

Index

- //, 165
- :, 49
- ==/2, 24
- !, 102
- \=/2, 24
- \==/2, 24

- acyclic graph, 128
- adjacency matrix, 110
- agenda, 54, 105, 108
- apply/2*, 155, 159
- atom_prefix/2*, 168

- call/n*, 40
- Cartesian product, 40
- city block distance, 110, 118, 130
- conduit model, 52
- consult(user)*
 - examples, 88, 108, 159, 184, 185
- cut, *see* !
- cycloid, 146–151

- dataflow diagram, 27
- derangement, 32
- difference lists, 67, 68
- discontiguous*, 181

- enumerator, *see* generator

- Ferrers Diagram, 36
- formatted output, 152
- functional programming, 27, 113

- generate-and-test, 17
- generator, 37–42
- get_char/1*, 138

- hand computations, 25, 27, 28

- Henderson diagram, *see* dataflow diagram
- heuristic, 103
 - admissible, 105, 114
 - alternative, 123–125
 - Euclidean, 123–124
 - zero, 123, 127
- heuristic evaluation function, 104
- higher order predicate, 40, 155

- int_to_atom/2*, 30
- interactive entry of code, *see* *consult(user)*

- keysort/2*, 108

- last/2*, 28
- L^AT_EX, 133–134, 143–160
- LINUX shell script, 139–145, 159, 195
- logarithmic spiral, 156, 194

- Manhattan distance, *see* city block distance
 - and the eight puzzle, 114
- maplist/3*, 150
 - and functional programming, 27
- memoization, 120
- Minkowski Inequality, 132
- mod*, 166
- module/2*, *see* modules
- modules, 47–49

- partial application, 150, 155, 172
- partition of a number
 - definition of, 33
 - generating partitions, 35–36
- pattern matching, 139
- problems for Prolog
 - L^AT_EX code generation, 146–151
 - drawing with L^AT_EX, 146–160
 - eight puzzle, 99–102, 114–118

- knight, 128–132
 - loop puzzles, 76–96
 - maze, 121–128
 - robot navigation, 118–120
 - Rows are Columns, 17–46
 - text removal, 133–145
 - text retention, 151
- relaxed problem, 114
- rotation
 - list rotation, 43
 - rotation of a cycle, 32
- search, 47–128
 - blind search, 47–102
 - Bounded Depth First, 68–72
 - Breadth First, 67–68
 - Depth First, 52–67
 - Iterative Deepening, 72–74
 - informed search, 103–128
 - A-Algorithm, 105–108
 - Best First, 118
 - Hill Climbing, 118
 - Iterative Deepening A^* , 108–110
 - Iterative Deepening $A^*-\epsilon$, 109
- search tree, 49
- see/1*, 138
- seen/0*, 138
- sformat/3*, 152, 193, 194
- shell script, *see* LINUX shell script
- slicing, 133
- snd/2*
 - and functional programming, 27
 - definition of, 25
- sort/2*, 25
- stream data analysis, 27
- tail recursion, 102
- text processing, 133–160
- Triangle Inequality, 131
- unify_with_occurs_check/2*, 181
- use_module/1*, *see* modules
- writeln/2*, 30
- zip/3*