Disc CopierTM

Expanded User's Guide

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ADVANCED DSP TECHNOLOGIES

This software is based in part on the work of the Independent JPEG Group.

Ogg Vorbis audio compression technology provided courtesy of the Xiph.Org Foundation.



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Getting Help

About Disc Copier

Disc Copier allows you to make backup copies of almost any type of disc. This allows you to store the original in a safe place while using the backup as your primary disc instead.



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What Kinds of Discs Can I Copy?

The following table shows the types of discs that you can copy and any other related information.

Type of Disc	Notes
Data CD	The Raw Mode option (available in the Options tab) allows you to copy some data discs that cannot be copied using a normal copying process. For more information, see <i>Copying With Raw Mode</i> on page 21.
Audio CD	The source drive must support digital audio extraction (the drive is tested to determine its capabilities the first time a source disc is inserted).
Drag-to-Disc (DirectCD)	 Some CD-ROM drives may not be able to read a disc made with DirectCD or Drag-to-Disc. If your drive is MultiRead capable, there should be no problems.
	■ The disc should be closed before you begin copying.
Mixed-Mode CD	 The source drive must support digital audio extraction (the drive is tested to determine its capabilities the first time a source disc is inserted).
	 If your mixed-mode CD cannot be copied, the CD may be formatted to prevent copying.
Enhanced CD	The source drive must support digital audio extraction (the drive is tested to determine its capabilities the first time a source disc is inserted).
Photo CD	Requires a source drive capable of reading CD-ROM XA. Most current drives support this.
Video CD	Requires a source drive capable of reading CD-ROM XA. Most current drives support this.
Super Video CD	Requires a source drive capable of reading CD-ROM XA. Most current drives support this.
DVDs	 Requires DVDs that are not copy protected. Some drives may not be able to copy DVDs of different types. For example, a DVD-R drive may not be able to copy a DVD+R disc.

Starting Disc Copier

To start Disc Copier:

Choose Start Menu > Programs > Roxio Easy CD & DVD Creator 6 > Disc Copier.

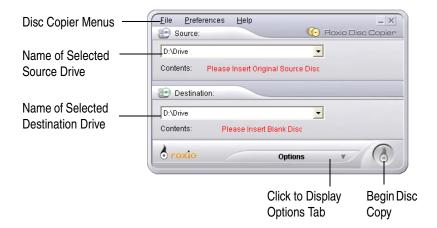
Exiting Disc Copier

You can exit Disc Copier in any of these ways:

- Choose File > Exit.
- Click the standard **Close** icon on the top right corner of the dialog box.

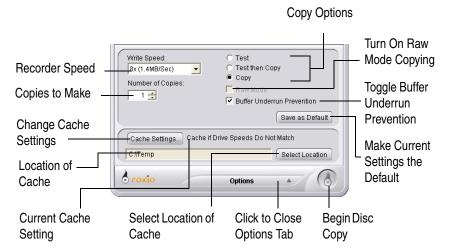
The Disc Copier User Interface

Each time you start Disc Copier, it displays using the default window size.



Options tab

Click the Options tab to show or hide the Options portion of the Disc Copier window.



For more information about using the advanced options available in the Options tab, see *Using Disc Copier Advanced Options* on page 11.

Copying a Disc Using Two Drives

This procedure explains the simplest way of copying a disc using a source drive and a destination recorder.



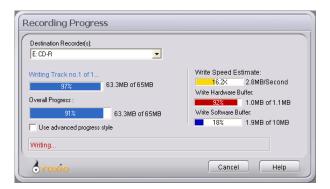
Note For information about copying a disc using a single drive, see *Copying a Disc Using Only One Drive* on page 7.

To copy a disc:

- 1 With Disc Copier open, insert the disc you want to copy into your source drive.
- 2 In the **Source** drop-down list box, select the drive containing the source disc. (This may be selected by default.)
- 3 In the **Destination** drop-down list box, select the destination recorder that contains the blank disc.



The Recording Progress dialog box appears, displaying the progress of the copy.





Note For more information about the different parts of this dialog box, click **Help**.

When copying is finished, the dialog box displays a status message.

Copying a Disc Using Only One Drive

You can copy a disc even if you have only one drive, as long as that drive is also a recorder. You might want to do this for one of these reasons:

- You only have one recorder connected to your computer
- You want to minimize the possibility of a buffer underrun occurring



Note You must have enough free space on your hard disk to temporarily store the entire contents of your source disc.

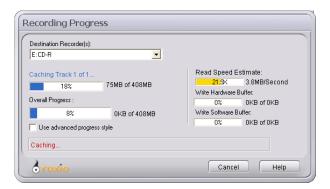
- 1 With Disc Copier open, insert the disc that you want to copy into your source drive.
- 2 In the **Source** drop-down list box, select the drive containing the source disc. (This may be selected by default.)
- 3 In the **Destination** drop-down list box, select the same drive that is selected for the source drive.



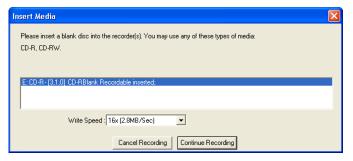
Note If you only have one drive, this drive displays by default.



The Recording Progress dialog box appears, displaying the progress as the contents of the source disc are temporarily saved to your hard disk.



When Disc Copier is finished copying the contents of the source disc to your hard disk, the Insert Media dialog box appears.



- 5 Remove the source disc from the drive, and replace it with a blank disc.
- **6** If the blank destination disc has a faster write speed than the source disc, you can select a faster speed from the **Write Speed** drop-down list.
- 7 When you are ready, click **Continue Recording**.

The Recording Progress dialog box appears once again, displaying the progress as the contents of the source disc are copied from your hard disk to the blank destination disc.

Getting Help

In addition to the printed user manual, online help is available throughout the Disc Copier application.

You can access online help in any of these ways:

- Choose **Help** > **Disc Copier Help**.
- For help on a dialog box, click **Help**.

Using Disc Copier Advanced Options

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Preventing a Buffer Underrun

A buffer underrun is an event in which your source drive is unable to send data fast enough to the recorder during a burn. This causes errors that make a blank disc unusable, but does not damage your recorder.

Most newer recorders have a feature that helps prevent this problem from occurring.

How do I prevent buffer underruns from occurring?

- Check the Buffer Underrun Prevention check box in the Options tab
- Set the recorder speed (see *Setting the Recorder Speed* on page 14)
- Change the cache setting to Always Cache (see Copying the Source Disc to the Hard Disk First on page 12)



Note When copying a source disc to your hard disk first, the Buffer Underrun check box must be unchecked. For more information, see *Copying the Source Disc to the Hard Disk First* on page 12.

Copying the Source Disc to the Hard Disk First

You can copy the entire contents of the source disc to the hard disk as a temporary file, before copying it to the destination disc. The temporary file that is created on your hard disk during this kind of copy is called a cache.

Why Should I Use a Temporary File to Copy a Disc?

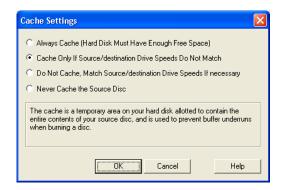
Since the temporary file is copied to your hard disk first (instead of going directly from the source disc to the destination disc), this helps prevent buffer underruns.

To set up cache settings:

1 With Disc Copier open, click the **Options** tab to display it.

2 Click Cache Settings.

The Cache Settings dialog box appears.



- **3** You can set the following cache options:
 - Always Cache. Select this option if you want the contents of the source disc to always be copied to the hard disk cache before copying to the destination disc.
 - Cache Only If Source/Destination Drive Speeds Do Not Match. Select this option if you want the contents of the source disc to be copied to the hard disk only if the speed of the source drive cannot keep up with the speed of the destination recorder. This is the default option.
 - Do Not Cache (Match Source/destination Drive Speeds If Necessary). Select this option if you want to copy directly from the source disc to the destination disc, but you also want Disc Copier to slow down the destination recorder if the source drive cannot keep up with it.
 - Never Cache the Source Disc. Select this option if you want to always copy directly from the source disc to the destination disc without performing either of the following actions:
 - Changing the recorder speed
 - Copying the source disc to a hard disk first



Note The Never Cache the Source Disc option will not work if you only have one drive connected to your computer.

4 When you are satisfied with your cache settings, click **OK**.



Note For more information on how to set the cache settings, click **Help**.

Setting the Recorder Speed

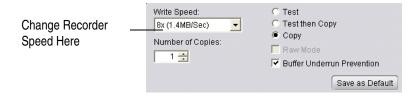
You can choose a different speed for the recorder that is selected in the Destination drop-down list.

Disc Copier should automatically detect a recorder speed based on the drive and media you are using. However, you may need to change the recorder speed for one of these reasons:

- If the blank disc you are using is optimized for a lower drive speed
- If your drive burns at a faster rate than your computer can process (this can cause a buffer underrun)

To change the recorder speed:

- 1 With Disc Copier open and displaying the Options tab, set up your source and destination drives as described in *Copying a Disc Using Two Drives* on page 5 or *Copying a Disc Using Only One Drive* on page 7.
- **2** From the **Write Speed** drop-down list, select the speed that works best for your recorder.





Note If you are making a copy with one drive, you will be able to change the write speed after the contents of the source disc are copied to your hard disk.

3 Make any other advanced setting changes, then click the Burn button.



Disc Copier displays the Recording Progress dialog box. For more information, click **Help**.

Erasing or Formatting a Rewritable Disc

Before you copy to a used rewritable disc such as a CD-RW, DVD-RW, or DVD+RW, the disc must be blank. You can use Disc Copier to erase or format (thereby erasing) rewritable discs.



Caution When you erase a rewritable disc, all files on that disk will be deleted permanently.

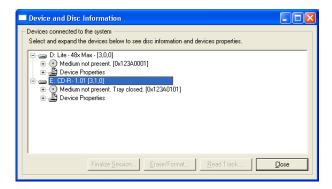


Caution If you have copied extremely sensitive data to a rewritable disc (such as private personal information), we strongly recommend that you destroy the disc rather than choose the option of erasing it and re-recording over the data.

To erase or format a rewritable disc:

- 1 Insert the disc you want to erase or format into a rewritable recorder.
- 2 Choose File > Device and Disc Information.

The Device and Disc Information dialog box appears.

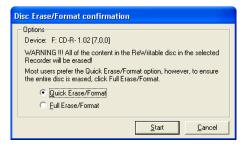


3 Click the plus sign (+) next to the name of the recorder that contains the used rewritable disc.

The properties of the recorder display, represented by different icons.

- 4 Click the name of the used rewritable disc that you want to erase or format.
- **5** Click **Erase/Format**.

The Disc Erase/Format Confirmation dialog box appears.



- **6** Choose the type of erase/format you want for this disc:
 - Quick Erase/Format: Select this option if you want to erase a CD-RW or DVD-RW in the fastest way possible, or if you want to format a DVD+RW.



Note This is the only option available for formatting a DVD+RW with Disc Copier.

- Full Erase/Format: Select this option if you want to fully erase a CD-RW or DVD-RW. This option can take up to an hour to complete.
- 7 When you are ready, click **Start**.

A dialog box appears, displaying the progress of the erase or format. When it is finished, this disc is ready for you to copy to it.

Testing Before You Copy

You can run a test that passes the information you want to copy from the source drive to the destination drive, without recording any information to disc. You might want to use this option to make sure your system can keep up with the record settings.



Note You can also use this feature to automatically make a copy after a successful test.



Note Some drives may not support this feature.

To test before copying:

- 1 With Disc Copier open and displaying the Options tab, set up your source and destination drives as described in *Copying a Disc Using Two Drives* on page 5 or *Copying a Disc Using Only One Drive* on page 7.
- **2** Choose one of these options:
 - To test without copying, select **Test**.
 - To automatically make a copy after a successful test, select Test then Copy.
 - To change back to the default copy setting (copying occurs without any test), select **Copy**.





3 Make any other advanced setting changes, then click the **Burn** button.

Disc Copier runs the test and informs you if it is successful.



Note If you selected Test then Copy, Disc Copier begins copying as soon as a successful test completes.

What Do I Do If the Test Was Unsuccessful?

You can try these options:

- Lowering the speed of the drive (see Setting the Recorder Speed on page 14)
- Turning on Buffer Underrun Prevention if it is not turned on (see Preventing a Buffer Underrun on page 12)
- Copying the source disc to the hard disk first (see Copying the Source Disc to the Hard Disk First on page 12)

Making Multiple Copies of a Disc

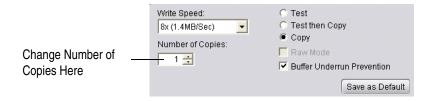
To make multiple copies of a disc:

1 With Disc Copier open and displaying the Options tab, set up your source and destination drives as described in *Copying a Disc Using Two Drives* on page 5 or *Copying a Disc Using Only One Drive* on page 7.



Note When you are making multiple copies, each blank disc you use must be of identical capacity and write speed.

2 In the **Number of Copies** field, enter the number of copies you want to burn.





3 Make any other advanced setting changes, then click the **Burn** button.

Disc Copier displays the Recording Progress dialog box. For more information, click **Help**.

Copying to More than One Disc Simultaneously

If you have more than one recorder connected to your computer, you can copy a source disc to more than one destination disc simultaneously.



Note Each blank disc you use must be of identical capacity and write speed.



Note When copying to more than one disc simultaneously, we recommend you raise the maximum software buffer size using the Advanced Options dialog box. For more information, see *Setting Advanced Preferences* on page 22.

To copy to more than destination disc simultaneously:

- 1 Insert the disc you want to copy into your source drive.
- 2 In the **Source** drop-down list box, select the source drive.

3 Choose **Preferences** > **Allow Multiple Destinations**, so that there is a check box next to Allow Multiple Destinations.

The **Destination** drop-down list changes to display more than one recorder, with a check box next to each one. Each recorder that is connected to your computer has a check box next to it.



- **4** Check the box next to each recorder that you want to copy the source disc to.
- 5 Insert a blank disc into each recorder you selected.



6 Make any other advanced setting changes, then click the **Burn** button.

Disc Copier displays the Recording Progress dialog box for each disc being burned. For more information, click **Help**.

Copying With Raw Mode

The Raw Mode feature allows you to make backup copies of single-session data discs that cannot be copied by normal copy settings. In order to use this feature, the source and destination drives must support it.



Note Raw Mode copies a disc much slower than the average copy, and is not always guaranteed to successfully copy. We recommend you use this feature only when necessary.

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uncertain about your rights, contact your legal

advisor.

Tip Disc Copier is designed to assist you in

To copy a single-session data disc using Raw Mode:

- 1 With Disc Copier open and displaying the Options tab, set up your source and destination drives as described in *Copying a Disc Using Two Drives* on page 5 or *Copying a Disc Using Only One Drive* on page 7.
- 2 Check the **Raw Mode** check box.





Note This option will not be available unless your source and destination drives support Raw Mode, and there is a single-session data disc inserted into the source drive.

Make any other advanced setting changes, then click the **Burn** button.



Disc Copier displays the Recording Progress dialog box. For more information, click **Help**.

Setting Advanced Preferences

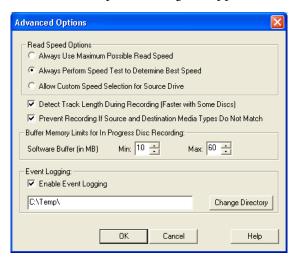
The advanced options in Disc Copier allow you to change these preferences:

- Determine whether the speed of the source drive is set automatically or customized by you
- Prevent Disc Copier from copying if the types of media do not match
- Detect the track length during copying
- Set minumum and maximum memory limitations for a software buffer (temporary area on your hard disk used by your recorder during burning)
- Determine if you want a log file to be generated for each copy

To set advanced options:

1 Choose Preferences > Advanced Options.

The Advanced Options dialog box appears.





Note For detailed information on this dialog box, click **Help**.

2 When you are satisfied with your settings, click **OK**.

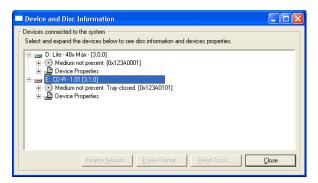
Viewing Properties for Discs and Drives

You can view the properties of any drive connected to your computer and the properties of any discs inside those drives.

To view a drive's properties:

Choose File > Device and Disc Information.

The Device and Disc Information dialog box appears.





Note For more information on this dialog box, click **Help**.

Disc Copier Reference

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Disc Copier Menus

The following menus are available in Disc Copier:

- File Menu
- Preferences Menu
- Help Menu

File Menu

The following table lists the commands under the File menu.

Command	Description
Device and Disc Information	Displays a dialog box that allows you to access detailed information about any drives connected to your computer, as well as any discs in a drive.
Show USB Record Speed Warning	Check this box if you want Disc Copier to display a warning each time you select a USB recorder as the destination drive. Using a USB recorder increases the chances of buffer underruns during copying.

Preferences Menu

The following table lists the commands under the Preferences menu.

Command	Description
Advanced Options	Displays a dialog box that allows you to configure advanced preferences for Disc Copier.
Allow Multiple Destinations	This option is only available if you have more than one recorder connected to your computer. Check this option if you want to be able to copy the disc inserted in the source drive to multiple discs at the same time.

Help Menu

The following table lists the commands under the Help menu.

Command	Description
Disc Copier Help	Opens the Disc Copier Help.
Tutorial	Opens the Disc Copier Tutorial.
About Disc Copier	Opens the About dialog box for Disc Copier, which displays the application's version number and copyright notice.

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