

INDEX

FOR KEYWORDS SEE THE QUICK REFERENCE, P179-81
PRIME REFERENCES ARE ITALICIZED WHEN AMONG OTHERS

A

a.i., beginnings of, 118
 Address book, example, 144-6
 amplitude, 128, 130, 134
 analogue to digital, 132, 174
 area
 function, 83
 of polygon, 70
 to be painted, 2
 arguments, 23-4, 83
 arithmetic functions, 37
 arithmetic operators, 36
 arrays, 68-9
 procedures working on, 84
 Arrow, example, 115
 ASCII codes, 48, 163
 with GET and INKEY, 100-1
 assignment, 4, 33
 auto repeat, 173
 Automaton, game, 120
 axes
 graphics, 108-9, 170
 text, 93, 167

B

backdoor BASIC, 162-78
 base of number, 44, 80-1
 binary digits (*bits*), 44
 binary tree, 74-6
 bitwise operations, 45
 brackets, 5, 15, 36
 Bubble sort, example, 72-3
 buffers, 132, 174
 (see also keyboard buffer)
 bytes, 44, 147-9

C

catalogue, 141
 chaining, 139-40, 154
 channels
 ADC (analogue/digital), 132, 174
 sound, 128, 174
 synchronized sound, 131, 133
 to files, 142-3, 148-9
 character, definition of, 29
 character functions, 48
 characters
 ASCII codes of, 48, 163
 comparison of, 48
 specially defined, 169
 Teletext codes of, 124-5

clearing variables, 154

clock, 97
 colour
 changing scheme of, 168
 complement of, 173
 fill, 112
 planes, 121
 of any point, 114
 of graphics background, 110-11
 of text background, 105
 with Teletext, 122-5
 commands vs. statements, 12
 concatenation

of DATA statements, 103
 of program files, 160
 condition, 19, 59, 62, 102
 definition of, 32

constants
 logical, 42
 spaces in, 31
 syntax of, 32
 contiguous graphics, 122-3
 control statements, 56-7
 coordinates, plotting, 112-14
 cursor, see graphics cursor
 or text cursor

D

DATA file, internal, 103
 data files, on disk or cassette, 140-9
 decisions, 19, 20
 deletion
 of files, 141
 of lines of text, 153
 digit, 29
 (see also under binary)
 dimensions of arrays, 68-9
 double height characters, 122-3

E

editing, 7
 commands, 152-3
 keys, 172
 elements of arrays, 68
 elements of syntax, 29
 envelopes, sound, 134-5
 error handling, 155-9
 exclusive OR, 43, 45, 114, 119
 executive commands, 154
 expressions, 15, 53
 definition of, 32

F

factorial, 87
 false, 42
 field width, 90-1, 94, 97
 files
 data, 140-9
 format of, 147-9
 internal DATA, 103
 pointer to bytes in, 148
 program, 138-9
 flashing
 MODE_{0~6} graphics, 111
 MODE_{0~6} text, 105
 rate of, 173
 Teletext, 123, 125
 flow charts, 20, 56, 76
 function keys, 125, 175
 functions
 arithmetic, 37
 character, 48
 definition of (FN), 23, 79-81, 83
 PRINT-list, 92
 random-number, 40-1
 string, 50
 trigonometrical, 38-9

G

graph of $\cos(x)$, example, 93
 graphics
 by Teletext code, 122-5
 MODE_{0~6}, 108-21
 graphics cursor, 109, 110, 112, 166
 graphics window, 109, 170

H

hex, 80-1, 90

I

indirection operators, 177-8
 infix operators, 29
 input of data, 98-101
 integers
 random, 40-1
 storage of, 44
 invocation
 of FN and PROC, 78
 recursive, 85, 87

J

joining programs, 160
 justification, 90-2

K

keyboard, 6
 keyboard buffer, 100, 102, 104, 119, 174

L

letter, definition of, 29
 line numbers, 4
 AUTO generation of, 9, 12, 153
 in FN and PROC, 78
 integrity of, 58, 64
 limitation imposed by, 19
 listing, 8, 153
 of data files, 147-9
 paging of, 165
 style of, 152
 loading programs, 9, 138-9, 152
 local variables, 79, 82, 87
 logical colours, 105, 110-11, 168
 logical operators, 42-3, 49
 loop, 21-2
 infinite, 62
 jumps out of, 61-2, 73, 102
 "while", 58, 62

M

matrix multiplication, 71
 memory map, 176
 merging programs, 160
 mode, 48, 91, 108, 154
 Teletext, 122-5
 Monkey puzzle, example, 74-6
 M000, game of, 25
 musical notation, 129

N

name
 definition of, 29
 spaces in, 31
 Noughts & crosses, game, 116-19
 numbers
 bases of, 80-1
 random, 40-1
 types of, 14

O

octal notation, 80-1
 operators
 arithmetic, 36
 bitwise, 45
 logical, 42-3, 49
 precedence of, 15
 syntax of, 29, 31, 36
 origin, graphics, 109, 170
 output, destination of, 172

P

pitch, of sound, 128, 134
 pixels, 108
 planes, of colour, 121
 plotting, 112-14
 pointers
 to arrays, 72-3, 75-6, 84-5, 86-7
 to data file, 148
 precedence, 5, 15, 43
 prefix operators, 29
 printer
 enable and disable, 165
 output to, 172
 procedures, 24
 definition of (PROC), 78, 82-7
 program files, 138-9
 prompts, 16, 98-9
 punctuating PRINT list, 16, 90

Q

Quicksort, example, 86-7
 quotation, 32, 98, 103

R

random numbers, 40-1
 Rate of interest, example, 63
 Reactions, example, 104
 recursion, 85-7
 remarks, 30
 renumbering, 8
 Repayments, example, 17
 round, musical, 131
 running a program, 8, 154

S

saving programs, 9, 138-9
 screen clear, 10, 105
 separated graphics, 122-3
 Sexism, example, 51
 Shapes, examples, 20, 65
 sorting techniques
 bubble, 72-3, 85
 monkey puzzle, 74-6
 Quicksort, 86-7
 sound statement, 128
 spacing, 31
 in PRINT list, 90-3
 specially defined characters (¶), 169
 statements, 4, 12, 34

strings, 4, 18

comparison of, 49
 definition of, 32
 expressions as, 53
 functions for, 48, 50, 52
 in PRINT list, 90-3
 length of, 18, 50
 logical operators with, 49
 misuse of, 98, 103
 null, 49-50, 69, 81, 101
 structures, programming, 56-7
 subscripts of arrays, 69
 symbols, definition of, 29
 synchronization, 133
 syntax, notation for, 28-34

T

tabulation, neat, 96
 tape and disk systems, 171
 Teletext graphics, 48, 122-5
 text cursor, 7, 93, 104, 166
 text window, 152, 167
 time, on clock, 97
 tracing errors, 155-7
 tree, binary, 74-6
 Triangle, example, 39
 true, 42
 truncation
 of subscripts, 69
 on assignment, 33
 on input, 98
 types, 14, 68
 typing on keyboard, 6
 Typing skill, game, 102

V

variables, 13, 68
 vectors, 73, 75

W

waiting time, 101
 width of screen, 93, 97
 window
 graphics, 109, 170
 text, 152, 167