ditto.hyper

COLLABORATORS

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REVISION HISTORY

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Contents

Chapter 1

ditto.hyper

1.1 DiskInfoTools V2.0

```
================================================================== ←

       D I S K   I N F O   T O O L S   V 2.0

                    B Y

    S A N E   S O F T    S H A R E W A R E

              Barney Blankenship
=================================================================
```

   Tools to help you manage your disk space (and stay sane!).
      Without further introduction, the four tools are:

            PieChart Directory Usage
            A nice utility if you use a
     colorful Workbench (be sure and show this one to your friends)

            Duplicate Finder
            Identifies the duplicate files on
     your disk(s). Find out how redundant your files are.

            Compare Directory
            Something to compare two disks
     or directories. You may want to use this to verify what you
     put on a disk before mailing it.

            Verify Directory
            Helps to detect a variety of problems
     ranging from file corruption to viruses.

- * - - * - - * - - * - - * - - * - - * - - * - - * - - * - - * -

 If you had version 1.0, you may want to read:

```
                What's New
                If you have used DiskInfoTools enough to know you want to keep it ←
                   ,
 you will want to:
                Register Your Copy
                And for those folks that need things spelled out:
                Liability & copyright
                DiskInfoTools was made with SAS/C and a GUI developer GadToolsBox ←
                   .
 For quick and easy GUI development, GadToolsBox is *great* ;).
 (E-mail Jaba for GadToolsBox info at jaba@desert.wlink.nl).
```

1.2 To Register DiskInfoTools...

Support good shareware... with your contributions. If you
use a shareware utility frequently, you should register.

If you have not already registered you should send $8 in either
USA cash, USA check or USA money order to:

    Barney Blankenship
    3194 Holly Hall
    Houston, TX 77054 USA

Note that registration is done once only... future versions
are included in the one time registration fee.

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1.3 Pie Chart Directory

```
        ------------------------------------------------------------------- ←

 ||                                                      ||
 ||          P I E   C H A R T   D I R E C T O R Y       ||
 ||                                                      ||
-----------------------------------------------------------------
```

The PieChartDir tool can provide you with a quick, easy to understand
picture of what directories take up how much space on a directory or
drive.   The pie chart has always been the best form of showing parts of
a whole, and PieChartDir uses it effectively along with an interactive
legend and a bar gauge.   The pie chart provides a quick cue to spot
large directories, and the bar gauge shows the displayed directory's
relationship to the whole.   In addition to the pie chart, the actual
percentages and bytes of each displayed item are shown.

When "piedir" starts it brings up a directory requester for the
"top" directory to scan. This would typically be the "root" directory
of a drive so you could review a drive's entire contents. If you select

a subdirectory of a drive, PieChartDir will only scan that subdirectory
and the directories below it.   Once you "OK" the selected "top"
directory, "piedir" will begin scanning the drive. A window will
appear with the number of directories that have been scanned as they are
scanned.   This feedback is provided for large directories that take a
while to scan (the changing number shows that PieChartDir is busy
working).

After PieChartDir has finished scanning the directory structure, it
displays a pie chart, a legend, and a bar gauge. The pie chart and
legend show the current directory and its subdirectories, in order of
largest to smallest.   The legend boxes and corresponding slices are
drawn in size order (largest first, top down on the legend, counter
clockwise starting at 3 o'clock in the pie chart). In contrast, the
current directory file size is always shown as the top most item. The
current directory file size represents only the files in the
directory... a total size includes the shown subdirectories. The
"total size" is shown to the right of the legend in the bar gauge.

A legend box may be "clicked" to show that subdirectory. The path of
the current directory shown is displayed in the upper left corner.
Click the top legend box "Current (click=parent)" to go up a directory
(when you are at the directory you started out at the "(click=parent)"
is not shown and you may not go up). The bar gauge to the right of the
legend displays the percentage of the shown directory total compared to
the top (the pie shows the subdirectories relative to the current
directory, and the bar gauge shows the current directory relative to the
top directory).

            A simple example:
              GUI
                            Some concerns:
            WARNINGS
                        Extra information:
             NOTES

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1.4 PieChartDirectory Warnings

            --- ↩

 || P I E   C H A R T   D I R E C T O R Y ||
 || W A R N I N G S ||

Two color and LORES Workbench display modes are not supported. Note
that extremely large directories may take a few minutes to scan. In
addition, drive speed is an issue (floppy drives are especially slow).
Although no abort is provided during the scan, PieChartDir should never
take too long to scan a drive and does not use very much RAM (your
multitasking should not be significantly impaired).

There seems to be display glitch when drawing is occurring while the

screen is moved. This is most commonly seen on a Workbench that has a
bigger page size than display size (a virtual screen). I have attempted
to solve the problem in the software by not allowing multitasking during
the pie slice fill operation. This helps but does not eliminate the
problem completely. If a display glitch occurs and the screen is messy,
resize the window and/or select another window to get the display
redrawn. As a note, the fix does not seem to cause problems with tasks
such as music playing and downloading (it's a minor inconvenience).

                    Main PieChartDir Page

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1.5 PieChartDir Notes

          -- ↩

  || P I E   C H A R T   D I R E C T O R Y ||
  || N O T E S ||

Empty or insignificant subdirectories (< 1%) are ignored. In addition,
the directory structure size in the AmigaDos file system is not included
as part of the directory totals (other utilities may report more space
is used than PieChartDir does).

  PieChartDir uses fill patterns for slices that are drawn after the
Workbench palette colors are used... a four color Workbench will
produce a pie chart with more fill patterns and fewer solid colors.

  PieChartDir detects file and directory links and ignores them. This
tool is intended to show you where the biggest directories are, and
including links would conflict with this purpose.

  PieChartDir provides limited resizing to show more subdirectories. If
the screen height is bigger than 200 (productivity, LACE, or virtual),
you will be able to resize the window larger to view more directories
(only if the pie is not already filled). Also, the pie chart itself
will grow somewhat when the window is made larger. Conversely,
PieChartDir allows you to resize the window height smaller, which will
show a smaller pie chart and fewer subdirectories (as few as four).

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1.6 PieChartDir GUI

```
                 ------------------------------------------------------------------- ←
         ||          P I E   C H A R T    D I R E C T O R Y          ||
        -------------------------------------------------------------------
         ->
                        Current-displayed

                                                    _
          _____          ___                   | |
            / \              \         |
                        | Current-Files   | |
           /    \              \          |___| x%    Bytes       | |
          /      \              \         ___                      | |
         |        \              \        |
                        | Subdirectory #1 | |
         |         _____|        |___| x%    Bytes       |=|
         |         |              |         ___                    |=| Current-total
          \        |              |        |
                        | Subdirectory #2 |=|     vs
          \       |             /         |___| x%    Bytes       |=|
                  Top-total
                      \       |          /                              |=|
           \ ___|_____/                            -
```
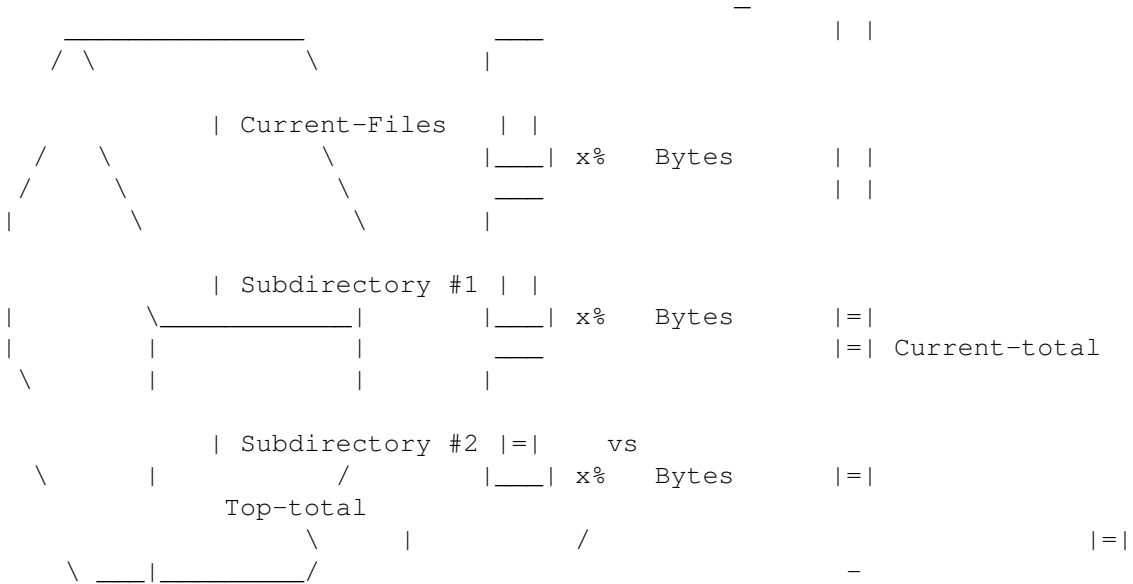
The "Current-displayed" is the currently displayed directory. This
corresponds with what subdirectories are shown in the pie chart, the pie
chart legend, and the "gas gauge" at the rightmost area of the window.
The Current-displayed is not clickable, it just indicates the full path
location you have selected. Click on the legend buttons to descend into
subdirectories.

The pie chart shows the relative size of the subdirectories in the
"Current" directory organized by size (largest first). The exception to
this display ordering is that Current-Files are always shown first,
regardless of their actual percentage of the total area (in some cases,
the slice may not be visible). The legend to the right of the pie chart
shows each slice in the order that it is displayed, with a colored box
to help identify the slice. The slices are drawn starting at 3 o'clock
(zero degrees radian) and continuing counter clockwise around the
circle.

                   Main PieChartDir Page

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1.7 PieChartDir Current-Files

```
                 ------------------------------------------------------------------- ←
         ||          P I E   C H A R T    D I R E C T O R Y          ||
```

```
----------------------------------------------------------------------

                    Current-displayed

                                           _
         _____        ___                     | |
        / \              \        -> |‾‾‾                 | |

                    | Current-Files    | |
       /    \              \          |___| x%   Bytes       | |
      /      \              \          ___                     | |
     |         \              \        |
                    | Subdirectory #1 | |
     |        _____|          |___| x%   Bytes       |=|
     |        |            |          ___                     |=| Current-total
      \       |            |          |
                    | Subdirectory #2 |=|     vs
       \       |          /           |___| x%   Bytes       |=|
              Top-total
                 \        |          /                         |=|
         \ ___|_____/                         _
```

The Current-Files shows the size of the files in the current directory
(only).   Current-Files does not include the subdirectories... see the
bar   graph   for   the   total size of the Current-displayed area.
Current-Files legend is clickable if "Current(click=parent) is shown.
In this case, you have descended into a directory and can click on
Current-Files to ascend back to the parent directory from which you
came.   Click on the following subdirectories legend boxes to descend
into those directories.

                    Main PieChartDir Page

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1.8   PieChartDir Subdirectories

             --- ↩

  || P I E   C H A R T   D I R E C T O R Y ||

                    Current-displayed

                                           _
      _____   ___ | |
     / \   \ |‾‾‾ | |

                    | Current-Files | |
       /   \   \ |___| x%   Bytes | |
      /   \   \   ___ | |
     | \   \   -> |
```

```
                         | Subdirectory #1 | |
      |         _____|          |___| x%   Bytes        |=|
      |         |                |            ___                |=| Current-total
      \         |                |       ->  |
                | Subdirectory #2 |=|      vs
       \        |           /          |___| x%   Bytes        |=|
              Top-total
                     \       |          /                              |=|
        \ ___|_____/                              -
```

The legend boxes below "Current-Files" (such as "Subdirectory #1)
represent the sizes of the subdirectories in "Current-displayed", in
order of largest to smallest. The pie slice color, subdirectory name,
percentage of "Current", and the number of bytes is shown for each pie
slice.

Clicking on one of the subdirectory legend boxes will "descend" into
that subdirectory, making "Current-displayed" change to the
subdirectory. Click on the Current-Files legend box to go back up.

Note that a limited number of pie chart legend boxes will fit in the
drawing area and when that limit is reached remaining subdirectories are
ignored (and the remaining area of the pie chart is left blank). This
occurs when a directory has a large number of subdirectories in which
the space is equally distributed.

Very small or empty directories are not shown. This decision is made
based on the size of the slice that is to be drawn. If the slice is
less than half a degree then the directory is ignored (unless it is the
"Current" directory, in which case it is represented with a legend box
even if it has no files).

                    Main PieChartDir Page

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1.9 PieChartDir Bar Graph

              --- ↩

 || P I E   C H A R T   D I R E C T O R Y ||

          Current-displayed

                                    _
    _____   ___ | |
     / \   \ |

          | Current-Files | |
    /   \   \ |___| x%   Bytes | |
   /   \   \   ___ | |
   | \   \ |
```

```
              | Subdirectory #1 | |
    |          _____|          |___| x%   Bytes         |=|
    |          |             |          ___                      |=| Current-total
   \           |             |         |
              | Subdirectory #2 |=|     vs
    \          |            /          |___| x%   Bytes         |=|->
              Top-total
                    \       |         /                                |=|
      \ ___|_____/                                        -
```

The "Current-total vs Top-total" is the size in bytes and percentage
(respectively) of the "Current-displayed" directory total versus the
total of the entire area scanned (the original directory specified when
starting PieChartDir). This percentage is reflected by the filled area
in the vertical gas gauge. The more filled in the gauge is, the larger
the current directory is relative to the Top directory.

                    Main PieChartDir Page

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1.10 Compare Directory

              -- ↩

   || C O M P A R E   D I R E C T O R Y ||

The CompareDir tool is a comparison utility that can help you determine
what has changed between two directories or drives. This can be useful
in determining how significant a software upgrade is, determining if
something has corrupted your files, or seeing what has changed since an
archive was made.

CompareDir compares two directories and lists the differences in four
windows...   files only in the first directory, files only in the second
directory, different files, and identical files. The file comparison is
binary...   protection and date are ignored. The initial window has a
place to enter the two directories or drives to compare, controls for
limiting how deep the compare goes, and a control for limiting what
files are compared.

The directory entries may be selected by using the directory requester
to the right of the string gadget. The "How Deep" controls determine if
and how many subdirectories below the directories specified are also
compared.   Turning off "All" allows entering the number of subdirectory
levels compared (entering 0 will not include any subdirectories in the
compare). The "Only compare files with suffix" controls allows limiting
the comparison to particular files (entering ".c" would only compare
files like "main.c" and "graphics.c"). Click COMPARE when you are ready
to begin the comparison.

```
                         ------------------------
                              W A R N I N G S
                         ------------------------
```

Comparing large identical directories can be time consuming, as each
byte of every file is verified. CompareDir detects file and directory
links, and excludes them from comparison. Note that this may result is
what appears to be at first glance missing files or additional
differences. The intent of CompareDir is to show a comparison of _file_
information, and therefore links are excluded.

```
                         ------------------------
                              N O T E S
                         ------------------------
```

CompareDir is the oldest of the three and has been used extensively. My
original version runs in Hewlett Packard UNIX. I also ported it to MS
DOS at one point. All three versions are extremely handy because the
operating systems do not provide a command to compare directories so
easily.

```
                     Back to Contents
```

1.11 Duplicate File Finder

```
        --------------------------------------------------------------------- ←

 ||           D U P L I C A T E   F I L E   F I N D E R         ||
---------------------------------------------------------------------
```

The DupFinder tool is a duplicate file finder that can help you find
unnecessary copies of files on your drive. Duplicates are found even if
the duplicate files are named differently, have different dates, or
different protection.   DupFinder will scan the drive or directory of
your choice, locating all the duplicate files within or below that
directory.

The starting window has selections for the top directory and what files
to ignore. Because this is meant to help save drive space, the default
search will ignore files < 2000 bytes and all files ending in ".info"
(icon files). Duplicates of small size are very common (for example,
icons used for documents or source code) and do not provide a
significant drive space gain when erased. In addition, the search is
much quicker when small files are ignored. DupFinder will allow
ignoring files in the following settings: Empty files, files < 1K
bytes, files < 2K bytes (the default), files < 5K bytes, files < 10K
bytes, and files < 20K bytes (note: the "K" used here is 1000 bytes).

After you select your ignore file options (or use the defaults) and have
either typed in the top directory name or used the directory requester
to select the top directory, select START SEARCH to begin. Once
DupFinder is finished, the list view gadget displays the found

duplicates (if any) in groups separated by dashes. Each file is shown
as a file size in bytes followed by its directory location. If you wish
to save the output of the duplicate search use the PRINT button to
either print out the list or save the list to a file (the PRINT button
brings up a file save requester with a default of PRT: to send the
listing to the print driver).

```
              --------------------------
                   W A R N I N G S
              --------------------------
```

DupFinder can be the longest running and most memory intensive of the
three tools. However, using the default settings should provide a
reasonably quick scan of your drive without using too much RAM (it takes
about 3-4 minutes and 300K RAM to scan 55M of hard drive files). On the
other hand, if you enable scanning for small files (files > 0 bytes) and
icons (ignore ".info" off) then it will take a *LONG* time and use much
more RAM (it takes about 2 hours to scan the same 55M of hard drive
files). On the up side, this is not too much of a problem because
DupFinder will allow you to abort it by clicking the close window
gadget.

```
              --------------------------
                     N O T E S
              --------------------------
```

   Although DupFinder may locate what you can tell is a useless copy of a
file, it does not provide for deleting files. The Info Tools philosophy
is to provide information only: I will not write to your drive
(exception: when you direct the print requester to save the listing to a
file).

   Note that DupFinder detects file and directory links and excludes such
linked information from the duplicate scan. Including linked files or
the contents of a linked directory in a duplicate scan would be flat
wrong.

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1.12 Verify Directory


```
         --------------------------------------------------------------------- ↩

 ||              V E R I F Y   D I R E C T O R Y          ||
 ---------------------------------------------------------------------
```

The VerifyDir tool is a file change detector. It allows you to take a
snapshot of a complete directory structure and create a "check file"
with a verification code for each file. You can use VerifyDir to get
confirmation that your valuable file data or programs have not changed
(for example, your Final Writer executables have not been corrupted due
to hardware problems, viral infection, or user error). This can help to
diagnose "weird behavior" by eliminating file trouble.

```
-------------------------------------------------
    C H E C K   F I L E   G E N E R A T I O N
-------------------------------------------------
```

To generate a check file, select the top directory of the area you want
scanned in the "Directory name" text box. Click the small gadget to the
right of the text box to get the standard Workbench directory requester
(remember... you can drag and drop onto this). Then specify the name
of the check file to generate in the lower text box. Again, the small
gadget to the right brings up the Workbench file requester. Click
"CREATE CHECK FILE" to start the directory scan and file generation.
However, VerifyDir will ask you to confirm the operation before it
begins.

As VerifyDir works you will see a directory tree displayed in the list
box below the selection boxes. Directories are displayed in the list as
they are read and processed. If a directory takes a while to read, the
file that VerifyDir is working on will be shown temporarily every three
seconds (this status information helps show that VerifyDir is not "hung
up"). After it has completed the message "...generated check file" will
be shown at the end of the list. To abort a generation click the close
window gadget. Click "PRINT" to print out the directories scanned.

```
        ---------------------------------------
            C H E C K   F I L E   V E R I F Y
        ---------------------------------------
```

To verify a check file, select the top directory of the area you want
verified in the "Directory name" text box. Then specify the name of the
check file to verify against the lower text box. Click "VERIFY CHECK
FILE" to start the directory verification. VerifyDir will ask you to
confirm the operation before starting.

  As VerifyDir works you will see a directory tree displayed in the list
box below the selection boxes. Directories are displayed in the list as
they are read and processed. If a directory takes a while to read, the
file that VerifyDir is working on will be shown temporarily every three
seconds (to show that VerifyDir is not "hung up").

To abort a generation click the close window gadget. If a file is added
or changed, it will appear in the list located in the directory it
resides.   Deleted or moved files are shown at the very end as a group.
After the verify has finished the line "VERIFY RESULTS:" will be shown.
Counts will be shown for verified, added, changed, and moved or deleted
files. Click "PRINT" to print out the verification results.

```
            -------------------------
                W A R N I N G S
            -------------------------
```

The check file generation or verification process can be quite slow.
Click the close window gadget to abort the process. Note that a
verification output file should not be specified as being located in the
area being scanned. If the output file is in the area being scanned a
later verification will report the check file has changed.

The check file format could possibly be decoded by a virus developer and
a virus could possibly modify the check file to hide file infection or
corruption. To protect against this, locate the check file in a hard to
find location, or if possible, on separate media (e.g. on floppy).

```
                     --------------------------
                              N O T E S
                     --------------------------
```

Perhaps the least useful of the tools, Verify Directory is intended to
aide locating a problem in which files may be suspect or perhaps just to
give the you a "warm fuzzy feeling" that your files are the same as they
were when your check file was generated. Note that Verify Directory is
not intended to replace virus scanning software, nor will it help
restore file errors.

   VerifyDir does not attempt to locate moved or renamed directories.
Because of this, files are marked as "moved/deleted" that are not
located. Perhaps a future version of DiskInfoTools will make it more
tolerant of renamed or moved directories.

   I recommend scanning distinct areas into separate check files, one for
each application you have. VerifyDir is less useful for areas that
fluctuate often because it will always report changes. But in the case
of a relatively static area such as a compiler, the entire area can be
recorded in a check file and verified later if the compiler acts "funny"
to ascertain if perhaps a new compiler fault has been found or if the
compiler files have been corrupted somehow.

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1.13 DiskInfoTools V 2.0 Changes

```
             ----------------------------------------------------------------- ↵

 ||        D I S K I N F O T O O L S    C H A N G E S         ||
-------------------------------------------------------------------
```

The biggest changes since Version 1.0 are:

I. Addition of the new tool, Verify Directory.

   All of the DiskInfoTools tools were generated because I had
   a need for them. VerifyDir is no exception. Having read
   about "mutating engine" file viruses that cannot be scanned
   for (on the PC platform) I wanted something to determine if
   my files were infected or corrupted. Particularly, I wanted
   to be able to verify that my commerical or otherwise
   important applications were OK. Not just find virus file
   infection or damage, but also to detect failing hardware
   or user error.

II. Improvement of the directory pie chart:

   Version 1.0 had a bug in the pie chart drawing that occurred
   when the directory name shown over the pie chart extended
   accross the top of the circle. When that happened, the edge
   of the pie was partially removed due to the text and the
   flood fill filled the entire window.

   The look of the pie chart was improved to have a more 3D
   appearance. The legend boxes are more button like and
   the pie chart and bar graph use black and white for
   the 3D look.

III. Addition of this AmigaGuide document.

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1.14 Copyright & Legal Information

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  || D I S K I N F O T O O L S   L E G A L   I N F O ||

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reserved.   Permission is given to distribute provided the program and
accompanying   documentation files are unaltered and no additional
software or documentation is provided under the DiskInfoTools name.

The DiskInfoTools software is provided "as is", and the author will not
be liable for any damages caused whatsoever. No warranty is expressed
or implied.

If you do not feel comfortable using DiskInfoTools, DON'T.

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