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## Revision

This is the 114th revision of this document, and applies to version . This was last updated on by .

## Introduction

This file summarizes most changes made to since release 1.11a. Please contact Drew Derbyshire, help@kew.com, for information on changes previous to the scope of this document or other questions.

## Versions 1.11o through 1.11q Revision Summary

### Bug Fixes

Changed various `assert()` statements checking file I/O to specific error messages.

If `MailExt=` was specified with no value in the `UUPC.RC` configuration file, the result was unpredictable. Corrected configuration file processing to reject variables with empty values.

Corrected Post Office Box number in `register.doc`, and added missing `register.prn` to documentation archive.

Corrected `howtoget.txt`, which had an incorrect example of the home directory for user `nuucp`. The correct syntax for a file such as the Index in the home directory is `~nuucp/Index`.

Added a report of the modem status bits at debug levels 4 and above.

**Note:** This change may impact performance.

UUX was unable to properly process binary files. Corrected by modifying UUX to read and write data files in binary mode.

UUXQT would delete files if it ran out of memory. Modified UUXQT to not delete files after a program was unable to be spawned, modified to more efficiently manage memory by updating fewer environment variables, and also converted UUXQT.COM to UUXQT.EXE to increase the available stack memory by about 25K.

**Note:** Users installing the new release must delete any UUXQT.COM files to be prevent the old file being found by MS-DOS before the new UUXQT.EXE file.

To reduce memory, reorganized the generalized library functions into an actual library and broke out the individual functions into separate files to keep unneeded functions from being included in programs.

**Note:** Because of this change, the project files for Borland C++ were all broken. Rather than fix them all by hand, the project files are no longer distributed with the source archive. The `MAKEFILE` and `NMAKE` files were, of course, corrected to reflect the reorganization.

UUSTAT was unable to kill jobs because of shortened names in spool files. Corrected by changing various modules to consistently use eight characters for the maximum host name length.

The new UUPC.RC variable `CharSet` was not documented in the sample UUPC.RC file. Added description and example.

The sample `PASSWD` file stated its use was optional if the local system was not to receive incoming calls. This was incorrect, the `PASSWD` file must be used if incoming calls are to be received **or** if multiple users are to be supported on the same system. The file has been updated.

Deleted various obsolete file references in the `MAKEFILE` to free more memory for compiles.

If `expand_path()` was unable to expand a relative path on the non-default drive, the message issued was incorrect. Corrected by adding missing parameter to `printmsg()` call.

If the read file (`~r`) command issued with an operand when sending mail, the missing operand was not detected. Added operand check and error message.

### Enhancements

Added support for the Kanji character set. The support is enabled by the new system boolean option **kanji**. Graciously provided by Kenji Rikitake, who had to send it three times after we kept obsoleting his previous updates.

For UNIX compatibility added visual edit (~v) command as alias for edit (~e) when sending mail.

Modified mail to automatically enable displaying of the **To:** header in header summaries when the file to be read is the user's outgoing mailbox defined in his PERSONAL.RC by the **FileSent=** variable. Also made the -t option a toggle, to allow disabling it when it is turned on by reading the outgoing mailbox.

Modified JobSequence() to generate either mixed case (base 62) job or monospace (base 36) sequence ids. The default is mixed case; monospace job sequence ids are generated via the new system option **monospace**.

Added macro PrintUUPC to Word for Windows document template to automate printing of each of the documents to files for shipping.

MAIL could not process more than 300 items in a single mailbox because of a fixed size array containing information about each item read. Modified mail to reallocate the array as required (subject to available storage) to allow more items to read.

Added (as alternate version) Bill Plummer's (plummer@wang.com) version of COMM.ASM to UUCICO. This version supports enhanced UART's with 16 byte FIFO buffers, but may not work on all systems. Also added new \*.MDM file keyword **direct** to control modem hardware flow control; if this option is false (**ndirect**), the Clear-To-Send line from the modem is used.

## Version 1.11n Revision Summary

### Bug Fixes

Corrected import\_path() to properly initialize default MS-DOS mapping character set if none was provided in the UUPC.RC.

## Versions 1.11l through 1.11m Revision Summary

### Bug Fixes

**Note:** Many thanks to Mitch Mitchell, who expedited many of the UUXQT/UUX related enhancements and bug fixes for this release for me. My apologies to him for any complaints I made about any rough edges since I had rushed him in the first place.

If the input file to mail was updated while the user was reading mail, the updated file was overwritten without comment. Modified MAIL to save the size and last update time of the input file, and to warn the user before updating a changed file.

UUCICO for OS/2 failed while configuring the serial port if a previous program had set RTS handshaking on; corrected by modifying OpenLine() to correctly reset all handshaking options. Thanks to Harald Boegeholz for the fix.

Some systems have trouble using the standard MS-DOS character set for mapping UNIX file names because characters such as tilde (~) are reserved for other purposes. Modified import\_path() and export\_path() to support configurable DOS character sets used for mapping via the new UUPC.RC configuration variable **CharSet=**. The default character set is the same character set used by previous releases of .

**Note:** Before changing the mapping character set, the queue must be cleared by running UUCICO to deliver all queued files. This is because UUCICO will not find previously queued files when the character set is changed.

If the **save** option was active when the user's system mailbox was written back out but no data was written the file mbox in the user's home directory, an empty mbox was created anyway. Modified Update\_Mailbox to only open the mbox file when actually preparing to write data to it.

If transmitted data was lost by UUCICO, it would miss up to a packet of data before it resynchronized. Modified UUCICO to rescan data already received as required to resynchronize.

UUCICO aborted if it tried to shutdown the serial port twice when exiting passive polling. Added new routine shutdown() in modem.c to centralize shutdown processing and to prevent recursive calls to the shutdown routine.

Under selected conditions, the serial port would hang and would not transmit data given to the COMM.ASM package. As a work around, modified DCPGPKT.C to reset the port by issuing a call to ULIB.C disabling flow control.

When sending mail, if the include mail (~m) sub-command was used, the results were inconsistent because of calls to strtok() which confused parsing. Corrected by using regular item command parser, which also allows more flexible syntax for including items such as by user id or subject.

**Note:** Because the mail parser automatically selects the current mail item by default, the include current item (~i and ~I) commands are obsolete. They have been deleted from the documentation.

When sending mail, if the filter data (~|) sub-command did not work, issuing an error message rather than filtering the input. Corrected by changing system() call to spawnlp() call and opening redirected files by hand.

When sending mail, if the filter data (~|) sub-command did not generate output, the input data was deleted. Corrected this by checking for an empty output file before replacing the input with output.

RMAIL delighted in generating locally delivered mail which included the header "remote from localsite", where localsite was the local system. Corrected by rewriting portions of rmail.c and deliver.c.

If no header information was found for RMAIL to read, RMAIL incorrectly generated mail with a **From** line which described the mail as coming from /dev/null!uucp. Modified RMAIL to use UU\_MACHINE variable set by UUXQT to use for the **From** machine name in such cases, and when unable to this address to use the local node for the system name and (/dev/null) for the user id.

Made numerous changes to RMAIL, UUCP, UUXQT, and UUX commands in further support of generalized UUX commands. As part of changes, added new variable UUXQTPATH; when defined, this variable overrides the default PATH for commands executed by UUX.

**Note:** Because UUXQT now sets several additional variables, users may need to raise the environment size in order that at least 50 free bytes exist when UUXQT is invoked. Failure to do so will cause UUXQT to abort with a message the environment size is too small.

If excessive files were queued for UUXQT or UUCICO, UUXQT or UUSTAT ran out of storage. Modified read directory processing in UUXQT and UUSTAT to read single entry via new routine readnext().

## Enhancements

Modified MAIL and RMAIL to support optional file extensions for mailbox files. Extensions are set by the new UUPC.RC configuration file variable **MailExt=**; the default, if not set, is to use no extension.

**Note:** The sample UUPC.RC included with the documents specifies the string **SPB** as the default extension for new installations.

In support of Mitch Mitchell's new UUXQT, added a new processing mode to RMAIL invoked by -w command line switch; this mode takes a raw data file without a header and generates a valid RFC-822 header before delivering the mail to addresses on the command line.

**Note:** See the program description at the top of RMAIL.C for a detailed description of the processing mode and the available options.

Added new option **backup** to direct MAIL to backup input files before overwriting or deleting them. The backup files are given a new extension defined by new configuration file variable **BackupExt**. The default extension when none is given is "BAK".

Added new command **status** to MAIL to report various information on the program, current user, and file being processed.

Modified UUCICO to report connection speed rather than time when connecting to a remote host.

SPB stands for Simple Prose Box, and was mostly chosen to make the extension unique. Of course, SPB are also the initials of one Snuffles P. Bear; KEW wouldn't let us use hers!

Modified UUCICO to print a summary of the different types of errors received to assist in determining why a connection fails.

Modified UUPOLL to only invoke UUXQT if UUCICO returns a zero (success) return code.

Added revision bars to documentation.

Added new change subject (~s) command to send mail processing to allow changing the subject of a message after the initial subject prompt.

**Note:** In order to use ~s as the change subject command, the include signature file (~s and ~S) commands have been renamed to match the sendmail include autograph (~a and ~A) commands.

Modified MAIL to support the MS-DOS 5.0 DOSKEY processor. Processing is enabled via the new boolean option **doskey**, which directs mail to process all input requests via DOSKEY function calls. If the **doskey** option is not enabled or the DOSKEY program has not been loaded, processing is done normally. Also added new **expert** option to suppress selected output and to control side-effects of the **doskey** option.

**Note:** See MAIL.PRN for a detailed description of the interaction between the new **doskey** and **expert** options.

Converted HOWTOGET.SCR into Word for Windows format (HOWTOGET.DOC), and added information on how to retrieve via anonymous UUCP and to order it via mail. Many thanks to Russ Nelson of Crynwr Software for handling the mail orders.

Added auto-forward option (-a hmmm) to UUPOLL. When enabled, this option causes UUPOLL to automatically invoke UUCICO for system "any" after a successful incoming phone call plus an optional interval. For example,  
UUPOLL -a 0015 -r 0

Will cause UUPOLL to invoke UUCICO to answer the telephone, and after each successful call UUCICO will be invoked to call system "any" if 15 minutes have passed since the last outbound poll. The interval may be specified as 0 (-a 0) to have UUCICO call out after every inbound call.

Added three new optional variables to the modem initialization file. **Hangup** is used to reinitialize the modem when a connection is terminated. **GWindowSize** can be used to reduce the number of Windows used by UUCICO for modems such as some TrailBlazers which do not support seven packet windows when spoofing the UUCP "g" protocol. Finally, **GPacketSize** can be used to force the packet size to 64 bytes. (This latter variable is currently ignored, but was added in preparation for planned long packet support.) The SAMPLE.MDM file was updated with new examples of all three strings, and in addition a new sample modem file, V42BIS.MDM, was added as an example for the Zoom Telephonics V.42bis 2400 bis modem.

Made generating of SYSLOG file optional via the new **syslog** option; the default, **nosyslog**, does not generate the SYSLOG file.

Added ability for UUCICO to be invoked from another program which has already answered the telephone, Syntax for this never feature is:

UUCICO -w userid -Z bps -r 0

Where *userid* is the userid which would have logged in, and **bps** is the speed of the serial port in bits per second. The PASSWD file must exist and define the user id, and the variable InModem must exist in the UUPC.RC file and list the name of a value modem definition (\*.MDM) file.

Added various internal structures to support Mike Lipsie's port of news. This function adds a new required variable to the UUPC.RC file:

**ArchiveDir**=c:\lib\uupc\archive

This variable defines the directory that news is to be archived to.

Split the documentation previously contained in README.PRN into several parts, including INSTALL.PRN for installing, and COMMANDS.PRN describing the commands. Also expanded COMMANDS.PRN to give additional detail on several commands, and added to INSTALL.PRN the previously omitted description of the FORWARD file used to forward mail for a single user.

## Versions 1.11g through 1.11k Revision Summary

**Bug Fixes**

UUCICO was found to sometimes drop transmitted data because the revised `dcpgpkt.c` violated the UUCP "g" protocol. Corrected with much advice and assistance from Dave Platt, `dplatt@snulbug.mtview.ca.us`.

If UUCICO was in passive poll mode (`-r 0`) for a specified time period, it would terminate up to two minutes late. Corrected this by modifying search routine for ending time.

**Enhancements**

Added GENSIG, a program to automatically generate a signature file with a random quote, to the optional programs archive.

Added a prototype UUX program written by Mitch Mitchell, `mitch@harlie.lonestar.org`.

Added **autoinclude** option to list of accepted mail options. When enabled, the text of mail being replied to is automatically included as if the user had entered an `include (~i)` command.

Modified header command in MAIL to skip deleted items in the mailbox. The summary line for deleted items can still be viewed via the command:

Header \*

**Versions 1.11d through 1.11f Revision Summary****Bug Fixes**

If UUCICO was unable to process a file as requested by a remote host, the program dropped the communications link without properly informing the remote host the cause of the problem. Corrected problem by rewriting various modules in `dcpxfer.c` to correct responses to remote host explicitly rejecting the file, and in most cases continuing to process work.

The original UUCICO state machines controlled processing linked the terms "slave" (requests initiated by the other host) and "master" (requests initiated by our local host) with other conditions, such as whether the local host originated or received the call, and whether data was being transmitted or received. Corrected this by merging three state machine routines in `dep.c` into a single routine `process()`, and making the various conditions independent of each other.

If UUCICO that missed a remote system acknowledgment that data was received, the local and remote systems were unable to resynchronize. Modified `gmachine()` to acknowledge all data received, even duplicate data (which is then ignored); also lowered the number of active windows used by the "g" protocol from 7 to 3 to avoid sequence errors.

If UUCICO has partially transmitted a job and then failed, the entire job was always retransmitted. Modified modules in `dcpxfer` to delete files as soon as they are transmitted, and **not** report an error if a file was not found when the job was retransmitted. Also modified UUSTAT to continue processing if it was not able to find a spool file because UUCICO had deleted it, and modified `dater()` to recognize a time of -1 as an missing file.

Berserk modems would sometimes cause UUCICO to think the remote host had rejected a file when in fact the connection had been lost and the modem was echoing UUCICO's own outbound data. Modified modules in `dcpxfer.c` to perform addition error checking on remote host responses to insure that responses were, in fact, from a remote host.

**Note:** You're welcome, Dave. Is it true your modem also howls at the moon?

Various error counts were reported as being zero (0) by routines in `dcpgpkt.c` because of parameters improperly passed to `printmsg()`; corrected by modifying format strings when variables being printed were long rather than int. Also merged packet and error count summary message with connection time summary message.

If UUCICO invoked from UUPOLL was unable to initialize the modem, UUPOLL would loop reinvoking UUCICO as fast as it could. Modified UUPOLL to detect UUCICO `panic()` exits and to pause an increasing amount of time

Translated: It sure is not my fault.

after each consecutive `panic()` up to the time of the next active poll. Also modified `panic()` message to cause UUCICO to beep as it aborts processing to remind the user to fix the problem.

The variable `spooldir`, required for logging, was NULL for the program RNEWS because the configuration table in `lib.c` did not include the flag `B_NEWS`. Duly corrected.

Attempts to trap the remote system dropping the connection were incorrectly done by waiting in routine `grpack()`; this slowed outbound throughput. Corrected by moving check for dropped connection to `ggetpkt()`. As a result, also dropped obsolete UUPC.RC configuration variable `SynchronizeTimeout`.

To allow redirection of logging output, changed output stream of `printmsg()` from `stderr` to `stdout`.

Because of problems debugging UUCICO in passive mode, modified UUCICO to display logged messages in passive mode as well as active mode.

UUXQT failed with an out of memory message if it attempted to read an excessively large directory (100+) of files to execute. Relieved storage constraints by allowing UUXQT use a full 64K of data. Also changed standard storage allocation failure message in `checkptr()` to suggest that the program ran out of memory.

RMAIL would incorrectly route mail if a `HOSTPATH` entry existed for a system which was not directly connected. Modified `user_at_node()` and `HostPath()` to detect paths which end with unknown systems and ignore them.

RMAIL did not handle the special user id Postmaster in a manner consistent with RFC-822. Modified `Deliver()` and `DeliverLocal()` to gracefully handle the postmaster as a local global alias.

Dropped call to `HostAlias()` in UUCP module to relieve the requirement that the entire `address.c` file be included.

## Enhancements

Added UNIX like security for remote systems by the addition of a `PERMISSIONS` file as described in the O'Reilly & Associates Nutshell Handbook *Managing UUCP and Usenet*. The file must exist in the configuration directory, and because of MS-DOS naming restrictions, the file must actually be called `PERMISSN`. Also, deleted obsoleted boolean options **receive** and **duplicate**.

Added new option `-t` to `MAIL` command; this causes the "To:" addressee to be reported and used in address searches rather than the "From:" addressee. This was added to aid in cleaning out one's own outgoing mailbox where all the mail is from yourself.

Added support for anonymous UUCP, which is enabled by the new keyword `AnonymousLogin` in the UUPC.RC configuration file. This string must be in the same format as the time field of the `SYSTEMS` file, for example:

```
AnonymousLogin=Any
AnonymousLogin=Night
```

The former example allows 24 hour anonymous login, the latter example allows login 11:00 PM to 8:00 AM daily and login from 11:00 PM Friday evening to 5:00 PM Sunday afternoon. This processing is invoked for any system logging in which is not defined in the `SYSTEMS` file. The system is handled as if it were a system with the name `"*anonymous"`; security for this system is defined normally in the `PERMISSN` file.

Added boolean option `verbose`; the new default, `noverbose`, suppresses routine mail delivery messages when RMAIL is invoked from `MAIL`. RMAIL always displays all messages when invoked from UUXQT.

Added ability to have UUCICO automatically set the system clock from the U.S. NIST standard time service. This is enabled by adding the following line to the `SYSTEMS` file:

```
*nbstme Never HAYES24 1200 1-303-494-4774 *
```

Where "Never" should be changed to the times the system is allowed to make the long distance call to update the clock, and the protocol is specified as `"*"`. The time field (i.e. "Never") is ignored and the call is made if the current time of the local system is determined be earlier than the last time the standard time service was called.

Reorganized source (again) moving major components into own subdirectories. Also broke login script processing out of `dcpsys.c` into new file, `script.c`, moved modem related login processing from `dcplib.c` into `modem.c`, and moved host status updating from `dcp.c` into `dcpstats.c`. Finally, renamed `router.c` to `alias.c`, which better describes its function.

Reorganized distributed archives files, splitting required programs (MAIL, UUCICO, UUXQT, RMAIL) from optional programs and documentation. This was done to cut down the size of the individual files downloaded, and to make the MS-DOS and OS/2 archives symmetrical.

Added various files of general interest to documentation archive. These files, which strictly speaking are **not** part of the documentation, all have the file type ".INF".

## Versions 1.11a through 1.11c Revision Summary

### Bug Fixes

**Note:** Thanks go to Katherine E. Williams, kewms@athena.kew.com, for assisting in the debugging of many of the UUCP related problems in this release and footing the long distance phone bill from athena to her sibling kendra.

Altered `importpath()` (again!) to add the length of the saved local or remote hostname in the converted DOS name. Also reordered the DOS character set used to generate spool directory names.

**Note:** This conversion means that 1.11 generated spool files will not be recognized by previous releases, and vice-versa. Any mail queued for a remote host will cause 1.11 to report "file not found" for the data files.

Also altered `importpath()` to correctly map invalid names for files not destined for the spool directory, including mapping ALL invalid characters (rather than just periods) to underscores, always treating a leading period as invalid, and attempting to find the "best" period to use as the divider between file name and extension. This affected some file transfers with UUCP.

Made global change so host status information is saved in structure external to host information; the status information structure is now only allocated for real hosts, saving 40 bytes per entry in the HOSTPATH file.

Modified `router.c` to dynamically reallocate storage for user alias table, removing upper limit of 250 defined user aliases.

Modified `hostable.c` to dynamically reallocate storage for host table, removing defined limit of 100 known hosts.

Added ability to `ExtractAddress()` to return next address in list, for future use in a 'Replyall' command.

Modified `RetrieveLine()` to return a logical RFC-822 line rather than a physical line; this corrects the inability to process a From line which exceeds one physical line.

Modified various routines to accept standard UNIX tilde (~) syntax for file names, including ~/filename for the current user's home directory, and ~other/filename for a file in the home directory of user id "other". This syntax may now be used on the mail command line with the '-f' option, with ~r command for including files when sending mail, and for file names specified in FORWARD files.

**Note:** The old syntax for a file name in the home directory prefixed by an equal sign (=) is obsolete, as is the syntax for an user's mailbox prefixed by a tilde (~). This latter syntax is replaced by an user's mailbox prefixed by a plus sign (+).

The postmaster defined in the UUPC.RC file must be a local user id; previously, it was implicitly allowed to be a remote user id.

The new boolean option "verbose" is added to the list of valid options; the default, "noverbose", causes routine mail delivery messages issued by rmail to be suppressed when the debug level is less than 2, and rmail is in local delivery mode. Messages for mail delivered from remote systems under the control of UUXQT are unaffected.

The prefix "rmail" is dropped from all messages issued by `rmail.c` and `deliver.c`.

If the debug level is less than 2, messages written to the log files (UUCICO.LOG and RMAIL.LOG) are prefixed by a timestamp rather than the debug level.

If logging is being done to the console (such as in MAIL and UUSTAT), the debug level is automatically suppressed.

The log file UUIO.LOG is renamed to UUCICO.LOG.



`expand_path()` is modified to allow specifying the current and user home directories.

Mail now reports when it is cleaning up the updated mailbox, printing a period (.) for each deleted item, a plus sign (+) for each item saved in the file `~/mbox`, and an asterisk (\*) for each item returned to the original mailbox.

The ability to invoke a MS-DOS or OS/2 subshell is restored by typing an exclamation point (!) with no operands.

`Parse822()` is modified to compare buffers on a case-insensitive basis.

`BuildAddress()` is modified to not strip path information if a "domain" address is actually in the pseudo-domain "UUCP".

All local users are added to the alias table so that the names defined in the `PASSWD` file are used if no alias is defined for them.

Altered `UUCP` and `RMAIL` to use the local user id, when available, in control files for remote transfers. This improves reporting by `UUSTAT`.

`ValidDOSName`, a subroutine in `import.c`, rejected some valid DOS names because it failed to allow for a valid period. It also failed to detect when file extensions were longer than three characters. This affected some file transfers with `UUCP`.

`UUCP` generated a variety of boring debugging output. Changed most output to use `printmsg` at 1 level, and then set the default debug level for the program to 0.

`SIOspeed` in `ulibos2.c` incorrectly printed the user name rather than the port name when reporting it could not set the speed for the port. Because the port name is not available, changed the string to the literal "port".

Hosts performing site hiding should flag which "hidden" host created a message; corrected by adding the node name to the message id.

Mail failed to properly perform lookup on local user ids defined in the `PASSWD` file. Modified `ExplodeAlias` to correctly extract userids to use in alias searching.

Mail failed to properly append the local domain to mail within the domain. Modified `ExplodeAlias` to detect simple `user@node` addresses and add the local domain.

`ExtractAddress` failed to handle quoted addresses properly; rewrote routine to properly omit delimiters but leave literals (including quoted delimiters) alone.

The 1.10a documents failed to note that the automatically written file `LOGFILE` is now written to two files, `RMAIL.LOG` and `UUIO.LOG`. Duty noted here.

The 1.10a sample `SYSTEMS` file is wrong; for all devices, the fourth token must be the modem speed, and thus the phone number is shifted right to be the fifth token on the line. Corrected in the example.

The sample `aliases.txt` file is missing the closing quote on the name for the alias `uupcinfo`. Corrected in the example.

The `nmake` file, for building the DOS programs via Microsoft C, incorrectly lists the release number as 1.09c. Corrected in the makefile.

The `nmake` file builds the files `RMAIL.EXE` and `RNEWS.EXE` when the configuration file expects `RMAIL.COM` and `RNEWS.COM`. Corrected sample `UUPC.RC` to explain when `.EXE` must be used.

The `HOWTOGET.PRN` file incorrectly lists the name of the OS/2 archive as `UUPC10AU.ZIP`; the correct name is `UUPC10A2.ZIP`. Duly corrected.

If the option 'fixedspeed' is not specified in the configuration file for modems which do not return a valid speed upon connecting will cause `UUIO` to crash with divide by zero error. Adding the option to the modem configuration file provides a work around. Fixed both sample file `DIR.MDM` (added `fixedspeed`) and altered `autobaud()` to handle when there is no valid speed provided.

Due to an erroneous change in the main loop for the UIIO state machines, specifying or defaulting to the system name to 'any' causes UIIO to only call the first system with files to be sent, instead of all systems with work. Correct by adding break statements as required in dep.c.

RMAIL generates a Sender: line even when the From: line exists and is correct for the current user. Modified Parse822() to check for the domain name in addition to the local hostname to avoid generating the field in error.

Because the function xscandir() always restarts its search for execute (X.\*) files, any action which causes a file to be skipped could cause UIIO to loop when delivering received mail or news. Replaced xscandir() with a new function, xreaddir(), which reads the entire directory in one pass and returns the contents in a linked list.

Because the function scandir() always restarts its search for call (C.\*) files, any action which causes a file not to be sent could cause UIIO to loop while sending files. Modified scandir() to save its current search status and thus only make one pass through directory.

There is a bug in the DCPSYS state machine in that when the attempt to build up a connection is unsuccessful, UIIO tries to end the connection by sending 'ooo' instead of just resigning. When the login was unsuccessful, the state machine should return 'I' instead of 'Y' to improve performance. Duly corrected.

The file rmail.c has a compile warning at line 254: suspicious pointer conversion in function main. Corrected in the source.

If a wild card domain (\*.domain.name) is specified in the HOSTPATH file, the Reply command incorrectly inserts the wild card domain in the mail header. Corrected by not using routing field for wildcarded names in HostAlias().

Modified DeliverLocal() to beep when delivering validated local mail. Previously, it failed to do so in some cases.

Corrected name of variable handle to stream in numerous source files, because the variables do in fact define streams (pointers to FILE) rather than handles (integers).

The BUGS.PRN file was several months out of date. Duly updated with new, interesting ways to commit electronic hari-kari via .

The volume of documentation related changed function was getting out of hand. Dropped the summary of changes between UUPC 1.05 (interim.arc) and UUPC 1.07g from the distribution, and trimmed this summary of changes to only include since release 1.09a.

Lengthened buffer length in login() so that the login message for hosts with long names does not cause a buffer overrun.

## Enhancements

Broke UIIO.EXE program into two components, UUCICO.EXE (call-in-call-out) and UUXQT.COM (execute). UUPOLL transparently handles these programs for the user, or the user can invoke a newly supplied UIIO.BAT to perform the same function as the old UIIO program.

Mail included in a reply now has a summary line listing the date and sender.

Connection summary information is now recorded by UUCICO in a fixed length file (HOSTATUS) in the spool directory. If the file doesn't exist, it is automatically created.

Added new program, UUSUB, to summarize connection information generated by UUCICO.

Added new program, UUSTAT, print, summarize, and kill jobs queued for delivery by UUCICO. For details on UUSTAT see its manual page, UUSTAT.MAN. This program also supports a refresh job option, but the feature serves no useful purpose and work on the function is incomplete. Many thanks to Dewey Coffman for the prototype and documentation for UUSTAT.

Broke import.c into import.c and arbmth.c to allow use of math routines by new export.c.

Enhanced MAIL to print a short summary of commands and their functions in response to the question mark (?) command; formerly, this command printed the same help file as the **help** command.

November 24, 1991

Revision Summary

Enhanced various functions in deliver.c to report where mail is delivered from when reporting where mail is being delivered to.

Re-wrote makefile for Microsoft C (nmake) to handle both MS-DOS and OS/2; deleted now obsolete nmakeos2 makefile.