

PowerData

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Chapter 1

PowerData

1.1 Some glossary and fancy buzzwords (4.1.1993)

Documentation for

PowerData
Version 38.200

A transparent, application independent
powerpacker file loader and saver for
Workbench 2.04 and above

Written by Michael Berg
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Subsection: Glossary

In the documentation for PowerData, I have used quite a few words that may mean little or nothing to inexperienced users. So I have included this as an addendum to the main documentation. It should contain explanations on most of these words. Please select anything from this index:

- ARexx
- CHelp
- Commodity
- CrossDOS
- CygnusEd
- DMS, LHA, LZH
- Pattern
- Executable
- GadToolsBox
- GUI
- Hotkey
- IconX
- Locale
- Powerpacker.library
- Reqtools.library
- Exchange
- Fidonet

Installer
WBStartup

PowerPacker Patcher

1.2 ARexx

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 specialized, repetitive tasks that would otherwise have taken much effort to accomplish.

PowerData has an ARexx interface, albeit only a modest one. The syntax and description of each of these commands can be found in PowerDataARexx.guide.

It is quite possible that more ARexx commands will be added as PowerData's capabilities grow. If you feel that one or more commands are missing, then please let me know.

1.3 CHelp

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.

1.4 Commodity

What is a Commodity?

A commodity is a program that remains resident when run. Commodities are 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 CrossDOS

What is CrossDOS?

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

CrossDos is (C) by Consultron, and is distributed as an integral part of Workbench versions 2.1 and beyond.

1.6 CygnusEd

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.

A new version of Ced (3.5) has just been released, so the program is as alive as ever.

PowerData was developed using this editor, and I doubt that I would have been able to develop the program at the pace I did, had it not been for this editor.

CygnusEd is (C) 1987-93 by CygnusSoft Software.

1.7 DMS, LHA, LZH

What is DMS, LHA, LZH?

PowerData deals with files packed with Nico François' PowerPacker program. 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 longer than usual. If for example, 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. Many more do exist (such as .PAK, .ZIP, .ZOM, .ARC, .ZOO), so if you use one or more of these formats regularly, then you should set the exclude filter appropriately.

1.8 Pattern

What is a Pattern?

A pattern is a way of specifying a "mask" for filenames. To do so one uses special meta-characters which represent 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 will therefore match any filename.

You may also use a combination of parentheses 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".

You can join two different patterns using the bar operator. If for example you have the following two patterns:

```
???a.(pp|cc)
and #?.info
```

-then these can be joined to a single pattern using this rule:

```
joined_pattern = pattern_1 | pattern_2
```

The result is

```
((???a.(pp|cc) | #?.info)
```

You may add or omit blanks from the patterns, and you may use additional parentheses to make patterns more clear to understand. Use this rule:

```
pattern = (pattern)
```

So the two patterns we joined before can be written like this:

```
( (???a.(pp|c)) | (#?.info) )
```

A joined pattern is itself a pattern, and may therefore be joined with other patterns to form very complex structures that match a selected range of files out of a myriad of files and directories.

Patterns match strings literally, not as paths and filenames. That means that

```
#?.pp
```

matches all of the following strings:

```
datafile.pp  
somedir/data/2/extract.pp  
dhl:somefile.pp
```

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 :^)

1.9 Executable

What is an Executable?

An executable is just a fancy word for "program". An executable is any program that can be run either from the Workbench or from CLI. Executable files also include libraries, devices, handlers and some fonts.

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

1.10 GadToolsBox

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, Assembler or even Oberon) generated automatically.

PowerData's GUI was designed largely 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 regularly designing user interfaces.

1.11 GUI

What is a GUI?

A 'GUI' is a relatively new buzzword, relating to the way a program renders gadgets and menus. GUI is simply 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.

1.12 Hotkey

What is a Hotkey?

A "hotkey" is a sequence of keypresses that, once pressed, activate some special function in a program. An example of a hotkey could be Shift Alt F1.

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".

1.13 IconX

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 separate 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.

1.14 Locale

What is Locale?

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

For example, if you want PowerData to speak to you in French, all you need to do is to select "French" 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/Français/.

For further information on the Locale system on the Amiga, please refer to your Workbench 2.1 (or 3.0) documentation.

PowerData 38.200 comes with catalog files for localization in Danish, French, German, Italian and English (default language), and since the actual CatComp source included, other locales are bound to follow soon.

1.15 Powerpacker.library

What is Powerpacker.library?

Powerpacker.library is the "core" of the Powerpacker program, extracted into a simple, shared library file. With 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.

1.16 Reqtools.library

What is Reqtools.library?

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

1.17 Exchange

What is Exchange?

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.

1.18 Fidonet

What is Fidonet?

The Fidonet is the worlds largest, privately owned and operated network. There are more than 23,000 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 means calling half way around the world), or it can be routed through any number of other nodes.

Messages in Fidonet are public. Everyone can comment or reply messages written by others, and this way spawn off other discussions and keep the net alive. There are also private matrix areas for personal mail.

I could keep on writing about Fidonet for several pages, and still only scratch the surface of this huge area. For a very good description of Fidonet and the philosophy behind it, I can greatly recommend reading the manual of the (freely distributable) program TrapDoor, which can be found on most BBS systems.

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, and if you have Fidonet access, this is the address you should be directing your questions and suggestions to.

1.19 Installer

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.

1.20 WBStartup

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. Remember to add the tooltype

DONOTWAIT to PowerData's icon, or Workbench will try to wait for PowerData to return (which it won't :-)

1.21 PowerPacker Patcher

What is 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 hundred, 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, 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.

(Just to clarify: 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)