

Pegasus Mail for the Macintosh, version 2.1

Pegasus Mail is an electronic mail system which has special support for Novell NetWare Local Area Networks, and for Apple's MacTCP TCP/IP network tool. In the NetWare environment, it uses NetWare login IDs for usercodes and delivers to NetWare's predefined SYS:MAIL directory structure, which together minimize maintenance issues. Pegasus Mail can send and receive SMTP mail via either the Mercury SMTP system or the Charon SMTP gateway developed at Clarkson University, and can also use NetWare SMF transports such as NetWare MHS and NetWare Global Messaging. Pegasus Mail is fully SMF-71 capable. All standard mailer features are supported, and a significant number of extensions are present as well.

In MacTCP mode, a connection to a NetWare server is not required (although it can still be used), and Pegasus Mail uses the Internet POP3 and SMTP protocols to receive and send mail. Standalone operation using MacTCP is configured using the "Network Configuration" command in the "Preferences" section of the "File" menu.

The Pegasus Mail system is free software; I sell manuals to support development, but such purchases are completely optional. You may freely use it on as many machines attached to as many servers as you wish.

System Requirements

Pegasus Mail for the Mac requires a Macintosh Plus, Classic, Classic II, LC, LC II, II, IIsi, IICI, IICX, IIFX, Powerbook, Quadra or PowerMac running any version of the Macintosh system software later than 6.03. In the NetWare environment, Your NetWare server must be running NetWare for Macintosh: version 3.011 is recommended - extensive testing has not been performed by the author on earlier versions of NetWare/Mac, although several members of the beta-test team have used NetWare/Mac v2 successfully. Pegasus Mail will *not* work in NetWare mode with NetMounter, by Dayna Systems.

The SYS volume of your NetWare server must have the Macintosh name space added, and Macintosh users must be able at least to see the directories PUBLIC, MAIL and LOGIN. Users must have the default NetWare rights in SYS:MAIL (i.e, [C] under NetWare 386, or [CW] under NetWare 2.x).

Using Charon and NetWare/Mac versions earlier than 3.x: If you are using Charon and a version of NetWare/Mac earlier than 3.x, you **MUST** make one small change to the Pegasus Mail application file using ResEdit. Create a resource of type ChFN in the application, and enter the two hexadecimal bytes 00, 65.

Installing Pegasus Mail for the Mac

To install Pegasus Mail, copy the application onto a local hard disk. That's all there is to it. Pegasus Mail can be run from a file server - it does not alter or lock resources in any way: in order to do this, however, you will have to use ResEdit or a similar tool to set the "Shareable" bit in the Finder information for the file. Be aware that some versions of the Macintosh operating system may crash when you attempt to run applications from the file server; Apple have released patches to fix this behaviour if you encounter it.

Running Pegasus Mail for the Mac

If running in NetWare mode, users must mount the SYS volume of the NetWare server they wish to use prior to running Pegasus Mail for the Mac. Once this is done, double-clicking on the Pegasus Mail icon will start the program. Pegasus Mail is a relatively conventional Macintosh application, and you should experience little difficulty using it. In standalone mode, using MacTCP, Pegasus Mail will advise you that it needs to create a mail directory the first time you run it.

Addressing

Pegasus Mail can accept addresses in a number of forms. The simplest form is simply the NetWare username of another user on the same server. This address results in the message being sent locally to the named user. You can mail to Novell User Groups by placing a hash (#) in front of the name of the group. In MacTCP mode, or if you are using the Charon or Mercury SMTP gateways under NetWare, Pegasus Mail will accept any standard Internet-style address: Pegasus Mail's address parser is fully RFC-822 compliant. UUCP and BITNET addresses may require a small amount of rewriting if your central mailer (the mailer to which Charon sends mail by default) does not do the rewriting for you.

If you are using an SMF transport such as NetWare MHS or NetWare Global Messaging, then you can enter any valid SMF address form, including Extended Addresses and Pegasus Mail will process it correctly. SMF-71 long address forms are fully-supported.

You can enter multiple addresses in any field so long as they are separated by commas. In most cases you can freely mix SMTP, SMF and Local addresses, although overrides are available for special cases. To force Pegasus Mail to treat an address as a local address, prefix it with PM:; for SMTP addresses, the override prefix is IN:, and for SMF overrides, use MHS:.

Pegasus Mail can look up addresses in a number of ways, using the "Lookup local users" option on the "Addresses" menu. You can obtain a listing of users from the NetWare bindery, or from the MHS NetDir.Tab file, or from the SMF-71 Extract file if you are using an SMF-71 transport.

Address books are provided, under the "Addresses" menu. The address

book structure is quite complete, and address books can be printed. You can use the name field from any address book entry as "alias" for the address. So, if you have an entry where the name field contains "David Harris", then you can use "David Harris" as an address in any field; Pegasus Mail will lookup the address from the entry when sending the message. You can paste addresses from your address books into your message's address fields by opening the addressbook, highlighting the address or addresses you want to use, and clicking the "use addresses" button. The same mechanism operates in the local user list.

Distribution lists (sets of addresses to which you mail regularly) are created using the entry on the "Addresses" menu. A distribution list contains addresses to send to, one per line. You can suppress the enumeration of addresses in a distribution list by entering any valid address (usually your own) in the "Sender Field" slot. Use a distribution list by double clicking on its entry in the list when editing a message.

Attachments

Add attachments to messages using the "Attachments" button in the message editing window. By default, Pegasus Mail tries to choose the most appropriate way to send your attachment for you, but you can force Pegasus Mail to send an attachment in uuencoded form, BinHexed form or as plain ASCII using the popup menus in the attachment dialog. Up to 64 attachments can be sent with a message. The "Change" button in the attachment dialog allows you to alter the encoding and file type of any attachment you have already added to the list.

Browsing Mail

You can have up to 10 mail folders open at any time. The New Mail folder will only be available if you actually have new mail. You will always have a folder called "Main Folder": by default, this is the folder to which Pegasus Mail will move New Mail you have read but not otherwise filed (you can change this behaviour in the preferences menu). You can change the sorting of your messages using the Sort menu.

The buttons in the mailbox browser list perform the following functions:

- Reply:* Compose a reply using selected addresses and text from the current message.
- Forward:* Send the message on to someone else, with the option of editing it beforehand.
- Store:* Move the message (or messages if you have several marked) to another mail folder.
- Delete:* Delete the highlighted messages. A preferences option is available which allows you to store deleted messages in a special folder until you quit Pegasus Mail.
- Extract:* Either save the text of the message as a file, or else work with any attachments the message might have.
- Unpack:* If you have received a message which is actually a specially-

encoded file (in either BinHex or UUencoded format) you can use this option to unpack it.

Preferences

Pegasus Mail is extremely configurable, via the Preferences menu, which is itself under the File menu. Your preferences are remembered from session to session. If you are using a Macintosh connected via LocalTalk rather than Ethertalk, you should consider relocating your home mailbox using the "Home Mailbox Location" option in the preferences. Storing your home mail folder on a local hard drive will speed opening mail folders markedly.

Installation issues

Pegasus Mail comes with a program called Pegasus Mail Config, which is used to perform basic configuration of the Pegasus Mail system. Pegasus Mail Config writes information into the NetWare Bindery, and requires that you be a Supervisor-equivalent user to run it. The configuration created by this program is completely compatible with that created using the Pegasus Mail/DOS equivalent, PCONFIG. If you are already using the DOS version of Pegasus Mail and have run PCONFIG, you will only need to run this program to configure Macintosh-specific features such as the location of system address books and lists, and the path to the MHS mail structure, if you are using MHS.

Pegasus Mail Config has four configuration buttons:

General Setup:

This option allows you to tell Pegasus Mail where to find System-wide address books, and where the MHS directory tree is. System-wide address books are read-only address books available to all users. An address book consists of two files, named using MS-DOS filename conventions, one with a .PMR extension, the other with a .PM! extension. You can make any address book a system-wide address book by copying it to the directory you name here. Note that you must enter the directory name in Macintosh filename format, starting with a volume name: so, if you stored your system address books in SYS:PUBLIC on server FOOBAR, you would enter FOOBAR.SYS:PUBLIC in this field. The MHS directory tree value is only required if you use a NetWare SMF transport such as NetWare MHS, and have installed it in somewhere other than the default location (the root of the SYS: volume). Enter this path in Macintosh filename format as well. If you are using a volume other than SYS: for your SMF transport, you must mount it *as well as* the SYS: volume, prior to running Pegasus Mail.

NetWare SMF/MHS setup

Pegasus Mail has full native support for NetWare MHS version 1.5 and later.

SMF/MHS support enabled: If checked, this field indicates that an SMF

transport is available on this server. If not, Pegasus Mail will generate an error message if a user attempts to mail to an SMF address.

Prefer MHS/SMF for ambiguous addresses: This flag only has meaning if the Charon SMTP gateway is also installed on the current system. Some MHS and SMTP addresses are indistinguishable from each other (canonical MHS addresses are ALWAYS correctly sensed): if such an address is detected by Pegasus Mail, it will be routed to whichever transport has its "preferred" flag set. If neither transport has its preferred flag set, then the user will be asked to use an explicit override (either MHS: for MHS addresses, or IN: for SMTP addresses).

Route all mail to SMF/MHS regardless of address? If checked, then all messages will be routed to the SMF transport, irrespective of apparent address format. Pegasus Mail will rewrite addresses without workgroup parts, using the name defined for this host (so, a message addressed to "david" will be rewritten as "david @ hostname"). Pegasus Mail will not use its own local delivery agent, and messages to the Charon SMTP gateway (if present) will have to be overridden always (using the IN: prefix).

Default Workgroup: This is the name of the local host/workgroup as defined in the installation of MHS on the current server. Pegasus Mail uses this name to construct the "From:" field of messages, and when rewriting addresses to SMF format.

Use SMF/MHS instead of Pegasus Mail for local delivery? This flag only has meaning for sites using Charon and MHS, who do NOT want to use PMail's local agent. If checked, then Pegasus Mail will regard simple address forms (for instance, 'David') as MHS addresses, and will not use its own transport to deliver them. Setting this flag allows a site to use MHS for local delivery, and Charon for remote mail.

Are you using an SMF-71 transport? If you are using NetWare Global Messaging, or another SMF-71 compliant transport, check this box to allow Pegasus Mail to take advantage of the extra capabilities offered by that format. If not checked, Pegasus Mail will behave as an SMF-70 mailer, compatible with MHS 1.5.

UTC Time zone: Enter here your time difference from Universal Standard Time, expressed in four digits; so, if you are 8 hours behind Universal Standard Time, enter -0800 here.

Charon/Mercury SMTP gateway setup

Pegasus Mail supports both the Mercury SMTP gateway and the Charon SMTP gateway by Brad Clements of Clarkson University.

Use Mercury spool directory interface If checked, this control tells Pegasus Mail that instead of writing mail to a NetWare queue, it should write it to the spool directory you have defined for your Mercury

installation. Once checked, the "Mail queue name" field will change to read "Spool directory". The directory name must be entered in Macintosh filename format, not DOS or NetWare format. Note that in order to use Pegasus Mail and Mercury together under NetWare 4.x, you *must* use the spool directory interface.

SMTP support enabled? Check this if SMTP mail is to be available via either Charon or Mercury on your server. If not checked, users will see an error message if they attempt to mail to an Internet address.

Mail Queue name: This is the name of the print queue you have created (using the NetWare PConsole utility) from which Charon expects to retrieve messages. The queue need not exist at the time you define the interface.

Internet name: Enter here the internet identity you have defined for this file server. Note that this is NOT necessarily the same as the name of the gateway itself. This address is used to form the sender's address for replies. For more information on naming, see the Charon or Mercury manual. The name you enter in this field should be fully domain extended - that is, you should include the domain as well as the host name.

Time zone (UNIX format): Type here the UNIX-format abbreviation for your time zone: this is required by the RFC822 standard for message format. Examples of time zones are: EDT, PST, GMT, +1200.

Organization: If you wish, you can enter a name for your site which Pegasus Mail will add to outgoing messages.

Prefer SMTP over MHS for ambiguous addresses? As with the NetWare SMF setting, this field allows you to indicate that Pegasus Mail should "prefer" this gateway - that is, choose it over an SMF gateway if it cannot determine the correct transport from the address itself.

Route all mail via Charon regardless of address? Check this if you want Pegasus Mail to use the gateway for all messages, including mail to other servers. If you leave it unchecked, Pegasus Mail will only pass mail with Internet addresses to the gateway, and will use its own mechanism for all other messages.

User-settable MHS options

Pegasus Mail includes a number of user configuration options which affect mail transport in its preferences menu:

SMF user name: if a user has an MHS mail identity which is different from his/her NetWare usercode, then he/she will have to enter that identity in this field. The default is the first eight characters of the user's NetWare userid.

SMF Mailbox name: this is the name of the user's directory in MHS/MAIL/USERS where the user's new mail and attachments is stored. In almost all cases, this will be the same as the first eight characters of the user's NetWare username.

MHS App name: if a preferred mailer has not been specified for a user when he/she was added to the MHS system, then mail will be delivered by default to an MHS application directory called MHS. Normally, Pegasus Mail should be installed in your MHS system using the application name Pegasus Mail, which has been reserved with Novell: if, however, you are installing Pegasus Mail over the top of an existing MHS mailer, you may not wish to alter all the users. In either of the cases described here, you can change the name of the application directory Pegasus Mail will scan for new mail by entering its name in this field.

Scan MHS dir for new mail? If set to Y, then Pegasus Mail will scan the user's default 'MHS' mailer directory for new mail, as well as scanning whatever directory is defined in "MHS App name".

Installing Pegasus Mail/Mac exclusively as an MHS mailer

To install Pegasus Mail/Mac so that it only uses the SMF transport, enable MHS/SMF support, then check "Route all mail to MHS regardless of address". This effectively suppresses PMail's other transport options.

Troubleshooting

Here are some commonly-encountered problems:

1: A user reports that Pegasus Mail says he is not authorised to use a particular gateway, even though he knows he is; or a user reports errors sending mail even when the address used is perfectly good.

The user has probably "pushed" Pegasus Mail into the background under MultiFinder or System 7, then lost or trashed the connection to the NetWare server. Pegasus Mail cannot detect that the connection is no longer valid and renew it. Quitting from Pegasus Mail and running it again fixes this.

2: Pegasus Mail issues an error that the SYS: volume is not mounted, even though it is visible on the desktop.

There are several possible causes for this:

- the user might have entered his or her username in the Chooser with a space; while the NetWare NLMs will accept this, Pegasus Mail cannot.
- the user might not have sufficient rights to be able to see the directories PUBLIC, MAIL and LOGIN on the SYS: volume. The presence of these directories is one of the clues Pegasus Mail uses to detect the volume.
- there may be a conflict with another piece of software on the Macintosh. Early versions of TOPS and SuperLaserSpool have been

known to cause this error.

3: The user finds that messages are not being sent at all, or are incomplete when sending via the Charon gateway, but Pegasus Mail is not issuing errors or warnings.

The disk is full, or the user is out of disk quota, or a directory quota has been exceeded. Because of the way the NetWare for Mac API set is implemented, Pegasus Mail cannot detect this condition.

4: Mail is being rejected by Charon with the console diagnostic "Bad form type" or similar.

You are using an early version of NetWare/Mac: you must make one small change to the Pegasus Mail application file using ResEdit. Create a resource of type ChFN in the application, and enter the two hexadecimal bytes 00, 65.

5: MHS is rejecting mail with the diagnostic "missing signature".

You probably have "Are you using an SMF-71 transport" checked in Pegasus Mail Config, when you are not in fact using an SMF-71 system. Uncheck it. If the problem persists, choose "Delete Configuration" from the Pegasus Mail Config menu and re-install the MHS support.

6: Pegasus Mail crashes with an error of type 1, type 12, or type 25 when I click the Send button to send a message.

This problem has been around for a very long time, and I'm not 100% certain exactly what causes it. It only seems to happen on some types of Macintoshes, and not on all of them. Running the Moire screen saver, or running the application from a file server seems to increase the likelihood of these crashes, while increasing Pegasus Mail's memory partition to 1MB in the Finder's "Get Info" box eliminates the crash in many cases.

Contacting the author

I can be reached by the following means:

Via e-mail (far and away the most preferred means)

Internet e-mail: david@pmail.gen.nz

CompuServe: >internet:david@pmail.gen.nz

MHS: Not currently accessible (working on that one)

By Fax (preferred if you don't have e-mail access)

ISD 64 - 3 - 453 6612. I will try to answer faxes but please don't be offended if you get no reply - I have to process a huge amount of mail each day, and while I try in good faith to contact people, sometime it's just not possible on paper.

By Phone (last resort - I hate the phone)

ISD 64 - 3 - 453 6880.

PLEASE PLEASE NOTE! New Zealand is GMT+1200, which means that when it's 10am in San Francisco, it's about 3 or 4am the next day in New Zealand. I get pretty grumpy about being woken up by the phone at that time of day.