Virus Scanner

Gabriele Greco

COLLABORATORS

	TITLE : Virus Scanner		
ACTION	NAME	DATE	SIGNATURE
WRITTEN BY	Gabriele Greco	January 18, 2023	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

Virus Scanner

1.1 Contents"

```
Virus Scanner v1.04 by Gabriele Greco
-------------------------------------

  What is Virus Scanner?
  Distribution
  Installation
  Configuration
  Features
  Working Method
  Arexx Port
  About new Viruses
  Known Bugs
  Enforcer users...
  Thanks to...
  About SHI
  History Log
```

1.2 Distribution

```
DISTRIBUTION NOTES
------------------
```

Virus Scanner is freely distributable through BBS, PD collections or cover disks.

You can give a copy of VS to a friend without restriction. The only thing I ask to the users is to send me or to SHI new viruses and to support the SafeWare concept, but this is optional.

The only important thing is to keep safe your datas against virus infections.

1.3 concept"

```
WHAT IS SAFEWARE
----------------
```
'SafeWare' is a new word I create to describe the condition of use of VS.
If your datas are saved from the distruction by my killer please send to
me 10$ (or the equivalent in other currencies) or more and I will send to
you the last Virus Scanner version. Please note that it isn't very much
and you will receive at home a disk. You can send your cash in any way to

my address, obviously specifying the address where I
have to send the update.

1.4 Installation"

```
INSTALLATION
------------
```
To install Virus Scanner in your system disk you have to:

1) Drag the VS icon in the WBStartup drawer or copy VS in C: and add a
   "run >NIL: <NIL: VS [options]" in your user-startup.

2) Copy the removelink.library in your LIBS: assignment.

3) Copy the reqtools.library in your LIBS: assignment.

4) (Optional) Copy the unpack.library in your LIBS: assignment, if you
   want to turn on the crunched files check capability.

5) (Optional) Copy the bootblock.library in your LIBS: assignment and
   copy the bootblock.brainfile in your L: assignment, if you want to
   turn on the bootblock viruses check capability.

6) (Optional) If you have Kickstart 2.1 copy the catalog of your favourite
   language in the right place.

   Example: Copy the italiano/VirusScanner.catalog in your locale:catalogs
   /italiano/

7) (Optional) If you want to use the "install fuckchecker" option, not
   needed anymore if you let VS resident, copy fuckchecker in your c:
   directory

1.5 notes

```
NOTES FOR ENFORCER USERS
------------------------
```

If you use enforcer you will found VS causes two enforcer hits every two
seconds. This is due to the access of a function to the page zero that
it's illegal. Unfortunately many viruses install themselves in the page
zero vectors, then I HAVE to check this vectors.

If you don't want enforcer hits you can of course disable them with the
NO_ENFORCER_HITS tooltype, but in this way you loose the possibility of
find many (but not all) virus in memory. So if you aren't an enforcer
fanatic disable it instead of the memory scan of VS....

1.6 is

WHAT IS VIRUS SCANNER

Virus Scanner is a new conception antivirus commodity for Kickstart 2.0+.
It recognises more than 260 viruses (click on the "About" gadget for
knowing of how many viruses recognise the current version) and checks also
system vectors for possible alteration.

VS is the first fully modular virus checker, copying new versions of
the removelink.library, bootblock.library or unpack.library in your libs
directory VS will recognise automatically new file or link viruses and new
crunchers or archiviers. Obviously it has also his internal virus
checking routines that let me update the killer to recognise new viruses
without waiting for SHI library updates.

1.7 Localization"

LOCALIZATION

If you use WB 2.1+ the program is also localized. Actually there is only
the italian and the german localization, but in the distruibution are
included also the ".cd" file and an empty ".ct", so, if you own catcomp
you can create your own localization.

Please send me the ".ct" file you create so that I can include it in the
distribution of VS.

You can send it to me via e-mail with a matrix to my address.

1.8 Configuration"

CONFIGURATION

THERE ARE THREE WAYS TO CONFIGURE VIRUS SCANNER:

1) Icon Tooltypes
2) CLI arguments
3) GUI and Preferences

1.9 Configuration

```
1) ICON TOOLTYPES
-----------------
```

The tooltypes may be inserted through the "Icon info" option on the
Workbench screen.

VIRUS SCANNER ACCEPTS THE FOLLOWING TOOLTYPES:

CX_PRIORITY=(from -5 to +5) - Sets the priority of the commodity.

```
DONOTWAIT                   - Use  it  if  you  want  to  put  it  into WB
                              startup.

STARTPRI=(from -20 to +20)  - Set  it  to  an  high  value  if you want VS
                              starting before others commodities.

CX_POPUP=(YES|NO)           - If  it's YES when VS boots it will popup his
                              window.

HOTKEY=<hotkey format>      - This  is  the combination of keys that will
                              popup VS  window if it's hidden. Default is
                              <control+V> Example HOTKEY="control v"

LEFTEDGE=x coordinate       - The  horizontal  position in which VS window
                              will appear on the WB screen.

TOPEDGE=y coordinate        - The  vertical  position  in  which VS window
                              will appear on the WB screen.

CHECK_DELAY=seconds         - This  tooltype  let  you choose how many se-
                              conds  will  divide  one memory check to the
                              other.  The  default value if you don't spe-
                              cify this tooltype is 5.

                              You  can  insert values from 2 to 60, if you
                              specify  values  out  of  this range will be
                              used the default value.

DONT_USE_UNPACK_LIB         - I have included this tooltype because of the
                              not  very high stability of the current ver-
                              sion of the unpack.library.

                              If  you include this tooltype in the icon VS
                              will  ignore  the  unpack  library  also  if
                              present in the directory libs:.

                              Without  the  unpack  library  the  VS check
                              files  process never fall (with it sometimes
                              with  some  configurations  can  crash  the
                              machine),  but  VS will not be able to check
                              crunched  files.  If  you  aren't working on
                              very important datas you can use unpack.lib-
                              rary.
```

	You can also specify this tooltype if you own many crunched files and you are sure about the contents of the crunched files because the check process of a crunched file (expecially an archive) is slower than with a normal file.
NO_ENFORCER_HITS	– If you specify this tooltype in the VS icon it will disable the removelink.library scan memory function.
	This operation causes two enforcer hits be-cause of the access to location in the page 0 of the memory and usually it's performed every two seconds.
	If you set this tooltype there will be not enforcer hits but you will loose the possi-bilities of remove many virus from the memory.
DONT_CHECK_MEMORY	– If you do not want to waste a little of your cpu time with a periodical check of memory for viruses (about the 0.5% on a 68030 if you perform the check every two seconds, see the CHECK_DELAY tooltype)
CHECK_COLDCAPTURE=(YES|NO)	– This is for the people who uses Skick or Zkick or other programs that use the cold-capture vector to stay resident after a reset.
	If you run a similar program and you hate "Warning, the coldcapture vector is not zero..." requester every time you run VS with the tooltype: CHECK_COLDCAPTURE=NO you will not be disturbed anymore by that reque-ster. Default is "YES". From version 1.03 this tooltype stops also the KickTagPtr checking for people with a A1200 with a non autoconfig memory expansion
STAY_RESIDENT=(YES|NO)	– If you set this to "NO" VS will check every devices for bootblock and file viruses and than it will exit freeing your memory. Default is "YES".
PROGRESS_WINDOW=(YES|NO)	– If you select "YES" on this tooltype every time you perform an option it will be opened a small window making you known of what VS is doing.

1.10 Configuration

```
2) CLI ARGUMENTS
----------------
```

If you run VS from CLI or in the user-startup you may need to configure VS via command line.

The format is the same as the ToolTypes, some examples:

VS progress_window=yes stay_resident=no hotkey="control shift a"

RUN VS check_coldcapture=no cxpopup=no

vs leftedge=150 topedge=20

See also the ToolTypes configuration paragraph.

1.11 Configuration

```
3) GUI & PREFS
--------------
```

Through the "configuration panel" of the GUI you can configure practically every aspect of the program.

You can set the boolean gadget as you want and then you can save the configuration that will be automatically loaded the next time you load VS.

The setting are saved in a file called s:vscan.prefs, in the distribution there is an example.

1.12 Features"

```
VIRUS SCANNER FEATURES
----------------------
```
Virus Scanner has many usefull features as the periodical check of every memory vector, of the startup-sequence and of the process you have in background. This operations are performed without any loss of processor speed, unlike Virus Checker.

VS can remove Fuck Virus from memory (VirusChecker 6.30 no) and from disk.

VS recognises every file/link virus available at the moment and using if possible the New Virus Database feature let VS knows also virus that it originally doesn't know. For the news ones look at the virus wanted list.

VS uses the SHI bootblock.library, so with an update of the bootblock. brainfile it can recognise and delete any new bootblock virus.

VS uses the SHI removelink.library, so with a new version of the library you can kill new viruses.

Using the SHI unpack.library VS can decrunch and check files compressed withmore than 100 different crunchers.

VS can be localized.

VS has a complete AREXX port.

VS has a complete system vectors and function call table in a superbitmap window.

VS checks the memory every n seconds (where n is a number between 5 e 60 at your choice, see tooltypes).

VS has a known virus list and a known cruncher list.

VS has a feature that automatically check at each access to a disk if a file, in a list you make, has been modified.

VS is the only VirusKiller that can determine if a disk was FFS or OFS after the infection by a bootvirus checking the files structure on the disk before installing a new bootblock.

VS has a new feature for Amiga antivirus, but already present on some MS-DOS programs that let the user specify in a file called s:vscan.viruses the datas of new viruses (New Virus Database).

1.13 Working

```
WORKING METHOD
--------------
```

After the execution VS will:
1) Load prefs file.
2) Load the list of files to check
3) Check every disk-drive for a bootblock virus.
4) Check every system device (df0: dh1: ram: pc0:...) for a startup-
   sequence infected.
5) Check exec vectors(Cold,Cool,WarmCapture,kick,memtagptr...)
6) Check for memory infections.
7) Check the files in the CheckList.

Then during the execution VS will check:
1) every time a disk is inserted if it's infected by a bootblock virus.
2) every second if an exec vector has been altered.
3) every second if a process virus has been added to the process list.
4) every second if a new virus is installed in memory.
5) every disk access if a file in the CheckList has been altered.

The other action are available through the GUI, or through the arexx port.

1.14 New

```
NEW VIRUS DATABASE
------------------
This  is a absolutely new feature for amiga antivirus, let you specify in a
file  (s:Vscan.viruses)  the  datas of viruses that the vs version you own
doesn't recognise.  This datas will be spread through the SHI warnings and
through  the various network (internet, fidonet, amiganet).  The new virus
datas  will  be  spread  only  by authorized people and SHI members in the
following format:

Message about the virus type and what does it do...

<Virus Name> ASCII

<Offset>  Decimal string (if from the beginning positive, if from the end
 negative)

<Buffer Length> Decimal string

<Buffer> Hex description of the buffer

For example you can find in the fidonet area amiga.eur:

From: Gabriele Greco
To: All
Subject: New Virus!!!
Date: 1-1-94
--------------------------
Warning  there  is  a new very dangerous virus, we call it "dir" virus for
the TERRIBLE damage that it do:

If  this  virus  (present  in  every amiga OS version) is executed without
parameter  it  will  list on a console window every file or dir present in
the current directory, TERRIBLE!  :-))

These are the virus datas:

dir command v40
672
11
444952532f532c46494c45


....or something like this :-)

This data must be inserted in your file in the following format:

filename s:vscan.viruses

line 1: number of virus datas contained in the file
line 2: Virus name 1
line 3: Offset 1
line 4: Buffer Length 1
line 5: Buffer 1
line 6: virus name 2
line 7: Offset 2
[.......]
```

This is a vscan.viruses example (the files aren't real viruses):

```
--cut-----cut-----cut--
3
dir command v40
672
11
444952532f532c46494c45
rename command v40
992
8
2f412f4d2c544f3d
assign command v40
-12
6
4a0166d44e75

--cut-----cut-----cut--
```

The virus inserted in the file in this way will be recognised in a scan
like a normal VS internal file/link virus.

In a next future this feature will be upgraded and will be distributed
with VS a GUI New Virus Database editor and will be implemented in the hex
buffer also wildcard capabilities.

1.15 CheckList"

```
CHECK LIST
----------
```
With the menu option 'automatic check...' you can edit a list of files to
check at every disk access.

You can add items to the list or remove them. The total number of items
must not be more than 40. But if you use more than 15 items your disk
operations may be slowed a lot.

To save your changes you have to return to the main menu and perform a
"Save Prefs".

Alternatively you can directly edit the following file that is the one VS
load and save.

This is an example file:
```
-----File: Vscan.files------
4
s:user-startup
s:shell-startup
s:startup-sequence
c:loadwb
```

the first line show the number of files in the list.

The other lines are the full path file names to check.

If you have a file like this named "Vscan.files" in your s: directory VS
will load it and then at every disk access it will check if any of these
files has been modified. It recognise also if the modify is made by CED
and doesn't report it.   If you or a virus modify one of the selected
files, for example with an ' echo >>s:user-startup "dir" ', VS will report
a requester warning you that s:user-startup has been modified. In the
distribution there is an example s:vscan.files

1.16 Gadget

GUI

GENERAL GADGETS

Quit   - Quit VS and free his resources.

Hide   - Hide VS, you can recall it pressing the Hotkey
                          (default ctrl+v) or through commodities exchan-
                          ge.

About   - Show some informations about the program inclu
                          ding the number of virus detected and the act-
                          ually used brainfile version.

Save Prefs   - Save the current setting.

CONFIGURATION GADGETS

Check ColdCapture   - If deselected disable the coldcapture check,
                          thought for SKick users.

Stay Resident   - If deselected VS after the initial checkings
                          will quit

Show Progress Win   - If selected every option will show with a
                          string what the program is doing

Window Popup   - If selected the program will popup his window
                          after the execution.

Popup Key   - Let you choose your favourite popup key for VS.
                          It accepts the standard C= hotkeys format.

ACTION GADGETS

Check Files   - This option will let you check the files of a
                          directory. You have to choose a directory (use
                          shift to select more than one at once or "all"
                          to scan the entire device) and press ok on the
                          file requester.
                          During the file scan you can skip a directory,

                                          pause the scan or abort the scan clicking on
                                          the "VS Report" window.

Check All Devices   – Checks all devices of the system for bootblock
                              infection, if you select "yes" in the requester
                              also the files of the device will be scanned.
                              With the "Skip Device" gadget on the "Report"
                              window you can skip the file scan of the current
                              device, with "Abort" you can skip the entire
                              scan process.

Automatic Check...   – (Only Menu) Let you edit the CheckList items
                              through an easy to use ListView kind gadget.
                              Use "Add" to add a file to the check list and
                              "Delete" to delete an exising one.

List Viruses   – Open a window containing the names of all the
                              viruses VS recognises (link+file+bootblock).

List Crunchers   – (Only Menu) Open a window containing the names
                              of all the file crunchers/archivier VS is able
                              to recognise and decrunch for check compressed
                              files, it will work if the unpack.library is in
                              stalled.

Check Vectors   – Open a window that show the status of all the
                              system vectors and of all the libraries pat-
                              ches. (skick, zkick and rekick compatible)

Install a FuckChecker... – (Only available from menu) It Installs in a
                              device you are prompted to select a copy of
                              FuckChecker, a little program that checks if
                              your LoadWB is infected before running it.

                              Now it isn't of many use because the latest VS
                              versions will kill the virus without problems,
                              but it's useful fo r the disk users that can
                              install the only little fuckchecker instead of
                              a copy of VS in each system disk...

1.17 Arexx

AREXX COMMANDS

Virus Scanner own also, as every respectable 2.0 program, an Arexx port
that let you drive many operations of the program via arexx. These are
the Arexx command you can send to Virus Scanner after an: address
"VS_Port"

Command list

 SHOWGUI
 HIDEGUI
 VECTORS
 CHECKALL

```
 CHECKBOOTBLOCK
 CHECKFILES
 SHOWPROGRESS
 ABOUT
 QUIT
 CHECKFILE
```

The default extension of Virus Scanner Arexx scripts is .VS

If the argument of a command requires colon (':') you have to enclose it
into ('') this is a limit of the arexx syntax.

Examples:
checkfiles dh2:prova/   (DOESN'T WORK)
checkfiles 'dh2:prova/' (THIS WORKS FINE)
checkfiles dh2   (WILL WORK TOO)

1.18   Arexx

Syntax: SHOWGUI

Action

Shows the program GUI.

1.19   Arexx

Syntax: HIDEGUI

Action

Hide the program GUI.

1.20   Arexx

Syntax: CHECKBOOTBLOCK (DF0|DF1|DF2|DF3)

Action

With this command you can check the bootblock of an ALREADY inserted disk.
Infact when a disk is inserted it's checked automatically.

Examples:
rx "address 'VS_Port' checkbootblock df0"
rx "address 'VS_Port' checkbootblock df0:"

1.21 Arexx

Syntax: VECTORS

Action

Make a check of all system vectors. These vectors are also automatically
checked every 2 seconds.

1.22 Arexx

Syntax: CHECKALL

Action

Check Everything (Files & bootblocks of every device).

IF A VIRUS IS FOUND it's automatically deleted without requesters, because
this command is made for a script execution.

If an archived or crunched file contains a virus it will be deleted too,
In the case of an archive the entire archive will be deleted.

So if you plan to check archivied files it's better to check them directly
with the "check a disk" option.

1.23 Arexx

Syntax: CHECKFILES <DeviceName>

Action

With this command you can check the files of a selected device.

If a device name contains colon you will have to enclose it into (').

If a virus is found it's automatically deleted (or processed if it's a
link) without requesters, because this command is made for script
execution.

If an archived or crunched file contains a virus it will be deleted too,
in the case of an archive the entire archive will be deleted.

So if you plan to check archivied files it's better to check them directly
with the "check a disk" option.

Examples:
rx "address 'VS_Port' checkfiles sys"
rx "address 'VS_Port' checkfiles 'dh2:work/'"

1.24 Arexx

Syntax: ABOUT

Action

Same as clicking on the About gadget. Display program informations.

1.25 Arexx

Syntax: SHOWPROGRESS (ON|OFF)

Action

This command turns on/off the progress window.
See also the gui and configuration sections for more details.

1.26 Arexx

Syntax: QUIT

Action

Quits Virus Scanner from Arexx. Useful if you want to perform some checks
and then free the memory for others applications.

1.27 Arexx

Syntax: CHECKFILE <filename>

Action

For BBS use, to check a file for file and link viruses. It is very power-
ful because can check also files crunched with LHA/LZH or DMS using the
unpack.library.

The filename must be enclosed within (') if it contains colon (:).
If the file checked is infected by a virus the command will return a
return code of 10. So you can use it also in a DOS script.

This is valid both for normal files than for compressed ones. So if an
archive uploaded to your bbs contains a virus you can copy it to a per-
sonal directory containing bad uploads.

The file isn't deleted by VS. You have to do it of your own in the arexx/-
dos script.

Examples:

```
rx "address 'VS_Port' checkfile 'dh1:loadwb'"
rx "address 'VS_Port' checkfile 'dh1:uploads/stuff.lha'"
```

1.28 Known

KNOWN BUGS

Actually VS has not known bug, if you find one please report it to me, but
the current unpack.library version has some problem with some crunched
files but only on certain configurations.

To avoid this problem I've added a tooltype: DONT_USE_UNPACK_LIB that if
specified in the icon will inihbit the access to unpack.library.

This is the first version of my program and so also if I and Giuseppe
Vicari have longely tested the program it is surely not bug free so use
 The bug report form and send it to me!

1.29 report

BUG REPORT FORM

Well, I really hope I don't see too many of these come back, but here it
is anyway.

If you should happen to find a bug in any of the programs as supplied,
AND.... you've taken ALL....the time to thoroughly read the documentation.

If you still mean there is a bug, then PLEASE.... take your time to print
out the bug report form shown below, fill out the details and return it
to me or send the bug report form to the actual SHI library programmer,
if one of these anti-virus libraries mabe have a bug.

Cut here <

                            BUG RAPPORT FORM   DATE:

NAME:

ADDRESS:

COUNTRY: PHONE:

WHICH PROGRAM: REVISION:

YOUR MACHINE CONFIGURATION (use e.g. Sysinfo):

```

```
1.  Amiga 500              Amiga 600              Amiga 1000
    Amiga 2000 A           Amiga 2000 B           Amiga 2000 C
    Amiga 2500             Amiga 3000             Amiga 4030
    Amiga 4040             Amiga 1200             Amiga CD 32


2.  1/2 MB chipmem                 Fat Agnus (old) 8371 A
    1/1 MB chipmem                 Big Agnus (Fatter) 8372 A
    2/1 MB chipmem                 ECS Agnus (Hires) 8372 B
    Fast RAM                       Total RAM

3.  Denise (old) 8362             ECS Denise (new) 8363

4.  Kickstart 2.0     Kickstart 3.0     Kickstart 3.1     Kickstart

5.  Special Boards and like (e.g. AT-Card, Action Replay, Turbo Card) :




6.  Your motherboard revision

7.  How old is your Amiga

----------------------------------------------------------------------------

Details of the bug:
-------------------












----------------------------------------------------------------------------
Cut here <
```

1.30 new

```
IF YOU ARE INFECTED WITH A NEW VIRUS
------------------------------------

If  your  believe your amiga is getting mad, if a disk full is reported as
empty, if you believe your amiga is infected by a virus you can send it to
```

me, or to SHI (if you send it to me I'll send it as soon as possible).
I'll try to fix your disk and if it's infected with a new virus your name
will be written into the documentation.

THE CONTENTS OF THE DISK ARE IRRILEVANT, I DON'T LOOK IF IT'S A PIRATE
DISK OR NOT. I'M INTRESTED ONLY BY THE VIRUS.
Then send your infected disks to my address.

1.31 to..."

Thanx to:
----

* Giuseppe Vicari, my first betatester, but more than that. Many of the
  features of this killer are his ideas, and he help me also with some
  programming problem.

* Luca Spada, for the fuck virus infection in his BBS that make me decide
  to write a killer. :-)

* Marco Lizza, my second betatester.

* Max Zuercher, for the german catalog.

* Flavio Stanchina, for useful programming tips and the G-zus packer.

* Erik Loevendahl Soerensen, for the SHI support.

* Paul Browne, for putting me in contact with SHI.

* Nico François, for the reqtools.library.

* Jan Van Den Baard, for GadtoolsBox I use to make the VS gui.

* Thomas Neumann for his new excellent unpacker.library

* Johan Eliasson for his new excellent bootvirus.library

* Johan Ohrman for his new excellent removelink.library

* Flemming Lindeblad for the danish catalog.

1.32 removelink.library"

REMOVElINK.LIBRARY BY JOHAN OHMAN

This library can detect more than 150 file/link viruses (and their clones)
and disable it, from memory or from disk.

1.33 unpack.library"

```
UNPACK.LIBRARY BY THOMAS NEUMANN
--------------------------------
```

The unpack.library let VS recognise more than 100 different packers and unpack their crunched files to check if them are infected by a virus.

1.34 bootblock.library"

```
BOOTBLOCK.LIBRARY BY JOHAN ELIASSON
-----------------------------------
```

This library in conjunction with the L:bootblock.brainfile can recognise more than 170 bootblock viruses.

1.35 Safe

```
    SOME NOTES ABOUT SHI
    --------------------
    I'm member of SHI (Safe Hex International) a world wide Amiga user-
    group, special founded to get the Amiga more popular and to fight
    against virus spreading.
```

```
ABOUT SAFE HEX INTERNATIONAL
If you know a virus programmer you can get a reward of $ 1000 for
supplying his name and address. The fact is that the law punishes data
crime very severely. (5 years in jail in most countries).
```

We are an international group with more than 600 members who have started trying to stop the spread of virus. Let me give you some example:

1. Our motto is: "Safe Hex", who dares do anything else today?".
2. A virus bank containing more than 1800 Amiga and PC viruses for supporting good shareware antivirus programs.
3. We help people to get their money back lost by virus infection.
4. We write articles about virus problems for about 20 computer magazines worldwide.
5. We release the newest and the best virus killers around from about 25 wellknown programmers worldwide.
6. We have more than 35 PC and Amiga "Virus Centers" worldwide where you can get free virus help by phoning our "Hotline", and the newest killers translated in your own language at very little cost.

```
FOR MORE INFORMATION CONTACT:
```

```
    SAFE HEX INTERNATIONAL          (Please send 2 "Coupon-Response
    Erik Loevendahl Soerensen       International"and a self addres-
    Snaphanevej 10                  sed envelope, if you want infor-
    DK-4720 Praestoe                mation about SHI by letter).
    Denmark
```

```
    Phone: + 45 55 99 25 12
    Fax  : + 45 55 99 34 98
```

1.36 Address"

You can write to me or send to me infected disk, new translations, contributions or bug reports at the following address:

Gabriele Greco
Via Banchi 12
I-16030 Uscio (GE)
Italy

You can write to me also via e-mail or send me uuencoded virus or crunchers at the following addresses:

Gabriele Greco
Fidonet : 2:331/106.7@fidonet.org
Internet: gabry@grifone.skylink.aare.net.ch

1.37 History

History Log

A bit short now....

```
02-01-94        1.0  First Version, not publically released.
26-01-94        1.01 Fixed some bugs and modified the "list virus" option,
                     added german and french catalogs. Reduced the code of
                     about  2K,  with optimization and replacing some ansi
                     C functions with custom ones.
23-02-94        1.02 Modified the Check Disk option, now check files, can
                     check also a dir. Modified the menu routine, now it
                     uses the screen font. Some little bugs removed. Some
                     little catalog modifications.
                     Now distribute with unpack.library 38.40
09-03-94        1.03 Lot of little bugs fixed from user reports, some
                     internal changes, now the Automatic Check option
                     should works properly...
                     Now distribute with unpack.library 39.50 and with
                     danish catalog by Flemming Lindeblad of SHI.
12-03-94        1.04 Some update to the documentation and a totally new
                     "Check Files" selection routine with multiselect
                     capabilities. "Cruncher list" option rewritten.
```