

# **Cadabra Installation Guide**

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Version B-2008.09, September 2008

**SYNOPSIS®**

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## About This Guide

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The Cadabra Installation Guide describes the installation requirements, and provides task-based instructions for installing Cadabra; it also describes how to perform the initial product configuration.

This section contains the following topics:

- [Intended Audience](#)
- [Revision History](#)
- [Organization of This Guide](#)
- [Conventions](#)
- [Related Publications](#)
- [Customer Support](#)

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### Intended Audience

This guide is intended for system administrators who are responsible for installing Cadabra. System administrators must have experience with the products listed in [Media Availability and Supported Platforms on page 1](#).

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### Revision History

The following table outlines this guide's revision history:

*Table 1 Revision History*

Revision date	Description
September 2008	Initial publication of document for Cadabra B-2000.09.

## Organization of This Guide

The table below outlines the various chapters in this guide, and the information you can expect in each:

*Table 2 Organization of This Guide*

Chapter	Description
<a href="#">Chapter 1, Installing Cadabra</a>	Describes the installation requirements, and provides task-based instructions for installing Cadabra; it also describes how to perform the initial product configuration.

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## Conventions

The following conventions are used in Synopsys documentation.

*Table 3 Conventions*

Convention	Description
Courier	Indicates command syntax.
<i>Italic</i>	Indicates a user-defined value, such as <i>object_name</i> .
Purple	Within an example, indicates information of special interest. Within a command-syntax section, indicates a default value, such as: <pre>include_enclosing = true   false</pre>
<b>Bold</b>	Indicates user input—text you type verbatim—in syntax and examples.
[ ]	Denotes optional parameters, such as: <pre>write_file [-f filename]</pre>
...	Indicates that parameters can be repeated as many times as necessary: <pre>pin1 pin2 ... pinN</pre>

Table 3 Conventions

Convention	Description
	Indicates a choice among alternatives, such as low   medium   high
\	Indicates a continuation of a command line.
/	Indicates levels of directory structure.
Edit > Copy	Indicates a path to a menu command, such as opening the Edit menu and choosing Copy.
Control-c	Indicates a keyboard combination, such as holding down the Control key and pressing c.

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## Related Publications

This section contains the following topics:

- [Cadabra Documentation Set](#)
- [Viewing and Printing Cadabra Documentation in Portable Document Format](#)
- [Adobe Reader Full-Text Search Issue on UNIX](#)
- [Additional Information](#)

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## Cadabra Documentation Set

This guide is a part of a documentation set designed to support those who install, administer, and use Cadabra. The Cadabra documentation set includes the information units:

Table 4 Cadabra Documentation Set

Information Unit	Description
Cadabra Release Notes	Provides an overview of new features, enhancements, and changes; known problems and limitations; and portability notes.

*Table 4 Cadabra Documentation Set*

<b>Information Unit</b>	<b>Description</b>
Cadabra Installation Guide	Describes the installation requirements, and provides task-based instructions for installing Cadabra; it also describes how to perform the initial product configuration.
Cadabra Administration Guide	Describes how to configure and administer Cadabra.
Cadabra User Guide	Describes how to use Cadabra to synthesize and migrate standard cell layouts.
Cadabra AL Reference Guide	Provides reference information for Cadabra AL commands and options.
Cadabra Generic Portfolio Reference Guide	Provides reference information for Cadabra's generic portfolio, which includes devices, design steps, callbacks, and exporters.

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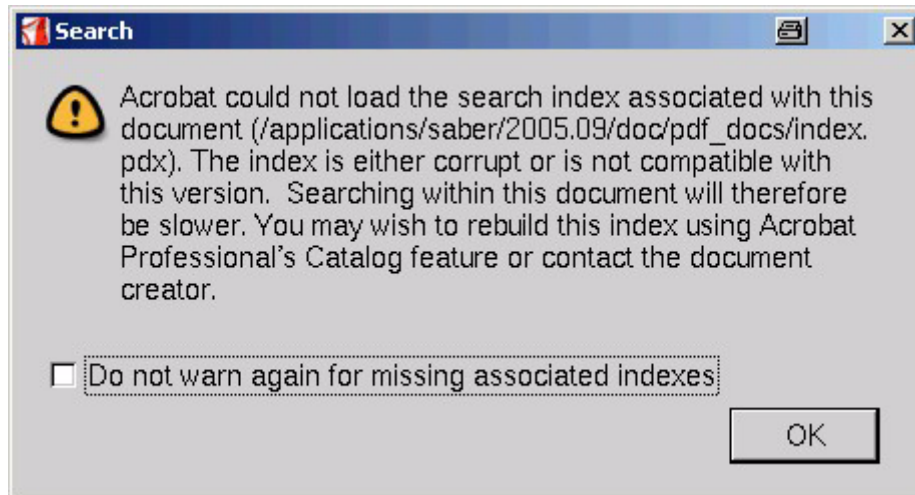
## **Viewing and Printing Cadabra Documentation in Portable Document Format**

To view and print Cadabra documentation in Portable Document Format (PDF), you must have Adobe Acrobat Reader installed on your machine. To determine which version of Adobe your operating system requires, see [Table 5 on page ix](#).

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## Adobe Reader Full-Text Search Issue on UNIX

When you do a full-text search of Cadabra documentation on UNIX operating systems, you might see the following error message:



The file mentioned in the message, `index.pdx`, is a full-text search index that lets you search a collection of manuals shipped with your release. This message appears when your version of Adobe Reader cannot use the version of the full-text search index provided.

You can use Cadabra documentation without the full-text search feature. All other features, including searches within a single document, still work. The only task you will not be able to do is to search more than one document in the collection.

Table 5 shows which version of Adobe Reader you need to use with a particular release. It also indicates whether full-text search is available for a particular platform and release.

*Table 5 Platform and Supported Version*

Platform	Product documentation version	Full-text search available	Adobe Reader version
Linux	Y-2006.03, Z-2007.03, A-2007.12, or later	Yes	Adobe Reader 7.0
	X-2005.06 or earlier	No	Any version

*Table 5 Platform and Supported Version (Continued)*

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<b>Platform</b>	<b>Product documentation version</b>	<b>Full-text search available</b>	<b>Adobe Reader version</b>
Sun SPARC (Solaris) <sup>1</sup>	Y-2006.03, Z-2007.03, A-2007.12, or later	Yes	Adobe Reader 7.0
	X-2005.06 or earlier	Yes	Adobe Reader 5.0 or earlier

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1. On Solaris operating systems, the GNOME desktop manager must be installed to support Adobe Reader 7.0.

For detailed information, see SolvNet article 017761, “An Error Message Appears When Doing a Full-text Search of Synopsys Product Documentation.”

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## **Additional Information**

For additional information about Cadabra, refer to:

- The documentation installed with the Cadabra software and available through the Cadabra Help menu (refer to [Cadabra Documentation Set on page vii](#))
- The Cadabra Release Notes, available on SolvNet (see [Accessing SolvNet on page xi](#))

You might also want to refer to the documentation of the following related Synopsys products:

- Synopsys Common Licensing
- Milkyway

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## **Customer Support**

Customer support is available through SolvNet online customer support and through contacting the Synopsys Technical Support Center.

This section contains the following topics:

- [Accessing SolvNet](#)
- [Contacting the Synopsys Technical Support Center](#)

## Accessing SolvNet

SolvNet includes an electronic knowledge base of technical articles and answers to frequently asked questions about Synopsys tools. SolvNet also gives you access to a wide range of Synopsys online services, which include downloading software, viewing Documentation on the Web, and entering a call to the Support Center.

To access SolvNet:

1. Go to the SolvNet Web page at <http://solvnet.synopsys.com>.
2. If prompted, enter your user name and password. (If you do not have a Synopsys user name and password, follow the instructions to register with SolvNet.)

If you need help using SolvNet, click Help on the SolvNet menu bar.

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## Contacting the Synopsys Technical Support Center

If you have problems, questions, or suggestions, you can contact the Synopsys Technical Support Center in the following ways:

- Open a call to your local support center from the Web by going to <http://solvnet.synopsys.com/EnterACall> (Synopsys user name and password required).
- Send an e-mail message to Cadabra Support at [cadabrasupport@synopsys.com](mailto:cadabrasupport@synopsys.com).
- Send an e-mail message to your local support center.
  - E-mail [support\\_center@synopsys.com](mailto:support_center@synopsys.com) from within North America.
  - Find other local support center e-mail addresses at [http://www.synopsys.com/support/support\\_ctr](http://www.synopsys.com/support/support_ctr).
- Telephone your local support center.
  - Call (800) 245-8005 from within the continental United States.
  - Call (650) 584-4200 from Canada.
  - Find other local support center telephone numbers at [http://www.synopsys.com/support/support\\_ctr](http://www.synopsys.com/support/support_ctr).

**About This Guide**  
Customer Support

# Installing Cadabra

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*Describes how to install Cadabra and perform initial configuration tasks.*

This section contains the following topics:

- [Media Availability and Supported Platforms](#)
- [Installing the Software](#)
- [Setting the Environment Variables](#)
- [Verifying the Cadabra Installation](#)

**Important:**

To view and print Cadabra documentation in Portable Document Format (PDF), you must have Adobe Acrobat Reader installed on your machine.

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## Media Availability and Supported Platforms

Cadabra is available on CD or by EST download. Obtain the appropriate binary executable files based on the operating system you need. Table 1 shows the supported platforms for the B-2008.09 release.

*Table 1 Supported Platforms and Keywords*

<b>Platform</b>	<b>Operating system</b>	<b>Synopsys platform keyword</b>
AMD Opteron	Red Hat Enterprise Linux v4, v5 <sup>1</sup>	linux (32-bit mode) <sup>2</sup>
IA-32 (X86)	Red Hat Enterprise Linux v4, v5 <sup>1</sup>	linux (32-bit mode) <sup>2</sup>
Sun SPARC	Solaris 9, 10 <sup>1</sup>	sparcOS5 (32-bit mode)
Intel EM64T	Suse Linux Enterprise Server 9, 10 <sup>1</sup>	suse32 (32-bit mode) <sup>2</sup>

*1. Binary-compatible hardware platform or operating system. Note, however, that binary compatibility is not guaranteed.*

2. *The 32-bit (x86) Linux software is binary compatible with Intel EM64T or AMD Opteron running Red Hat Enterprise Linux. Note, however, that binary compatibility is not guaranteed.*

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## Installing the Software

Cadabra uses the Synopsys Installer tool, which allows you to use a graphical user interface (GUI) or a text script. For information about downloading Synopsys Installer and Cadabra, see [Installing Synopsys Tools](#).

To install Cadabra by EST or from the CD, follow the procedures described in [Installing Synopsys Tools](#).

[Installing Synopsys Tools](#) shows an example Synopsys media installation script for the synthesis tools. Cadabra is installed in a similar manner.

Cadabra is a stand-alone product and cannot be installed over an existing Synopsys product, including a prior version of Cadabra. You must create a new directory for Cadabra.

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## Setting the Environment Variables

This section discusses the following environment variables:

- CADABRAHOME
- SNPSLMD\_LICENSE\_FILE or LM\_LICENSE\_FILE

It is recommended that you place these variables in your `$HOME/.cshrc` or `$HOME/.profile` file as your default settings.

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### Setting the CADABRAHOME Environment Variable

Follow these steps.

1. Set the `$CADABRAHOME` environment variable to point to your Cadabra installation subdirectory.
  - If you are using the C shell, add the following line:  

```
% setenv CADABRAHOME /u/edatools/cadabra-version
```
  - If you are using the Bourne shell, add these lines:

```
% CADABRAHOME=/u/edatools/cadabra-version
export CADABRAHOME
```

2. Add \$CADABRAHOME/bin to your search path:

- If you are using the C shell, enter

```
set path=($CADABRAHOME/bin $path)
```

- If you are using the Bourne shell, enter

```
PATH=$CADABRAHOME/bin:$PATH
export PATH
```

---

## Setting the SNPSLMD\_LICENSE\_FILE or LM\_LICENSE\_FILE Environment Variable

You must install the SCL software and define the SNPSLMD\_LICENSE\_FILE, LM\_LICENSE\_FILE variable or another tool-specific variable before you can verify the Cadabra installation.

For information about downloading and installing SCL and on setting the license variable, see [Installing Synopsys Tools](#).

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## Verifying the Cadabra Installation

To verify the Cadabra installation,

1. Make sure you are in a directory where you have read/write privileges.

```
% cd $HOME
```

2. If you are using a display that is not local, set the DISPLAY environment variable.

```
% setenv DISPLAY my_display:0.0
```

3. Invoke the tool by entering:

```
% cadabra
```

If the product GUI appears, the installation was successful.

4. Exit the GUI by choosing File > Exit in any GUI window.

## Verifying the Cadabra Installation

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