## **Contents**

Preface	
Introduction	8
Choosing the computer	9
Hardware issues	10
Shortcuts and descriptions used in this book	11
The basics of Workbench	
Desktop	14
Interface	15
Draggable screens	16
Menu and its context	16
Hidden files	19
How to save position of icons	19
Updates	20
Searching for files	24
Copying, moving and deleting of files	24
Customizing the system to our needs	29
Easy way to get through the folders	30

	Themes	31
	Where you can find themes	33
	Troubleshooting – installation and deinstallation of theme	34
	Changing of fonts	35
	GUI options	36
	Context menu	36
	Mouse pointer	38
	Wallpaper	39
	Screensaver	41
	Workbench bar	42
	Desktop gadgets	44
	AmiDock	45
	Exchanging of icons	47
	How to change hard disk's icon	49
	Changing of icon in AmiDock	49
	Changing of start up melody	51
	Changing of boot image	53
Ва	sic operations	55

CONTENTS

3

	Unpacking of archives	56
	Installing programs	58
	Mounting the floppy and CD images	59
	Creating images of disks	60
	Burning optical media	61
	Ripping music from CD	61
	Sound recording	62
	Sound processing	63
	Screenshots	65
	Screen recording	66
	Additional utility software	66
	Programming	70
Jus	st like the good old days	71
	Chatting on IRC	72
	Creating music modules	75
	Drawing pixel art	77
	Submitting to Aminet through FTP	79
	Writing documentation in AmigaGuide	81

Generating fractals	83
Gaming	85
Introduction	86
Native games	87
Classic 68k games	90
SDL and SDL2 ports	93
Retro platform emulators	94
Deeper knowledge of AmigaOS	103
Uboot and start of the system	104
Early startup menu	105
Kickstart	109
AmigaDOS console	110
Drawer structure	111
Assigns	111
File association	113
Running legacy software	114
Other operating systems	117
Coexisting with Windows world	119

CONTENTS

Exchanging the data	120
Amiga archives	120
Amiga picture files	121
Music files	122
Documents	123
AmigaOS 4 in the internet	
The most important places for AmigaOS 4 in the web	130
The Ending	135

## **Unpacking of archives**

This is a common operation, because nearly whole Amiga software in internet is available as archives. The most popular format is LHA.

There's a tool for this kind of archives within the system, but it doesn't handle all LHA types properly. It's a good idea to have more powerful tool, so for a good start we need an archiver application.

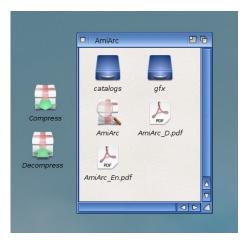
You can purchase *zTools* package with *FastCompress* included (handling of formats LHA, LZX, ZIP, 7z.) in *AMIStore*. It is well done and integrates with the Workbench context menu.

Other solution could be the AmiARC program that I use:

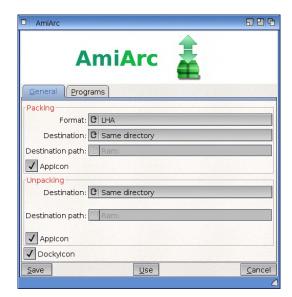
http://se.os4depot.net/index.php?function=showfile&file=utility/archive/amiarc.lha

Just after launching you will see two new icons on the desktop – they are clear and descriptive. Operations are done by using drag and drop technique.



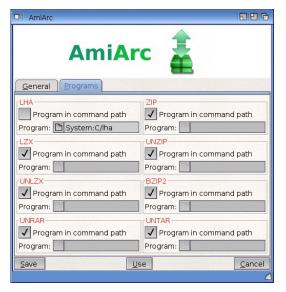


If you click on any of both icons, you will see the same window.



PICTURE 4.2 First tab with the settings. You can set the archive format and where it

should be located



## PICTURE 4.3 Second tab with settings. As you

can see a lot of different formats is handled (sadly, not 7ZIP)

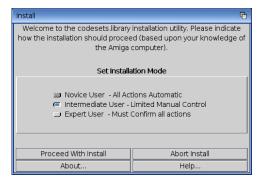
By default all archive types have a "Program in command path" option marked. It means that *AmiARC* needs to have a proper archiver located is system disk ("C" drawer). On the screenshot you can see an example – path to "LHA". Probably you wonder where to find that other files, necessary to handle all of these formats? Fortunately, the proper links can be found in application help file.

## Installing programs

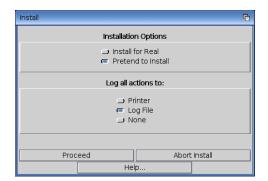
Many programs have their own installer scripts, but in the case of failure (for example when installing a very old program) you can always try to install them "manually". In most cases that means downloading an archive file, unpacking it to RAM and then copying to a location of your choice. There is nothing like "Windows registry" in AmigaOS, so there is no problem with deinstallation – just remove the program drawer and that's all.

The installer offers three modes, depending on the level of sophistication of the system user.

Different installation types differ by number of decisions user has to make



On the next screen you have the option "Pretend to Install". If you are not sure about the effects of your choice, then choose to install it. You will then be able to trace what is being copied, assigned and if there are any errors. And then carry out the correct and correct installation. Saving the installation process to a file can also be useful



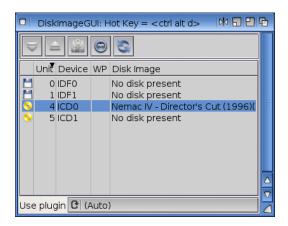
#### PICTURE 4.5

"Pretend to Install" mode doesn't take a lot of time and thanks to it an inexperienced user can easily avioid mistakes.
Installation logs have a "log" extension.

## Mounting the floppy and CD images

DiskImage GUI is a simple and user friendly tool.

You will will get two things. In case of standard CD/DVD images in ISO format, they will be mounted automatically as virtual drive after a double click. Once mounted, the corresponding icon will appear on the desktop. On the other hand – files in other formats, like ADF or DMS. When double clicked, they will be handled by default emulator *RunInUAE*. You still can open them (and many other formats) in *DiskImage GUI*, but from the program menu.



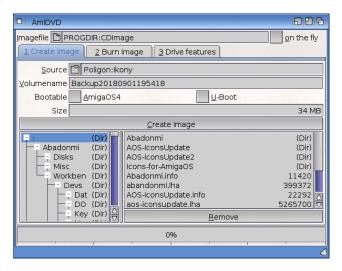
PICTURE 4.6

DiskImageGUI in action

## **Creating images of disks**

Not very common operation, but there are at least two reasons to do them. First is just to create archives, backup copies or our own of sets of programs. The second one is for distribution of drivers or your software.

PICTURE 4.7
A real life example
- creating a
customized icons
collection and
storing them on
CD-R



Above you can see *AmiDVD*. You can change default names and paths. The "Imagefile" line defines where an ISO file will be created. "On the fly" option means that system will be creating image without using any temporary file. "Source" is a source folder, where files to store in ISO are located. "Volumename" is a name of volume (in this case - your disk image) - by default it is set to current date and time. Next two options are used when creating a booting disc and in most cases should be left unmarked. "Size" gives you the actual size of your compilation. By clicking "Create image" we start creating the ISO file. The "Remove" button allows to remove selected files from the image.



PICTURE 4.8
ISO files don't need to have the same icons. There are whole sets of them – these ones come from "AOS-IconsUpdate" package

# **Burning optical media**

Quite a rare thing to do nowadays, but number of people (me included) do such operation as a backup of data. Sadly, the media tends to loose the stored data in about 10 years, but it still has some advantage over hard disks, that can fail unexpectedly (in the case of leading systems such as Windows, there is also the issue of viruses or modern CryptoLocker ransomware threats).

I do not recommend *FryingPan* – it looks quite nice, but it's not updated and doesn't always work properly. I use *AmiDVD*, some people prefer *MakeCD*. I suggest to use *AmiDVD*, which is a part of the system, available in "Extras". It's very simple and covers our needs. Using this tool is very similar to others. Settings of recording speed are available when an empty disk is inside the recorder.

# Ripping music from CD

Not an everyday task either, but this is a good place to describe it, just after handling of ISO files and burning discs. The entire "ripping" phrase in Amiga world once meant extracting music from the games. Later it meant converting music from audio CD to MP3 (and that's the most common meaning of this phrase). Currently ripping means all digitization operations (e.g. from VHS cassettes, DVD discs etc.).

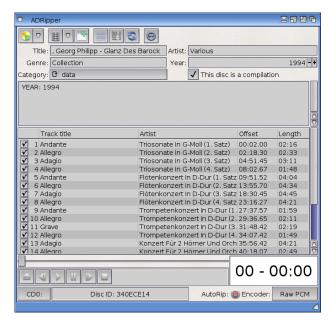
I would like to mention, that ripping of music from audio CDs is still popular. Nowadays, when CD/DVD are not so popular in computers, it is very important to have them in digital version.

Let's use *ADRipper* for this purpose:

http://os4depot.net/?function=showfile&file=audio/misc/adripper.lha

#### PICTURE 4.9

Another everyday
use example –
saving "De
Agostini"
collection.
The program is
connecting to an
internet database
and gathers info
about this album.



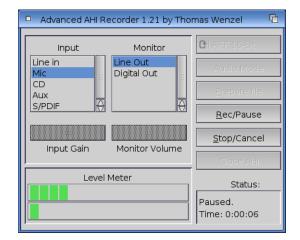
A possibility to record using lossless PCM RAW format is surely very useful. The program supports also OGG and MP3 codecs.

# Sound recording

This is not my area (as most of computer users) and it's rather typical for musicians as well as creators of podcasts and videoblogs.

If you however have such needs, then there's Advanced AHI HD-Recorder:

http://os4depot.net/index.php?function=showfile&file=audio/record/ahirecord. lha



PICTURE 4.10
AHIRecord. Make sure to choose a proper item from the list



PICTURE 4.11 Mixer. Please increase the microphone volume before recording

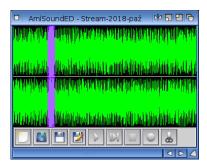
# Sound processing

AmiSoundED is OK for simple sound edition:

http://os4depot.net/index.php?function=showfile&file=audio/edit/amisounded. lha

PICTURE 4.12

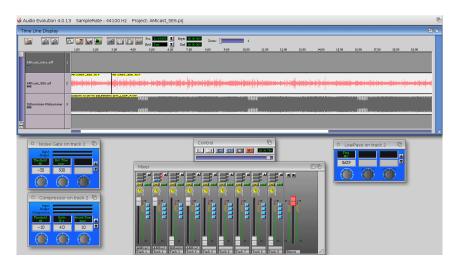
AmiSoundED is a basic tool – you can use it to cut sounds



#### Audio Evolution 4 is a tool for more advanced tasks:

http://os4depot.net/index.php?function=showfile&file=audio/record/audioevolution4.lha

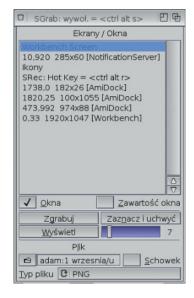
PICTURE 4.13
AudioEvolution 4



Using this program you can record and edit sound (effects, noise reduction). But primary task if of course sound edition (as it's basically a digital sound workstation). If you get familiar with this one, you can forget about all the others. It's best to work with AIFF files.

#### Screenshots

A basic functionality, both for beginner as for advanced user. Used for making screenshots to ask for help on some forum or when writing and article. There is simple tool for this purpose already installed in the system, called *SGrab*.



PICTURE 4.14
SGrab. It contains
not only a list of
running programs,
but all open
windows, with
their size and
coordinates on the
screen

If you tick the "Windows" option the program will grab a whole window. The "Grab only contents" will exclude the window frame. The slider below allows us to set a delay – so we could, for example, select the grabbed window to make it "active" instead of grayed out (it's important when you're preparing pictures for an article). Moreover, the delay becomes handy when an app (or rather a game) needs to have an active window or else it stops running, or displays a big PAUSE on screen. The delay can be quite long and that also becomes handy sometimes – in my case for grabbing the screen blanker screen. Please note that if you're using the "Clipboard" option the picture format will always be ILBM.

## Screen recording

The tool for screen recording – called SRec – is included in system.

# PICTURE 4.15 SRec. Sadly, the voice is not recorded. Selected typical options for recording the whole desktop selected.



It is useful for grabbing a program that has context menu opened (since SGrab cannot do that). It is not a good tool for e.g. gameplay recording, because it's resource hungry. But for a small instructional videos, or demonstrations that don't need fullscreen or high FPS count it will be OK. To make output file smaller, we can lower the FPS in program settings – you just have to remember not to move your mouse pointer too fast.

Please note that the program stores video using a non-standard codec. To view it you either need an old version of *Mplayer*, or a commercial program called *Emotion*. If you want to record more often (e.g. for your own YouTube channel) then you should choose a hardware solution (video grabber).

## Additional utility software

Quite a few programs are described in this book. You will find a lot more in "AmigaOS every day". I don't want to duplicate its content, as this book is supposed to be a kind of supplement. Even if you don't own this publication, I believe everybody has his own favourite music/video player, image viewer etc.

The basic concept is that the tools included in system together with "Extras" should cover your basic needs. You can purchase additional software from AMIStore, but Aminet and OS4Depot remain the main repositories of for free software. In these places you can find software grouped by categories — downloading and exploring them yourself is an essential part of our hobby. Of course, there is commercial software outside of AMIStore. I will give a list of the most important internet addresses, including stores, at the end of the book.



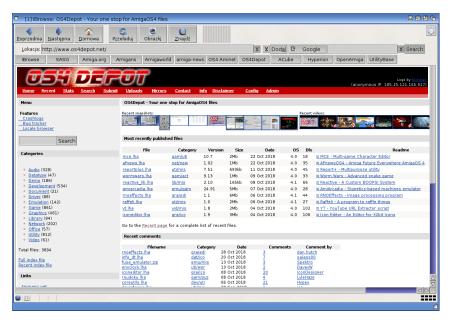
PICTURE 4.16 MickJT-Mplayer (playing Black "Wonderful Life" clip)



PICTURE 4.17 TuneNet an internet radio with "shield" skin applied

#### PICTURE 4.18

An archaic *IBrowse*web browser works
just fine for quick
searching through
OS4Depot or
Aminet.



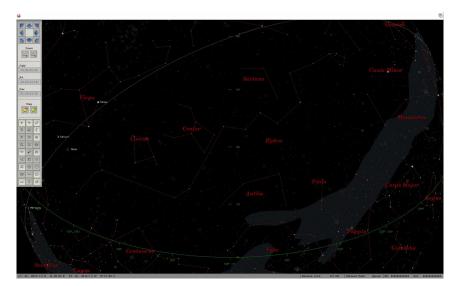
Browsers, players and other "mandatory" programs are not everything – there is a lot of hobby software, although you have to go a long way to find pearls. Not everything is in free repositories – e.g. *Digital Universe* you can only buy on the author's website:

http://www.digitaluniverse.org.uk

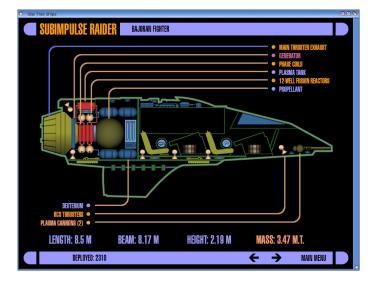
Generally, however, little commercial software is created. Especially the "big" programs are missing. That's why you can extend your access by installing *AmiCygnix* or *Qt*. This is, however, reaching beyond the Amiga world, although it works well. I appreciate the value and effort of the creators, but I don't popularize and show it. You'll find both of these on OS4Depot.

Amiga today is not the mass gaming computer as it used to be. Rather, it is a stepping stone for IT professionals.

However, you are not without a chance in this field, and it is even advisable that instead of "chasing the world" valuing Amiga in terms of using the Internet and the latest technologies, he would like to use his time creatively in the best way for the community, while developing himself. So writing programs.



PICTURE 4.19
Digital Universe,
an encyclopedia of
the space



PICTURE 4.20 Star Trek Ships is an encyclopedia of "Star Trek" series

So let's talk about programming

# **Programming**

With AmigaOS 4 you get two built-in scripting languages, namely ARexx and Python. They are useful for automating certain tasks, and some graphic programs also use them.

If you have not had any contact with programming, a good solution for you will be *Hollywood*. It's a presentation creation program that you can use to build GUIs, simple programs and even games. You can also buy a *Designer* that will make your task easier - a lot of things will be allowed to click without writing the code:

https://www.hollywood-mal.com

Hollywood is based on the LUA language. You can also program e.g. in E, Perl, REBOL, but this is outside the mainstream. To write big things, you need to be familiar with the SDK (Software Development Kit). You can download it from Hyperion (you don't have to be registered there). You will need the SDK Browser documentation viewer (free, it is on OS4Depot).

Most Amiga programmers use C language. The SDK comes with a GCC compiler and some other things, but you need a development environment. Here the choice is:

*CodeBench* – http://www.codebench.co.uk

Advanced Visual Developer – http://bitbybitsoftwaregroup.com/index.php

CubicIDE – https://www.softwareandcircuits.com

The starting point should be this page for you:

http://www.os4coding.net