

# 10stripe's Perl Cheat-Sheet

## Variable Types and Sigils

|              |   |
|--------------|---|
| \$scalar     | Single value                                  |
| @array       | List of values                                |
| %hash        | List of key/value pairs                       |
| *typeglob    | All types (holds \$typeglob, @typeglob, etc.) |
| &subroutine  | Named block of instructions                   |
| \\$reference | Memory address (or \@reference, etc)          |

## Flow Control

|                                |  |
|--------------------------------|--|
| { }                            | "Naked" block for scope control        |
| while (true) { }               | Loop while evaluates to true           |
| until (false) { }              | Equivalent to while !(false) { }       |
| if (true) { }                  | Execute once if evaluates to true      |
| elsif (true) { }               | Follows if, note the missing 'e'       |
| else { }                       | Follows if                             |
| unless (false) { }             | Equivalent to if !(false) { }          |
| for (initial;test;iterate) { } | Loop, e.g. for (\$i=0;\$i<9;\$i++) { } |
| foreach (@items) { }           | Option: foreach \$item (@items) { }    |
| last                           | Exit loop; like C's break              |
| next                           | Advance loop to next iteration         |
| redo                           | Repeat loop, do not iterate            |

## pack and unpack Templates

|   |   |
|---|---|
| a | Null-padded string of bytes                                 |
| A | Space-padded string of bytes                                |
| b | Bit string, ascending bit order inside each byte (like vec) |
| B | Bit string, descending bit order inside each byte           |
| c | Signed char (8-bit integer)                                 |
| C | Unsigned char (8-bit integer); see U for Unicode            |
| d | Double-precision (64-bit) floating point, native format     |
| f | Single-precision (32-bit) floating-point, native format     |
| h | Hexadecimal string, low nybble first                        |
| H | Hexadecimal string, high nybble first                       |
| i | Signed integer, native format                               |
| I | Unsigned integer, native format                             |
| l | Signed long, always 32 bits                                 |
| n | 16-bit short in "network" (big-endian) order                |
| N | 32-bit long in "network" (big-endian) order                 |
| p | Pointer to a null-terminated string                         |
| P | Pointer to a fixed-length string                            |
| q | Signed quad (64-bit integer) value                          |
| Q | Unsigned quad (64-bit integer) value                        |
| s | Signed short value, always 16 bits                          |
| S | Unsigned short value, always 16 bits                        |
| u | A uuencoded string  |
| U | Unicode character number                                    |
| v | 16-bit short in "VAX" (little-endian) order                 |
| V | 32-bit long in "VAX" (little-endian) order                  |
| w | BER compressed integer                                      |
| x | Null byte (skip forward a byte)                             |
| X | Back up a byte  |
| Z | Null-terminated (and null-padded) string of bytes           |
| @ | Null-fill to absolute position                              |

## Bitwise Operators

|    |  |
|----|--|
| &  | And                                      |
|    | Or                                       |
| ^  | XOR                                      |
| << | Shift left (Usage: 6 << 2 shifts left 2) |
| >> | Shift right                              |
| ~  | Bitwise negation                         |

## File Tests

|                               |  |
|-------------------------------|--|
| Usage: if (-r \$filename) { } |  |
| -r                            | Readable by this (effective) user/group              |
| -w                            | Writable by this (effective) user/group              |
| -x                            | Executable by this (effective) user/group            |
| -o                            | Owned by this (effective) user/group                 |
| -R                            | Readable by this real user/group                     |
| -W                            | Writable by this real user/group                     |
| -X                            | Executable by this real user/group                   |
| -O                            | Owned by this real user/group                        |
| -e                            | Exists   |
| -z                            | Exists and has zero size (false for directories)     |
| -s                            | Exists and nonzero size (returns size in bytes)      |
| -f                            | Is a plain file                                      |
| -d                            | Is a directory                                       |
| -l                            | Is a symbolic link                                   |
| -S                            | Is a socket  |
| -p                            | Is a named pipe ("fifo")                             |
| -b                            | Is a block-special file (like a mountable disk)      |
| -c                            | Is a character-special file (like an I/O device)     |
| -u                            | Is a setuid  |
| -g                            | Is a setgid  |
| -k                            | Has sticky bit set                                   |
| -t                            | Is a tty   |
| -T                            | "Looks like" plain text (reads beginning of file)    |
| -B                            | "Looks like" binary file (reads beginning of file)   |
| -M                            | Time since last modified (floating-point days)       |
| -A                            | Time since last accessed (floating-point days)       |
| -C                            | Time since inode last modified (floating-point days) |

## printf and sprintf Formats

|    |   |
|----|---|
| %c | Character with the given number                     |
| %s | String  |
| %d | Signed integer, in decimal                          |
| %u | Unsigned integer, in decimal                        |
| %o | Unsigned integer, in octal                          |
| %x | Unsigned integer, in hexadecimal                    |
| %e | Floating-point number, in scientific notation       |
| %f | Floating-point number, in fixed decimal notation    |
| %g | Floating-point, let Perl choose good way (%e or %f) |
| %% | Literal percent sign                                |

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