Tops-20 Kermit-20 Batch Test Battery

N.B., Not all tests are performed in the order specified

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# K20NUL: Basic Kermit-20 Server functional checkout

1. Pseudo-terminal login
2. INPUT statement test with C escape sequences
3. OUTPUT statement test with C escape sequences
4. Basic text file transfer checking
5. Wildcard file transfer checking to NUL:
6. Wildcard file transfer checking with different checksums
7. Session log testing
8. 94 character packets (largest for basic protocol)
9. Basic SERVER command repertoire
10. Basic NUL: tests

# K20NUP: Basic Kermit-20 Server functional checking using PUT

1. Like K20NUL, except uses push to remote NUL: instead of GET to local NUL:

# K20PTY: Kermit-20 Server Transfer additional and post transfer checks

1. Prompt defaults (DECnet node if remote) and parsing
2. Time-out parsing
3. 120 character packets (larger then basic minimum, somewhat faster)
4. Internal transport timing checkout
5. INPUT/OUTPUT statement tests with C escape sequences
6. Pseudo-terminal login with no secondary fork
7. Basic macro definition check
8. Basic SERVER command repertoire
9. Basic NUL: tests
10. Short duration communications check: 1.62 milliseconds!
11. Basic text file transfers
12. Comparison of statistics between both sides ('close'...)
13. Large text file test:

|  |  |
| --- | --- |
| Quantity | Type |
| 1,794,319 | ASCII (7 bit) bytes |
| 701 | Tops-20 disk pages |
| 9,000 | Packet size (largest possible) |
| 101.8023 | KC/s (Highest total characters/second) |
| 1.2186 | MBd (Highest effective data rate) |

1. Post transfer file comparisons (all OK)

# K20NRV: Kermit-20 Server functions via Tops-20 DECnet NRT to local host

1. Same as K20PTY except 94 byte packet size only
2. DECnet NRT connection to the local Tops-20 host
3. Checks files, post transfer (all OK)
4. Does not include large file case
5. Fastest possible NRT (all communications are memory only)
6. Additional program information (memory layout)

# K20NRT: Kermit-20 Server functions via Tops-20 DECnet NRT to remote host

1. Same as K20NRV except going to a different Tops-20 host
2. *Far* slower transfer speeds (suspected to be an emulator artifact)

# K20NOL: Basic regression test against Kermit-20 4.2(174) [2-May-85]

1. Similar to K20NUL with reduced functionality because 4.2(174) does not have:
   1. No remote NUL: testing
   2. No PWD testing
   3. No remote statistics
   4. No large file/buffer
   5. No pseudo-efficiency simulations
2. 4.2(174) reports disk quota of 70,000 as "+Inf"
3. Compression appears to be somewhat better (could be incorrect, however)
4. Session logging test
5. N.B., 174 decimal is 256 octal

# K20POL: Regression test against Kermit-20 4.2(174) [2-May-85] using GET

1. Similar to K20PTY with reduced functionality
2. Otherwise, similar to K20NOL, except for 3)
3. Post transfer file comparisons (all OK)

# K20PNW: Regression test against Kermit-20 4.2(174) [2-May-85] using PUT

1. Same as K20POL, but uses PUT instead of GET

# K20NUR: Basic Kermit-20 Server functional checkout with parity

1. Like K20NUL (Basic Test), but using parity on packets
2. Somewhat slower transfer, perhaps 5% impact (may be false negative)

# K20POR: Regression test against Kermit-20 4.2(174) [2-May-85] with parity

1. Like K20POL with parity checking

# K20B8T: Kermit-20 Server 8-bit file transfer and post transfer checks

1. Like K20PTY, except 8 bit files

# K20B8P: Kermit-20 Server 8-bit file transfer with parity and post transfer checks

1. Like K20B8T, except does 8 bit files with even parity

# K20B8A: Kermit-20 Server terminal 8-bit file transfer with parity and transfer checks

1. Like K20B8E, except also checks parity from Tops-20 terminal driver

# K20DPD: Kermit-20 Packet Decoding Example

1. Enhancement to decode a packet instead of dumping raw data
2. PTY transfer checks for fineness of time logging
3. Tops-20 design limits time of day resolution to milliseconds

# K20TCP: Kermit-20 Transmit/Capture Testing via pseudo-terminal

1. Basic transmit, no parity processing, captured to NUL:
2. Transmit, space parity processing, captured to NUL:
3. Transmit, mark parity processing, captured to NUL:
4. Transmit, odd parity processing, captured to NUL:
5. Transmit, odd parity processing, forcing a parity error
6. Transmit, full even parity, including Tops-20 terminal line generated
7. Post transmit comparison checking of large and small files

# K20TCN: Kermit-20 Transmit/Capture Testing via DECnet NRT

1. Same as K20TCP, except tests are performed over a Tops-10/20 type DECnet Network Remote Terminal
2. Since DECnet NRT’s do not generate parity, test 6 is performed without terminal line parity checking

# K10NRT: Kermit-**10** Regression Tests via DECnet NRT

1. Remote terminal tests (LOGIN, SYSTAT, Etc.)
2. Basic server tests, REMOTE SPACE, REMOTE HELP
3. REMOTE DIRECTORY, REMOTE DELETE validation
4. Kermit-10 does not implement CWD/PWD (as Tops-10 does not have the idea of a connected directory)
5. Transfer and comparison of various files, some quite large (all OK)
6. Session logging

# K10NRP: Kermit-**10** Parity Regression Tests via DECnet NRT

1. As K10NRT, except REMOTE DELETE not validated and remote terminal assumed to work
2. Transfer and comparison of various files, none particularly large
3. Errors
   1. Correct parity not sent in response to FINISH
   2. Correct parity not sent in wildcarded directory listing