

CD InScriptOr

Reference manual

Anodyne Software

FIFTH EDITION

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This manual applies to version 4.11 of CD InScriptOr.
Original version of manual made 100% on Atari with
Papyrus GOLD and ImageCopy.

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CD InScriptOr Developers

Claude Labelle and Roger Burrows

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Requirements

What you need:

- ☞ Atari ST, MegaST, STe, MegaSTe, Falcon030 or TT030 or faster Atari-compatible. Supported Operating Systems: TOS 1.4 and above, MagiC, MiNT and Geneva. Memory required: 4 MB or more (larger filesystems may require up to 16 MB).
- ☞ ExtenDOS 4 (DVD/CD driver software by Anodyne Software).
- ☞ a compatible DVD/CD recording device (please refer to the ExtenDOS 4 documentation for a list of currently supported DVD/CD Recorders and how to connect them to your computer).
- ☞ blank discs suitable for your recording device:
 - CD-R (CD-Recordable)
 - CD-RW (CD-ReWritable)
 - DVD-RW (DVD Re-Recordable)
 - DVD-R (DVD Recordable)
 - DVD + R (DVD Recordable)

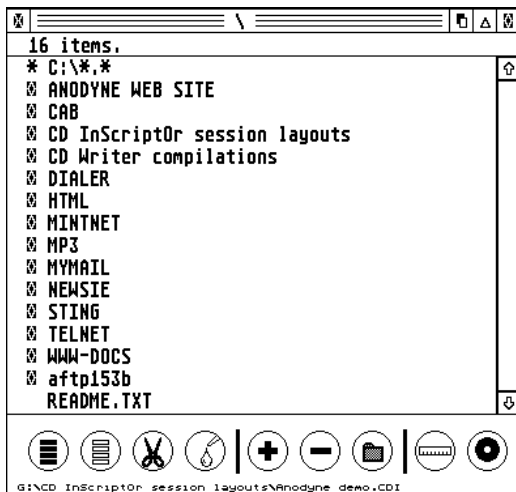
For simplicity, in this manual we use the term **disc** to designate any of the above types of discs. Note that DVD+RW, DVD-RAM and double-layer (DL) discs are not supported.

- ☞ a large hard disk drive partition to hold the temporary image file. The image file holds the files and folders to be written to a disc, in one session. An image file of approximately 700 MB is required to fill an 80 minute CD. The maximum supported session size is 2 GB, which will only partially fill a DVD. However, since CD InScriptOr supports multiple sessions, you do not need to fill the entire disc at one time.

Overview

When it starts up, CD InScriptOr automatically opens a new Session window, as shown here.

This window is used to list the folders and files that you want to write to a disc. This list can be saved in a session (.CDI) file so that you can use exactly the same list at a later date. See the *Session window* section to explore its features.



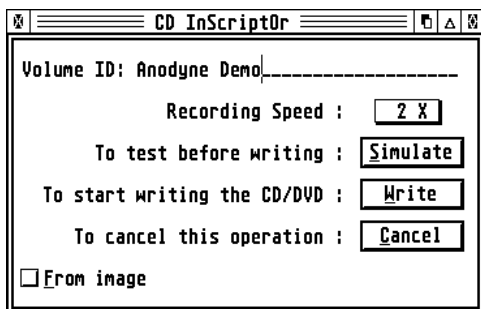
Once you are satisfied with the contents of your session and wish to write it to a disc, choose the **Write...** item from the **CD/DVD** menu or click the CD/DVD icon. This will open the Write dialog box. See the *Write dialog box* section below.

You can write multiple sessions to the same disc, until it's full. Creating a multi-session disc is simply a matter of writing to a disc that was already written to. By default, CD InScriptOr is set up so that the operating system will see all the files of all the sessions on a disc. If a file to be written already exists in a previous session, it will be re-written only if it changed.

You can set and save various preferences via the **Options** menu. The most commonly-used options are found in the General Options window; other options are in the Advanced Options window. The Drive Options window allows you to specify which of your disk drives should be used as the Image drive, and (if you have more than one recorder) which recorder to use. The Exclusion Options window specifies files and folders you want to exclude from a session. These options are explained in detail later in this manual.

Write dialog box

The Write dialog box is opened by clicking on the CD/DVD icon in the Session window, by pressing **Control-W** on the keyboard or from the **CD/DVD** menu by choosing the **Write...** item.



When the Write dialog box is displayed, and you are ready to write, insert a disc in the recorder device.

Volume ID

Type a name for your session. The name, referred to as the Volume ID or label, is often used by desktops for display below of drive icons. Valid characters are letters, numbers and the space character. Spaces will be replaced by underscores (_) on the disc.

From image file

Instead of creating a disc from the current session window, you can write the disc from an existing image file. Clicking on the **From image** checkbox will bring the file selector, allowing you to choose an image file with the ISO extension. Long filenames are supported. By default, the file selector is set to your image drive. After selecting an image file, the filename and size in MB is displayed next to the checkbox. To write from an image file, you must use a blank disc.

Speed

Allows you to select the desired speed. The speeds displayed are adjusted according to the type of disc inserted. The controls will be dimmed if no disc is inserted, or if that type of disc is not supported (for example, if you insert a DVD+RW). The speed

can also be selected in the General Options window, which also allows the selected speed to be saved.

Please note that the same value (e.g. 1X) does not have the same transfer rate for CDs and DVDs; in fact, writing to a DVD at 1 X requires a data transfer rate approximately nine times that needed for writing to a CD at 1X.

If you've never created a disc with CD InScriptOr, or if you have changed your hardware setup, you will need to experiment to find the maximum speed at which you can record. A good way to find out is to select the fastest speed of your CD Recorder first. Do not use a DVD+R for this test. If Burnproof is available, turn it off (see the *Drive Options* section). Then try simulating. If it fails, select the next fastest speed, and so on. Once you have established your optimum speed, turn Burnproof back on if available. If simulating at the slowest speed fails, your optimum speed is the slowest speed and Burnproof must be used.

Simulate

We advise you to perform a simulation, before trying to write, if:

- ☞ you are writing a disc for the first time with CD InScriptOr;
- or
- ☞ you are using a faster recording speed than you have used successfully before;
- or
- ☞ you have changed your image drive.

Simulation does exactly the same as a real write, except that it does not actually turn the laser on to write to the disc. If there's something wrong in your setup, simulate allows you to find this out without wasting a blank recordable disc or having to erase a badly-formatted rewritable disc.

Simulation is not supported by the DVD+R format. When a DVD+R disc is loaded, the **Simulate** button will be dimmed.

Note: if an error occurs during a real write to a CD-R, DVD+R or DVD-R, it will almost certainly be only useful as a frisbee or coaster, so if you have any concerns, simulate first!

To simulate, click the **Simulate** button. You will be prompted if you wish to write the disc after a successful simulation. CD InScriptOr will then automatically do the following:

1. Create a new image file (IMAGE.ISO) from the files and folders specified in the current session window (this file will also refer to the files and folders in the previous session on the disc, if applicable). Scanning dialogs will be displayed while scanning the files in the current session window (and while scanning the previous session, if applicable). You can press the **Esc** key while scanning to abort the entire write process.
2. Simulate writing to the disc. When simulation starts, the mouse pointer will change to a writing hand and all dialogs and multitasking will be suspended. This is to ensure that the writing process is not disturbed, essential for a successful write simulation. The 'recording' light on most models of recorders will flash to indicate simulation.
3. When the simulated write has completed, a simulated finalization phase will occur; this can take several minutes, particularly at a slow recording speed. After finalization is complete, the disc will be ejected. You can press the **Esc** key during the simulation to skip the finalization phase and end the process.
4. If simulation was successful, and you have chosen to write to the disc after simulation, CD InScriptOr will then eject the disc, re-load it and write to it. The writing process is as described under Write below.

Write

Click the **Write** button to write to the disc. CD InScriptOr will then automatically do the following:

1. Start a real write to the disc. The mouse pointer will change to a writing hand and all dialogs and multitasking will be

suspended. This is to ensure that the writing process is not disturbed, essential for a successful write. The 'recording' light on most models of recorders will remain steady.

2. When the write has completed, a finalization phase will occur; this can take several minutes, particularly at a slow recording speed.
3. When the finalization completes successfully, you will get a message indicating that the disc is ready for use, and CD InScriptOr will eject the disc.

You can now load the disc into a recorder or CD/DVD drive, on your Atari system or another platform and access the files and folders on it, in the same way as a 'stamped' data disc. However, note that the drive you use must be capable of reading the physical type of disc. For example, many CD-ROM and CD-R drives cannot read CD-RW disks, due to the difference in reflectivity of the disks themselves. In contrast, CD-R disks are readable on almost all drives except very early CD-ROM drives.

Tip: If your recorder supports Burnproof technology, use it to prevent recording errors. See the *Drive Options* section for details on how to verify that your recorder supports it and how to set it.

Cancel

Click the **Cancel** button to exit the dialog.

Troubleshooting errors

Try ejecting the disc and re-inserting it, then repeat the write or simulate. If an error occurs again, try reducing the recording speed, and try again. If this works, your system (computer, hard disk drive and/or recorder) is not fast enough for the recording speed you originally chose. This could also be caused by a badly fragmented image drive partition, in which case you will need to defragment it through one of the usual techniques.

Another possible cause for errors is a bad disc blank disc; this is more common for DVDs than CDs: try another brand of disc.

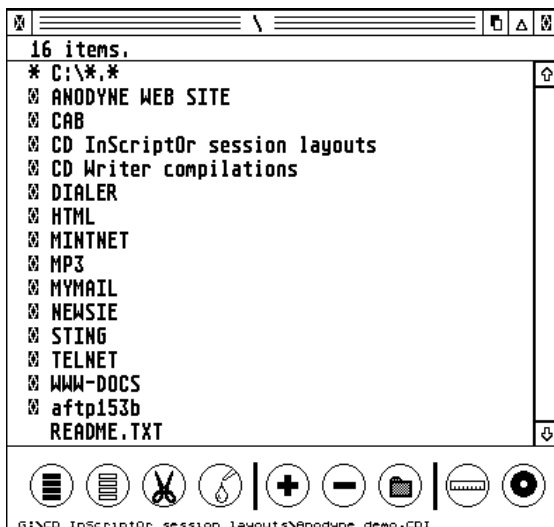
If MKISOFS.PRG, the program that creates the ISO9660 file system, crashes or reports a "stack space exhausted" error, increase the stack space value in the Advanced Options window.

Session window

The Session window is used for building a session. A session is composed of files, folders and paths. These are called items.

The title bar displays the current disc path; that is, the items displayed will be contained within that path when it is written to the disc. A backslash (\) on its own indicates that the items displayed will be written to the root of the disc.

The toolbar contains nine buttons for easy access to the most common tasks.



The text below the toolbar is the filename of the current session layout.

The top right gadget of the window reduces the size of the window so that only the title bar is showing. The gadgets beside appear on some systems only (MagiC shown).

The status bar normally displays the number of items in the current disc path. If you select one item, it displays its hard disk path (the source path). If you select more than one item, it displays the number of selected items.

You can scroll the window up and down using the up/down arrows on the keyboard or those in the window.

Adding items

If you have a system that supports drag and drop, you can drag files and folders from the desktop onto the session window. Long filenames are supported. Symbolic links are also supported. They are identified with a lower-case 'l' character in the session window.

Alternatively, you can add items by clicking on the plus icon (at the bottom of the session window), by choosing the **Add...** item under the **Edit** menu, or by pressing **Control-+** on the keyboard. This action will bring up the File Selector. Select a file or folder in the file selector and click **OK** to add the selected file or folder (and its contents) to the session. If you have a replacement File Selector that supports the Selectric/Boxkite interface, you can select multiple items at the same time by holding the **Shift** key while clicking on items.

If no item is selected in the File Selector, the current path is added. If the current path is a folder, the folder is created. For example, if the current path in the File Selector is C:\, and no item is selected, C:*.* is added to the session. This specifies that the entire contents of C are to be written to CD. As another example, if the current path is C:\AUTO, a folder AUTO is created in the session window, and it and all of the contents of C:\AUTO will be written to the disc.

You can change the default behaviour of the File Selector, when no item is selected, and the current path is a folder (not the root). You can choose to create the folder, or merely add its contents to the current disc path. See the *General Options* section for setting this option.

Showing files already on a disc

You can choose to see the folders and files that are already on the disc, i.e. those that were written in a previous CD InScriptOr session. This is particularly useful when you want to add files or folders within existing folders on the disc, or use the folder structure for new discs.

To use this feature, insert a disc with files already on it (from a previous CD InScriptOr session) and then click **Show files** from the **CD/DVD** menu. The contents of the disc are shown. If the disc contains folders, you may open them. Note the checkmark beside each item: it indicates that the file is currently on the disc, and that you can't delete it. A checkmark is also displayed beside **Show files** in the **CD/DVD** menu. You can click on **Show files** again to remove the checkmarks beside the items. You won't see the files but the folder structure is kept. Click **Show files** again to see the files.

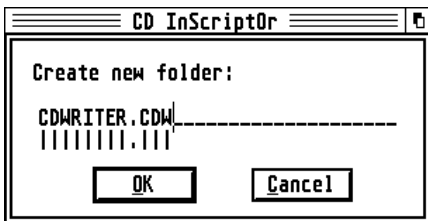
You can save the disc's folder structure as a session file (.CDI), so you can use it for new discs.

Navigating in the session

Double-click on a folder to open it. You will see the title bar disc path change. You can add more items to this path if you want. To go up one level, click the Closer gadget (at the top left corner of the window). Clicking on the Closer when you are at root will close the session. If you haven't saved the session, you'll be prompted to save it at that time.

Creating new folders

You can create folders in your disc session that do not exist on your hard disk. This can be useful for organising the root of your



disc. To create a new folder, click the Folder icon, or choose the item **New folder...** from the **Edit** menu, or press **Control-F** on the keyboard.

A new dialog box will open, where you can enter the name of the new folder. Note that you can use long filenames and uppercase / lowercase characters. The vertical bars beneath the name indicate the limits of the standard TOS "8+3" filename format.

Selecting or deselecting items

Clicking on an item selects/deselects it. You can select many items in one operation by holding the mouse button down, while moving the mouse up or down.

If you wish to select all items in the currently displayed window, click the icon with four black horizontal bars, or choose the item **Select All** from the **Edit** menu, or press **Control-A** on the keyboard. Likewise, to deselect all items in the currently displayed window, click the icon with four white horizontal bars, or choose the item **Select None** from the **Edit** menu, or press **Control-Z** on the keyboard.

Removing items

First, select the items that you want to remove from the session. Then click the minus button, or choose the **Remove** item from the **Edit** menu, or press **Control--** on the keyboard. You can press the **Undo** key to undo a remove if you made a mistake.

Renaming items

You can rename items of type folder or file. You can only rename one item at a time.

To use this function, first select a single folder or file item in the session window. Then choose the **Rename...** item under the **Edit** menu, or press **Control-R**. A dialog box will open, where you can enter the new name.

Moving items (Cut and Paste)

You can move items to another location in your session. Select the items to move, then click the Scissors icon, or choose the **Cut** item under the **Edit** menu, or press **Control-X** on the keyboard. Then navigate in your session to the location you want, and click the Paste icon, or choose the **Paste** item under the **Edit** menu, or press **Control-V** on the keyboard.

Calculating the session size

To calculate and display the actual size that the session will occupy on the disc, click the Ruler icon, or choose **Display size** from the **Session** menu. An external program (MKISOFS.PRГ) will automatically run to perform this calculation. Since this requires examining the directory information for every file and folder to be written, this may take some time.

The following factors will influence the size of the session:

- ☞ Type of disc
- ☞ ISO9660 options chosen (see *General Options* section)
- ☞ Additional Systems chosen (see *General Options* section)
- ☞ Contents of previous sessions on the disc
- ☞ Contents of wildcard (*.*) paths

If CD InScriptOr detects a disc in the recorder, it will assume that you want to eventually write to that disc. By default, the files you have specified in your session will be merged with the most recent session on that disc; therefore, MKISOFS.PRГ will read the previous session in order to determine which files to write. If a file to be written is identical to one that already exists on the disc, it will not be written in the new session, and therefore its size will not be included in the session size.

If no disc is detected, the displayed size will be for an empty disc, and will include the space for all specified files and folders.

In either case, since the session size reflects the actual space that will be occupied on the disc, it will include the "session overhead". For CD-R and CD-RW, this is approximately 22 MB between the first and second session, and 13 MB between

subsequent sessions. The overhead between sessions can be much larger on DVD-R(W) disks. This means that you may see a large second session size



reported by CDISO, even if your files don't occupy a lot of space.

In addition to the session size, the free space that would remain after a write is reported, so that you know how much more data can be added before filling the disc.

If the session size exceeds the disc capacity, you will be notified with a message indicating by how much, see example below. You will need to remove items or use a disc with more available space.



After you click **OK** in the dialog where the size is displayed, a window Name changes may open. See the *Automatic renaming* topic below for more details on this window.

If you close the Name changes window, but wish to reopen it later, choose the **View name changes** item from the **Session** menu. It will display the name changes from the most recent **Display size** or **Write...** action.

Automatic renaming

CD InScriptOr will automatically change those file and folder names on the disc that do not conform to the ISO9660 options that you have set. To find out what the new names will be, without writing the disc, click the Ruler icon, or choose the **Display size** item under the **CD/DVD** menu. This action will calculate the session size, as described above, but will also open a window titled Name changes. In this window, you can see which of your files will be renamed, and to what. The automatic renaming depends on the options that you set in the General Options window.

There are three reasons that files or folders are renamed; the reason is listed before the name of the file, as follows:

Translated: The original name was changed to a new name to conform to the options that you chose. **Translated (I)** indicates that the translation was required for basic ISO9660. **Translated (J)** indicates that the translation was required for the Joliet

extension information. If translation is required for both ISO9660 and Joliet, there will be one line for each.

Modified: The name that would be written to the disc is the same as another file/folder in the same folder. This can happen as a result of name translations. One of the names will be changed: CD InScriptOr tries to minimise the changes, and to change the "least important" name. **Modified (I)** indicates that the change was required for basic ISO9660. **Modified (J)** indicates that the change was required for the Joliet extension information. If modification is required for both ISO9660 and Joliet, there will be one line for each.

Relocated: The file/folder was over eight levels deep in the directory structure, and has been moved to a special directory called RR_MOVED in the root of the disc. Relocation will not take place if you set the option **Allow more than 8 folders deep** in the General Options window.

Verifying items

At any time you can verify if the items in your session still exist by choosing the item **Verify files** under the **Session** menu. You may wish to do this if you open a session that was saved some time ago, and you have reorganised your hard disk since. However, it is never necessary to do this, since CD InScriptOr automatically performs a validation before writing.

If an item is not accessible, an alert will be displayed indicating the inaccessible item.

Writing to the disc

Until you get familiar with the automatic renaming and size requirements, we recommend that you use the **Display size** function (explained above) before writing to the disc. This function will tell you how much space will be used, and what files will be renamed and to what, so that you will not be surprised by the results after the disc is written.

When you're ready to write to a disc, click the CD/DVD icon or choose the **Write...** item from the **CD/DVD** menu. A new

dialog window will open. See the *Write dialog box* section for instructions on its usage.

Session file management

The following options are available from the **File** menu:

To save the current session, choose **Save**. In the file selector box, type in a name for your session. The default extension .CDI is used to identify CD InScriptOr sessions.

To open a session, choose **Open . . .**

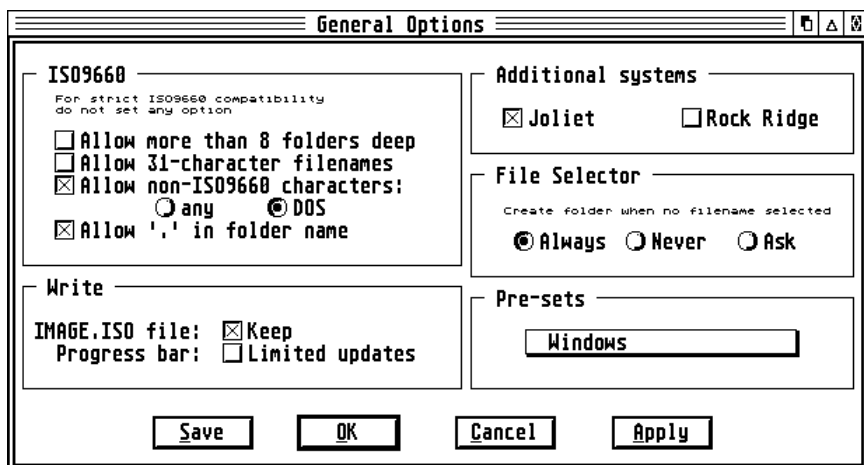
To save the current session under a different name, choose **Save as . . .**

To close the current session, choose **Close** or click the Close gadget at the upper left corner of the session window, when at the root (as indicated with a backslash '\' in the window title bar).

To start a new session, choose **New**.

General Options

Choose the **General . . .** item from the **Options** menu to access the General Options window, as shown below.



The options in this window are described on the following pages. After making changes, you can click on these four buttons:

Save: Saves your preferences to disk in file CDISO.INF, in the same folder as CDISO.PRG. This file is read every time you start CD InScriptOr. Your active preferences are not changed.

OK: Sets your active preferences.

Cancel: Cancels any changes made.

Apply: Same as **OK**, but the dialog remains open.

ISO9660

The ISO9660 specification is more restrictive than most operating systems with regard to filesystem names and structure. This means that creating a strict ISO9660 disc even on a plain TOS system will normally require some changes to file and folder names. Fortunately, drivers that read ISO9660 discs (including ExtenDOS 4) usually do not require strict adherence to the standard in order to access the disc. Therefore, this section allows you to specify the most useful deviations from the standard, and thereby reduce the number of name changes required.

Allow more than 8 folders deep: If this box is checked, there is no limit to the nesting of folders on the disc. If it is not checked, the maximum depth is eight folders, and if the session definition contains deeper nesting, such folders will be stored in the root of the disc within a special folder RR_MOVED. Any files or folders moved will be listed in the Name changes window as Relocated.

Allow 31-character filenames: If this box is checked, the maximum length of file/folder names is 31 characters; otherwise the maximum length of filenames is governed by the standard TOS 8+3 format, and the maximum length of folder names is 8 (or 8+3 if **Allow '.' in folder names** is checked). Any file or folder names changed because of these rules (except for

changing lower to upper case) will be listed in the Name changes window as Translated.

Note: Long ISO9660 filenames are often not supported by ISO9660 drivers, since both the Joliet and Rock Ridge extensions allow long filenames as well as other features. Therefore if you wish to store long filenames on a disc, it is normally preferable to select Joliet and/or Rock Ridge, as long as the driver on the receiving system supports them. ExtenDOS 4 supports both Joliet and Rock Ridge.

Allow non-ISO9660 characters: if this box is not checked, only the following characters are allowed in file and folder names:

A thru Z, 0 thru 9, _ (underscore)

Lower case characters (a-z) are translated to upper case (A-Z). If this box is checked, the radio buttons on the next line control the range of non-ISO9660 characters that are allowed. The **DOS** button allows the following additional characters:

! # \$ % & ' () - @ ^ ` ~

The **any** button allows any characters at all. Any file or folder names changed because of these rules will be listed in the Name changes window as **Translated**.

Allow '.' in folder names: if this box is checked, folder names are allowed to contain a period; otherwise they are not. If this box is not checked, any folder with a period in its name will be stored on the disc with a changed name that does not contain a period. Any such folders will be listed in the Name changes window as **Translated**.

Write

IMAGE.ISO file: Keep: When this box is selected, the image file, IMAGE.ISO, will not be deleted after a simulation or a write. If you wish to create multiple discs that are exactly the same, select this check box, write or simulate one disc to create the image file, then use the **From image...** item in the Write dialog box to create subsequent discs. Another way to create an

image file is to use the **Make image file...** item under the **Session** menu.

Progress bar: Limited updates: When this box is selected, the screen will not be updated during writing. In some circumstances, this may allow a successful write at a higher speed, but it is not normally necessary.

Additional systems

All discs created by CD InScriptOr are ISO9660 discs. However, in addition to creating an ISO9660 filesystem, CD InScriptOr can also create the information required by either or both of the two major ISO9660 extensions: Joliet and Rock Ridge. These extensions were invented to address perceived deficiencies in the original ISO9660 standard.

Rock Ridge was created by a group of Unix-related companies to allow the same kind of information to be stored on a disc as is stored in a Unix file system; Joliet was originated by Microsoft mostly to support Unicode (wide character) filenames. Both support deep nesting of folders, long file and folder names, and have little or no restrictions on the characters used in names.

One advantage of using these extensions rather than just 'bending the ISO9660 rules' is that the extension information is in addition to the basic ISO9660 information. Thus it is possible to create a disc that conforms to the strict ISO9660 standard, while storing long filenames that can be read by an appropriate driver.

Joliet: When this box is selected, Joliet extension information will be written to the disc. The maximum length of file or folder name allowed is 64 characters: longer names are truncated. The following characters are allowed in file and folder names stored in the Joliet extension:

A thru Z, a thru z, 0 thru 9, space
! # \$ % & ' () + , - . = @ [] ^ _ ` { } ~

Any file or folder names changed as a result of these rules will be listed in the Name changes window as **Translated (J)**.

Rock Ridge: When this box is selected, Rock Ridge extension information will be written to the disc. There are no restrictions on file and folder names stored in the Rock Ridge extension.

Note: All sessions on a multi-session disc must use the same additional systems. CD InScriptOr will enforce this requirement. You need to decide which additional system(s) to use, if any, before starting to write to a new disc.

File Selector

The behaviour of the File Selector when adding items to a session can be set to one of three options:

Always: Always create a folder for the current path if no item is selected.

Never: Don't create a folder, but add the contents of the current path if no item is selected.

Ask: You will be prompted each time to select one of the two above options.

Pre-sets

The pre-sets are designed to help you select the proper options in the **ISO9660** and **Additional systems** groups, depending on the operating system(s) which you intend to read the disc with.

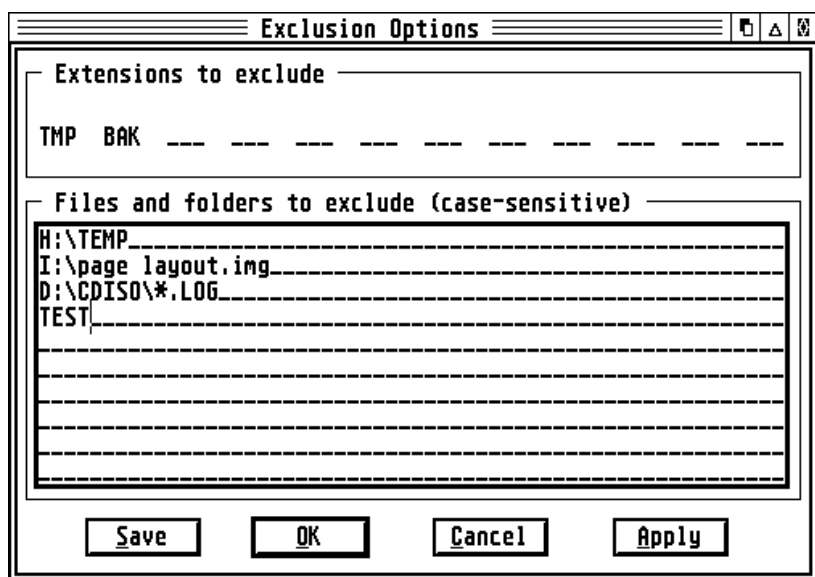
Clicking on a pre-set automatically sets/clears the appropriate options for the selected system(s). You can then modify these options further if you wish. The pre-set button corresponds to the actual options at all times. For example, if you select the pre-set 'MagiC', then modify an option, the button text will change to the pre-set that matches the actual options, if there is one; otherwise it will display 'Custom'.

Exclusion Options

You can specify items you don't want to write on disc, using the Exclusion Options window. This is useful when you choose paths and folders to write, but wish to exclude files and folders of a specific name or extension, or matching a pattern. For example, let's say your new session is composed of one item, C:*.*. Normally all the content of C: will be written to disc. Suppose you don't want to write files with extensions TMP and BAK. You can specify these in the dialog.

You can save the exclusions, so that they will be in effect for all the sessions you write.

Choose the **Exclusions...** item from the **Options** menu to access the Exclusion Options window, as shown below.



The top section of the window is titled **Extensions to exclude**. For example, you can enter TMP or BAK. You can only enter the extensions in uppercase, but lowercase and mixed-case extensions will also be excluded.

The bottom section of the dialog is for specifying folders or files to exclude. You can type them, one per line. Note that uppercase

/ lowercase are different (case-sensitive). Alternatively, while the cursor is on a line, double-click on that line to open a file selector, so you can choose your folder or file. You can also type Unix-style wildcards, as described in Annex 2 at the end of this manual.

The actual files and folders names excluded from a session will be displayed in the Name changes window, with lines starting with the word **Excluded**. The Name changes window is displayed after a write or a "display size" operation. The pattern that excluded the item will be specified.

After making changes, you can click on these four buttons:

Save: Saves your options to disk in file CDISO.INF, in the same folder as CDISO.PRG. This file is read every time you start CD InScriptOr. Your active preferences are not changed.

OK: Sets your active preferences.

Cancel: Cancels any changes made.

Apply: Same as **OK**, but the dialog remains open.

Advanced Options

Choose the **Advanced...** item from the **Options** menu to access the Advanced Options dialog, as shown below.

Advanced Options

CD/DVD information

Publisher: _____


Preparer: _____

Abstract file name: _____

Bibliographic file name: _____

Copyright file name: _____

Miscellaneous

☐ Don't include previous session (if any) 

☐ Mode 1 CD-ROM (for new CD only)

☐ Write protect (no more data can be written to CD)

☐ Don't follow symbolic links (for Rock Ridge)

☐ Keep file ownership and modes (for Rock Ridge)

stack space: - 128K + (for mkisofs)

Save OK Cancel Apply

Normally you don't need to use these advanced options. They are for "special purposes", for example when you want to create a disc for mastering.

The options in this window are described on the following pages. After making changes, you can click on these four buttons:

Save: Saves your options to disk in file CDISO.INF, in the same folder as CDISO.PRG. This file is read every time you start CD InScriptOr. Your active options are not changed.

OK: Sets your active options.

Cancel: Cancels any changes made.

Apply: Same as **OK**, but the dialog remains open.

CD/DVD Information

The information that you provide in this section is stored in an area of the ISO9660 filesystem called the Volume Descriptor. This information is generally not required, or even processed, by ISO9660 drivers on receiving systems, so it is normally left blank. The description for each item is a paraphrase of the description within the ISO9660 standard.

Publisher: This identifies the user who specified what should be recorded on the disc.

Preparer: This identifies the person or organisation that controlled the preparation of the data that is recorded on the disc.

Abstract file name: This is the name of a file in the root directory of the disc that contains an abstract of the disc.

Bibliographic file name: This is the name of a file in the root directory of the disc that contains bibliographic records related to the disc. The format of such records is not specified.

Copyright file name: This is the name of a file in the root directory of the disc that contains a copyright statement for the disc.

Note that if you specify an abstract, bibliographic, or copyright file name, you should ensure that such a file exists in the root directory of the disc. CD InScriptOr does not check this itself.

Miscellaneous

Don't include previous session: When this box is selected, CD InScriptOr will create a 'standalone' session, ignoring any existing session information on the disc in the recorder. This option is provided for maximum flexibility when creating your disc, for example when creating a CD extra disc (see the section *How to create a CDextra disc*). Except for this situation, we recommend that you only use this option if you are very familiar with the operation of the ISO9660 driver on the receiving system. Many receiving systems only support access to

the last session of a multi-session disk, and therefore selecting this option for a session would prevent access to the data in previous sessions.

Mode 1 CD-ROM: When this box is selected, CD InScriptOr will create a CD using Mode 1 sectors; otherwise, it will use Mode 2 sectors (Mode 1 and Mode 2 sectors are logically the same, but are recorded in a physically different way). Since Mode 2 is the standard for multi-session CDs, and all current CD-ROM drives can read both Mode 1 and Mode 2 sectors, you should normally not use this option.

This choice is available for the first session you write to a CD; subsequent sessions will be written using the same mode as the first session.

Write Protect: When this box is selected, CD InScriptOr will close the disc after writing the session. This means that you will not be able to add extra sessions to the disc.

Don't follow symbolic links: This option only applies to systems that support symbolic links, i.e. MagiC and MiNT. It only applies to Rock Ridge. When this box is selected, only the symbolic links themselves will be written for the Rock Ridge filesystem. Otherwise, the files referred to by the symbolic links will be written.

Keep file ownership and modes for Rock Ridge: When this box is selected, the original Posix-style userid, groupid and all file mode bits will be copied to the Rock Ridge extension on the disc, assuming that they are available on the filesystem that the file is coming from.

This option was designed for users with Minix or Ext2FS filesystems that only plan to use the disc on the system that it was created on.

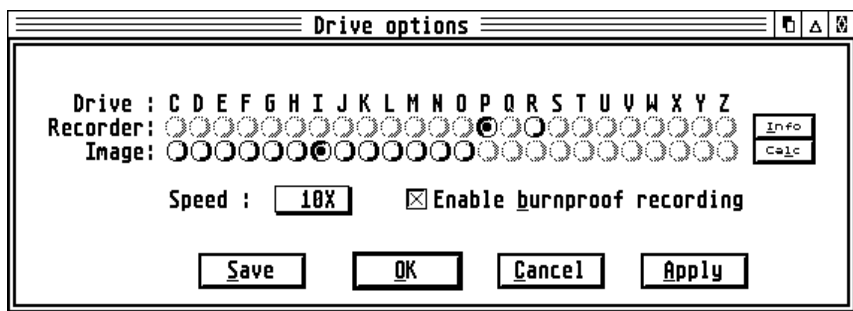
You should normally leave this box unselected. The userid and groupid will be set to zero, and the file mode bits will be 'rationalised' to allow access on any system.

Stack space: This allows you to increase the stack space used by MKISOFS.PRg. The default of 64KB will handle most

situations, but for deeply-nested folders and/or long folder and file names, MKISOFS.PRГ may terminate with a "Stack space exhausted" message, or even a crash. Note that increasing the stack space will cause MKISOFS to use more memory.

Drive Options

Choose the **Drives...** item from the **Options** menu to access the Drive Options window. In this window, you can select your



recorder and your image drive.

The options in this window are described on the following pages. After making changes, you can click on these four buttons:

Save: Saves your preferences to disk in file CDISO.INF, in the same folder as CDISO.PRГ. This file is read every time you start CD InScriptOr.

OK: Sets your active preferences.

Cancel: Cancels any changes made.

Apply: Same as **OK**, but the dialog remains open.

Choosing the recorder

In the row labelled **Recorder**, choose your recorder drive letter. This option is only relevant if you have more than one recorder attached to your system. You can select the drive letter of your recorder, as configured in ExtенDOS 4. Only the drive letters

corresponding to available recorders are selectable. Note that if no recorder drive letter is selected, or if the selected recorder is no longer available, CD InScriptOr will automatically select the first recorder available.

Info: Click this button to display information about the selected recorder.

Speed: Selects the default recording speed that you want to appear in the Write dialog box.

Enable burnproof recording: There are three possible states for this box:

- 1 . If greyed out and the box is deselected, your recorder doesn't support burnproof.
2. If greyed out and the box is selected, your recorder supports burnproof and it is always on; it cannot be turned off.
3. If not greyed out, your recorder supports burnproof, and you can turn it off by deselecting this box, and turn it on by selecting it. Note that for DVD+R, burnproof is always on, regardless of this setting.

The burnproof feature prevents errors due to the recording speed being too high for your system (this type of error is also known as a buffer underrun). The drive will wait for data if it can't receive it fast enough from the system. All DVD recorders that we know of provide this feature; it is also available on current CD recorders.

However, although by using the burnproof feature you can set a very high speed without causing a write failure, too high a speed will actually slow the overall recording throughput because the drive must constantly stop and start. The optimum speed is normally the highest speed that you can set without needing burnproof, or the lowest speed that needs burnproof.

By default, CD InScriptOr enables the burnproof feature if available on your drive. We suggest always using it when available, especially with DVDs as even a 1 X DVD speed may be too fast for your system. It can also be useful when writing to

CDs since, with current drives, you often can't select a low speed.

Choosing the Image drive

In the row labelled **Image**, choose which partition will be used to contain the image file. You will normally have the best results if you select the fastest drive, but the partition must have enough free space for the largest session that you want to put on the disc.

If you're not sure which partition has the most free space, click on the **Calc.** button. All your hard disk partitions will be scanned, and the partition with the most free space will be automatically selected as the image drive.

How to create a CDextra disc

A CDextra disc is basically a multisession CD with the first session being an audio session, and the second and subsequent sessions being data sessions.

To create a CDextra disc, first use CDwriter to create a compilation as usual. Keep in mind that you must leave some space on the CD for the data session(s). Then, in the Write dialog box, check the box **Close for CDextra** before writing.

After the CD is created, it can be used as a normal audio CD, but it is in fact a multisession CD to which you can add data tracks, as follows. Using CD InScriptOr, create a session with the files you want to put on the CD extra disc. Before writing the data, check the box **Don't include previous session** in CD InScriptOr's Advanced Options window.

Other features

CD/DVD information

You can show information about a disc. Under the **CD/DVD** menu, choose **Info**, or press **Control-I** on the keyboard.

The information is:



- ⌘ Type of disc
- ⌘ Free space
- ⌘ Used space
- ⌘ Number of sessions
- ⌘ Additional filesystems (Joliet, Rock Ridge) present, if any

Make image file

You can create an image file without automatically writing it to a disc at the same time. Under the menu **Session** choose **Make image file....** This will bring up a file selector allowing you to choose both the location and name of your image file. Long filenames are supported. To subsequently write the image file to disc, check the **From image** checkbox in the Write dialog box (see page 3).

Erase CD

You can erase a CD-RW or DVD-RW disc. Under the **CD/DVD** menu, choose **Erase....** For a CD-RW, you may choose between **Full** and **Quick**: a full erase erases the entire disc; a quick erase erases just the first session. A quick erase is always quicker (sometimes a lot quicker) than a full erase. A progress bar is displayed during the erasing process and the mouse shape turns into an eraser.

In most cases, a quick erase is sufficient; however, in rare cases you may need to use a full erase to prevent previously-recorded sessions of a multisession disc from "re-appearing".

CD InScriptOr does not support quick erase for DVD-RWs. A full erase is always performed.

Save window positions

This feature is found under the **Options** menu. Choose **Yes** to save the current window screen positions. The most recent positions of closed windows are also saved. The positions are saved in the file CDISO.INF.

Annex 1 - Operating limits

Maximum ISO9660 name length	31 characters
Maximum Joliet name length	64 characters
Maximum Rock Ridge name length	128 characters
Maximum path length	1024 characters
Maximum image file size	2 GB
Maximum session size	2 GB
Maximum number of ISO9660 folders	65535
Maximum number of Joliet folders	65535
Maximum number of items displayed in session window	1000
Maximum number of items in session	Unlimited

Annex 2 - Exclusions syntax

Rules for filename pattern matching, for the Exclusion Options dialog.

1. `?` matches any character (including `.`); for example:

pattern abc?x

matches: abcax abcXx	does not match: abcx abcaxy
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2. matches any character string of zero or more characters (including .); for example:

pattern ab^*ef

matches: abef abc.Def abczzzzzzzzzzzzzzzzzzzzzzzzzzzzzz ef	does not match: abf abcDefg
--	-----------------------------------

3. You may specify a list of single characters that match in a given position by including the list in square brackets; for example:

pattern ab[XxYZ]

matches: abX abZ	does not match: abz abXY
------------------------	--------------------------------

But note that if you want to include ! or ^ in the list of matching characters, you cannot put them immediately after the | because of rule 4 below.

4. In (3) above, if the first character following the `[` is `!` or `^`, it indicates that the list is a list of characters which must not match; for example:

pattern `[!Aa]jkl`

matches: Bjkl xjkl	does not match: Ajkl ajkl bjk
--------------------------	--

5. If you want to use `?` `*` `[` or `^` as a 'normal' character in the pattern string (rather than it having a special meaning), you can precede it by the escape character `^`; for example:

pattern `ab^*ef`

matches: <code>ab*ef</code>	does not match: abcdef <code>ab^cef</code>
--------------------------------	--

pattern `ab^^*ef`

matches: <code>ab^ef</code> <code>ab^xxxxxef</code>	does not match: abdef
---	--------------------------