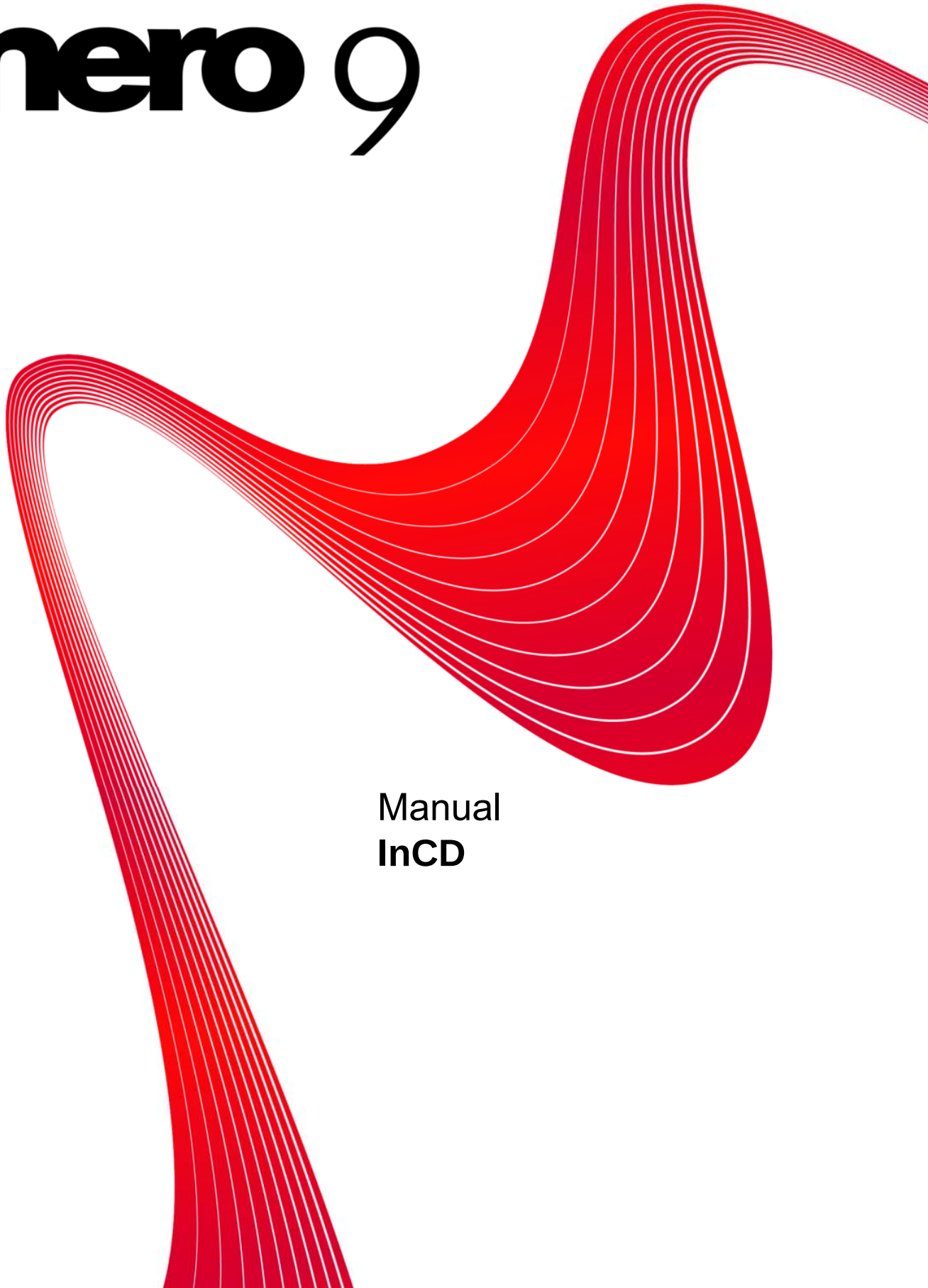
nero 9



Manual

InCD

Table of contents

1 Start Successfully

1.1 About the manual

This manual is intended for all users who want to learn how to use InCD. It is process-based and explains how to achieve a specific objective on a step-by-step basis.

To make best use of this documentation, please note the following conventions:

	Indicates warnings, preconditions or instructions that have to be precisely followed.
	Indicates additional information or advice.
1. Start …	The number at the beginning of a line indicates a prompt for action. Carry out these actions in the order specified.
→	Indicates an intermediate result.
→	Indicates a result.
OK	Indicates text passages or buttons that appear in the program interface. They are shown in boldface.
(see…)	Indicates references to other chapters. They are executed as links and are shown in red and underlined.
[…]	Indicates keyboard shortcuts for entering commands.

1.2 About InCD

InCD, the packet writing application, allows you to format CDs/DVDs so that they can be used as diskettes. You can copy files onto the disc using drag and drop in Windows Explorer or save them to the disc from other applications. InCD uses the UDF file system and is compatible with the UDF reader in Windows 2000 and Windows XP. The disc can be checked for errors following formatting. InCD can access data in defective sectors of file systems as of UDF 2.50 thanks to the option of duplicated meta data, thus offering additional data protection. With SmartDetect, InCD also features a technology which automatically detects the writing characteristics of recorders, even if the recorder is newer than the InCD version. It goes without saying that media written with InCD are compatible with other standard UDF software products.
InCD can also be used to read disks that are created using SecurDisc technology. SecurDisc is a new hardware and software based technology developed by Nero and HLDS with which you can create discs with special protection properties, such as data integrity, reconstructability, encryption and duplication protection. Such discs can be created with SecurDisc supported drives (e.g. from HLDS/LG and Nero Express) and read from any drive with InCD or InCD Reader.

If a SecurDisc disc is copy-protected and the copy protection can be removed by using a password, InCD can be used to read the disc if a SecurDisc drive is connected and you know the password.

The InCD version no longer only uses rewritable discs (CD-RW, DVD-RAM, DVD+RW, DVD-RW). You can now write to all commercially available discs using InCD – but write-once discs (R discs) cannot be erased and reformatted.

InCD Essentials only supports rewritable discs (RW discs).

1.3 InCD Versions

InCD is available in 2 different versions:
InCD and InCD Essentials.

InCD Essentials only supports rewritable discs (RW discs).

1.4 InCD Reader

With InCD Reader, all discs that have been created with InCD can also be read on computers on which InCD is not installed.
In addition, InCD Reader provides read access to all discs that were created with SecurDisc – even on drives without SecurDisc support.

If a SecurDisc disc is copy-protected and the copy protection can be removed by using a password, InCD Reader can be used to read the disc if a SecurDisc drive is connected and you know the password.

InCD Reader is available for download at Nero's website for free.

2 Installation

2.1 Installing InCD

You must first uninstall any older versions of InCD that may be installed (3.x and 4.x).

You must have administrator rights for the computer on which you wish to install or uninstall InCD.

The QuickStart Guide for the Nero Suite of programs contains detailed instructions for installing the software for the first time.

IInCD is a Nero Suite application and as such is available both on the Nero Suite disc and in the download package. However, InCD is not installed with the standard Nero installation. Because of this, you will have to select **Custom Installation** either during the first or the subsequently installation of the Nero suite and then select the **InCD** option on the **Application Selection** screen.

3 Accessing SecurDisc

If InCD is installed, SecurDisc was installed automatically as well. After the computer has been booted, the SecurDisc icon,  , is available on the system tray, next to the InCD icon,  (no special link is created in the program folder).

You can use the  icon to:

- Open the context menu by right-clicking (see SecurDisc Context Menu→ 7).
- Double-click to open the SecurDisc - Drive and Disc Functions window (see SecurDisc - Options window→ 8).

The **Always show a notification when a SecurDisc(TM) disc is inserted** check box is enabled by default in the **SecurDisc(TM) - Options** window, which means that SecurDisc automatically sends a notification when a SecurDisc disc is detected in a drive.

It is as if access is automatic this way.

The windows for entering access and copy protection passwords and/or a digital signature are also displayed, depending on the properties of the detected SecurDisc disc. You can enter these conveniently in these windows and then immediately access all data on the SecurDisc disc via Windows® Explorer.

3.1 SecurDisc Context Menu

The following setting options are available in the context menu:

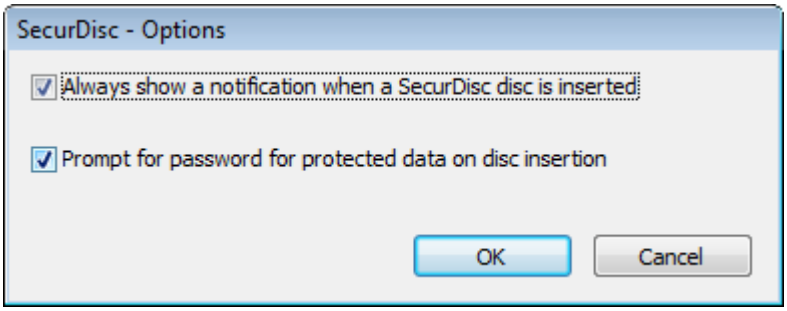
Drop-down menu **Drive**	Lists all connected drives for selection. A fly-out menu appropriate to the properties of the disc in the drive also permits access to the windows for entering a password and digital signature as well as the **SecurDisc - Drive and Disc Features window**.
Show supported features	Opens the **SecurDisc - Drive and Disc Features** window where you define which drive you wish to select, the **capabilities** of the chosen drive, display the inserted disc and enter any passwords and digital signatures required as well as check for data manipulation.
Options	Opens the **SecurDisc - Options** window where you can define whether notifications should always be shown when you insert a disc created using SecurDisc. You can also specify whether the system should prompt for the password for password-protected data upon insertion of the disc.
About…	Opens the help files for InCD and SecurDisc.

See also:

SecurDisc Drive and Disc Features Window→ 8
SecurDisc options window→ 8
SecurDisc Drive and Disc Features Window→ 8

3.2 SecurDisc options window

In this window you can specify how SecurDisc should behave when a SecurDisc disc is inserted.



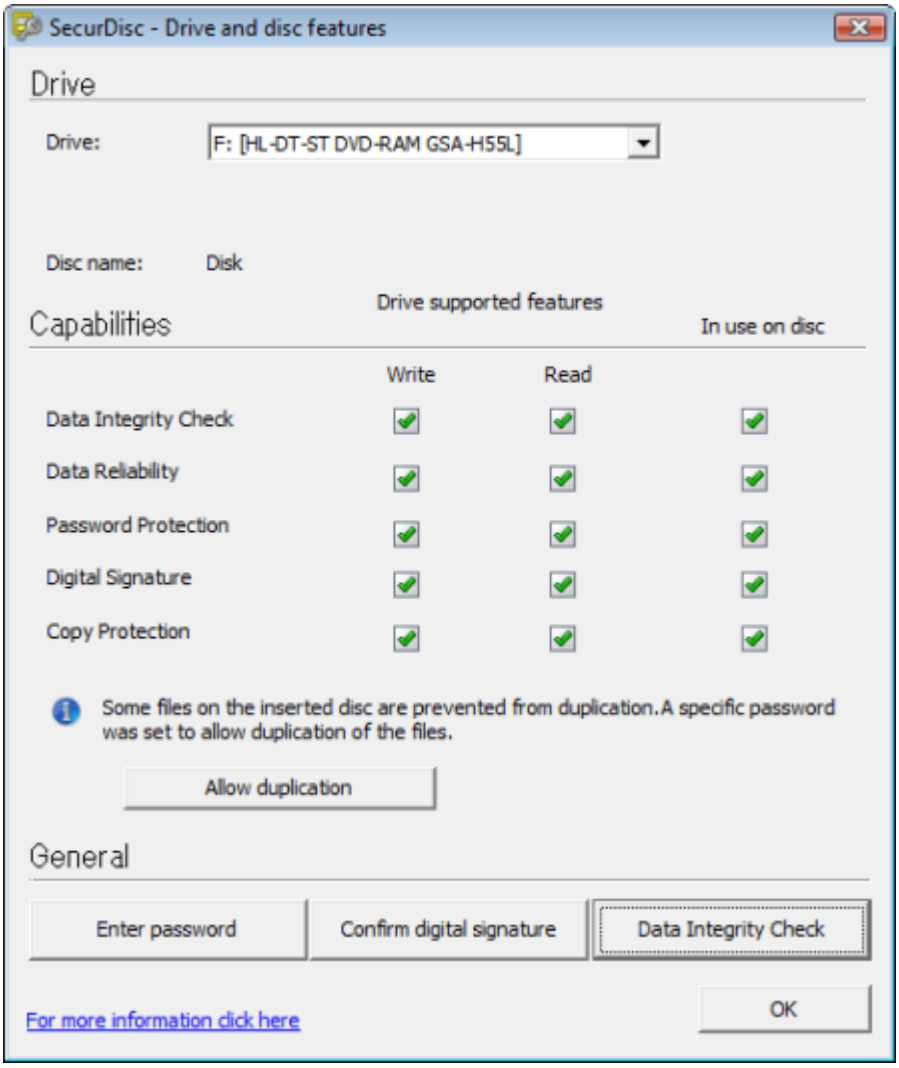
SecurDisc - Options window

The following check boxes are available:

Always show a notification when a SecurDisc(TM)disc is inserted	Displays a window every time that a SecurDisc disc is inserted in a connected drive. This window includes the **Show disc features** button, with which the **SecurDisc™ - Drive and disc features** window can be displayed (see SecurDisc™ - Drive and disc features window→ 8).
Prompt for password for protected files when a disc is inserted	Prompts for the password for protected data when the disc is inserted, not just when you want to access the data.

3.3 SecurDisc Drive and Disc Features Window

In the **SecurDisc - Drive and Disc Features** window you can select the drive you want, display the **capabilities** of the selected drive, **enter a password** in the **General** area if the disc is password-protected, **confirm a digital signature**, and **ascertain** whether the files on the disc have been changed since they were last opened.



SecurDisc - Drive and disc features window

The following information and selection options are available in the **Drive** area:

Drop-down menu **Drive**	Permits selection of the drive in which the SecurDisc disc was inserted.
Disc name	Shows the name of the disc inserted in the selected drive.

The following information and selection options are available in the **Capabilities** area:

Column **Drive supported features**	Lists the read and write capabilities supported by the relevant drive.

Column **In use on disc**	Lists which of these capabilities are used by the inserted disc.
Button **Allow duplication**	Opens the **Allow Duplication** window where you can enter a password in a text box if this is necessary to remove the copy protection for PDF files on the disc. This button is available only if a SecurDisc-compatible drive is selected, a SecurDisc data DVD is inserted, and files in PDF format on the disc are password-protected to prevent duplication.

The following information and selection options are available in the **General** area:

Button **Enter password**	Opens the **Data Protection** window where you can enter a password in the text box if a password is required to open the disc or the files on the disc. This button is available only if the data on the disc is password-protected.
Button **Confirm digital signature**	Opens the **Verify Digital Signature** window where you can select and start a suitable public key. This button is available only if the SecurDisc disc is protected with a digital signature.
Button **Data Integriry Check**	Opens the **Data Integrity Check** window where you can check whether the data has been manipulated without permission.

3.4 Opening SecurDisc Disc

Access to the SecurDisc disc can be protected with access passwords and/or digital signatures. In addition, PDF files on SecurDisc DVDs can be protected from duplication. If a retrieval password has been defined, you can remove the duplication protection with InCD Reader.

To do this, proceed as follows:

1. Insert the SecurDisc disc into a drive of the computer on which InCD Reader is installed.
2. Double-click the icon in the system tray. The **SecurDisc - Drive and Disc Features** window appears.

If a SecurDisc disc has already been inserted once into one of the drives which supports SecurDisc technology, the drive will automatically be selected in the **Drive** menu as soon as a SecurDisc disc is inserted again.

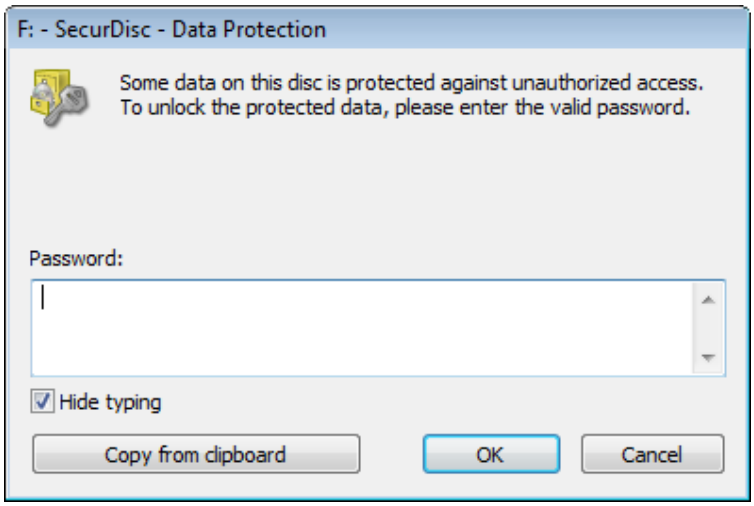
3. In the **Drive** drop-down menu, select the drive in which you inserted the SecurDisc disc. The drive in which a SecurDisc disc was last inserted is selected by default.
   → The name of the disc inserted in the chosen drive is displayed in the **Disc name** box. Also displayed in the **Capabilities** area are the properties of the selected drive and the disc it contains.

   The **Always show a notification when a SecurDisc disc is inserted** check box is checked by default in the **SecurDisc - Options** window, which means SecurDisc automatically sends a notification when a SecurDisc disc is detected in a drive.

   It is as if access is automatic this way.

   The windows appropriate to the properties of the detected SecurDisc disc for entering a password and/or a digital signature are also displayed. You can enter these conveniently here, after which you can immediately access all data on the SecurDisc disc via Explorer.

4. If data on the SecurDisc disc is password-protected:
   1. Click the **Enter password** button.
      → The **Data Protection** window appears.



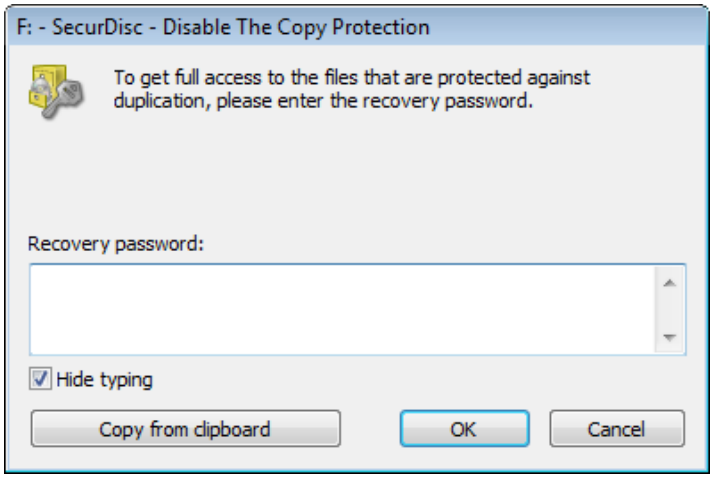
SecurDisc - Data Protection

   2. Enter the required password in the text box or insert it using the **Copy from clipboard** button.
   3. Click the **OK** button.
      → You are returned to the **SecurDisc - Drive and disc features** window.

5. If the SecurDisc disc is protected by a digital signature:
   1. Click the **Confirm digital signature** button.
      → The **Verify Digital Signature** window is displayed.
   2. Click on the **Select public key** button.
      → The **Open** window appears.

3. Select the appropriate public key.
4. Click the **Open** button.
   → The **Verify Digital Signature** window appears again, and the name of the selected public key is shown under **Key name**.
5. Click the **Start** button.
   → The digital signature is checked using the selected public key. A progress bar keeps you informed of the processing status. The **Close** button appears once verification is complete.
6. Click the **Close** button.
   → The public key has been accepted and the files are ready for you to access. You are returned to the **SecurDisc - Drive and disc features** window.

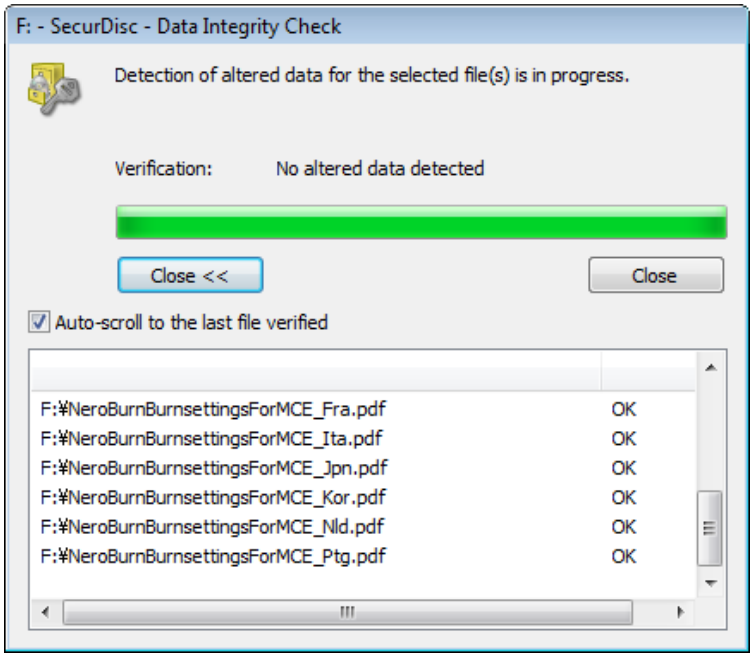
6. When PDF files on the SecurDisc DVD have a revocable duplication protection:
   1. Click the **Allow duplication** button.
      → The **SecurDisc - Copy Protection** window appears.



Disable the Copy Protection

   2. Enter the required password in the text box or insert it using the **Copy from clipboard** button.
   3. Click the **OK** button.
      → The copy protection is removed for this access. You are returned to the **SecurDisc - Drive and disc features** window.

7. If you want to check whether data has been manipulated:
   1. Click the **Data Integrity Check** button.
      → The **SecurDisc - Data Integrity Check** window appears. Checksums are used to determine whether data manipulation has taken place. A progress bar and a growing list of the files examined keep you informed of the progress of the verification process. The **Close** button appears once verification is complete.



SecurDisc - Data Integrity Check

2. Click the **Close** button.
   → You are returned to the **SecurDisc - Drive and disc features** window.

➔ You can now open the SecurDisc disc using, for example, Windows Explorer.

4 Accessing InCD

If InCD is installed, both the InCD icon and the InCD/SecurDisc icon appear in the system tray after the computer has booted (no special link is created in the program directory).

InCD cannot be closed and thus "disabled". It remains active in the background until it is uninstalled.

There are three options for calling up the main InCD window:

- Double-click the InCD icon in the system tray.
- To the **Main Window** or **Preferences** entry in the context menu of the InCD icon.
- When an appropriate disc has been inserted via the context menu for the drive entry in Windows Explorer.

The following context menu entries open InCD:

InCD format	Opens the **Format** screen of InCD (see the Screen format chapter→ 23).
Erease InCD	Opens the **Erase** screen (see the Erase Screen chapter→ 27).
Properties	Opens the **Properties** window of the selected drive with the InCD tab, which provides an overview of the **Device capabilities** of the drive and of the **Disc status** (see the chapters InCD tab→ 15 and Drive info screen→ 30).

The InCD icon can change shape, thus providing different kinds of information about the drive and the disc contained in the drive. Depending on the setting selected on the **General** tab in the InCD preferences, this information can be shown either permanently or only briefly if the status changes (see the Defining general InCD preferences chapter→ 20).
The following InCD icon shapes can be displayed:

	Default InCD icon shape.
	InCD mounted the disc in the drive.
	InCD recognized the disc in the drive, but could not mount it. This icon is displayed for example if a MRW disc was inserted, but the drive does not support writing to MRW.
	InCD mounted the disc in the drive, but access to the disc is read-only.
	InCD recognized the disc in the drive, but could not mount it. The disc was mounted by the UDF Reader of the operating system.

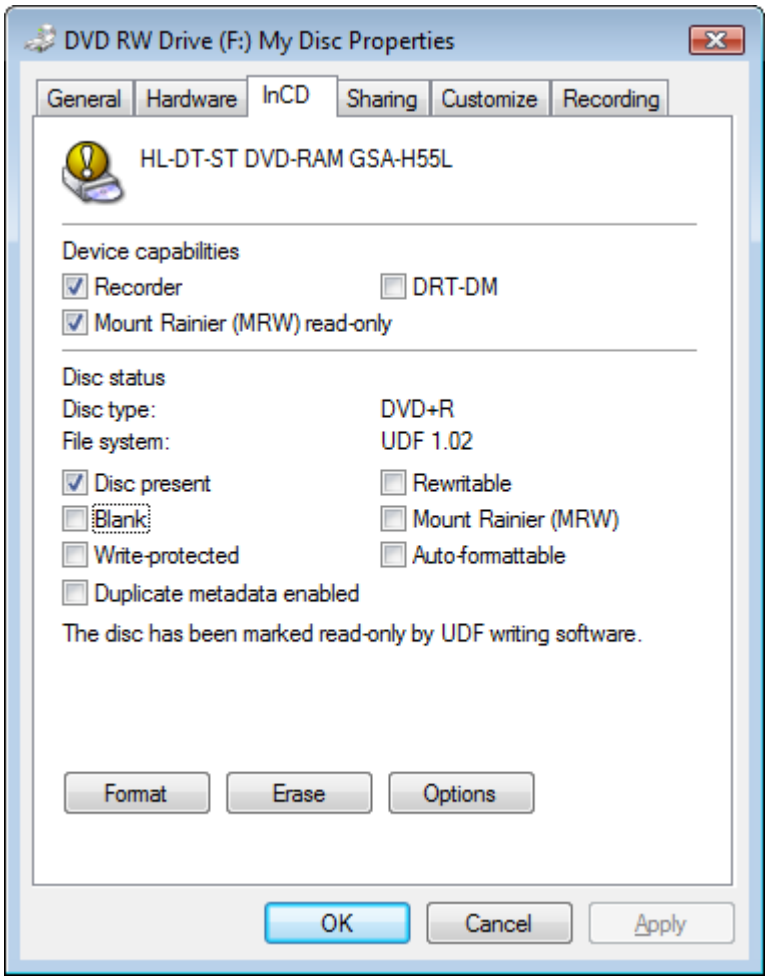
	InCD did not recognize a disc in the drive.

See also:

Installing InCD→ 6

4.1 InCD Tab

InCDInCD creates the InCD tab, in the recorder drive context menu under **Properties**, after installation. It provides information on the recorder and on the disc that has been inserted, and provides access to the main InCD screens.



InCD Tab

The InCD tab provides the same information on device capabilities and on the status of the inserted disc as the **Drive Information** screen (see the Drive Information Screen chapter→ 30).

If you have formatting and write access to the inserted disc (under **Device capabilities**, i.e. the **Recorder** check box is enabled), the following buttons are also available to access InCD:

Format	Opens the **Format** screen with a number of options for setting the formatting for the disc contained in the drive (see the Screen Format chapter→ 23).
Delete	Opens the **Erase** screen, where you can erase the inserted disc with either **Quick** or **Full** erasing (see the Erase Screen chapter→ 27).
Options	Opens the **Drive Options** screen, where you can set various options depending on the disc you inserted (see the Drive Options Screen chapter→ 32).

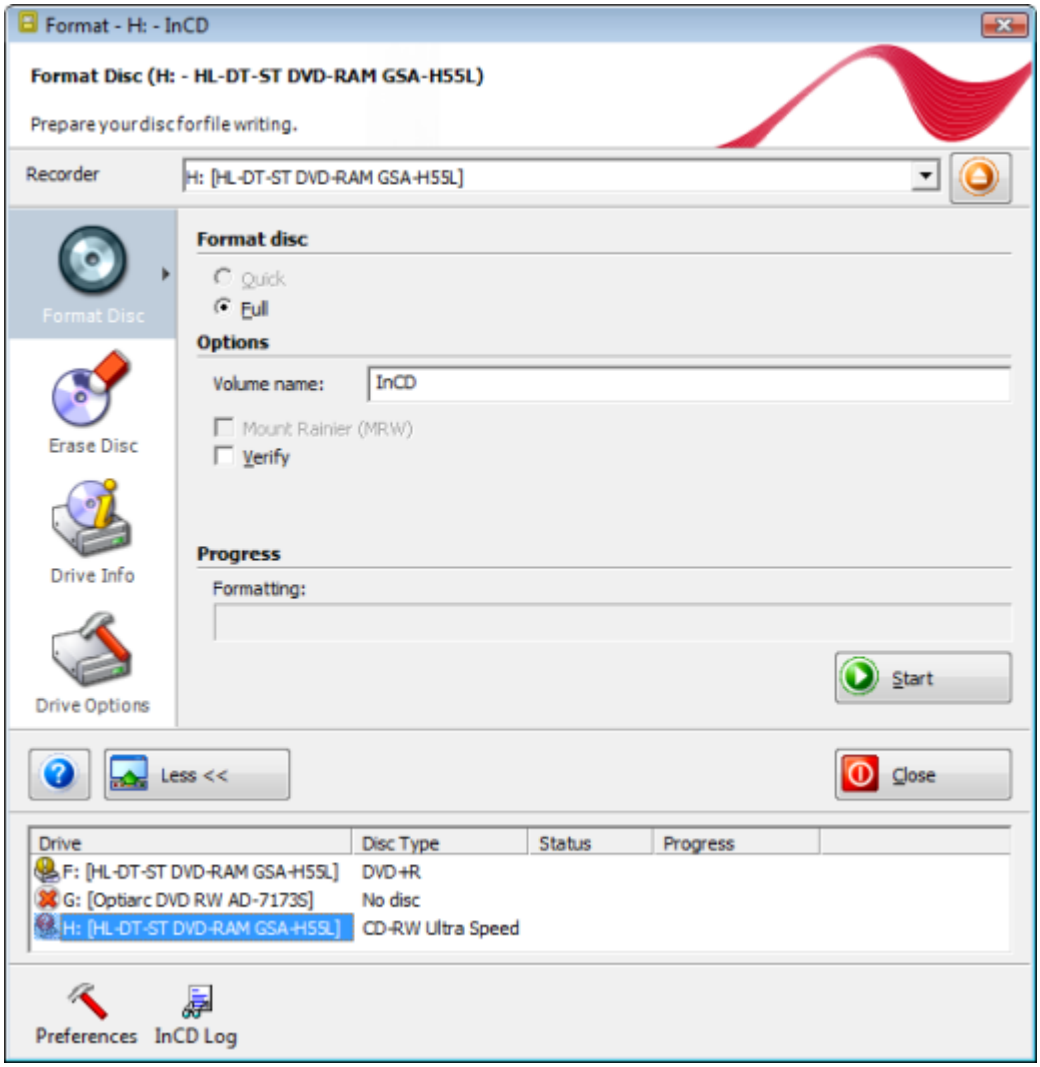
See also:

Drive Information Screen→ 30

4.2 InCD Main Screen

Double-clicking the InCD icon in the system tray starts the application and displays the InCD main screen.

You can also start InCD via the context menu of the InCD icon (**To the Main Window** menu item) where you can also access the InCD preferences directly.



InCD Main Screen

The following buttons are available on the InCD main screen:

?	Opens a context menu where you can open both the Help feature and a list of available keyboard shortcuts (see the Shortcuts chapter) for executing commands.
More/Less	Opens/closes the extended area at the bottom margin of the screen with the buttons **Preferences** and **InCD Log**. In addition, depending on the drive used and the disc inserted, information on the **drive**, **disc type**, **status**, and **progress** is displayed.
Recorder	Allows you to select a drive if multiple drives are available. If only one drive is available, this button is not displayed.
Eject/Load	Opens/closes the drive tray.
Close	Exits InCD.
Settings	Opens the **InCD Preferences** screen, where, in addition to defining the general behavior of InCD, you can also define how InCD responds when a disc is inserted or ejected (see the Defining General InCD Preferences chapter→ 20).
InCD Log	Opens the I**nCD Log** window where the session log automatically created by InCD during the course of work is displayed. You can add and save this log, or parts of it, to other applications using the clipboard.

The following icons are available on the InCD main screen:

Format disc	Opens the **Format** screen with a number of options for setting the formatting for the disc contained in the drive (see the Screen Format chapter→ 23).
Erase Disc	Opens the **Erase** screen, where you can erase the inserted disc with either **Quick** or **Full** erasing (see the Erase Screen chapter→ 27).
Drive Info	Opens the **Drive Information** screen, which provides information on the **device capabilities** of the drive and on the d**isc status** (see the Drive Information Screen chapter→ 30).
Drive options	Opens the **Drive Options** screen, which displays the available options, depending on the disc that has been inserted (see the Drive Options Screen chapter→ 32).

See also:

Keyboard Shortcuts→ 35

4.3 InCD Preferences

Before starting you can define the general behavior of InCD and define how InCD responds when a disc is inserted:
The following setting options are available in the **InCD Preferences** window for this purpose:

General: tab (see the Defining General InCD Preferences chapter→ 20).

Check box **Hide tray icon**	Enables/disables the display of the InCD icon in the system tray.
Check box **Show tray icon area changes permanently**	Enables/disables the permanent display of the InCD icon in a different shape, according to which drive or disc is involved. If the check box is disabled, the shape of the InCD icon only changes temporarily when the status of the drive and/or disc changes.
Check box **Do not show 'Format complete' messages**	Enables/disables display of a message at the end of the formatting process.
Check box **Enable the advanced options**	Enables/disables the advanced formatting options. This box must be checked if you want to select a file system other than the UDF 1 file system used by default.
Check box **Show only the basic event notifications**	Enables/disables the display of only the most important information on events during your work with InCD. This setting is completely adequate in normal mode.
Check box **Keep open dialog box with event notifications**	Enables/disables display of an information area in the bottom right-hand corner of the screen.
Check box **Do not display decorative icons with high contrast**	Enables/disables the high-resolution display of icons on the InCD user interface.
Drop-down menu **Language**	Allows you to select the language that should be used by InCD.

Auto-format tab: (see the Action When an Empty Disc Is Inserted→ 22 chapter)

Option button **Do nothing**	No action is executed when a disc is inserted.
Option button **Auto-format (if possible)**	Starts a quick format when a disc is inserted if this is possible.

Option button **Open format dialog**	Opens the formatting dialog upon insertion of a disc.
Option button **Let InCD decide**	InCD decides which of the three aforementioned options will be selected, based on the recorder and on the inserted disc.

Ejecting write-once discs tab: (see the Defining an Action for When an Open R Disc Is Ejected chapter→ 22)

The **Ejecting write-once discs** tab is not available in InCD 5 Essentials.

Option button **Interactive choice**	Before ejecting a write-once disc (R disc), displays a dialog box that you can use to have the disc ejected either immediately or only when the session is finished.
Option button **Close the last session on the disc before ejecting**	Does not eject the disc before the last session is finished.
Option button **Eject immediately**	Ejects the disc immediately without finishing the last session.

See also:

Defining an Action for When a Disc Is Inserted→ 21

4.3.1 Defining general InCD preferences

To change general InCD preferences, proceed as follows:

1. Start InCD.
2. Click the **More** button.
   → The extended area will open.
3. Click the **Preferences** button.
   → The **InCD Preferences** screen is displayed.
4. Click the **General** tab.
5. Check the **Hide tray** icon box if the InCD icon is not to be displayed in the system tray.
6. Clear the **Permanently show changes in the tray icon** box if you want to indicate status changes in the drive or disc only briefly by means of a change in the InCD icon.
7. Check the **Do not show 'Format complete' messages box** if a message is not to be displayed when the formatting process is finished.
8. Check the **Enable the advanced options** box if both the **File system** drop-down menu is to be displayed in the extended area in the **Format Disc** screen as well as all available options in the **Drive Options** screen.

This box must be checked if you want to use a file system other than the UDF 1.50 file system used by default for formatting for instance.

9. Check the **Show only the basic event notifications** box if you only want to receive the most important information.
10. Check the **Keep open dialog box with event notifications** box if you want the dialog box at the bottom right margin of your screen to be permanently available.
11. Select the language that should be used in InCD from the drop-down menu.
12. Click the **OK** button.
    ➔ You have now defined the general preferences.

4.3.2 Defining an Action for When a Disc Is Inserted

To define the action that should be performed automatically upon insertion of a blank disc, proceed as follows:

1. Start InCD.
2. Click the **More** button.
   ➔ The extended area will open.
3. Click the **Settings** button.
   ➔ The **InCD Preferences** screen is displayed.
4. Click the **Auto-Format** tab.
5. Select the **Do nothing** option button if you do not want any action to take place.
6. Select the **Auto-format (if possible)** option button if InCD should perform automatic formatting if possible from a technical point of view.
7. Select the **Open format dialog** option button if you want to display an appropriate dialog box that provides other actions, in addition to formatting, with InCD.
8. Select the **Let InCD decide** option button if InCD should automatically select the most advantageous of the three aforementioned options for the individual case. If the inserted disc can be formatted automatically, **Auto-format (if possible)** is selected; otherwise, the **Open format dialog** option is selected.

   CD-RW and all R discs cannot be formatted automatically. All other supported discs can only be formatted automatically if the **Auto-format (if possible)** option button is selected on the **Auto-Format** tab in the InCD preferences.
9. Click the **OK** button.
   ➔ You have defined the actions that InCD should perform when a disc is inserted.

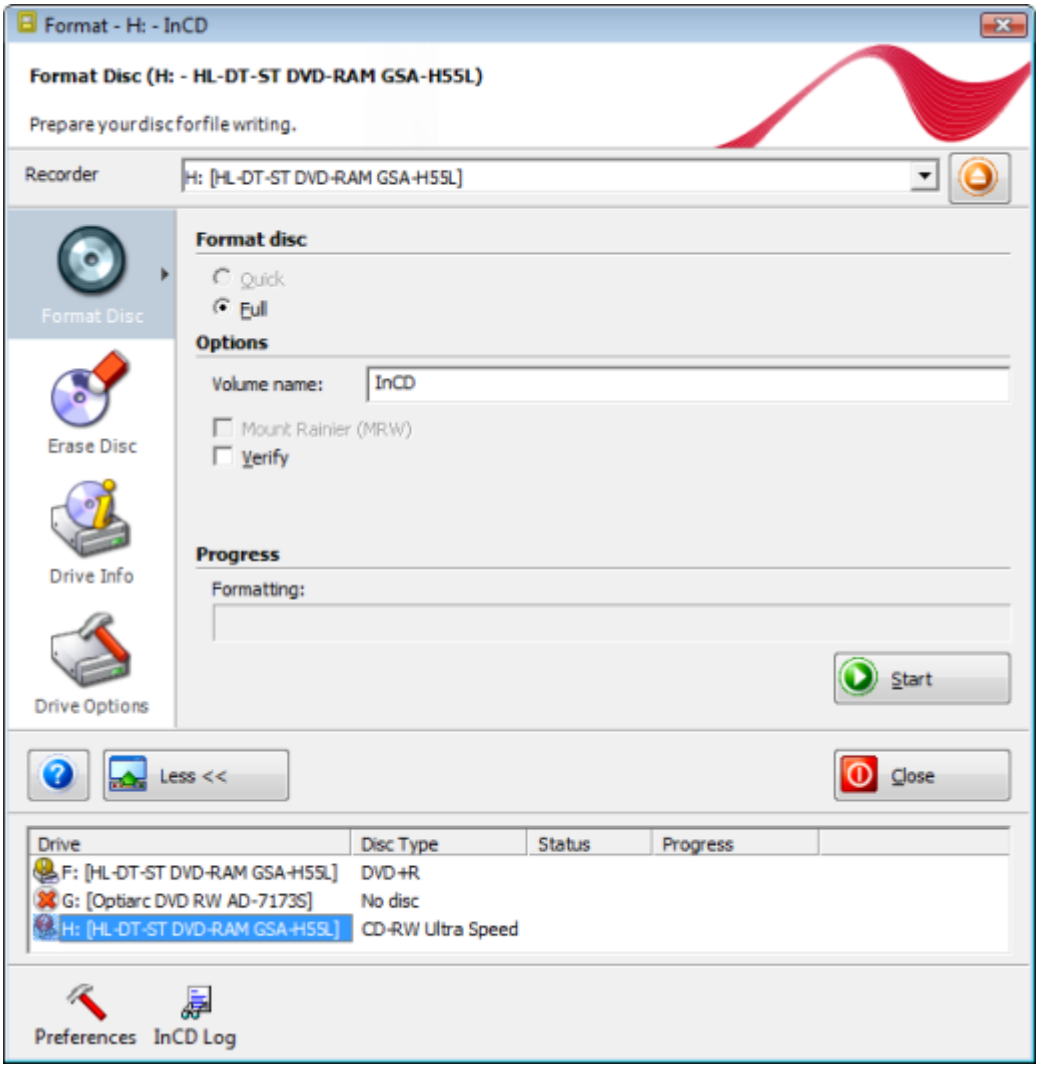
4.3.3 Defining an Action for When an Open R Disc Is Ejected

To define the action that should be performed automatically when an open, write-once disc (R disc) is ejected, proceed as follows:

1. Start InCD.
2. Click the **More** button.
   → The extended area will open.
3. Click the **Settings** button.
   → The **InCD Preferences** screen is displayed.
4. Click the **Ejecting writable discs** tab.
5. Select the **Interactive choice** option button if you want to select whether a write-once disc should be ejected immediately or only after the session is finished.
6. Select the **Close the last session on the disc before ejecting** option button if the disc is not to be ejected before the last session is closed.
7. Select the **Eject immediately** option button if the disc is to be ejected immediately without closing the last session beforehand.
8. Click the **OK** button.
   → You have defined the actions that should be performed automatically before ejecting a rewritable disc.

5 Format Screen

You must format unformatted discs before you can use them with InCD.



Format screen

To do this, the following option buttons and check boxes are available in the **Format** screen:

Quick	Only formats the disc logically, i.e. the data on it is **not** deleted but only the information about the data contained on it. The disc appears blank and its full capacity is available even though the old data is still physically available. This formatting technique is particularly suitable if a disc is already formatted. However, quick formatting is not suitable if the disc contains confidential data because this data can still be restored after formatting. Quick formatting of blank discs is the same as formatting in the background. Completely new discs that have never been formatted can only be formatted fully and not quickly.
Full	During formatting deletes not only the structure of the file system, but clears the entire disc - the old data is then no longer physically available. Select this option if the disc to be formatted contains confidential data.

During formatting, you cannot execute any other commands on the disc being used. If you have installed multiple drives, you can process any discs inserted there simultaneously.

The following check boxes are available:

Mount Rainier (MRW)	Formats the disc in the Mount Rainier format.
Verify	Checks the file system on the disc. Depending on the disc, formatting with verification can take between 30 and 45 minutes, and more in extreme cases. This check box is not available for MRW formatting.
Duplicate Metadata	Offers extra protection for written data as the data information is saved twice. If a sector on the disc is defective, the data can still be read on the basis of the metadata. This check box is only available if you use a disc which was formatted with UDF 2. 50 file system or higher before.

If the **Enable the advanced format** options box has been checked on the **General** tab, the **File system** drop-down list is displayed. You can select the desired UDF format here. The following formats are available:

1.00	for CD-ROM
1.01	first enhancements for DVD

1.02	Standard format for DVD-Video
1.50	Standard format for re-writable data DVDs (DVD-RAM, DVD±RW)
2.00/2.01	Standard format for Video recording
2.50	for BD-RE
2.60	for BD-R

The length of time required to format a disc with InCD will vary depending on the disc:

CD-R **CD-RW**	Ultra speed discs approx. 10 minutes. High speed discs approx. 20 minutes. Low speed discs approx. 40 minutes.
DVD-R **DVD-RW**	Full formatting in 15 (8x DVD) to 90 (1x DVD) minutes. Quick formatting in one to two minutes as long as you can write data to the disc. Full formatting of an already formatted disc takes only one to two minutes.
DVD-RAM **CD+MRW** **DVD+MRW** **DVD+RW** **DVD+R**	The disc is ready to be written to after only one to two minutes of formatting, i.e. data can be saved to the disc while it is being formatted in the background at the same time.
BD-R **BD-RE** **HD-DVD** **HD-DVD-R**	Formatting in less than one minute.

If a disc has already been written to several times, errors may occur during reformatting, which can cause the formatting process to abort. In this case you should fully erase the disc before trying to format it again.

Formatting in the background

Formatting in the background is performed by the drive itself when it is idle, i.e. is not being used for reading or writing. It is interrupted when you access the disc (to read, write or eject) and resumes when the drive is idle again and contains the appropriate disc. This applies also if the computer is shut down while formatting in the background.

5.1 Format disc

To format a disc, proceed as follows:

1. Insert a disc into the recorder.
2. Open the InCD main window.
3. Click the **Format disc** icon.
   → The **Format screen is displayed**.
4. Select the **Quick** option button for quick formatting, which only erases the data structure, or the **Full** option button to also physically remove existing data from the disc.
5. Enter a disc name consisting of a maximum of 15 characters with no blank spaces in the **Volume name** input field.
6. If the Mount Rainier (MRW) check box is available – your recorder can format MRW – check it if the disc is to be formatted in MRW format.
7. Check the **Verify** box if the disc is to be checked for physical errors.
8. If the **Duplicate meta files** check box is available – which means that the disc is to be formatted in UDF 2.50 or higher – check it if you would like to duplicate the metadata for the files as a precaution.
9. Select the required UDF format from the **File system** drop-down list.

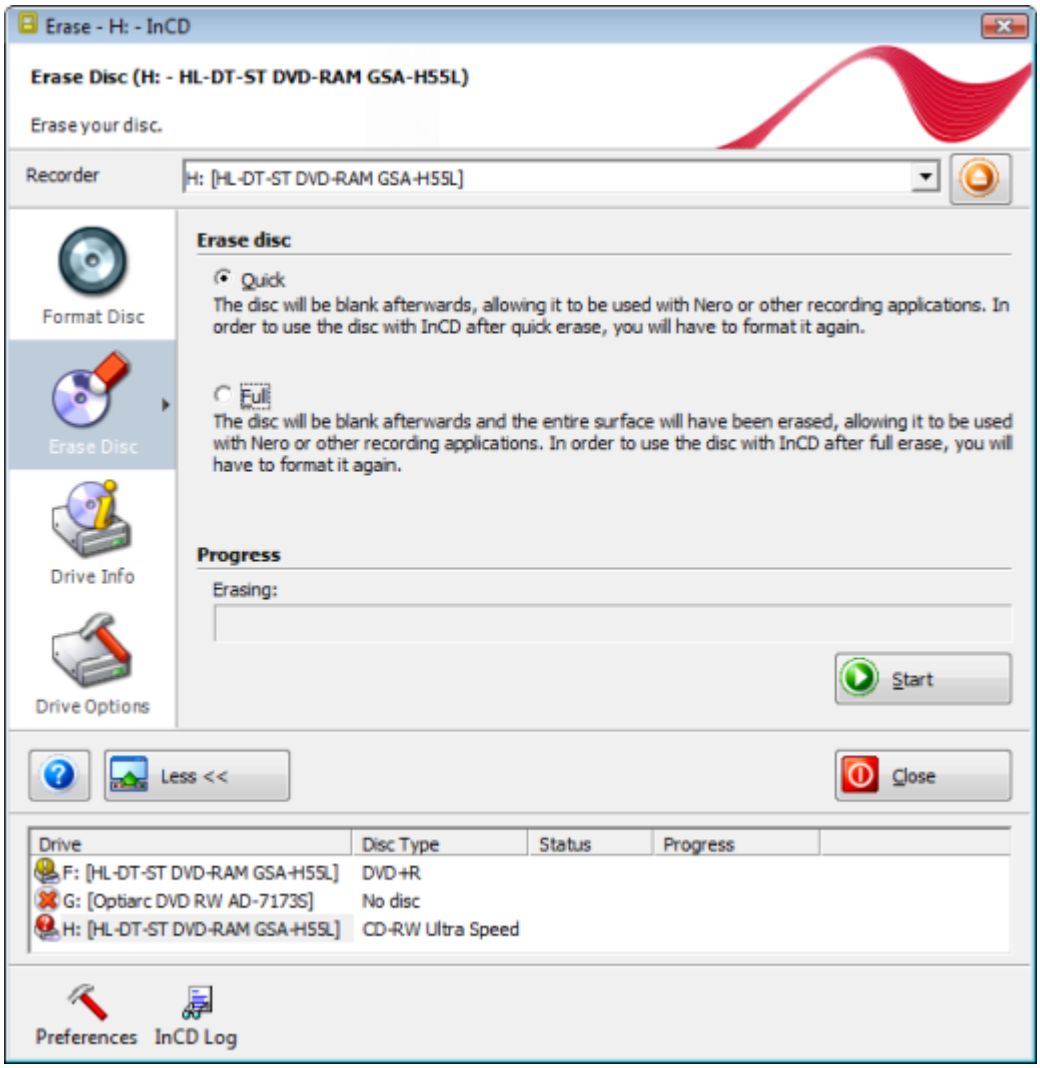
   

   The File system drop-down menu only becomes available if the **Enable the advanced format options** box is checked on the **General** tab in the **InCD Preferences** screen.
10. Click the **Start** button.
    → The formatting process begins, you can follow the progress in the progress bar.
    → As soon as the formatting process has finished, the disc is ejected.

6 Erase Screen

Erasing a disc is not like deleting data from a floppy disk or hard drive, since erasing a disc also removes the formatting - the disc can be re-written.

You can format write-once discs (R discs) with InCD (full version) and then write to them little by little, according to their capacity. You can also delete files, but this does not free up the associated disc space. In contrast to RW/RE discs, it is not possible to reformat and then rewrite this kind of disc with InCD.



Erase Screen

In the **Erase disc** area of the **Erase** screen, you can select between **Quick** and **Full**:

Quick	Only the file system structure is deleted; the disc appears "blank," but the files are still physically present and can be restored.
Full	Not only erases the structure of the file system, but also "zeroes" the entire disc and creates an actual blank disc. The contents cannot be restored with conventional methods. Repeated full erasing increases the probability that third parties will not be able to reconstruct the contents. Select this option if you want to erase confidential data.

If the **Enable the advanced options** check box is enabled on the **General** tab under the InCD preferences, the following check boxes will also be available in the extended area of the screen:

Windows 98/ME compatibility	When erasing a +/-DVD-RAM or BD+RE/BD-RE, this ensures that when it is reinserted into the drive even under Windows 98/ME it will be identified correctly and not as an audio disc.
Consumer electronic devices compatibility	Ensures when erasing a disc that it is still compatible with the consumer electronic device for which it is intended. This check box is especially relevant for certain camcorders that only consider discs as "blank" if they have been completely "zeroed."

The **Windows 98/ME compatibility** and **Consumer electronic devices compatibility** check boxes should only be enabled if an erase procedure has already been performed without these options and Windows 98/Me or the consumer device has not correctly identified the disc as being "blank."

6.1 Disc: Erase

Using InCD you can erase rewritable discs, i.e. discs with the RW specification, as long as your recorder supports this feature. There are two erase methods available:
Quick erasing does not remove the data physically from the disc, but instead only makes it inaccessible by erasing the references to existing content. The data can be restored!

Full erasing removes the data from the disc by overwriting it with zeroes. The contents cannot be restored with conventional methods. Repeated full erasing increases the probability that third parties will not be able to reconstruct the contents.

To erase a disc, proceed as follows:

1. Click the **Erase disc** icon.
   → The **Erase Disc** screen is displayed.
2. Select one of the options **Quick** (erase file system structure) or **Full** (clear entire disc).

Two erase methods are available:

Quick erasing does not remove the data physically from the disc, but instead only makes it inaccessible by erasing the references to existing content. Please note that the data can be restored.

Full erasing removes the data from the disc by overwriting it with zeroes. The contents cannot be restored with conventional methods. Repeated full erasing increases the probability that third parties will not be able to reconstruct the contents.

3. Check the **Windows 98/Me compatibility** box if the disc inserted is to be recognized correctly by Windows 98/ME after erasing (not always as an audio CD).
4. Check the **Consumer electronic devices compatibility** box if the disc inserted should still be available for the electronic device for which it is intended after it has been erased.
5. Click the **Start** button.

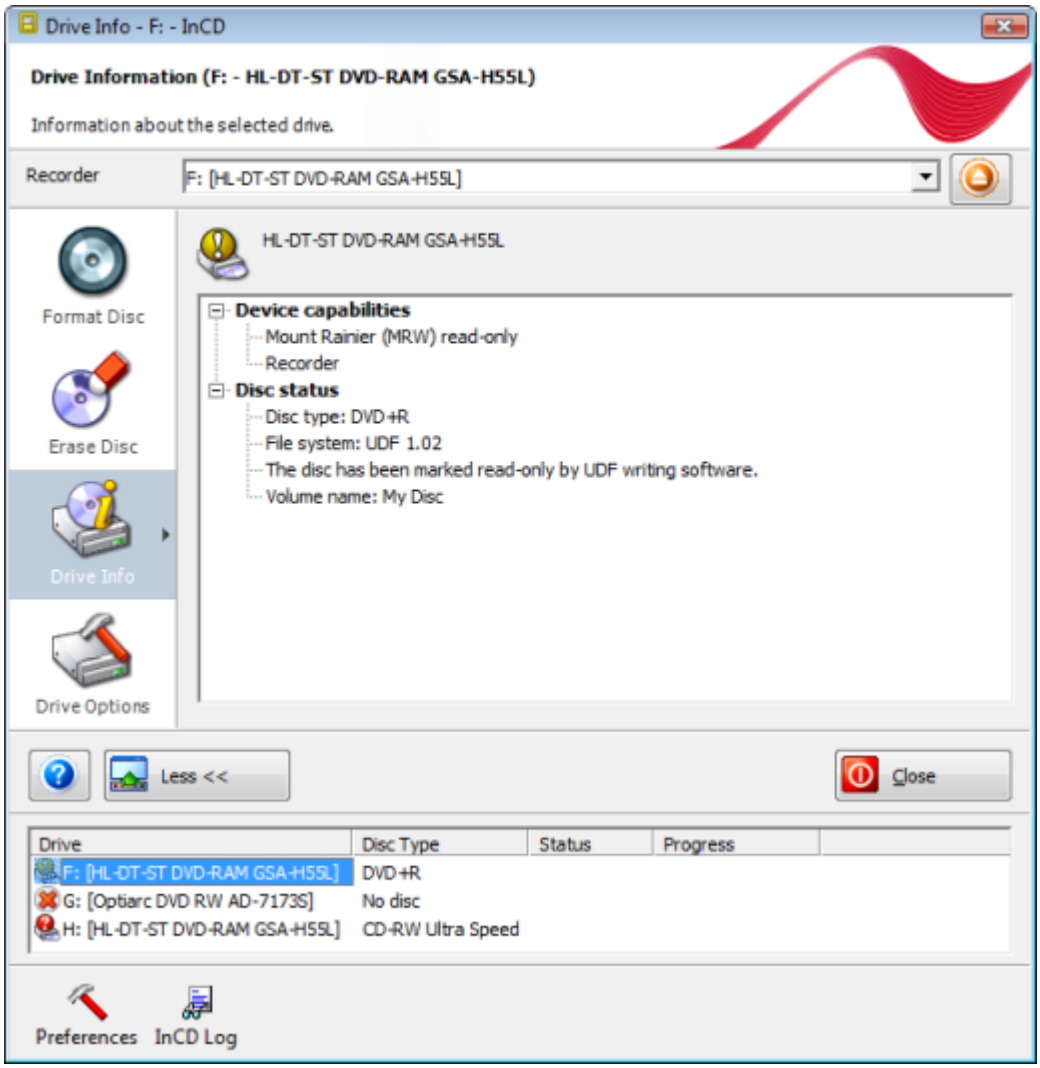
→ The erase process begins, and you can follow the progress in the progress bar.

During formatting, you cannot execute any other commands on the disc being used. If you have installed multiple drives, you can process any discs inserted there simultaneously.

→ As soon as the erase process is finished, the disc is ejected.

7 Drive Information Screen

The **Drive Information** screen provides information on the name and capabilities of the selected drive and of the inserted disc.



Drive Information Screen

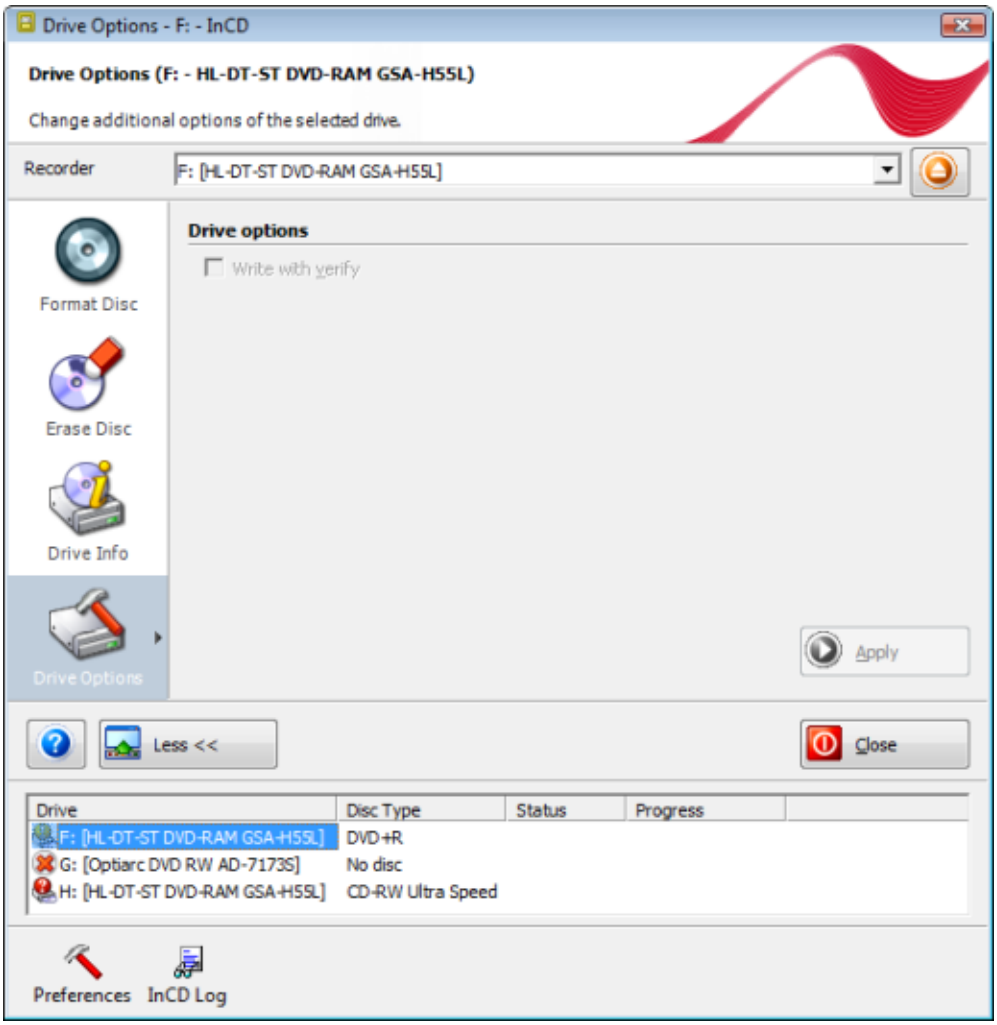
The following information is displayed:

Recorder	Indicates whether the drive has recorder functionality.
Mount Rainier	Indicates if the drive can write and read discs in Mount Rainier format.

DRT-DM	Indicates whether or not the drive supports DRT-DM. This means that defective sectors on a DVD-RW/DVD+RW are skipped when the disc is being written to again. If the burner notices during full formatting or reading that a sector is defective, it stores its position in the BDI memory and can skip this position in real time from now on.
Disc present	Indicates whether a disc has been inserted into the drive.
Blank	Indicates whether this disc has already been written to or not.
Read-only	Indicates whether this disc is write protected.
Duplicate metadata enabled	Indicates whether metadata is duplicated in the memory as a precaution, thus ensuring access to data in defective sectors.
Rewritable	Indicates whether the inserted disc is rewritable.
Auto-formattable	Indicates whether the inserted disc is auto-formattable.

8 Drive Options Screen

In the **Drive Options** screen, the available options are displayed as check boxes, depending on the inserted disc.



Drive Options Screen

The following check boxes are available:

Write with verify	Verifies the user data when writing to the disc.
Write protection	Enables/disables write protection. This check box is only available for DVD-RAM discs that have already been formatted.
Use the Mount Rainier feature for auto-format	Formats discs in Mount Rainier format automatically if the InCDAuto-format (if possible) **option button has been selected on the** Auto-format **tab under** preferences and if doing so is technically possible.

9 Saving Data to a Disc That Was Formatted with InCD

A disc formatted with InCD can be used just like a hard drive or floppy disk. You can simply move, copy, or send files to the disc and save documents from other applications on it .

Proceed as follows:

1. Insert a disc that has been formatted with InCD into the recorder.
2. Select the files from Windows Explorer that you want to move to the InCD disc.
3. Drag the selected files to the drive icon.
   → The files have been stored on the InCD disc.
4. Select the files from Windows Explorer that you want to copy to the InCD disc.
5. In the context menu for the selected files, select the **Copy** option.
6. Click the drive icon.
7. Select the **Paste** option from the context menu for the drive icon.
   → The files have been copied to the InCD disc.
8. Select the files from Windows Explorer that you want to send to the InCD disc.
9. Select the **Send to** > InCD option from the context menu of the selected files.
   → The files have been sent to the InCD disc and stored there.
10. If you want to save documents from an application on the InCD disc, select **File** > **Save As** > **Drive Name**, (e.g. InCD).
    → The documents have been stored on the InCD disc.
    → You have stored the required files on the disc. You can now eject the disc.

10 Erasing Data from a Disc That Was Formatted With InCD

You can also erase data from a disc that was formatted with InCD just as you would on a hard drive. But there is a slight restriction: Although you can delete files from R discs (write-once discs), this does not free up the associated capacity. You can therefore not "overwrite" any files on said discs.
However, this is possible on all RW/RE discs.

To delete data from a disc that was formatted with InCD, proceed as follows:

1. Highlight the required data as usual in Windows Explorer.
2. Open the associated context menu.
3. Select the **Erase** option.
   ➔ The selected data is erased.

11 Keyboard Shortcuts

The following keyboard shortcuts for entering commands are available in InCD:

[Ctrl+F]	Opens the **Format** screen.
[Ctrl+E]	Opens the **Erase** screen.
[Ctrl+I]	Opens the **Drive Information** screen.
[Ctrl+O]	Opens the **Drive Options** screen.
[Page Up]	Opens the previous screen of the main window.
[Page Down]	Opens the next screen of the main window.
[Ctrl+K]	Opens the **Keyboard Shortcuts** dialog box.
[Ctrl+X]	Opens/closes the drive tray.
[Ctrl+M]	Displays or hides the extended area of the InCD main window.
[Ctrl+L]	Opens the **InCD Log** window.
[Ctrl+P]	Opens the **InCD Preferences** window.
[Ctrl+R]	Displays the list of all available drives.
[Ctrl+Q]	Closes the InCD main window.
[Ctrl+T]	Displays the tray menu.
[Ctrl+A]	Performs the action of the currently displayed screen.
[Ctrl+S]	Performs the action of the currently displayed screen.
[F1]	Shows the Help file.
[Ctrl+F1]	Opens the **About InCD** dialog box.

12 Technical Information

12.1 System requirements

12.1.1 Operating Systems

Operating systems:

- Windows 2000
- Windows XP
- Windows 2003 Server
- Windows Vista

12.1.2 Hardware

CD/DVD recorder that supports write-once and rewritable discs (MMC compliant, multiread RW recorders, recorders supporting MRW (Mt Rainier)).

The majority of drives that support the Mount Rainier feature are labeled "EasyWrite." EasyWrite is a registered trademark of Philips.

12.1.3 Packet-writing Software

InCD can work with discs that have been formatted with other packet-writing applications, but it is incompatible with other packet-writing software, which means that you will need to uninstall any other packet-writing software before installing InCD. Before the installation starts, InCD checks the installed applications and exits the setup procedure if it finds another packet-writing program. A dialog box will make you aware of this.

12.1.4 Discs supported

InCDFull version: Writable and re-writable discs
CD-R, CD-RW, DVD±R, DVD±RW, DVD-RAM, BD-R, BD-RE, HD-DVD-R, HD DVD-RAM

InCD Essentials: Re-writable discs

CD-RW, DVD±RW, BD-RE

You can format write-once discs (R discs) with InCD (full version) and then write to them little by little, according to their capacity. You can also delete files, but this does not free up the associated disc space. In contrast to RW/RE discs, it is not possible to reformat and then rewrite this kind of disc with InCD.

A DVD-RAM can contain different types of write protection (cartridge, media-specific write protection, etc.). If the disc has this kind of write protection, it will have to be removed. Otherwise it will not be possible to write to, delete or format the disc.

12.1.5 Disc formats supported

CD-MRW, DVD+MRW (standard CD-RWs or -DVD+RWs that have been formatted as MRW (Mount Rainier reWrite) on a recorder with Mount Rainier support)

If you would like to **read** (not create) MRW discs in drives that do not support the disc format MRW, you will require what is referred to as a remapper, the InCD Reader. This is not installed with ; you can download it free of charge from www.nero.com.

13 Glossary

BD-R
The BD Recordable write-once data carrier is based on Blu-ray technology and can be obtained in single layer format with 23.3, 25, or 27 GB or in double layer format with 46.6, 50, or 54 GB.

BD-RE
The BD-Rewritable data carrier is based on Blu-ray technology and can be obtained in single layer format with 23.3 or 25 GB or in double layer format with 46.6 or 50 GB. In comparison to the DVD-/+RW, the BD-RE can be re-written more times and provides increased data integrity.

CD-R
Compact Disc-Recordable is a technology for write-once media. The Orange Book standard defines the storage of audio data and other computer-readable data.

CD-ROM
A Compact Disc-Read Only Memory contains various computer-readable types of data, such as programs, image data and audio data, that can be stored in this format. The Yellow Book standard defines the recording method, according to which each sector must be individually addressable.

CD-RW
Compact Disc-ReWritable is a technology for rewritable media.

DRT-DM
With Distributed Real-Time Defect Management, defective sectors on a disc are skipped in real time during a rewriting procedure. This feature must be supported by the drive.

DVD
The Digital Versatile Disc is the optical data carrier successor of the CD. A DVD is a circular plastic disc with a diameter of 12 cm, but it can store a significantly larger amount of data. A DVD can be written to in two layer per page. The standard size is the DVD-5, which features an actual storage capacity of 4.38 GB - double-sided and double layer DVD's can store up to 18 GB. The collective term DVD often mixes disc and disc format: Disc means the physical medium, e.g., a DVD+RW, a rewritable DVD. Multimedia content is stored on the disc in a defined disc format, e.g. DVD+VR, which also defines which features, e.g. subtitles, are available. MPEG-2 is the video codec most commonly used.

DVD+R(W)
DVD+ReWritable is a format of rewritable media that was developed jointly by Dell, Hewlett-Packard, Mitsubishi Chemical, Philips, Ricoh, Sony, Thomson and Yamaha. It is fully and directly compatible with DVD players and DVD-ROM drives.

DVD-R(W)

DVD+/-ReWritable is a rewritable media format. It is fully and directly compatible with DVD players and DVD-ROM drives.

DVD-RAM

Digital Versatile Disc Random Access Memory is the first rewritable data carrier format developed. It is characterized by its sectoring, which makes it possible to achieve increased data integrity, quicker formatting, and improved error management in comparison to DVD+/-RW.

DVD-RAM

Digital Versatile Disc Random Access Memory is the first rewritable data carrier format developed. It is characterized by a distribution of sectors that makes it possible to achieve increased data integrity, quicker formatting, and improved error management in comparison to DVD+/-RW.

DVD-Video

The DVD-Video disc format uses the MPEG-2 video codec for compressing video files onto a DVD. This compression allows a 4.38 GB DVD-R/-RW/+R/+RW to hold up to 135 minutes of video with significantly higher quality than that achieved with a VHS video or with a video CD. The disc can be played on most DVD players, which means, for example, that you can store home videos with very high quality. Computer DVD drives with appropriate software can also play DVD-Video. A DVD-DL disc (DL = double layer) doubles the storage capacity of a disc and, as a result, the space for a DVD-Video.

HD DVD

High Density DVD is a disc format. Corresponding drives use a blue-violet laser in order to read and write data and can also play back conventional DVD's. . The shorter wavelength (405 nm) of this blue laser makes it possible to position the laser with greater accuracy. Data can be written in a more compact manner and takes up less space on the disc. An HD DVD can store up to 15 GB on a single layer disc and up to 30 GB on a dual layer disc. HD discs are available as HD DVD-R, HD DVD-RW and HD DVD-RAM.

HD DVD-RAM

Digital Versatile Disc Random Access Memory is the first rewritable data carrier format developed and now exists as an HD successor. It is characterized by a distribution of sectors that makes it possible to achieve increased data integrity, quicker formatting, and improved error management in comparison to DVD+/-RW. The capacity is 20 GB for single layer discs and 32 GB for dual layer discs.

MRW

The Mount Rainier Rewrite format is an industry standard that must be supported by the drive. The operating system detects a re-written medium in an MRW drive as an unused, fault-free, block-addressable storage location which it can use as a hard disk or floppy disk and can format. This means that any file system (e.g. FAT32 or NTFS) can be used.

MRW

The Mount Rainier Rewrite format is an industry standard that must be supported by the drive. The operating system detects a re-written medium in an MRW drive as an unused, fault-free, block-addressable storage location which it can use as a hard disk or floppy disk and can format. This means that any file system (e.g. FAT32 or NTFS) can be used.

Packet-writing

Packet-writing refers to a procedure for writing to optical media incrementally. An optical medium, e.g. a DVD, can be used as a hard drive as a result. This way, files can be copied, moved, changed, or erased on the respective optical medium.

Remapper

In order to read discs in Mount Rainier format on drives which do not support this format (CD-MRW/DVD+MRW), you need a remapper, which is automatically installed as part of the InCD installation process.

SecurDisc

SecurDisc refers to a security technology that protects data carriers from unauthorized access and duplication. SecurDisc can only be burned and password protected with a SecurDisc drive. Access with other drives is only possible to a limited extent. The following disc formats are supported, although without the copy protection feature: DVD+R(W), DVD+-R DL, DVD-RAM and CD-R(W).

UDF

The Universal Disk Format is a platform-independent file system used for DVD's, Blu-ray discs, and HD-DVD's. File names can be up to 255 characters long; 8 and 16 bit character sets are supported.

UDF

The Universal Disc Format is a platform-independent file system. File names can be up to 255 characters long; 8 and 16 bit character sets are supported.

14 Index

U

W

15 Contact

InCD is a Nero AG product.

Nero AG

Im Stoeckmaedle 13-15
76307 Karlsbad
Germany

Internet: www.nero.com
Help: http://support.nero.com
Fax: +49 724 892 8499

Nero Inc.

330 N Brand Blvd Suite 800
Glendale, CA 91203-2335
USA

Internet: www.nero.com
Help: http://support.nero.com
Fax: (818) 956 7094
E-mail: US-CustomerSupport@nero.com

Nero KK

Rover Center-kita 8F-B, 1-2-2
Nakagawa-chuou Tsuzuki-ku
Yokohama, Kanagawa
Japan 224-0003

Internet: www.nero.com
Help: http://support.nero.com