

MCControl

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COLLABORATORS

	<i>TITLE :</i> MCControl		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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Introduction

MCControl is a usefull tool for all PSX owner. Its a Hard and Software to read and write your memory cards.

So there is no need to buy new bigger memory cards. Just one card is needed.

MCControl allows to import savegames from internet to enable features and see stages you've never been before.

1.3 Systemrequirements

System requirements

MCControl (should work) works on all Amigas with OS 2.0 or higher.

The gtdrag.library V3.2+ is required if you want to use the drag and drop features. I suggest to use this library, because the only other way to move save games between windows is to save and reload. The gtdrag.library requires OS3.x+!

A PSX and a MemoryCard should be around, too! (-8

You need an DexDrive or build a special hardware!

That`s all!

1.4 Features

Features

[currently not 100% implemented]

\textdegree{} 100% Assembler

\textdegree{} Load and save the following files: MCD, VGS, GME, PSX, MEM

\textdegree{} DexDrive Support

\textdegree{} Very quick MemoryCard access! (Internal Caching)

\textdegree{} DexDrive Support

\textdegree{} Open as much virtual MemoryCards as you need.

\textdegree{} Drag´n Drop allows to move save games very easy between virtual MemoryCards.

\textdegree{} A save game converter allows to use any international save game!

\textdegree{} XPK support

\textdegree{} Locale support

1.5 Distribution

Distribution

This program should be published on every public medium, as long as all files in the archive are unchanged. If this medium is a CD I expect a free copy. (AminetCDs excluded)

MCControl is Mailware.

I expect from everybody, who uses MCControl regularly, to send me an email or postcard. I think this does not hurt anybody, and I will have more fun to integrate new features.

I am not liable for injures or data loss caused by MCControl or the hardware. The use of MCControl is on your own responsibility !!!

1.6 How to install MCControl

How to install MCControl

Please try to use the original system installer for installation. This allows to create an memory and hard disk optimized installation.

Well, its also possible to drag the MCControl drawer onto your hard disk, but you are wasting hard disk and memory space.

Thats all!

Don't forget to build the CardReader!! (-8

1.7 History

History

This text is telling the story of MCControl like a diary.

V0.10 First beta demo version.

V0.11 Many internal changes.

V0.12 Painted some pictures to illustrate how to build the reader.

- (Thanks to Janne Lumikanta for the original pictures)
- V0.13 Manual enhancement.
 - V0.14 Online help implemented.
 - V0.15 Some catalog fixes.
 - V0.16 Fixed some gadget positions.
 - V0.17 First official Aminet Version!
 - V0.18 BUGFIX: Fixed frame calculation!
BUGFIX: Shit! The frame caching wasn't working correct! -> No read/write on some frames at the end of the card!
Added parallel port allocation.
 - V0.19 FEATURE: Drag'n Drop implemented! Now it is possible to copy single game savings.
CHANGED: The window title is now more useful.
New MemoryCard test Chapter included.
FEATURE: New file Support: #?.PSX
 - V0.20 BUGFIX: Forgot to load Card Data before saving to disk!
CHANGED: The process window now opens only if needed!
CHANGED: Menu layout!
BUGFIX: Many small internal fixes!
BUGFIX: Extensions .vgs and .gme are now correct!
 - V0.21 BUGFIX: fixed memory loss!
 - V0.22 Many (many many) internal changes. Almost every card handle routine changed, but it was worth. Now all possible errors should be captured and most of the routines are likeable.
 - V0.98
 - V0.99 FEATURE: Delete and UnDelete implemented.
 - V1.00 First true Aminet Version
 - V1.01 FEATURE: XPK support for card files!
 - V1.02 FEATURE: XPK support for PSX files!
 - V1.03 BUGFIX: Sometimes the wrong directory block was updated when writing to card.
 - V1.04 FEATURE: Added new (cool) settings window! GadTools only! So why using MUI or an other GUI library!
 - V1.05 Many catalog changes!
 - V1.06 BUGFIX: Card select doesn't work when using download card
 - V1.07 FEATURE: Shell support! Now it is possible to read and write a card by using Shell. (Requested by Alessandro Zummo)
 - V1.08 Some documentation fixes.
 - V1.09 Some catalog changes
 - V1.10 Official Aminet Version
 - V1.11 CHANGED: Load card is now more logical and easier to use (for me giggle giggle (-8)
 - V1.12 CHANGED: No longer XPK compression when exporting files.
BUGFIX: Fixed window resizing bug that caused program crashes. (reported by Timo Hegemann)
CHANGED: Replaced the old directory routine by a new better one. No the directory should be less confusing.
FEATURE: TV Mode added!
 - V1.13 CHANGED: Extension handling.
BUGFIX: #?.PSX loader fixed.
BUGFIX: Delete file marked the wrong block as modified.
 - V1.14 FEATURE: Save game converter!
FEATURE: About window added!
 - V1.15 BUGFIX: Fixed MungWall Hit!
CHANGED: Read/Write frame routines are now maximum save! There shouldn't be any damaged card memory areas when timing isn't correct.
 - V1.16 CHANGED: Menu dis/enable added.
-

- BUGFIX: (SGP) Move command is now able to access the last 7 blocks of an save game.
- BUGFIX: Fixed the schematics. (Thanks to Zeljko Vulinovic)
- FEATURE: quick format
- V1.17 CHANGED: About Requester!
- BUGFIX: Removed 68000 crashes!
- CHANGED: Card timing is now system independant! This is done via system speed. The new behaviour allows to specify exact delay values for different card.
- V1.18 BUGFIX: Sony Cards are working again! (reported by Juergen Ofner)
- V1.19 BUGFIX: Fixed settings window size.
- FEATURE: Abort button during card access!
- V1.20 FEATURE: save game name => default save name (requested by Timo Hegemann)
- BUGFIX: Fixed stupid download card bug!
- V1.21 FEATURE: New card configuration method.
- FEATURE: Automatic card detection implemented.
- FEATURE: New preferences menu
- V1.22 BUGFIX: Save Card is now creating a correct default file name.
- Added some default cards, to make auto detection much easier.
- Added some save game converter. (Thanks to Andrea Favini)
- BUGFIX: Multi slot support is now 100% working. (Reported by Zeljko Vulinovic and Andrea Favini)
- FEATURE: Its no longer possible to drag free entries. (Thanks to Axel Doerfler for the GTDrag feature!)
- BUGFIX: The preferences window allows to specify the maximum of 4 Slots.
- FEATURE: Delete all and Undelete all implemented. (Requested by Jürgen Ofner)
- BUGFIX: Gadgets in a new window were sized wrong. (reported by Timo Hegemann)
- BUGFIX: Double click handling in settings window is now correct. (reported by Timo Hegemann)
- V1.23 BUGFIX: Fixed fout slot mode! (reported by Zeljko Vulinovic)
- BUGFIX: Forgot to implement the english version of the SGP file documentation.
- V1.24 FEATURE: MultiPage support implemented.
- FEATURE: New card settings window.
- V1.25 FEATURE: Export directory (ASCII) (requested by Werner Ammann)
- CHANGED: Some small optimizations.
- BUGFIX: MultiPage support fixed (reported by Zeljko Vulinovic)
- V1.26 FEATURE: Separate write delays to allow fast writing on slow cards.
- BUGFIX: Fixed some card settings bugs.
- BUGFIX: Fixed a problem with the SUPPORT command. (reported by Brice Terzaghi)
- Added some save game patches. (Thanks to Brice Terzaghi)
- FEATURE: New français catalog! (Thanks to Brice Terzaghi)
- FEATURE: Region/ProductID Output in directory list.
- FEATURE: DEL / Backspace keys are deleting/undeleting files.
- BUGFIX: Fixed the spaces in filename problem of some save games.
- BUGFIX: Fixed the window busy bug when using the save game patcher. (Reported by Brice Terzaghi)
- FEATURE: Complete #?.mem support!
- V1.27 BUGFIX: Edit card gadget was disabled when opening the settings window even if there was an personal card.
- BUGFIX: The auto generated file names for save games were 3 chars
-

- to long. (Dos limit)
- V1.28 CHANGED: Found a new way to code a save game name. It seems to be very rare (see Example.mcd=>Worms). Now all these games should look good, too.
CHANGED: FAQ update.
FEATURE: New function allows to save all save games at once.
BUGFIX: During saving name fragments of prior saved games were saved, too! Not a real problem, but not very nice (PC like).
- V1.29 BUGFIX: Its was not possible to save the window position of the Card Settings Window and the Main Window! (Reported by Brice Terzaghi)
- V1.30 FEATURE: New driver system for different card reader hardware. Now it is possible to create an driver for any hardware.
BUGFIX: Forgot to disable save all menu when there is no file on memory card!
- V1.31 Changed card reader driver system.
The card editor gadgets are depending on the current driver.
BUGFIX: Fixed a directory bug that produced unusable, free blocks. RamCard driver and source added for development information.
The driver itself is only useful for playing with MCCControl without owning an card reader.
FEATURE: Menu and gadget disabling is now depending on driver module!
- V1.32 FEATURE: Now you are able to select the GUI Font.
- V1.33 BUGFIX: Fixed the settings window! MCCControl was unable to store the card settings. (reported by Zeljko Vulinovic)
- V1.34 FEATURE: DexDrive Support!!!
CHANGED: Reworked the whole internal driver control!
FEATURE: Module_DirectFrame and Module_DirectPage support! (New driver feature)
BUGFIX: After canceling the settings window the driver wasn't canceled.
FEATURE: Device selector!
- V1.35 BUGFIX: Fixed a small frame read/write bug that caused an error when no driver module was loaded!
FEATURE: Reworked the SGP Window! No cheat patches are possible!
FEATURE: Spanish translation included! (Thanks to Victor M. Gutiérrez)
BUGFIX: Fixed some MCM error messages and added the timer.device failed to open message!
BUGFIX: Fixed some error in the MCM documentation!
FEATURE: New and cheat enhanced SGP Files for Spyro, Spyro2, ApeEscape and Wild9!
FEATURE: Turbo read and write! Increases the speed of most actions by the factor 1000 depending on the mass of changes! (-8
BUGFIX: Fixed window sizing bug of the main window!
BUGFIX: Many documentation bugs removed!
- V1.36 BUGFIX: Fixed SGP command checksumm!
FEATURE: New SGP command: Tool!
FEATURE: SGP/SGT Patch for Pitfall3D included!
FEATURE: SGP Patch for Ruff&Tumble included!
FEATURE: Some new SGP Strings included!
- V1.37 FEATURE: Installer/deinstaller script included!
BUGFIX: MCCControl is now Y2K fixed! :) Just kidding! Happy new year!!!
-

FEATURE: New MCCControl versions for OS2.1 and OS3.x!
 FEATURE: Some code optimizations!
 BUGFIX: Some fixes on the DexDrive.mcm & DexDriveDemo.mcm
 BUGFIX: Fixed some documentation bugs within the modules.doc
 V1.38 FEATURE: Added new how to build picture for people with less or
 no electronic experience.
 BUGFIX: The installer script is able to copy the pictures and the
 current language preselects the catalogs and docs.
 BUGFIX: Some fixes on the DexDrive.mcm & DexDriveDemo.mcm
 FEATURE: MCM Drivers are now loaded on first use and not on startup.
 This means no more "No compatible Hardware found" requesters when
 starting MCCControl if no DexDrive is connected. (Requested by me! Each
 time this fuc?S"#?....
 FEATURE: The installer script now contains a spanish translation.
 (Thanks to Victor M. Gutiérrez)
 BUGFIX: The settings menu wasn't working correct when the module
 setting changed during the operation.
 CHANGED: Removed the useless card type and slot selector. Even if
 the option is selected the gadgets won't appear anymore.
 FEATURE: Added MCM flag for multi slot support. Thats the reason
 for the updated standard driver (nothing more).
 BUGFIX: The auto generated file name for save games weren't 100%
 DOS conform. (reported by Michael Jaccoud)
 BUGFIX: The unit selection contained a but that sometimes, depending
 on the used device caused MCCControl to use Unit 0. (reported by
 Danny Hamon)
 CHANGED: SGP slots are now auto numbering. (suggested by Brice
 Terzaghi)
 FEATURE: Dragging is only possible, if more than one window is
 open. (more logic) In addition to that the select bar of the source
 window isn't flipping anymore.
 FEATURE: Added SGP files for Breath of Fire III and Syphon Filter.
 V1.39 FEATURE: Multi select support for save game loading!
 FEATURE: New MemoryCard CleanUp function!
 FEATURE: Added CheckBox and Integer SGP Gadgets!
 FEATURE: Some new address options (B,W,L,&)
 FEATURE: Added SGP for Azure Dreams and MediEvil!
 FEATURE: Patch window is now looking cool!
 FEATURE: Added and changed some menu hotkeys!
 FEATURE: SGP for Oddworld: Abe's Exoddus included.

1.8 Future

Future

\textdegree{} I don't know. (-8 Your wishes are welcome.

1.9 Buglist

Buglist

\textdegree{} Currently there are no known bugs.

1.10 Thanx

Thanx

\textdegree{} Many many thanks to Janne Lumikanta! He initiated the PSX ↔
MemoryCard
reader project. Most of the pictures used within this project were made
by him and only adjusted by me!

\textdegree{} Thanks to all the guys lending me games and memory cards for ↔
testing.

\textdegree{} Danke an Brice Terzaghi und Victor M. Gutiérrez für die ↔
Übersetzungen.

\textdegree{} Thanks to Timo Hegemann! He found a lot of bugs and he told me how ↔
to
make MCCControl much better.

\textdegree{} Thanks to Zeljko Vulinovic for extrem beta testing! (-8

\textdegree{} Many thanks to Dmitry Shishkin for the ShineR project!

\textdegree{} Many thanks to all the people spending money.

1.11 The Author

The Author

If you find bugs please report them, so that I can correct these bugs
in the next version.

Any ideas and suggestions are welcome, too.

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1.12 Other programs!

Other programs!

BoulderDäsh [game/jump/boulderdaesh.lha]

Clone of the original Boulderdäsh for Amiga. It is the only version running faster on Amiga than the original. It looks and behaves like the original. I was asked, where the C64 is. (-8 And all this on a 68000 without Fastmem.

SimpleCat [dev/misc/simplecat.lha]

This tool is for ers and user. Using this program you can change catalogues of programs with your favourite text editor in the easiest way. These programs must include a CS file. Search for it in the archive of the catalogues drawer.

Afind [util/misc/afind.lha]

With this program you can search for programs on your Aminet CDs in the easiest way. It is the same than the original tool on the CD, but here you can use AminetCDs and AminetSets mixed. So you are not forced to search for a program on the first 5 Aminet CDs, that is on AminetSet1 Disk b.

AView [util/misc/aview.lha]

AView is a great multiview enhancement/replacement! It is working like Multiview, but you are able to specify a special viewer/player for each file typ.

Guideformat [text/edit/guideformat.lha]

GuideFormat is a simple tool. It is easy to format text blocks, even if there are "links" or other guide commands in.

GuideCheck [text/edit/guidecheck.lha]

GuideCheck ist ein Tool, das es erlaubt ein Guidefile vollständig zu prüfen und alle eventuellen Fehler aufzudecken.

SiedlerBoot [game/patch/siedlerboot.lha]

This allows to start the Settlers direct via CD and save the scores on HD. There is no hard disk install required. SiedlerBoot requires the "Amiga Plus Sonderheft 9" cover CDROM.

Execute64 [misc/emu/execute64.lha]

Execute64 allows to transfer file direct into the C64 and to start them. This allows to play games and use the Amiga as a big file server.

R [util/cli/r.lha]

"R" creates a GUI for each DOS Program. This allows you to use DOS commands even if you aren't very good in reading templates.

DVBControl [comm/misc/dvbcontrol.lha]

DVBControl is a software project for the Nokia MediaMaster (D-Box) and DVB2000 firmware. It allows to update firmware, edit channel settings and much more. So if you are using DVB2000 and an Amiga DVBcontrol is your only choice!

MCCControl [hard/hack/mccontrol.lha]

MCCControl (MemoryCard Control) is a card reader for Playstation MemoryCards. It requires a little selfmade hardware (~\$5) and the free software!

1.13 The CardReader Specifications!

The CardReader Specifications!

If you're not able to create your own hardware, then you are able to buy a compatible CardReader named DexDrive!

Before you start to create your own hardware take a look on Timo Hegemann's version. It's pretty good. Here another photo without card. My version is built direct into a normal SUB-D25 plug.

There is another hardware created by Dmitry Shishkin. Technically this hardware works like a DexDrive, because a processor handles the communication between MemoryCard and Amiga. You'll find it on aminet: hard/hack/ShineR.lha

First there is the MemoryCard connector! You need an old slot (old PC main board we do not destroy any Amiga boards!!). This slot must be modified. This is shown by a little picture.

If this is the first time you build a hardware, or you simply don't understand what's to do, then take a look on his picture! Just place your parts on your table and connect them like shown!

After doing this hard job it's much easier! Just choose the card reader version you want to build:

3.6V Only Reader without external Powersupply

This is the easiest reader. Its using the 5V Power of the parallel port to create the 3.6V. In the result this reader only supports card using only this power. (just screw the card up and take a look)

This picture shows how to build it. An second easier version is Here

3.6V and 7.6V Reader with external Power Supply

This version requires an external power supply, but there should at least one arround to use for a while (DiscMan, Walkman, Mobile,...)

This reader is full hardware compatible to all cards, because both voltages are available.

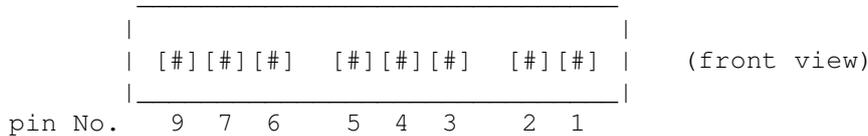
This picture shows how to build it.

Here you can find an multi slot circuit.

The pictures alone should allow you to build the interface. If you are not sure just read on for further information.

Additional Information

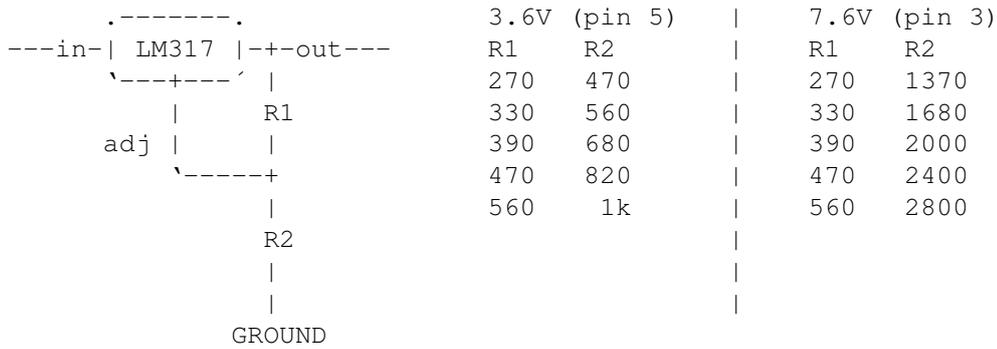
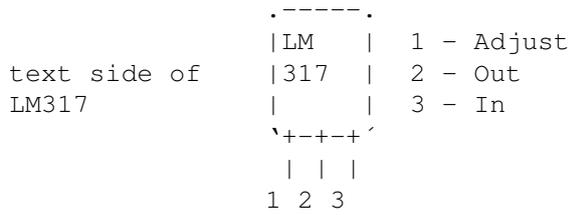
Memory Card Connector



pin No.	signal name	direction	logic	function
1	DAT	in	positive	Serial Output data(open drain)
2	CMD	out	positive	Serial Command data
3	+7V	-	-	+7.6V CD-ROM Drive Power
4	GND	-	-	Signal Ground
5	+3V	-	-	+3.5V System Power
6	SEL-	out	negative	pad/memory select
7	CLK-	out	negative	Serial Clock
8	-	-	-	no use
9	ACK-	in	negative	Acknowledge(open drain)

As you can see the MemoryCard needs two different voltages. I know this is not always true, but I checked out four 15 block cards and 3 of them need 7.6V. This voltage requires an external powersupply, so why not create a full compatible card reader!

The LM317 is an standard element. The additional characters can be ignored. You can use an LM317T as well as an LM317Q oder LM317LZ.



For more information of LM317 check www.national.com and get correct PDF-files.

External powersupply voltage should be about 9V-18V if you want to get 7.6V.

If you use external powersupply for this hardware, DO NOT CONNECT it to pin 14 of parallel port

Using parallel port pin 14 is 'very' safe because of low current supply <100mA, but remember using Pin 14 doesn't allow to create 7.6V.

1.14 Questions, Solutions and Tips!

Questions, Solutions and Tips!

What is a Playstation?

What is a MemoryCard?

What is a DexDrive

What is the MemoryCard capacity?

The PSX says my card isn't formated, but...! Why?

What are the external power supply specifications?

What is a Region or Productcode?

What PSX games do you own?

Other

This manual is formatted with centered blocks. How?

1.15 FAQ: What is a Playstation?

What is a Playstation?

Well, a Playstation is an game system developed by Sony!

If you don't know this, why are you reading this manual? (-8

1.16 FAQ: What is a MemoryCard?

What is a MemoryCard?

A MemoryCard is an storage device for Playstation game scores.

1.17 FAQ: What is a DexDrive?

What is a DexDrive?

An DexDrive is an commercial version of an MemoryCard reader. You should be able to buy one in your favorite Game Shop.

You want to see it right now? [Click here!](#)

The included driver is shareware and only able to read MemoryCards! This is done, because I spend a lot of time to debug the protocol and I was forced to buy a DexDrive. If you want a full version send me 10 DM and you'll get the full working driver. I think this isn't very much!

1.18 FAQ: What is the MemoryCard capacity?

What is the MemoryCard capacity?

If we trust some magazines and MemoryCard manuals, then you can store 1 mega byte on an 15 block MemoryCard.

This is wrong!

A MemoryCard can hold 1 mega bit or 128KB!

1 MegaBit = 1048576 Bit

1048576 Bit / 8 = 131072 Byte

131072 Byte / 1024 = 128 KiloByte

One MemoryCard block contains 8KB! We have 15 blocks. The last block contains the directory of the card and some reserved data!

1.19 FAQ: The PSX says my card isn't formatted, but...! Why?

The PSX says my card isn't formatted, but...! Why?

... MCControl is able to access the card without any problems.

Well, this is a very rare problem. The reason is, that the first frame of an MemoryCard indicates the status. If this frame is invalid the playstation is reporting that the card is unformatted.

MCControl ignores this frame and if the card is unformatted then the directory contains only invalid entries!

Fixing this problem is very easy, but MCControls cache handling makes this a little tricky. The easiest way is to read the directory and use the clean up menu function. Now make sure that you disabled the quick access function and write back your card. Now your card should work again. You should enable the quick access again, to protect the first frame and to speedup your card access.

1.20 FAQ: What are the external power supply specifications?

What are the external power supply specifications?

The external power supply voltage should be about 9V-18V! The exact voltage isn't important because the LM317 is creating always the correct value by using the resistors.

The power supply should be able to output more than 200mA! The output of a playstation itself isn't more than 100mA per powerline, but the LM317 circuits are consuming some energy, too! If you are only using 15 block cards then 100mA should be enough!

Do not use power supplies with less than 100mA! They may work, but they are producing much heat and may burn out!

If the power supply isn't able to supply enough power, it may happen, that your card must be read much slower than normal. Timo Hegemann is using an normal NoName card, but when using an 9V Battery instead of an external power supply the card turns into an slow SonyNew card!

1.21 What is a Region or Productcode?

What is a Region or Productcode?

Well, each game is developed with special feature of the region. Every one knows that a US game isn't working on an european Playstation. To make this work every game becomes an unique code for this region.

Example:

BESLES-00463

0123456789ab

0 The "B" is constant.
 1 Region of the developer.
 2 The "S" is constant.
 3 "L" Licence
 "C" Computer Sony products only.
 So 234 on an european sony game results "Sony Computer Europe" or
 on an licenced game "Sony Licence Europe"
 4 The Game is only working on Playstations for this region.
 5 "S" Software
 "D" Demo (a PSX demo software)
 "H" Hardware (controller, memory cards, multitaps, light guns)
 6 Separator, constant, "-"
 789ab Number of the game (the licence number). Games may have differend
 numbers for different regions (4).

A german developer for example would get BESLUS-12345 as product id for the US version of a game. The european id of the same game may look like this BESLES-22222.

Save games may contain 8 additional chars to separate types of save games for the same game. Its correct to save these 8 bytes are the file name.

"BESLES-22222Records "
 "BESLES-22222Settings"

The easiest way to get those IDs is to open the save game patcher! You'll find the ID in the ProductID Gadget! The first 12 characters represent the complete product id followed by 8 bytes of file name, if available.

1.22 What PSX games do you own?

What PSX games do you own?

Well, here is my PSX game list. If you want to sell (gifts are also welcome) any game take a look into my want to buy list.

Azure Dreams
Breath of Fire III
Bubble Bobble also Featuring Rainbow Islands
Colin MacRae Rally
Frogger
Heart of Darkness
MediEvil
Nanotek Warrior
Oddworld: Abe's Exoddus
Oddworld: Abe's Oddyssey
Pitfall 3D: Beyond the Jungle
Ruff & Tumble (aka 40 Winks)
S.C.A.R.S
Sentient
Sentinel Returns
Spot goes to Hollywood
Virtual Pool
Wild 9
Worms

1.23 FAQ: This manual is formatted with centered blocks, How?

This manual is formatted with centered blocks, How?

This question is very old. I write all AmigaGuide text files by using GoldED. GoldED makes it very easy. Just open the "miscellaneous" settings and setup the fold markings ("@NODE" and "@ENDNODE"). Now you are able to open and close every node as an own document.

But now the question. The problem is the link structure within the text. GoldEDs internal block format is not able to detect them and everything is text and a word wrap within a link is deadly for this link. The other method is to edit the block by hand, but this is not very handy. (-8

This was the reason to write GuideFormat. GuideFormat is doing this job and it takes care about the links. I put it together with some GoldED commands as an GoldED hotkey. Now I can use it even like the internal block center command.

I wrote all dokumentations of my programs by using GuideFormat. It saves years of my life.

And the text looks great!

1.24 WANTED !!!!

Wanted !!!

I am searching the following games for my PlayStation:

Alundra
 Blaze & Blade
 Bubble Bobble2
 Kula World

If you wanna sell one or more of these games, then let me know!

1.25 All MemoryCard checked with MCControl

All MemoryCard checked with MCControl

If one of your MemoryCards is not listed here, than let me know your results.

MemoryCard	Blocks	Delay	Settings (Byte,Bit,Data)	Tested by
Tosa	15	(1,0,0)		Guido Mersmann
Gamester	15	(1,0,0)		Guido Mersmann
GameMedia	15	(1,0,0)		Timo Hegemann
Joytech	15	(1,0,0)		Janne Lumikanta
MemoryCard				
Plus	120	(1,0,0)		Zeljko Vulinovic
Sony Blue	15	(0,2,0)		Timo Hegemann
Sony GreyOld	15	-> Let me know! Try	(0,5,0)	
Atomic	15	(0,5,0)		Andrea Favini
Blaze 24Mb				
MegaMemory	360	(0,2,0)		MegaByte
Naki	15	Not working		Zeljko Vulinovic

1.26 This is a list of all files that can be used with MCControl

This is a list of all files that can be used with MCControl

Well the first PSX MemoryCard Software was designed for PCs and PCs are stupid! So they created many formats for the same shit, because there is no reason for creating a specific format.

MCD - Real MemoryCard Image

This is an 1:1 card read out! It is the best format for storing complete MemoryCards, because its easy to detect and it is small.

If you own other save game types, then send me two files of each type!

GME - Game file

This file contains a complete MemoryCard!

This is the most stupid card image file type! Its a MCD File using an 3904 Byte header! Most of this Bytes are unused. Even the name is stupid, because this file may contain the storage of up to 15 games.

I was told that these additional bytes are used to contain special information about the MemoryCard and each block. Well, I scanned around 100 files and all of them are only using the general MemoryCard information, so there will no MCCControl support for these additional information.

Even some PC tools are not able to write these files correctly! I own some files that are longer than an standard game file. After scanning the file I found the problem. They just saved to much data, so you'll find windows specific strings behind the real image.

VGS - Video Game Strategies

This file contains a complete MemoryCard!

This format is performing a small header with informations about reading the file. Well, quite useless! It was IMHO created by an organisation named "Video Game Strategies". You'll find them in internet.

PSX - Playstation Game File

These files contain the savings created by one game. This may be one block, or more.

This format is great for holding only one saved game.

Attention: There are damaged (patched) files around. These files aren't working with MCCControl, because important data is missing! If you use AmigaDos and "type Filename hex" you will see, that these files contain a small message, where you get a working version! Don't do this! Get a serious source for PSX save games and do not support such "We spread damaged files to powerup our homepage" suckers!

MEM - Memory File

This format is the most stupid save game format. It requires two (2!!) different files for holding only one save game. Together these two files are nearly equal to the PSX file.

I think someone decided to create this format for saving programming time. I strongly suggest not to use this file format, because it doubles the chance to loose data and it requires more disk space.

1.27 The Windows of MCControl

The Windows of MCControl

The Main Window

The Preferences

The Card Preferences

The About Window

The Save Game Converter

There is also an DOS Template!

1.28 MCControl - The Main Window

The Main Window

Main window isn't correct at all, because you are able to open as much windows as you want. But if you close all you quit MCControl.

Each window contains an independent virtual MemoryCard. This Card can be loaded, saved or even be an readout of an real MemoryCard.

All functions (even the format routines) are accessing the virtual card buffer only! The only way to (over)write the real card is protected by an savety requester!

Don't forget to read about the Menu!

Gadgets

Directory

Type
Slot

Read Directory

Download Card
Upload Card

1.29 MCControl - Hauptfenster/Verzeichnis

Verzeichnis

This Gadget is views all MemoryCard files. First a flag and than the block name:

- Block free (may be recovered)
- U Block in use
- L Block link (part of an multi block file)
- I Entry damaged.

1.30 MCControl - The Main Window/Read Directory

Read Directory

This is the fastes way to take a look on the contents of the current inserted memory card.

1.31 MCControl - The Main Window/Type

Type

This button is only visible if the auto detect mode is disabled and you defined more than one personal card.

This gadgets allows to activate the special configuration for the current card.

1.32 MCControl - The Main Window/Card

Card

This button is only visible if you have selected a multi slot reader by using the preferences gadget reader typ.

This gadget selects the card slot for all read/write actions of this window.

1.33 MCControl - The Main Window/Download Card

Download Card

This button forces the reading the whole MemoryCard.

1.34 MCControl - Hauptfenster/Upload Card

Upload Card

This gadget is updating all modified blocks, or just writes the whole card.

1.35 MCControl - The Main Window/Menu

The Main Menu

Project

New Window
Preferences...
About...
Quit

MemoryCard

Load...
Save...
Export...
Read Directory
Download Card
Upload Card
Complete Format
Speed Format
Clean Up
Previous Card Page
Next Card Page

Save Games

Load...
Save...
Save All...
Export...
Delete File
Undelete File
Delete all Files
Undelete all Files
Patch File...

1.36 The Main Menu/Project/New Window

Project/New Window

Opens a new virtual MemoryCard window!

1.37 The Main Menu/Project/Preferences...

Project/Preferences...

This item opens the preferences window!

1.38 The Main Menu/Project/About...

Project/About...

Hui! The about window opens!

1.39 The Main Menu/Project/Quit

Project/Quit

This item is quitting MCControl!

1.40 The Main Menu/MemoryCard/Load...

MemoryCard/Load...

Here you can load complete memory card images.

1.41 The Main Menu/MemoryCard/Save...

MemoryCard/Save...

Here you can save a memory card image. The Fileformat is #?.MCD and the result may be compressed.

1.42 The Main Menu/MemoryCard/Export...

MemoryCard/Export...

Here you can save a memory card image. The Fileformat can be specified by the submenu.

MCControl is not compressing files for export.

1.43 The Main Menu/MemoryCard/Read Directory

MemoryCard/Read Directory

MCControl is only reading the directory.

1.44 The Main Menu/MemoryCard/Download Card

MemoryCard/Download Card

MCControl is reading the complete card into the window buffer.

1.45 The Main Menu/MemoryCard/Upload Card

MemoryCard/Upload Card

This item is updating all modified blocks, or just writes the whole card.

1.46 The Main Menu/MemoryCard/Complete Format

MemoryCard/Complete Format

The window buffer will be initialized like an empty MemoryCard.

You should use this function only to remove any sign of prior usage. If you just want to clear a card for reusing with your PSX than use the much faster speed format function instead!

1.47 The Main Menu/MemoryCard/Speed Format

MemoryCard/Speed Format

The window buffer will be initialized like an empty MemoryCard.

This operation is very simular to the complete format! The only difference is the amount of erased data.

The speed format option is only formating the 15 directory frames instead of writing all 1024 Frames.

1.48 The Main Menu/MemoryCard/CleanUp

MemoryCard/CleanUp

The MemoryCard buffer will be cleaned by this option.

If you use your MemoryCard you delete or upload files. The directory looks unclean, because multi block saving are separated all over the card.

In addition to that the deleted save games are physicaly present. That's the reason why you can undelete them! After cleaning the MemoryCard they are completely wiped out and if the compression mode is enabled the results are much better.

1.49 The Main Menu/MemoryCard/Previous Card Page

MemoryCard/Previous Card Page

This function activates the previous card page of your MemoryCard.

1.50 The Main Menu/MemoryCard/Next Card Page

MemoryCard/Next Card Page

This function activates the next card page of your MemoryCard.

1.51 The Main Menu/SaveGames/Load...

SaveGames/Load...

Here you can load an saved game file.

1.52 The Main Menu/SaveGames/Save...

SaveGames/Save...

Here you can save the selected game file. The Fileformat is #?.PSX and the result may be compressed.

1.53 The Main Menu/SaveGames/Save all...

SaveGames/Save All...

Here you can save all files of the current memory card. If a filename already exists, then you can choose the way to proceed.

The Fileformat is #?.PSX and the result may be compressed.

1.54 The Main Menu/SaveGames/Export...

SaveGames/Export...

Here you can save a single game file. The Fileformat can be specified by the submenu.

MCControl is not compressing files for export.

1.55 The Main Menu/SaveGames/DeleteFile

SaveGames/Delete File

The selected game file will be deleted.

The DEL key has the same effect

1.56 The Main Menu/SaveGames/Undelete File

SaveGames/Undelete File

The selected game file will be undeleted.

The BACKSPACE key has the same effect

1.57 The Main Menu/SaveGames/Delete all Files

SaveGames/Delete All Files

All game files will be deleted. It is possible to undelete all files or just one by one.

1.58 The Main Menu/SaveGames/Undelete all Files

SaveGames/Undelete all Files

Undelete all games files of the current memory card.

1.59 The Main Menu/SaveGames/Patch File

SaveGames/Patch File

The selected game file will be loaded into the save game patcher!

1.60 MCControl - Preferences

Preferences

This window allows to configurate MCControl. This window also contains an menu.

Communication

Driver
Device

Startup Speed Check
System Speed
Auto Detect

Your Cards
Default Cards
Auto Configuration

XPK

XPK Compression
XPK Method

Miscellaneous

GUI Font
Multi Card Reader
Directory
Quick Access

Other

Use
Save
Cancel

1.61 MCControl - Preferences/Driver

Driver

This gadget specifies the hardware used for reading MemoryCards. If you build my hardware then "Standard.mcm" is the right driver.

The debug version ("StandardDebug.mcm") is viewing a lot of information during reading/writing. The debug driver requires MCControl to be startet via CLI/Shell to see the output. The debug version wasn't made for normal usage, because the debugging output takes a lot of time. This makes the debug version much slower than the normal version!

The DexDrive.mcm is an driver for the commercial DexDrive!

The 30 Block (MultiPage) RamCard driver ("RamCard.mcm") is only an example for development. There for the sourcecodes are included. This driver may be useful if you want to use MCControl without an card reader hardware. I use it for programming MCControl without the need of reading and writing real memorycards.

1.62 MCControl - Preferences/Device

Device

Depending on the used driver this gadget may not be available.

Some driver allow to specify the connector for the device. This is can be done by using this gadget! The value behind the device name specifies the connector number of the IO-Card (aka. unit).

Examples:

```
serial.device,0  
vectortex001.device,4
```

1.63 MCControl - Preferences/Startup Speed Check

Startup Speed Check

Depending on the used driver this gadget may not be available.

MCControl is processing a speed check each startup to calculate the system speed!

If you want to save your own optimized or adjusted system speed it is required to disable the startup speed check.

1.64 MCControl - Preferences/System Speed

System Speed

Depending on the used driver this gadget may not be available.

This gadget is only available to make corrections if MCControl isn't able to get the correct system speed. There is no reason to change this value

This value specifies the speed of your Amiga system. A faster system causes a bigger value. An normal A500 has a speed of "1" and an A2000 68030/25Mhz is using a speed of "8"!

If the Startup Speed Check is enabled this value is set automatically during MCControl startup!

1.65 MCControl - Preferences/Auto Detect

Auto Detect

Depending on the used driver this gadget may not be available.

Auto detect enables a special mode for auto detecting the card. So its not required to change the card type (=configuration) by hand.

MCControl is using your personal card list to configurate the reader. If there is no compatible card, then MCControl is using the default card list as source for a valid configuration. If this is also failing then MCControl is using the specifications of an NoName Card.

The auto detection is done every time MCControl tries to access an MemoryCard, so there is a small delay. This delay depends on the number of personal cards and their configuration.

1.66 MCControl - Preferences/Your Cards

Your Cards

Use this list to specify all memory cards you own. Just use the default card list to drag all your cards into this gadget. An other

way is to insert an card and run the automatic configuration

Feel free to change the card names and delay values.

As long as this gadget is empty MCControl is using the NoName specifications.

If you are not able to use the gtdrag.library (e.g. you are using OS2.0) it is required to move the entries via double click

1.67 MCControl - Preferences/Default cards

Default Cards

This list contains all pre defined cards. Just drag all needed cards to your personal list.

All cards draged into this gadget will be deleted.

If you are not able to use the gtdrag.library (e.g. you are using OS2.0) it is required to move the entries via double click

1.68 MCControl - Preferences/Auto Configuration

Auto Configuration

Depending on the used driver this gadget may not be available.

This button allows to auto detect and configurate the needed card config.

1.69 MCControl - Preferences/XPK Compression

XPK Compression

This gadget enables the automatic compression during file save.

The automatic decompression is always working!

1.70 MCControl - Preferences/XPK Method

XPK Method

This gadget specifies the compression method! Consult your XPK manual for further information.

Its not required to change the method. I made several tests and in the most cases NUKE got the best results.

1.71 MCControl - Preferences/Font

GUI Font

This gadget allows to specify a new GUI Font. The screen font is used if this font isn't available.

1.72 MCControl - Preferences/Multi Card Reader

Multi Card Reader

This gadget allows to select the number of card reader slots!

1.73 MCControl - Preferences/Directory

Directory

Here you can specify what the memory card directory should look like.

1.74 MCControl - Preferences/Quick Access

Quick Access

The quick access is done by skipping some MemoryCard parts during read and write actions.

These part are reserved and normaly contain no special data.

1.75 MCControl - Preferences/Use

Use

This button confirms all changes and closes the window.

1.76 MCControl - Preferences/Save

Save

This button confirms all changes, saves the preferences to disk and closes the window.

1.77 MCControl - Preferences/Cancel

Cancel

All changes are lost.

1.78 MCControl - Card Preferences

Card Preferences

This window allows to configurate MCControl cards.

Name

Card read delays

Byte Delay

Bit Delay

Data Delay

Card write delays

Byte Delay

Bit Delay

Data Delay

MultiPage Settings.

MultiPage Start

MultiPage Next

MultiPage Previous

MultiPage End

Use

Cancel

1.79 MCControl - Card Preferences/Name

Name

Here you can specify the name of your card.

1.80 MCControl - Card Preferences/Byte Delay

Byte Delay

Depending on the used driver this gadget may not be available.

This value specifies the delay before reading a new byte.

1.81 MCControl - Card Preferences/Bit Delay

Bit Delay

Depending on the used driver this gadget may not be available.

This value specifies the delay before reading a new bit.

1.82 MCControl - Card Preferences/Data Delay

Data Delay

Depending on the used driver this gadget may not be available.

This value specifies the delay before reading a new data packet.

1.83 MCControl - Card Preferences/Byte Delay

Byte Delay

Depending on the used driver this gadget may not be available.

This value specifies the delay before writing a new byte.

1.84 MCControl - Card Preferences/Bit Delay

Bit Delay

Depending on the used driver this gadget may not be available.

This value specifies the delay before writing a new bit.

1.85 MCControl - Card Preferences/Data Delay

Data Delay

Depending on the used driver this gadget may not be available.

This value specifies the delay before writing a new data packet.

1.86 MCControl - Card Preferences/MultiPage Start

MultiPage Start

Depending on the used driver this gadget may not be available.

This gadget specifies a key sequence! These keys are always used first during page selection.

There is a 1/2 second delay between any key sequence. Within one sequence there is a 1/10 second delay between key down and key up.

Examples:

"L1 L2 SELECT"

All these 3 controller keys will be pressed but not released.

"L1 -L1 L2"

L1 and L2 are pressed. L1 will be released after 1/10 Second.

1.87 MCControl - Card Preferences/MultiPage Up

MultiPage Up

Depending on the used driver this gadget may not be available.

This gadget specifies a key sequence! These keys are only used during the page up command.

There is a 1/2 second delay between any key sequence. Within one sequence there is a 1/10 second delay between key down and key up.

Examples:

```
"L1 L2 SELECT"
```

All these 3 controller keys will be pressed but not released.

```
"L1 -L1 L2"
```

L1 and L2 are pressed. L1 will be released after 1/10 Second.

1.88 MCControl - Card Preferences/MultiPage Down

MultiPage Down

Depending on the used driver this gadget may not be available.

This gadget specifies a key sequence! These keys are only used during the page down command.

There is a 1/2 second delay between any key sequence. Within one sequence there is a 1/10 second delay between key down and key up.

Examples:

```
"L1 L2 SELECT"
```

All these 3 controller keys will be pressed but not released.

```
"L1 -L1 L2"
```

L1 and L2 are pressed. L1 will be released after 1/10 Second.

1.89 MCControl - Card Preferences/MultiPage End

MultiPage End

Depending on the used driver this gadget may not be available.

This gadget specifies a key sequence! These keys are only always used after any page command.

There is a 1/2 second delay between any key sequence. Within one sequence there is a 1/10 second delay between key down and key up.

Examples:

```
"L1 L2 SELECT"
```

All these 3 controller keys will be pressed but not released.

```
"L1 -L1 L2"
```

L1 and L2 are pressed. L1 will be released after 1/10 Second.

1.90 MCControl - Card Preferences/Save

```
Use
```

```
-----
```

This button confirms all changes and closes the window.

1.91 MCControl - Card Preferences/Cancel

```
Cancel
```

```
-----
```

All changes are lost.

1.92 MCControl - The Preferences Window/The Preferences Menu

```
The Preferences Menu
```

```
-----
```

```
Project
```

```
Open...
```

```
Save
```

```
SaveAs...
```

```
Edit
```

```
Reset To Default
```

```
Last Saved
```

```
Last Used
```

```
Save Card...
```

1.93 MCControl - The Preferences Menu/Project/Open...

```
Open...
```

```
-----
```

This item allows to load a prefs file.

1.94 MCControl - The Preferences Menu/Project/Save

Save

This item allows to save the prefs file.

1.95 MCControl - The Preferences Menu/Project/SaveAs...

SaveAs...

This item allows to save the prefs file under a given name.

1.96 MCControl - The Preferences Menu/Edit/Reset to Default

Reset To Default

The preferences window will be reseted to the internal defaults.

1.97 MCControl - The Preferences Menu/Edit/Last Saved

Last Saved

This menu point forces an reload of the last saved preferences.

1.98 MCControl - The Preferences Menu/Edit/Last Used

Last Used

This menu item forces the preferences window to come up with the last used settings. It works like aborting and reopening the preferences window.

1.99 MCControl - The Preferences Menu/Edit/Save Card...

Save Card...

Here you can save a single card profile. If you specify the "DefaultCards/" directory the new card will be used as default card.

1.100 MCControl - About

About

This window is showing the version of MCControl and my name.

During startup this window opens automatically to pay tribute to me. (-8

If you deserve it then I'll tell you how to remove this window!

Gadgets

Ok

1.101 MCControl - About/Ok

Ok

The about window shuts down. Using the ESC or RETURN key has the same effect.

1.102 MCControl - The Save Game Patcher

The Save Game Patcher

This window allow to patch save games.

The number of options depends on the #?.SGP file.

Gadgets

Name

Author

Select ID

ProductID

Convert

Cancel

1.103 MCControl - The Save Game Patcher/Name

Name

Here you can see the name of the game to patch.

1.104 MCControl - The Save Game Patcher/Author

Author

The guy shown here created the SGP file.

1.105 MCControl - The Save Game Patcher/SelectID

SelectID

Here you can select the region id for your game version. The selected ID will be copied into ProductID gadget!

The number of supported regions are depending on the #?.SGP file.

1.106 MCControl - The Save Game Converter/ProductID

ProductID

The ProductID of the save game will be overwritten by this ID! This gadget allows to patch the ID manually!

1.107 MCControl - The Save Game Patcher/Patch

Patch

The save game will be patched.

1.108 MCControl - The Save Game Patcher/Cancel

Cancel

Aborts convertation.

1.109 The SGP File Format

The SGP File Format

General:

The patch commandos work like DOS commands. If you want an argument containing a space, then it is required to use "".

Every time numbers are required you are able to specify them decimal or hexadecimal! Hexadecimal numbers can be defined by an leading "\$" character!

By default all commands are working in the byte access mode! This means every read or write access will be only one byte wide and not more. To change this behaviour use an leading "B" (1 Byte), "W" (2 Bytes) or "L" (4 Bytes)!

In addition to that, its also possible to specify a mask, to change only some or even only one bit. Just put a mask behind the address offset leaded by an "&"!

In the command specifications you'll find an "A" if the argument supports setup an access mode and an "M" for mask support.

Examples:

Access two bytes (\$4001/\$4002):

W\$4001

Remember: INTEL like, the first byte will be read as low byte and the second as high byte.

Access four bytes (\$23e,\$23f,\$240,\$241) and the masking of \$7f.

L\$023e&7f

Now let us take a look into the SGP of Heart of Darkness:

```

;--- Begin
SUPPORT EUR BESLES-00463 US BASLUS-00696
NAME "Heart of Darkness"
AUTHOR "Guido Mersmann"
VERSION "$VER: HeartOfDarkness.SGP 1.00 (13.06.99)"

;--- End

```

This convert file is the lowest level of converting. In many cases the save game is full compatible. It doesn't work because the region isn't the same.

The first command (SUPPORT) specifies all game versions working with this patch. NAME, AUTHOR and VERSION are to easy to explain here. Skip.

Here are all currently supported commands:

```
SUPPORT
NAME
Author
Version
Gadget
Checksum
Tool
```

1.110 The SGP File Format - SUPPORT

Support

Template:

```
Support EUR/K,ENG/K,GER=DEU/K,FRA/K,SPA=ESP/K,ITA/K,SWE/K,DCH/K,US/K,
        ASIA/K,JAP/K
```

Function:

This command must be specified! It contains all region product codes for the game.

How to get these Product codes? Very easy! Just take the .PSX file, open an DOS window and type "Type savegamenam.psx hex". At the beginning of the dump you'll find an string starting with "B". This is exactly what we need. Just must deliver this complete string to the support command.

If spaced are present, then it is required to use "".

Examples:

```
SUPPORT EUR "BESCES-01078BOMBER " US "BASLUS-00680BOMBER " JAP "BISLPS-01155 ←
        BOMBER "
SUPPORT EUR BESLES-00486TOMBRAID US BASLUS-00152TOMBRAID
SUPPORT EUR "BESLES-00720TOMB2" US "BASLUS-00437TOMB2"
```

Its not always required to specify the complete ID string. "BESCES-00808GMEDAT01","BASLUS-00707GMEDAT03" As you can see is the file name of this game different. The contents is compatible. This is made by games using a whole block for saving the data for one player. The next player get an different number. Sometimes the filename is equal to the player name. To convert such save game its required to setup this command line:

```
SUPPORT EUR BESCES-00808 US BASLUS-00707
```

All bytes after these IDs stay unchanged.

1.111 The SGP File Format - NAME

Name

Template:

Name Name/A

Function:

This command is required! It contains the name of the game. This name will be shown later in the patch window

The name should be correct and readable. Do not use upper case or lower case at all. "HEARDOFDAKNESS" is wrong! "Heart of Darkness" is fine!

Examples:

```
NAME "Tomb Raider II"  
NAME "Colin McRae Rally"  
NAME "Spyro The Dragon"
```

1.112 The SGP File Format - AUTHOR

Author

Template:

Author Name/A

Function:

This command is required! It contains the name of the author of the converter. This name will be shown later in the patch window

Examples:

```
NAME "Testy Testman"  
NAME "Guido Mersmann"
```

1.113 The SGP File Format - VERSION

VERSION

Template:

VERSION String/A

Function:

This command is required! It contains an amiga standard version string.

Example:

```
VERSION $VER: HeartOfDarkness.SGP 1.00 (13.06.99)
```

1.114 The SGP File Format - GADGET

GADGET

If you use one of the following words for the gadget name there will be an automatic translation into your language! (If an catalog for your language exists)

Normal Gadgets:

"Level", "Lives", "Money", "Gold", "Ammo", "Coins", "Pieces", "Stars", "Energy", "FullEnergy", "AllWeapons" and "AllKeys"

Barlabel:

"Slot" (The slot entries will be auto numbered)

Slider

Integer

Checkbox

Barlabel

1.115 The SGP File Format - GADGET/Slider

Slider

This gadget allows to insert an slider gadget!

Template:

```
TYPE/A/K,NAME/A/K,MIN/A/K,MAX/A/K,ADDRESS/A/K
```

Inputs:

TYPE: Must be SLIDER!

NAME: Here you can specify the gadgets name. If you use one of the pre defined words the gadget name will be automatic translated into your language!

MIN: Minimum value!

MAX: Maximum value!

ADDRESS: AM Location within the PSX file!

1.116 The SGP File Format - GADGET/Integer

Integer

This gadget allows to insert an integer gadget!

Template:

TYPE/A/K, NAME/A/K, MIN/A/K, MAX/A/K, ADDRESS/A/K

Inputs:

TYPE: Must be INTEGER!
NAME: Here you can specify the gadgets name. If you use one of the pre defined words the gadget name will be automatic translated into your language!
MIN: Minimum value!
MAX: Maximum value!
ADDRESS: AM Location within the PSX file!

1.117 The SGP File Format - GADGET/Checkbox

Checkbox

This gadget allows to insert an checkbox gadget!

Template:

TYPE/A/K, NAME/A/K, OFF/A/K, ON/A/K, ADDRESS/A/K

Inputs:

TYPE: Must be CHECKBOX!
NAME: Here you can specify the gadgets name. If you use one of the pre defined words the gadget name will be automatic translated into your language!
OFF: Value to write into ADDRESS if switch is deactivated!
ON: Value to write into ADDRESS if switch is activated!
ADDRESS: AM Location within the PSX file!

1.118 The SGP File Format - GADGET/Barlabel

Barlabel

This gadget allows to insert a titled bar!

Template:

TYPE/A/K, NAME/A/K

Inputs:

TYPE: Must be BARLABEL!
 NAME: Here you can specify the barlabels name. If you use one of the pre defined words the gadget name will be automatic translated into your language!

1.119 The SGP File Format - CHECKSUM

CHECKSUM

Many save games require no checksum and may be manipulated very easy! If you don't understand how this command is working then skip ist. You need knowledge of programming and a lot of experience to do the right. Just playing around makes no sense.

Template:

START/K/A,END/K/A,DEST/K/A,ADD/K,SUB/K,EOR/K,ADDCARRY/K,SUBCARRY/K,STARTVALUE/K

Function:

This command calculates the checksum of an specified area within the save game. This sounds easier than it is! It will never possible to implement all possible checksum combinations.

Why there is a checksum? Well, programmers of games are saving time by calculating all data by an specific formula. This will be checked during save game loading and if its not correct the game is reporting the savegame is defect or empty. The reason is very easy. For example its possible to collect an maximum of 99 coins. Why should the programmer take care of a value bigger than 99? During the display operation no further check is done. A patched (or just damaged) save game may cause a game to crash. A nice side effect is that the game is working a little faster, because there are no savety checks.

I implemented this command to cheat the game by recalculation the checksum!

Inputs:

START A Offset of the first byte of the checksum area.
 END Offset of the first byte after the checksum area.
 DEST A Offset of the checksum
 ADD A Add values
 SUB A Sub values
 EOR A EOR values
 ADDCARRY A Value to add on carry. (default=0)
 SUBCARRY A Value to subtrack on carry. (default=0)
 STARTVALUE Start value for ADD, SUB and EOR mode (default=0)

Examples:

```
CHECKSUMM START L$1000 END $2000 DEST L$1004 ADD L0 ADDCARRY W1
```

Activates an four byte read mode from address \$1000 (START L\$1000) to \$2000 (END \$2000) and added with an 32 bit add (ADD L0). Each carry overflow one is added to the lower word (ADDCARRY W1). The result will be stored within the four bytes beginning at address \$1004 (DEST L\$1004).

```
CHECKSUM Start L$023A End $6036 Dest L$023A EOR L0
```

Four byte read mode (START L\$023a) and four byte eor (EOR L0) of each value until \$6036 is reached (END \$6036). The result will be stored from \$023a to \$023d (DEST L\$023a).

```
CHECKSUM Start B$0236 End $0836 Dest W$07de Add W0 SUBCarry B1
```

Byte by byte Mode (START B\$0236). Add bytes word wise (Add W0) and subtract one for each carry overflow (SUBCarry B1). Destination for the checksum is the word starting at \$7de (Dest W\$07de).

1.120 The SGP File Format - TOOL

TOOL

Many save games require no checksum and may be manipulated very easy, but some are very complex or contain an special checksum. For this games I implemented the tool command!

Template:

```
FileName/A
```

Function:

This command is running an external program to patch the savegame.

Inputs:

```
FileName      Name of the SGT File without path!! The SGT File must be
               located within "Patches/SGT/" drawer!
```

1.121 The SGT File Format

The SGT File Format

SGT files are standard DOS Executables with a little header! For more information about the file format consult the documentation "Patches/SGT/SGT.doc"

1.122 Using MCControl DOS Only

Using MCControl DOS Only

READ/K, WRITE/K, BYTEDELAY/N, BITDELAY/N, DATADELAY/N, SLOT/N, PROGRESS/S

1.123 The DOS Arguments - Read/K

Read/K

Here you can specify the filename to save the MemoryCard as. The file format is MCD!

1.124 The DOS Arguments - Write/K

Write/K

This gadget specifies the filename of the card image to store on MemoryCard. Any memory card file format is valid, as long its holding a complete card!

It is possible to use Read and Write arguments together! In this case first the MemoryCard is read and then overwritten by the new data.

1.125 The DOS Arguments - ByteDelay/N

ByteDelay/N

ByteDelay describes the delay after each byte, like used in the card settings.

1.126 The DOS Arguments - BitDelay/N

BitDelay/N

ByteDelay describes the delay after each bit, like used in the card settings.

1.127 The DOS Arguments - DataDelay/N

DataDelay/N

DataDelay describes the delay before each data block, like used in the card settings.

1.128 The DOS Arguments - Slot/N

Slot/N

Here you can select the slot number for read/write action!

1.129 The DOS Arguments - Progress/S

Progress/S

This switch enables the progress bar for reading and writing!
