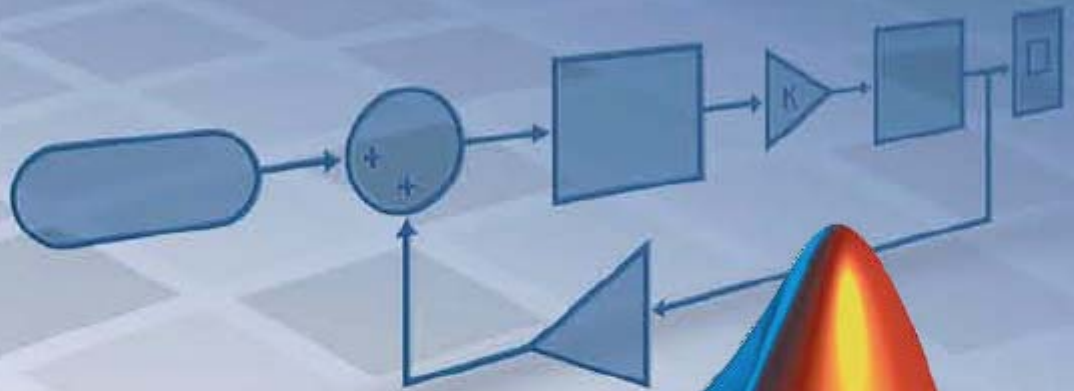


R2007a

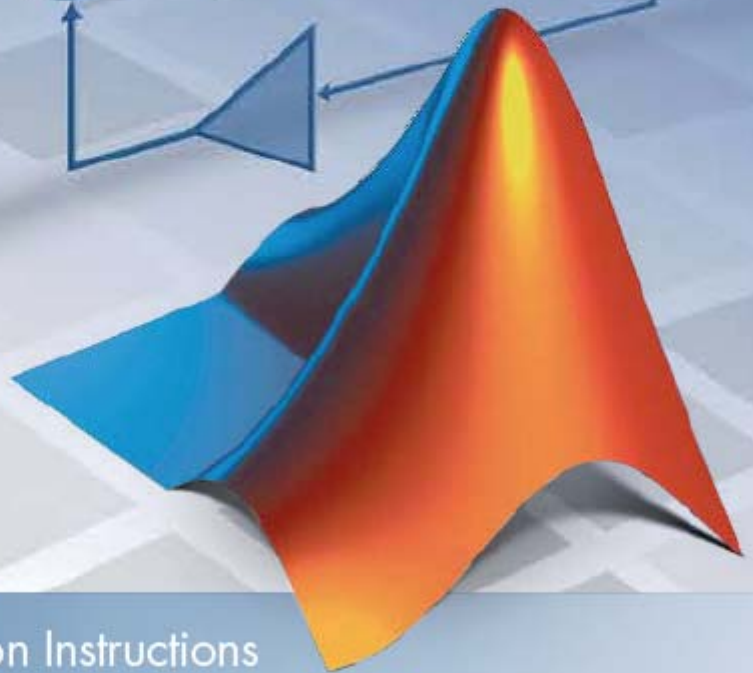
MATLAB[®] & SIMULINK[®]

STUDENT VERSION



NOW INCLUDES:

- > Control System Toolbox
- > Signal Processing Toolbox
- > Signal Processing Blockset
- > Statistics Toolbox
- > Optimization Toolbox
- > Image Processing Toolbox
- > Symbolic math functions



Introduction and Installation Instructions

How to Contact The MathWorks



www.mathworks.com
comp.soft-sys.matlab

Web
Newsgroup



suggest@mathworks.com
bugs@mathworks.com
doc@mathworks.com
info@mathworks.com

Product enhancement suggestions
Bug reports
Documentation error reports
Sales, pricing, and general information



508-647-7000 (Phone)



The MathWorks, Inc.
3 Apple Hill Drive
Natick, MA 01760-2098

For localities outside the U.S., see the MathWorks Web site.

MATLAB & Simulink Student Version Introduction and Installation Instructions

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April 2007 First printing Rewritten for R2007a

Introducing MATLAB & Simulink Student Version

1

What Is Student Version?	1-2
Student Use Policy	1-2
Quick Start	1-3
Installing Student Version	1-3
Student Version Activation	1-3
Learning MATLAB	1-4
Learning Simulink	1-5
Student Version Overview	1-7
What You Can Do with Student Version	1-7
MATLAB	1-7
Simulink	1-8
Additional Products Included	1-9
Obtaining Additional MathWorks Products	1-12
Finding Reference Information	1-13
Other Resources	1-15
MathWorks Web Site	1-15
Technical Support	1-16

Installation Instructions

2

Installing on Microsoft® Windows®	2-2
System Requirements	2-2
Installing and Activating Student Version	2-3

Installing Additional Products	2-5
Installing on Apple® Macintosh	2-6
System Requirements	2-6
Installing and Activating Student Version	2-7
Installing Additional Products	2-12
Macintosh Documentation	2-12
Installing on Linux	2-13
System Requirements	2-13
Installing and Activating Student Version	2-14
Installing Additional Products	2-19

Index

Introducing MATLAB & Simulink Student Version

- “What Is Student Version?” on page 1-2
- “Quick Start” on page 1-3
- “Student Version Overview” on page 1-7
- “Obtaining Additional MathWorks Products” on page 1-12
- “Finding Reference Information” on page 1-13
- “Other Resources” on page 1-15

What Is Student Version?

If you're studying engineering, science, math, or finance, MATLAB & Simulink Student Version is your essential technical computing resource.

Student Version includes full-featured versions of both MATLAB® and Simulink®— software products used by engineers, scientists, and mathematicians at leading universities, research labs, technology companies, and government labs around the world. Student Version also includes several other MathWorks software add-ons that help you do course work in the areas of signal processing, control design, statistics, optimization, and symbolic computing.

For more information about what Student Version contains and what you can do with it, see “Student Version Overview” on page 1-7.

Student Use Policy

The Student Version License is for use in conjunction with courses offered at degree-granting institutions. The MathWorks offers this license as a special service to the student community and asks your help in seeing that its terms are not abused.

To use this Student License, you must be a student either enrolled in a degree-granting institution or participating in a continuing education program at a degree-granting educational university.

You may not use this Student License at a company or government lab. Also, you may not use it if you are an instructor at a university, or for research, commercial, or industrial purposes. In these cases, you can acquire the appropriate professional or academic license by contacting The MathWorks (www.mathworks.com).

Quick Start

In this section...
“Installing Student Version” on page 1-3
“Student Version Activation” on page 1-3
“Learning MATLAB” on page 1-4
“Learning Simulink” on page 1-5

Installing Student Version

MATLAB & Simulink Student Version includes MATLAB®, Simulink®, and seven other MathWorks products.

Perform the installation by inserting the Student Version DVD and simply following the instructions in the dialog boxes presented by the Student Version installation program. See Chapter 2, “Installation Instructions” for additional details.

Student Version Activation

An important part of the installation process is activation.

Activation is a secure process that verifies licensed student users. This process validates the serial number and ensures that it is not used on more systems than allowed by the MathWorks End User License Agreement. Activation requires completion of three activities:

- Provide registration information by creating a MathWorks Account.
- Provide your serial number and the Machine ID for the computer you will be installing the software on.
- Provide proof of student status, if you did not provide proof of student status at the time of purchase.

The easiest way to activate your software is to use the activation program that starts following product installation. The activation program guides you through the activation process.

For more information about activation, see
www.mathworks.com/academia/student_version/activation.html.

Learning MATLAB

At the heart of MATLAB is a programming language you must learn before you can fully exploit its power. You can learn the basics of MATLAB quickly, and mastery will come shortly thereafter. You will be rewarded with high-productivity, high-creativity computing power that will change the way you work.

What I Want	What I Should Do
Install and activate MATLAB	See Chapter 2, “Installation Instructions”
Start MATLAB	(Microsoft Windows) Double-click the MATLAB icon on your desktop. (Macintosh) Double-click the MATLAB icon on your desktop. (Linux) Enter the <code>matlab</code> command at the command prompt.
Learn MATLAB quickly	Start by reading <i>Getting Started with MATLAB</i> . The most important things to learn are how to enter matrices, how to use the <code>:</code> (colon) operator, and how to invoke functions. You will also get a brief overview of graphics and programming in MATLAB. After you master the basics, you can access the rest of the documentation through the online help facility (Help).

What I Want	What I Should Do
Look at some samples of what I can do with MATLAB	There are numerous demonstrations and video tutorials included with MATLAB. You can see these by clicking the Demos tab in the Help browser or by selecting Demos from the Help menu. There are demonstrations of mathematics, graphics, programming, and much more. You also can find a large selection of demos at www.mathworks.com/demos .
Find detailed information about using MATLAB and troubleshooting any problems I might encounter.	See “Finding Reference Information” on page 1-13 and “Other Resources” on page 1-15.

Learning Simulink

You can quickly learn how to use Simulink for modeling, simulating, and analyzing dynamic systems.

What I Want	What I Should Do
Start Simulink	<p>(Microsoft Windows) Double-click the MATLAB icon on your desktop. Click the Simulink icon on the toolbar to start Simulink.</p> <p>(Macintosh) Double-click the MATLAB icon on your desktop. Click the Simulink icon on the toolbar to start Simulink.</p> <p>(Linux) Enter the <code>matlab</code> command at the command prompt. Click the Simulink icon on the toolbar.</p>

What I Want	What I Should Do
Learn Simulink quickly	Start by reading <i>Getting Started with Simulink</i> . You'll learn how to model, simulate, and analyze dynamic systems. Because Simulink is graphical and interactive, you will be able to start using Simulink quickly. After you master the basics, you can access the rest of the documentation through the online help facility (Help).
Look at some samples of what I can do with Simulink	There are numerous demonstrations included with Simulink. You can see these by clicking the Demos tab in the Help browser or by selecting Demos from the Help menu. There are Simulink demos for simple models, complex models, and other related products. You also can find a large selection of demos at www.mathworks.com/demos .

Student Version Overview

In this section...

“What You Can Do with Student Version” on page 1-7

“MATLAB” on page 1-7

“Simulink” on page 1-8

“Additional Products Included” on page 1-9

What You Can Do with Student Version

Student Version includes MATLAB and Simulink, the premier software packages for technical computing in education and industry. Student Version provides all of the features of the professional version of MATLAB, with no limitations, and the full functionality of the professional version of Simulink, with model sizes up to 1000 blocks. Student Version gives you immediate access to high-performance numeric computing, modeling, and simulation power. Student Version also includes several other MathWorks software add-ons in areas such as controls, signal processing, statistics, image processing, and more (see “Additional Products Included” on page 1-9).

MathWorks software is used in a broad range of industries, including automotive, aerospace, electronics, environmental, telecommunications, computer peripherals, finance, and medicine. More than one million technical professionals at the world’s most innovative technology companies, government research labs, financial institutions, and more than 3500 universities, rely on MATLAB and Simulink as the fundamental tools for their engineering and scientific work.

MATLAB

MATLAB is a high-level language and interactive environment that allows you to focus on your course work and applications rather than on programming details. It enables you to solve many numerical problems in a fraction of the time it would take you to write a program in a lower level language such as Java, C, C++, or Fortran. MATLAB helps you better understand and apply concepts in applications ranging from engineering and mathematics to chemistry, biology, and economics.

Student Version Differences

There are a few small differences between Student Version and the professional version of MATLAB:

- The MATLAB prompt in Student Version is

```
EDU>>
```

- Printouts contain the footer

```
Student Version of MATLAB
```

Simulink

Simulink is an interactive tool for modeling, simulating, and analyzing dynamic systems, including controls, signal processing, communications, and other complex systems. It supports linear and nonlinear systems, modeled in continuous time, sampled time, or a hybrid of the two. Systems can also be multirate, i.e., have different parts that are sampled or updated at different rates.

Simulink encourages you to try things out. You can easily build models from scratch, or take an existing model and add to it. You have instant access to all the analysis tools of MATLAB, so you can take the results and analyze and visualize them. A goal of Simulink is to give you a sense of the fun of modeling and simulation, through an environment that encourages you to pose a question, model it, and see what happens.

Simulink is also practical. With thousands of engineers around the world using it to model and solve real problems, knowledge of this tool will serve you well throughout your professional career.

Student Version Differences

- Models are limited to 1000 blocks.

Note You may encounter some demos that use more than 1000 blocks. In these cases, a dialog is displayed, stating that the block limit has been exceeded and that the demo will not run.

- Printouts contain the footer
Student Version of MATLAB

Additional Products Included

Student Version includes several other add-on products, that extend MATLAB and Simulink.

Product	Description
Control System Toolbox	Tools for systematically analyzing, designing, and tuning linear control systems. You can specify a linear model of your system, plot its time and frequency responses to understand how the system behaves, tune the controller parameters using automated and interactive techniques, and verify performance requirements, such as rise time and gain/phase margins.
Signal Processing Toolbox	Industry-standard algorithms for analog and digital signal processing.
Signal Processing Blockset	Efficient frame-based processing and Simulink blocks for designing, implementing, and verifying signal processing systems. The blockset enables you to model streaming data and multirate systems in communications, audio/video, digital control, radar/sonar, consumer and medical electronics, and other numerically intensive application areas.
Statistics Toolbox	Statistical tools to assess and understand numeric data. It includes functions and interactive tools for analyzing historical data, modeling data, simulating systems, developing statistical algorithms, and learning and teaching statistics.

Product	Description
Optimization Toolbox	Widely used algorithms for standard and large-scale optimization. These algorithms solve constrained and unconstrained continuous and discrete problems. The toolbox includes functions for linear programming, quadratic programming, nonlinear optimization, nonlinear least squares, nonlinear equations, multiobjective optimization, and binary integer programming.
Image Processing Toolbox	Reference-standard algorithms and graphical tools for image processing, analysis, visualization, and algorithm development. You can restore noisy or degraded images, enhance images for improved intelligibility, extract features, analyze shapes and textures, and register two images.
Symbolic Math Toolbox	Symbolic mathematics and variable-precision arithmetic. With Symbolic Math Toolbox, you can use the MATLAB language and syntax to perform symbolic computations. The toolbox offers more than 100 symbolic functions for performing algebraic, calculus, and integral transform operations.

Symbolic Math Toolbox Differences

The Symbolic Math Toolbox that is included in the Student Version includes all of the functions in the professional version of Symbolic Math Toolbox, except for the `maple`, `mapleinit`, `mfun`, and `mhelp` functions.

Demos

Student Version includes many product demos. For example, a demo version of Stateflow[®] lets you edit and run Simulink models. You can use Stateflow to design and simulate state machines and control logic. However, the demo

version of Stateflow, but does not let you save models. (The full version of Stateflow is available to purchase as an add-on product (see “Obtaining Additional MathWorks Products” on page 1-12)).

Obtaining Additional MathWorks Products

Many college courses recommend MATLAB and Simulink as standard instructional software. In some cases, the courses may require particular toolboxes, blocksets, or other products. Toolboxes and blocksets are add-on products that extend MATLAB and Simulink with domain-specific capabilities. Some of these products are included with Student Version, and many more are available separately for use with Student Version. You may purchase and download these additional products at special student prices from the MathWorks Store at www.mathworks.com/store.

Some examples of the products you can purchase include:

- Bioinformatics Toolbox
- Communications Blockset
- Financial Toolbox
- Fuzzy Logic Toolbox
- Neural Network Toolbox
- Stateflow (A demo version of Stateflow is included with your Student Version.)

For an up-to-date list of available products and their product dependencies, visit the MathWorks Store.

Note The additional toolboxes and blocksets that are available for use with Student Version have the same functionality as the professional versions (with the exception of SimMechanics, which has a 20-body limitation). However, the student versions of the toolboxes and blocksets will work only with Student Version. Likewise, the professional versions of the toolboxes and blocksets do not work with Student Version.

Finding Reference Information

What I Want	What I Should Do
How to use a specific function	<p>You have several choices, including:</p> <ul style="list-style-type: none"> • From the command line, use the help command (for example, <code>help print</code>) to see help text in the Command Window, or the <code>doc print</code> command (for example, <code>doc print</code>) to see the reference page in the Help browser. • Use the online help facility (Help). To access Help, use the command <code>helpbrowser</code> or use the Help menu. In the Help browser, select a product in the Contents pane, and then Functions — Alphabetical List.
Find a function for a specific purpose, but I don't know the function name	<p>You have several choices, including:</p> <ul style="list-style-type: none"> • In the Help browser, select Functions — By Category. • Use Index or Search in the Help browser. • Use <code>lookfor</code> (for example, <code>lookfor inverse</code>) from the command line.
What functions are available in a general area	Use the Help browser to view Functions — By Category for a product or use Index or Search .
How to use a specific block	In the Help browser, select either Simulink or Signal Processing Blockset, and then Blocks — Alphabetical List .
Find a block for a specific purpose, but I don't know the block name	<p>You have several choices, including:</p> <ul style="list-style-type: none"> • In the Help browser, select Blocks — By Category. • Use Index or Search in the Help browser.

What I Want	What I Should Do
What blocks are available in a general area	Use the Help browser to view Functions — By Category for a product or use Index or Search .
Learn about a specific topic such as sparse matrices, ordinary differential equations, or cell arrays	Use Help to locate the appropriate sections in the documentation for MATLAB, Simulink, or other product included with Student Version (for example, MATLAB -> Mathematics -> Sparse Matrices).

Other Resources

In this section...
“MathWorks Web Site” on page 1-15
“Technical Support” on page 1-16

MathWorks Web Site

At www.mathworks.com, you'll find information about MathWorks products and how they are used in education and industry, product demos, and MATLAB and Simulink based books.

Web-Based Documentation

Documentation for all MathWorks software is available from the Support area of the MathWorks Web site. In addition to tutorials and function reference pages, you can find PDF versions of all the manuals.

MathWorks Academia Web Site

At www.mathworks.com/academia, you'll find resources for students for courses in engineering, mathematics, and science.

MATLAB and Simulink Based Books

At www.mathworks.com/support/books, you'll find books in many disciplines that use MATLAB and Simulink for examples and assignments.

The MathWorks Store

At www.mathworks.com/store, you can purchase add-on products and documentation.

MATLAB Central – File Exchange/Newsgroup Access

At www.mathworks.com/matlabcentral, you can access the MATLAB Use net comp.soft-sys.matlab newsgroup, as well as an extensive library of user-contributed files called the MATLAB Central File Exchange. MATLAB

Central is also home to the Link Exchange where you can share your favorite links to various educational, personal, and commercial MATLAB Web sites.

The `comp.soft-sys.matlab` newsgroup is for professionals and students who use MATLAB and have questions or comments about it and its associated software. This is an important resource for posing questions and answering queries from other MATLAB users. MathWorks staff also participates actively in this newsgroup.

Technical Support

At www.mathworks.com/support, you can get technical support.

Telephone and e-mail access to our technical support staff is not available for students running Student Version unless you are experiencing difficulty installing or downloading MATLAB or related products. There are numerous other vehicles of technical support that you can use.

If you experience a noninstallation problem, first check the available MathWorks sources for help. If you still cannot resolve your problem, please contact your instructor. Your instructor should be able to help you. (Telephone and e-mail technical support is available to registered instructors who have adopted Student Version in their courses.)

Installation Instructions

This chapter describes how to install and activate Student Version.

- “Installing on Microsoft® Windows®” on page 2-2
- “Installing on Apple® Macintosh” on page 2-6
- “Installing on Linux” on page 2-13

Installing on Microsoft® Windows®

In this section...
“System Requirements” on page 2-2
“Installing and Activating Student Version” on page 2-3
“Installing Additional Products” on page 2-5

System Requirements

- PC with Intel® Pentium®/Celeron®/Core, AMD, or compatible processor
- Windows Vista™ or Windows XP® SP2
- OpenGL® capable graphics adaptor
- DVD drive (for installation)
- 512 MB RAM or higher
- 600 MB disk space (MATLAB only)
- E-mail (required) and Internet access (recommended) for product activation

Note For detailed and current information on system requirements, visit www.mathworks.com/academia/student_version/requirements.html.

MEX-Files

MEX-files are dynamically linked subroutines that MATLAB can automatically load and execute. They provide a mechanism by which you can call your own C and Fortran subroutines from MATLAB as if they were built-in functions.

If you plan to build your own MEX-files, you will need a supported compiler. For the most up-to-date information about compilers, see the support area at the MathWorks Web site (www.mathworks.com).

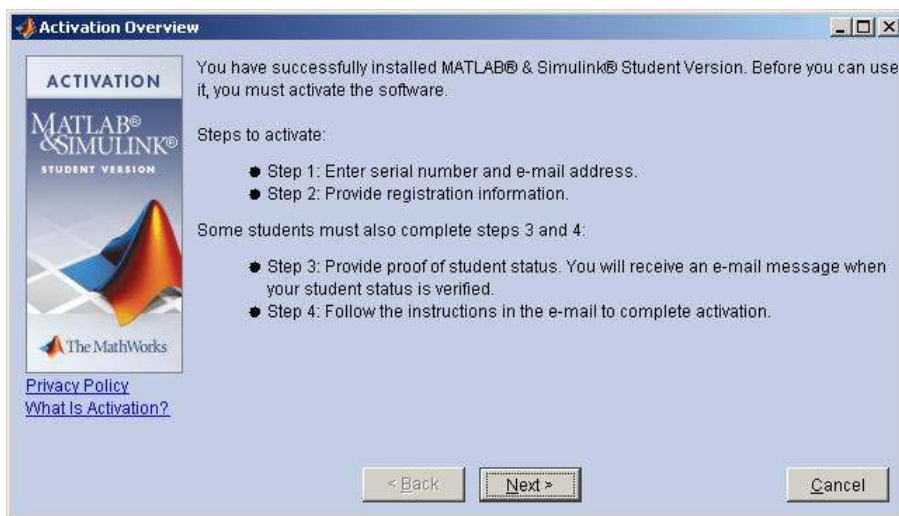
Installing and Activating Student Version

- 1 Exit any existing copies of MATLAB you have running.
- 2 Insert the Student Version DVD in your DVD drive. The installation script should launch automatically. If the installation script does not launch in a short time, run `setup.exe` from the DVD.
- 3 Read the **Welcome** screen, then click **Next**.
- 4 Enter your name and school name, then click **Next**.
- 5 Review the software licensing agreement and, if you agree with the terms, select **Yes** and click **Next**.
- 6 Review the Student Use Policy and, if you satisfy the terms, select **Yes** and click **Next**.
- 7 Choose your installation type. Typical installation installs all products; custom installation gives you control over the installation, such as selecting which products to install. Select the installation type and click **Next**.
- 8 Use the **Folder Selection** dialog box to specify the name of the folder into which you want to install MATLAB. You can accept the default destination folder or specify the name of a different installation folder. If the folder doesn't exist, the installer creates it. To continue with the installation, click **Next**.
- 9 Use the **Confirmation** dialog box to confirm your installation options. To change a setting, click the **Back** button. To proceed with the installation, click **Install**.
- 10 When the installation successfully completes, the activation process begins by displaying the **Activation Overview** dialog box, which describes the steps in the process. You will be prompted either to complete just the first two steps, or to complete all four steps. The activation steps everyone must do are:
 - Step 1. Enter your serial number and e-mail address.
 - Step 2. Provide registration information by creating a MathWorks account.

Some students must also complete Steps 3 and 4.

Step 3. Provide proof of student status.

Step 4. If you receive an e-mail indicating you have been authenticated, follow the instructions in that e-mail to complete the activation.



At the completion of the activation process, you will be able to use Student Version. In certain cases, your software will be temporarily activated for 30 days until your proof of student status is verified. In these cases, you will be reminded that your activation is temporary and that you need to complete the activation process. Once your proof of student status is verified, your activation is complete.

Note If you encounter a problem during the activation process, check www.mathworks.com/academia/student_version/activation.html for more information.

- 11 To start MATLAB, double-click the MATLAB icon that the installer creates on your desktop.

- 12** Customize any MATLAB environment options, if desired. For example, to specify welcome messages, default definitions, or any MATLAB expressions that you want executed every time MATLAB is invoked, create a file named `startup.m` in the `Documents\MATLAB` folder for Vista™, or in `My Documents\MATLAB` for other supported Windows platforms. Every time you start MATLAB, it executes the commands in the `startup.m` file.
- 13** Perform any additional configuration by typing the appropriate command at the MATLAB command prompt. For example, to configure the MATLAB Notebook, type `notebook -setup`. To configure a compiler to work with the MATLAB External Interface, type `mex -setup`.

For More Information The *Installation Guide for Windows* provides additional installation details.

Installing Additional Products

To purchase additional products, visit the MathWorks Store at www.mathworks.com/store. Once you purchase a product, the product and its online documentation are downloaded to your computer.

When you download a product, you receive an installation program for the product. To install the product and its documentation, run the installation program by double-clicking the installer icon. After you successfully install the product, all of its functionality and documentation will be available to you when you start MATLAB.

Installing on Apple® Macintosh

In this section...
“System Requirements” on page 2-6
“Installing and Activating Student Version” on page 2-7
“Installing Additional Products” on page 2-12
“Macintosh Documentation” on page 2-12

System Requirements

- Mac with either Intel or PowerPC processor
- Mac OS X 10.4.7 or 10.4.8
- Graphics adaptor and display
- X11 (X Server)
- DVD drive (for installation)
- 512 MB RAM or higher
- 600 MB disk space (MATLAB only)
- E-mail (required) and Internet access (recommended) for product activation

Note For detailed and current information on system requirements, visit www.mathworks.com/academia/student_version/requirements.html.

MEX-Files

MEX-files are dynamically linked subroutines that MATLAB can automatically load and execute. They provide a mechanism by which you can call your own C and Fortran subroutines from MATLAB as if they were built-in functions.

If you plan to build your own MEX-files, you will need a supported compiler. For the most up-to-date information about compilers, see the support area at the MathWorks Web site (www.mathworks.com).

Installing and Activating Student Version

Permissions

If you want to install Student Version in a particular directory, you must have the appropriate permissions. For example, to install MATLAB in the Applications directory, you must have administrator status.

Note The user account you set up when you configured your Mac is an administrator account. If you don't know the username and password for an administrator, check with the person who administers your Macintosh.

To create symbolic links in a particular directory, you also need the appropriate permissions. For information on setting permissions (privileges), see Macintosh Help (**Command+?** from the desktop).

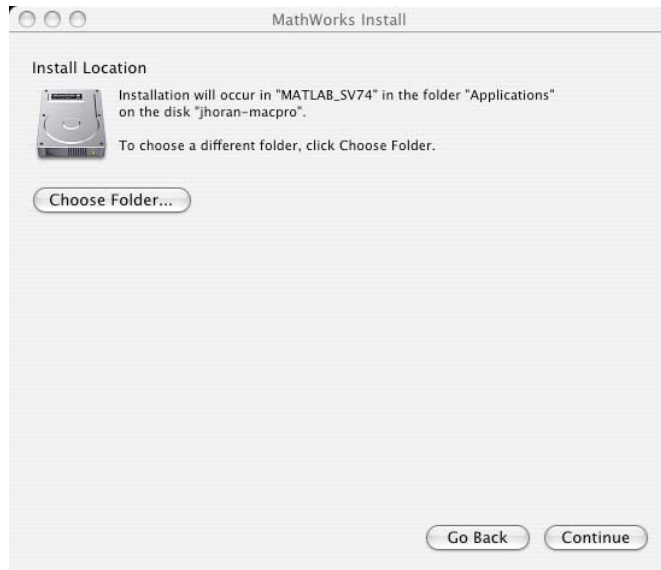
Procedure

- 1 Insert the Student Version DVD in the DVD drive. When the DVD icon appears on the desktop, double-click the icon to display the DVD contents.
- 2 Double-click the InstallForMacOSX icon to begin the installation.
- 3 To install MathWorks products, you must enter a username and password for an administrator. Enter the username and password in the Authenticate dialog box, and then click **OK**.

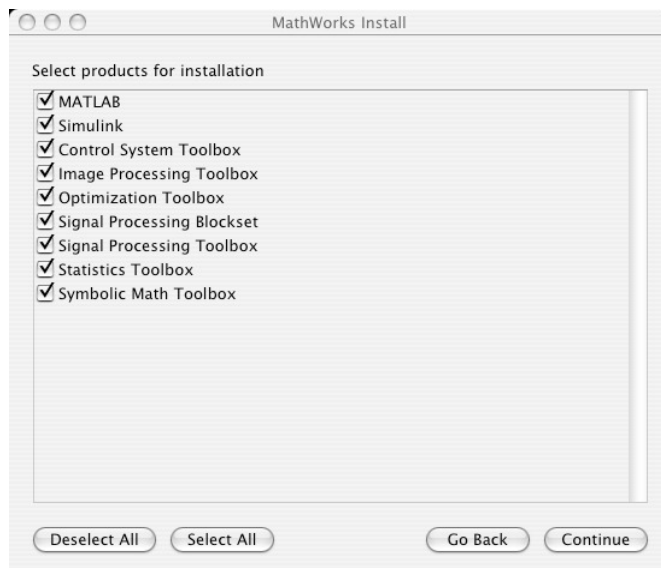


- 4 When the **Important Information** window appears, review its contents. Click **Continue** to proceed with the installation.
- 5 The Software License Agreement displays. If you agree to its terms, click **Continue** to continue the installation.
- 6 The Student Use Policy displays. If you qualify for the student license and agree to its terms, click **Yes**.
- 7 The default installation location is MATLAB_SV74 in the Applications folder on your system disk. To accept this default, click **Continue**. To change the location, click **Choose Folder**, and then navigate to the desired location.

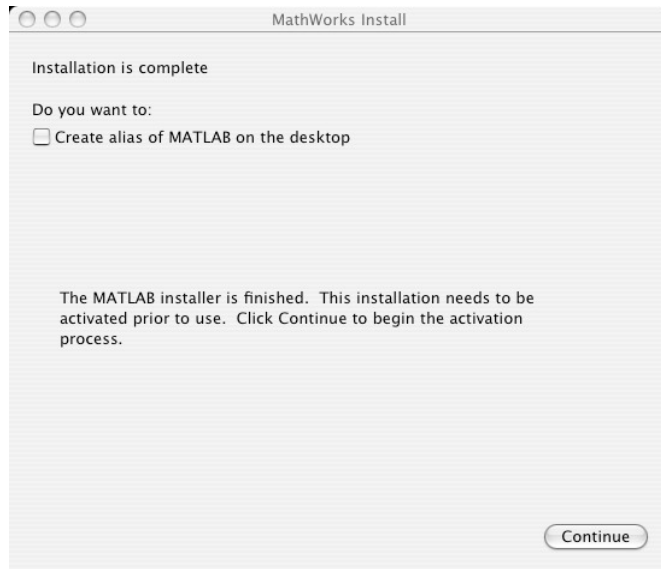
Note Your installation folder name cannot contain spaces, the @ character, the % character, or the \$ character. You cannot install into a folder named private, but you can have a folder named private on the path. To create the installation folder in this location on your system, you must have administrator privileges. For information on setting privileges, see Macintosh Help (**Command+?** from the desktop).



- 8** Select the products you want to install from the list of products, and click **Continue**.



- 9 When the installation successfully completes, the installer displays the **Installation is complete** window. This gives you options for accessing MATLAB. Check your desired options for accessing MATLAB, and click **Finish**.



- 10 When the installation successfully completes, the activation process begins by displaying the **Activation Overview**, which describes the steps in the process. You will be prompted either to complete just the first two steps, or to complete all four steps. The activation steps everyone must do are:

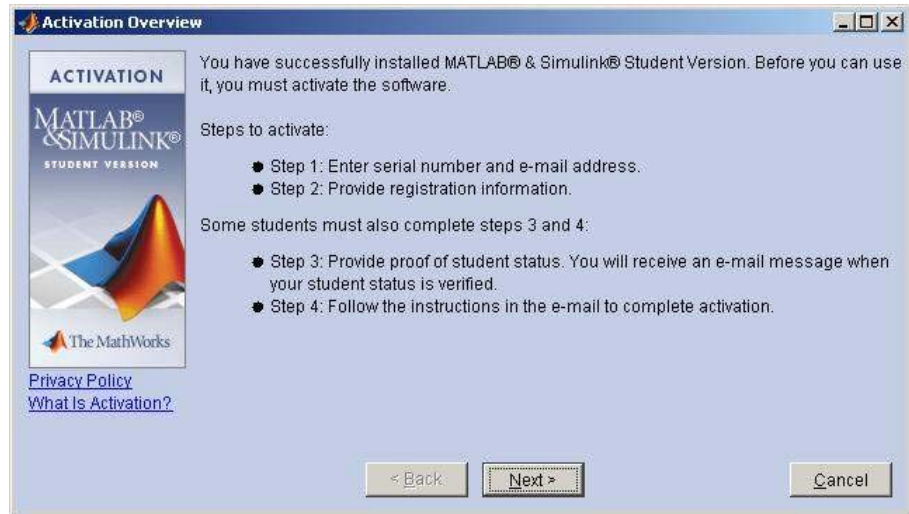
Step 1: Enter your serial number and e-mail address.

Step 2: Provide registration information by creating a MathWorks account.

Some students must also complete Steps 3 and 4.

Step 3: Provide proof of student status.

Step 4: If you receive an e-mail indicating you have been authenticated, follow the instructions in that e-mail to complete the activation.



As the activation process proceeds, read the screens and enter the corresponding information. At the completion of the activation process, you will be able to use your Student Version of MATLAB & Simulink. In certain cases, your software will be temporarily activated for 30 days until your proof of student status is verified. In these cases, you will be reminded that your activation is temporary and that you need to complete the activation process. Once your proof of student status is verified, your activation is complete.

Note If you encounter a problem during the activation process, check www.mathworks.com/academia/student_version/activation.html for more information.

- 11 To start MATLAB, double-click the MATLAB icon that the installer creates on your desktop.

Note The *Installation Guide for Mac OS X* provides additional installation information.

Installing Additional Products

To purchase additional products, visit the MathWorks Store at www.mathworks.com/store. Once you purchase a product, the product and its online documentation are downloaded to your computer.

When you download a product, you receive an installation program for the product. To install the product and its documentation, run the installation program by double-clicking the installer icon. After you successfully install the product, all of its functionality and documentation will be available to you when you start MATLAB.

Macintosh Documentation

In general, the documentation for MathWorks products does not vary for individual platforms unless the product or feature is available only on a particular platform. For the Macintosh, when you access a product's documentation either in print or online through the Help browser, make sure you refer to the UNIX platform if there is different documentation for different platforms.

Installing on Linux

In this section...
“System Requirements” on page 2-13
“Installing and Activating Student Version” on page 2-14
“Installing Additional Products” on page 2-19

System Requirements

- PC with Intel Pentium/Celeron/Core, AMD, or compatible processor
- 32-bit Linux Kernel 2.4.x or 2.6.x; or glibc 2.3.2 or above
- 16-bit or higher graphics adaptor and display (24-bit recommended)
- DVD drive (for installation)
- 512 MB RAM or higher
- 600 MB disk space (MATLAB only)
- E-mail (required) and Internet access (recommended) for product activation

Note For detailed and current information on system requirements, visit www.mathworks.com/academia/student_version/requirements.html.

MEX-Files

MEX-files are dynamically linked subroutines that MATLAB can automatically load and execute. They provide a mechanism by which you can call your own C and Fortran subroutines from MATLAB as if they were built-in functions.

If you plan to build your own MEX-files, you will need a supported compiler. For the most up-to-date information about compilers, see the support area at the MathWorks Web site (www.mathworks.com).

Installing and Activating Student Version

Privileges

On most systems, you will need root privileges to perform certain steps in the installation procedure.

Procedure

- 1 Insert the Student Version DVD in the DVD drive.

If your DVD drive is not accessible to your operating system, you will need to mount the DVD drive on your system. Create a directory to be the mount point for it.

```
mkdir /dvd
```

Mount a DVD drive using the command

```
$ mount /dvd
```

If your system requires that you have root privileges to mount a DVD drive, this command should work on most systems.

```
# mount -t iso9660 /dev/dvd /dvd
```

To enable nonroot users to mount a DVD drive, include the `exec` option in the entry for DVD drives in your `/etc/fstab` file, as in the following example.

```
/dev/dvd /dvd iso9660 noauto,ro,user,exec 0 0
```

Note, however, that this option is often omitted from the `/etc/fstab` file for security reasons.

- 2 Create an installation directory and move to it, using the `cd` command. For example, if you are going to install into the directory `/usr/local/matlab74_sv`, use the commands

```
cd /usr/local
mkdir matlab74_sv
cd matlab74_sv
```

Subsequent instructions in this section refer to this directory as *matlabroot*.

- 3 Start the MathWorks Installer by running the install script.

```
/dvd/install_unix.sh
```

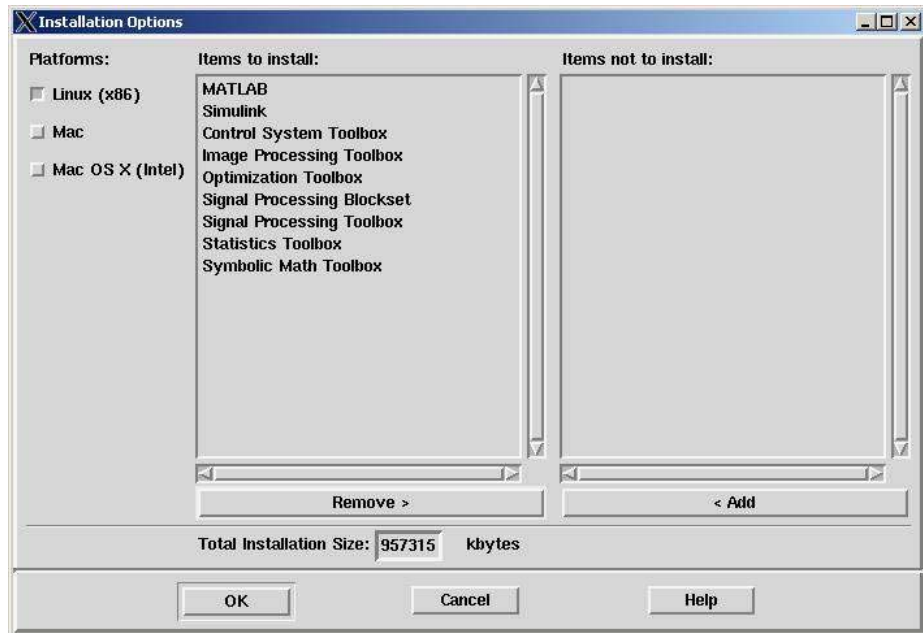
The MathWorks Installer displays the **Welcome** dialog box. Click **OK** to proceed with the installation.

Note If you need additional help on any step during this installation process, click the **Help** button at the bottom of the dialog box.

- 4 The Software License Agreement displays. If you agree to its terms, you can continue the installation.
- 5 Verify the name of the directory in which you want to install MATLAB in the **MATLAB Root Directory** dialog box. You can edit the pathname in this dialog box. If the MATLAB root directory is correct, click **OK** to proceed with the installation.



- 6 Select the products you want to install in the **Installation Options** dialog box.



The products you are licensed to install are listed in the **Items to install** list box. If you do not want to install a product, select it in the list and click **Remove**. The installer moves the product to the **Items not to install** list.

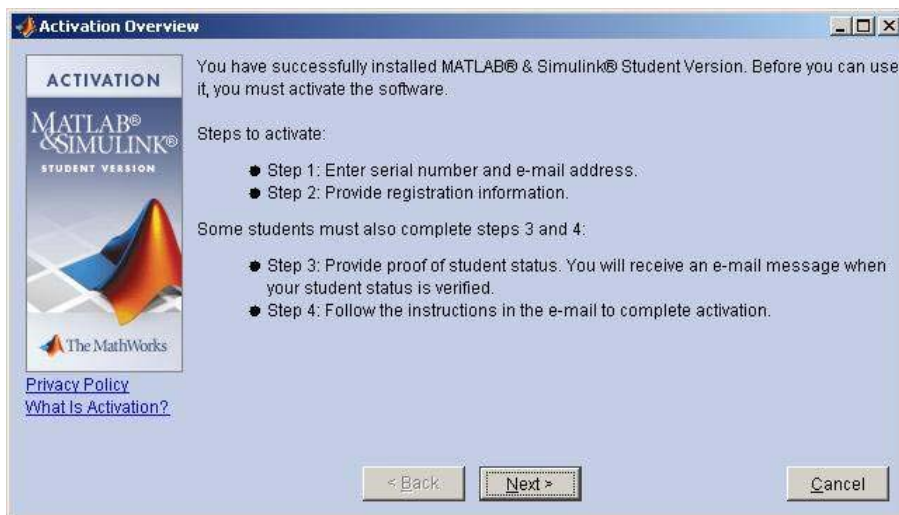
To install the complete Student Version, keep all the products listed in the **Items to install** list.

After you select the products you want to install, click **OK** to proceed with the installation.

- 7 Specify in the **Installation Data** dialog box the directory in which you want to install symbolic links to the `matlab` and `mex` scripts. Choose a directory that is common to all users' paths, such as `/usr/local/bin`. You must be logged in as `root` to do this. If you choose not to set up these links, you can still run MATLAB; however, you must specify the full path to the MATLAB startup script. Click **OK** to proceed with the installation.



- 8 Start the installation by clicking **OK** in the **Begin Installation** dialog box. During the installation, the installer displays information about the status of the installation.
- 9 When the installation successfully completes, the activation process begins by displaying the **Activation Overview**, which describes the four steps in the process. You will be prompted either to complete just the first two steps, or to complete all four steps. The activation steps everyone must do are:
 - Step 1. Enter your serial number and e-mail address.
 - Step 2. Provide registration information by creating a MathWorks account.
Some students must also complete Steps 3 and 4.
 - Step 3. Provide proof of student status.
 - Step 4. Follow the instructions in that e-mail to complete the activation.



At the completion of the activation process, you will be able to use your Student Version of MATLAB & Simulink. In certain cases, your software will be temporarily activated for 30 days until your proof of student status is verified. In these cases, you will be reminded that your activation is temporary and that you need to complete the activation process. Once your proof of student status is verified, your activation is complete.

Note If you encounter a problem during the activation process, check www.mathworks.com/academia/student_version/activation.html for more information.

- 10** To start MATLAB, enter the `matlab` command. If you did not set up symbolic links in a directory on your path, you must provide the full pathname to the `matlab` command

```
matlabroot/bin/matlab
```

where *matlabroot* represents your MATLAB installation directory.

Installing Additional Products

To purchase additional products, visit the MathWorks Store at www.mathworks.com/store. Once you purchase a product, the product and its online documentation are downloaded to your computer. When you download a product on Linux, you receive a tar file (a standard, compressed archive format).

To install the additional product and documentation, you must

- 1 Place the tar file in your installation directory (*matlabroot*) and extract the files from the archive. Use the following syntax.

```
tar -xf filename
```

- 2 Start the MathWorks Installer.

```
./install
```

After you successfully install the toolbox and documentation, all of its functionality will be available to you when you start MATLAB.

A

- activating Student Version
 - on Linux 2-14
 - on Mac 2-7
 - on Windows 2-3
- activation 1-3
- additional products
 - installing on Linux 2-19
 - installing on Mac 2-12
 - installing on Windows 2-5

B

- blocks
 - finding specific 1-13
- books
 - MATLAB and Simulink related 1-15

C

- comp.soft-sys.matlab 1-16
- configuring additional products
 - on Linux 2-19
 - on Mac 2-12
 - on Windows 2-5

D

- demos
 - MATLAB 1-5
 - Simulink 1-6

F

- functions
 - finding specific 1-13

H

- help
 - sources of 1-15

via newsgroup 1-15

I

- installation root directory
 - specifying on Linux 2-15
- installing additional products
 - on Linux 2-19
 - on Mac 2-12
 - on Windows 2-5
- installing Student Version
 - on Linux 2-14
 - on Mac 2-6
 - on Windows 2-3

L

- learning MATLAB 1-4
- learning Simulink 1-6
- Linux
 - activating Student Version 2-14
 - installing Student Version 2-14

M

- MathWorks Store
 - purchasing products from 1-15
- MathWorks Web site 1-15
- MATLAB
 - books 1-15
 - calling C subroutine on Linux 2-13
 - calling C subroutine on Windows 2-2 2-6
 - calling Fortran subroutine on Linux 2-13
 - calling Fortran subroutine on Windows 2-2 2-6
 - demos 1-5
 - how to learn 1-4
 - starting on Linux 2-18
- MATLAB Central 1-15
- matlab command
 - setting up symbolic link on Linux 2-16

mex command
 setting up symbolic link on Linux 2-16

MEX-file

 Linux 2-13
 Mac 2-6
 supported Mac compilers 2-7
 supported Windows compilers 2-2
 Windows 2-2

N

newsgroup 1-15

Q

quick start 1-3

R

reference information
 obtaining 1-13
root directory
 specifying on Linux 2-15

S

screens
 installation data 2-16
 root directory on Linux 2-15
Simulink
 books 1-15
 demos 1-6
 how to learn 1-6

startup.m file
 Windows 2-5

Student Version

 installing on Linux 2-14
 installing on Mac 2-6
 installing on Windows 2-3
 MATLAB differences 1-8
 Stateflow differences 1-10
 student use policy 1-2
 Symbolic Math Toolbox differences 1-10

support

 sources of 1-15

symbolic links

 setting up 2-16

system requirements

 Linux 2-13
 Mac 2-6
 Windows 2-2

T

technical support 1-16

W

Windows

 activating Student Version 2-3
 installing Student Version 2-3

www.mathworks.com 1-15

www.mathworks.com/academia 1-15

www.mathworks.com/store 1-15

www.mathworks.com/support/books 1-15