

Galaga

COLLABORATORS

	<i>TITLE :</i> Galaga		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		July 25, 2024	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	Galaga	1
1.1	Galaga v2.6	1
1.2	What is Shareware ?	1
1.3	If you like this piece of software !	2
1.4	My address and bank/giro account	3
1.5	Methods of payment	3
1.6	Important notes	4
1.7	To Magazines!	5
1.8	About Deluxe Galaga	5
1.9	Your Mission	5
1.10	The Game Screen	6
1.11	Installing the game	7
1.12	Game options and Preferences	8
1.13	PAL (256 Lines) or NTSC (200 Lines)	10
1.14	Type of main processor	10
1.15	Hiscore saving	11
1.16	Lowlevel.library	11
1.17	Channel indicator / Clock	11
1.18	Money bonus in meteorstorm	12
1.19	Money limit	12
1.20	Level limit	12
1.21	Ship Armour	12
1.22	Cash Sucker	13
1.23	Sampled speech	13
1.24	Play area borders	13
1.25	Use Mouse as controller	13
1.26	How to control the game	14
1.27	Extra functions	15
1.28	MUSIC	16
1.29	SFX	17

1.30	512K MEMORY	17
1.31	HIScore PRINTING (New for version 1.9)	17
1.32	CD ³² CONTROL	18
1.33	XPK LIBRARY SUPPORT	18
1.34	LOWLEVEL LIBRARY	19
1.35	NONVOLATILE LIBRARY	19
1.36	ICONIZING THE GAME	20
1.37	The next Deluxe game	20
1.38	History of Deluxe Galaga	21
1.39	Technical info	25
1.40	The Galaga Project	25

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:

What is Shareware ?
 If you like this piece of software !
 About Deluxe Galaga
 Your Mission
 The Game Screen...
 Installing the game
 Game options and Preferences
 How to control the game
 Extra functions
 The next Deluxe game
 History of Deluxe Galaga
 Technical info
 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, 50 NOK 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
5830 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 loss 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 these 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 your ship through a field of big rocks floating in space. Some of the rocks have bonus points 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 complete 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 is one of 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...

```
Mkdir 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 must 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 too 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 tooooooo 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 and 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.
	<code>*CD\$^3\$\$^2\$*</code> 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.
	<code>*CD\$^3\$\$^2\$*</code> Use the pause/play button on the joypad.
E	Selects sound effects or music.
	<code>*CD\$^3\$\$^2\$*</code> 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. (<code>CD\$^3\$\$^2\$</code>)
F6-F9	Toggle the 4 sound channels between music and SFX.
F10	Selects the next music module.
	<code>*CD\$^3\$\$^2\$*</code> 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.
	<code>*CD\$^3\$\$^2\$*</code> 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<sup>32</sup> 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<sup>32</sup>. 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<sup>3</sup> 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 prorrinner 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

- 
- Argggggggggg! 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!

---