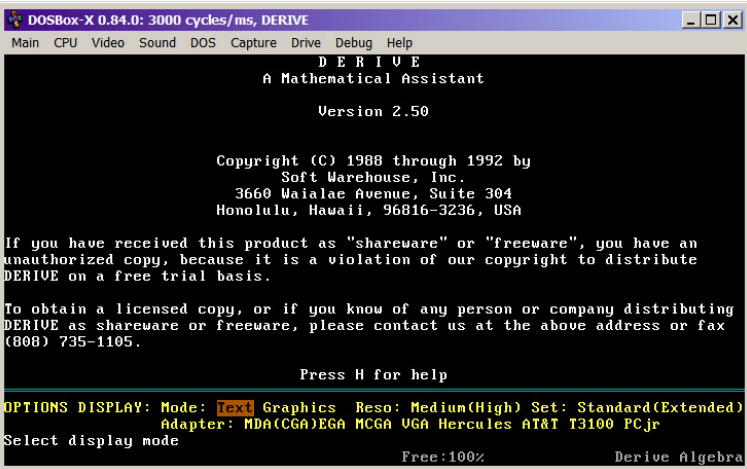
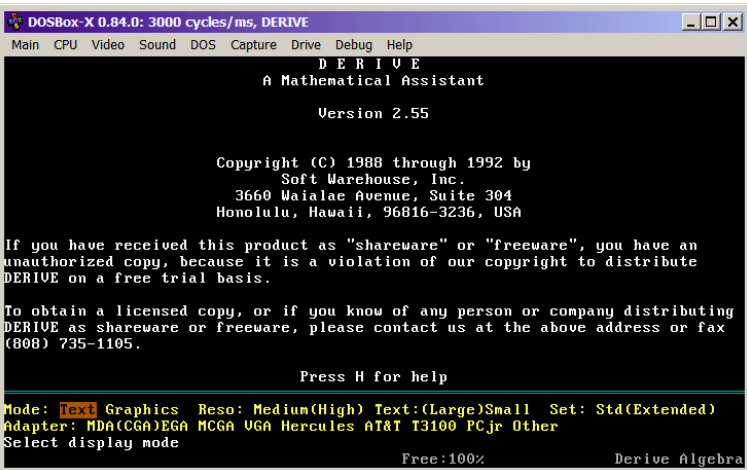
	<p>1988 Version 1.02</p> <p>This version supports most graphics adapters of that era including VGA.</p>
	<p>1988 Version 1.51</p>

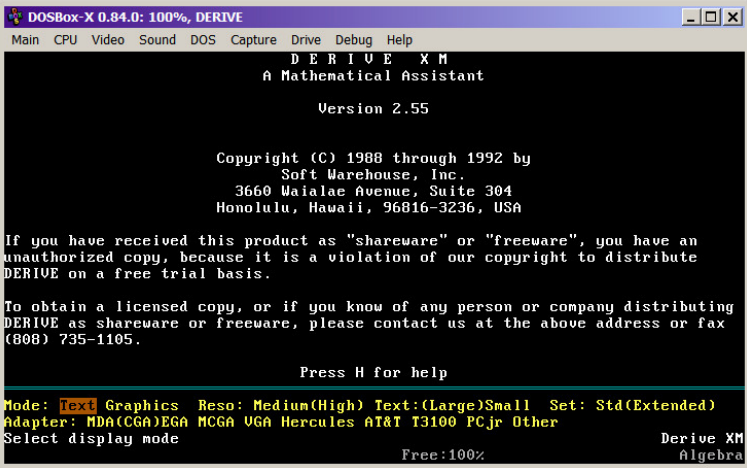
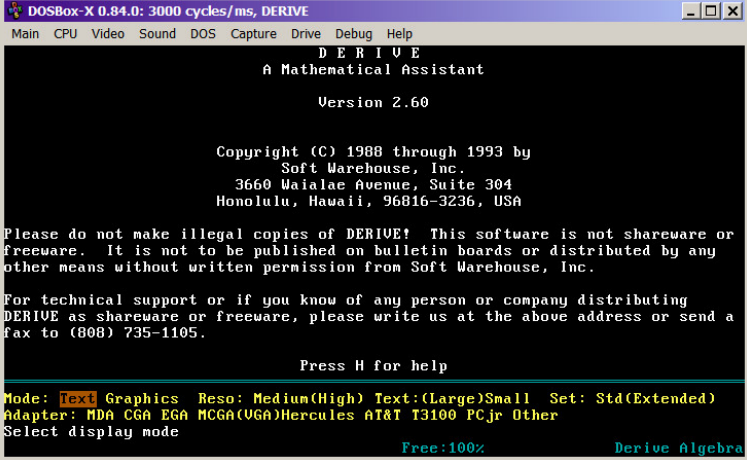
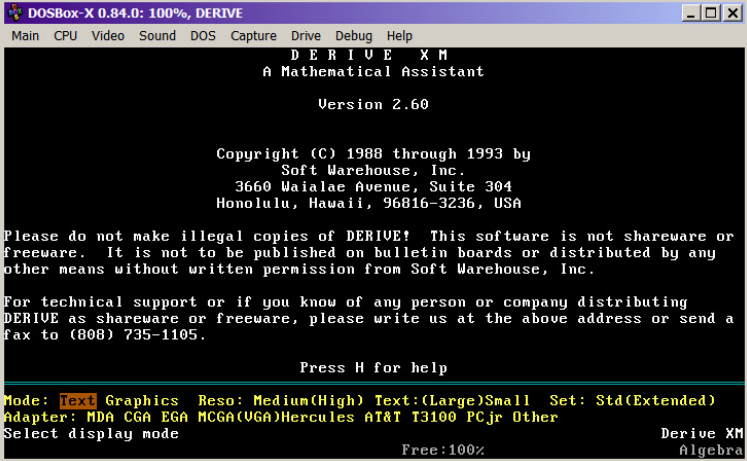
	<p>1988</p> <p>Version 1.53</p>
	<p>1988</p> <p>Version 1.56</p>
	<p>1988</p> <p>Version 1.60</p> <p>This version added a display driver for the Toshiba T3100 laptop computer (which btw. as the same 640 x 400 pixel screen memory organization as the AT&amp;T 6300/Olivetti M24/HP Vectra).</p>

	1988 Version 1.61
	1988 Version 1.62
	1990 Version 2.013

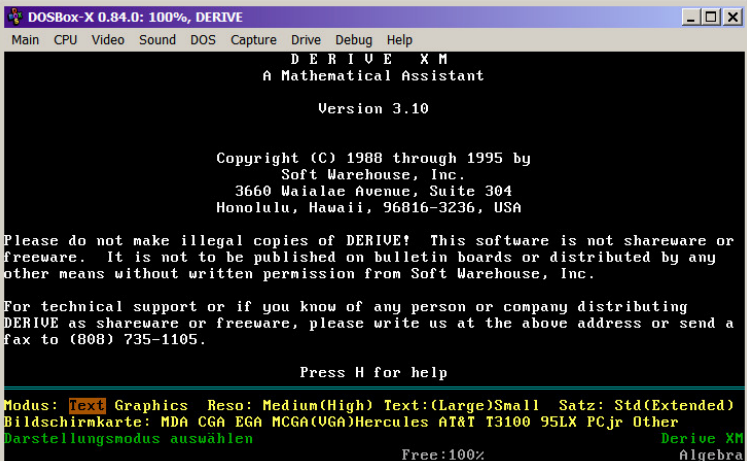
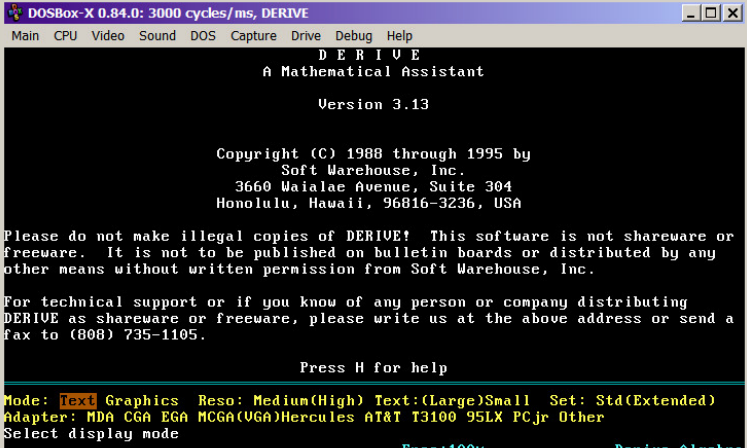


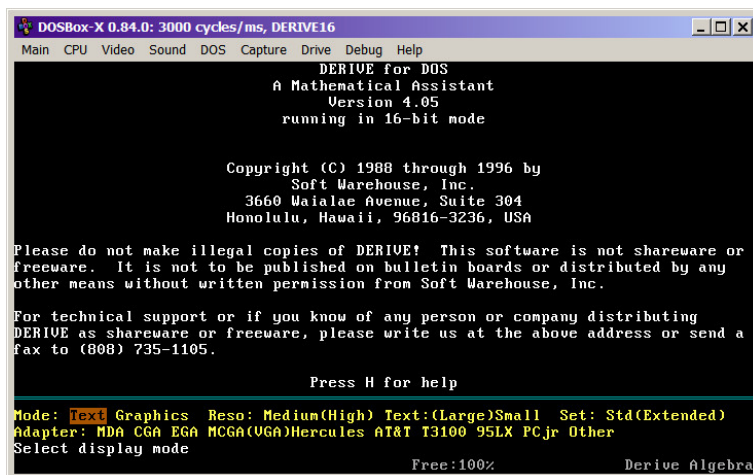
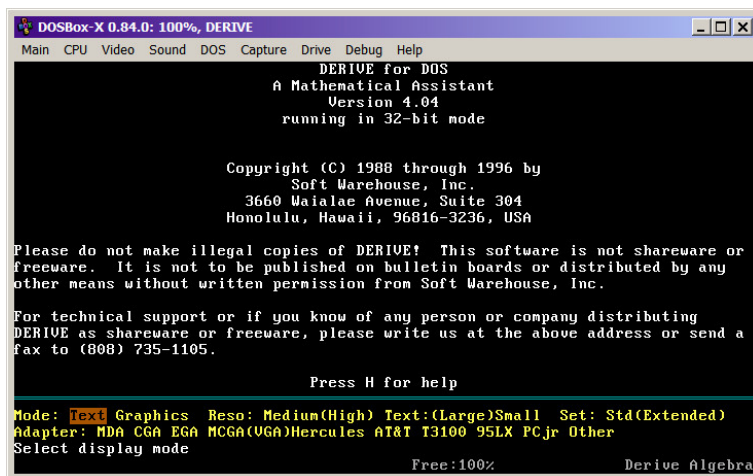
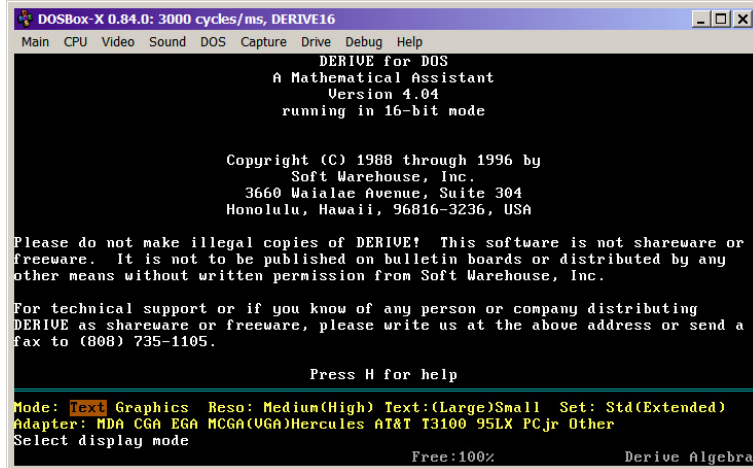
	<p>1990</p> <p>Version 2.033</p>
	<p>1990</p> <p>Version 2.05</p>
	<p>1990</p> <p>Version 2.053</p>

	<p>1990</p> <p>Version 2.083</p>
	<p>1992</p> <p>Version 2.50</p>
	<p>1992</p> <p>Version 2.55</p>

	<p>1992</p> <p>Version 2.55 XM</p>
	<p>1993</p> <p>Version 2.60</p>
	<p>1993</p> <p>Version 2.60 XM</p>

	<p>1994</p> <p>Version 3.0y XM</p> <p>This version used a so called DOS Extender and added support for the display of the HP 95LX palmtop computer.</p>
	<p>1994</p> <p>Version 3.05</p>
	<p>1995</p> <p>Version 3.06 XM</p> <p>Version using a DOS Extender.</p>

	<p>1995</p> <p>Version 3.10 G</p> <p>User interface translated into German.</p>
	<p>1995</p> <p>Version 3.10 XMG</p> <p>This version used the DOS extender and also came with the user interface translated into German.</p>
	<p>1995</p> <p>Version 3.13</p>



1996

## Version 4.04

This version came with executables for a 16-bit and a 32-bit DOS Extender variant.

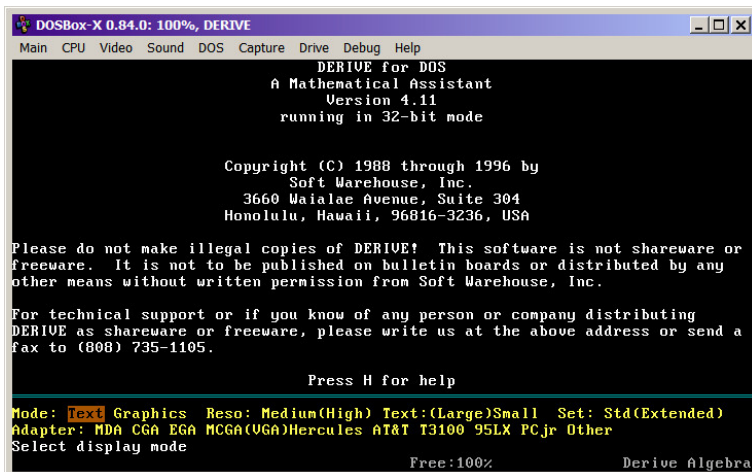
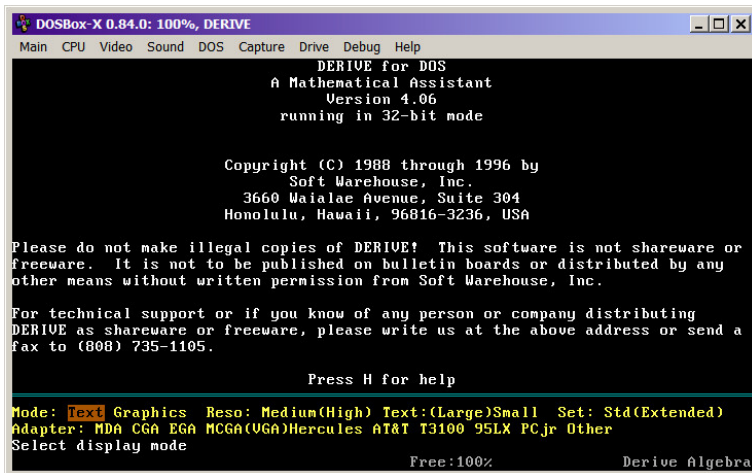
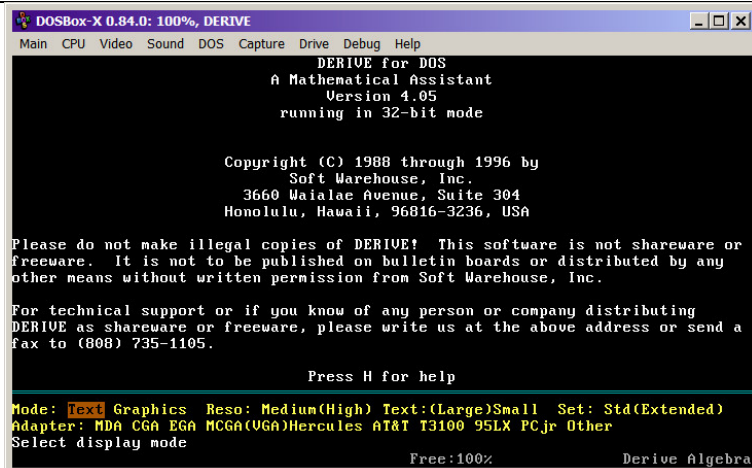
The 32-bit option required a 32-bit processor like the 80386.

1996

## Version 4.05

This version came with executables for a 16-bit and a 32-bit DOS Extender variant.





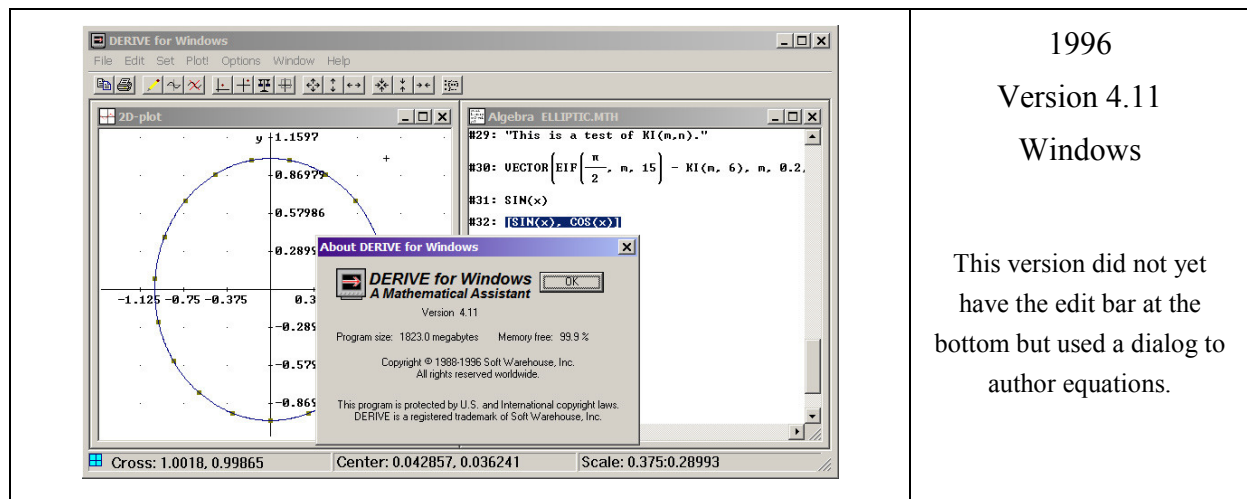
1996  
Version 4.06

This version also used the  
32-bit DOS Extender.

1996  
Version 4.11

This version used also used  
the 32-bit DOS Extender.

It still supported the HP  
95LX palmtop computer.



1996  
Version 4.11  
Windows

This version did not yet have the edit bar at the bottom but used a dialog to author equations.

## Terminal Installation for muLISP and Derive

The early versions of muLISP up to version 6.10 and Derive up to version 2.083 can be installed for different terminal types.

I don't know whether there was a Wordstar-like installation program for selecting preconfigured terminals or even defining your own escape sequences. The list found in the program code suggest so.

Today I can only patch the code to select different terminals.

The terminal list also includes the HP-110 and HP-150. Therefore, Derive versions up to 2.083, which have been built with these muLISP versions, can be patched to work with the HP-150 and HP-110. However, graphics mode and equation displays are not properly supported (axes and points use incorrect characters).

The \*.COM files contain a list of terminals.

```
1 = Other generic MS-DOS computer
2 = IBM PC compatible computer
3 = ANSI.SYS screen or VT-100 Terminal
4 = TI Professional Computer
5 = Zenith Z-100 Computer or VT-52 Terminal
6 = Hewlett-Packard HP-150 Computer
7 = Hewlett-Packard HP-110 Computer
8 = NEC Advanced PC or ADM-3A Terminal
9 = NEC PC-9801 Computer
A = Fujitsu Computer
```

The terminal byte or word in the following context contains the terminal number. Here it has been changed to "06", the HP-150 Computer.

```
00000440 00001E1E 04000300 00004F00 0000FF07 .....0.....
00000450 5C7C64FF FF1A0006 00000000 00242000 \|d.....$ .
                ^^ terminal type
00000460 0000004C 5350FF00 002E1110 FF000000 ...LSP.....
```

## Literature related to Derive

(There is a huge number of books about Derive and its application and many of them have been listed in the Derive Users Group Newsletters, many can be loaned from your local library or from [archive.org](http://archive.org))

- [1] Williams, G., "The muSIMP/muMATH-79 Symbolic Math System", BYTE magazine 11, pp. 324-338, 1980.
- [2] Gilligan, Lawrence G., Marquardt, James F. Sr., "Calculus and the Derive Program: Experiments with the Computer", Gilmar Publishing, 1991, 152 pages.
- [3] Arney, David C., "Derive Laboratory Manual for Differential Equations", Addison-Wesley, 1991, 189 pages.
- [4] Arney, David C., "Exploring Calculus with Derive", Addison-Wesley, 1992, 166 pages.
- [5] Arney, David C., "The Student Edition of Derive", Addison-Wesley, 1992, 387 pages, uses Derive Version 2.
- [6] various authors, "Lab Resource Manual to accompany The Student edition of Derive", 1992, 69 pages.
- [7] Glynn, Jerry, "Exploring Math from Algebra to Calculus with Derive", Mathware, 1992, 154 pages, uses Derive Version 2.51.
- [8] Berry, J.S., Graham, E., Watkins, A. J. P., "Learning Mathematics through Derive", Ellis Horwood, 1993, 371 pages.
- [9] Koepf, W., Ben-Israel, Ben, Gilbert, Robert P., "Mathematik mit Derive", Vieweg 1993 (German).
- [10] Denton, Brian, "Learning Linear Algebra through Derive", Prentice Hall, 1995, 353 pages.
- [11] Townend, M. Stewart, Pountney, David C., "Learning Modelling with Derive", Prentice Hall, 1995, 244 pages.
- [12] Richardson, R. L., "Business Calculus today with Spreadsheets and DERIVE", Saunders College Publishing, 1996, 416 pages.
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