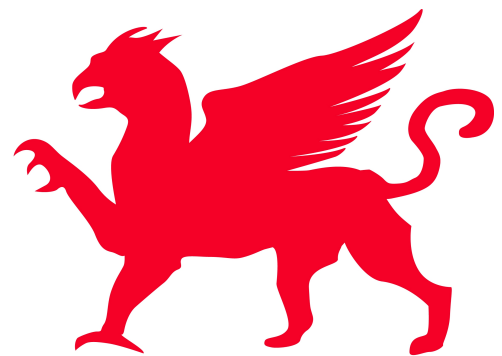


SecureDisc

User's Guide



DISCRETE TECHNOLOGIES

Introduction

SecureDisc is used for protecting and preventing access to content recorded on CD and DVD. Using 256-bit AES (Advanced Encryption Algorithm), SecureDisc encrypts the entire contents of any ISO or UDF disc image. SecureDisc is comprised of two parts: a drag-and-drop disc burning application that encrypts the disc image using the password provided; a “client” driver and helper application that is installed on the receiver’s computer to decrypt (read) the encrypted disc.

Requirements

Disc Creation:

- Windows 2000 or XP
- 5MB free disk space for program files
- MMC Compliant DVD, CD, or BD-R recorder (most modern models)

Disc Viewing Client:

- Windows 2000 or XP; 32-bit Windows Vista
- DVD or CD reader
- 1MB free disk space for program files

Modes of Operation

- 256-bit Advanced Encryption Standard in CBC mode

FIPS Information

- SecureDisc contains an embedded, FIPS 140-2 validated encryption module
- For specific FIPS information, visit **DiscreteTech.com/FIPS**

Package Contents

- SecureDisc installation CD
- This Manual

Licensing

- SecureDisc is licensed for use on a single computer, and is sub-licensed on a per-encrypted-image basis
 - SecureDisc may be run in a Pre-Paid or Unlimited mode
- The SecureDisc client may be distributed freely

Installing SecureDisc

Run the SecureDisc installation program and follow the wizard’s on-screen instructions. By default, only 10 encrypted images will be available. To receive the 100 image pack that is included with the paid version, simply register the software as outlined under “Software Registration & Image Packs.”

Since this is the initial installation, you will receive a refill code for 100 images and will not be charged.

Software Registration & Image Packs

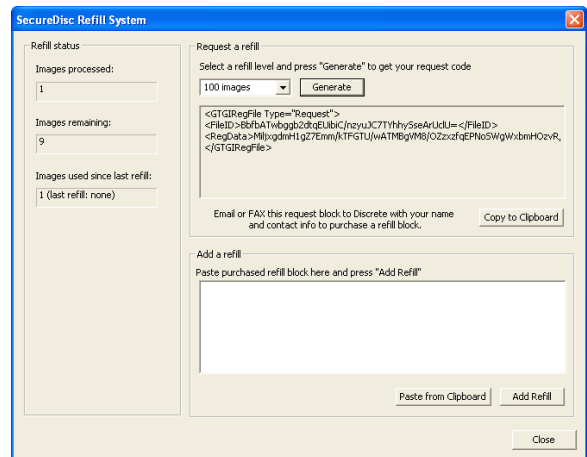
Encrypted discs produced using SecureDisc incur a per-encrypted-image charge. SecureDisc keeps a running count of encrypted images produced, and a total of purchased encrypted images available. The initial installation of SecureDisc includes a Qty. 10 encrypted image pack. The paid version includes a qty. 100 Encrypted Image Pack that will be provided when product registration has been completed. Additional Encrypted Image Packs (“refills”) may be purchased separately and applied at any time.

Encrypted Image Pack refills may only be used on the server that requested the refill. Refills are applied through the SecureDisc Console. Once a refill is applied it has no time expiration, however, a refill must be applied within 72 hours of generating a request code.

To register SecureDisc, follow the same process used for applying Image Packs, as outlined below. If the software has not been paid for, you will be contacted by a sales representative for payment instructions and to receive a unique serial number. If the software has been paid for, you will not be contacted by a sales representative.

Applying a Purchased Encrypted Image Pack

- Open SecureDisc
- Select *Tools* from the menu
- Click on *Refill status...*
- Select the number of refill images you want to purchase and click on *Generate*
- Click on *Copy to Clipboard*
- Paste the XML Request block into an email with your contact information and send to activation@discretetech.com. Put SecureDisc Refill in the Subject line along with your assigned serial number. Alternatively, visit **DiscreteTech.com/activation** and paste the request code and serial number
- A sales representative will contact you for payment information. Once your payment has been processed, a Refill code will be e-mailed to you
- Paste the refill code from the e-mail into the lower block
- Click on *Add Refill*

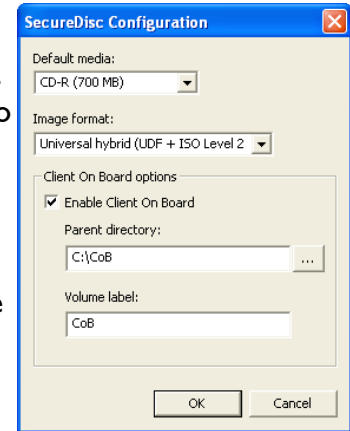


An Unlimited Image Pack is available for removal of the encrypted disc count limit. Applying an unlimited refill will convert the software from pre-paid mode to unlimited mode. Unlimited Image Pack refills may be requested at any time, but are not provided until payment is made in full. Unlimited Image Packs may only be applied after completing the software registration process.

Using SecureDisc

SecureDisc works similar to most disc burning software. Drag-and-drop the files you want to record into the tree area (left side) of the SecureDisc window. You may drop files, folders, or a combination of both. The status bar at the bottom of the window shows the size of the data you have dropped in.

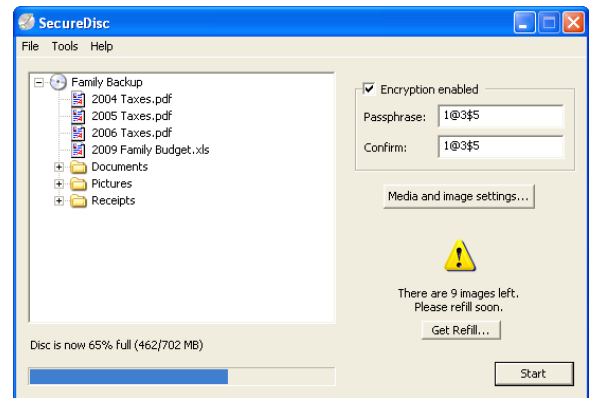
Select the media type you want to use by clicking on *Media and image settings*. SecureDisc supports CD-R and RW, DVD±R and RW, DVD±R-DL (dual layer), and BD-R (25GB Blu-Ray Recordable). The disc format may also be selected. *Universal Hybrid* is the default and is universally compatible. Other selectable formats include ISO Level 1 and ISO Level 2 (no Joliet).



To encrypt the disc check the Encryption enabled option and enter a passphrase. Passphrases may be up to 255 characters; special characters are allowed. Discs that are not encrypted do not count against the encrypted image count.

To change the Volume ID, right-click on the disc icon at the top of the list and choose *Rename*.

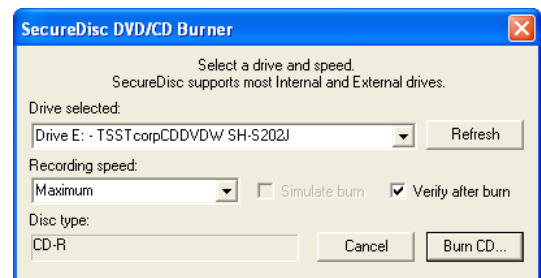
Click on Start to begin disc processing. SecureDisc will prepare and encrypt the data to be recorded. Once the disc information has been processed, you will be presented with the SecureDisc burning dialog.



SecureDisc does not modify source files. SecureDisc creates a temporary copy of the data set, encrypts it if requested, and burns the temporary data to the disc.

To burn the disc, select the recorder from the Drive selected list and click on Burn.

Simulate burn simulates the recording process without recording to the blank disc. *Verify after burn* verifies that the recorded disc matches the data that was recorded.



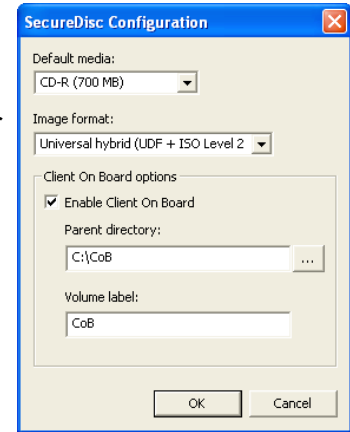
Burning progress is displayed in the status bar at the bottom of the main window. To cancel a process, click on the Cancel button. If a process cannot be stopped, the Cancel button will not appear.

Client On Board (CoB)

SecureDisc has the ability to record a non-encrypted session to an encrypted disc during processing. The non-encrypted session may contain the SecureDisc Client installer, among other static files that do not require encryption.

When an encrypted disc made with CoB enabled is inserted into a computer that does not have the SecureDisc Client software installed, the non-encrypted session is presented and allows the user to access the contents, including the SecureDisc Client installation program. Once the SecureDisc Client has been installed, and the CoB disc is inserted, the encrypted session will be accessible by entering the assigned password.

Once the SecureDisc Client software has been installed on a computer, the non-encrypted CoB session will no longer be accessible.



To use Client On Board, enable the option in SecureDisc settings by clicking on *Media and image settings*. Select the parent folder that contains the static content to be included. Be sure to include the SecureDisc Client installer in the folder. Set a volume ID (16 character limit).

Including the SecureDisc Client on the disc does not change the client installation procedure or requirements.

The non-encrypted session will reduce the amount of available space on a blank disc by the size of the selected static folder content. The non-encrypted session is mastered in ISO9660 Level 2 with Joliet extensions, and cannot be changed. The non-encrypted session is exclusive of the format of the encrypted data.

SecureDisc Client

In order to view discs encrypted with SecureDisc, the user must have the SecureDisc Client software installed. Installation requires administrative rights to install, but once installed, functions for all users logged in to a computer.

The SecureDisc Client software installs two parts - a "filter" driver and a "helper" application. The filter driver is placed in the Windows filter driver stack and acts as a wedge between the operating system's CD-ROM driver and the optical drive hardware driver. The helper application is what the user sees - it displays drive status and handles routing the disc password to the filter driver.

When a disc is inserted, the filter driver checks to see if the SecureDisc encryption header is present. If the header is not present, it changes to by-pass mode, where the disc is directly accessible by the CD-ROM driver. If a SecureDisc header is found, the filter driver messages the helper client to prompt for a password. The password is messaged from the helper application to the filter driver.

Removing or Upgrading the SecureDisc Client always requires the user to reboot their computer to remove the installed version of the filter driver.

Client Distribution

The SecureDisc client is provided free of charge by Discrete Technologies and is available on our website. For large deployments, you may host the client on your own website or distribute it through other means. The client installer program may also be included on an encrypted disc using the Client On Board feature. Periodically visit **DiscreteTech.com/securedisc-client** to download the latest release.

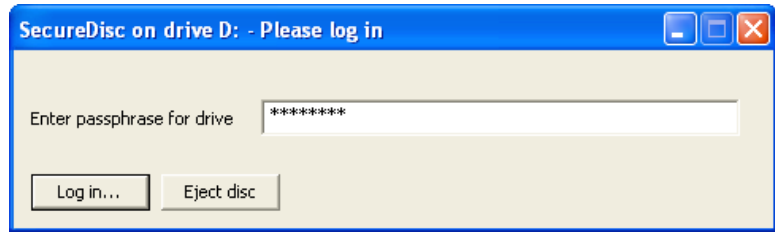
Client Installation

Run the SecureDisc Client installation program and follow the wizard's on-screen instructions. Administrative rights are required for installation, however, once installed SecureDisc Client is available for all users. Rebooting is required after installation.

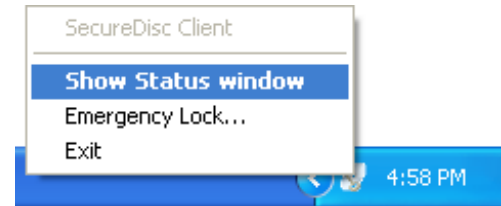
Silent installation is available for automated deployment by adding the "/s" switch when running the installer from a command line or script.

Using the SecureDisc Client

To read an encrypted disc, load the disc into an available reader. The SecureDisc client will automatically open and prompt for the password. Enter the password and click on Log In. To cancel password entry, click on Eject Disc.

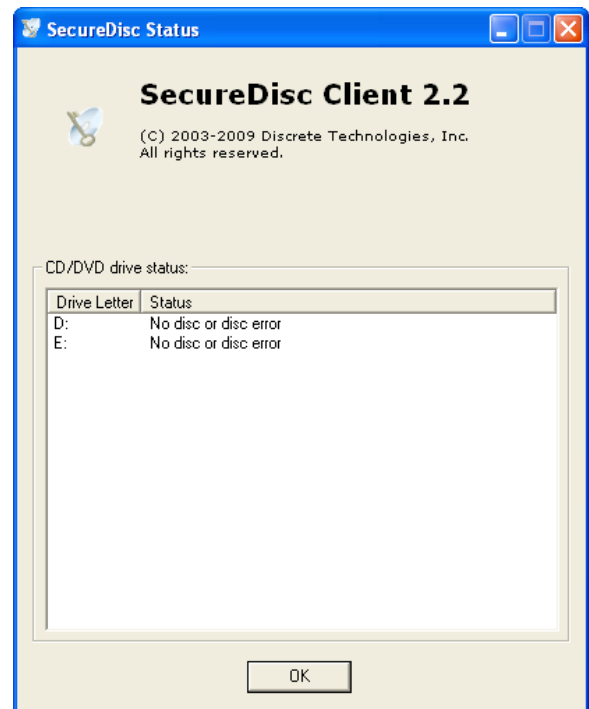


If an incorrect password is entered, the disc is automatically ejected and the client login window is closed. The SecureDisc client has no settings that require configuration. The SecureDisc Client loads at system startup into the system tray, next to the clock.



Right-click on the SecureDisc logo to view the context menu:

- *Show Status Window* displays the drives available and whether they contain an encrypted disc
- *Emergency Lock...* ejects all discs currently logged in and clears the password from memory. Ejecting a disc by any means automatically logs out the disc and clears the current password.



SecureDisc Utilities

Reading a Disc Track

SecureDisc can read and save disc tracks as ISO images:

- Click on Tools then Read Image from Disc to access the Read Tracks window
- Select the reader from the Drive selected list
- Click on the desired track
- Enter a destination path and file name for the track in the Save track as box
- Click on Read disc
- Track read status is displayed in the status bar at the bottom of the main window

Recording a Disc Track

SecureDisc can record ISO images directly to the recorder:

- Click on Tools then Burn Image to Disc
- Select the disc image you want to record
- Select the recorder from the Drive selected list and click on Burn
- Burning progress is displayed in the status bar at the bottom of the main window

Encrypting a Disc Track

SecureDisc can encrypt an existing ISO image and optionally record it. SecureDisc saves the encrypted image as a separate file, and does not modify the source image.

- Click on Tools then Encrypt Image
- Select a Source Image
- Select the Encrypted Image to save as
- Select a Passphrase
- Click on OK
- Encryption status is displayed in the status bar at the bottom of the main window

Decrypting or Verifying a Disc Track

SecureDisc can verify or decrypt an existing encrypted ISO image. SecureDisc saves the decrypted image as a separate file, and does not modify the source image.

- Click on Tools then Decrypt Image
- Select a Source Image
- Select the Decrypted Image to save as
- Select a Passphrase
- Click on OK
- To only perform image verification, select Verify only
- Status is displayed in the status bar of the main window

Copyright Information

Copyright © 2006 - 2009 Discrete Technologies LLC. All rights reserved.

SecureDisc User's Guide

The instructions given in this manual are generalized for installation on most servers. While every effort has been made to describe any differences in machines, not all installations and their variables can be addressed in this documentation. If problems are experienced while installing this product, or if any questions arise about its operation, please contact us.

Discrete Technologies LLC cannot be held responsible for loss of data as a result of the use of this product, or guarantee the fitness of this product for a particular purpose other than what is described in this document.

To report errors or omissions in this manual, contact us at (703) 310-6574 or send an email to support@discretetech.com.

This manual, as well as the software described in it, is furnished under license and may only be used or copied in accordance with the terms of such license. The information contained in this manual is furnished for informational use only and is subject to change without notice.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior permission of Discrete Technologies, Inc.

SecureDisc is a trademark of Discrete Technologies LLC.

Microsoft, Windows, Windows 2000, and Windows XP are registered trademarks of Microsoft Corporation. All other trademarks or registered trademarks are property of their respective owners.

This document and the software it describes are produced exclusively in the United States of America.

Sixth Edition

May 2009

Software Version 2.3 and higher; Client version 2.2 and higher

End-User License Agreement

END-USER LICENSE AGREEMENT FOR DISCRETE TECHNOLOGIES LLC SOFTWARE

IMPORTANT-READ CAREFULLY: This End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and Discrete Technologies LLC (DT) for DT software product(s), which may include associated software components, media, printed materials, and "online" or electronic documentation ("SOFTWARE PRODUCT"). By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, do not install or use the SOFTWARE PRODUCT.

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

1. GRANT OF LICENSE. The SOFTWARE PRODUCT is licensed as follows:

Installation and Use. DT grants you the right to install and use a single copy of the SOFTWARE PRODUCT on your computer running an operating system for which the SOFTWARE PRODUCT was designed [e.g., Windows 2000, Windows XP, etc.].

Backup Copies. You may make copies of the SOFTWARE PRODUCT as may be necessary for backup and archival purposes.

2. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS.

Maintenance of Copyright Notices. You must not remove or alter any copyright notices on all copies of the SOFTWARE PRODUCT.

Distribution. You may not distribute copies of the SOFTWARE PRODUCT to third parties.

Prohibition on Reverse Engineering, Decompilation, and Disassembly. You may not reverse engineer, decompile, or disassemble the SOFTWARE PRODUCT, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation.

Rental. You may not rent, lease, or lend the SOFTWARE PRODUCT.

Transfer. You may permanently transfer all of your rights under this EULA, provided the recipient agrees to the terms of this EULA.

Support Services. DT may provide you with support services related to the SOFTWARE PRODUCT ("Support Services"). Use of Support Services is governed by DT policies and programs described in the user guide, in "on line" documentation and/or other DT provided materials. Any supplemental software provided to you as part of the Support Services shall be considered part of the SOFTWARE PRODUCT and subject to the terms and conditions of this EULA. With respect to technical information you provide to DT as part of the Support Services, DT may use such information for its business purposes, including for product support and development. DT will not utilize such technical information in a form that personally identifies you. Paid Support Services are bound to the original purchaser and are NON-TRANFERRABLE.

Not For Resale Product. If the Product is labeled "Not For Resale," then you may not resell, or otherwise transfer for value, the SOFTWARE PRODUCT.

Compliance with Applicable Laws. You must comply with all applicable laws regarding use of the SOFTWARE PRODUCT.

3. TERMINATION. Without prejudice to any other rights, DT may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In such event, you must destroy all copies of the SOFTWARE PRODUCT.

4. COPYRIGHT. All title, including but not limited to copyrights, in and to the SOFTWARE PRODUCT and any copies thereof are owned by DT or credited sources. All title and intellectual property rights in and to the content which may be accessed through use of the SOFTWARE PRODUCT is the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants you no rights to use such content. All rights not expressly granted are reserved by DT.

5. U.S. GOVERNMENT RESTRICTED RIGHTS. The SOFTWARE PRODUCT is provided with RESTRICTED RIGHTS. Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or subparagraphs (c)(1) and (2) of the Commercial Computer Software Restricted Rights at 48 CFR 52.227-19, as applicable. Manufacturer is Discrete Technologies LLC, 3108 Columbia Pike, Second Floor, Arlington, VA 22204 USA.

6. NO WARRANTIES. DT expressly disclaims any warranty for the SOFTWARE PRODUCT. THE SOFTWARE PRODUCT AND ANY RELATED DOCUMENTATION IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. THE ENTIRE RISK ARISING OUT OF USE OR PERFORMANCE OF THE SOFTWARE PRODUCT REMAINS WITH THE END-USER.

7. LIMITATION OF LIABILITY. To the maximum extent permitted by applicable law, in no event shall DT or its affiliates be liable for any special, incidental, indirect, or consequential damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of information, or any other pecuniary loss) arising out of the use of or inability to use the SOFTWARE PRODUCT.

In any case, DT's entire liability under any provision of this EULA shall be limited to the greater of the amount actually paid by you for the SOFTWARE PRODUCT. You are not authorized to use this software if your state or jurisdiction does not allow the exclusion or limitation of liability.

8. MISCELLANEOUS. This EULA is governed by the laws of the Commonwealth of Virginia, USA.

9. Contact. Should you have any questions concerning this EULA, or if you desire to contact DT for any reason, please contact Discrete Technologies LLC, 3108 Columbia Pike, Second Floor, Arlington, VA 22204 USA.