# CSC2.0 QUICK REFERENCE CARD

## Quick Hacks

```
Ctrl+C
```
...................... Kills Current Command
```
Ctrl+D
```
.............................. Exit or Finished

$\uparrow$ ............................... Scroll though history

```
sudo !!
```
.............. Execute last command as root

```
Ctrl+Shift+C
```
.................................. Copy

```
Ctrl+Shift+V
```
................................... Paste

`.` ................................. Current directory

`..` ................................ Up one directory

```
./<command>
```
........ Execute command in current dir

## Monday

`ls` .............................. list files in directory

```
cd <directory>
```
..................... change directory

`whoami` ............................ current username

```
alias <command>='<newcommand'>
```
...alias command

`pwd` ........................ print working directory

```
cat <file>
```
................................. read file

```
cp <file> <copy_of_file>
```
................. copy file

```
mv <file> <newfile>
```
...................... move file

```
rm <file>
```
..................... remove file - forever!

```
mkdir <dir_name>
```
.................... make directory

`grep` *pattern* `<file>` ......... search file for pattern

```
man <command>
```
............ the manual for ¡command¿

```
sudo <command>
```
..... EUID of 0 - root for ¡command¿

`ps` ................... list current processes, -e or aux

```
kill <pid>
```
....................... kill process ¡pid¿

## Tuesday

```
apt-get install
```
*app* .................... install *app*

```
adduser
```
*username* ................ add user *username*

```
deluser
```
*username* ............. delete user *username*

```
ifconfig
```
.............. configure a network interface

```
ssh -X -C <username>@<ip_addr>
```
SSH to ¡ip_addr¿ as ¡username¿

```
ssh <ip_addr>
```
.................... SSH to ¡ip_addr¿

```
ssh-keygen
```
..................... generate an SSH key

```
ssh-copy-id <username>@<ip_addr>
```
..copy SSH key

## Insert Mode

ˆV$c$ ˆV$n$ ........ insert char $c$ literally, decimal value $n$

ˆV$n$ ................. insert decimal value of character

ˆA ...................... insert previously inserted text

ˆ@ ..... same as ˆA and stop insert $\rightarrow$ command mode

ˆR$x$ ˆRˆR$x$ ........ insert content of register $x$, literally

ˆN ˆP ............ text completion before, after cursor

ˆW ........................ delete word before cursor

ˆU ......... delete all inserted character in current line

ˆD ˆT ................. shift left, right one shift width

ˆK$c_1c_2$ $_{or}$ $c_1 \leftarrow c_2$ ................. enter digraph $\{c_1, c_2\}$

ˆO$c$ .......... execute $c$ in temporary command mode

ˆXˆE ˆXˆY ........................... scroll up, down

$\langle esc \rangle$ $_{or}$ ˆ[ ......... abandon edition $\rightarrow$ command mode

## Search & Substitution

/$s \leftarrow$ ?$s \leftarrow$ ............. search forward, backward for $s$

/$s$/$o \leftarrow$ ?$s$?$o \leftarrow$ ..... search fwd, bwd for $s$ with offset $o$

n $_{or}$ /$\leftarrow$ ..................... repeat forward last search

N $_{or}$ ?$\leftarrow$ ................... repeat backward last search

`#` `*` .. search backward, forward for word under cursor

`g#` `g*` ........... same, but also find partial matches

`gd` `gD` ..local, global definition of symbol under cursor

:r$s$/$f$/$t$/$x$ ............... substitute $f$ by $t$ in range $r$

$\lfloor$ $x$ : `g`—all occurrences, `c`—confirm changes

:r$s$ $x$ ........... repeat substitution with new $r$ & $x$

## Formatting/Filtering

$m$ is movement; leave out for visual mode commands

gq$m$ ........................... format $m$ (*formatprg*)

gqgq $_{or}$ gqip ............... format current paragraph

= $m$ ................. reindent movement $m$ (*equalprg*)

:r`ce` $w$ ........... center lines in range $r$ to width $w$

:r`le` $i$ ....... left align lines in range $r$ with indent $i$

:r`ri` $w$ ...... right align lines in range $r$ to width $w$

!$mc \leftarrow$ . filter lines of movement $m$ through command $c$

$n$!!$c \leftarrow$ .............. filter $n$ lines through command $c$

:$r$!$c$ .......... filter range $r$ lines through command $c$

~ ..................... switch case and advance cursor

g~$m$ gu$m$ gU$m$ ... switch case, lc, uc on movement $m$

<$m$ >$m$ ........ shift left, right text of movement $m$

$n$≪ $n$≫ ...................... shift $n$ lines left, right

ˆA ˆX ...... increment/decrement number under cursor

## Visual Mode & Text Objects

`v` `V` ˆV .............. highlight characters, lines, block

`o` ...... exchange cursor pos with start of highlighting

`gv` .......... start highlighting on previous visual area

`aw` `as` `ap` ......select a word, a sentence, a paragraph

`ab` `aB` `a]` `a`>........... select a block ( ), { }, [ ] < >

`at` .................................. select an html tag

`a"` `a'` `a`` ........................... select a quotet string

`iw` `is` `ip` `ib` `iB` `i]` `i`> `it` `i"` `i'` `i`` ..select "inner"

$n$> $n$< = ......... indent/unindent $n$ levels, reindent

## Undoing, Repeating & Registers

`u` `U` .....undo last command, restore last changed line

`.` ˆR .............. repeat last changes, redo last undo

`n.` ...... repeat last changes with count replaced by $n$

q$c$ q$C$ .. record, append typed characters in register $c$

`q` .................................... stop recording

@$c$ ................... execute the content of register $c$

`@@` ...................... repeat previous `@` command

:@$c$ ............. execute register $c$ as an *Ex* command

## Copying (Yanking)

`"`$x$ ........... use register $x$ for next delete, yank, put

:reg [$x$] ............... show content registers/$x$ reg

y$m$ .......... yank the text of movement command $m$

yy $_{or}$ Y .................. yank current line into register

`p` `P` .......... put register after, before cursor position

`]p` `[p` .................. like `p`, `P` with indent adjusted

`gp` `gP` .......... like `p`, `P` leaving cursor after new text

## Patterns (differences to Perl)    :help pattern

\< \> ............................ start, end of word

\i \k \I \K ...... an identifier, keyword; excl. digits

\f \p \F \P . a file name, printable char.; excl. digits

\e \t \r \b ................... $\langle esc \rangle$, $\langle tab \rangle$, $\langle \leftarrow \rangle$, $\langle \leftarrow \rangle$

\= \* \+ ... match 0..1, 0..$\infty$, 1..$\infty$ of preceding atoms

\{$n,m$\} ................... match $n$ to $m$ occurrences

\{-\} ............................ non-greedy match

\| ....................... separate two branches ($\equiv$ *or*)

\( \) ................... group patterns into an atom

\& \1 .......the whole matched pattern, $1^{st}$ () group

\u \l .................... upper, lowercase character

\c \C ........... ignore, match case on next pattern

\%x ............................ match hex character

\@= \@! ................(?=pattern) (?!pattern)
\@<= \@<! .........(?<=pattern) (?<!pattern)
\@> ......................................(?>pattern)
\_^ \_$ .start-of-line/end-of-line, anywhere in pattern
\_. ................any single char, including end-of-line
\zs \ze .....................set start/end of pattern
\%^ \%$ ............... match start/end of file
\%V ......................... match inside visual area
\'m .................... match with position of mark m
\%(\) ............................ unnamed grouping
\_[ ] .............collection with end-of-line included
\%[ ] ..........sequence of optionally matched atoms
\v .............. very magic: patterns almost like perl

## Spell Checking
:set spell spelllang=de_20 ....activate spellcheck
]s ................................. next misspelled word
zg zG ..........add good word (to internal word list)
zw zW .........mark bad word (to internal word list)
z= .................................suggest corrections

## Marks, Motions, and Tags
m$c$ ........mark current position with mark $c \in [a..Z]$
`$c$ `$C$ ..........go to mark $c$ in current, $C$ in any file
`` `" .........go to position before jump, at last edit
`[ `] ....go to start, end of previously operated text
:marks ..................... print the active marks list
:jumps ......................... print the jump list
$n$^O .............go to $n^{th}$ older position in jump list
$n$^I ...........go to $n^{th}$ newer position in jump list
^] ^T ..jump to the tag under cursor, return from tag
:ts $t$ ......list matching tags and select one for jump
:tj $t$ ...jump to tag or select one if multiple matches
gf ..........open file which filename is under cursor
:tags ................................. print tag list

## Multiple Files / Buffers (↩)
:tab ball ......................show buffer tablist
:buffers .......................show list of buffers
:buffer n .......................switch to buffer n
:badd f.txt ................ load file into new buffer
:bdelete n ...... delete buffer n (also with filename)
:bnext :bprev :bfirst :blast ... buffer movement

## Scrolling & Multi-Windowing
^D ^U ^F ^B......scroll half / full page page down, up
zt zz zb ...current line to top, center, bottom of win
:[v]split ^Ws ^Wv........split window (horiz., vert.)
:vert help......................open help vertically
^Wf ^W].....................open file, tag in split
:[v]new ^W^n ...... new empty window (horiz., vert.)
:on ^Wo...............make current win the only one
^Wj ^Wk ^Wh ^Wl ....move down, up, left, right to win
^WJ ^WK ^WH ^WL ...... move win down, up, left, right
^Wn+ ^Wn- ..... increase/decrease win size by $n$ lines
^W$n$ > ^W$n$ < ........ increase/decrease window width
^W$n$_ ^W$n$|.............set height/width (max if no $n$)
^W=................................ Make win size equal
^Wr ^Wx.................... Rotate, exchange windows
^Wc.......................................close window

## Misc Ex Commands (↩)   :help holy-grail
:e $f$ ............ edit file $f$, reload current file if no $f$
:$r$ w $f$ ....write range $r$ to file $f$ (current file if no $f$)
:$r$ w≫$f$ ................... append range $r$ to file $f$
:$r$ g[!]/$p$/cmd ..ex cmd on range $r$ [not] matching $p$
:q :q! ..quit and confirm, quit and discard changes
:wq $or$ :x $or$ ZZ ............write to current file and exit
:$r$ $f$ .............insert content of file $f$ below cursor
:r! $c$ ...... insert output of command $c$ below cursor
:$r$c $a$ :$r$m $a$ .........copy, move range $r$ below line $a$

## Ex Ranges
, ; .....separates two lines numbers, set to first line
$n$ ..........................an absolute line number $n$
. $ ...............the current line, the last line in file
% * ...........................entire file, visual area
'$t$ ................................. position of mark $t$
/$p$/ ?$p$?   ....the next, previous line where $p$ matches
+$n$ -$n$ ..........+$n$, −$n$ to the preceding line number

## Completion
^X^L........................................ whole lines
^X^N ^X^I .. keywords in current file, plus included files
^X^K ^X^N .......... keywords in dictionary, thesaurus
^X^] ^X^F ^X^D ........... tags, filenames, defs/macros
^X^V................................vim command line
^X^U ^X^O............. user defined, omni- completion

## Folding
:set fdm=indent ................indent-foldmethod
zf$m$ .......................create fold of movement $m$
:$r$fo .......................... create fold for range $r$
zd zE .............delete fold at cursor, all in window
zo zc zO zC .........open, close one fold; recursively
[z ]z ........ move to start, end of current open fold
zj zk .......move down, up to start, end of next fold
zm zM ......................fold more, close all folds
zr zR ......................... fold less, open all folds
zn zN zi ........fold non, fold normal, invert folding
:set foldcolumn=4 ..............show foldcolumn

## Compiling
:compiler $c$ .............. set/show compiler plugins
:make ..............run makeprg, jump to first error
:cope ....................navigate errors from make
:cn :cp .............display the next, previous error
:cl :cf ..........list all errors, read errors from file

## Miscellaneous
:sh :!$c$ ...... start shell, execute command $c$ in shell
K .......run keywordprg (man) on word under cursor
^L ....................................... redraw screen
^G ...show cursor column, line, and character position
:set cuc ................show cursor column visually
ga ........show ASCII value of character under cursor
:mkview [$f$] :loadview [$f$] ..save/load configuration
:set ff=dos ...........convert file to dos eol format
:e ++ff=unix ..........reopen file in unix eol format
:write ++enc=utf-8 .............. Write file in utf-8
:set hlsearch ..................highlight searches
:$r$hardcopy > file.ps ........print range to ps file
:set list ........show listchar characters (tabs etc.)