

Welcome to

Easy ModelWorks

Easy ModelWorks is an interactive modeling and simulation environment to solve numerically continuous-time or discrete time models.

It is freeware, courtesy ETHZ (Swiss Federal Institute of Technology Zurich). It may be freely copied, but not for profit (please keep all files together as originally received).

To get going unpack and double-click it. Use the on-line help to learn more. It is part of much bigger software packages, i.e. the *Dialog Machine*, *ModelWorks*, and *RAMSES* (*RAMSES* is an acronym for Research Aids for Modeling and Simulation of Environmental Systems. Interested? Visit locations given below).

Should you encounter any troubles during first start-up of *Easy ModelWorks* (since you can't yet read the on-line help topic "Trouble shooting"), please consult the text after this welcome section.

Have fun!

To get the latest version visit:

<http://www.sysecol.ethz.ch>

Easy ModelWorks has also a home:

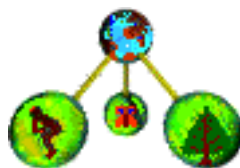
http://www.sysecol.ethz.ch/SimSoftware/RAMSES/Easy_ModelWorks.html

For feedbacks send E-mail to

<mailto:RAMSES@env.ethz.ch>

We like to hear from you. Thanks!

af/ETH Zurich, 12.Juli 2006



For Macintosh users only: Note *Easy ModelWorks* requires

MacOS Classic

This is the old Macintosh operating system. If your Macintosh runs Mac OS X you may have to install first Classic before you can use Easy ModelWorks. Further information can be found on following web site by Apple

<http://www.apple.com/support/tiger/classic/>

Installing Classic

Classic is the standard operating system on older Macintosh computers and should have been distributed as part of your system installation software if you are using Mac OS X. Under OS X it normally requires an additional installation step, for instance from a separate CD or DVD labelled "Mac OS 9 Install Disc", "Additional Software & Apple Hardware Test", or "Mac OS X Install Disc 2".



Simply double-click the installation package "Install Mac OS 9 System Support" (in our experience there is no need to worry about losing data by installing Classic).

Some distributions, in particular Tiger (Mac OS X 10.4), may make it hard to find the Classic installation. Note, this does not mean that Classic is incompatible with Tiger; don't get confused by rumors of this kind you may find on the Internet! The following hint may help if you don't find the installation package: You may need to access a separate partition on your

installation DVD by pressing the option(alt)-key while booting from this DVD. You will be offered various volumes to start-up from and should thus be able to access the partition of your installation software where Classic is actually offered. In the worst case you need Classic from an older system distribution, but note, under OS X you should use only version 9.2.2 (Yes, Apple states that version 9.1 should suffice, but recommends also to use MacOS 9.2.2 to avoid any risks that Classic will not function properly). Write us if you should have any difficulties to get a Classic system.

<mailto:RAMSES@env.ethz.ch>

Intel Macs

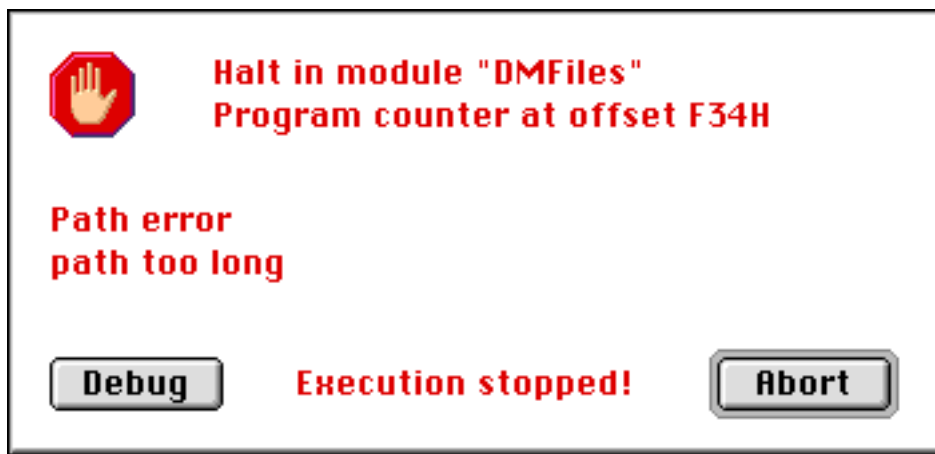
In case your Macintosh contains an Intel processor, sorry, you can use Easy ModelWorks only if you use a Classic emulation. As of this writing we have no experience with any such emulation. You may find further and latest information on this topic at

<http://www.sysecol.ethz.ch/SimSoftware/>

For Macintosh users only: Should you encounter any difficulties to launch *Easy ModelWorks* for the first time, the following hints may help. Remember, once you can launch the *Easy ModelWorks* application, please consult the online-help facility (choose command *Help* from menu *Windows*), in particular the topic "Trouble shooting".

Path Too Long Problem

If you want to launch the application *Easy ModelWorks* for the first time and you get this or a similar message



press button *Abort* and simply move the folder in which *Easy ModelWorks* resides closer to the root directory of your hard disk.

The problem arises each time you try to launch *Easy ModelWorks* from a folder which is nested within folders with long names. E.g. an attempt to launch *Easy ModelWorks* from the folder with the name *Easy ModelWorks 1.4.3* which resides within the folder with the name *Easy ModelWorks 1.4.3 Folder* you get a setup which is likely to produce this error. Unfortunately, folders with these names nested in the just described manner are generated by the utility *Stuffit Expander™* when you download *Easy ModelWorks*, e.g. with a browser.

From within the *Finder* move the folder *Easy ModelWorks 1.4.3* preferably right into your hard disk. Avoid nesting it within lots of other folders, unless they have short names. For instance a good working set up is the following:

Name	Meaning
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HD	your Hard Disk
----	----------------

Sim
EMW

Easy ModelWorks

Simulation Easy ModelWorks

The actual *Easy ModelWorks* application
together with all its auxiliary files like

- *SampleMods.OBM* (zoo of predefined models)
- *Easy ModelWorks Help* (on-line help) etc.

For programmers eyes only: With such a setup the path length is short, i.e. it is "*HD:Sim:EMW:*" instead of "*Macintosh HD:Desktop Folder:Easy ModelWorks 1.4.3 Folder:Easy ModelWorks 1.4.3 Folder:*" or "*Macintosh HD:DownLoads:Easy ModelWorks 1.4.3 Folder:Easy ModelWorks 1.4.3 Folder:*" etc..

The advantageous side of this same coin is the fact that *Easy ModelWorks* runs still on a Macintosh Plus computer with only 1 MB RAM from a floppy disk using System 3.2!

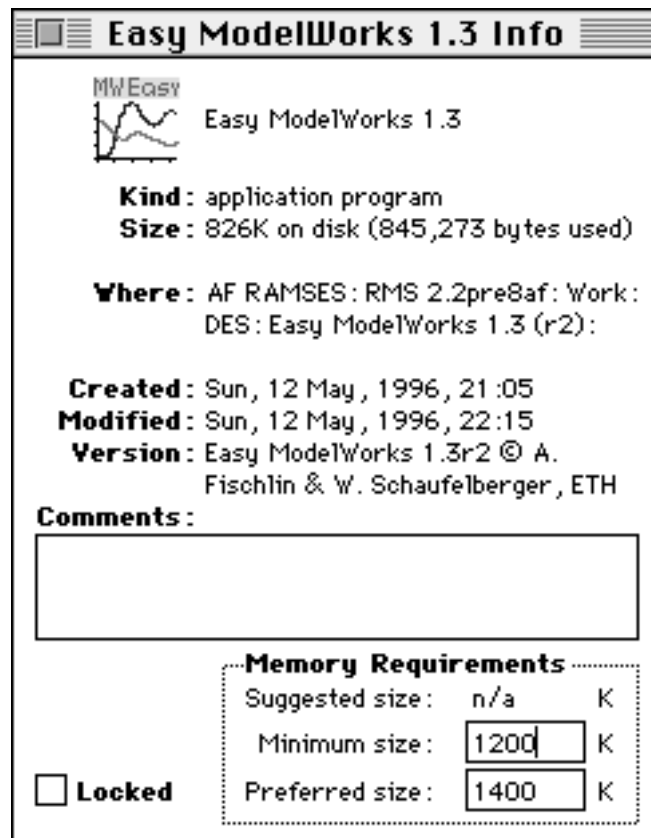
For Macintosh users only: Should you encounter any difficulties to launch *Easy ModelWorks* for the first time, the following hints may help. Note, once you can launch the *Easy ModelWorks* application, please consult the online-help facility (choose command *Help* from menu *Windows*), in particular the topic "Trouble shooting".

Memory Limitations

Should you run into memory limitations, for instance you get messages like



increase the size of the *Easy ModelWorks* application by using the "Get Info" command under the Finder till you can launch *Easy ModelWorks* successfully. For instance



The minimum memory requirements depend on your computer on which you're running *Easy ModelWorks*:

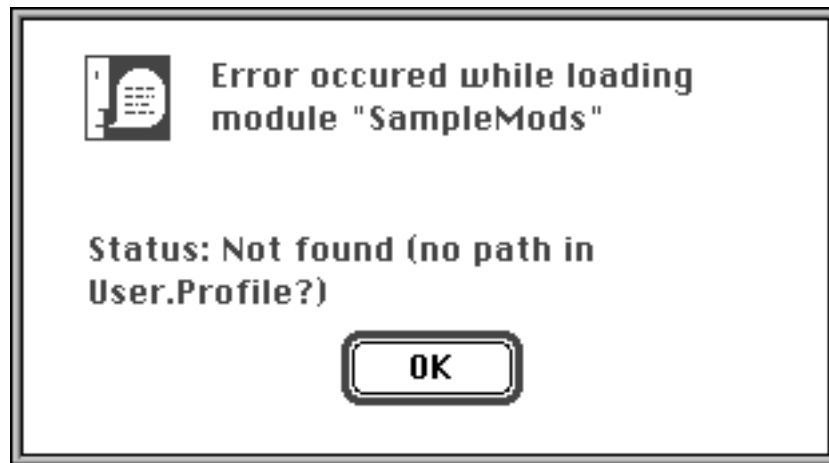
	Minimum size	Preferred size
680xx Mac:	1200 KB	1300 KB
Power PC:	1300 KB	1400 KB

For Macintosh users only (the Macintosh implementation of *Easy ModelWorks* features a dynamic linking loader, offering many possibilities which are not available on machines with static linking):

Should you encounter any difficulties to launch *Easy ModelWorks* for the first time, the following hints may help. Note, once you can launch the *Easy ModelWorks* application, please consult the online-help facility (choose command *Help* from menu *Windows*), in particular the topic "Trouble shooting".

Troubles With Missing Files - Part 1

Should you get funny messages while attempting to launch *Easy ModelWorks* like



make sure the file



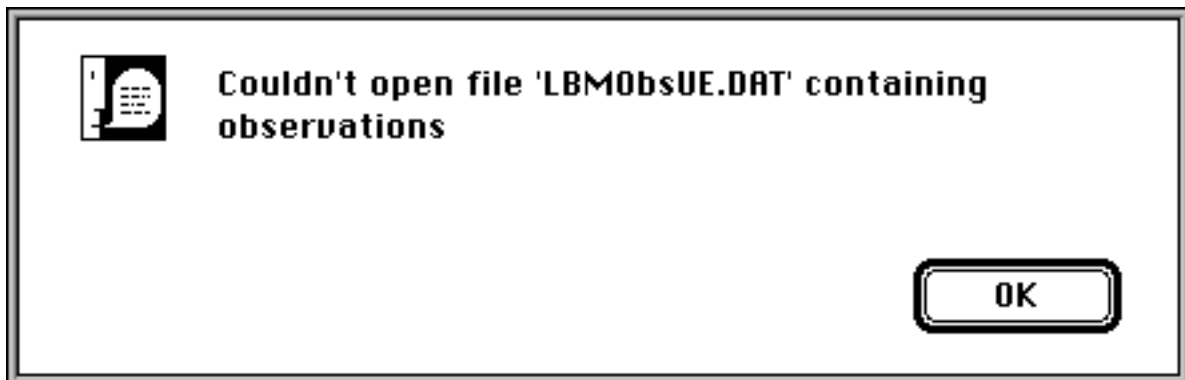
with the name "SampleMods.OBM" resides in the same folder as the *Easy ModelWorks* application. The folder "SampleMods Collection" contains several versions of such SampleMods files (each with a slightly different name). You can take any, duplicate it, rename it to "SampleMods.OBM", and move it into the same folder where the *Easy ModelWorks* application resides. Then retry launching *Easy ModelWorks*.

For Macintosh users only (the Macintosh implementation of *Easy ModelWorks* features a dynamic linking loader, offering many possibilities which are not available on machines with static linking):

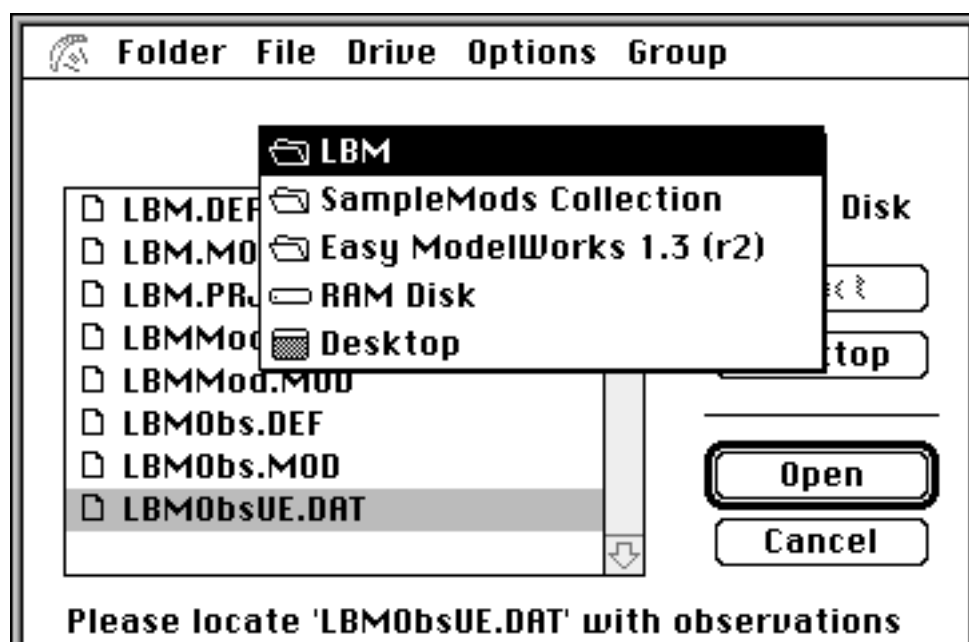
Should you encounter any difficulties to launch *Easy ModelWorks* for the first time, the following hints may help. Note, once you can launch the *Easy ModelWorks* application, please consult the online-help facility (choose command *Help* from menu *Windows*), in particular the topic "Trouble shooting".

Troubles With Missing Files - Part 2

Should you get funny messages while attempting to launch "Easy ModelWorks" like



the data file "LBMObsUE.DAT" appears to be missing from the folder/directory where the *Easy ModelWorks* application resides. Acknowledge this information and try to locate the missing file in the subsequent file opening dialog





within the folder "LBM" which sits inside the folder "SampleMods Collection". Another remedy is to copy the file "LBMObsUE.DAT" into the same folder where the *Easy ModelWorks* application sits, and you will no longer get this message while launching *Easy ModelWorks*. Note, above request for a data file is not produced by *Easy ModelWorks* itself, but by the module SampleMods currently in use. Since *Easy ModelWorks* can be customized by rewriting this module, the behavior described here may change.

For Windows users only: Note *Easy ModelWorks* for Windows runs under all currently used

Windows

operating systems starting from Windows 3.1x up to more recent versions such as Windows XP.

Installing Easy ModelWorks

Variants of Easy ModelWorks: The run-time system of Easy ModelWorks for Windows does not support dynamic loading-linking as featured by the Macintosh MacMETH based version. Therefore you need two separate versions of Easy ModelWorks, depending which predefined models you wish to use. As of this writing Easy ModelWorks for Windows comes in two versions for the following fields:

- Ecology
- Control theory

Choose the version according to your interests.

Installation: The following web site offers you hints on the installation of Easy ModelWorks for Windows (sorry, German only)

<http://www.sysecol.ethz.ch/Unterricht/VSysOek/fragen.html#Anker-EMWHilfen>

Known Problems and Issues

Readability: Depending on your system installation and availability of fonts, you may encounter occasional difficulties to read texts as displayed by Easy ModelWorks. Make sure you have the fonts "Arial", "Courier New", and "Times New Roman" installed. However, this should be the case on any standard Windows installation.

Run-time crashes due to floating-point exceptions: Easy ModelWorks for Windows crashes if a run-time error such as a numerical overflow is encountered. This is a known bug. Our recommendation is to frequently save your model to avoid losing your work. Once Easy ModelWorks has been restarted, you can then reopen your model and continue your work

where you left it.

You find further help on issues and possible remedies on following web site (sorry, German only)

<http://www.sysecol.ethz.ch/Unterricht/VSysOek/fragen.html#Anker-EMWHilfen>