PowerData

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Chapter 1

PowerData

1.1 Some glossary and fancy buzzwords

GLOSSARY

In the documentation for PowerData, I have used quite a few words that may
not mean anything to inexperienced users.   I guess I'd better expain
(briefly) what these buzzwords mean. Please select anything from the index
below:

ARexx

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                          The Installer

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                              GUI

                          Workbench 2.1
                Also, you should read a bit about the predecessor of PowerData, ←
                     namely

                        Powerpacker Patcher

1.2   What is ILBM?

ILBM, or Interleaved Bitmaps, is a special way to store pictures in files.
The format was invented, along with the IFF format itself, by Electronic
Arts.

1.3   What is GUI

GUI is a relatively new buzzword, relating to the way a program renders
gadgets and menus. GUI is short for Graphic User Interface.

PowerData has a GUI, which is simply the window you see when PowerData
starts (or when you call it up, using the appropriate hotkey). The
PowerData GUI was designed using GadToolsBox.

1.4   What is a commodity

A commodity is a program that remains resident when run. It is controlled
by the Exchange program and the commodities library system, and often has a
way to "pop up" by activating a hotkey.

Commodities is a Workbench 2.04 facility. It is not available in operating
systems prior to this release.

1.5   What is Workbench 2.1

Workbench 2.1, or v38.35, is the official update of Workbench 2.04. This
software upgrade gives you the ablility to localize your workbench, as well
as offering a postscript driver. CrossDos has also turned into an integral
part of this new OS.

PowerData comes complete with a number of catalog files for the Workbench
2.1 and 3.0 locale system, enabling it to "talk" in as different languages
as French and German.

1.6   What is CrossDos

CrossDos is a set of utilities and programs enabling the Amiga to read
MS-DOS formatted diskettes just like any Amiga diskettes.

CrossDos is made by Innovatronics and is a standard part of the new
Workbench 2.1 (and 3.0).

1.7   What is locale

Locale is a means of getting programs "localized". That is, make programs
communicate with the user in whatever language the user prefers.

For example, if you want PowerData to speak to you in French, all you need
to do is to select "Spanish" as the preferred language with the "Locale"
program, located in your Prefs drawer. The rest should happen by itself.

Note that you must have a file called PowerData.catalog in the directory
LOCALE:Catalogs/dansk/ to have PowerData speak danish to you. If you want
PowerData to speak French, you must have another file, also called
PowerData.catalog, in the directory LOCALE:Catalogs/Español/.

For further information on the Locale system on the Amiga, please refer to
your Workbench 2.1 documentation.

PowerData 38.105 comes with catalog files for localization in Danish,
French and German. And it speaks English by default :^)

1.8   What is Powerpacker.library

Powerpacker.library is the "essence" of the Powerpacker program, extracted
into a simple, shared library file. If this file is present in LIBS:, any
program designed to do so, will be able to crunch and decrunch powerpacked
files.

Naturally, PowerData requires this library, and it is provided in the
PowerData distribution. The installation scripts automatically install
this library if it is needed.

Powerpacker.library, and the Powerpacker program itself, is Copyright by
Nico François.

1.9   What is Reqtools.library

Reqtools.library is a set of functions enabling programs to use file
requesters, font requesters, palette requesters, screenmode requesters and
notification requesters.

These are all very easy to program, and they look much nicer than the
standard 2.04 requesters. They also have a wide range of bells and
whistles to make life easier for the user -- and for the programmer.

PowerData uses reqtools.library for all its requesters, so naturally, it
requires this library. It is provided in the PowerData distribution, and
the installation scripts automatically installs it library if it is needed.

Reqtools.library is Copyright by Nico François.

1.10   What is IconX

                IconX is a small program you normally keep in C:, which enables ←
                   users to
execute AmigaDOS scripts directly from the Workbench (i.e. without needing
to start a seperate CLI or Shell). All you need to do is fix up an icon
for the script, and set the default-tool to IconX.

IconX can be acquired from most Fred Fish disks.

PowerData comes complete with a script for IconX, but if you have Workbench
2.1, then you should really use the script provided for use with the new

                Installer
                 program.

1.11   What is The Installer

The Installer is Commodores official tool for installing software packages.
It accepts a script in a special language and provides a neat user
interface during the installation procedure itself.

The Installer is a standard part of the new Workbench 2.1 and 3.0 operating
systems.

PowerData comes complete with a script for The Installer, so if you have
2.1 or 3.0, then you should use the Installer script in stead of the IconX
script.

1.12   What is WBStartup

WBStartup is a drawer on your system disk (or at least it should be). Any
programs located in this drawer will automatically be started by the
Workbench as soon as it is activated with LoadWB.

You can put PowerData into the WBStartup drawer and have it run
automatically when you start your Workbench.

1.13   What are hotkeys

A "hotkey" is just a buzzword for a combination of keypresses. For example
"Shift Alt F1" is a hotkey (i.e. you must press all these keys at the same
time).

PowerData has three hotkeys. One for showing its window, one for enabling
crunching and decrunching, and one for re-enabling it. To activate one of
these functions, you must press and hold down the appropriate keys that
define that particular function – the "hotkey".

1.14   All those other archivers

PowerData deals with files packed with PowerPacker. It does not handle any
other form of data compression, such as the .LHA and .LZH formats.

You should set PowerData's exclude filter to mask out files that are
already packed, as otherwise any operation on these files will take much
longer than usual.

(For example, if you do not set the exclude filter to mask out .LHA files,
then PowerData will be forced to examine every LHA file it encounters,
which is completely unnecessary).

By default, PowerData is set to mask out LHA, LZH and DMS files, as these
are the most common archive formats used on the Amiga, but many more do
exist (like .PAK, .ZIP, .ZOM, .ARC, .ZOO). If you use one or more of these
formats regulary, then you should probably set the exclude filter
appropriately.

1.15   AmigaDOS patterns

A "pattern" is a way of specifying a "mask" for filenames. To do so you
have special meta-characters, representing other characters, or groups of
characters.

For example, the "?" character means "any character", and "#" means "any
number of...".   The combination "#?" thus means "Any number of any
character", and this filter will therefore match any filename.

You may also use a combination of paranteses and the "bar" character, "|",
to specify a number of different, possible characters or group of
characters. For example

```
#?.(pp|aa)
```

Means "any filename followed by a dot followed by either 'pp' or 'aa'".
You can use the "%" character to specify "nothing", like this:

```
#?.(pp|aa|%)
```

Meaning "any filename followed by a dot followed by either 'pp' or 'aa' or
nothing at all".

Please refer to your AmigaDOS documentation for more a comprehensive
description of the different meta-characters available. You really deserve
a better explanation than that provided here, by me :^)

1.16   The Exchange program

The   Exchange   program   is a standard part of any 2.04 system.   It provides
facilities for controlling commodities, and is itself a commodity.

PowerData can be completely controlled by Exchange. Please refer to the
relevant system documentation on the Exchange program, for further info on
how to do this.

1.17   The Fidonet network

The Fidonet is the worlds largest, privately owned and run network. There
are more than 60,000 computer systems running as "nodes" in the Fidonet
network, each carrying a number of "Points", or users, if you like.

Each point in Fidonet can mail any other point also in Fidonet, either by
"crash" mail where a message is sent directly from the sender to the
receivers node (even if it involves calling half way around the world), or
it can be routed through any number of other nodes. Everyone can comment
on messages written by others, and this way spawn off other discussions and
keep the net alive.

I could keep on writing about Fidonet for several pages, and still only
scratch the surface of this huge subject.

PowerData will eventually have one or more support BBS'es, each being
Fidonet nodes, so that questions and suggestions can be directed at these,
as well as directly to me.

My Fidonet point number is 2:230/816.8@Fidonet, and if you have Fidonet
access, this is the address you should be directing your questions and
suggestions to.

1.18   What is DPaint

For those of you who have never heard of DPaint, I will just say that this
program has grown to be the de-facto standard for paint programs. The
highly renowned and famed DPaint, now up to version IV with IV.5 on the
way, was created by Electronic Arts, the inventors of the IFF format.

DPaint is just one of the programs that PowerData enable to read and write
powerpacked datafiles, such as IFF and stencil files.

1.19   What is Real3D

Real 3D is a "raytracing" program from RealSoft. It is an object oriented,
very fast 3D graphics raytracer (the best there is, in the eyes of this
writer, anyway)

Real 3D is just one of the programs that PowerData enable to read and write
compressed datafiles, like its texture files and its animation scenes.

1.20   What is an executable

An executable is just another [buzz]word for "program". An executable is
any program that can be run either from the Workbench or from CLI.

PowerData does deliberately not crunch or decrunch executables. You need
programs like PowerPacker or The Imploder to process executables.

1.21   What is ARexx

Rexx is a special language, originally developed for and used on large
mainframe systems, for interprocess communication. Bill Hawes has written
an Amiga version of Rexx, called ARexx (AmigaRexx), now an integral part of
the Amiga operating system.

More and more applications are supporting ARexx, because it enables
powerusers to carry out tasks that would otherwise not have been possible,
or would have taken very long time to complete. ARexx is also ideal for
making applications do repetitive tasks that would otherwise have taken
much effort to accomplish.

PowerData does not yet have ARexx, but it _is_ one of the things I am
trying very hard to put into the program.

With ARexx in PowerData, you would be able to enable and disable it from
your own ARexx and shell scripts. It would be very useful to be able to
sandwich Copy commands between a pair of "Disable" and "Enable" macros.
(The Copy command takes much longer than usual to finish when PowerData is
running, because of the extra crunching and decrunching)

1.22   What is GadToolsBox

GadToolsBox, by Jan van den Baard, is a program that allows you to graphically design a GUI, and have the source code (in C or assembler) generated automatically.

PowerDatas GUI was designed using GadToolsBox. I had to make a good deal of corrections to the resulting source code, however, because GTB does not generate code that is suitable for Workbench 2.1-style localization.

All in all, though, I can only recommend GTB for anyone regulary designing GUIs.

1.23   What is Aztec C

Aztec C is one of the two major C compilers for the Amiga. The other is SAS/C, the former Lattice C compiler (by Lattice Corporation).

PowerData was developed using the Aztec compiler, and this has brought a number of compiler errors to my attention that I had no knowledge of before making PowerData.

These errors are serious errors. Serious enough for me to contemplate switching to either DICE, Maxon C++ or SAS/C at some point, and port PowerData to either compiler when this happens.

Please do not worry about the integrity of PowerData. Albeit a bit to easily offended by funny typecasts, the Aztec compiler is still one of the most stable compilers around, and produces some of the most error free code, compared to any other compiler I know of.

1.24   What is CygnusEd

CygnusEd is one of the leading text editors on the Amiga. It was released back in 1987-88, and was quite revolutionary at the time - and it still is, even today. Only few can match its performance and speed. The file requester alone was years ahead of its time, and has defined some of the standards that most file requesters go by today.

PowerData was developed using this editor, and I doubt that PowerData would have been released as soon as it was, had it not been for this editor.

1.25   What is CHelp

CHelp is a nifty little tool from Robert Wahlström & Mathias Widman, designed for quickly finding structures in the Amiga include files, and function descriptions in the Amiga Autodocs.

CHelp was a big help during the development of PowerData. I would register

it right away (it is shareware), had it not been because it crashes quite
often on my machine (too often, actually). I will probably end up writing
a similar tool myself, that does exactly what I want.

1.26 Powerpacker Patcher

Powerpacker Patcher was my first go at writing something like this. It is
not a bad program, and I have more than fifty registered users (more like a
houndred, probably).

However, with the introduction of Workbench 2.04, PPP started appearing
somewhat outdated.   It did not in any way use any of the new features of
this operating system, and indeed does not work at all with Workbench 2.1
or 3.0.

For these reasons, I decided it was now time to do something about this
program. It seemed a shame not to update PPPatcher, because it really is a
neat little utility.

This is the result. I hope you like it. And maybe decide to register it.

There are many differences between PowerData and PPPatcher. The main
difference is probably that PowerData can crunch files as well as decrunch
them. PPPatcher was unable to crunch files.

PowerData runs under 2.04 only. It will not work with AmigaDOS 1.2 or 1.3.
I am working on doing one, final update of the old PPPatcher program, so
that all those with 1.2 and 1.3 can enjoy the benefits of transparent
crunching as well as decrunching. No promises, though.

(More on this: PowerData is a selfcontained program.   It is not an
"update" of Powerpacker Patcher as such, nor does it count as one for
registered users of the Powerpacker Patcher program)