

TCAL Reference Guide Index

\$EJECT, 6.2
\$ENDIF, 6.3
\$IF, 6.4–5
\$INCLUDE, 6.6–7
\$LIST, 6.8
\$NOLIST, 6.9
\$RESET, 6.10
\$SET, 6.11
3-BEEP, 5.250–51
8-bit data, 3.13
16-bit data, 3.13

A

A-PROGRAM (A-PROG) file type, 3.4, 3.21–22
absolute mode, 4.31
ACCEPT, 5.2–10
 and 03-level data-names, 3.44, 3.45
 data type considerations for, 3.56–57, 4.6
 indirect parameters for, 4.28–30
 initializing for, 3.80
 inverse video during, 3.50
 keyboard definition for, 3.39–40
 terminating data entry during, 4.2
 USE-LAST parameter with, 3.55–56
 wand configuration for, 3.55, 5.244
 wanded vs keyed data, distinguishing, 4.39
ACCEPT-WS, 5.11–16
 keyboard definition for, 3.39–40
 LOHI data with, 4.6
ACOUSTIC-LOW option, 3.68
acoustic transmission, 3.66, 3.68
 modem interface examples, F.2–7, F.31–38
ACTION, 3.39–40, 5.17–19
ADD, 5.20–21
ADD-DIGITS parameter, 3.37
ADJUST-LCD, 5.22
alarm, 4.31–33
 RETRY behavior with, 5.169
 volume adjustment, 5.238
ALARM, 5.24
ALARM-LOOP, 5.25
ALPHABETIC parameter, 3.56
alphanumeric display data, 4.3–4
ALPHANUMERIC parameter, 3.57
Ames Code, 4.46
AND, logical. *See* **BIT-AND**
ANS-DLY system register, D.1
ANS-POST-DLY system register, D.1
ANS-PRE-DLY system register, D.1
ANSWER, 5.26–27
arithmetic verbs, 3.82
array element names, 3.31–32
AS-10 code, 4.46
ASCII characters, assigning keys to, 3.40

ASCII data
 communication modes for, 3.63
 SPAD types for, 3.9
 usage types for, 4.3–4
ASCII range, accessing characters outside, 3.13
AUTHOR comment, 3.4
AUTO option, 3.3–4
AUTO-RECORD parameter, 3.54, 5.3
AUTO-SELECT system register, 4.51, D.2
AUTO-SHIFT parameter, 3.54–55
AUTO-WHEN option, 3.11–12

B

backlight, 4.33–34
BACKLIGHT-OFF, 5.28–29
BACKLIGHT-ON, 4.33, 5.30–31
backspace (BS) key, 5.6, C.2
BANKED-RAM-SIZE system register, D.2
bar code smudges, 4.47
bar code types, 4.34–39
 programming for, 4.44–60
BAR system key, 5.6, C.3
BATT system key, C.2
BAUD-RATE parameter, 3.61
 modifying, 5.59
 values for, 5.62
BCC-FLAG system register, D.2
BEEP, 5.32
BEGIN-POINTER system register, D.2
BID, 5.33–34
binary data
 in computations, 5.20
 and false end-of-file conditions, 5.194, 5.197,
 5.200, 5.203
 signed display data, 4.7–9, 5.5
 SPAD types for, 3.9
 usage types for, 3.26, 4.5–6, 4.7–9
binary search technique. *See* **SEARCH BINARY**
BIT-AND, 5.35–36
bit manipulation verbs, 3.82
bit-mapping special characters, 4.23–26
BIT-OR, 5.37–38
BIT-XOR, 5.39–40
BLOCK-DELAY parameter, 3.64
 modifying, 5.59
 values for, 5.61
BLOCK parameter, 3.65
 modifying, 5.59
BLOCK-SIZE parameter, 5.63
BS (backspace) system key, 5.6, C.2
BUG, 5.41–42
BUILD, 5.43–45
 indirect parameters for, 4.28–30
 RD-name use by, 3.71

TCAL Reference Guide Index

- bump-in, 4.47, 4.53–56
- BURST transmission type, 3.60
 - BUILD** with, 5.43–44
 - COM-TYPE value for, 5.61
 - RECEIVE-BLOCK** with, 5.165–67
 - XON/XOFF support for, 5.57
- C**
- CALL**, 5.46–48
- carrier detect, 5.57
- case sensitivity, 2.1
- CD (communication definition), 3.59, G.1–9
- CDV checks, 3.33, 3.36–38
 - data length for, 5.8
 - number performed, 4.57–59
 - See also* **CHECK**
- CH (check definition), 3.34, 5.49–51
- character fonts, PTC support for, 3.13
- CHARACTER-SET parameter, 3.13
- character translation, 4.20–27
- CHECK**, 5.49–51
- CHECK-CARRIER**, 5.52–53
- check digit verification, 4.39–44
- CHECK parameter, 3.53, 5.11
- CHECK-RTN-WS, 5.14
- check section, 3.32–39
- check table, 3.32, 3.35
- check types, 3.32–33
- CLEAR**, 3.53, 5.54
- clock, 4.31–33
- CLOCK-RATE system register, 4.51, D.2
- CLR system key, 5.5–6, C.3
- CMPWU system key, C.4
- Codabar, 4.36–37
 - GENERIC-OPTIONS settings for, 4.54
 - initialization order for, 4.49
 - LABEL-OPTIONS settings for, 4.59
 - LABEL-TYPE values for, 4.45
- Code 2 of 5 Matrix. *See* Interleaved 2 of 5
- Code 11
 - GENERIC-OPTIONS settings for, 4.55
 - initialization order for, 4.49
 - LABEL-OPTIONS settings for, 4.58
 - LABEL-TYPE value for, 4.46
- Code 16K, 4.46
- Code 39 (Code 3 of 9), 4.36
 - check digit scheme, 4.43–44
 - GENERIC-OPTIONS values for, 4.55
 - initialization order for, 4.49
 - LABEL-OPTIONS values for, 4.58
 - LABEL-TYPE values for, 4.45
- Code 93
 - initialization order for, 4.49
 - LABEL-TYPE value for, 4.46
- Code 128, 4.38–39
 - GENERIC-OPTIONS settings for, 4.56
 - initialization order for, 4.49
 - LABEL-OPTIONS settings for, 4.59
 - LABEL-TYPE value for, 4.46
- COM-ERR system register, D.2
 - values for, A.9
- COM-TYPE parameter, 5.61
- COMM-IN**, 5.55
- COMM-OUT**, 5.56–58
- COMMAND file type, 3.21
- commas, 2.2
- comments, 2.2, 3.4–5
- common variable area, 4.16–17
- communication error codes, A.9
- communication section, 3.57–70
- communication signals, enabling and disabling. *See* **COMM-OUT**
- communication verbs, 3.83, 4.34
- compiler directives, 2.5, 6.1–11
- compiler listing, control of, 6.2, 6.8, 6.9
- compiling, conditional, 6.1, 6.4–5
- conditional control verbs, 3.83
- CONFIGURE**, 5.59–69
- CONNECT**, 5.70–71
 - effect on **COMM-OUT**, 5.56
- CONNECT-TYPE parameter, 3.67
- converting from TCAL 4.x, 4.61–64
- converting usage types, 4.8–10, 5.59
- CREATE**, 5.72–74
- cursor. *See* **SET-CURSOR**
- D**
- DAR (down-arrow) system key, 5.6, C.4
- data, 8- and 16-bit, 3.13
- DATA-BITS parameter, 3.61–62
 - modifying, 5.59
 - values for, 5.62
- data division, 3.1–2, 3.14–15
- data entry. *See* keyed data; wanded data
- data entry defaults and restrictions, 5.7–8
- DATA-ERROR system register, D.2
- data format table (DFT), 5.11–14
- DATA-KEY system register, 3.55, D.3
- data-names, 3.24
 - for array elements, 3.31–32
 - for displayed data, 2.4, 3.44–45
 - matching DFT formats, 5.12
 - subscripted, 2.4, 3.31, 4.17
- DATA parameter, 3.72
- DATE-COMPILED, 3.4
- DATE-WRITTEN, 3.4
- declaratives, 2.5, 5.219–20
 - changing, 3.80

TCAL Reference Guide Index

declaratives (*Continued*)

specifying, 3.76–79

DEFAULT system register, D.3

defaults, data entry, 5.7–8

DEL system key, 5.6, C.2

delaying program execution. *See* **WAIT**

DELETE RECORD, 5.75–76

DEVICE (DEVICE-TYPE) parameter, 3.65–66

DFT (data format table), 5.11–14

DIAL, 5.77–79

DIAL-BDELAY system register, D.3

DIAL-MDELAY system register, D.3

DIG system key, C.4

as LASTKEY return code, A.1–9

DIRECTION parameter, 3.52

directives. *See* compiler directives

DISCONNECT, 5.80

effect on **COMM-OUT**, 5.56

Discrete 2 of 5 code, 4.46

display

size of (*See* **SET-DISPLAY-HT; SET-DISPLAY-LEN**)

verbs controlling, 3.82

viewing angle of (*See* **ADJUST-LCD**)

DISPLAY-BUFFER system registers, D.3

display characters, substitution of, 4.20–27

display usage type, 3.26, 4.3–4, 4.7–9

DISTBL system register, 4.22, 4.27, D.3

DIVIDE, 5.81–82

divisions, required, 2.3

DOUBLE-BUFFER system register, 4.51, D.4

down-arrow (DAR) key, 5.6

DROP-OPTIONS parameter, 4.48

E

EAN codes, 4.45

See also UPC

edit mode, 3.47–48, 3.50–52

EDIT statement

in report section, 3.72–73

in screen section, 3.47–48, 3.50–52

embedding text files in code, 6.1, 6.6–7

END-CLR-WS, 5.14

END-DECLARATIVES statement, 3.79

end-of-file, false, 5.194, 5.197, 5.200, 5.203

END-POINTER system register, D.4

ENTER system key, C.4

ENTRY- system registers, D.4

ENTRY-FLAG system register, 4.39, d.4

environment division, 3.1–2, 3.6–14

EOF system key, C.5

as LAST-KEY return value, A.1–8

ER system key, C.5

as LASTKEY return value, A.1–8

ERASE, 5.83–84

error codes, communication, A.9

errors, system, B.1–4

EXAMINE, 3.12, 5.85–86

EXECUTE, 5.87–88

AUTO-WHEN option for, 3.11

EXTENDED-OPCODE requirement for, 3.10

executing overlay files. *See* **EXECUTE**

executing program files. *See* **CALL**

execution, delaying. *See* **WAIT**

EXIT, 5.89–90

EXTENDED-OPCODE statement, 3.10–12

external modems, example interfaces for, F.16–21,

F.50–59, F.60–69

external program statements, verbs for, 3.83

EXTIN system key, C.5

as LAST-KEY return code, A.1–8

EXTWU system key, C.4

F

FAR (forward-arrow) system key, 5.7

FAST-ACTION, 5.91–92

keyboard definition for, 3.39–40

FAST-SPEED system register, 5.91, D.5

FCB option, 3.12

FCBs (file control blocks), 4.13–16

allocating memory for, 3.15, 3.17

moving to and from working storage, 5.224–25

FD (file description), 3.17

field definition, 3.29

FIELD-LEN-WS, 5.14

field length calculation, 4.8–9

FIELD option, 3.12

FIELD-WS, 5.14

fields

data-names referring to, 3.24

defining, 3.23–32

level-numbers of, 3.23

file control blocks (FCBs), 4.13–16

allocating memory for, 3.15, 3.17

moving to and from working-storage, 5.224–25

file control verbs, 3.82

file description (FD), 3.17

FILE-LEN system register, D.5

FILE-NAME system register, D.5

file section, 3.15–29

FILE-TYPE system register, D.5

file types, 3.4, 3.20–22

FILL, 5.93

FILLER

defining calling program variables with, 4.16–17

in record and field descriptions, 2.4, 3.23, 3.25

FIND FIRST, 5.94–96

FIND NEXT, 5.97–98

TCAL Reference Guide Index

- FIRST-TIME parameter, 3.63
 - modifying, 5.59
 - values for, 5.63
- fixed-length blocks, sending, 3.64–65
- fixed recording mode, 3.18
 - in **READ** statements, 5.154, 5.156
 - record descriptions in, 3.22
- fixed recording mode, LAST-KEY values for
 - with **SEEK FIRST**, 5.196
 - with **SEEK LAST**, 5.200
 - with **SEEK NEXT**, 5.203
 - with **SEEK PRIOR**, 5.206
- flow-altering verbs, 3.83
- forward-arrow (FAR) key, 5.7
- free recording mode, 3.18, 3.27–29
 - in **READ** statements, 5.154, 5.156
- free recording mode, LAST-KEY values for
 - SEEK**, 5.192
 - SEEK FIRST**, 5.197
 - SEEK LAST**, 5.200
 - SEEK NEXT**, 5.203
 - SEEK PRIOR**, 5.206
- FSK-MARK system register, D.5
- function keys, 4.2
 - in **ACCEPT** sequence, 5.5–7
 - in **ACTION** sequence, 5.17
 - assigning to keyboard, 3.40–41
- G**
- GEN-CDV system register, D.6
- GENERIC-OPTIONS, 4.47, 4.53–56
- GO TO**, 5.99
- GP-TIMER system register, D.6
- group levels, and usage types, 4.10
- GSN, 4.48
- H**
- handshaking, 3.65–66, 5.57
- HANGUP**, 5.100
- HEX parameter, 3.57
- HOME system key, C.2
- I**
- ID values, 3.18–19
- identification division, 3.1–2, 3.3–5
- IF THEN**, 5.101–3
 - See also* **WHEN**
- IN INVERSE VIDEO option, 3.49–50
- including files, 3.10, 6.7
- indirect parameters, 4.28–30
- Industrial 2 of 5 code, 4.46
- initializing bar code types, 4.48
- initializing PTCs, 3.80
- input, determining type of, 4.39
- input signals, detecting. *See* **COMM-IN**
- INS system key, 5.5–6, C.3
- INSERT**, 3.19, 5.104–7
- INSTALLATION comment, 3.4
- Interleaved 2 of 5 code, 4.35–36
 - check digit scheme, 4.40
 - GENERIC-OPTIONS settings for, 4.55
 - initializing order for, 4.49
 - LABEL-OPTIONS settings for, 4.58
 - LABEL-TYPE values for, 4.45–46
- INTERRUPT transmission type, 3.61
 - BUILD** with, 3.71, 5.43–44
 - COM-TYPE value for, 5.61
 - DISCONNECT** with, 5.80
 - RECEIVE-BLOCK** with, 5.165–67
 - WAIT-QUEUE** with, 5.242
 - XON/XOFF support for, 5.57
- IP40 transmission type, 3.61
 - COM-TYPE value for, 5.61
- K**
- KD (keyboard definition), 3.40
- KEND system key, C.2
- KEY-CLICK-DUR system register, D.6
- key definition, 4.2–3
- KEY parameter, 3.8–9
- keyboard
 - assigning function keys to, 3.40–41
 - verbs controlling, 3.82
- KEYBOARD-FLAG system register, D.6
- keyboard section, 3.39–42
- KEYBOARD-SIZE system register, D.6
- KEYCLICK**, 5.108
- keyed data
 - recognizing input as, 4.39, 5.5
 - terminating entry, 5.3–4
 - waiting for (**ACTION**), 5.17
- keys, implicitly defined, 3.24
- keys, system, C.1–5
- KLIGHT key, 4.34
- KNOOP system key, 5.6, C.3
- L**
- LABEL-LENGTH parameter, 4.46
- LABEL-OPTIONS parameter, 4.48, 4.57–59
- label-type parameters, 4.45–50
- LABEL-TYPE system register, 4.45, D.6
- laser redundancy check, specifying, 4.53–56
- LAST-KEY system register, D.6
 - with AUTO-WHEN option for, 3.11–12
 - checking with declaratives, 3.76–77
 - EXAMINE**'s handling of, 4.11–12
 - if insufficient memory, 4.34
 - in validation checks, 3.34–35

TCAL Reference Guide Index

- LAST-KEY system register (*Continued*)
 - values returned in, A.1–7
- LCD (liquid crystal display) adjustment, 5.22
- level-numbers, 3.23
- LIGHT-KEY-TMOU system register, 4.34, D.6
- LIGHT system key, 4.33, 5.5–6, C.1
- LINE-LENGTH system register, D.7
- LIT option, 3.12
- LIT parameter, 3.72
- LO-BAT-MSG system register, D.7
- LOAD**, 5.109–10
- LOHI
 - SPAD type, 3.9
 - usage type, 3.26, 4.6–7, 4.8–9
- lookup checks, 3.32, 3.33–35
 - data length for, 5.8
 - See also* **CHECK**
- LOOP**, 5.111
- LPRINT**, 5.112–13

- M**
- MAGNETIC option, 3.68
- MARK-TONE parameter, 5.61
- mask, position of, 5.13
- mask characters, 3.47–52
- MASK-CHARS**, 3.48–49, 5.114–15
- MASK statement, 2.4, 3.47, 3.48–50, 5.11
- MASK-WS, 5.13
- MASK-X/Y-POS-WS, 5.13, 5.15–16
- math function verbs, 3.82
- MAX parameter, 3.53–54
- MAX-WS, 5.14
- MDM-RTS-DLY system register, D.7
- MEM-AVAIL system register, 4.34, D.7
- MEM-PROTECT system register, 4.34, D.7
- MEM system key, C.5
 - as LAST-KEY return code, A.1–8
- memory
 - allocation, 3.15, 3.17, 4.16
 - checking before communication, 4.34
- MEMORY-SIZE comment, 3.8
- MESSAGE**, 5.116–17
- MICROPHONIC option, 3.68
- MIN parameter, 3.53
- MIN-WS, 5.14
- minus signs, 3.48
- MINUS system key, C.4
- MOD check digit schemes, 4.40–43
- MOD parameter, 3.36
- MODE parameter, 3.63, 5.59, 5.61
 - modifying, 5.59
 - values for, 5.61
- modems
 - answering land line with, 5.26
 - Continued*
 - connecting to, 3.66
 - connection types, 3.67–69
 - dialing with, 5.77–79
 - interface examples, F.1–69
- MONITOR option, 3.67
- MOVE**, 5.118–22
- MOVE-LIT**, 5.123–24
 - with **CONFIGURE USING**, 5.59, 5.68
- MOVE-SD**, 5.125–27
- MOVE-SIZE**, 5.128–29
- moving data, verbs for, 3.82
- MULTIPLY**, 5.130–31

- N**
- NAL system register, D.7
- naming requirements, 2.2–3
- negative signs, 3.48
- NEXT**, 5.132
- NEXT-HIGH parameter, 3.37
- NEXT-LOW parameter, 3.37
- NLIT parameter, 3.72
- NO-OP**, 5.133
- NTH-TIME parameter, 3.63–64
 - modifying, 5.59
 - values for, 5.63
- NUM-COLUMNS system register, D.8
- NUM-ROWS system register, D.8
- NUMBER-RECEIVED system register, D.7
- NUMERIC parameter, 3.56
- numeric usage types, 4.3–4, 4.7–9

- O**
- OBJECT-COMPUTER parameter, 3.7–8
- OCCURS clause
 - for check table definition, 3.33–34
 - for record and field definition, 3.26–27
- OFF system key, C.4
- OFFSET parameter, 3.37
- OK system key, C.5
 - as LASTKEY return value, A.1–8
- OPEN REF**, 5.134–46
- OPEN TABLE**, 5.137–9
 - accessing table rows with, 4.17–19
- OPEN UPDATE**, 5.140–42
- OPTICAL option, 3.69
- OPTION parameter, 5.64–65
- OR, logical. *See* **BIT-OR; BIT-XOR**
- OS-VER system register, D.8
- OVERLAY-BUFFER statement, 3.12

- P**
- PACK option, block sizes for, 3.65
- packed SPAD type, 3.9

TCAL Reference Guide Index

- packed usage type, 3.26, 4.4–5, 4.7–9
 - PAD-CHAR parameter, 5.62
 - PAD parameter, 3.64–65
 - modifying, 5.59
 - PARA option, 3.12
 - paragraph names, 3.79, 3.80–81
 - parentheses, 2.2
 - PARITY parameter, 3.62
 - modifying, 5.59
 - values for, 5.63
 - PECK-RATE system register, 4.51, D.8
 - PERFORM**, 5.143–46
 - indirect parameters for, 4.28–30
 - using **RETURN** with, 5.171
 - periods, 2.1
 - PGDN system key, C.1
 - PGUP system key, C.2
 - PIC clauses, 3.25–26, 3.27–29
 - Plessey code, 4.37
 - check digit scheme, 4.40
 - GENERIC-OPTIONS settings for, 4.53
 - guard tightening with, 4.47, 4.53
 - initialization order for, 4.49
 - LABEL-OPTIONS settings for, 4.57
 - LABEL-TYPE values for, 4.45
 - plus signs, 3.48
 - PLUS system key, C.4
 - POWER-OFF**, 4.32, 5.147–48
 - PRINT**, 5.149–50
 - with INTERRUPT transmission type, 3.71
 - print buffer, 5.43–44, 5.149
 - printer interface example, G.1–9
 - printout characteristics, controlling, 6.1
 - PRIOR-KEY system register, 5.17, D.8
 - procedure division, 3.1–2, 3.75–83
 - PROGRAM file type, 3.21
 - PROGRAM-ID parameter, 3.3–4
 - PROMPT**, 5.151–53
 - keyboard definition for, 3.39–40
 - prompt positions, 5.13
 - PROMPT statement, 3.46, 3.48–49, 5.11
 - for AUTO-SHIFT, 3.55
 - IN INVERSE VIDEO option for, 3.49–50
 - PROMPT-WS, 5.13
 - PROMPT-X/Y-POS-WS, 5.13
 - protocols, 3.60–61
 - PTAP-MAX-TRIES system register, D.8
 - PTAP transmission types, 3.60–61
 - changing to, 5.59
 - COM-TYPE value for, 5.61
 - DATA-BITS settings for, 3.62
 - maximum number of characters for, 3.65
 - RECEIVE-BLOCK** with, 5.164–65, 5.166
 - SEND-ETB** with, 5.212
 - PTAP transmission types (*Continued*)
 - WAIT-FOR-BID** with, 5.240–41
 - PTC-960 cradle, F.9
 - PTC-ID system register, D.8
 - punctuation, 2.1–2.3
- Q**
- quotation marks, 2.1
- R**
- R-TAP, 5.70–71
 - range checks, 3.32–34, 3.35
 - data length for, 5.8
 - See also* **CHECK**
 - RD (report definition), 3.71
 - READ**, 5.154–60
 - READ-CLOCK**, 5.161–62
 - READ-LENGTH system register, D.9
 - RECEIVE-BLOCK**, 5.163–67
 - block sizes for, 3.65
 - checking memory with, 4.34
 - RECEIVE-MODE parameter, 3.69–70
 - record buffer, size of, 3.17
 - record descriptions, 2.4, 3.22–32
 - record manipulation verbs, 3.82
 - record types, maximum number of, 3.20
 - RECORDING MODE parameter, 3.18–20, 3.30
 - RECORDING-MODE system register, D.9
 - recording modes, 3.18–20
 - See also* fixed; free; variable
 - records, 3.20, 3.24
 - RECV-ABORT-CNT system register, D.9
 - REDEFINES option, 3.30–32
 - relative mode, 4.31–32
 - REMARKS, 3.4–5
 - REPORT option, 3.12
 - report section, 3.70–73
 - report verbs, 3.83
 - reserved words, E.1–21
 - RESET**, 5.168
 - RETRY**, 5.169–70
 - RETURN**, 5.171–73
 - return codes
 - communication, A.8
 - user-defined, 5.9
 - See also* LAST-KEY system register
 - REVIEW**, 5.174–77
 - REVIEW-CNT system register, D.9
 - REVIEW-INIT**, 5.178
 - REVIEW-NO system register, D.9
 - REVIEW-POINTER system register, D.9
 - REWRITE**, 5.179–80
 - moving ID value during, 3.19
 - RING-SUPPRESS option, 3.69

TCAL Reference Guide Index

RJ-11 connection type, 3.67
 modem interface examples, F.8–15, F.22–30,
 F.39–49
RS422-485 option, 3.68
RUN-TIME file type, 3.22

S

scanning problems, 4.39, 4.47
scratch pad statements. *See* SPAD statements
screen checks, 5.3
screen definition (SD), 3.44
SCREEN option, 3.12
screen section, 3.43–57
SCROLL-SPEED system register, 3.50, D.9
scrolling data fields, 3.50–52
SD (screen definition), 3.44
SEARCH BINARY, 5.181–85
SEARCH FIRST, 5.186–88
SEARCH NEXT, 5.189–91
section names, 2.3, 3.79
sections, required, 2.3
SECURITY comment, 3.4
SEEK, 5.192–95
SEEK FIRST, 5.196–98
SEEK LAST, 5.199–201
SEEK NEXT, 5.202–4
SEEK PRIOR, 5.205–7
SELECT-DEVICE, 5.208–9
semicolons, 2.2
SEND-ETB, 5.210–15
 block sizes for, 3.65
 See also **SEND-ETX**
SEND-ETX, 5.214–15
 block sizes for, 3.65
 See also **SEND-ETB**
sending data. *See* **SEND-ETB**
SET-CLOCK, 5.216–17
SET-CURSOR, 5.218
SET-DECLARATIVES, 5.219–20
SET-DISPLAY-HT, 3.7–8, 5.221–22
SET-DISPLAY-LEN, 5.223
SET-FCB, 5.224–25
SET-KEYBOARD, 5.226–27
 defining KLIGHT key with, 4.34
SHIFT-CHAR system register, D.10
SHIFT system key, 5.5–6, C.4
SHOW, 3.29, 5.228–29
 indirect parameters for, 4.28–30
 inverse video during, 3.50
 usage type considerations for, 4.6
 See also **SHOW-WS**
SHOW-WS, 5.230–32
 LOHI data with, 4.6
 See also **SHOW**

SIGN system register, 5.5, D.10
signed display data, 4.4, 4.7–9, 5.5
SIZE parameter
 for check table entries, 3.33–34, 3.39
 for table rows, 3.74–75
SKIP parameter, 3.71
SOURCE-COMPUTER comment, 3.7
SPACE-TONE parameter, 5.62
spaces, 3.48
SPAD (scratch pad) statements, 3.9–10
 accessing LOHI variables with, 4.7
SPAD types, 3.9, 4.3–6, 4.12–13
SPARE-1 system register, 4.49, 4.52, 4.60
SPARE-2 system register, 4.52, 4.60
SPECIAL-CHAR, 4.22, 4.26, 5.233–35
special characters, defining, 4.22–27
 See also mask characters; **SPECIAL-CHAR**
SPECIAL-NAMES section, 3.8, 3.10
SPECIAL parameter, 3.37–38
START-CLR-WS, 5.14
STOP-BITS parameter, 3.62
 modifying, 5.59
 values for, 5.63
structure of applications, 2.3–5, 3.1–3
subscripts, accessing table entries with, 4.17
SUBTRACT, 5.236–37
SY-CLOCK-1224HR system register, D.10
SY-CLOCK system registers, D.10
SY-CMP system registers, D.10–12
SY-COMPARATOR system register, D.12
SY-DATE system registers, D.13–14
SY-TIME system registers, D.13–14
SYS-BLK-SZ system register, D.14
system errors, B.1–4
system keys, C.1–5
SYSTEM-RAM-SIZE system register, D.14
system registers, 4.49–50, D.1–18
 transferring data to and from, 4.10–12
 See also individual system register names

T

TAB parameter, 3.71
TAB system key, C.2
table entries, accessing, 4.17–19
TABLE option, 3.12
table section, 3.73–75
TCOS-CONTROL system register, D.15
TD (table definition), 3.74
TELEPHONE option, 3.67
TERM-CONFIG system register, D.15
termination keys, 4.2–3
termination verbs, 3.83
text files, embedded, 6.1
THREE-BEEP, 5.250–51

TCAL Reference Guide Index

- time, setting, 5.216–17
- TMOUT system key, C.5
 - as LASTKEY return value, A.1–9
- TOGGLE system key, 5.5–6, C.4
- TONES parameter, 3.66–67
 - ANSWER tone determined by, 5.26
 - CHECK-CARRIER with, 5.52
- translation tables. *See* character translation
- transmission types, 3.60–61
 - COM-TYPE values for, 5.61
 - converting, 5.119
 - modifying, 5.59
- transparent mode, 3.63
- TYPE parameter
 - for data validation checks, 3.34, 3.36
 - for file types, 3.4, 3.20–22
 - for transmission types, 3.60–61, 5.59, 5.61
- U**
- UAR (up-arrow) system key, 5.7, C.4
- UART-CONTROL parameter, 5.62
- underscores, 3.48
- UNPACK option
 - block sizes for, 3.65
 - SEND-ETB with, 5.211
- UNSHIFT-CHAR system register, D.15
- up-arrow (UAR) key, 5.7, C.4
- UPC (Universal Product Code), 4.37–38
 - check digit scheme, 4.40
 - GENERIC-OPTIONS settings for, 4.54
 - guard tightening with, 4.47, 4.54
 - initialization order for, 4.49
 - LABEL-OPTIONS settings for, 4.57–58
 - LABEL-TYPE values for, 4.45
- USAGE clause, 3.26, 4.3
- usage types, 4.3–12
 - converting, 3.16, 4.8–10
 - in validation checks, 3.35, 4.9
- USE-LAST parameter, 3.55–56
- USER- system registers, D.15–17
- USER keys, C.1
 - as LAST-KEY return codes, A.8
- V**
- validation checks, 4.39–44
- VALUE parameter
 - in CDV checks, 3.36, 3.38
 - in keyboard section, 3.40–42
 - in lookup checks, 3.32–35
 - in range checks, 3.34, 3.35
 - in record and field definitions, 3.25
- variable recording mode, 3.18–19, 3.22, 3.27–29
 - in READ statements, 5.154, 5.155
 - variable recording mode, LAST-KEY values for
 - SEEK, 5.193
 - SEEK FIRST, 5.196
 - SEEK LAST, 5.199
 - SEEK NEXT, 5.22
 - SEEK PRIOR, 5.205
- verbs, by function, 3.82–83
- version 4.x conversion, 4.61–64
- viewing angles, keyboard control of. *See* ADJUST-LCD
- VOLUME, 5.238
- volume control, 3.68
- W**
- WAIT, 5.239
- WAIT-FOR-BID, 5.240–4
- WAIT-QUEUE, 5.242–43
 - with INTERRUPT transmissions, 3.61
- WAND-CONFIG system register, 4.50–51, D.17
- WAND-INIT, 4.52, 5.244
- WAND parameter, 3.55
- WAND-PARAMETERS system register, D.17
- WAND-SPARE- system registers, D.17
- WAND-TIME-OUT system register, 4.51, D.17
- WAND-TYPE system register, 4.51, D.17
- wanded data
 - ACCEPTing, 5.4–5
 - initializing for, 4.52–59, 5.244
 - recognizing input, 4.39
 - scanning problems, 4.39, 4.47
 - setting parameters for, 4.44–60
- WHEN, 3.8, 5.245–46
 - setting declaratives with, 3.76–78, 3.79
 - See also* IF-THEN
- WILD-CHAR system register, D.18
- WILD-SEARCH system register, D.18
- wildcard characters
 - in SEARCH BINARY statements, 5.182, 5.185
 - in SEARCH FIRST statements, 5.187
 - in SEARCH NEXT statements, 5.190–91
- WND system key, C.3
 - as LASTKEY return value, 5.8
- working-storage section, 3.29–32
- WP system registers, 4.49–50, D.18
- wrapping, in display adjustment, 5.22
- WRITE, 5.247–49
 - checking memory with, 4.34
 - moving ID value during, 3.19
- X**
- XMITTBL system register, D.18
- XON/XOFF, 5.57