README

Amiga Library Services

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WRITTEN BY	Amiga Library Services	September 19, 2022	

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

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Chapter 1

README

1.1 FreshFish Volume 10

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Welcome to volume 10 in the
                FreshFish
                (TM) series. There are many
                changes
                effective with this release, the most obvious being that we have ←
                    greatly
improved the user interface, including a prototype of a new
                search
                 facility.

We have plans for
                additional changes
                 that will be implemented in the next
few releases. Please review these plans and if you have suggestions or
comments send us your
                feedback
                .

This compilation is Copyright © 1995 by Amiga Library Services, All Rights
Reserved. Other copyrights may apply. See our legal notice for additional
details before redistributing any material from FreshFish.

The contents of this CD can be divided into roughly four categories, new
material that has been submitted or collected since the last FreshFish,
useful material that is updated with each CD release to the latest available
versions at the time of the CD mastering,
                GNU
                 tools and utilities that are
provided in both source and binary form, and
                fish disks
                 1001-1100.

There is a combined index that covers the entire contents of the CD,
subdivided into various categories such as "games" and "utilities".

Amiga Library Services publishes
                other CDs
                 besides the FreshFish series,
including Photo CDs, Module collections, and more.

During release testing we noticed a few
                bugs
                , which we will attempt to fix
or find workarounds for in the next release.

1.2   Information about FreshFish series

Work on the FreshFish series was started in September 1994, and the first
CD-ROM to be produced by Fred Fish was released in October 1993.

Originally the FreshFish series was expected to be a monthly CD-ROM, but
that turned out to be too aggressive of a schedule, so the production cycle
was scaled back to be every 8-10 weeks. Currently we are running on about a
12 week schedule due to the poor Amiga market and time constraints imposed
by completion of other CD-ROM projects. We strongly hope that the Amiga
market will start to improve in the last quarter of 1995, with resumed
shipment of Amigas from ESCOM. This may support returning to a 6-8 week
production cycle as demand for Amiga products improves.

Information and artwork for previous FreshFish CD-ROMs is available on this
CD-ROM:

FreshFish Vol 1 FreshFish Vol 2 FreshFish Vol 3 FreshFish Vol 4
FreshFish Vol 5 FreshFish Vol 6 FreshFish Vol 7
FreshFish Vol 8 FreshFish Vol 9 FreshFish Vol 10

1.3   Hot News and related information

                User Interface

Beginning with FreshFish 10 we have made heavy use of AmigaGuide documents
to make it easier to navigate the CD-ROM and to access the material on
FreshFish directly from AmigaGuide. The product info files now have a new
field .execute defined. With FreshFish 10 you can now automatically execute
whatever is in the .execute field, which can be customized for each product.
This interface is still evolving, so as soon as we gain more experience with
it, we will update the product info specification to include suggestions for
creating these fields. Your
                feedback
                 is greatly appreciated.

MetaTool

We now use MetaTool as the default tool for almost everything on FreshFish.
This allows you to customize your environment to use tools of your choice to
view texts, display pictures, etc. We would like to thank Matthias Scheler
for kindly providing permission for us to include MetaTool.

Installer Script

Previous FreshFish have required you to make changes to your startup files
and reboot in order to make full use of the CD. This should no longer be
the case. The Install script located in the root directory of the CD can
take care of making the appropriate assignments and running other install
scripts as necessary.

You are still free to copy the FFCD-Startup script from Useful/Sys/S
to your S: directory and arrange to run it from your S:User-Startup script
if you keep the CD online all the time and don't wish to be bothered with
running the install script after each reboot.

Elimination of BBS section

Based on feedback from our users and dealers, we have decided to drop
support for a BBS/ftp section on each FreshFish CD effective with FreshFish
10. This allows us to return to a single CD format and immediately reduce
our wholesale costs to dealers, which should allow them to cut the list
price by up to 50% and still maintain acceptable margins.

More new material

Also based on feedback we have started decreasing the size of the Useful
tree and increasing the size of the new material tree. Our long range

                plans
                 call for even more expansion and less repetition.

PasTeX

The first effect of pruning the Useful tree is that the PasTeX distribution
is now gone, since the GNU tree contains a port of UnixTeX. UnixTeX is
based on a newer version of TeX, and unlike PasTeX, includes full source.
This version of TeX lacks a few of the bells and whistles of PasTeX, like
ShowDVI, but this should be addressed in a future release. We will also be
greatly expanding the amount of fonts available (currently at about 40 Mb).

1.4   Future plans and directions

                Developers CD

The original Fish Disk floppy library was started to provide a resource for
developers, with source code supplied for as much of the material as possi-
ble. Although it eventually evolved into a distribution of more general
user oriented material like games and applications in binary only form, Fred
Fish never lost the vision of a developer oriented distribution.

The move to CD distributions with the FreshFish series gave us the opportun-

ity to reinstate this vision, with the inclusion of ports of as many of the
GNU tools as possible. With each release of FreshFish we have expanded this
section of the CD-ROM, to the point where it now consumes more than half of
the space available.

          Feedback
           from our user base and dealers indicates that only a small percen ←
          -
tage of FreshFish CD recipients actually use any of this material, so we
plan to split the GNU material off to a separate (currently unnamed) devel-
oper oriented CD-ROM at some point in the near future, perhaps before the
end of 1995. Users with existing preorders or subscriptions can choose to
apply their remaining credit to either CD.

"Useful" Section

One of the concepts which guided the initial FreshFish releases was that
FreshFish would be a resource that would contain a broad selection of useful
tools and utilities that are continuously updated with each release, and
that the CD could be left mounted in the CD-ROM drive at all times, making
everything accessible without having to consume hard drive space.

However in the last two years since the introduction of FreshFish there have
been drastic price reductions in hard drives as well as explosive growth in
their capacities. The cost per Mb of large hard drive storage has dropped
to equal or below that of quality CD-ROM drives, such that it is now more
practical (and cheaper) to install things on your hard drive than to tie up
your only available CD-ROM drive full time. Feedback from our customers
indicates that it would be preferable to eventually eliminate the Useful
tree. Thus our plan is to selectively remove material from this tree as
necessary to make space for new material on future releases.

We will also work to ensure that as much of the material as possible has
standard Installer scripts, making installation to your hard drive quick
and easy.

Internet Presence

Although we been on the Internet for a long time as amigalib.com, our low
bandwidth (~28K) connection has limited our ability to have much impact on
the Amiga user community. We have ordered a new T-1 connection and plan to
install an ftp server that should be able to handle up to 100-200 simultan-
eous users. We expect this connection upgrade and new machine to be ready
for service sometime in the next month or two.

Once our ftp site is up and running we will have a full mirror of aminet and
other interesting sites. It will also be more convenient and quicker for
users to submit material to us via ftp than the traditional method of mail-
ing floppy disks.

1.5 GNU (GNU's Not Unix) material

This CD-ROM contains ports of various GNU (GNU's Not Unix) utilities. See
GNU/README for further information about what is included.

The GNU binaries can be found under the GNU directory and the corresponding
baseline source archives, amiga source archives, and context diff files can
be found under GNU-src.

Regardless of whether you run the GNU tools directly from this CD or copy
them to your harddrive, you need to arrange to run the GNU-Startup script
that can be found in GNU/Sys/S. The FFCD-Startup script located in the
Useful/Sys/S directory can be copied to your S: directory and run from your
S:User-Startup script, and it will take care of this for you, or you can use
it as an example for how to modify your User-Startup script directly. This
way you won't have to manually run the Installer script after each reboot.

We are very picky about adhering completely to the conditions of the GPL
(GNU Public License), so all of the GNU code that goes on a FreshFish CD has
to be built and tested the first time it is included and each time it is up-
dated.

1.6 Suggestions & Comments

We are always interested in hearing about things that might make this CD-ROM
more useful for users. It is particularly important that we get feedback
from users about problems that need fixing, or suggestions on how to make
the CD-ROM more useful.

As an example, we agonized quite a while over whether the options selection
box that comes up from the AmigaGuide interface when you select a program to
examine closer should go away after you have selected a single option, or
return to allow you to select another option without having to select the
program again. We finally decided to try the "looping behavior", assuming
that in most cases users would sequentially try several of the options (Read
README, Read AmigaGuide file, Install, Run, etc) and it would be annoying to
have to reselect the program again to get the options box back. There are
downsides however, for example if you run a program that puts up its own
screen, the options box will force the WorkBench screen back to the front,
covering the screen of the program you just started.

One thing we did realize late in the production cycle, when there was not
time to change all the Product Info files for this CD, is that there is
a simple change we can make that will allow us to move this behavior from
the Product-Info file .execute field to the interface itself, and thus
make it user configurable. So that is probably the solution we will choose
for future CD-ROMs. Your input is still useful to us though, so we can
choose the best default.

You can email your comments to us at feedback@amigalib.com, FAX
them to us at (602) 491-0048, or call us at (602) 491-0442.

1.7 Search Engine

                         All material included on FreshFish CD-ROMs is accompanied by a ←
                          product info
file that records important information about the material, ranging from
obvious information like the name, description, author, etc, to less obvious
information like an AmigaDOS script that makes accessing the material from
WorkBench via an AmigaGuide file very easy.

The current search engine uses either a simple case independent string match
or a
                    regular expression
                     matcher to search a file built from product info
files. It is currently limited to matching a single string or regular
expression, however since regular expressions are quite powerful, this is
not a severe limitation.

Some examples of simple expressions are:

  "compiler"   Find all matches for "compiler".
  "cdrom | scsi"   Find all matches for "cdrom" or "scsi".
  "199[2-5]"   Find all matches for "1992", "1993", "1994", or "1995".

Note that simple string searches are done case independently. Searching for
scsi finds SCSI as well as scsi. Searches are done on the complete contents
of the product info file except for the field names.

A known problem with the current prototype search facility is that it is
very slow. A complete search of all the product info files on FreshFish can
take from 10 seconds on an A4000 with 40 Mhz WarpEngine to a a barely
tolerable 3 minutes on an unaccelerated A2000. To try this new search
feature now, searching the product info files for everything on this CD,
click here.

In the future we will supply a more user friendly alternative to regular
expression searches, possibly interfacing to a dedicated database server
like KingFisher or A-Kwic. This will make simple searching easier to use
since some people find regular expressions intimidating. It may also allow
more fine-grained searching, like searching only author names, searching
only the long description field, searching for a specific version of a
specific program, etc.

Using a dedicated database server will also greatly reduce the search times,
from minutes to only a few seconds. Try an A-Kwic search to see the
dramatic difference. Note though that this search only allows you to
display the information from the product info file, since there is currently
no mechanism to get A-Kwic to export a list of the matches it has found.

1.8 Regular Expressions

This description of regular expressions is lifted from the GNU grep manual
page.

A regular expression is a pattern that describes a set of strings. Regular
expressions are constructed analagously to arithmetic expressions, by using

various operators to combine smaller expressions.

Grep understands two different versions of regular expression syntax:
``basic'' and ``extended.'' In GNU grep, there is no difference in avail-
able functionality using either syntax. In other implementations, basic
regular expressions are less powerful. The following description applies to
extended regular expressions; differences for basic regular expressions are
summarized afterwards.

The fundamental building blocks are the regular expressions that match a
single character. Most characters, including all letters and digits, are
regular expressions that match themselves. Any metacharacter with special
meaning may be quoted by preceding it with a backslash.

A list of characters enclosed by [and] matches any single character in
that list; if the first character of the list is the caret ^ then it matches
any character not in the list. For example, the regular expression
[0123456789] matches any single digit. A range of ASCII characters may be
specified by giving the first and last characters, separated by a hyphen.
Finally, certain named classes of characters are predefined. Their names
are self explanatory, and they are [:alnum:], [:alpha:], [:cntrl:],
[:digit:], [:graph:], [:lower:], [:print:], [:punct:], [:space:], [:upper:],
and [:xdigit:]. For example, [[:alnum:]] means [0-9A-Za-z], except the
latter form is dependent upon the ASCII character encoding, whereas the
former is portable. (Note that the brackets in these class names are part
of the symbolic names, and must be included in addition to the brackets
delimiting the bracket list.) Most metacharacters lose their special mean-
ing inside lists. To include a literal] place it first in the list. Simi-
larly, to include a literal ^ place it anywhere but first. Finally, to
include a literal – place it last.

The period '.' matches any single character. The symbol \w is a synonym
for [[:alnum:]] and \W is a synonym for [^[:alnum]].

The caret ^ and the dollar sign $ are metacharacters that respectively match
the empty string at the beginning and end of a line. The symbols \< and \>
respectively match the empty string at the beginning and end of a word. The
symbol \b matches the empty string at the edge of a word, and \B matches
the empty string provided it's not at the edge of a word.

A regular expression matching a single character may be followed by one of
several repetition operators:

```
 ?       The preceding item is optional and matched at most once.
 *       The preceding item will be matched zero or more times.
 +       The preceding item will be matched one or more times.
 {n}     The preceding item is matched exactly n times.
 {n,}    The preceding item is matched n or more times.
 {,m}    The preceding item is optional and is matched at most m times.
 {n,m}   The preceding item is matched at least n times, but not
         more than m times.
```

Two regular expressions may be concatenated; the resulting regular expres-
sion matches any string formed by concatenating two substrings that respect-
ively match the concatenated subexpressions.

Two regular expressions may be joined by the infix operator |; the resulting

regular expression matches any string matching either subexpression.

Repetition takes precedence over concatenation, which in turn takes prece-
dence over alternation. A whole subexpression may be enclosed in paren-
theses to override these precedence rules.

The backreference \n, where n is a single digit, matches the substring
previously matched by the nth parenthesized subexpression of the regular
expression.

In basic regular expressions the metacharacters ?, +, {, |, (, and) lose
their special meaning; instead use the backslashed versions \?, \+, \{, \|,
\(, and \).

In egrep the metacharacter { loses its special meaning; instead use \{.

1.9   Other fine products from Amiga Library Services

Amiga Library Services has produced other fine CD based products, including:

```
 dacapo            FantaSeas         FreshFonts Vol 1
 FrozenFish Apr94  FrozenFish Aug95  GoldFish Vol 1
 GoldFish Vol 2    LightROM Vol 1    LightROM Vol 2
 Textures Vol 1
```

Attention Authors!

We are always looking for new projects. If you have a good idea for a CD
based product that you would like to produce, please contact us for details
on how we can act as your publisher. This allows you to worry only about
the details of producing a master file tree of the material you wish to
publish, and we will handle all other details such as CD mastering, product-
ion and printing of artwork for both the disk and the jewel case, working
with CD-ROM manufacturers to mass produce CDs, and getting them into distri-
bution channels. We pay our authors generous royalities that we believe are
unmatched in the industry.

1.10   Fish Disks (floppy library)

The Amiga Freely Redistributable Library (aka "Fish Disks") was started by
Fred Fish in November 1985, shortly after the release of the Amiga 1000, and
has continued to grow and flourish since then, thanks to the generous con-
tributions of innumerable Amiga users.

There are useful tools, games, programming examples, editors, compilers for
various languages, demos of commercial products, and other odds and ends.

With the release of disk 1000 in April 1994, Fred Fish is no longer directly
involved in the selection or organization of material for the floppy library
and instead is concentrating on CD-ROM distributions. Delta Software of
Germany has been designated as the official creators of floppy disks 1001
and up. Single disks and whole series can be ordered from:

        DELTA Software

  Josefstr. 64   Parkstr. 14
  66809 Nallbach 66806 Ensdorf
  Germany   Germany
  ++49/6838/85218 +49/6831/506171

        fishdisk@outsite.saar.de

There will be 20 new Fish Disks each month. Subscribers will get the disks
at the soonest possible moment. Single Fish Disks can be ordered at a price
of DM 3.- each.

P&P: pay in advance: DM 5.-   COD: DM 11.-

The easiest way of getting new Fish Disks is the Fish-Subscription. You
will get 20 disks per month and you pay by COD. In order to save money,
Delta Software will only send every third one as COD (180.- DM). This will
cover all costs, including p&p for a quarter year.

As an example, you order a subscription starting in January. The first set
of disks will be sent via COD and will cost DM 180.-. The disks in February
and March (20 each) will be sent to you at no additional expense. So, you
pay DM 180.- for 60 disks, incl. p&p.

Delta Software does not accept credit cards. If you wish to prepay, please
send a check or international money order payable in German marks.

1.11   Known bugs and other problems

ixemul.library required

Many of the tools called by the current user interface, such as egrep,
pitool, etc, currently require ixemul.library to be available. The install
script makes sure that GNU/Sys/libs is added to the LIBS: assign, even when
the entire GNU-Startup script is not executed, so that the library will be
found when needed. It also makes sure that an older obsolete version of
ixemul.library is not found to be hiding in LIBS:, which will interfere with
using the one from GNU/Sys/libs. For a future release we will ensure that all
required tools are compiled with -noixemul.

A-Kwic

On an A2000 with 68000 and 2.04, A-Kwic crashes with guru 80000003. It
works fine with a 68020.

GNU gcc & ld

There are subtle differences in the environment set up when GNU-Startup is
run from the INSTALL script versus when it is run from a startup script at
boot time. This manifests itself in two ways.

First is that something in either make or ixemul.library is trying to
access usr: when GNU-Startup is run from the INSTALL script. To work around

this problem, the INSTALL script assigns usr: to t:.

Second is that nothing happens when the gcc frontend runs the linker. It
appears that the linker is just silently exiting. This works just fine when
GNU-Startup is run at boot time. We haven't yet tracked down the cause of
this or figured out a workaround, so for now we can only suggest that you
continue to copy FFCD-Startup to your s: directory and run it from your
User-Startup file if you intend to use any of the GNU compilers.