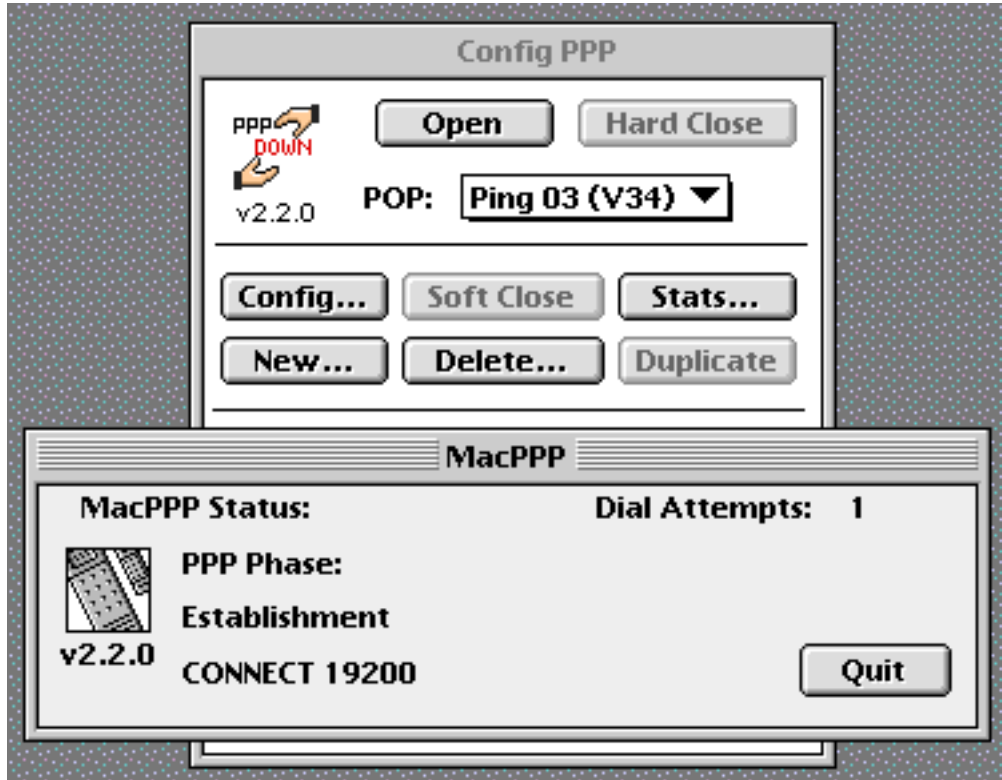


MacPPP 2.2.0

"Best of MacPPP"

Release Notes



Quick Introduction:

The MacPPP 2.2.0 release bundles all good additions and modifications that we came accross; it offers : **better security, higher speeds and an increased ease of use.**

MacPPP 2.2.0 includes the following modifications:

- The modifications in Cliff McCollums '**2.01 cm4**' version: extended password functionality and background operation (his 'Open PPP' application can be used in the Finder).
- Display of the modem connect info as in Koji Kobayashi's **2.01k2** release.
- The high speed hack to 115K and 230K for faster Macs from Steve Dagley as in his **2.1SD** version. (fixed in this 2.2.0a version)
- Some modifications by John Stephen for compatibility with PSI's dial-up ISDN service and with some slower modems
- Improved windows and icons as in Marc Matteo's 'MacPPP **Add-ons**'.
- Compatible with the preferences files of previous MacPPP versions so installation is a simple and quick replacement of the Control Panel and the Extension.
- This release is NOT yet compatible with Apple's upcoming Open Transport 1.05 release. (shortly in 2.2.1!)

The story:

The MacPPP 2.2.0 project - 'Best of MacPPP', as we call it - originally started with some ideas to improve the Config PPP user interface and a bug that has to do with Portshare. It quickly turned out that a lot of people have many good ideas to improve the old MacPPP 2.0.1 and so several PPP versions were floating around. Until now a user had to choose between those modified versions (2.1SD, cm4, k2, add-ons 2.0.1) so it was quite obvious to integrate all this. That's why I mailed the people I knew at that moment and the enthusiasm really was overwhelming. As such, it is only the

enthusiasm of all those programmers that made it possible to collect all the source code and windows modifications and bundle them in 1 new source. I would like to thank Cliff McCollum, Deepak Mehta, Koji Kobayashi, Larry J. Blunk, Marc Matteo, Paul Van Cotthem and last but not least: Steve Dagley for their contribution. Thanks !

Who are we ? We call ourselves MacBEL UG vzw, a non-profit user group that consists of enthusiast of Mac datacommunications, networking and especially internet. We give meetings, demonstrations, a magazine, an electronic bi-weekly magazine (in dutch), etc. Almost 100 members, mac internet users, several programmers... We already programmed an all-in-1 internet installer that shows 1 window (where the user can enter all his data) and takes care of the installation and setup of TCP, PPP, Eudora. We did this to support a Belgian Internet provider.



In this way we recieved an ok from the authors of cm4, 2.1sd, k2, JS and add-ons 5/95. Of course we wanted to add a sauce of icons and a prettier config PPP (rebuild your desktop eg with TechTool 1.07 to see new icons in the Finder). We call it version 2.2.0 because it has to be clear the version offers more features than 2.01 or 2.1sd, and 2.2.0 also offers a path to new releases. We would be happy to work together with all programmers that improved the original Merit's 2.01 MacPPP if you are willing to share your source modifications. Just drop us an e-mail.

The Future:

Things we will try to implement in a future 2.2.x release are:

- Compatible or works together with:
 - Apple OpenTransport 1.05 and 1.1(TCP/IP 3.x & AppleTalk 60.x)
(As we are already testing this, we see a lot of setup problems and a lot of applications that are not compatible yet.)
 - Internet Configuration System 1.1
- An even better user interface
 - like interslip/copydoubler a dialog box that can be made smaller/bigger:
only the following functions stay visible: Open, (Hard) Close,
Pop(popup), and a triangle to increase the window size for the setup.
A floating window (with timer) would be IT.
 - multiple modem setings and multiple POPS (also new 'duplicate' button will be activated)
 - balloon help

Extras:

You can expand your MacPPP software with some other fine additions:

- to open and close a PPP session without the MacPPP Control Panel, you can use:
Toggle PPP, PPPop, MacPPP Quickeys, PPPStrip, MacPPP Control, Control PPP
- to measure and log the time, you can use:
PPP Floater, PPPReport, PPPSummarize, MacPPP Timer

If you would like to read a lot about MacPPP, read the following interesting texts:

- on nic.merit.edu/internet.tools/ppp/mac you will find a detailed description of macppp 2.0.1 (macppp.txt).
- on cs.uni-bonn.de/ppp you can find a 'ppp faq'.

Happy MacPPP'ing !

Greetings,



PS: THIS SOFTWARE IS FREE BUT HAS ABSOLUTELY NO WARRANTY WHATSOEVER ATTACHED TO IT. NO GUARANTEE IS MADE TO ITS FITNESS FOR A PARTICULAR PURPOSE. BY USING THIS SOFTWARE YOU TAKE ALL RESPONSIBILITY FOR ANY LOST DATA, TIME, OR MONEY THAT MAY OR MAY NOT BE CAUSED BY MACPPP, AND YOU AGREE TO HOLD LIEVEN EMBRECHTS, THE MACBEL USER GROUP AND ALL ORIGINAL AUTHORS FREE FROM ANY RESPONSIBILITY FOR SUCH LOSSES.

Attachments: Notes for MacPPP 2.01cm4 and for MacPPP 2.1sd

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NOTES ON MACPPP 2.01cm4
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This is the initial release of MacPPP version 2.0.1cm4. Although I have only tested it with my local service provider, many other people have had a hand in testing it for me. To those people I would like to say Thank-you. I would also like to thank all those that responded to version 2.01cm3 with suggestions and ideas they wanted to see. I tried to add as many of these as I had time for; if your suggestion was one that I didn't add, I'm sorry. Maybe it will make it into a future version.

Why Make Changes?

The current release of MacPPP requires you to either connect manually using the Terminal Window, or to store your userID and password into a connection script (unless your service provider has Password Authentication Protocols activated). Since this connection script is easily visible in MacPPP, anyone with access to your computer can see your password and use it to gain access to your account. Obviously this poses an unacceptable risk to users of MacPPP.

In addition, MacPPP 2.01 uses a modal dialog box when dialing. For users who have a long wait trying to get through to their service provider, this dialog box renders their Mac essentially useless while waiting for a connection. For many people this wait is long and frustrating.

Changes In 2.01cm4

This version adds a number of requested features and removes all known bugs.

- 1)** The password dialog used to appear immediately before the PPP script was run. It will now delay its appearance until execution of the first occurrence in the script of \$USERID\$ or \$PASSWORD\$.
- 2)** The opening of the serial port was modified to provide proper support for internal Supra Powerbook modems. These modems required a few milliseconds in order to wake from sleep. The original version of MacPPP tried to address this problem but didn't work in every case. These modifications will hopefully work better.
- 3)** A small application called "DialPPP" has been included. All this program does is open the MacTCP driver - causing MacPPP to dial. If you use this program to initiate PPP connections, instead of the Config PPP control panel, you avoid the problem where the Finder is unusable during connection attempts.
- 4)** A bug in the original version of MacPPP was forced to the surface by my previous changes. This bug would cause a crash during a second connection attempt if MacPPP was sent into the background. This version of MacPPP removes this bug.
- 5)** The status box is now placed in the proper alert position on the parent monitor (the monitor containing the frontmost window at the time MacPPP tries to dial).

- 6)** Some naming changes to windows and dialog boxes.
- 7)** An indicator was added that shows how many dial attempts have been made.
- 8)** The text display in the terminal window has been enlarged and it can now be moved around the screen. In addition, it is now possible to send MacPPP into the background while the terminal window is displayed.
- 9)** The original version of MacPPP caused sound problems with modems that used the Apple Express Modem software; this includes the Apple GeoPort Telecom Adapter, and the Global Village Mercury internal Powerbook modem. The problem manifested itself as a loss of the modem sounds during second and subsequent connections. This version fixes this problem.
- 10)** Though I know this might annoy some people, I changed the icon again. Adam Hinkley offered me an icon that was much better looking than the one I had produced, so I included it. If you want to rebuild your desktop to see the new icon, great. If not, don't worry about it, everything else will still work fine.

Some Notes About Dialing in the Background

There seems to be a lot of confusion about just *how* MacPPP 2.01cm4 dials in the background. Without going into a long explanation, it is important to understand that the application that causes MacPPP to dial will be tied up until the connection is complete. What this means is that the Finder itself will be unusable during the connection if you started your connection using the Config PPP control panel.

To prevent this from getting in your way I have a few suggestions:

- 1)** Make sure you have another application running in the background before you start MacPPP dialing. You will then be able to click on this application's windows to send MacPPP into the background.
- 2)** Use the small application "Open PPP" (included with this release) to make MacPPP dial. This program will cause MacPPP to dial without using the Finder. Note that this will *not* work after doing a "hard close."
- 3)** Use Mark Aldritt's MacPPP extensions for AppleScript. This way you can create a tiny scripts that make MacPPP dial without tying up the Finder. These extensions are available from
<ftp://gaea.kgs.ukans.edu/applescript/osaxen/MacPPP_Control_1.4.sit.hqx>.
- 4)** Use Rob Friefeld's handy "PPPop". This little application will allow you to open and close MacPPP without tying up the Finder. In addition, it provides a connection timer and a few other handy features. It is available at
<<ftp://ftp.ucs.ubc.ca/pub/mac/info-mac/comm/tcp/pppop-11.hqx>>.

Changes In 2.01cm3

This version has modified a few key behaviours of MacPPP 2.0.1 in order to add better security and ease of use. The major changes are:

- 1)** The scripting system has been modified to support two reserved words "\$USERID\$" and "\$PASSWORD\$". If you use either of these words in your connect script, MacPPP will display a dialog prompting you to enter your UserID and Password whenever it makes a connection. The information you enter into this dialog will be substituted in place of the appropriate reserved words in the script. This prevents your from having to store your ID and password in plain view inside a connection script.
- 2)** The dialing window is non-modal. MacPPP can now be sent into the background while it is dialing, and it will continue to work properly. If it takes a number of attempts to get through to your service provider, being able to send MacPPP into the background could save you a great deal of time.
- 3)** If MacPPP is in the background and requires your attention – usually because the terminal window, or some type of dialog box has appeared – and System 7 or greater is being used an alert will appear indicating that MacPPP needs some help. This alert will also inform you about which program you should switch to in order to locate the MacPPP windows. If you are using a system earlier than System 7, this feature will not work.

4) Nifty colour Icons have been added!

DO NOT RENAME THE "PPP" FILE. The filename "PPP" is what MacPPP will look for. If you rename this file, MacPPP will not work properly.

Configuring Communications Under MacPPP 2.0.1cm4

You configure the communications portion in this version of MacPPP the exact same way as the regular version. Consult your system Administrator if you need help setting up MacTCP or MacPPP's main configurations.

Setting up the Connection Script

From the configuration screen click the "Connect Script..." button to be presented with the standard MacPPP scripting window. This version of MacPPP contains two special strings for use in the scripting window. The strings are as follows:

- \$PASSWORD\$ Whenever MacPPP sees this string it will substitute the password you entered at connection time.
- \$USERID\$ Whenever MacPPP sees this string it will substitute the username you entered at connection time.

Here's a sample script I use for connecting with my local Annex™ server:

```
OUT      WAIT      STRING
=====
X      username:
X
X      password:
X      $PASSWORD$
X      annex:
X      PPP
$USERID$
```

This works as follows. While MacPPP is processing the connection script it looks for the strings \$USERID\$ or \$PASSWORD\$. If either of these are found, MacPPP will display a dialog box requesting you to enter your UserID and Password. Once you have entered this information (your password is blanked out using • characters) click the OK button or press return. MacPPP will then continue to process the connection script.

Wherever MacPPP encounters the string \$USERID\$ it will substitute the Username you entered in the previous dialog box. Wherever MacPPP encounters the string \$PASSWORD\$ it will substitute the password you have typed. This enables MacPPP to provide automatic connections without the need for permanently storing your password on disk.

If you have a connection script that already works with a previous version of MacPPP, you can continue to use it with only minor changes. In place of your actual userID in the working script, place the string "\$USERID\$", and in place of your actual password in the working script, enter the string "\$PASSWORD\$" (MacPPP is case sensative). Now when MacPPP connects it will prompt you for your userID and password, and then substitute the information you typed in place of the strings \$USERID\$ and \$PASSWORD\$ in your connection script.

When Using MacPPPCm4

This version of MacPPP was created by Cliff McCollum. It is a modified version of the standard MacPPP 2.01 which is copyrighted by the University of Michigan. Their copyright still applies; however, all changes and additions to their code are copyright ©1994-1995 by Cliff McCollum.

If you are interested in this code, or have any questions about these modifications, feel free to contact me via Email at cmccollu@sol.uvic.ca. These changes are distributed free of charge. However, if you do find them useful I'd love to hear about it.

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NOTES ON MACPPP 2.1SD

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MacPPP 2.1SD Read Me

What is it?

This a modified version of Merit's MacPPP Link Access Protocol module for MacTCP that supports DTE rates of 115Kbps and 230Kbps on 660AVs, 840AV and PowerMacs. There are no other changes from Merit's 2.0.1 release but I thought the support for higher rates justified a bump of the minor version number. I also wanted some way to differentiate this version from an official Merit release (this most definitely isn't) and my initials are SD so that's why they're there. I'm releasing this since there are lots of Internet providers adding V.34 dialups now that the spec has been finalized and I'm sure there are other folks like me that want to get the maximum possible speed out of our nice expensive new modems.

Is a 115K or 230K DTE rate really going to be faster than 57.6K?

It depends on the data being transferred. The V.42bis data compression standard is theoretically capable of 4:1 compression. Therefore you'd want a 115Kbps DTE rate to fill a 28.8Kbps V.34 link w/V.42bis compression. In the real world most data doesn't usually compress better than 2:1 so a DTE rate of 57.6K is usually sufficient. On the other hand I've seen better than 8000 bytes/sec using Fetch to ftp a highly compressible text file (400K of repeating 'abcdef') over a 24K V.34 link. Using the Electronic Frontier Foundation's "Big Dummy's Guide to the Internet" as a test file I've gotten in the neighborhood of 6200 bytes/sec. BTW, does anyone regularly get 28.8K connects? My normal connect rate with a USR Courier V.34 on each end of the line is 24K with occasional 26.4K and very rarely 28.8K.

If you have a Hayes Optima 288, it supports a DTE rate of 230Kbps to feed their modified version of the V.42bis compression routine that's theoretically capable of 8:1 compression (as opposed to normal V.42bis' 4:1 max). Unfortunately I don't have one so I can't say what sort of throughput my test files would have at the 230K DTE rate.

Caveats

The changes to support the higher DTE rates make use of an undocumented and unsupported serial driver call as well as some direct manipulation of the Serial Controller Chip. This has been working for a few months on my 660AV and PM6100 but there are no guarantees.

What do I need to use it?

You need a Mac that supports serial DMA (i.e. a 660AV, 840AV or any PowerMac) and a true V.FC or V.34 modem attached to the built-in Modem or Printer port. The increased interrupt load for the higher rates is too much for non-serial DMA Macs so I'd strongly recommend against using it on one although I don't currently check the Mac type. If you insist on trying it on a Ilfx or Quadra 900/950 you must make sure that you have set the serial ports to 'compatible' mode using the Serial Switch Control Panel. If you don't, you'll crash your Mac when you try to connect. Since I already said you shouldn't be using this software on one of these machines I don't consider this a bug so consider yourself warned.

Of course if your dialup PPP provider isn't using V.FC or V.34 modems with a 115K or 230K DTE rate on their end you won't see any difference. That part I can't help you with. :-)

Does it work with a GeoPort Telecom Adapter?

No. The GeoPort Telecom Adapter pod isn't really a modem. It's just the hardware required to connect your Mac to the phone lines. The rest of the modem functions are implemented inside your Mac. Apple may implement a V.34 version of

the Express Modem software but I wouldn't hold my breath waiting for it. I wouldn't recommend it on the PowerMac either as the current V.32bis implementation of the software seems to be good for approximately a 30% slowdown on my 6100AV.

How do I use it?

If you aren't sure how to install MacPPP, see the accompanying 'Installing MacPPP' document. Once you have installed MacPPP 2.1SD, open the Config PPP Control Panel and hit the Config... button. Select 115K or 230K from the Port Speed popup menu. That's it. You should now be talking to your modem at a rate that supports the maximum possible throughput. If you selected a port other than the Modem or Printer ports you'll get an error Alert when trying to connect stating that the higher rates aren't supported for other ports and the rate will be changed to 57.6K.

Copyrights & Credits

MacPPP 2.1SD is based on MacPPP 2.0.1 which is Copyright ©1992-1993 Merit Network, Inc. and The Regents of the University of Michigan.

The changes from MacPPP 2.0.1 to 2.1SD are Copyright ©1994 by Steve Dagley. As is the case with Merit's statement regarding MacPPP 2.0.1, I make no guarantee about the performance or reliability of this software. Any risk in it's use is your own. Not for profit distribution is allowed/encouraged. This Read Me document must accompany any distribution. If you want to include this version in some sort of software collection (i.e. CD) all I want in exchange is a copy of the collection.

Thanks to Bill Coleman of Hayes for reminding me to think async instead of sync when programming the SCC for the higher rates. I've been doing code for 13-bit sync serial data for so long I forgot what async was. :-)

Thanks to Larry J. Blunk and the rest of the MacPPP programmers for making the source code to 2.0.1 available.

Version History

2.1SD - 12/11/94

First public release.

As always, revised this Read Me.

2.1SDb3 - 12/10/94

Third semi-public beta.

Due to popular demand (from Lyman Green) I have now updated the Config PPP Control Panel to show the 115K and 230K rates in the Port Speed popup.

Revised this Read Me once again.

2.1SDb2 - 12/08/94

Second semi-public beta.

Oops - left in a modified version of the modem init code that occasionally caused timeouts when trying to establish communications with the modem.

Cleaned up and expanded this Read Me.

2.1SDb1 - 12/06/94

First semi-public beta

Cleaned up the code somewhat and actually check for a suitable serial driver before making the calls.

2.1SDa3 - July 1994

Never publicly released.

Made sure selected port was modem or printer.

2.1SDa1 - July 1994

Never publicly released.

First build.

Known Problems

Apparently the software for the Axion serial port switching device makes the test for the internal serial ports fail and revert back to a DTE rate of 57.6K. I don't have one of these critters so it's kinda hard to figure out a workaround other than turning off their software.

Comments or Questions?

You can e-mail me at sdagley@zeno.fit.edu

Enjoy!

Steve Dagley
December 11, 1994