Galaga

COLLABORATORS

	TITLE : Galaga		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY		February 7, 2023	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

Galaga

1.1   Galaga v2.6

```
           «------------------------------------------------------------- ←
              »
   D E L U X E
   *********     ***** ***          *****   *********      *****
   ***          ****** ***          ****** ***             ******
   ***          **  *** ***          **  *** ***             **   ***
   ***    ***   ******** ***          ******** ***    ***    ********
   ***     **   **   *** ***      **    *** ***    **  **     ***
   ********* **   *** ******* **      *** ********* **      ***
    v2.6C Made by Edgar M. Vigdal                        ©EMW94
   «-------------------------------------------------------------»
```

Table of Contents:

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          The Galaga Project
```

1.2   What is Shareware ?

Shareware is a way of getting good software in a cheap way.
You get hold of the software for almost nothing, and can test
it for a while before deciding if you want to pay the
programmer for his/her hard work. And remember that if you
don't pay and nobody else do pay than it's pretty sure that
the programmer will NOT make any more shareware software.
And that will in the end lead to no software for your
machine!!!! So, please pay the author of the software.

NOTE! This program is in fact shareware!

1.3   If you like this piece of software !

               If you use this software and you like it, than I (Edgar M.
Vigdal) would be eternal grateful to you, if you send me 15
US Dollar, £5, 20DM or any amount you like, as
payment for the game. If you would like 1 year of free
update (at least 2 update (If I get any bug rapport, or
suggestions for improvement)), than send me $25, £15, 40DM or
150 NOK or more if like to.... ;-)

If you also want the latest version of Deluxe PacMan, than
add $10, £5 or 50 NOK and an extra disk.

If you become a registered user and send me a disk, I will
send you a super version with more levels, more sound
effects, speech and other improvements. (maybe an AGA
version?!)

```
**********
* PLEASE *
**********
```
Send me a disk for the reply, as I can not afford the disks!
Please add an extra disk for Deluxe PacMan, if you want that
one too, or if you want the next game. The game has now
grown too big and I can no longer fit both games on one disk!

```
********
* NOTE *
********
```
If you only pay the shareware fee ($15,£5) AND you get a
later version from a PD-dealer/BBS or some where else, you
should think of that version as an update from me! (If you
send a disk then you should get a new version from me! (When
I have made a new version!!))

```
************
* INTERNET *
************
```

If you have internet access and an email address and you are
able to receive messages that are some 500 kilobytes big, you
can get updates through the internet!! This is the very best
and fastest method to get the new updates and extended
versions and extra files! So get yourself a good email-box
and you will receive the version in a couple of hours after I
have your shareware fee!!!!

             My address and bank/giro account

             Methods of payment

             Important notes

             To Magazines!

1.4   My address and bank/giro account

        This is my address...

             Edgar M. Vigdal
             583O LUSTER
             NORWAY   (I do NOT like whale hunting!)
                                      (But than again, I don't like
                                       bull fights either!)

        Yes!   this is really my address, it's very short for
        people in the U.K. Canada and Australia, but it's long
        enough for me. ;) Please remember that Norway is a very
        sparsely populated country!!! And we really don't need
        that long addresses!! 8^)

        EMAIL: edgarv@powertech.no

        Or you may use my bank account....

             3785.10.05774   Luster SpareBank
                                        5830 Luster
                                        NORWAY

        Or you may use my PostGiro account...

             0826.0658124

1.5 Methods of payment

- Cash: Preferably by registered mail. Please do NOT use
any 'strange' currencies!   Here are some currencies that I
can NOT get exchanged:

    * Fuji dollar
    * Australian dollars!
    * Scottish pounds!
    * Any east european currencies!
    * NO coins!!!!!!

- EuroCheques: Send a EuroCheque written out in Norwegian
kroner, NOK. (other currencies are NOT accepted). Make the
cheque payable to Edgar M. Vigdal. This is without doubt
the best method of payment to use!!! (for me!!)

- PostGiro: Transfer   NOK   to   the   PostGiro   account
0826.0658124.   Please send me a message either via E-Mail or
snail-mail and give me your address and your setup. My
receipt is very small and difficult to keep track off... ;-/

****
Please do NOT use any strange postal order notes, if you want
to use any form of postal order, then use an International
Postal Order.   Check with your local post office!!!! Some
postal orders are totally rubbish here in Norway. Eg. British
Postal Orders. DO NOT USE THIS TO PAY ME!!!!

Please do not use cheques if you can, because I have to pay
SO MUCH in exchange fee!!! (30-50%)(It's sick!!) :(((

Please make sure that your full name, address, postal code,
city and country is included. If you have an Internet email
address, please include that one too, so I can notify you
that I have got your fee!. Please include a description of
your hardware and OS versions too!

To those that support my hard work, I send my warmest regards
to!!
****

1.6 Important notes

Please check that the address listed above is the same as the
one in the game !

If you send a disk you may put some stuff on it. Demos,
games, utilities or music modules.

To all of those that send my the fee for Deluxe PacMan, I
WILL send you the update!!! As soon as I have a version of
PacMan that works on all Amigas I will send it to all who
have paid for it!!!

If you have bought this game from any public-domain firms you
have NOT paid me anything, you have only supported some
'thieves' who are earning lots of money on other peoples hard
work!! If you want to support the programmers, then
subscribe for the Fred Fish disks and send the shareware fee
to the peoples that should have had it in the first place
(The programmers!!).

It is illegal to copy this piece of software onto games
collections and sell it for profit!! Permission to copy and
distribute this program is only granted to Fred Fish and if
the charge for the disk/copying don't exceed 2 US dollar!!!!!

All the files MUST be included!!!! (If you need some extra
space on a coverdisk, then you may delete the music files and
the 'GALAGA.SFX' file. All text/doc files MUST be included !!

****
* NOTE *
****
If there are any registration sites that want to distribute
the game, please contact me! E-Mail or Snail-Mail.
****

1.7 To Magazines!

If you want to use this game on your coverdisk or you are
reviewing the game, then please send me a copy of the
magazine/review. If you want to pay me, I will not say no to
that.

If you want to use this game on a CD32 coverdisk, I would
really like a copy of the disk! And make use of the
GALAGA.MUSIC file! This file could be filled with names of
modules on the CD and the player could then select/switch
music with the green shuffle button on the joypad!

1.8 About Deluxe Galaga

Deluxe Galaga is based on the game StarBattle on the old
VIC20. That was one excellent game, that I had a lot of fun
with. It's also some features from the games Galaga and
Galaxions. I played Galaga on an arcade machine, but it was
so long ago that I have forgotten how it looked like. My

version of Galaga (or StarBattle) is a simple (?) shoot'em up game with good game play, but not so much fancy graphics. Many of todays game have lots and lots of graphics, but when it comes to game play they really sucks. They have manuals covering hundreds of pages, and you need hours and days to get into the game. What I want from a game is some relaxation for a couple of minutes, and then be able to quit the game and do some more work. And not to mark the calender for when I want to play the 60MB hi-tech game!

1.9 Your Mission

You are in control of a small starfighter, and your mission is to protect the earth from alien attackers. When you start, your ship have limited supply of bullets and are moving a bit to slow, but by shooting the aliens you can collect the falling bonuses and get all sorts of weapons, extra speed and a lot of other goodies!

When you are hit, some of the weapon power is lost and also speed and any bonus time you have collected. This los is bigger on the hard level.

There are double shoot, triple shoot, super weapon, extra life, smart bombs, money, warps, secret bonus level and much more to be collected and added to the starfighter.

Look out for mother ships, rockets, warp malfunctions, super guardians and Super Cash Ship!

There is also a lot of secrets in the game, you can find this secrets yourself, or you can buy them in space-shop. The space-shop will appear every fourth level, but you must have more than 50 credits to enter the shop. There are more than 10 secrets hidden in the game and some that are not listed in the game!!

The Sub Games:

Meteor Storm: You must navigate you ship through a field of big rocks floating in space. Some of the rocks have bonus point on surface and can be collected. There are also some money containers floating around. Collect these and get some extra shopping money. You will get a super bonus if you compleat the meteor storm.

The Memory Station: Try and find a pair (Two blocks that look the same) in a matrix of blocks. If you find a pair you will get the bonus that are one the blocks. You only have limited time to find as many pairs as possible. If you find all the pairs you will get a bonus.

The Warp Malfunction: Shoot and try to survive the attack of
the warped beast from outer hyperspace.

1.10   The Game Screen ..

```
            Player1 Cash   Hiscore  Player2 Cash
              .----------------------------------.
Music/Sfx/Clock|m 00000 00   00000000   00000 00 c| Game credits
               |                                  |
Multiply Score |x5                              x2| This side is
    Lives left |Ships                        Ships| for player 2
               |                                  |
 When EXTRA is |E                                E|
  spelled, you |X                                X|
    will get an |T                                T|
   extra ship! |R                                R|
               |A                                A|
               |                                  |
If you have six|Rank                          Rank|
marks,you will |marks                        marks|
be promoted to |                                  |
a new rank.    |                                  |
               |                                  |
   Ship armour |»»»                            ««| Armour for player 2
               |            --------             |
               |          ------ «------------| Alien Scope: Use it
               |           ----                 | to catch aliens!
               |            --                  |
               |          |/\| «------------| Your ship!
               |          ====                 | If it's flashing
               |_____| you have the shield.
```

Player 1 has a grey ship and player 2 has a green ship!

1.11   Installing the game

o DISK

   Start your machine with workbench, than insert the Deluxe
   Galaga game disk in one of the diskdrives, and open up the
   disk by double clicking on the disk icon. Than open up the
   Deluxe Galaga directory by double clicking on the directory
   icon.   You than start the game by double clicking the Galaga
   game icon.

   If you want to make a bootable game disk than format and
   install a disk. Than make a 's' directory on the disk...

            Makedir DF0:s   [RETURN]

   Copy all of the Deluxe Galaga files on to the disk. Or just

copy the Deluxe_Galaga directory over to the empty disk.

Copy the following commands on to the disk...

```
CD
SetPatch21          ;If you are using OS2.1
SetPatch30          ;If you are using OS3.0 and AGA
LoadWB
```

Make a startup-sequence in the 's' directory like this...

```
-8<-------------------------------------------------------------
SetPatch21          ;If you are using OS2.1
SetPatch30          ;If you are using OS3.0 and AGA
CD Deluxe_Galaga    ;If Deluxe_Galaga is the games directory!.
                    ;If you don't use a Deluxe_Galaga directory
                    ;you must use a 'CD DF0:' to get the game
                    ;to start!!.)
LoadWb              ;To get interrupts correctly....
Galaga              ;Load and start the game
-8<-------------------------------------------------------------
```

Reboot with the disk and test if it works!!

If you want to use packed data files you should also create a
directory call 'libs' on the disk and copy the
xpkmaster.library file and all the files in the compressors
directory.

If you want to use a joypad to control the game you must also
copy the file 'lowlevel.library' to the 'libs' directory on
your game disk.

o HARDDISK

   Copy the Deluxe Galaga directory to the desired directory on
   your harddisk, by dragging the directory icon from the Deluxe
   Galaga game disk to the selected harddisk directory.

   To start the game just double click on the Galaga game icon.

   You should select the 'SAVE ON EXIT' option for hiscore
   saving, if you are playing the game from a harddisk, and end
   the game by pressing the 'ESC' key. Read more about the
   options below.

   If you want to use packed data files you should also copy the
   xpkmaster.library file and all the files in the compressors
   directory to your 'sys:libs' directory.

   If you want to use a joypad to control the game you must also
   copy the file 'lowlevel.library' to the 'sys:libs' directory
   on your boot disk.

1.12 Game options and Preferences

When you start the game for the first time, a preferences
screen will appear. On this screen you can select what chips
your Amiga have, the video system, how to save the hiscore
list and other settings.

_____

```
***********************************************************
      D E L U X E    G A L A G A    O P T I O N S
***********************************************************

          PAL (256 Lines) or NTSC (200 Lines)
          _____[PAL              ]

          Type of main processor
          _____[AUTO CONFIGURE   ]

          Hiscore saving
          _____[SAVE ON EXIT     ]

          Lowlevel.library
          _____[USE, IF PRESENT  ]

          Channel indicator / Clock
          _____[CHANNEL INDICATOR]

          Money bonus in meteorstorm
          _____[YES              ]

          Money limit
          _____[UNLIMITED        ]

          Level limit
          _____[UNLIMITED        ]

          Ship Armour
          _____[YES, PLEASE!     ]

          Cash Sucker
          _____[YES              ]

          Sampled speech
          _____[ACTIVE           ]

          Play area borders
          _____[OFF              ]

          Use Mouse as controller
          _____[NO               ]
                                  [SAVE PREFERENCES ]
```

_____

This are the options that you could select/toggle.

CD^3$^{2} Use the up/down buttons to select an option and use
        the left/right buttons to switch the option. The
        preferences   you   select   will be saved in the
        nonvolatile ram on the CD32.

NOTE As some of the options changes the difficulty of the
        game, the hiscores is no longer compatible and can
        not be joined if they was made under different option
        selections!!   A code will be added to the hiscore
        filename.   Only hiscore files with the same code can
        be joined together.

MORE ON THE PAL / NTSC MODES
============================

PAL Video System:

    Game in normal mode: Select PAL and switch off the Hz
    mode inside the game (TAB).

    Game in Arcade feeling mode: Select NTSC and switch on
    the Hz mode inside the game (TAB). This is the mode that
    I personally like the best!!

NTSC Video System:

    Game in normal mode: Select NTSC and switch off the Hz
    mode inside the game (TAB). This is actually the arcade
    mode and the game will be a bit faster then for PAL
    players!

    Game in PAL mode: Select PAL and switch the Hz mode off
    inside the game (TAB). The game will now be a bit
    slower.

The preferences that you have selected will be saved for
later use.   If you want to change the preferences you most
hold down the fire button on the joystick (Port 2)(NO auto
fire) or the left mouse button when the game is loading. Or
you can delete the GALAGA.PREFERENCES file in the games
directory.

NOTE!

This game will NOT work on any 24bit graphics card. If

Commodore had made a machine with a fast enough processor to
use system functions in games, it would have worked, but
they didn't and they never will! Sorry !!!

Amiga is the best home computer in the world, it's just to
bad that Commodore got hold of it !!!! And that Medhi Ali was
ever born!!

1.13   PAL (256 Lines) or NTSC (200 Lines)

```
================================================================
PAL (256 Lines) or NTSC (200 Lines)_____[PAL            ]
                                         [NTSC           ]
================================================================
```
This gadget will switch between PAL and NTSC mode of the
game. PAL will use a 270 line high display and NTSC will use
a 210 line high display. If you are living in a country that
uses the NTSC video system then select the NTSC mode. This
will adjust the game to use a smaller screen and the players
ship should appear on the screen.
    If you want a bit more arcade feeling added to the game
AND you have a fat Agnus installed in your machine, then try
the NTSC mode and hit the TAB key when on the menu screen in
the game. This will speed up the game even more... (Not for
those who must use the NTSC mode! (USA & JAPAN (I think!?)))

1.14   Type of main processor

```
================================================================
Type of main processor_____[AUTO CONFIGURE  ]
                                          [MC68000         ]
                                          [MC68020         ]
                                          [MC68030, MC68040 ]
================================================================
```
Use this option to select or force the game into one of the
processor modes. The game will start flickering and slow
down if you have a MC68000 and forces the game into MC68030
mode!

MC68000 If you got a standard Amiga (A500,A600,A1000 or A2000)
MC68020 If you got a A1200 or any 68020 accelerator.
MC68030
MC68040 If you got a A3000, A4000/30, A4000/40 or any 68030/
         68040 accelerator.

If you have a faster processor, the game will have more
objects on the screen, bigger explosions, more bullets, more
bonuses, more background stars and.......

1.15   Hiscore saving

```
================================================================
Hiscore saving_____[SAVE ON EXIT    ]
                                              [SAVE IN GAME    ]
================================================================
```
This gadget will switch between 'SAVE ON EXIT' and 'SAVE IN
GAME' for the hiscore saving option. Use 'SAVE ON EXIT' if
you are playing the game from a harddisk.
    If you use the 'SAVE ON EXIT' option you must use the
'ESC' key to save the hiscore, if you reset the machine
(CTRL,AMIGA,AMIGA) the hiscore will be lost! The 'SAVE IN
GAME' will save the hiscore each time the hiscore list is
updated with a new hiscore entry.

1.16   Lowlevel.library

```
================================================================
Lowlevel.library_____[USE, IF PRESENT ]
                                              [DO NOT USE IT!  ]
================================================================
```
Use   this   option   to   switch   of   the   loading of the
'lowlevel.library'.   This library is used to read a joypad.
You can use a joypad and control most of the game from it.
Adjust music volume, pause the game, switch music and toggle
between music and sound effects. If you have problems with
this library (The game pauses at random) you can switch of
the loading of it. This option will also be switched of if
you select to use the 'mouse control' option!

1.17   Channel indicator / Clock

```
================================================================
Channel indicator / Clock_____[CHANNEL INDICATOR]
                                           [CLOCK            ]
================================================================
```
Use this option to switch on a clock display in the upper
left corner of the game screen. For those that get really
lost in the game and want a little reminder of how much the
clock is... 8-)

1.18   Money bonus in meteorstorm

```
================================================================
Money bonus in meteorstorm_____[YES              ]
                                           [NO BONUS!        ]
```

```
==============================================================
This  option  will  switch  on/off  the  cash  bonus  in  the
meteorstorm.  For  those  that  are tough enough to play the
game without toooooo much cash!
```

1.19 Money limit

```
==============================================================
Money limit_____[UNLIMITED       ]
                                           [3000 !!!        ]
                                           [5000            ]
                                           [10000           ]
==============================================================
This  will  limit  the amount of cash that you can collect in
the  game.  If you are really tough you should play with the
3000 limit!!! (chicken....)
```

1.20 Level limit

```
==============================================================
Level limit_____[UNLIMITED       ]
                                           [25              ]
                                           [50              ]
                                           [75              ]
==============================================================
This option will set the level limit for the game.
```

1.21 Ship Armour

```
==============================================================
Ship Armour_____[YES, PLEASE!    ]
                                           [NO ARMOUR!!!!   ]
==============================================================
This  option  will  switch  on/off  the  ability  to use ship
armour!  If  you  like  the game a bit harder you should try
without the armour.
```

1.22 Cash Sucker

```
==============================================================
Cash Sucker_____[YES             ]
                                           [NO!             ]
==============================================================
```

This option will switch on/off the cash sucker alien.
This is mostly for wimps!

1.23   Sampled speech

```
================================================================
Sampled speech_____[ACTIVE         ]
                                            [NO SPEECH PLEASE!]
================================================================
```
If you are sick of the synthetic speech that keeps saying
those same lines over end over again, use this option to
switch the speech on or off

1.24   Play area borders

```
================================================================
Play area borders_____[OFF            ]
                                            [ON             ]
================================================================
```
This option will toggle on or off a thin border on each side
of the play area. The program uses a little bit time to draw
these borders, so if your machine is a bit slow, don't use
this option!

1.25   Use Mouse as controller

```
================================================================
Use Mouse as controller_____[NO             ]
                                            [YES! Use Mouse  ]
================================================================
```
If you play the game at work and don't want some 'toy'
joysticks laying around, use this option to select the mouse
as the controller. Move the mouse left/right to move the
ship and back/forth for down/up movements. Use the left
mouse button to fire bullets and the right button to pause
the game.

1.26   How to control the game

```
    ESC     Stops the game in play, and quits the game if you
            are on any of the menu pages.

            *CD$^3$$^2$*  To  quit  a  game in progress:  pause the
```

```
                    game and press the blue button.

     F1      Selects 1 player mode.
     F2      Selects 2 players mode.

     1       Selects beginner mode.    (5 bullets)
     2       Selects normal mode.      (4 bullets)
     3       Selects hard mode.        (3 bullets)


     P       Pauses  the game, and starts the game again.  You
             may  also  start the game again by using the fire
             button.

             *CD$^3$$^2$* Use the pause/play button on the joypad.


     E       Selects sound effects or music.

             *CD$^3$$^2$* Use  the  yellow button to switch between
                   music and sfx's.


     TAB     Toggle between NTSC/PAL (50/60Hz) mode.  You must
             have the fat Agnus chip for this to work!


     F5      Print  out  the hiscore-list.  The boot-disk must
             contain  the  printer driver, parallel.device and
             the port-handler.

             ** This is disabled if the nonvolatile library is
             present. (CD$^3$$^2$)



     F6-F9   Toggle the 4 sound channels between music and SFX.

     F10     Selects the next music module.

             *CD$^3$$^2$* Use  the shuffle (green) button to switch
                   to  the  next  module.  (If there are any
                   modules!)


     *       Mute. Toggles volume between max(64) and min (0).

     +, -    Adjusts the music volume.

             *CD$^3$$^2$* Use the rewind and forward buttons to
                   adjust the music volume.


     J       Joins two hiscore lists together.  If a friend of
             you  have  the  game you can use this function to
             make  a  new  hiscore list with the best hiscores
             on.   The new hiscore lists will contain only the
             best hiscores.

             **  This is disabled if the nonvolatile library is
                 present.  (CD$^3$$^2$)


     HELP    When  this  key is hit, the game will now iconize
             and  the  workbench  will  appear again.  A small
```

window with some gadgets will be opened. The
first gadget is to return to the game. The game
will be paused until you hit the firebuttons.
The second gadget is for freeing all the modules
from the memory. You can also free up some
chipmem by selecting the third gadget. The last
on is for quitting the game and freeing all
memory.

CD^3^{2} Use the up and down buttons to move a cursor
(checkmark) up and down on the menu screen. Use
the red button to select/toggle an option.

You control the game with a joystick in port #2. If you
are playing in the two-player-at-once mode, player 2 must
use a joystick in port #1.

BUTTON = Shoots at the aliens.

LEFT   = Moves the ship to the left.

RIGHT   = moves the ship to the right.

1.27 Extra functions

MUSIC

SFX

512K MEMORY

HISCORE PRINTING

CD^3^{2} CONTROL
    NEW FOR VERSION 2.4
~~~~~~~~~~~~~~~~~~~

XPK LIBRARY SUPPORT

LOWLEVEL LIBRARY

NONVOLATILE LIBRARY
    NEW FOR VERSION 2.5
~~~~~~~~~~~~~~~~~~~

ICONIZING THE GAME

1.28 MUSIC

If you get sick and tired of the music you can change it to
one of your own favorite protracker modules. You do this by
changing the name of the original music or delete it.

             Example:

             rename GALAGA.MUSIC as GALAGA.MUSIC.reserve

And then you copy your module over to the Deluxe Galaga
directory and rename it as 'GALAGA.MUSIC'

             Example:

             rename MOD.MYSUPERTUNE as GALAGA.MUSIC

You may also change the jingles (this are small tunes that
are played at special occasions), as they are also protracker
modules.

NOTE!   The modules that you want to use must be compatible
        with ProTracker 1.1b.   If you test your selected
        module and it's not played back correctly, then it's
        most probably not compatible.

NOTE Some noisetracker (and maybe other module types too)
        uses some strange commands and my module player may
        crash if you use this kind of modules. If the game
        crashes/guru's for no apparent reason it may be one
        of the loaded modules that causes the failure!

NEW FOR VERSION 1.3
~~~~~~~~~~~~~~~~~~~~~
You may now have many different music modules, and have one
random module selected and loaded.

First copy all of your favorite ProTracker modules to the
Deluxe Galaga directory. Then you must rename them to...

          GALAGA.MUSIC0   (The number at the end of the name -
          GALAGA.MUSIC1   starts on 0 and goes up to as -
          GALAGA.MUSIC2   many modules you have copied.)
          .   (Max is 9!! (0..9))
          .
          .
          GALAGA.MUSICN   (n is the number of modules)

NEW FOR VERSION 1.7B
~~~~~~~~~~~~~~~~~~~~~
You may now have a file containing a list of your favorite
ProTracker modules. The file must be named 'GALAGA.MODULES'!

Example file.....

                    Music:PT/Modules/mod.HideawayBlues
                    Music:PT/Modules/mod.DontYouWantMe
                    Music:PT/Modules/mod.FeelTheBase2
                    Music:PT/Modules/mod.Guitarslinger
                    *Add a dummy line with the EOF mark here>#

Please look at the GALAGA.MODULES_res that should be included
in the Deluxe Galaga package/directory.

NEW FOR VERSION 2.4
~~~~~~~~~~~~~~~~~~~~
When the game starts it will load as many of modules as the
memory allows. It will select any of the modules in the list
randomly. (Max 50 modules!) If you have a MC68020 or
better (faster) modules will also be loaded into any
available fast memory. When switching to a new module inside
the game the game action may pause for a very small period
while the new module is copied from fast memory to chip
memory. On a fast MC680x0 this will barely be noticeable.

1.29   SFX

If you have more than 512K of memory and you get sick of the
sound effects, then you may try the small sound effects.

            Example

            rename GALAGA.SFX as GALAGA.SFX_reserve

The game will now use the 'GALAGA.SFX_SMALL' as sound
effects.

1.30   512K MEMORY

Sorry, but the game has now grown out of the 512K memory of a
standard A500!!! But as extra memory are now very cheap this
is a very good excuse for investing in a bit more memory!!

1.31   HISCORE PRINTING (New for version 1.9)

When you press F5 on the menu screen, you will enter the
print hiscore function. For this function to work, the
boot-disk (DH? or diskette) must contain the following
files...

```
        DEVS:   Parallel.device
                printers/<printer driver for your printer>
        L:      port-handler
```

The printed hiscore-list will list the following info...

```
    #, Name, Score, Rank, Shoots, Hits, %, Game Time
```

..and will print for easy, normal, hard and meteor-storm.

This option is disabled if the nonvolatile library is
loaded or available.

1.32 CD^{32} CONTROL

The game can now be controlled completely by a joypad. Move
the joypad up/down to make a cursor appear on the 'control
screen'. Use the firebutton to make a selection or switch an
option. Move the cursor down to the line 'PRESS FIRE TO
PLAY' to play the game. Press left on the joypad to show the
different menu/info screens in the game.

The game preferences and hiscore will be saved on the
nonvolatile RAM disk on the CD^3^{2}. Only 10 names will be saved
and only 3 characters for each name. So use your initials...

1.33 XPK LIBRARY SUPPORT

The game will now use the xpk (A data compressor/decompressor
library) to load compressed data files or modules. Use the
supplied 'pack' program to pack or unpack datafiles.

Example:

```
    pack hd1:GALAGA.GFX method MASH
```

This will pack the file 'GALAGA.GFX' on HD1: with the
compressor sub-library 'xpkMASH.library'. The compressor
library must be correctly installed for this to work.

```
Libs:
    xpkmaster.library
    compressors/
```

```
        xpkMASH.library
        xpkRAKE.library
        xpkSHRI.library
        xpkSQSH.library
        .
        .
        .
```

1.34 LOWLEVEL LIBRARY

Use of the lowlevel library. You can now control the game
with a joypad in both port 1 and 2. Only the joypad in port
2 (player 1) can control the music selection, volume control,
etc.

```
Buttons      Action
---------------------------------------------------------
RED          Start the game and fire bullets.
GREEN        Shuffle between music modules.
YELLOW       Switch between sound effects and music.
PLAY         Pauses the game.
BLUE         Quits the current game when game is paused.
REWIND       Less volume on the music.
FORWARD      More volume on the music.
```

1.35 NONVOLATILE LIBRARY

Use of the nonvolatile library. If found the game will now
save preferences and hiscores in the NV device (RAM on the
CD^3^{2} and floppydisk or harddisks on other Amiga's. If there
is enough space on the NV device, regular hiscore list will
be saved!

If you have a disk based amiga you can add a NV device by
doing this:

o   Format a disk in drive n with the name 'NV', n being DF0:
     or any other drive.

     Format DRIVE n NAME NV FFS NOICON   (RETURN)

o   Then make a directory named 'nonvolatile' and one called
     'prefs' on the disk.

     Makedir NV:nonvolatile   (RETURN)
     Makedir NV:prefs   (RETURN)

o   Then make a directory named 'env-archive' in the 'prefs'
     directory.

```
      Makedir NV:prefs/env-archive                  (RETURN)
```

o   Then   make   a   directory named 'sys' in the 'env-archive'
     directory.

```
      Makedir NV:prefs/env-archive/sys              (RETURN)
```

     Then create a file in the 'NV:prefs/env-archive/sys'
     directory that contains the following:

```
      NV:nonvolatile
```

     Name the file 'nv_location'.   Use Ed or another text
     editor to make this file.

1.36   ICONIZING THE GAME

     You can now iconize the game from almost anywhere in the
     game.   Just hit the 'HELP' key and the game will return
     to the workbench screen. A small window with some gadgets
     will be opened on the workbench, use this to return to
     the game.   You can also free up some memory if you need
     some more memory to start some other programs.
     If you free up only chipmem, you should also try to free
     up modules memory, if there is very little chipmem left
     when you have freed up the chipmem only. If the game
     fails to allocate the chipmem when you select to continue
     the game, the game will exit!!! (A possible new hiscore
     will then be lost!!!)

1.37   The next Deluxe game

The next game in the Deluxe series, will probably be Deluxe
Donkey Kong.   I actually started on this game after I had
finished Deluxe PacMan. But then I got another public-domain
version of Donkey Kong, that looked almost like the version
that I had on my old C64, and that look almost like the one I
had in mind.   After I released Deluxe PacMan many have
written to me and asked my to make a version of Donkey Kong,
so now I am going do that. A super duper version of Donkey
Kong.   If you have any tips for Deluxe Donkey Kong then send
them to me.   (Video recordings, graphics, maps, sounds or
ideas) But when I am finished with Donkey Kong I would really
want to make a version of JumpMan, one of my all time
favorites!

A version of Radar Rat Race is also coming !!!!

```
If  you  have any suggestions for improvements or if you have
found any bugs then please let my know.

Good luck and have a lot of fun !!!!  PEACE !!!!


Life sucks !!                   - Al Bundy

Where's that damn hamburger   - Kelly Bundy

Mmmmmmmmm, commercials!        - Homer Simpson

Remember: Man is the dream of the dolphins....

Sorry for all the spelling errors and bad syntax!!

Have fun!!!!
```

1.38 History of Deluxe Galaga

```
VERSION  SPECIFICATIONS                        D A T E
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
  v1.0                                         20/10/93
  ----------------------------------------------------------
        -First version of Deluxe Galaga

  v1.2                                         27/12/93
  ----------------------------------------------------------
        -Added  'Hurry Up!!', and fixed a possible trouble
         spot.
        -Fixed some routines in 2-player mode.
        -Added exploding rubbish to small aliens

  v1.3                                         14/01/94
  ----------------------------------------------------------
        -Speeded up some routines.
        -Added the Warp Malfunction routine.
        -Changed  the  music  routine  with  the prorunner
         routine (very fast!)
        -Fixed the ProRunner routine, so it would not GURU
         on  machines  with the interrupt vectors moved to
         fast RAM.
        -Added the volume adjust routine.
        -Added the random music loader routine.

  v1.4                                         17/02/94
  ----------------------------------------------------------
        -Speeded up even more routines.
        -Channel shearing between music and sfx.
        -Faster vector, Random and BOB routines.
        -Test for HIRES SPRITE and DBLPAL screen.

  v1.5                                         25/02/94
  ----------------------------------------------------------
```

```
        -Fixed the BOOM when the rocket dies.
        -Set the interrupt handler priority a bit higher.
        -Same random in the meteor-storm mode.
        -Fixed a bug in the 'save hiscore in game'
         routine.
        -Shows the rank mark, when new rank.


  v1.6                                        27/02/94
    ----------------------------------------------------
        -Removed  the AGA/ECS gadget as it had no function
         any more.


  v1.7B                                       20/03/94
    ----------------------------------------------------
        -Switched from AsmOne to DevPac 3.04.  (The DevPac
         is  a  bit  slower, but  the  sources gets a bit
         cleaner?!)
        -Speeded up the movements of the players ship.
        -Now uses TCPA (Time Coded Pointer Array) to check
         for  alien hits (No big loops, and no clearing of
         a hash array each frame!)
        -Speeded  up the program even more, using a global
         variable pointer.
        -The switching of HiRes sprites to LoRes is tested
         and it is now working


  v1.8                                        04/04/94
    ----------------------------------------------------
        -Found  one  nasty bug.  After the bug was removed
         my  machine  has not guru'ed once!!  (It's stayed
         on for almost a month)
        -Added a credit meter and some other info.
        -Fixed some other small 'faults'.


  v1.9                                        25/04/94
    ----------------------------------------------------
        -Fixed a bug in the show-secret function.
        -Added two new weapons and the Cash-Ship.
        -Added the print hiscore function.
        -Made the game work on only 512Kb memory.
        -Changed the PAL-NTSC switch to bit 5 in $DFF1DC.w


  v2.0                                        24/05/94
    ----------------------------------------------------
        -Added the 'Quit game?  Yes or No' function.
        -Toggle NTSC/PAL with TAB key.


  v2.1                                        ??/??/??
    ----------------------------------------------------
        -????????????????


  v2.2                                        15/07/94
    ----------------------------------------------------
        -Added the two player at once mode. puh!!
        -Added a real NTSC mode for american users.
        -The  game  can  now be completely controlled with
         joystick/joypad (CD$^3$$^2$).
```

```
     -Added some secrets.... 8^)
     -Fixed some minor flaws.

 v2.3                                       21/07/94
-----------------------------------------------------------
     -Argggg..  There was one nasty bug in v2.2, killed
      that bug and improved some other stuff.

 v2.4                                       13/11/94
-----------------------------------------------------------
     -Argggg..   (Again..) There was still some bugs in
      v2.3...  :( Killed the bugs I found!!
     -The game now has 75 levels. puh..!!!
     -Added a new sub game. The memory station.
     -Moved the PREFERENCES file from S:  to the game's
      directory.
     -Added functions that uses the nonvolatile library
      and the lowlevel library.  Control the whole game
      with an joypad.
     -Added money, money bonuses and progress indicator
      in the meteor-storm.
     -Added support for the XPK libraries.
     -Can now load music modules into fast RAM.
     -Color  of  the  bonus text is now the same as the
      player  who  got  the  bonus.  Two player at once
      mode only.
     -Made the game a bit easier.
     -More  alien  types  on  one level. Easy 1 alien.
      Normal mode 2 aliens.  Hard 3 aliens.
     -Added joypad control on the preferences screen.
     -Added some extra game secrets!
     -Improved and added some other stuff.

 v2.5                                       23/12/94
-----------------------------------------------------------
     -Arggggggggg!  I was a bit quick with the release
      of  the  2.4 version.  There was still a few bugs
      left.
     -I  got the 'lowlevel.library' documents, so now I
      have  fixed  the  joypad routines and I hope that
      they now is working on all Amigas.
     -Found  a  bug  in  the  load modules routine that
      would crash the game if there was not enough chip
      memory for the biggest module.
     -Made  falling  aliens a bit more easy to kill and
      follow.
     -Added some more secrets.
     -Added  two  players  at-once  in the meteor-storm
      game.
     -Added ship armour bonus.
     -Added  game  iconizing.  Iconize  the  game from
      anywhere in the game.
     -Switched to A1200/030/33MHZ/MMU/FPU/6MB/355MB HD!!!


 v2.53                                      18/02/95
-----------------------------------------------------------
```

```
            -Still some bugs to remove.... :-/
            -Adjusted the warp-malfunction rnd.
            -Added 'Free chip memory' to the iconize menu.
            -Added  a  cash  stealing  alien  and  some  'bad'
             bonuses!
            -Fixed  the  module player to CIA timing.  Can now
             play almost any ProTracker module correctly.
            -Removed  the 'Have you registered...' message for
             registered users.
            -Added some gravity to the explosions.
            -The hiscore line can now show some 1000 billion
             points!!
            -Added a new mirror bonus!
            -Added a drunken mode.
            -The AGA version is now ready and working.


      v2.6                                                09/03/95
      ------------------------------------------------------------
            -Still a few bugs removed.
            -Remade the whole preference screen.
            -Added mouse control.
            -Added bonus and money limit.
            -Added screen borders.
            -Speed up some routines a little bit.
            -Adjusted some features.
            -Added a little bit more color to the explosions.


      v2.6B                                               19/03/95
      ------------------------------------------------------------
            -Small bug fix.



      v2.6C                                               01/04/95
      ------------------------------------------------------------
            -Small bug fix.
            -Added a few more options.
            -Made the 140ns sprite switch a bit better.
            -Fixed some screen width settings that made
             the right border invisibel.
```

I have tested the game on a A2000B/68000 with 3MB memory and 1MB
chip memory with and with out harddisk. And on a A1200 with both
a 68020 and a 33MHz 68030/MMU and 6MB RAM. And I have not
discovered any ugly bugs on my setup.

Thanks to everyone that sent me bug reports, messages and have
helped me with this game!!!! Special thanks to the very kind
person that converted the doc file into this Amiga Guide file!!

A Special thanks to Odd Rune Olsen for play testing and
suggestions!

Please do NOT hack this game and PLEASE do NOT make any trainers
for the game!!!!!!!!!!!!!   This will kill both the game and any
future projects that I had in mind!!!!!!!

1.39 Technical info

```
--------------------------------------------------------------------------
GenAm Macro Assembler Copyright © HiSoft 1985-93
All Rights Reserved - version 3.04

Assembling galaga2.6.S
Pass 1
Pass 2

0 errors found
47865 lines assembled into 256106 bytes, Amiga executable relocatable code
297 optimisations saving 720 bytes
1016694 bytes used
--------------------------------------------------------------------------
```

    47865   lines of Devpac v3.04 assembler code.   A great
    assembler package!!!! Assembling time : 32.44 seconds on a
    A1200/030/33MHz with 6MB RAM.

    437KB+ bytes of raw graphics. (ECS)
    623KB+ bytes of raw graphics. (AGA)

    Over 1082 frames of animations.
    Over 90 sprites on screen at once (68030)
    Over 185 BOB'S on screen at once (68030)
    114 sound effects, 4 jingles, 50 max music modules.

1.40 The Galaga Project

    If you are interested in making your own games or assembler
    programming then you can buy the whole source code and
    development tools for only $75, £50 or 500 NOK

    You will then receive the following...

    Source code   (assembler, with comments)
    Data files   (graphics, animations, sound effects)
    Level Creator   (make new levels for Deluxe Galaga)
    SFX Creator   (Synthetic and sample sound effects creator)
    Converter 5.0   (Graphics converter and cruncher)

    You will also receive all the source code for all the tools!
    All in all 3.8MB of data!