

MAGAZINE **BEYOND**

beos - amiga - osx - linux - freebsd

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ENGLISH EDITION



PREVIEW
Zeta from YellowTab

REBOL Tutorial

DOSSIER

BeOS and ADSL



Summer Games



EmuZone

AMIGA

Alpe Adria 2003

NEWS - SOFTWARE - BECOME - PREVIEW - GAMES - EMUZONE - SPECIAL

Welcome aboard!

Finally, we did it. You are reading the first issue of a magazine entirely dedicated to BeOS and other "alternative" operating systems. What do we mean by "alternative"? We won't deny the facts. Microsoft Windows is surely not, absolutely the best OS yet well spread and supported. In a scene dominated by the products of Microsoft, a few others try to cut out a space in the market. Apple suffers though its good Mac OSX is better than Windows. But there is a precise reason: it is compatible with PowerMacs only, objectively less spread than Intel platforms. What about the others? Linux has no real market, but it's holding its own and it's been successful so far along with FreeBSD. Though the demise of Be, BeOS seems to rise again like a Phoenix from its ashes thanks to OBOS, Cosmoe and the other Open Source related projects. If it's true that an open source OS can meet success on the other hand a good market policy can grant even greater successes. Here's YellowTab entering the scene, the heir to Be is going to put Zeta on the market.

Even AmigaOS didn't remain behind, the fourth version of this historical OS is a turning point and it's ready to attack the market with a product which comes up to the expectations and that supports up-to-date hardware at last.

That are in our opinion the alternative systems.

We would like to give you a great deal of informationsa and make a complete and precise service.

We sincerely hope that you will appreciate our work.

In this first issue we will introduce Zeta, you will find a very interesting tutorial about Rebol language (by Carl Sassenrath, the author of Exec, the kernel of AmigaOS!) and a service on the games we played during this hot summer. The special section EmuZone is dedicated to Prince of Persia and the MSX.

Finally the reportage about the Italian meeting Amiga Alpe Adria 2003 and the news.

Have a nice reading!

Gian Davide Alfano

BEYOND

free magazine for users of BeOS - Amiga - OSX - Linux - FreeBSD
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GRAPHIC LAYOUT

Gian Davide Alfano



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NEWS

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BECOME

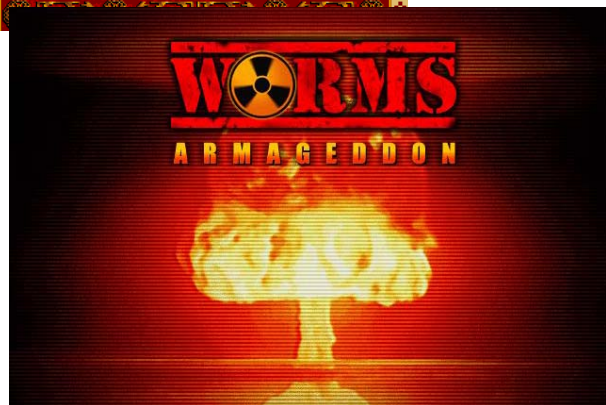
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BEYOND



BeGeistert



The soap-opera goes on...

BeGeistert website confirms the dates for the most important european BeOS users meeting.

On october 18-19 2003 it will take place the eleventh BeGeistert edition, in Dusseldorf as always, but in the the new place, the hostel of the Youth, which should be able to receive all the participants.

Should, because people attending the manifestation became more numerous each year, and they came from every part of Europe, Italy included!

<http://www.begeistert.org/>

It is some time, now, that SCO finds itself in the middle of legal suit, pretending having been damaged by the violation of some of its copyright. SCO says that part of the linux kernel code has been copied from Unix, of which the relative copyrights are in its possession.

Obviously SuSE and RedHat send back those pleas saying that are threats devoided of any fundament.

According to the two, SCO requests (that asks linux users to pay for a UnixWare license to be legit) are also absurd.



Sum Software rilascia Becasso 2.3



It was in the far 1999 that Sum Software didn't release any upgrade for this graphic application. Becasso has been the first commercial graphic application for BeOS.

This new version sports a better support for scripts, using which one can control filters and their parameters.

<http://www.sumware.demon.nl/>

Palm Tungsten T2



T2 bests many aspects of T model: first it has a more stylish design, with a completely silver case, mantaining the flip opening.

The first news is the display.

It's the same display has seen on Palm Zire 71, i.e. 65k colors TFT, transfective touch screen with a 320x320 pixels resolution.

Processor is a Texas Instruments OMAP 1510 ARM, 144 mhz, with 32 MB ramand 8 MB ROM.

The operative system is Palm OS 5.2.1.

Among the new features are the possibility to play MP3 and movies fo various kind, also in streaming video thanks to the integrated RealOne Player.

Tungsten T2 will have also the software Documents To Go, which will let it read and edit Microsoft Office files.

<http://www.palm.com/>

EarthSoft releases an acquisition card BeOS compatible



At the end of July EarthSoft will release in Japan a video acquisition card compatible with BeOS.

The product, known with the name of PV1, will be given with the SDK for BeOS, letting developers create their own applications.

The card is interesting, because it will be possible to acquire in DV format from analogic sources, and the encoding, just as the decoding, will be supported by the hardware, and not by the CPU.

On a sad note, it seems that the product will be available only for the Japanese market.

<http://earthsoft.jp/>



Novell NetWare 6.2 soon to be released

Novell has officially announced the release of NetWare for middle August. Next release of NetWare more important feature is the more compatibility with the Linux platform. Let's not forget that in the Novell roadmap one of the most important targets is called "Linux migration". The new versions of Novell Software will run on Linux platform, too. Netware 6.5 is an integrated product, sporting application server features, web service features and of course the classic NetWare services.

<http://www.novell.com>

Apple confirms: Panther is not a 64-bit OS



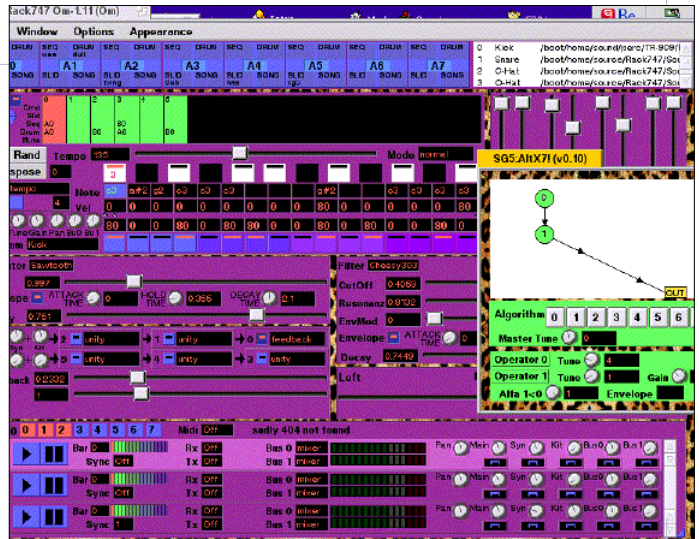
Panther will not be a full 64-bit OS. The news comes straight from Greg Joswiak, Apple hardware products manager, on many internet websites.

But this means not by all means that Panther will not be able to gain from the use of PPC 970 processors.

Apple choice will have a great benefit from all fronts.

Users will not be obliged to upgrade all their applications to 64-bit versions, just to see them run the new machines and developers also will not need to upgrade their applications to see them using the new speed in mhz of the PPC 970 and the new G5 architecture.

<http://www.apple.com/it/>



The Rack is Back

Rack747 is the best virtual groovebox for BeOS and it's back, better than ever!

first of all, the new version is a demo no more but a full one, the Midi management has been fixed, with more filters and effects.

<http://www.labyrinth.net.au/~dak/rack>

BeOS filesystem

by **Andrea Scatena** [andyscat@libero.it]

This is the new column for newbies. We will introduce you the Beos File System

One of the fundamental characteristic of an operative system is the structure of its filesystem.

In BeOs, the structure is typical of POSIX systems (it is important to remember that BeOS is not a Unix flavour, but an o.s. completely written from scratch): so we have a primary directory from where all the others sub-directories descend, and in which every component of the system and the user's files and directories, are organized by category.

The origin directory is /boot and it represent the "root" of the system, the volume or partition from which the system boots.

From /boot we have the following directories:

- ▶ /boot/apps
- ▶ /boot/beos
- ▶ /boot/demos
- ▶ /boot/develop
- ▶ /boot/optional
- ▶ /boot/home
- ▶ /boot/preferences
- ▶ /boot/tmp

Anyone is free to add whichever other directory under /boot, but it is preferable that user-created directories should be put under /boot/home.

That's because in BeOS there are two kind of directories: system directories and user-level directories. Everything under /boot/beos is reserved to the system, all else is free access for the normal user.

Be careful, though, because nothing stops you from putting your hands in /boot/beos, but the outcome could be an unusable system.

The reason is that BeOs, even if is a POSIX-compliant system, doesn't inherit all its characteristic, e.g. the multi-user environment: BeOS is not a multi-usr system, although the great part of the code is

quite implemented.

Whenever a multi-user environment will be implemented, the consequence is that the single user would not be allowed to mess with the system directories.

The matter of a multi-user environment is very complex and involves the separation of the users in groups, each of them with particular powers, called privileges, that allow them to read, write and execute files and directories (but this is something that we will see another time).

And now the division between /boot/beos and /boot/home assume a precise meaning: to make an example, we will find in /boot/beos/apps all the system applications, so to be accessible to

every user; in /boot/home apps we will find only the applications accessible to the user owner of that /home directory, that are not executable by the other users.

Multi-user implementation would imply that under /boot/home one will find as many Home directories as the number of users of the machine on which is installed BeOS, each with is distinctive name.

Another thing that characterized the system is the presence of invisible files and directories in the Tracker, accessible only by the command line from the Terminal app.

Invisibility comes from the fact that those directories and files are reserved for system functionality, but that are of no use for the final user (for the major part), or are potentially dangerous if messed with.

These directories are accessible and editable only in the Terminal app, using shell commands.

BeOS filesystem has something unique: it is build to act as a database.

Every element in BeOS, both a file and a directory, is recorded as an element of a database, with the possibility to execute really complex searches on the whole system.

This kind of search is called "query" and can be saved and visualized later in a Tracker window.

Queries are live, that means that they change in real time whenever the elements that constitute the query change.

For example, let's make a query to obtain the list of the persons belonging to ItBug (BeOS Italian User Group) that registered themselves between december 2002 and april 2003 and visualize it in a tracker window; let's suppose that we have left a name outside of the list and let's do it now, leaving the tracker window open: in the same moment when we have completed the insertion, automatically the name will appear among the others, with no need to re-launch the query itself.

The possible applications of such a characteristic are awesome and absolutely exclusive of this wonderful operating system.

Obviously there is more deepness and complexity in this matters, and we have done a ten thousand feet bird-view, reserving for the future a deeper look at those issues. ■

OSX

filesystem

di Andrea Scatena [andyscat@libero.it]

This time we analyze the MacOSX filesystem

Two years are now passed since Apple has put aside, de facto, Os 9 in favour of the next generation of its operative system: Os X.

The X stands for 10 (like good old Steve Jobs says), but also points to its Unix origins.

The jump from Os 9 to X it's a quantum one: this is not an upgrade of the operative system, it is a total rebuild, one that lays its foundation on a micro-kernel, Mach, from BSD.

This decision was given birth in the moment in which Steve Jobs returned to the company he founded with the other Steve, Wozniak, bringing his experience from NExTStep, an operative system that was a

total commercial fiasco, but technologically absolutely way ahead of its time.

Os X has had three primary incarnation, as of today: 10, 10.1 and 10.2.

The very first version was not really usable, from a professional point of view, but the next versions were progressively polished, and the last incarnation, 10.2.6 is an o.s. absolutely robust, stable and productive.

And now version 10.3 is coming, code-name Panther (you can see that Steve Jobs has a likeness for felins with Cougar, Puma, Jaguar and now Panther), putting Apple o.s. a step ahead, again.

But now we are putting aside the innovative aspects of the Cupertino technology which we are used to, and that characterized, more or less, every release and upgrade of Apple's systems.

Just like the other article on BeOS filesystem, we will try to analyze Os X filesystem structure, to better understand this o.s. that, in my humble opinion, is, together with BeOS/Zeta, the edge for technology

and usability.

Differently from BeOS, written totally from scratch, Os X is in all effects a Unix system (so that nowadays Apple is the first Unix systems company, with an users base of more than two millions).

To analyze the system structure we are using a little trick: open a terminal and type at the shell prompt "man hier".

The output of this command (TABLE 1 of the next page) gives us a syntetic description of the filesystem

structure, along with a short description of the

directories (a directory in unix is the equivalent of a mac folder).

The /home directory is replaced by the /Users directory in which we will find the various home folders of the users created on the machine.

Also in this case, like in BeOS and in the others *nix systems, the structure is absolutely logical and coherent.

Os X is a multi-users environment, and this is reflected in the implementation of the users privileges and in the complete separation of their areas of use: every user has its home and nobody (except the super-user, root) can manipulate its files and folders (if you enter another home, the folders within have a no-access symbol at the bottom of their icons).

As you can see, analyzing the man hier output, we find some directories that seems to repeat along the system hierarchy: the /bin, /sbin and /tmp directories.

It is of some interest to notice that both for /bin and /sbin, when they are directly under root (/) they contain programs, utilities and daemons that "belong" to the system, while when under /usr they

contain the programs and utilities that "belong" to the single user.

Unlikewise from other *nix systems, Os X puts under root (/) other folders too: Applications, Desktop, Library, System, Users (of which we have talk about before), Volumes and Developer (this one if you

have installed Apple's developer tools).

I could go along for pages, but I prefer to stop here, hoping I was been sufficiently clear, enough to let you want to know some more.

With the next article I will go deeper inside those folders, so see ya soon.

■

```
[host1:~] user1% man hier
NAME
    hier - layout of filesystems
DESCRIPTION
    A sketch of the filesystem hierarchy.
    /                root directory of the filesystem
    /bin/            user utilities fundamental to both single-user and multi-user environments
    /dev/            block and character device files
                    fd/ file descriptor files; see fd(4)
    /etc/            system configuration files and scripts
    /mach_kernel    kernel executable (the operating system loaded into memory at boot time).
    /sbin/           system programs and administration utilities fundamental to both single-user and
                    multi-user environments
    /tmp/            temporary files
    /usr/            contains the majority of user utilities and applications
                    bin/      common utilities, programming tools, and applications
                    include/  standard C include files
                                arpa/      C include files for Internet service protocols
                                hfs/       C include files for HFS
                                machine/   machine specific C include files
                                net/       misc network C include files
                                netinet/   C include files for Internet standard protocols; see inet(4)
                                nfs/      C include files for NFS (Network File System)
                                objc/     C include files for Objective-C
                                protocols/ C include files for Berkeley service protocols
                                sys/      system C include files (kernel data structures)
                                ufs/      C include files for UFS
                    lib/      archive libraries
                    libexec/  system daemons & system utilities (executed by other programs)
                    local/    executables, libraries, etc. not included by the basic operating system
                    sbin/     system daemons & system utilities (executed by users)
                    share/     architecture-independent data files
                    calendar/  a variety of pre-fab calendar files; see calendar(1)
                    dict/     word lists; see look(1)
                                web2      words from Webster's 2nd International
                                words     common words
                    man/      manual pages
                    misc/     misc system-wide ascii text files
                    mk/       templates for make; see make(1)
                    skel/     example . (dot) files for new accounts
                    tabset/   tab description files for a variety of terminals; used in the
                                termcap file; see termcap(5)
                                zoneinfo/  timezone configuration information; see tzfile(5)
    /var/           multi-purpose log, temporary, transient, and spool files
                    at/       timed command scheduling files; see at(1)
                    backups/   misc. backup files
                    db/       misc. automatically generated system-specific database files
                    log/      misc. system log files
                                wtmp      login/logout log; see wtmp(5)
                    mail/     user mailbox files
                    run/      system information files describing various info about system since it
                                was booted
                                utmp     database of current users; see utmp(5)
                    rwho/     rwho data files; see rwhod(8), rwho(1), and ruptime(1)
                    spool/    misc. printer and mail system spooling directories
                                mqueue/   undelivered mail queue; see sendmail(8)
                    tmp/      temporary files that are kept between system reboots
```

TABELLA 1

Browse the web with BeOS and ADSL

by Giuseppe Gargaro [giuseppe.gargaro@tiscali.it]

This Dossier will help you to install and configure an ADSL connection for BeOS.

ADSL (**A**symmetric **D**igital **S**ubscriber **L**ine) is a technology that transforms a traditional phone line in a digital connection line used for data transfer.

It uses the ordinary phone cable and permits to carry an elevated frequency signal for data-transfer, simultaneously with the signal used to carry the voice.

ADSL is a high-speed connection in asymmetric mode: that is, upload speed and download speed are not the same.

This way, the typical web surfer gains the most from the receiving end of the connection, while losing something in the sending.

Speed differs based on the contract signed with the provider of the service, varying from 256 kbit per second to 1.2 mbit per second in download, and from 128 to 256 kbit in upload.

Now, let's see what's needed in BeOS to use ADSL:

- ▶ driver PPPoE for BeOS: www.bebits.com/app/1707;
- ▶ a network ADSL modem and an Ethernet card BeOS compatible (e.g. a

RealTek one);

- ▶ a subscription with an ADSL provider.

NetServer configuration under BeOS 5

Now, we are ready to begin, this procedure is for BeOS with NetServer; next we will see how to configure BeOS with Boneyard (Zeta, dano, BeOS + Boneyard).

Once downloaded the PPPoE driver, open the .zip file that contains three folders: the "bin" folder which contains the driver itself, the "src" and "documentation" which contains, respectively, the source and the documentation available for the driver both for PPC and x86.

Installing the driver

Open the **bin** folder and move the file "ppoe" in the folder `/boot/beos/system/add-ons/net-server/`, then double-click the file `ppoe` and check both the available boxes (PPPoE Active and Force Manual DNS).

Resource configuration

Your Ethernet card must be acknowledged by the system; if there is no driver in the Devices list, then go to www.bebits.com find a driver for your card and install it. If the network card has been installed correctly, opening the network preferences you will find it among the Network Interfaces, then insert the Hostname, save and restart the network. Click on *Settings*, select *Specify settings* and insert an IP address such as 192.168.0.1, a Subnet Mask such as 255.255.255.0 and a Gateway such as 0.0.0.0, then click on *Done* and restart the network.

Open the `/boot/home/config/settings` folder and double-click the file `network`, if you had followed the procedure it will show as in **FIGURE 1**; edit this file (the line `PROTOCOLS="pppoe"`), save then restart the network again, from the Deskbar submenu preferences.

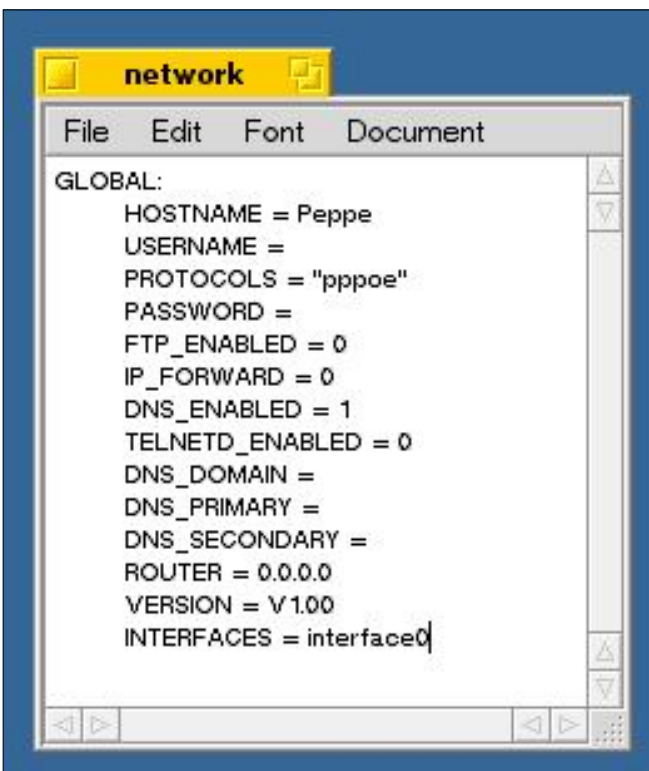


Figura 1

Dial-up Networking configuration

From preferences open *Dial-UP Networking* and add a new connection clicking on *click to add*; insert the user-name and the password given by our ADSL subscription: the password can be saved by clicking on *save password*.

Clicking on *Settings*, we now insert the *PrimaryDNS* and the *SecondaryDNS*, then restart the system. After reboot, to connect you just have to click on *Connect* in the *Dial-Up Networking*: if all is right after a few seconds we will be on-line.

Boneyard configuration under Zeta, Dano and BeOS 5 + Bone

From the Deskbar sub-menu preferences open *Boneyard*, click on the tab *Interface*: you should see your card among the devices (in my case, a RealTek chip, so it's `/dev/net/rt18139/0`); click on *Settings*, select *Addressed* and insert manually *IP Address* `192.168.0.1`, *Net Mask* `212.216.12.112` and *Gateway* `212.216.172.62`, then save clicking *Done*.

Click the tab *Dial-Up* and in *Connect To* select *new* and after inserting a name click on *Add Service*; now select *pppoe* in *PPPTType*, the device of the net card in *Ether Device*, insert *User Name* and *Password*, then click on *Apply Changes*.

Click on the "modem" button and configure the various fields this way: "Modem Port" `/dev/ports/tri_modem`; *Port Speed* `115200`; *Init String* `ATZ` and save.

To connect click on the button *Connect* from *Dial-UP Networking*.

Now have a good time! ■

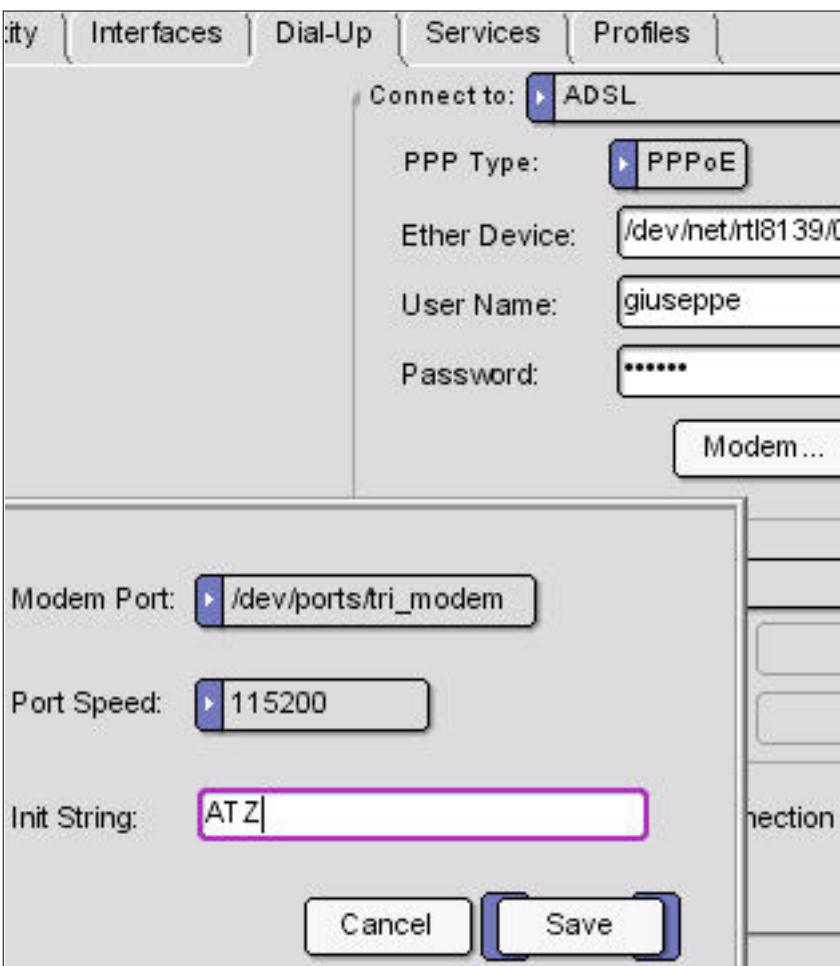


Figure 2

Boneyard is the unified configuration panel of BONE (BeOS Networking Environment).

From Be to Zeta

by daf [daf73@interfree.it]

Zeta is the successor of BeOS and YellowTab is the heir to Be

Quando ho conosciuto BeOS, leggendo un articolo di Paolo Pisati su un Linux & C. di seconda mano, il "fattaccio" era già avvenuto. BeOS era stato abbandonato dai propri creatori, venduto a chi non voleva farne niente... GAME OVER.

Però... ormai la scatola l'avevo aperta, non potevo fare a meno di guardarci dentro. Così, senza rendermene conto, sempre più spesso la scelta del sistema operativo all'avvio del computer mi portava ad osservare sette icone viola accendersi in sequenza. In poco tempo avevo già conosciuto tutti i siti che parlavano di BeOS, conoscevo a memoria tutte le applicazioni di bebits, non iniziavo a lavorare se prima non avevo dato un'occhiata alle ultime notizie su *The Beos Journal*.

Ma il futuro non sembrava roseo. La mancanza di sviluppo del sistema operativo cominciava a farsi sentire, il senso di abbandono della comunità beossiana era palpabile nei vari forum che incontravo. C'erano alcuni progetti di creazione di un nuovo sistema operativo più o meno simile a BeOS, c'era soprattutto openbeos, in cui sono confluite le migliori menti informatiche del mondo beossiano al fine di "ricreare la R5, per poi estenderla". Il progetto sembra forte, bene impostato e molto probabilmente destinato al successo, ma

la realizzazione di qualcosa di utilizzabile non pareva essere certo prossima.

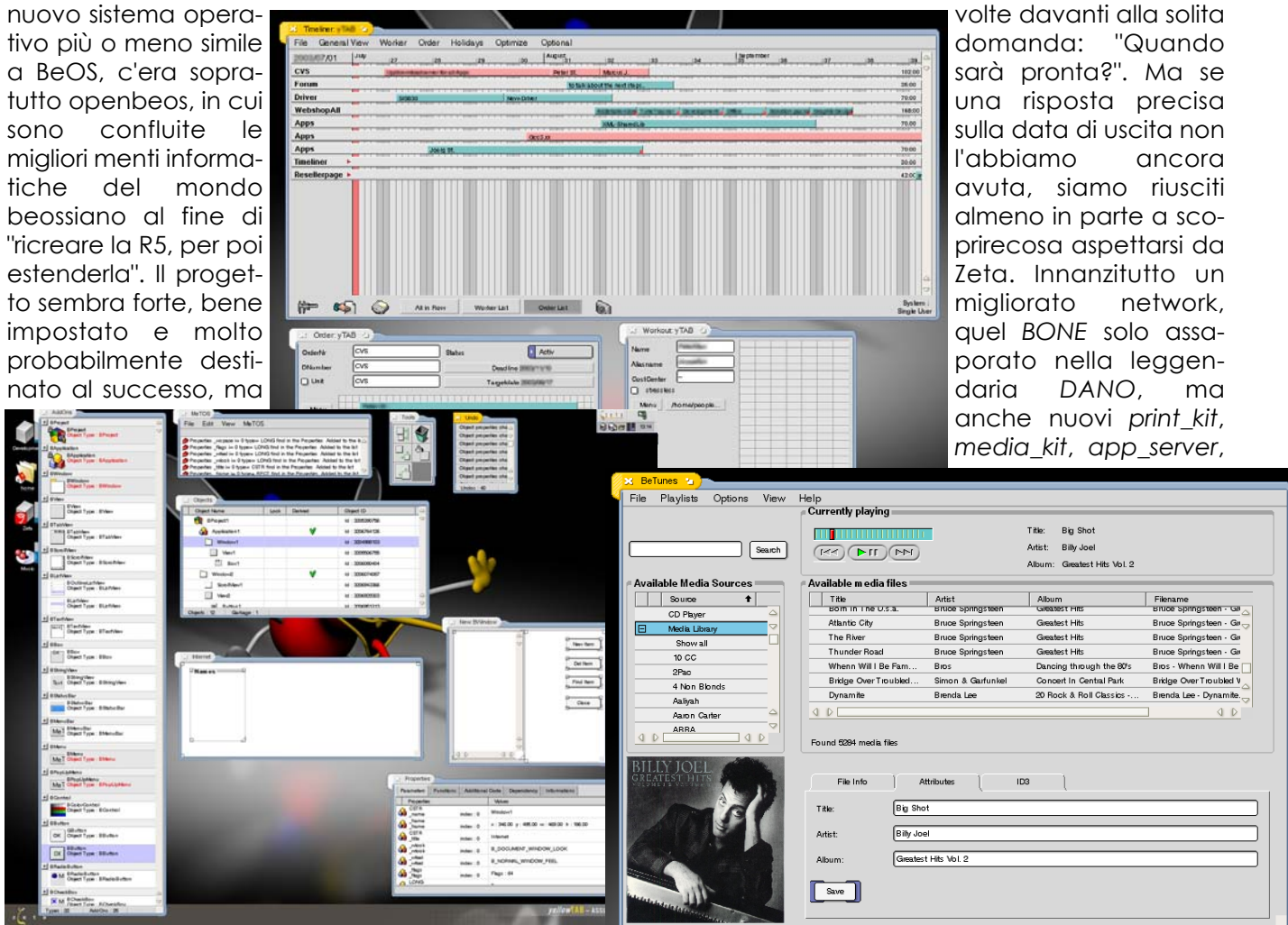
In un piccolo sito tedesco, **yellowtab.de**, un'azienda dichiarava di voler creare una nuova versione commerciale di BeOS. Io ero nuovo di quel mondo, non conoscevo persone, fatti, retroscena. Quel sito finiva praticamente con la Home Page e per mesi non l'ho più cercato.

Verso la fine del 2002 **yellowtab.de** era diventato **yellowtab.com** ed annunciava al mondo di essere prossima al rilascio sul mercato di una nuova versione di BeOS. Non qualcosa che si ispirasse all'originale, ma la vera R6, acquistata ancora grezza da Bernd Kontz direttamente dalla Be, Inc. prima che tutto il resto fosse venduto alla Palm.

Era nata Zeta.

Improvvisamente il mondo di BeOS ha ripreso vita, il forum della YT è diventato presto un punto di riferimento per tutti e Bernd si è trovato migliaia di

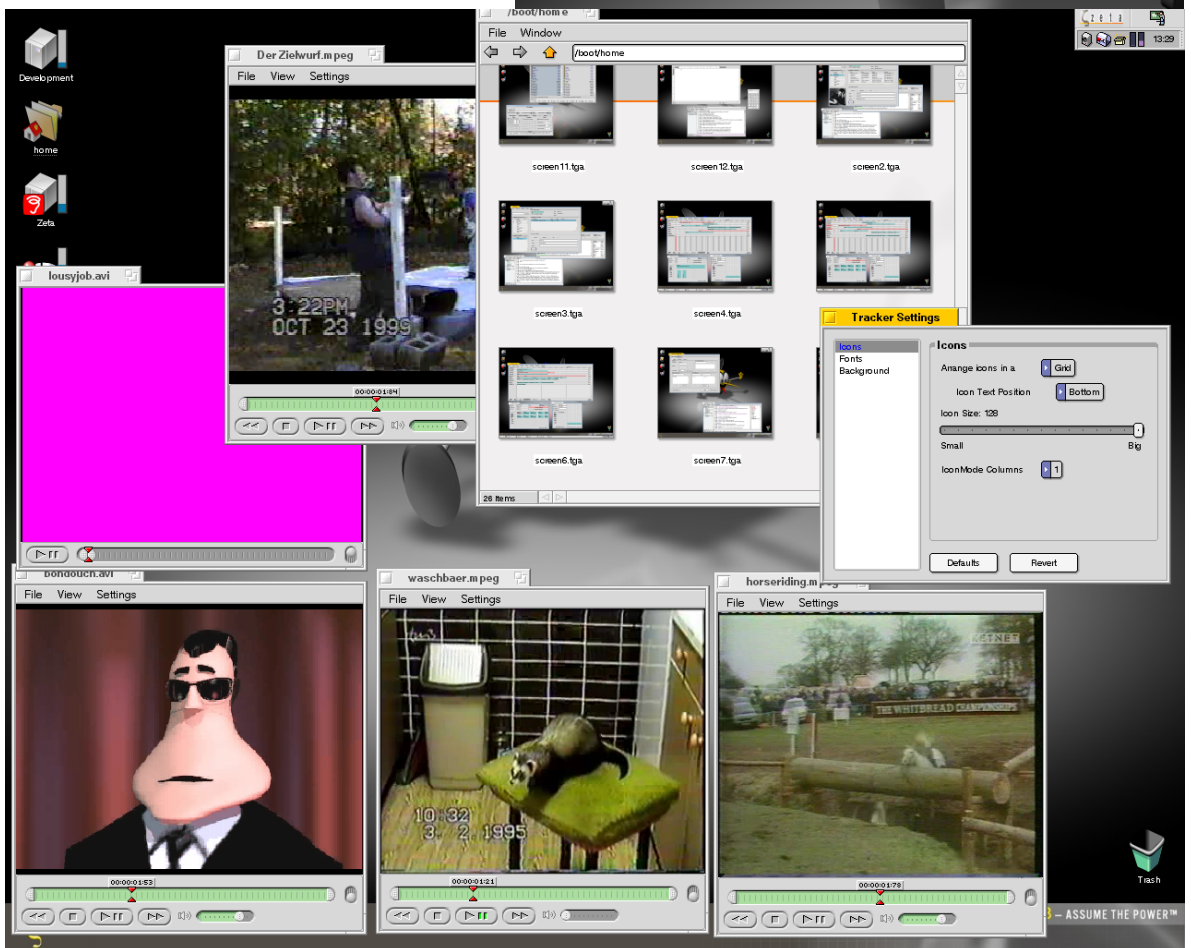
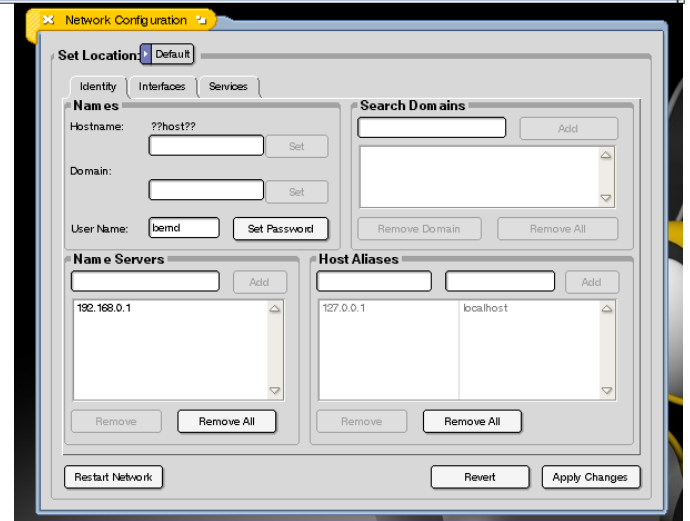
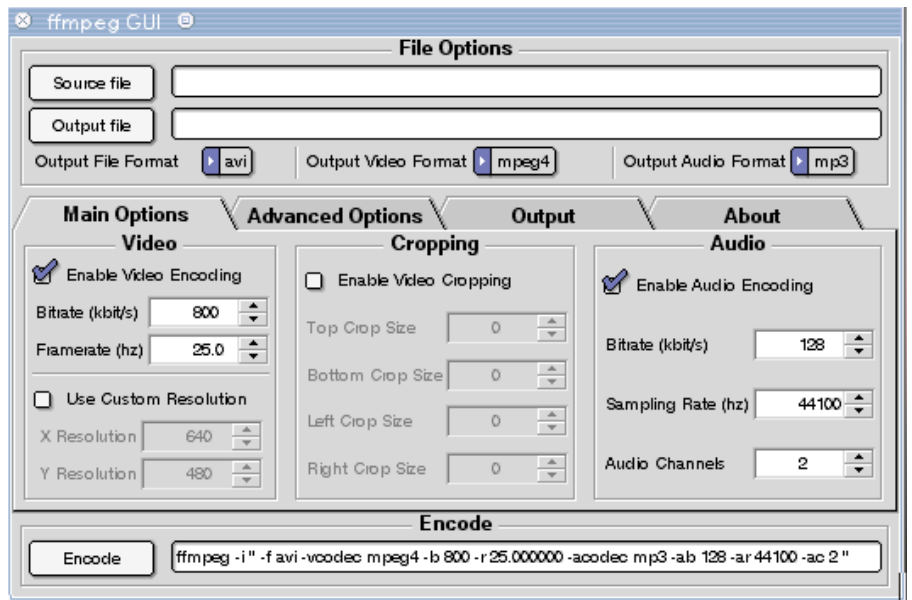
volte davanti alla solita domanda: "Quando sarà pronta?". Ma se una risposta precisa sulla data di uscita non l'abbiamo ancora avuta, siamo riusciti almeno in parte a scoprire cosa aspettarsi da Zeta. Innanzitutto un migliorato network, quel BONE solo assaporato nella leggendaria DANO, ma anche nuovi *print_kit*, *media_kit*, *app_server*,



nuovi drivers per allargare l'ormai ristretto parco hardware, migliorato supporto per le sempre più diffuse periferiche USB e una piena localizzazione del sistema operativo (fondamentale per noi che cerchiamo di diffonderne l'uso in paesi non anglofoni), oltre a nuove applicazioni sia nell'ambito dell'uso quotidiano (multimedia, ufficio, client p2p...) che in quello dello sviluppo, con moderni IDE e tool di sviluppo visuali.

Adesso, a qualche mese di distanza da quell'annuncio, l'attesa sembra volgere alla fine e chiari segnali arrivano dalla Germania ad indicare il prossimo autunno come la fine del tunnel per tutti gli amanti del multimediaOS. Nel frattempo abbiamo ingannato l'attesa guardando i video delle varie presentazioni che Bernd ha fatto a giro per il mondo e nessuno dei presenti potrà dimenticare la magica serata di Padova quando, durante il webb.it 2003, il simpatico teutonico ha dato vita ad un vero e proprio show, sottolineato dagli applausi del folto pubblico, composto in maggior parte da esperti di Linux e BSD.

Ma lo spirito di BeOS e della sua comunità è sempre stato rivolto ad innovare, cercando di costruire il futuro piuttosto che adattarsi al presente. Così non è ancora uscita Zeta che è già il momento di interrogarsi sul dopo. Il team di openbeos potrebbe non essere così lontano dal realizzare qualcosa di grande e la speranza di tutti è che le due anime dello sviluppo, open source e commerciale, sappiano al momento giusto prendersi a braccetto e camminare insieme, per garantire la continuità di quello che, ad un certo punto, temevamo di aver perso per sempre: il miglior sistema operativo possibile, qualunque sarà il suo nome.



Prince of Persia

by Giuseppe Gargaro [giuseppe.gargaro@tiscali.it]

Let's discover a well-known worldwide classic game.

The games realized between the '80s and the '90s left a mark on us all for the high level of ideas; today, instead, there is an exhausting aesthetic search and good ideas are very few.

Among the unforgottable games shines "Prince of Persia", realized in 1989 by **Jordan Mechner**.

At the time was common for a developer do everything by him/herself, so Jordan developed the game and the graphic, while the rest was completed by his family: his father composed the music and his brother acted for the study of the prince's movements.

Jordan Mechner is born in New York and his passion for computers was born when he was at high school, thanks to an Apple II.

He has produced some titles for the Broderbund Software, among them *Karateka* (an action/strategy game that has been a great success with its 500.000 copies sold) and *Prince of Persia* (about 2.000.000 copies sold) that won many awards and gained the favor of the critics thanks to the animation in first place.

The game came out first for Apple II and then for all the other major platforms: DOS, Macintosh, Amiga, NES, SNES, Sega Genesis, Commodore 64, etc.

Prince of Persia was a very innovative game introducing the *health bar*, when most games were based on making the higher score possible.

Also, was the first game that used the "rotoscoped animation", succeeding in the reproduction of human-like movements.

To realize such study on movements, the first thing Jordan made was to film his brother with his camera while he jumped and made every movement

needed for the prince; then, using a new machine made by an english company, made a drawing from each frame and recorded them on is Apple II: once on the computer the frames were modified to look like the prince and in doing so Jordan succeeded in obtaining a smoothness in the movement unbelievable for the time.



The game has a solid story, something uncommon for the times: the Sultan is far away at war, and during his leave the Grand Vizier Jaffar is in charge ruling the people with tyranny; you (the prince) are the only obstacle between Jaffar and the throne, because you are a bold young adventurer and the only daughter of the Sultan is in love with you... so you are in trouble big time, and Jaffar throws you in the pits, closing the the princess in the Palace's tower, leaving her an hour to decide to marry him or to die (not an easy choice, isn't it?).

But you are so good that after winning over a thousand tricks and duels with the pits guards, you'll find on a bridge over an abyss, wit that bad guy Jaffar behind you... obviously, after a bloody duel yuo'll cut him in thiny slices... but the Sultan has no will to give you his beautiful daughter in marriage, 'cause your blood is not blue enough, if not for his daughter that persuade him he will have your head cut!

So, do they live happily ever after?

Don't think so.

One morning entering the throne room you will see someone else at the princess side, that will not recognize you (lovely, isn't she?), and when his father give his guards the order to catch you, you'll find throwing yourself through the window to esca-



Nella foto al centro Jordan Mechner, nella foto a sinistra lo schermo iniziale del gioco originale

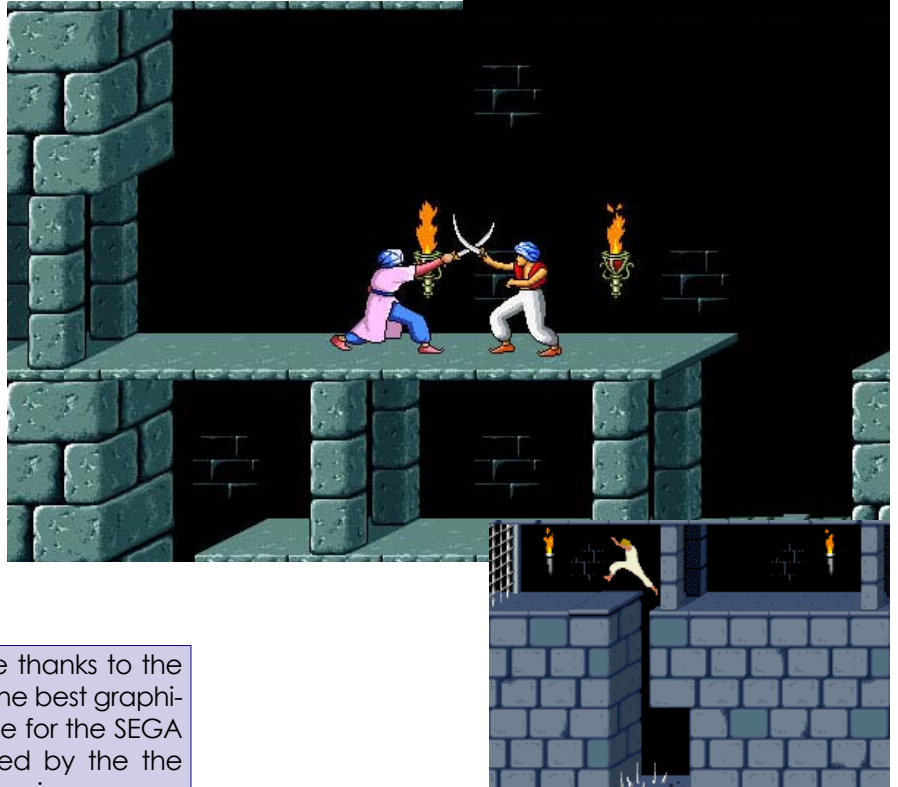
pe, and so begin "Prince of Persia 2".

Prince of Persia has a graphic that though simple can give you the feeling of the swash-buckling atmosphere, capturing the gamer in the lone hero role, against tricks and hidden mechanisms, ready to defend from scimitars and skeletons.

The game plays alternatively and wisely between action and reflection, and the result is an arcade adventure that you can fully enjoy both during the fightings with swords and the exploring of the daedalus of tricks and shocking surprises, that succeed in transmitting the pathos that precedes a jump or the flowing of the time needed to save our loved one. Prince of Persia, though it is so playable, is enough hard given the little time available to save the princess and the difficulty of the jumps. The game has had three sequels, the first is "Prince of Persia 2: the shadow and the flame" (1993), the second is "Prince of Persia 3D" (1999), and the third is "Prince of Persia: the sands of time" (on PS2). If you have never played at "Prince of Persia" you have lost a lot, but you can always make up for the time lost :)! ■



Alcuni screenshots presi da le versioni per Genesis e altri sistemi



Let's emulate it!

Let's see how re-live the adventure thanks to the emulators. Without doubt one of the best graphical versions of the game is the one for the SEGA Megadrive (Genesis) console, followed by the Super-Nintendo, Macintosh and PC versions. Following are some of the emulator you can use to play at Prince of Persia:

Gens (Sega Megadrive emulator for BeOS)
www.dawnoftthegames.com/downloads/gens2.12a_bin.zip

DGen/SDL (Sega megadrive emulator for Linux, BeOS)
www.pknet.com/~joe/dgen-sdl.html
 requires SDL (Simple DirectMedia Layer) libraries

Generator (Sega Megadrive emulator for MacOS)
www.bannister.org/software/generator.htm

AmiGenerator (Sega Megadrive emulator for AmigaPPC)
www.amidog.com/emu/amigenerator/

DOSBox ("PC x86" emulator for Morphos, Amiga68k, Linux and BeOS)
dosbox.sourceforge.net/download.php?main=1
 requires SDL (Simple DirectMedia Layer) libraries

EMUNEWS

Genesis/Megadrive

Stéphane Akhoun and Caz ported Gens on Linux, a good Genesis emulator.

<http://gens.consolemul.com/>

New version of DGen/SDL 1.23 for BeOS

http://www.dawnoftthegames.com/downloads/dgen-1.23_x86.pkg.zip

NeoGeo

Edge has ported GnGeo, a very advanced NeoGeo emulator

http://www.dawnoftthegames.com/downloads/gngeo-0.5.9a_x86.pkg.zip

Gameboy

KiGB has been updated, it is a good emulator compatible with OS 9 and OS X.

<http://www.bannister.org/software/kigb.htm>

AppleII

New Apple II emulator (**Virtual II**) for Mac.

<http://www.xs4all.nl/~gp/VirtuallI/>

MSX. 8-bit genius

by Giuseppe Gargaro [giuseppe.gargaro@tiscali.it]

MSX was one of the most powerful 8-bit home computers ever projected. It was a pity that it had no lucky at all. Let's discover how to emulate it on our systems

The MSX platform (**Microsoft Extended Basic**) was born in 1983 from a consortium of Japanese companies specialized in microelectronics that wanted to create a new standard.

Following the specs of this standard were build some ten computers (from **Sharp, Nec, Sony, Hitachi, Toshiba, Mitsubishi, Canon, JVC**, etc.) with the same hardware resources and all compatible with each other.

The weak point in this idea that could have been made a revolution in the computer field was the software: in fact these companies distributed the hardware everywhere hoping in applications development, but things didn't went as they hoped both in the European and U.S. markets where applications were usually made by bad conversion of software written for other machines at 8bit like the Spectrum. MSX machines had a Z80A processor, at 8bit and 64 kb of RAM and were all compatible with MSX Basic.

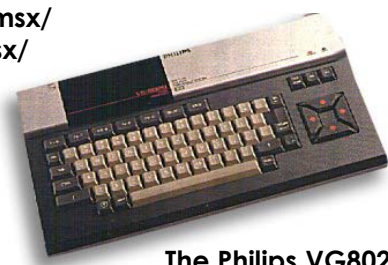
This 8bit computer had a good distribution and success in Japan, thanks to the games created by the mythical **Konami**; in Europe there was a good distribution only in Germany, Spain and the Netherlands.

One MSX that had a good success in Italy and in the rest of Europe was the **Phillips VG8020** (Z80 at 3,6 mhz, 80 kb RAM, 256x192 pixels with 16 colours). MSX had an heir that was the MSX2, a very valid machine which is still maintained by some developers. ■

www.msx.org

www.nic.funet.fi/pub/msx/

www.xydirect.com/msx/



The Philips VG8020

CHECK IT OUT

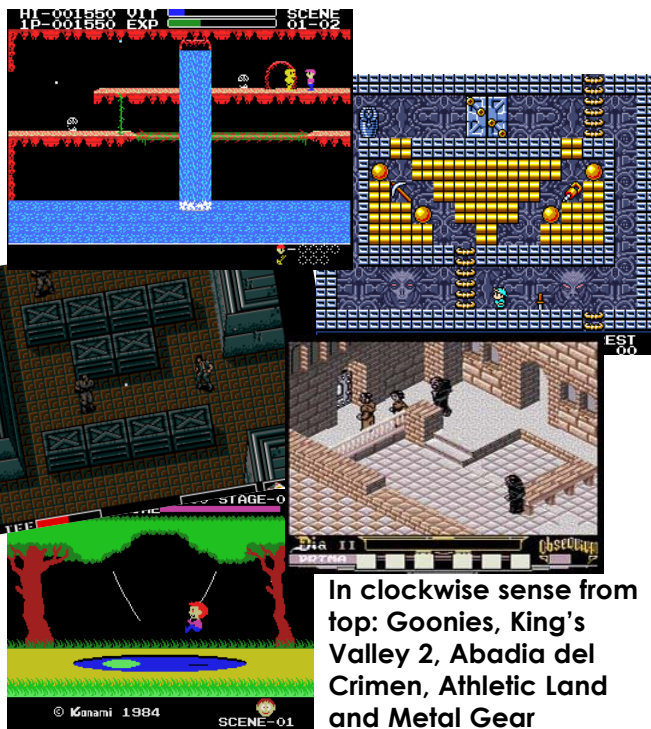
Athletic Land (1984 Konami) a simple and fun game where the main character is a child that will done anything to have fun.

Goonies (1986 Konami) where you have to free all the imprisoned kids.

Abadia del Crimen (Color Remake for MSX2 2000 Opera Soft) a great classic in 16 bit colours.

King's Valley 2 (1988 Konami) my favourite one :)

Metal Gear (1987 Konami) one of the best games for MSX.



In clockwise sense from top: Goonies, King's Valley 2, Abadia del Crimen, Athletic Land and Metal Gear

EMULATORS

Amiga

fMSX students.silab.dsi.unimi.it/~cs390447/afmsx.html

AmiMSX www.arakis.es/~joanant/amx.html

Mac OS

fmsx, freeM and Zodiac emulation.net/msx/

Linux

fMS fms.komkon.org/fMSX/

OpenMSX openmsx.sourceforge.net/

FreeBSD

fMSX

www.FreeBSD.org/cgi/cvsweb.cgi/ports/emulators/fmsx

BeOS

About emulation of MSX under BeOS use fMSX/SDL: it requires the SDL libraries, and is provided of an interface to launch the games, fMSXLauncher.

To better control the emulator I suggest the use of scripting to launch the games: an example to launch Abadia del Crimen

(Color remake for MSX2) will follow; the commands that you could use are explained in the readme.txt that comes with the emulator (to use a rom take away the command "-disk a" from the script).

```
#!/bin/sh
cd /boot/emulazione/fmsx-sdl/
fmsx -filter 3 -msx2+ -diska /boot/emulazione/msx_giochi/abadia.dsk
```

fMSX

beemulated3.bei.t-online.de/fmsx-sdl-2.6.0.40beos.zip

SDL

diana2.bei.t-online.de/SDLGameLibs.zip

REBOL - part I

by **Davide Gessi** [davidegessi@tin.it]

Scripting language or a distributed application framework?

My first approach to programming took place about twenty years ago, when I was happened by chance to read a magazine which described how to assemble a board with a microprocessor that was sold in scatola di montaggio, the language used was 6502 assembly (the future core of the VIC20). When I understood the first example (it was not so difficult indeed, just the sum of two bytes...), a fantastic world opened in front of me, hexadecimal opcodes took the place of the Lego.

Afterwards I was always involved with computer science as a hobby at first, then due to my studies and finally as a job; that's a long time ago so I had the chance to use many platform to develop with; three languages made me live again the elation of the first addition: the Prolog at first, the Smalltalk and nowadays the Rebol.

Rebol is an interpreted language created and developed by Carl Sassenrath, one of the developer of AMIGA and now founder of *Rebol Technologies* (<http://www.rebol.com>).

Rebol is a multiplatform language, it runs on about forty operating systems, from Linux to Amiga, passing by Solaris, MacOS, Windows and last but not least BeOS; even though it is a lightweight language, it does not require any external library to work. It shines for its simplicity and formal elegance so It is possible to develop quite complex applications by writing a very few lines.

One of its relevant features is the native support for various internet protocols (such as http, ftp, dns) so this allows to develop distributed applications, client-server systems, peer2peer messengers in a very natural fashion without using obscure and complex protocols.

This aims to be the first of a series of articles dedicated to Rebol programming, we will approach this language by bringing out his features, yet looking at its limits.

INSTALLATION

Installation is very easy and troubleness. Once you downloaded the software from Rebol site (<http://www.rebol.com/downloads/view-pro052.tar.gz> for Intel and <http://www.rebol.com/downloads/view-pro051.tar.gz> for PPC), you have to unpack it in a temporary folder and launch the rebol executable.

You will be asked to insert the folder where you want to install rebol (/boot/apps/rebol is a good choice), user name, pop3 and smtp servers and finally the proxy server we use to connecto to the internet. Once you saved the settings you are ready to start! I suggest to create a symlink to the rebol executable in /bin, just type from the bash:

```
ln -s /boot/apps/rebol/rebol /bin/rebol
```

followed by

```
chmod 744 /bin/rebol
```

or by dragging the rebol executable in /bin with the right mouse button and creating a link, then set the executable permission with the Tracker.

THE CONSOLE

The version of Rebol we have downloaded is called "View" that, unlike the "Core" version, comes with a graphic library that allows to create interfaces, buttons, text boxes and other widgets; because we want to fill BeBits with our new utilities and applications this is the right version!

Start Terminal and type "rebol", View version starts showing the Desktop, with a set of icons on the left e in the center some informations about the version of the interpreter (see **FIG. 1**). For our first experiments with this new toy we must unwillingly leave the desktop by clicking the console icon on the left, we'll return to the terminal where the rebol console waits for us with the prompt ">>".

If we write something like:

```
view layout [text "hello world!" button
             "Close" [unview]]
```

the just installed interpreter will emit its first cry.

THE LANGUAGE AT A GLANCE

I just don't want to replicate the tutorials that could be found on the Rebol site that I recommend to examine thoroughly various points we will discuss, anyway I would underline the characteristic of the language to excite the curiosity of my attentive readers. Every example can be copied and pasted directly to the console for an immediate test.

Rebol is essentially syntax-less, there are not line



FIGURA 1

and its parameters through the "help" or "?" instructions:

```
help now
help request
```

LOCAL AND REMOTE FILES

Read and write are basic input/output instructions that work with files. Unlike other languages like C++ or *Visual Basic* (where a reading/writing stream must be opened first, transfer data and close the stream) in Rebol things are simpler, to read a local file using the following instructions:

ending characters, the words are separated by spaces and the blocks are delimited by square brackets, there's no distinction among code and data code. The assignment of values to a variable can be done using a colon ":", as of the following examples:

```
a: 123
name: "davide"
email: davidegessi@tin.it
site: http://www.bebits.com
fruit: ["apples" "pear" "bananas" "oranges"]
current-time: now/time
```

Even though there is not an explicit declaration of variable type, this language is strictly typified, many datatypes exist other than the standard ones (integer, decimal, string) we could find "email", "url", "pair" type and so on...

I would like to linger on the last assignment where the function "now" is called, "/time" is called a "refinement" of the function, in this case allows to specify we want only the time without the date.

Refinements are very often used in Rebol, an easy to understand and to remember concept... they allow to specify more parameters to the functions or to modify their standard behaviour. Almost all the functions allow refinements, such as the "request" instruction that shows a dialog box with three buttons by default ("yes", "no" and "cancel"). The next example user's choice is stored in the variable "save":

```
save: request "Do you want to save the file ?"
```

it is possible to specify the refinement "/confirm" in order to obtain a mask with only two buttons:

```
save: request/confirm "Do you want to save the file ?"
```

in the case that a refinement needs a parameter it can be added after the instruction. A short description is available for every instruction

```
txt: read %file.txt
im: read/binary %image.jpg
```

The first line read the entire file and puts it into the txt variable, the second reads an image for which it is needed the binary refinement. The % means a file type in the Rebol syntax.

The write instruction needs two parameters, the first is the destination and the second the data to be written:

```
write/append %log.txt now/precise ;append the current time to the log file
```

```
write %copy.txt read %file.txt ;copy the file
```

The semicolon character ";" is used to insert remarks in the code, every character between the semicolon and the end of the line will be ignored.

I would like to make you notice that the second example not only copies a text file, but converts line ending character according to the current platform, how many times you happened to open a Windows Notepad file with StyledEdit and to see a little square at the end of each line?

The problem is easily solved...

Reading or writing remote files is similarly easy, we must specify an "url" type instead of "file" parameter:

```
home-page: read http://www.bebits.com ;reading of the BeBits homepage
```

```
messages:read nntp://news.tin.it/it.comp.lang
;download messages from the Newsgroup
```

Once got the homepage of Bebits it's possibile send it by mail via the "send" instruction:

```
send marco@test.it home-page
```

Oppure è possibile stampare tutti i titoli dei post del news group come spiegato in **TABELLA 1**.

CONCLUSIONS

This was the first taste of Rebol, I leave you with your new development tool and some demos (see **TABLE 2**).

Send any comments, ideas and criticism through the script which generates a feedback module (see **TABLE 3**). ■

```
forall messages [
  for every message
  ;parse the message retrieving the subject
  parse messages/1 [thru "Subject: " copy e to newline]
  ;print the index of the message and the subject
  print reduce [index? messaggi tab e]
]
```

TABLE 1

```
view layout [
  backdrop black
  across h1 red "Some demos for "
  image http://www.itbug.org/images/topics/beos.gif
  return below
  button "Gel" [do http://www.rebol.com/view/demos/gel.r]
  button "Mines" [do http://www.rebol.com/view/demos/mines.r]
  button "Rebtris" [do http://www.rebol.com/view/demos/rebtris.r]
]
```

TABLE 2

```
view center-face layout [
  style tx label 100x24 right
  across
  tx "Categoria:"
  cat: choice 196x24 "Suggestions/ideas" "Bug report" "Comments"
  return
  tx "Description:"
  desc: area wrap 400x72
  return
  pad 106
  button "Send" [
    out: rejoin [
      "Beyond feedback: " cat/text newline newline desc/text
    ]
    alert either not error? try [send davidegessi@tin.it out] [
      unview
      "Email sent, thanks!"
    ] [
      "Error while sending mailare you connected?"
    ]
  ]
  button "Cancel" [unview]
]
```

TABLE 3

OZONE the BeShare client for Windows

by Marco Begliardo [marco@marcobegliardo.com]

BeShare is the world famous file-sharing network for BeOS. Now available for Windows

Don't want to miss the chance to share your files and to chat even when you work with Windows Operating Systems? The solution is: Ozone.

Ozone (<http://www.ozone-o3.net>) is a BeShare client (file-sharing and chat networking system for BeOS users) developed by Vitaliy Mikitchenko and released as freeware.

Installation requires a few seconds, then an icon with an (Ozone?) molecule appears on the desktop.

As soon as you launch the program, the main window appears, with a look very similar to the BeOS version: on the top there is the list of servers, the widget for the choice of your nickname and the status; below we find the main window that shows the messages from the server and from the connected users; on the left we find the list of users and on the bottom of the screen a string gadget where to write.

In order to connect just choose the server from the list (i.e. [beshare.tycomsystems.com](http://www.beshare.tycomsystems.com)), set your nickname and choose *Connect* from *File* menu.

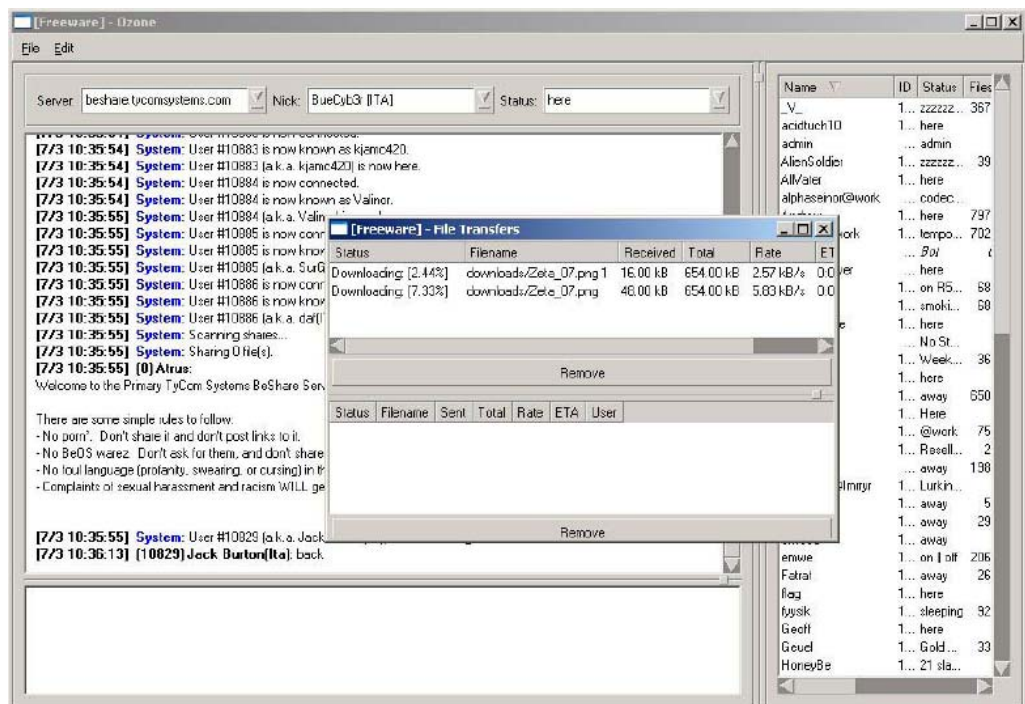
The interface, like its cousin BeShare, is very intuitive and very easy to understand; typing in the proper widget it is possible to chat publicly with other

users, by clicking on a user name with the right mouse button you can enter the private chat mode and to obtain the list of user's shared files: from the search window you can choose the files to download which will be added to the "File transfers" window.

If you want to globally search a file, just select *File>Search* and type the name of the file; to share your files copy them into the window that will appear by selecting *Open shared folder* from the *File* menu.

Notice the [Freeware] writing on every window, a remainder from the author. To personalize the settings just select the *Edit->Preferences* manu: you can configure the autologin mode, the colors of the messages, etc. the "Style" panel allows to change the look and feel of the windows: Windows, SGI, Motif...

The official sites announces that Ozone 2 is under development (new screenshots are added every day) and invites you to contribute to the hardware list of **Vitaliy Mikitchenko!**



Ozone client in action while downloading some files

Summer games

di daf [daf73@interfree.it]

Great classics, puzzle, platform and 3D games. As the summer ends we have no excuses, it's time to play!

daf
73



The world of videogames mostly felt the need for great software houses, able to invest in research and development.

To write an application to catalog one's mp3 files or to connect to ICQ could be a pleasant exercise, to spent some time developing on BeOS, but to create a game from scratch, a real game, one that make you stay awake all night to search for the truth, it's a task that only a full-time team of many dedicated people could face.

It is not by chance that the best games under BeOS to these days are those that **Wildcard Design** had succesfully managed to port under the platform.

One of the beautiful things about the work of **John Fehrè** software house is that the ports were not a mere version capable of running under BeOS, but real adaptations that use the unique characteristics of the system, to better the game, from the choice of the workspace in which to launch the game, to the readmes using attributes to make the simple text more readable, while an image of the BeOS filesystem were mounted on the fly to contain all the data needed for the play.

The most famous game that WD has ported is, without doubt, *Civilization: Call to Power* while the masterpiece-to-be, *Worms Armageddon*, never saw the light, because the brave software house had to fall under the hard law of the market.

It's a similar situation that's happened in the linux world with **LokiGames** that ported many famous titles to the platform before having to retire.

Does this means that the only O.S. that will see native games will forever be Windows?

The answer is no, and it comes straight from the same softwarehouses, that have begun to produce linux versions of the same titles.

And we are not talking card games... we talk about titles such as *NeverWinter Nights* by **Atari** and *Enemy Territory* by **Activision**.

3D pixels to the max!

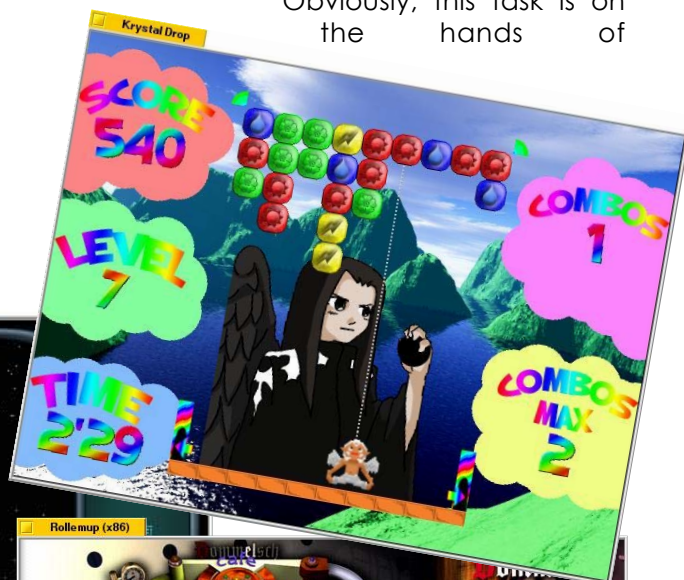
Understanding how this is a preferable road let's make a simple example: **3D Realms** in april released the old code of *Duke Nuken 3D*. After 4 (four!) days it were compiled the linux version and the next week we could download our version from BeBits...

How much time has 3D lost, when it could have been ported at zero costs in a time was still actual?

To persuade the great software houses to look at our platform with interest again we need two things: a company/association that will quarantine a constant developemnt and 3D hardware acceleration.

Obviously, this task is on the hands of

Kobo Deluxe v0.4pre8



Rollemap (x86)



Zeta/OBOS... and I think those are very good hands.

O.K., let's leave the past and right to the future. Now what?

What we can do, between seeing a movie, a session of development, and an hour of besharing? A good help comes, as often does, from the open-source world.

The presence on our platform of Perl, Python, SDL libraries (apart from native C++) has let us to

compile on BeOS many of the games created by the enthusiastic people of the free code.

If the entertaining *Rollemup* and *LBreakout*, another (perhaps the best) re-implementation of the classic breaking-walls ball, are nowadays classics of the good time on BeOS, new games appears often on BeBits.

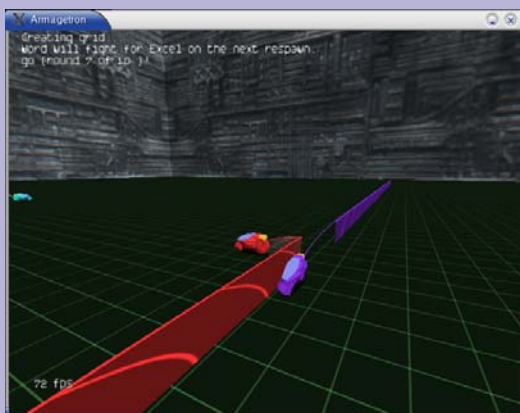
In fact, it's recently come out *KrystalDrop*, inspired by the arcade *Magical Drop*, with a good soundtrack and a pleasant graphic.

Personally, I spent some ours to win my brother's record inthe high speed *Kobo DeLuxe*.

But alas, every time I destroyed an hord of asteroids-explosive balls-enemy spaceships I found tha t my brother was three or four stages up... perhaps ten years difference counts? ■



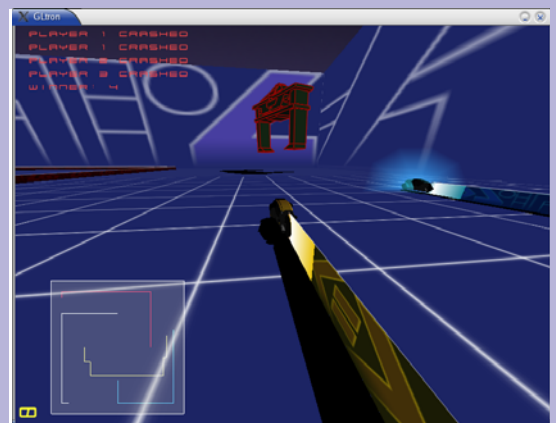
PLAYING WITH TUX



Today's informatics that were young in the '80s, they couldn't have forgotten the sci-fi movie "Tron" by Walt Disney, that it's quite rarely reharsed by the italian TV.

The adventures of the characters had inspired many video-games, but the advent of 3D brings us just in the middle of the action!

Different open-source projects were born, but two of them had captured my attention: Armagetron and GItron. Bring a Linux-Box (or a Mac, for the matter) with a decent video-card and go, download and... at the next junction don't give way to who comes from the right ;)



Adventure in Udine

AMIGA Alpe Adria 2003

by Mattia Tristo [mattia_tristo@libero.it]

Our brave Mattia Tristo and Andrea Bernardi went to Udine to be at an Italian Amiga-users meeting... and more.



Dall'alto Mattia e Andrea, Jens Schönfeld presenta il C-One, un nutrito gruppo di curiosi e in basso un Amiga PPC e due motherboard AmigaOne. Nella pagina accanto: ancora Mattia e Andrea che presentano la distribuzione BeOS++ di Ken, Linux su hardware AmigaOne e un momento della presentazione di AmigaOS 4.0.

Saturday, June 5 2003, we have arrived in the friendly city of Udine, looking for the offices of Cloanto.

Cloanto is the software house that created the famous Amiga word processor Text Craft; yes, that one!

Following the instructions from Cloanto's website, it wasn't hard to find the way and so we were at our booth with two PCs, ready to show BeOS capabilities.

Just after we fired up our machines, many visitors came to our place, curious about the multi-media characteristics of the OS, which we were showing playing many compressed videos at once, and simultaneously playing some mp3 remakes by the SID of the glorious C64, very good for the event and the public.

Time was passing by very fast and, between the demonstration, we tried to take some time to admire the new Amiga OS 4.0 on a PPC A4000 hardware and the AmigaOne, the MorphOS on hardware PowerPC Pegasos and the reconfigurable system C-One (Commodore 64 and other 8 bit computers compatible).

So the morning passed, with the beautiful presentation by Jurgen Schober of AmigaOS.

In the first half of the afternoon it was our turn, but, due to organizational needs regarding the other presentation, the time at our disposition had been reduced to 35-40 minutes; after we began people showed a great interest and

SPECIAL

the short descriptions and the demonstration played on a big screen of the speed and multi-tasking and multi-threading capabilities of the platform, had a great success.

We showed the speed of the OS booting in less than ten seconds and shutting down in even less, and how easy is to install both a distribution and the applications, being the latest operation a simple matter of copying files.

We showed also the stability of the system, how with an actual application crash, and even a desktop one, one can continue to work with the other applications, and how with a few steps one can return again 100% operative, without re-booting the system.

The real proof of the success that BeOS met came at the end of the presentation, when people began to ask.

Happy to answer, we demonstrated more and more of the practical characteristics of the OS, we talked about past, present and future of BeOS, underlining the fact that with the coming out (soon) of YellowTab Zeta and the ongoing development of OpenBeOS we will see many better features and innovations, making this OS more and more fascinating.

Hardware support will be soon enlarged, and we spoke so much that we used an hour instead of the 35-40 minutes we should have had at disposition.

Our opinion, judging by the interest and the curiosity surrounding this wonderful OS: BeOS and its heir Zeta are a clear answer to the actual needs of a PC user, such as speed (booting, shut-down, execution), stability, multi-media features, easyness of installation, use and maintenance.

We are sure that Zeta and OpenBeOS, in the future, will met all the needs that rise using other and more well-known OSes, which they seem unable to met, creating unsatisfaction.

An ending note: people were stupified by the fact that BeOS from the end of 1999 is no more "officially" supported, and in spite of this is yet able to create awe and to capture the user's attention, also being competitive among OSes, and this is a sign of an organization and internal structure truly exceptional, a masterpiece of the geniuses that worked at BeOS, Inc.

Those are not only the words of two BeOS fans, but the naked truth: seeing is believing [<http://yellowtab.com>].

We would like to thank Cloanto to let us take part in this event [<http://cloanto.com>].



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For a wide photos report please visit the site:
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