

SCSIMounter

COLLABORATORS

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Chapter 1

SCSIMounter

1.1 SCSIMounter Version 2.0

SCSIMounter

Removable media partition mounter for Kickstart 2.0 or higher.

- Versions
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1.2 Versions and History

- 2.02 - Terrible bug fixed which caused SCSIMounter to fail on 68000 machines.
 - 2.00 - SCSIMounter is a commodity now
bi-lingual user interface
 - 1.30 - New tool type 'MASK'
 - 1.20 - Minor changes to the CLI interface. New tool type 'NOUNMOUNT'
 - 1.10 - ReadArgs() CLI Interface added
 - 1.04 - Now works with beta kickstarts (V 36)
Keyboard equivalents for everything (including list view)
Layout bug fixed
No functional changes.
 - 1.03 - Made more tolerant :-)
-

1.02 - Fix for gvpscsi.device (GVP Series II) added.

1.3 Disclaimer

SCSIMounter may be freely distributed for non-commercial purposes only. The entire risk as to the quality and performance of this program is with you.

The author assumes no responsibility or liability whatsoever with respect to your use or inability to use of this software.

1.4 Purpose

Most owners of removable media SCSI drives are stuck with the problem that their software doesn't handle disk changes correctly. For example, the current Commodore implementation doesn't mount the partitions on a removable media SCSI drive (e.g. SyQuest or Ricoh) when there was no cartridge in the drive at boot time.

Even worse, after another cartridge with a different Rigid Disk Block (i.e. a different partition table) has been inserted, the system gets totally confused and reports read/write errors when trying to access the device which can lead to loss of important data on the cartridge.

Until now, the only possibility to work around this problem was to reboot the system every time a new cartridge has been inserted.

SCSIMounter allows you to mount and unmount partitions without rebooting the machine. It sports a nice 2.0-style point-and-click user interface that makes handling removable media a piece of cake.

1.5 Secondary use

SCSIMounter can also be used to mount partitions that have intentionally not been mounted (e.g. the `wb_1.3:` partition on an A3000 when running under 2.0). You don't have to create a mountlist for it!

1.6 Requirements

- Any Amiga with a SCSI host adaptor that supports the Commodore RDB (Rigid Disk Block) and 'SCSI Direct' standards.
- Kickstart 2.0 or higher (version 37.175 preferred)

The program has been tested on an A3000 with Commodore's `scsi.device` and on an A2500 with a Microbotics `HardFrame` (`HardFrame.device`) but I see no reason why it shouldn't work on any other host adaptor.

The program may be of no use for owners of certain GVP controllers which support removable media correctly (Though not all GVP software might do so).

1.7 Before you begin

First, determine the name of the device driver of your hard disk controller card.

Examples of popular controllers and their devices:

manufacturer/controller	device
Commodore A590/A2091/A3000	scsi.device
Old GVP	scsidev.device
GVP Series II	gvpscsi.device
Supra SupraDrive	harddisk.device
Advanced Storage Systems Nexus	nexus.device
Microbotics HardFrame	HardFrame.device
ICD AdSCSI	icddisk.device
IVS Trumpcard Professional	ivs_scsi.device
BSC ALF2/3	ALF.device
BSC Oktagon 2008	Oktagon.device

Click once on the SCSIMounter icon and select 'Information' from the 'Icons' menu.

Add or change the following tool type :

```
DEVICE=Name_of_your_scsi_device_here
```

for example if you use a HardFrame controller write:

```
DEVICE=HardFrame.device
```

Don't add path names here, only the name of the device is required. Take care to capitalize the device name correctly (exec device names are case sensitive!)

NOTE

SCSIMounter will not work with the Commodore A2090(A) controller card because this product does not support Commodore's own 'SCSI direct' and 'RDB' standards properly.

1.8 Start SCSIMounter

SCSIMounter can be used either from Workbench or from the CLI.

* Workbench use

Double click on the SCSIMounter icon. After a short time, a window with a listview and three buttons will appear (assuming CX_POPUP is set to 'yes'). If the window doesn't appear several things could have gone wrong:

- Do you use Kickstart 2.0 or higher?
- Did you specify and spell the name of your device driver correctly?
- Does your host adaptor support RDB?
- Is there any memory left on your system?
- Do you have commodities.library (supplied with Workbench 2.04) in libs:?

* CLI use

Type 'SCSIMounter gui device Name_of_your_scsi_device'
example:

```
1> SCSIMounter gui device HardFrame.device
```

If the 'gui' argument is not given, SCSIMounter will be started in command line mode as described later in this document.

1.9 Panels

Main panel

```
UNIT
DRIVE TYPE
REV.
CAP.
STATUS
HIDE
UPDATE
MOUNT
```

Partition Selector panel

```
CHECKGADGETS
CANCEL
MOUNT
UNMOUNT ALL
```

1.10 Main panel

The main panels shows all devices connected to the SCSI port with information about their capacity and current status. The currently selected unit is highlighted.

UNIT - This is the unit number of a SCSI device.

Up to seven devices can be connected to the SCSI bus

DRIVE TYPE - Manufacturer and product specification

REV. - Revision of Hardware, Firmware and ROM of device

CAP. - Device capacity in Megabytes or Kilobytes

STATUS - Current Status of device. If the device is busy or not accessible due to the lack of media (if it's a removable media drive) the status will be set to 'not ready'

There are three 'action buttons' present:

HIDE - Put SCSIMounter to sleep. To wake it up again, use the hotkey as specified in CX_POPKEY program on your system partition. Closing the window using its close gadget has the same effect.

UPDATE - Re-scan SCSI bus and update display

MOUNT - Mount partitions on selected drive

For every action button there's also a menu item with identical function. All buttons have keyboard equivalents (marked with an underscore in the label text). The listview can be scrolled using the arrow up and arrow down keys on your keyboard rather than using the mouse.

There's one important menu item that has no button equivalent:

QUIT - Quits SCSIMounter and removes it from the list of commodity programs

1.11 Partition Selector panel

This panel shows all available partitions and allows you to individually mount them.

CHECKGADGETS - Determine if the particular partition should be mounted or not.

checked: mount corresponding partition

not checked: don't mount specified partition

Other partition information on the partition selector -

Number of Partition == keyboard equivalent

Device name of partitions

Size of partitions

Dostype (FileSystem) of partition

Examples of dostypes:

DOS0 - Old filesystem partition
DOS1 - FastFileSystem partition
UNI1 - Unix boot partition
RESV - Reserved partition

CANCEL - Go back to main panel, don't mount anything

MOUNT - Unmount all currently mounted partitions on the selected device and mount the new partitions (if any).

UNMOUNT ALL - If this gadget is checked, SCSIMounter will try to unmount all partitions currently mounted on the selected unit. If there are locks on this device there will be a 'BUSY' icon on your Workbench screen.

WARNING:

This option can be dangerous if used with non-removable devices because it will unmount all partitions including your boot partition (SYS:) forcing you to reboot your computer. Use it with care!

1.12 Operation

SCSIMounter is pretty self-explanatory. Nevertheless, here are some basic operation procedures.

* Mount a new cartridge

- Click on the listview entry of the desired device. (Make sure its status is 'ready')
- Click on the 'Mount' button

The 'select partitions' panel will ask you which partitions to mount

- Chosse the partitions you would like to mount
- Make sure that the 'Unmount all' gadget is checked
- Click on 'Mount' button on the partition selector panel

SCSIMounter will automatically unmount all existing partitions on the device and mount the new partitions.

* Add a SCSI drive that was not present at boot time

- Click on the 'Update' button

The new drive's name and other information should appear in the listview

- Click on the corresponding entry
- Click on the 'Mount' button

and so on...

* Mount a partition that has the automount flag not set

- Click on the listview entry of the desired device. (Make sure its status is 'ready')
- Click on the 'Mount' button
- On the partition selector panel, make sure the 'unmount all' check gadget is *not* checked
- Select 'Unselect All' from the 'Edit' menu or press 'Rt. Amiga-U'
- Click on the check gadget of the partition(s) to mount
- Click on the 'Mount' gadget or press 'Rt. Amiga-M'

WARNING !!!

Don't unmount your boot partition (where you system files live) or you'll soon be forced to reboot you machine...

1.13 Keyboard Equivalents

* Requesters

gadget	keystroke activation	menu shortcut
OK	O	Rt. Amiga-O
Cancel	C	Rt. Amiga-C

* Main window & Project menu

gadget	keystroke activation	menu shortcut
About	none	Rt. Amiga-A
Mount	M	Rt. Amiga-M
Update	U	Rt. Amiga-U
Quit	Q	Rt. Amiga-Q
Listview up	Arrowkey up	none
Listview down	Arrowkey down	none

* Partition Selector

gadget	keystroke activation	menu shortcut

Mount	M	Rt. Amiga-M
Cancel	C	Rt. Amiga-C
Select All	none	Rt. Amiga-A
Unselect All	none	Rt. Amiga-U
Partitions	0-9	none

1.14 Tool Types

The following tool types are supported:

- DEVICE - See above
- NOUNMOUNT - If this tool type is set, the 'Unmount All' gadget is not checked by default and other partitions on the same unit are not removed. This option is useful if you don't use SCSIMounter with removable media. Don't set this tool type for removable media!
- MASK - Default DMA Mask. If not specified, the mask in the RDB will be used. Don't specify this tool type unless you know what you're doing
- CX_POPUP - If you want the SCSIMounter window to pop up the first time you double-click on the SCSIMounter disk icon, set this to yes:
 CX_POPUP=yes
- If you want SCSIMounter to run in the background the first time it is being started e.g. if you're running it from the WBStartup drawer, set this to no:
 CX_POPUP=no
- CX_POPKEY - Key combination for the commodity 'hotkey'. Default:
 CX_POPKEY=alt shift f10
- CX_PRIORITY Commodity priority. Default value:
 CX_PRIORITY=0
- LANGUAGE - Determines the language to use for the user interface
 Possible values:
 LANGUAGE=German
 LANGUAGE=English
- This tool type overrides global language settings. Remove it if you want to use the system's default language...
- PUBSCREEN - Name of the public screen on which SCSIMounter should open.

1.15 Command Line Use

For the advanced user, SCSIMounter can be used in command line mode by specifying all required arguments on the command line. In CLI mode,

it is not possible to individually select partitions. All partitions on the particular unit will be mounted.

Note that SCSIMounter will not attempt to open `commodities.library` and add itself to the list of commodities in CLI mode except when the 'GUI' argument (see below for more info) is given.

SCSIMounter supports 2.0-style `ReadArgs()` CLI options. The command template looks like that:

`D=DEVICE/K,U=UNIT/N,N=NOUNMOUNT/S,GUI/S,QUIET/S`

- DEVICE** - Specifies the device used for your hard drive controller e.g. `scsi.device`.
If this argument is left out, **DEVICE** defaults to `'scsi.device'`.
- UNIT** - Specifies the SCSI unit number of the drive to be mounted. e.g. 6
This argument is not required if the **GUI** option is used.
- NOUNMOUNT** - If this switch is set, SCSIMounter will not unmount old partitions. It basically works the same as the 'Unmount All' check gadget in the 'partition selector' panel. If you're mounting removable cartridges, use this option with care!
- GUI** - If this keyword is used, SCSIMounter will open its 'unit selector' panel as if it was started from Workbench.
- QUIET** - Don't output information on selected unit and mounted partition but output fatal error messages. Ideal for use in shell scripts

Examples:

```
1> scsimounter device HardFrame.device unit 6 quiet
```

(mounts all partitions on SCSI unit 6 connected to a HardFrame controller and is quiet about device and partitions)

```
2> scsimounter d u 3
```

Unit	Drive	Type	Rev.	Cap.	Status
3	SyQuest	SQ555	FGJ	43 M	ready

Unmounting device: `sq0`
Mounting device : `sq0`

(mounts all partitions on SCSI unit 3 connected to a Commodore A590/A2091/A3091 controller and unmounts old partitions on the same unit. Outputs full device and partition information)

1.16 Known Problems

- The program only removes the dos entries for the volumes and devices. It doesn't remove the filesystem process and associated memory allocations. Apparently the current FS doesn't support the `ACTION_DIE`

packet. I'm still looking for a legal way to solve this problem.

1.17 Credits

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Bug reports or suggestions are welcome. If you find this program useful,
feel free to send a donation to the above address.

This program uses Relog's ITools(tm), the object-oriented user interface
system (c) 1991 by Christian A. Weber and Relog AG.

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- Christian A. Weber
- Peter Simeon for the SCSI inquiry code
- Michael-Wolfgang Hohmann for the AmigaGuide
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1.18 Trademarks

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