dataComet has been sustained through successive revolutions in Macintosh technology, requiring the overhaul or replacement
of almost all of the original code in COMET.

MacOS 8   1997

PowerPC transition   1998

  Corollary — Aztec C/MPW port to CodeWarrior development environment

MacOS X / OS9   2003

  Corollary — CodeWarrior port to Macintosh XCode development environment

  Corollary — Most GUI interfaces modified, all network code to UNIX environment

Intel transition   2009

  Corollary — More gutting and debugging… all integers now LSB not MSB

iOS Merge into OS X — Near Future

  Corollary — All Classic APIs, upon which dataComet still relies, are destined to disappear suddenly… "someday".

The "Classic" APIs have now been deprecated in toto by Apple; thus, without huge changes to the dataComet codebase…
        … COMET / dataComet is doomed.

Therefore, it's a good idea to place all the code into the public domain in some fashion, because

1) Some of the code I have developed may have enduring value; it's possible that others may wish to adapt it;
2) I am no longer capable of doing coding beyond light maintenance work;
3)   … and besides, there's no way to make real money from it!

               Sincerely Yours —   Bonze Anne Rose Blayk

K&R C Standard Coding Style

Comet 3.1.3B — 2/1995†   **DataComet X 10.2.2 — 4/2013‡**
                2.7 MB   15 MB

Application	Lines	Bytes	Lines	Bytes	
(COMET filename)					
(databeast code)					
Resources (not counted)					
basic.rsrc		*106,828*			Resource file for dialogs, PICTs, help text
common.rsrc				*172,107*	
Fonts				*1,071,265*	TrueType fonts – for printing under OS X
Help				*945,399*	Help text
User Leverage					<u>Functions Users Need</u>
emcursor.c	1,720	42,993	3,263	84,039	Handles user mouse input (cursor motion, selections)
emscroll.c			1,196	29,975	
key.c	2,182	42,372	3,344	69,891	Key/token handling routines, standard keymapping interpretation
macro.c	1,982	43,430	3,718	93,012	Implements macro dialogs for IBM and ASCII emulators
log.c	406	9,686	596	14,140	Session logging support
print.c	799	18,825			Printing of screens, .edit window, downloaded files
print.x.c			2,244	64,261	
rlincopy.c	429	11,534			Copies RUN screen and reformats for NOTIS data entry
textedit.c	1,060	24,585	3,078	75,653	Manages .edit window input, scrolling
File Transfer Support					
ft.c	899	23,726	999	25,778	Pete Hoyt's file transfer protocol
tftp_common.c	147	2,857			TFTP from MIT PC/IP package, adapted to work with MacTCP
tftp_srv.c	534	12,901			
tftp_util.c	772	17,475			
3270ft.c			1,657	39,586	→ IND$FILE standard IBM inline file transfer
T2.c			9,468	227,954	→ X, Y, Z-MODEM inline transfers
scp.c			1,452	21,777	→ SCP inline transfers → SSH support
Foundational					<u>Essential Macintosh/Application Code</u>

main.c	1,879	40,055	1,587	47,728	Main loop, session creation management
run.c			1,774	40,804	"
scrinit.c	1,544	38,849	1,787	44,757	Window initialization, creates fast-drawing font
macinit.c	119	2,125	891	30,886	General Mac initialization
event.c	1,408	33,122	4,510	112,356	Main event loop, MultiFinder support
appleevent.c	439	9,888	3,137	81,703	Handle Apple events - open documents, quit, Mandarin sleep
drag.c			649	17,152	→ Content drag and drop support
prettywind.c	783	16,340	2,096	47,595	Draws emulator window frame, flags
h19key.c	491	8,501			Draws text messages in button bar
getversion.c			841	20,056	Checks for version updates (general purpose sockets code)
nnr.c	122	1,829			Network not responding dialog (used only with PCIP)

Application   Screen Rendering

screen.c	1,922	41,604	1,375	32,097	Emulator screen drawing routines, 3270 drawing routines
asciidraw.c	1,508	35,278			H19/VT102 ASCII screen drawing routines
vt100draw.c			2,328	58,200	-> Complete rewrite using "dumb virtue" code
3270draw.c			574	11,359	-> Complete rewrite using "dumb virtue" code
zap.asm	4,110	58,952			Fast drawing routines – 68000 assembly language

Application   Presentation and Session Control

config.c	1,687	41,820	5,949	164,763	Manages Comet document opening and configuration
dialog.c	3,111	73,881	11,488	273,099	All dialogs except key macro dialog
dialogmodal.c			8,085	199,904	→ Modal dialogs — Alerts, etc.
dialoguts.c			1,922	44,342	→ Modeless dialog support
menu.c	2,877	68,206	4,817	110,475	Manages menus, contains code for most menu items
menustate.c			3,213	79,660	→ Menu presentation management
nav.c			807	22,835	→ OS X File Navigation Dialog support

User Input

token.c	727	15,847	3,083	70,293	Host-independent user input interpretation
3270token.c	850	19,052	1,682	38,131	3270 user input interpretation
asciitoken.c	959	16,214			ASCII user input interpretation (includes 7171 interface)

vt100token.c			2,310	68,611	

Interpretation

3270com.c	1,252	29,345	4,158	103,600	3270 data stream interpreter
h19.c	749	15,476	980	21,485	Heath-19 (VT52) data stream interpretation (req'd for VT100)
vt100.c	1,691	36,852	6,732	168,434	DEC VT102 data stream interpretation

Session (Transport interface)

telnet.c	790	16,521	2,788	61,624	Telnet - performs session control, option negotiation with host
ssl.c			638	16,651	→ SSL interface for Telnet SSL support
ssh.c			3,977	24,050	→ SSH code adapted from PuTTY
mactcp.c	1,518	34,258			Interface to MacTCP
mactcp.x.c			1,248	26,675	→ BSD sockets
pty.x.c			822	18,362	→ BSD sockets
gethost.c	759	17,041			Domain Name Resolution routines (interface to MacTCP DNR)
gethost.x.c			512	12,133	→ BSD gethost()
DNR.c	252	5,385			Apple-supplied MacTCP DNR stub
serial.c	723	14,609			Serial connection management and configuration (Mac Serial Driver)
serial.x.c			2,344	57,767	→ OS X IOService Manager

Miscellaneous

printf.c	268	6,047	195	4,719	printf routines inherited from PC/IP
timer.c	497	11,724	472	11,341	Timer code from PC/IP
util.c	248	5,729	374	8,213	Queueing routines from PC/IP
net_utils.asm	68	1,247	68	1,247	Fast 1 's-complement checksum code
tninit.asm	44	469			A5 global initialization
CometCopy.c	17	683			Copyright notices
MITCU.c	7	287			
MITCUStan.c	14	639			

Miscellaneous unused code

help.c	218	5,358			incomplete "help window" subject list/ tex t box interface
texteditnew.c	847	19,892			modified textedit routines to support help window
hyperface.c	531	8,758			Driver interface for tn3270; adaptable to AppleEvents

unused.c	248	663			
	───────	─────────	─────────	─────────	
GRAND TOTAL	46,207	1,002,461	121,228	2,899,173	**GRAND TOTAL**

Source/Common — dataComet/dataComet-Secure 10.2.2 — 4/15/2013

changes.h	*3,714*	*136,619*	*Not counted*
3270com.c	4,158	103,600	
3270draw.c	574	11,359	
3270ft.c	1,657	39,586	
3270token.c	1,682	38,131	
T2.c	9,468	227,954	
about.h	13	279	
appleevent.c	3,137	81,703	
config.c	5,949	164,763	
dialog.c	11,488	273,099	
dialogmodal.c	8,085	199,904	
dialoguts.c	1,922	44,342	
drag.c	649	17,152	
emcursor.c	3,263	84,039	
emscroll.c	1,196	29,975	
event.c	4,510	112,356	
ft.c	999	25,778	
gethost.x.c	512	12,133	
getversion.c	841	20,056	
h19.c	980	21,485	
key.c	3,344	69,891	
licensekeys.c	40	2,410	
log.c	596	14,140	
macinit.c	891	30,886	
macro.c	3,718	93,012	
mactcp.x.c	1,248	26,675	
main.c	1,587	47,728	
menu.c	4,817	110,475	
menustate.c	3,213	79,660	
nav.c	807	22,835	
pr25line.c	791	15,426	
prettywind.c	2,096	47,595	

```
    print.x.c            2,244     64,261
    printf.c               195      4,719
    pty.x.c                822     18,362
    rlincopy.c               0     14,348
    run.c                1,774     40,804
    screen.c             1,375     32,097
    scrinit.c            1,787     44,757
    serial.x.c           2,344     57,767
    ssl.c                  638     16,651
    sys_term.c           1,287     25,947
    telnet.c             2,788     61,624
    textedit.c           3,078     75,653
    timer.c                472     11,341
    token.c              3,083     70,293
    util.c                 374      8,213
    vt100.c              6,732    168,434
    vt100draw.c          2,328     58,200
    vt100token.c         2,310     68,611


                        _____  _____
                        117,862  2,910,509        117,862  2,910,509
Kerberos 5 support

    authencrypt.c          708     18,893
    authkrb5.c             402      9,403
    com_err.c                0      5,639
    crc.c                  235     10,102
    enc_des.c                0     14,492
    encrypt.c              604     17,530
    et_name.c                0        958
    kdestroy.c               0        793
    kerberos5.c            780     23,501
    kinit.c                213      5,914
    login.c                381     10,771
    rnd_confoun.c           98      2,337


                        _____  _____
                          3,421   120,333          3,421    120,333


SSL support

    ssl.c                  638     16,651
```

```
des.h                    0          0
des_enc.c              406     10,773
des_locl.h               0     13,250
e_os2.h                  0        941
enc_des_ede3.c           0     27,660
opensslconf.h            0      3,115
openssldes.h             0     11,548
spr.h                    0     10,054
                    _____   _____
                      1,044     93,992         1,044       93,992
```

SSH support: port from PuTTY involving extensive modifications (Windows dialogs, single-windowed)

```
bsd-base64.c             0      3,588
includes                       35,090
match.c                  0    125,634
scp.c                1,452     21,777
ssh.c                3,977     24,050
sshblowf.c             525      9,243
sshbn.c                912     32,475
sshcrc.c               250      2,943
sshdes.c               838      8,552
sshdh.c                 99      9,063
sshdss.c               329      7,145
sshmd5.c               273      4,059
sshmisc.c              271     50,075
sshnoise.c             169     10,461
sshprime.c             841      5,164
sshpubk.c              380      4,989
sshrand.c              190      3,917
sshrsa.c               220      7,141
sshrsag.c              125     26,622
sshsha.c               257     19,660
sshtree234.c           944     34,201
sshwinstore.c          718     19,660
sshzlib.c            1,090     34,201
                    _____   _____
                     13,860    499,710        13,860      499,710
                                           _____  _____
Grand Total                                  136,187   3,624,544
```

†As documented in CRF D-1716 - Exhibit "A" - Description of Comet "THE Software"

‡Note please the language of CRF D-1716, p. 3:

2.2 Proprietary Rights. The LICENSEE agrees that the Software is
and shall remain the sole property of and proprietary to the
FOUNDATION. Nothing in this Agreement shall diminish or
extinguish these rights and no title to or ownership of the
Software is transferred to the LICENSEE hereby.
<u>The FOUNDATION</u>
<u>agrees that all modifications, enhancements and alterations made</u>
<u>by the LICENSEE to the Software shall be and remain the sole</u>
<u>property of and proprietary to the LICENSEE. Nothing in the</u>
<u>Agreement shall diminish or extinguish these rights and no</u>
<u>rights to such modifications, enhancements and alterations are</u>
<u>granted hereby to the FOUNDATION .</u>

(**<u>Bold Underscore</u>**   mine — BARB)

PS: I did not name COMET… I suggested COMTE, after Auguste Comte, the French philosopher and inventor of the philosophy of
Positivism; alas, no one recognized the name! Steve Worona countered with the suggestion that this product be named
COMET — the "COrnell Macintosh Emulator of Terminals", and that went over OK.

PPS: The development of COMET was not officially sanctioned by higher management; when I asked Dick Cogger back in 1990
whether anyone would object if I devoted time to working on combining C19, TN, and TN3270 into one package, he said
"Sure… I don't think anybody would mind." (I was supposed to be working on SLIP/SLAP Remote Access software - cf. EZ-REMOTE? -
but the $25,000 of hardware I required to work on it was not forthcoming. ;-)

Ergo…

See - https://www.facebook.com/photo.php?fbid=10150266786872954&set=a.477650022953.261932.707147953&type=3&theater