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Revision

This is the 0 revision of this document, and applies to UUPC/extended version 1.11v. This was last updated on by .

Introduction

UUPC/extended is a PC based version (and pun of) UUCP (UNIX-to-UNIX copy). UUPC/extended is a program which implements peer-to-peer networking for using the UNIX UUCP protocols. MS-DOS or OS/2 based Personal Computers using these protocols can exchange mail and files with a UNIX system or other UUPC/extended system over dial up or dedicated phone lines.

This file summarizes most changes made to UUPC/extended since release 1.07a. Please contact Drew Derbyshire, help@kew.com, for information on changes previous to the scope of this document or other questions.

Version 1.11u through 1.11v Revision Summary

Bug Fixes

Modified `ImportNewsGroup()` import articles by number rather than name.

Corrected internal copyright statement displayed at program startup. Also changed protected mode program start up message to report protected mode rather than include Big Blue's registered trademark.

Modified RMAIL to better hide sites which put their full domain address on their UUCP From line.

Modified RMAIL to use the domain name and not the UUCP name for requestor name when generating requests to remote systems.

Corrected standard **FOPEN** processing to use correct sharing flags. Previously, it allowed multiple writes to the same file.

Corrected default choice of the **LocalDomain** variable to use at least two levels in the domain, that is if the system domain name is "kew.com", don't use "com" for the **LocalDomain**.

Changed protected mode linkage editor from LINK386 to LINK, as some people reported problems running on older versions of OS/2, and DOS systems don't have a LINK386.

Enhancements

Modified option **multitask** to also enable locking of systems for **UUCICO** and **UUXQT**, preventing multiple calls to the same system at once, and to log into temporary files, merging these files into the master logs at the end of program execution.

Mike McLagan <mmclagan@invlogic.com> contributed call grading support for UUCICO via Systems file and calling grading option (-g). See *Managing UUCP and Usenet* for use of call grading. The changes made by the Wonderworks have not (alas) been fully tested. Also added option **symmetricgrades** to request grade specified on command line be transmitted to remote system when actively polling, an option which is not in *Managing UUCP and Usenet*.

Changed **UUCICO** to accept a time to run (-d hhmm) rather than the older poll interval (-u) option. This allowed shortening the code required to compute the time to answer the telephone and made it more reliable.

Modified **EXPIRE** to report number of files and bytes purged.

Modified **MAIL** alias command to report routing of addresses fed it.

Translated OS/2 error number for sharing violation to English "Port in use message" in OS/2 communications library.

Added **noundelete** option to disable OS/2 highly inefficient undelete processing for programs running under UUPOLL.

Internal/Source Changes

Made various long constants in the LIB.H file explicitly declared as longs.

Started porting to the Borland C++ EasyWin environment. I didn't get very far, but the MAKEFILE sports multiple object directories and other related things now.

Version 1.11t Revision Summary

Bug Fixes

Added new global option **multitask**. This option enables the following:

When MAIL is invoked to read the system mailbox for a user, the mail is automatically merged into a private mailbox for the user in the user's home directory. This reduces the possibility of updates to the system mailbox while the user is reading mail.

UUCICO updates the status file used by UUSTAT whenever the status of a call is updated.

Changed standard file open function FOPEN() to use shared open under both DOS and OS/2.

All read only files (such as the systems file) can be read by multiple programs this way.

Modified `expand_path()` to support expanding relative paths on non-default drives via standard library calls.

Modified mailbox routines to truncate mailbox names to eight characters to prevent file open errors under OS/2.

Corrected bug in OS/2 directory search routines to not double append slashes to directory names.

Modified `printmsg()` to use standard output if logfile stream is closed for an unexpected reason.

Corrected bug in **ValidateCommand** to correctly validate when a user is allowed access to all commands on a host.

Modified `ddelay()` to force enabling interrupts under DOS; this is a work around for a bug not in UUPC/extended, but rather in the DOS **mirror** command which sometimes appears to not enable interrupts after saving the location of a deleted file.

Added traps in MAIL for overlength addresses, which formerly caused UUXQT and/or RMAIL to fail in unexpected ways.

Modified alias functions to build local aliases via the local **FromDomain** name used in return addresses, not the local real domain address.

Corrected "Purging news message" to correctly report RNEWS was purging news, not archiving it.

Added trap to `checktime()` to check overlength time fields in the Systems file.

Dropped attempts by 'g' protocol module in UUCICO to close and reopen port if no activity occurs on port for specified time. (This action had caused COMMFIFO to drop carrier.)

Corrected UUCICO login prompt to display the OS/2 version number as "2.0" and not "20.0".

Modified `rmsg()` to not zap the 59th byte of a 50 byte buffer; this caused logins to fail under OS/2 with 1.11s. Instead, the actual buffer length is now passed in to the program.

Corrected UUCICO transfer engine to use internal temporary file name generation rather than standard library routine, which sometimes generated files in the root directory.

Enhancements

Added support DOS. and OS2. prefixes to options in the configuration files. Thus, editors and other options can be set differently for DOS and OS/2 environments on same system.

Added ability to define obsolete keywords in the UUPC.RC file, which keeps the configuration routines from complaining when testing new releases. Obsolete keywords are reported as obsolete at debug level 2 and higher.

Added additional status flags to hostable and associated status messages for UUSUB and UUSTAT. The full list of possible status reported by UUSTAT are now:

- (invalid - entry not properly initialized)
- (local host system)
- (host for gateway purposes only)
- Never called
- Dialing now
- Invalid device or speed in SYSTEMS file
- Device not available
- Conversation start-up failed
- Talking
- Callback required
- Modem initialization script failed
- Dial failed
- Script failed
- Max retry reached
- Retry time not reached
- Call succeeded
- Wrong machine name
- Unknown host
- Failed
- Wrong time to call
- (call succeeded, entry not reset)

Modified UUCICO to not prompt for confirmation of shutdown if it is not doing anything. (I.e., it is waiting for phone to ring.)

Added global option **collect**, which causes RMAIL to report size of mail items delivered.

Altered RNEWS default archive period of seven days to zero days. News is thus completely purged after seven days.

Added new variable to configuration files, **Uncompress**, to define program to run to decompress news. Normal usage would be:

```
Uncompress=compress -d %s
```

Which runs a standard compress program in uncompress mode against the file name specified.

Note: Compress is not included with UUPC/extended.

Corrected name of file that compressed news reports to have been copied to in RNEWS.

Added kludge to RNEWS to allow copying of ALL compressed news received to a second system. By setting the DOS or OS/2 environment variable **UUPCSHADOWS** to a list of locally known systems, the compressed input to RNEWS is queued for the second system as well.

Note: This "feature" will be removed in the next real release of UUPC/extended when real news support is added.

Modified GENSIG to maintain a list of recently used quotes and not repeat them until 90% of the available quotes have been used.

Added new alternative log file name flag (**-l logname**) to change name of log file used by UUCICO. Simple file names are written in the UUPC spool directory, and files with path names are written as specified.

Note: The special name NUL will suppress logging to a file. Because the spool directory contains sub-directories for each remote system, the alternative log file name **MUST NOT** be simply the name of a remote system.

Added new alternative input device flag (**-m modemname**) to override name of modem file used by UUCICO to initialize passive polling.

Also added alternative input device flag (**-m modemname**) and alternative log file name flag (**-l logname**) to UUPOLL. These flags are passed to UUCICO as-is.

Added support for automatic invocation of UUCLEAN by UUPOLL to purge news and spool log files. Automatic clean time (**-c hhmm**) specifies the time for UUCLEAN to run daily; the default is do not run UUCLEAN. The automatic flag command name flag (**-C command**) specifies the command to run daily; the default is UUCLEAN. Note that the command is run once every 24 hours.

Moved debugging trace for login and initial messages from various modules to rmsg() and wmsg(). Specific errors are still reported in various modules.

Modified rmsg() to support backspace and delete characters when entering user id and password during login.

Internal/Source Changes

Built DOS executables with Borland C++ 3.0, including the latest version of MAKE. Because of features exploited in the run-time library and MAKE, this version may not build with previous versions of Borland C++ or Turbo C++.

Began port of code to 32 bit C (GNU) compiler; this is reflected in the source files and

nmake.gcc but not in the compiled code. (The project was suspended pending release of a commercial compiler with documentation on the OS/2 32 bit interface.) Changes included changes to getopt() header, deletion of FILEMODE() macro, and other changes which did not alter functionality.

Started adding RCS identifiers to the source. Stalled by the switch to the OS/2 development environment.

Corrected source to fully bracket declares of tables of structures.

Split ValidateCommand() from security.c into its own source file to reduce UUCICO memory usage.

Changed UUCICO from small model to medium model to avoid 64 KB code limitation. This may cause a performance decrease on slower systems.

Wrapped numerous boring messages displayed only at high debugging levels in compile conditional **-DEBUG**. Omitting these messages makes for slightly smaller .EXE files.

Added support to allow console as alternative to serial port for debugging purposes with OS/2.

Broke up monolithic Borland C++ makefile into main makefile and sub-makefiles for each source directory. Also altered Borland C++ makefile to place all object files in same directory, rather than putting object files in same directory as source files.

Version 1.11s Revision Summary

Bug Fixes

Previously, the MS C version of UUCICO would not reset stolen interrupts if canceled. Rewrote Ctrl-Break handler in UUCICO to be compatible with both Borland C and MS C; the handler will now prompt before aborting, and will also attempt to gracefully close any active connection. In addition, added new boolean option **escape**, which enables the ESC key as abort key during processing. Added same Ctrl-Break handler to RMAIL, and a modified version (without the prompt) to UUPOLL.

Altered definition of a successful call by UUCICO to a call which processes all the way through a graceful shutdown of UUCICO. This means a call which is interrupted during file transfer will be retried if the host appears more than once in the SYSTEMS file. Also deleted didcall() and calledhost() subroutines, which were made redundant by the status flags used for the HOSTSTATUS file.

Modified 'g' protocol module to dynamically allocate buffers on demand rather than using fixed buffers. This reduces memory requirements when less than seven buffers are used.

Added line pacing to ulib.c to prevent buffer overruns by the UUCP 'f' protocol. The 'f' protocol now works ... sometimes.

Corrected various connection abort routines in dcpxfer.c to reset the **xfer_stream** variable after closing the file being transferred.

Deleted parse of user name on incoming UUCICO command line sent from other systems. Excessive name lengths caused unpredictable storage overlays in dcpxfer.c.

Deleted redundant debugging messages from dcpxfer.c.

Moved default setting of speed for hot logins to UUCICO (using the **-w** and **-z** options). Formerly, the modem speed could be set to zero, causing a divide exception in the communications package.

Corrected GetGPacketSize() to only return valid package sizes (which are all powers of 2).

Clarified various error messages in UUCP. Also reformatted source of uucp.c to personal taste.

Added detection of invalid or duplicate system names on the UUSTAT command line.

Modified UUSTAT to always generate job 000 as the dummy job for the poll (**-P**) option.

Corrected various error messages in UUX to give the user some idea of why the program died.

Modified dcpsys.c to generate a dynamic list of available protocols rather than using a fixed list which was prone to fall out of date as protocols were added.

Altered timeout processing for scripts to not reset the timeout period when a character is received. Formerly, the time out was always reset after each character received, resulting the modem not timing out until after the modem had been silent for the timeout period (usually after it had already hung up and reported so.)

Restructured definitions of program flags in lib.h to avoid multiple programs using the same flags when calling configuration file processing.

Clarified the error message issued by ExportPath() after a name conversion failure.

Deleted original support for site-hiding via the HOSTPATH file. Sites wishing to hide behind another host *must* use the **Domain** and **FromDomain** keywords in the UUPC.RC file.

Altered UUXQT to delete command files after a **-1** (spawn failed) return code.

Modified conversion of UNIX to DOS names as follows:

Broke out the conversion of a simple name to DOS into a new routine ImportName()
Modified ImportPath() to convert the entire path passed to a valid DOS path, rather than just the trailing name and extension.

Also corrected mapping of a UNIX name with multiple periods.

Rather than mapping all invalid characters in name with a path to the underscore (_), invalid characters are now mapped to a semi-unique character in the valid character.

Note: Because valid characters in names with paths are not remapped, collisions can occur.

Fixed bug in ValidDOSName() to use default character set if none was provided.

Corrected ValidDOSName() to not reject valid DOS names with lengths greater than 72.

Barry Schwartz <trashman@crud.hawkmoon.mn.org> rewrote the MS C version of getdta() function as in-line assembler; it now properly loads the ES segment register. Failure to do so previously caused various improper behavior.

Disabled stack checking in most of the programs to reduce program size and improve speed. Stack checking is explicitly enabled for printmsg() under both MS C and Borland C++, so this central routine should catch any serious problems. We hope.

Corrected banner routine to report time stamp of program when output is to the console, as opposed to the previous test for the input being from the console. This means that RMAIL's banner will now display when run from MAIL.

Added Mitch Mitchell's quicky UUNAME program to make it look like we've been busy.

Deleted UUPC.RC configuration variables **rmail** and **rnews**. These programs are now located via the path.

Note: The current directory is changed during the execution of UUXQT, so placing these programs in the current directory is not sufficient.

Modified address_at_node() parser to process explicit RFC-822 paths in a more robust fashion.

Modified RMAIL to use more unique characters when creating spooling file names for other hosts.

Altered MAIL command line parser to reject such syntax as a subject with no addressee.

Corrected prompt in MAIL sub-shells to only show the message "Enter EXIT to return to MAIL" once.

The documented but disabled process and delete file option (**-F**) in RMAIL was re-enabled. Also added check to UUXQT to insure a remote system does not use this option to delete COMMAND.COM.

Enhancements

Numerous changes were made to the COMMFIFO.ASM routines by William W. Plummer (Plummer@wang.com); as a result, the program now provides a superset of the previous COMM.ASM functions for both FIFO and non-FIFO UARTS, and is part of the default UUCICO.EXE.

Note: For a detailed list of changes to COMMFIFO.ASM, see the top of the source file.

Note: Because the changes to COMMFIFO moved various buffers out of the C data area, larger **TransferBuffer** sizes are now possible.

Modified [dcpgpkt.c](#) to report at debug level 2 and higher the amount of available storage after data packet storage has been allocated.

Added support to UUXQT to detect and process internal MS-DOS commands. As part of this support, added new variable **InternalCommands** to define what commands are internal to the MS-DOS. The default list of internal commands includes:

break	cd	chdir	copy
ctty	date	del	dir
echo	erase	for	md
mkdir	rd	rem	ren
rename	rmdir	time	ver
verify	vol		

In the better late than never department, added display of a copyright notice to configuration file processing. Also added new boolean option **suppresscopyright** to turn off the message (but not the responsibility).

Enhanced 'g' protocol processing to support long (512 bytes) and short packets (32 bytes). Also modified 'g' protocol module to dynamically allocate buffers on demand rather than using fixed buffers.

Note: This support is not exploited unless either the protocol in the systems file is specified as upper-case G, or if the new boolean option **variablepacket** is enabled in the modem configuration file.

Note: The standard 'g' protocol should be used for Telebit TrailBlazers and the like in PEP mode, for most unmodified UNIX systems.

Altered script processing to not print expected strings at debug level one unless an error occurs.

Modified [ulib.c](#) to display modem status in English (or at least words) in addition to hexadecimal.

Added support to UUPOLL to exit at a specific time via the new **-e hmmm** option.

Modified UUSUB to allow clearing stats for one or more systems without losing call status or host data. Change contributed (I hope) by Mitch Mitchell.

Modified `dcpsys.c` to disallow large debug levels with anonymous UUCP.

Added new modem boolean option **carrierdetect** to enable checking of the modem Dataset Ready (DSR) and Data Carrier Detect (DCD) lines. With **carrierdetect** enabled, if DSR is lost at any time, or DCD is lost after the modem reports connected to the remote host, then the connection is immediately aborted to the remote host.

Added new modem variable **NoConnect**, which defines various strings which denote the modem has failed to connect; when any of these strings are received during login script processing. A typical example for a Hayes modem would be:

NoConnect="NO DIALTONE" "BUSY" "NO CARRIER" "NO ANSWER"

Modified configuration file processing to accept selected variables from the DOS environment. All such variables will be overridden by the same variables in the configuration file. These DOS variables, and the UUPC/extended variables they set, are:

DOS variable	UUPC/extended variable
EDITOR	EDITOR
MAILBOX	MAILBOX
NAME	NAME
TEMP	TEMPDIR
TMP	TEMPDIR

Modified host table processing to support rerouting the local host to a gateway.

Moved port and packet related variables from the main configuration file to the modem configuration files, and in addition defined unique "f" protocol time out variables. The new modem variables include:

fpacketsize
fpackettimeout
gpacketsize
gpackettimeout
gwindowsize
porttimeout
transferbuffer

Added a magic word display to the MAIL status command as suggested by KEW.

Added mailbox name to summary of header lines in MAIL.

The display of aliases by the **alias** command now shows the routing for the address.

Added new RNEWS program contributed by Mike Lipsie, and wrote a new news EXPIRE program based on Mike's EXPIRE program.

Note: Additional programs, including RN and POSTNEWS, are planned for the next release of UUPC/extended.

Modified UUSTAT to generate dummy jobs for all valid systems if requested via **-Pall**.

Internal/Source Changes

Moved UNIX compatible programs UUCP, UUNAME, UUSTAT, UUSUB, UUX, and UUXQT into new source directory UUCP.

Changed source to use a standard define (**MAXLIST**) for the maximum size of lists parsed by the configuration file.

Modified NextHost() to not require the minimum host status to process, since it is always used for real directly connected hosts.

Moved security.c from UUCICO directory to LIB directory and added to common UUPC library.

Deleted obsolete header files readdir.h and defchr.h.

Deleted lookaside buffer in address_at_node() to simplify code and save space.

Added "safe" optimizer options to the nmake file for MS C. This in turn required minor changes to mail.c to suppress various new and interesting warning messages.

Added ability to COMM.ASM to change communications port speed without closing port via new function `ioctl_com()`. Cloned from same function in COMMFIFO.ASM by Bill Plummer.

Deleted **logecho** variable from `printmsg()` processing. All messages are now always issued to the DOS console.

Version 1.11r Revision Summary

Bug Fixes

The various configuration file variables which controlled error processing and other tuning parameters were global to the system rather than to a single device or system. Corrected by moving the following variables from the master configuration table to the modem configuration table:

MaximumErrors
PacketTimeout
PortTimeOut
TransferBuffer

With the security provided by the PERMISSIONS file and the function provided by new UUXQT program provided by Mitch Mitchell and the associated **PATH=** variable, there is no need to specify the names of the RMAIL and RNEWS programs; these can be located via the default or explicit PATH.

Blank lines (as opposed to empty lines) were flagged as errors in the **UUPC.RC** and **PERSONAL.RC** files. Corrected parsing of configuration files to delete leading blanks from all lines.

Several people pointed out the need to support the "-" option to have UUX read files from stdin. `getopt()` could not process a minus sign (-) as a stand-alone flag; modified to do so by Mitch Mitchell for UUX.

If the local host supported both unvalidated and validated logins, a host with a validated user id could also be logged on a host for access was not validated. This provided a security exposure for systems which publicized anonymous login access. Corrected by not allowing hosts which appear in a **VALIDATE=** clause in the **PERMISSN** file to login on unvalidated users id..

MAIL still had hard-coded `assert()` statements which failed the program without explaining the error in question. Modified MAIL to use `printerr()` and `panic()` rather than `assert()`. Also modified `printerr()` to print the location of the failure if debugging is enabled and to print the extended MS-DOS error information when using Borland C++ under DOS.

Bill Plummer's (plummer@wang.com) enhanced communication driver (COMMFIFO.ASM)

had various problems due to minor bugs. Corrected by Bill.

The routine `ssleep()` didn't work properly in some intermediate levels of 1.11r; corrected by doing `ddelay()` for maximum allowable time.

If an explicit RFC-822 route of was imbedded in an UUCP style address, such as:

```
node1!node2!@node.domain:user
```

then the address parser was confused. Corrected `User_at_node()` to examine UUCP addresses for such constructs, although due to problems with the order of the host names the resulting address may or may not be correct.

David Friedlander (`df@iochom.UUCP`) provided changes to **UUX** to enable forwarding; two fixed obvious bugs and are implemented.

Andrew Lindh (`lindh@uhasun.hartford.edu`) discovered the bug in **UUX** that corrupted up binary files read from stdin. A call to `fgets()` should have been a call to `fread()`, and a call to `fputs()` should have been a call to `fwrite()`; both are fixed now.

Tubby Turtle (`tubby@harlie.lonestar.org`) fixed a bug in **UUXQT** that caused problems with redirecting output of commands executed locally. A subtle difference in meaning was attributed to flag `xflag[X_OUTPUT]` when it was read than was intended when it was set.

Mitch Mitchell (`mitch@harlie.lonestar.org`) supervised and applied all the fixes to **UUXQT** and **UUX**, and has been busy trying to avoid being called "Tubby Mitch".¹

UUPOLL always had the auto-forward (**-a**) option enabled by default. Corrected initialization of variable to **FALSE**.

Changed various `assert()` statements in **UUPOLL** to `panic()` statements to provide better diagnostics.

When UUCP connections failed for various reasons, various status programs still listed the last call as successful. Modified **UUSUB** and **UUSTAT** to report a new status, "FAILED", when a call failed after connecting to the remote system.

If an excessively long user name was included in the command line in a call (C.*) file, the file transfer would fail because of storage overlays. Modified both in-bound and out-bound command parsing in `dcpxfer.c` to ignore the user id.

Purged this revision summary for changes previous to release 1.11g.

¹Broadcasting a name a person doesn't want to called is counter-productive. We document all the wrong things around here!

Enhancements

Directories listed in the access lists for hosts in the **PERMISSN** file are now verified to exist.

Note: Some people may not view this as a feature.

Added percent of mailbox read message to the status update displayed while reading the user mailbox in **MAIL**.

Added support to **UUCICO** for long packets of up to 1024 bytes, including changing various communications buffers to be dynamically allocated for required lengths, lengthened outbound buffers in **COMM.ASM** and **COMMFIFO.ASM** to 4096 bytes. Also added support for new modem file keywords **GWindowSize** and **GPacketSize**.

Note: For compatibility with previous releases and UUCP programs which do not correctly long packets, the default packet size is the "standard" UUCP packet size of 64 unless short packets are enabled via the **SmartPacket** option (changed to **VariablePacket** in version 1.11t).

Also added support for packets shorter than the negotiated maximum for faster processing of short data streams. This support is enabled by the new modem file boolean option **SmartPacket** (changed to **VariablePacket** in version 1.11t).

Note: Not all UNIX systems support packets shorter than the negotiated maximum; DECUS UUCP and FSUUCP do.

Internal/Source Changes

The environment variables list in the master configuration table in [configur.c](#) and used through the package were not consistently named. Renamed all global variables in the master configuration table to have a prefix of **E_** to identify. Fix was suggested by Mike Lipsie.

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 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 id.. The default is mixed case; monospace job sequence id. are generated via th 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 (**nodirect**), 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 UUPC/extended.

Note: Before changing the mapping character set, the UUPC/extended 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 PATH; 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/extended UUPC.RC included with the documents specifies the string **SPB**¹ 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.

¹SPB 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!

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.

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 UUPC/extended 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 be exist 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 UUPC/extended, 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 *

Earlier revisions

Major revisions to date include:

UUPC/extended 1.07a, which added binary separators between items of mail in a mail box, and was released October 1989. Various revisions of release 1.07 added routing mail to multiple hosts, the reply command, user aliases, the ability to include mail in replies, and dial in support for remote multiple systems.

UUPC/extended 1.08a, which changed the internally generated names of files waiting to be transmitted to other systems. This was done to avoid file name collisions with incoming files from UNIX systems, and was released September 1990.

UUPC/extended 1.09a, which again changed the internally generated names of files waiting to be transmitted to other systems to correct an error in UUPC/extended 1.08a, and was released October 1990. Various revisions of 1.09 also added validation of local addresses, a more powerful command parser for reading mail, forwarding mail to multiple addresses, optional delivery of mail to separate directories, and improved performance under Windows 3.0 enhanced mode.

UUPC/extended 1.10a, which added the ability to configure for and use any modem; this changed the format of the SYSTEM configuration file. This version was released in April of 1991, and also added a UUCP command, support for routing mail based on wildcard domains, mail gateway support, and bi-directional file transfer support.

UUPC/extended 1.11a again changed the internally generated names of files waiting to be transmitted to other systems, and was released June of 1991. Revisions of 1.11 also added the UUSTAT and UUSUB commands, security, ability to automatically set the system clock.anonymous UUCP, optional mailbox extensions, automatic mailbox backup, and mailbox update integrity checks.