

# **HSMathLibs\_eng**

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	<i>TITLE :</i> HSMathLibs_eng		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME

# Contents

<b>1</b>	<b>HSMathLibs_eng</b>	<b>1</b>
1.1	Contents . . . . .	1
1.2	introduction . . . . .	1
1.3	special features . . . . .	2
1.4	requirements . . . . .	2
1.5	installation . . . . .	2
1.6	known bugs . . . . .	2
1.7	updates . . . . .	2
1.8	restrictions . . . . .	2
1.9	registration . . . . .	3
1.10	copyright . . . . .	3
1.11	history . . . . .	3
1.12	future . . . . .	3
1.13	thanks . . . . .	3
1.14	author . . . . .	4
1.15	Index . . . . .	4

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# Chapter 1

## HSMathLibs\_eng

### 1.1 Contents

HighSpeed MathLibs Version 44.40 demo ( 31.03.1999 ) for MC68881/82

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written by Matthias Henze

S H A R E W A R E

**Introduction** General Information about HSMathLibs.

**Special Features** Why should I use HSMathLibs?

**Requirements** What do I need to use HSMathLibs?

**Installation** How to install HSMathLibs?

**Known Bugs** Known bugs and misbehaviours.

**Updates** How to update.

**Restrictions** Restrictions of the Demo version.

**Registration** How can I register?

**Copyright** Copyright notice.

**History** Brief history.

**Future** Future developments.

**Thanks** Thanks to ... .

**Author** How to contact the author.

**Index** Index of this documentation.

### 1.2 introduction

Introduction: ~~~~~

The "HSMathLibs" replace the libraries "mathffp.library", "mathieedoubbas.library", "mathieedoubtrans.library", "mathieeesing-trans.library" and "mathtrans.library" with highly optimized versions for MC68881/82. They patch the "mathieeesingbas.library" for MC68881/82. The precision is as high (some functions are even more precise) as of the original libraries shipped with AmigaOS 3.x. The "HSMathLibs" are completely written in assembler to achieve the maximum acceleration.

Background: The libraries of AmigaOS 3.1 and FMath406 (Fast Math Libraries v40.6 by Martin Berndt) are quite slow (they use instructions the MC68040 has to emulate). The MC68060 isn't even supported. So I decided to develop "HSMathLibs". Because MC68881/2 is not supported very well by the OS and many users requested a version which supports this FPU, I decided to develop a version of HSMathlibs for MC68881/2.

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## 1.3 special features

Special features of "HSMathLibs": ~~~~~

- 1.) because it is completely written in assembler, all functions are very fast
- 2.) special versions of "HSMathLibs" for MC68881/82, MC68040 and MC68060
- 3.) much faster than the libraries of AmigaOS 3.1 and FMath406 (Fast Math Libraries v40.6 by Martin Berndt); a MC68040 is up to 21 times as fast as with AmigaOS 3.1 and up to 10 times as fast as with FMath406
- 4.) "HSMathLibs" is inexpensive

## 1.4 requirements

Requirements: ~~~~~

- An Amiga - AmigaOS 2.0 (V37) or higher - MC68881/82

## 1.5 installation

Installation: ~~~~~

The "HSMathLibs" are installed by the Installer. Run "HD-Install\_xxx" (xxx is your preferred language) from Workbench and follow the instructions.

Important

You must remove all other patches (e.g. ffppatch, msbpatch, math-patch from MCP) of mathlibraries.

The patches from SetPatch are OK.

## 1.6 known bugs

Known bugs: ~~~~~

- the registered version of UltraConv will not work with HSMathLibs

## 1.7 updates

Updates: ~~~~~

The newest version can be found on the homepage "<http://WWW.CyberdyneSystems.de/>".

Updates can be obtained directly from the **author**. If you would like to get the newest version via snail mail just send me a disk (HD or DD) and an addressed envelope including postage or 5,- DM (German Marks) or 3,- \$ (US Dollar) or 2,- £ (UK Pound).

## 1.8 restrictions

Restrictions of the Demo-Version: ~~~~~

The demo-version of "HSMathLibs" shows frequently an informationrequester. The "mathffp.library", the patch to load the "mathffp.library" and the patch for "mathieeesingbas.library" are not included. The precision matches the full version, but the full version is a little bit faster.

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## 1.9 registration

Registration: ~~~~~

The "HSMathLibs" are Shareware. If you want to use the unrestricted version, you have to register first and pay the fee. Please use the registerform on our homepage "<http://WWW.CyberdyneSystems.de/>" for registration. If you would like to get the full version via snail mail just send me a disk (HD or DD) and an addressed envelope including postage or 5,- DM (German Marks) or 3,- \$ (US Dollar) or 2,- £ (UK Pound) additional. You can find my address at [author](#). Contact me for my Bankaccount. When I have the money then I'll send you your registration number and login to download the full version and all updates from our Homepage.

price version for MC68881/82: 10,- DM (German Marks) or 7,- \$ (US Dollar) or 5,- £ (UK Pound) version for MC68040: 10,- DM (German Marks) or 7,- \$ (US Dollar) or 5,- £ (UK Pound) version for MC68060: 10,- DM (German Marks) or 7,- \$ (US Dollar) or 5,- £ (UK Pound)

## 1.10 copyright

Copyright: ~~~~~

The demo-version of "HSMathLibs" is freely distributable as long as it is NOT CHANGED and ALL files are included UN-CHANGED. The registered version of "HSMathLibs" is ONLY for registered users. The "HSMathLibs" and the registration number MUST NOT be published or copied.

Re- or disassembling of "HSMathLibs" is NOT allowed.

MOST IMPORTANT:

"HSMathLibs" is PROVIDED AS IS. Use it at your OWN RISK.

The author is NOT RESPONSIBLE for any data loss or damage caused directly or indirectly by the use of "HSMathLibs".

All rights reserved. Please send bugreports and suggestions.

## 1.11 history

History: ~~~~~

HSMathLibs V.44.40 (31.03.1999): ~~~~~ first public version

## 1.12 future

The future: ~~~~~

The following topics are on my wishlist for the next versions of "HSMathLibs".

- more speed ???
- Your suggestions

## 1.13 thanks

Thanks: ~~~~~

I want to thank the following persons and companies: \_\_\_\_\_

- by all registered user

- Kai Fleischer; for the translation (english) of this guide
- Massimo Gais; for the translation (italiano) of this guide
- Llorenç Grau; for the translation (catalan) of this guide
- Jens Troeger; for the indication to the installerscript
- Dietmar Heidrich; for "OMA"
- Frank Wille; for "PhxAss"
- by all user which I have forget, sorry

## 1.14 author

Author: ~~~~~

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English guide: ~~~~~ For bugreports or suggestions concerning the english guide please email:  
kai.fleischer@cwv.de

I am always looking for bugreports und suggestions. Please tell me your opinion about "HSMathLibs".

## 1.15 Index

Index: ~~~~~

A

**Author**

C

**Copyright**

H

**History**

I

**Installation Introduction**

K

**Known bugs**

R

**Registration Requirements Restrictions**

S

**Special features**

T

**Thanks The future**

U

**Updates**

---