

Comet Version 3.0.7 Release Notes:
Known Bugs and Restrictions:

NOTE: Users of previous versions of Comet through 2.1.6 need to drag-and-drop the "Comet keyboard-No diacritics" keyboard layout into their System, since this resource has changed. MicroSoft Excel 4.0 may cause crashes when this resource is NOT installed and Comet is run along with Excel.

Menu-key equivalents are superseded by macro keys, but the menus are not corrected.

The Print command, which uses QuickDraw printing, does not space characters correctly when the Comet-fonts are used to print foreign language characters, and will not use the Comet-fonts with Background Printing unless they are installed in the System.

Some Macintosh configurations (such as those using an E-Machines display board) may "hang" soon after Comet opens its first session windows if fast drawing mode is enabled. This occurs due to incompatibility between the display adapter and the fast drawing mode. To fix this problem, you can reconfigure your Comet Default document by launching Comet, cancelling the initial Configure Session dialog, turning off "Enable fast drawing" in the Control Global... dialog, and pressing the Save button and then the OK button.

If you try download a file to a locked disk, after the file transfer fails you will not be able to access that particular file again until you quit and restart Comet; you will not be able to completely dismount the disk because the file will be "busy", although you can eject the disk, unlock it, and access other files.

Nota Bene: The MacTCP driver interface can have asynchronous sends enabled; in this mode, Macs using MacTCP up to 1.0.2 on LocalTalk will be prone to crash (with the cursor frozen and the whole machine hung). You can configure this option in the Global Configuration dialog. MacTCP 1.1.1 works properly when asynchronous sends are enabled.

Those using Ethernet should enable asynchronous sends, because there is a major drawback to using synchronous sends: until the host acknowledges that it has received the data you have sent, the Mac will seem to "hang." Although the mouse cursor will move, the Mac will not respond to mouse button-downs or keystrokes until the acknowledgment is received; in the event of a communications problem with the host, this can leave you hanging for minutes! If this occurs, you should NOT reboot your Mac, but should wait for the send to either complete or abort.

(In general, it is desirable to have asynchronous MacTCP sends enabled, and to have the fast-drawing option enabled if your monitor runs in Black and White rather than Color or Greyscale mode, which is configured using the Monitors Control Panel device; due to the possibility of encountering the rather lethal problems discussed above, these options are disabled in the default configuration. When using the Configure Global dialog, "OK" the new configuration without pressing the "Save" button when you first try these options; you can "Save" the configuration later after verifying that it works correctly.)

Asante board/driver notes:

Many versions of the Asante drivers have been unreliable when used with MacTCP, resulting in seemingly-random crashes. These often occur due to conflicts with MacTCP, which cause MacTCP to call a debugger trap (which crashes your machine if you have no debugger installed!) If you are using an Asante Ethernet device, you should install the Apple Networking software using the Installer on your System disks.

MacTCP notes:

Several versions of MacTCP are available; unfortunately, none of them works properly on all machines (except perhaps 2.0.4, we shall see...). Herewith are the advantages and drawbacks of each:

2.0.4: Finally a version of MacTCP which seems to have most of its problems fixed. The packet retransmit timeout behavior has improved, but Comet still lowers the Resend Time Out by default, since the 1-second floor seems quite high for an interactive Telnet session.

2.0.2: Apple has worked some on the problem with resending lost packets too slowly, however it is not fixed.

1.1.1: Apple strongly advises that 1.1.1 be used with System 7.1; however, 1.1 seems to work OK as long as Virtual Memory is off. This version fixes several bugs in previous versions: e.g., it displays the LocalTalk icon properly in the Control Panel, does not crash on the Mac+, and apparently handles asynchronous sends correctly. Unfortunately, it waits from 3 to 15 seconds to resend a lost packet, which can make it unusable with ASCII hosts on networks with high rates of packet loss.

Comet 2.1.6B1 tries to fix MacTCP's resend behavior. You can disable this behavior by using the macro "!tD". You can display MacTCP's resend timers by using the macro "!CD"; you might want to take a look at this if you've been having trouble with SLIP.

1.1: Required for System 7 up to 7.1. This version crashes on the Mac+. The LocalTalk icon does not always appear in the MacTCP control panel when LocalTalk is the selected Network device.

1.0.2: A special version of MacTCP 1.0.1 released to improve the performance of MacX. This version is known to cause crashes on some machines.

1.0.1: The first functional release version of MacTCP. Asynchronous sends under LocalTalk are definitely hazardous with this release, resulting in machines hanging with the cursor frozen. 1.0.1 works under System 7, but only if Virtual Memory is off and a copy or alias is placed in the System Folder so that Domain Name Resolution will work properly. Using 1.0.1 with System 7 is not recommended.

System 7.0 notes:

The Macintosh Toolbox routine which Comet uses to draw color text perform very slowly with non-white backgrounds under System 7.0. In addition, producing the keys Option-E, -I, -N, and -U will require additional keystrokes unless you install the "Comet Keyboard-No Diacritics" Keyboard Resource provided with Comet by dragging it into the System Folder, since Apple has modified its key-mapping calls to ignore this resource unless it is installed in the System.

System 7.1 notes:

Color performance has been fixed in System 7.1; however, the release version of 7.1 has a bug in the Index2Color() call which causes versions of Comet prior to 2.1.6 to draw colors incorrectly.

Fixes in 3.0.7:

- * More tuning has been done on GetNextEvent/WaitNextEvent to improve performance.
- * A bug which caused hangs when quitting Comet with multiple windows open is now fixed.
- * Mapped the "Record Session" Edit menu item to Command-`.
- * Added code to move the scrollbar to the bottom of the window automatically when a session is closed.

Fixes in 3.0.6:

- * Cursor tracking performance is improved

over 3.0 when background applications such as DA's hog CPU cycles--Comet now uses GetNextEvent when keys are pressed or the mouse is moved and an emulator window is the topmost window.

- * The F1-F15 keys on the Extended keyboard now send the VT220 keys F6-F20.
- * The Control Global... dialog item "File transfer--always do dialog to rename files" is now saved when the Save button is pressed.
- * The original Mac keyboard & keypad work correctly again.

Enhancements in 3.0:

- * SCROLLBARS in the emulator window for more conventional scrollbar buffering! Find and Print functions are supported. (D1)
- * Command-' now controls scrollbar buffering rather than .edit recording.
- * Macro recording start/stop functions are available in the Control menu. This allows one to make scripts in "watch-me" mode. (D1)
- * Pressing the Enter key in the .edit window causes the current line or selection range to be interpreted and executed as a macro command. (D1)
- * Files transferred with the extension ".rename" will trigger a dialog so that the user may rename the file before the transfer takes place. (D1)
- * You can drag the .edit window along with the emulator window by holding down the Option key as you drag it. (D1)
- * A "Miniaturize" command has been added to the Window menu so you can shrink windows with a Command-0 (zero). (D2)
- * Dialog items have been added to the ASCII Control Emulator dialog to set XON/XOFF and KILL characters. (D2)
- * Dialog items have been added to the ASCII Control Emulator dialog to control Paste pacing. (D2)
- * A dialog item has been added to the Control Session dialog to set the maximum size of the scrollbar buffer. (D2)
- * The .edit window automatically loads the sessionname.edit file when a Comet document is opened. (D2)
- * Command-delete now closes a document. (D2)
- * Whups! Command-\ now closes a document since Command-delete conflicted with the IBM Delete key keymapping. (D4)
- * Macro commands have been added to allow you to bring windows to the front by number or by name (!w\000 & !WS). (D3)
- * A "File transfer--always do dialog to rename files" option has been added to the Control Global dialog, so that users can now be presented with a Standard File dialog when performing an upload or download. (D4)

Fixes in 3.0:

- * Comet now sets MacTCP so that timeouts on sends WILL abort sessions after 255 seconds. (D4)
- * Comet now sets MacTCP so that timeouts on sends no longer abort sessions. (D1)
- * "Select All" now works correctly with emulator windows with more than 24 rows. (D1)
- * The macro dialogs now allow macros of up to 10K in size, rather than only 255 characters. (D1)
- * ASCII pasting is faster. (D1)
- * Selections can be made when cursor tracking is turned off using "!Ct". (D1)
- * The "Type address at cursor" command in the Network menu is now "Input address at cursor", and is associated with Command-I. A "!ta" macro command can perform the same function. (Provided with regards to the Bonze's alma mater, UT Austin!). (D1)
- * Fixed D1 scrollbar copy bug where incorrect data was copied. (D2)
- * A cursor glitch occurring when changing windows when scrolling should be fixed. (D2)
- * 3270 download buffers are allocated at session creation to avoid out-of-memory failures. (D2)
- * When a window closes, the user is asked to save the .edit window if it has been modified. (D2)
- * The "Save..." command defaults to the document's startup folder. (D2)
- * The .edit window is no longer resized when a document is first opened, so you can maintain a configuration where auto-wrap will work well automatically. (D3)
- * The Notification Manager is used to alert the user when Comet needs to be brought to the foreground. (D3)
- * A bug which caused incorrect data to be copied when the scrollbar buffer was copied is fixed. (D3)
- * Inserting an unformatted disk now brings up the "Format disk" dialog rather than causing Comet to crash. (D3)
- * The Send Telnet Interrupt Process macro (!tC) now sends a Telnet Interrupt Process.
- * Comet now uses WaitNextEvent under System 7 to allow background applications to run faster. (D4)
- * Comet tests to see if the default print record is correct when a download print.nodialog is performed, and performs the print dialog if it is not valid. This occurs because some Apple printer drivers fail to properly initialize the default print record. (D4)
- * WaitNextEvent calls have been modified for better cursor tracking performance. (B1)
- * The "Scrollbar buffer" menu item check-mark is now set correctly when it's configured on.
- * A null-pointer reference which caused Comet

- to crash when used with Mandarin Sleep events or the "!FF" macro has been fixed. (B3)
- * When you use "Save Configuration..." to create a duplicate session with a different name, you no longer get the error messages "Can't save CONF 1 resource" and "Can't save document resource." (B3)
 - * Comet session names are limited to 26 characters so that the ".edit" text will always get loaded properly (since the Finder limits filenames to 31 characters). (B3)
 - * Clicking with the mouse now sets the beginning point for shift-click selections at that point. Double-clicks are now tested so that single clicks are clearly differentiated. (B3)
 - * When quitting Comet, open sessions with the scrollbar buffer scrolled back now automatically go to the end of the buffer so Comet doesn't hang waiting for the user to do so. (B3)
 - * The VX split keyboard now works correctly so IBM function keys on the keypad are recognized. (B3)
 - * Word selection extension holding the mouse down works as one would expect in the emulator window (B3).
 - * The emulator window no longer scrolls to the end automatically if you press a key associated with a key macro. (B3)

Fixes to 2.1.7 in 2.1.7.1:

- * When a Comet session autoclosed after a !FF macro was executed, another session left open would not be set correctly as the front window if it was selected by launching its document, (configured for "Open session only once"), so that (e.g.) key macros would not be recognized and doing a "Set Key macro..." command would result in a dialog stating (incorrectly) that you need to save the new document before creating key macros. Now it is set correctly so that Comet recognizes that the front window is active.

Fixes to 2.1.6 in 2.1.7:

- * 2.1.6 was compiled incorrectly; 2.1.7 is otherwise identical to 2.1.6B4/2.1.6.
- * The !FF and !Ff macros were added to support the library kiosks. See Info on Key Macros.
- * download.print.nodialog now performs a Print Job Dialog when the Print Manager fails to initialize the Print Job record correctly. This problem would have been seen before when .nodialog printing failed to work properly without performing the Print Job Dialog first.

Fixes to 2.1.5 in 2.1.6:

- * The Comet fonts have been converted to NFNTs and are now accessed by name to avoid conflict with other fonts. You need to install the latest Comet-fonts in your System Folder to

- guarantee that fonts will display correctly.
- * A bug in the macro !Z match command was fixed so that matches are made correctly when the first character in the match string is repeated. (e.g., "!Z\255sion" would fail to match "ssion").
 - * Comet Telnet sessions switch into Newline mode when a Telnet WONT ECHO is received from the host.
 - * Changing the size of the ASCII terminal window no longer results in triggering the login macro.
 - * Emulators are no longer limited to 32 rows.
 - * The Serial Baud rate menu now places check marks beside the 300 and 1200 when they are selected.
 - * Color is bug-compatible with System 7.1. (i.e., Comet now avoids the broken Index2Color() call; earlier versions of Comet may produce displays that have garbled color mapping).
 - * A bug in the vt100 emulator which caused display glitches with VMS EDIT /TPU was fixed (line feeds received outside scrolling regions no longer cause scrolling).
 - * Comet's vt100 emulator no longer interprets an ESC-ESC sequence as a command to initiate an ft3270 download; this conflicted with the output generated (sometimes) by VMS DCL.
 - * Comet's vt100 emulator now defaults to the correct configuration for the cursor keys.
 - * Comet sends vt100 identification strings in one packet to make sure VMS/Multinet does not leap to process a partial ID string and report that an "incomplete escape sequence" has been received.
 - * Comet Telnet sessions connecting to VMS Multinet now report the currently selected terminal type when a VT100 variant is selected: "VT102" will be sent rather than simply "VT100".
 - * Comet is now packaged with the Serial Driver resource version 3.0.0. OpenDriver() is used rather than RAMSDOpen to maintain compatibility with the Powerbook Express Modem and the Teleport ADB modems.
 - * The download .print feature has been fixed to work correctly with printers other than LaserWriters; PrValidate is called to prevent problems with changes in the selected printer.
 - * Comet can't be hung now by double-opens such as those caused by double-clicking a Bear Access Launcher button rather than single-clicking it.
 - * Comet no longer tries to do fast drawing on a Duo.
 - * Holding Shift when using the Print... command causes the dialog to be skipped.
 - * "Use Asynchronous sends with MacTCP" is now the default setting. Users are encouraged to use this setting with Comet versions > 2.1.6D6.
 - * Comet used to crash when the user first keyed in the top window after Comet was launched with several other programs (e.g., as a startup app) and the activate event for Comet's top window was not received. Comet now activates the window

itself in this case to avoid the problem.

- * (B4) An option has been added to the "Configure Session" dialog to allow a session to stay open when the Bear Access LaunchPad sends a Mandarin Sleep event.
- * (B4) The "Comet keyboard--no diacritics" file has been changed to avoid bugs with Microsoft Word and some international keyboards.

MacSLIP/MacTCP compatibility fixes:

- * MacTCP error alerts are more informative.
- * Telnet sessions now open asynchronously.
- * MacTCP is opened asynchronously to allow MacSLIP's "Connect when MacTCP is opened" option to work properly.
- * Comet now sends only one packet at a time when Asynchronous Sends are enabled to avoid problems with MacTCP, which sometimes fails to send one of the packets when multiple asynchronous sends are pending; this caused problems with MacSLIP when modem speeds higher than 9600 baud were used.
- * Comet munges the MacTCP Retransmission Time Out (tmrRTO) to improve resend performance.

Enhancements in 2.1.6:

- * Hardware handshake is offered as an option in the Serial menu.
- * A 20-point font has been added. The fonts have been updated to NFNTs.
- * A macro command to query the user to enter a string has been added (!QQ & !QS).
- * The 3278 emulator now offers a Sys-Request key (which can be mapped in the key macro dialog).
- * Comet now supports Apple Events.
- * CONN 1 disconnect resources are executed on Quit. A "Connection Close macro..." dialog has been added to the Control menu to better support NOTIS access.

Fixes to 2.1.4 in 2.1.5:

- * Saving the global configuration and the default document type saves the updated data correctly.

Fixes to 2.1.3 Beta 2 in 2.1.4 (2.1.3 has been skipped):

- * Errors no longer occur when saving configuration files.
- * 3270 Start Field commands now update the screen display correctly when they replace an existing field marker.

Fixes to 2.1.3 Beta in 2.1.3 Beta 2:

- * You must now close a session before reconfiguring it using the Reconfigure Session... dialog.
- * When "Open document once only" is modified, the document status is updated immediately.
- * TFTP reports errors correctly when writing the last block of a file causes a disk-full condition.

Fixes to 2.1.3 Alpha in 2.1.3 Beta:

- * When printing 3270 screens with Courier on a

LaserWriter, NULL characters on the screen now appear as spaces rather than carets.

- * Comet now handles MacTCP Domain Name Resolution properly when the host entry has been cached.
- * IBM 3270 terminal reconfiguration is now performed when a session is reopened, and screen garbage no longer appears when the 3270 is made larger.
- * Setting colors in the Color... dialog no longer crashes under System 7 with TuneUps installed.
- * The Comet TFTP file transfer server now recovers properly from errors, and no longer presents errors dialog when routine file transfer errors occur.

Fixes to 2.1.1 in 2.1.3 Alpha:

- * Aztec's latest C compiler provides compatibility with 32-bit mode for this new release.
- * ASCII terminal sessions now reliably erase all lines of the last screen from a previous session when a new session is opened.
- * Printing uses Courier except when Comet-fonts are needed to represent special characters; printing can be configured to always use Courier (using the Control Global... dialog).
- * The Word Select macro used to handle double click word selections now breaks the selection at the beginning and end of a screen line.
- * Documents can be configured so they can be opened only once using the Control Session option "Only one session per document." Clicking on a document which is already open will bring that document to the top and re-open the session if it is not already open, rather than opening another session. (This fix provides better support for Cornell's Bear Access).

Enhancements in 2.1.3:

- * Comet registers an AppleTalk entity with the type COMET, so that network administrators can easily check user's Comet versions and configuration.
- * The Session dialog now offers an option so that Comet will connect with hosts which do not send a log-on prompt or other data to indicate that Comet's terminal-type setting is acceptable.
- * Automatic cursor positioning can be disabled with a key macro command ("!Ct").
- * Serial baud rates of 57.6K and 38.4K are offered.
- * You can create a sound resource using "Record Beep..." in the Control menu. This sound will be used as the bell for that session when its window is not in front. This function is available only on Macs equipped with microphones; other Macs using System 6.0.4 or higher can use the sound. "Delete Beep" is provided to delete your replacement beep.
- * Files downloaded using Comet are made TeachText documents by default. A "Set default file type" dialog in the File menu allows you to select an application or document of the type you wish to use as the default.
- * A key macro command to make the next keystroke a Meta-key has been added ("!CM").
- * A file downloaded with the string ".print" in its name will be printed automatically. If the name

contains ".nodialog", no Print Dialog will be presented; if the name contains ".delete", the downloaded file will be deleted after printing.

- * A <Control-L> character entered in the .edit window will cause a page eject when printing.
NB: Other applications may not handle this ASCII-standard control character correctly.
- * An iconified window which receives data will beep as well as become highlighted.

Fixes to 2.1 in 2.1.1:

- * IBM 3278-3 & -5 emulations did not always correctly report the status of the first field on the screen.
- * Printing the emulator screen (as opposed to the .edit window) no longer crashes on Macs (e.g., the Mac +) without Color QuickDraw when using System versions prior to 6.0.7.