AmiMasterGear

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	COLLABORATORS		
	TITLE : AmiMasterGear		
ACTION	*NAME*	*DATE*	*SIGNATURE*
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REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

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AmiMasterGear

1.1   AmiMasterGear Emulator.

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                AmiMasterGear Emulator
             Version 0.51 (1.February.1998)
              By:  Juan Antonio Gómez Gálvez
                ( Shareware DEMO Version )
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1.2   AmiMasterGear Emulator.

```
Introduction

        This program is designed to emulate the famous "Master System" and "Game  ←
            gear" machines.
Although this version is not yet finished, it emulates many ROM images  ←
   successfully.

        This software is still in the development stages (hence the version number ←
            ), so no guarantee
can be made by the author that this program emulates a full "Master System" or " ←
   Game Gear".

        THE AUTHOR ACCEPTS NO RESPONSIBILITY FOR THE LOSS OF DATA OR EQUIPMENT  ←
            FROM THE USE OF THIS
SOFTWARE.
```

1.3 Features

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Features

  Fast: Original speed of "Master System" and "Game Gear" achieved
  Smooth scrolls
  One frame screen refresh
  Sound support
  Snapshot support
  Save battery RAM
  Supports line interrupts with screen changes in real time
  Supports realtime palette changes.
  Support for two controllers
  Various control methods supported (Keys, (CD$^3$$^2$) Joypad, Joystick)
  Cheat mode (Find and set cheats in your games!)
  PAL or NTSC display modes only, but PAL is more compatible
  Z-80A Emulation: Highly optimized and compatible (Ported from my AmiMSX2)
  Great GUI, so it's very easy to use
  XPK support for packed ROMs
  Keyfile support
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1.4 Requirements

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Requirements

    - An AGA Amiga computer (eg. A1200/A4000)
    - MC68020+  (and 100% compatible with MC68030/MC68040/MC68060)
    - A PAL or NTSC compatible VDU
    - asl.library
    - stc.library        (Only for Stone Cracker decrunch support)
    - xpkmaster.library  (For XPK support)


Minimum requirements for adequate emulation:
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    - MC68020 at 28Mz or MC68030 at 25Mz
    - 1Mb of real 32bit fast memory


Recommended requirements for adequate emulation:

    - MC68030 at 50Mz or better
    - 1Mb of real 32bit fast memory
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1.5 Instructions

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How to use AmiMasterGear

 Project
  Save VRAM                  Saves MasterGear VRAM as an IFF-ILBM (not implemented  ←
     yet)
  Save Prefs                 Save current preferences to 'S:AmiMasterGear.prefs'
  Cheat mode                 Locate and set cheat addresses of the current cartridge

 Cartridges
  Insert/Eject Cartridge  Load/Unload a cartridge
  Load/Save Frozen        Creates snapshots of the emulation screen
  Load/Save RAM Batt      Loads/Saves the virtual RAM battery
  Clear RAM Batt          Clears the virtual RAM battery

 Options
  JoyStick 2 ON              Enables Second Joystick (Mouse port)
                             (Only for games supporting two players)
  Swap JoyPorts              Swap Amiga Joyports
                             If this option is disabled:

                             Player One = Amiga Joy Port B.
                             Player Two = Amiga Joy Port A.

                             If this option is enabled:

                             Player One = Amiga Joy Port A.
                             Player Two = Amiga Joy Port B.

                             Note: Player one always uses the keyboard

  Black Border               Borders of the emulaton screen will be black
  No illogical moves         Left and Right instantly, or Up and Down instantly.
                             Joy-reads are not accepted.  (Useful if keyboard is  ←
                                used for gameplay)

  Auto Load RAM-Battery      Reads battery (nameofgame.sav) when a cartridge is  ←
     inserted
  Auto Save RAM-Battery      Save  battery (nameofgame.sav) when you re-insert  ←
     another cartridge or
                             quit the emulator
  Ask for Save RAM-Battery This will display a prompt before the battery is saved
                             NOTE: The option 'Auto Save RAM-Battery' must be  ←
                                disabled)
```

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CPU Emulation (This mode is not implemented yet)
 Syncronized             Emulation is 100%, all work correctly.
 UnSyncronized           Not a full emulation, but runs substantially faster
                         The video can run in a 1 frame refresh mode

Video Emulation
 Sprites Pri             Causes sprites to prioritise emulation
 Background Pri          Shares priorities between sprites and background
 Realtime Scroll         Support all scroll changes in realtime
 Realtime Palette        Support all palette changes in realtime


Country code
 Master System           Enables either the Japanese or English version of a game
 Game Gear               Country code is automatically established when you  ←
     insert a cartridge

Disable Cheats           'Cheat mode' and 'Save Frozen' are disabled for the  ←
     current cartridge

Ask for Reset            Prompts the user before the emulator is reset
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1.6 Control

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Control methods


Keyboard (Keys also work in joystick mode)

 Esc        = Exit to menu.
 Del        = Pause (Master System only)
 Enter      = Start (Game Gear only)
 Left Amiga = Button A
 Left Alt   = Button B
 Space      = Button B
 Cursors    = Up/Down/Left/Right

Amiga joystick or compatible joypad

 Fire        = Button A
 Second Fire = Button B                  (If exists) [pin 9]
 Third Fire  = Start (Game Gear only) (If exists) [pin 5]

 Use keyboard keys for other buttons

CD32 joypad

 Play Button        = Exit to menu
 Green Button       = Pause (Master System only)
 Yellow Button      = Start (Game Gear only)
 Red Button         = Button B
 Blue Button        = Button A
 Rewind Button      = Button B
 Fast Foward Button = Button A
```

1.7 How to register

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              How to register

  This program is SHAREWARE.  This program has restrictions, so that
  the user can evaluate the program, and then decide whether it is
  worth registering.  If you feel that the program is worth registering
  then you can fill out the registration form below, and send it to me.
  For doing this, you will recieve the FULL version.

  ALL UPDATES WILL BE TOTALLY FREE WHEN YOU HAVE REGISTERED, THEY CAN
  BE OBTAINED FROM MY
              WEB~PAGE
              <=------------------------------------------------------------ ←
                 ---=>


              AmiMasterGear Emulator Registration form

- Full Name: _____

- Complete Address: _____

                    _____ _____

- City: _____

- Country: _____

- e-mail: _____ Phone: _____(optional)

- Password: _____  (To decrypt your key file, REMEMBER CASE)

- Amiga you own: _____

- Bugs, ideas, etc... _____

_____ _____

_____ _____

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              Registration fee:

  NOTE: All AmiMSX2 Registered users can obtain a 5 US$ or 600 Pesetas
        discount

  (Please tick)

  VIA E-MAIL
  [ ] $15 US Dollars or 2000 Pesetas (or equivalent in your country)

                              PLEASE READ INSTRUCTIONS BELOW!

  VIA SNAIL MAIL
  [ ] $20 US Dollars or 2500 Pesetas (or equivalent in your country) if I
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        send you one brand new TDK disk with the full package of AmiMasterGear

   USERS IN SPAIN
   [ ] Por contrareembolso de 2700 pesetas, te enviaría un sobre acolchado con
       un disco nuevo TDK con el paquete completo del emulador

Instructions when transaction is performed via e-mail:

        - First, obtain the LATEST REGISTERED version of AmiMasterGear from my
          Web Page:
                     http://www.arrakis.es/~joanant

          This version will be encrypted with a password, which you will get
          with the keyfile

        - The keyfile is encrypted with your password, decrypt it when you
          recieve it

        - Most operations are performed automatically by this process

                Please~send~your~questionnaire~and~money~to~my~address
                 Once I recieve this questionnaire with your money, I'll send the ←
                    keyfile
 to you

 All updates can be downloaded freely from my
                web~page

1.8 Technical information

Technical data

 Developed using an Amiga 1200+Bizzard 1220+2Gb Hard Disk

 Programmed using Devpac III

 AmiMasterGear is 100% programmed and optimized in MC68020 assembly language

 80% of the coding and design is based on the AmiMSX2 emulator

 GUI created with GadToolsBox

    8387 lines of MasterGear emulation code
    4264 lines of menu code
    6686 lines of GadToolsBox generated code

   19337 lines (176489 lines with macros expanded)

    100% compatible with 020,030,040 and 060

1.9 **History**

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History


    v0.51  (1 February 1998)


    Snapshots 100% Finished, Now it work 100%.  (Frozen)
    Realtime Palette changes refresh support.
    Rainbow Island.sms works again.  (thanks Rickard)
    Reprogrammed 'Continue' cart mode, now it work 100% allways.
    Pause key read on CD32 Joypad fixed.


    v0.50  (25 January 1998)


    Snapshot support (Frozen)
    Some little bugs fixed.


    v0.45  (15 January 1998)


    Minor Bugs fixed:
    Fixed Game Gear Blank Screen.
    Sometimes Continue button resets carts.  Now Fixed!
    Fixed a unsyncronization of Realtime Scroll Refresh.


    v0.44  (12 January 1998)


    Background Priorities with Sprites done.
    Sprites Collisions done (Simulation) (Cheese Catastrophe and others)
    Some bugs in CPU accesses to VDP fixed.  (Bart vs mutans and others)
    Bug in Memory Mapper Page 0 fixed.  (Now more games work!)


    v0.43   (7 December 1997)


    BIG Bug fixed in memory mapped control
    A variety of software now works:
    Sonic, Super Final Fury, Rampage, R-Type, and a lot more...


    v0.42   (6 December 1997)


    Master System country code bug fixed.  (Now games work in English)


    v0.41  (23 November 1997)


    Sprite priorities supported (Selectable)


    v0.40  (10 November 1997)


    HALT bug fixed
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     Sprite emulation optimized and finished (now 30% faster!)
     GFX emulation optimized and finished. (32 colours and 20% faster!)
     Line interrupts emulated
     Supports real time scroll changes
     Pause key emulated (Master System)
     Battery-RAM support
     Keyfile support
     XPK support
     Cheat mode


     v0.3   (16 May 1997)

     PAL/NTSC Selectable
     Little bug fixed in GFX realtime refresh
     OUT ($BE),x  x=H,D,B bug fixed


     v0.2   (16 March 1997)

     First version
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1.10 Future

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Future

 Finish line interrupt emulation
 Save VRAM as an IFF-ILBM file
 Finish PSG emulation
 CPU emulation syncronized for 100% emulation (requires a fast Amiga)
 "Recent" and "Favourites" lists for ROM images

 AmiMasterGear will always run with AGA: PAL/NTSC frequencies, with multitasking  ←
    disabled
```

1.11 Copyrights

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Disclaimer

 The author does not take any responsibilities for the incorrect use of this
 software

 Master System and Game Gear are registered trademarks of SEGA

 Devpac III              © HiSoft

 GadToolsBox             © Java Development

 Stc.library             © StoneWare SoftWorks (By Jouni Korhonen)

 AmiMSX2 Emulator        © Juan Ant° Gómez Gálvez
```

1.12   Contact addresses

```
Author

 If you want to contact me, try the following means:


 Snail-Mail:              Juan Antº Gómez
                          Aptdo. de Correos: 275
                          08940 Cornellà de Llobregat
                          BARCELONA
                          SPAIN

 E-Mail:                  joanant@arrakis.es

 AmiEmulators Web Page: http://www.arrakis.es/~joanant

 Note: I am currently very busy, so you may have to wait a while for a reply
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1.13   Greetings

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Greetings and Thanks

 Special Greetings to the best Spanish group: Ozone
 Multivac for your Icons, graphics and AmiEmulators WEB
 Skid/Ozone for Modem support and stuff!!!
 Roderick Mouthaan and Philippe Bezon for being good friends
 Manuel Hiniesta for being my best friend
 Pascal Willano for helping me to make my emulators compatible with 040
 Sergi Martínez for his help in AmiMSX2
 Shaun Bellingham for making this guide readable and great!!!
 Simon Goodwin for your infos in how to emulate PSG noise
 Tomas Amsrud for your Spripts installers and icons for my emulators
 Lennart Johannesson, Emanuel Schleussinger, Carl Warrent, Hans Guijt, Niklas Berg
 Richard Koerber, Rodney Norton, and Ben Cass for your helps and support!
 Alvites Szaler Lobsang for the great AmiBEE!
 Tony Vera Díaz, que no coño!, que NO Tony, que tú no has estado akí!!!

Special Greetings to:

 Hans Guijt   fMSX-Amiga.
 Ville Helin   Wzonka-lad.
 Fredrik Olsson   coolNESs.
 Morgan Johansson & Fredrik Schultz   A/NES.
 László Török   Avid / Savage.
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