VIM Modes Transition Diagram

Note(s)
Esc — Equivalent — Ctrl-[

By darcyparker@gmail.com Draft (3/19/2012. But not released as a new draft) Feedback welcome

Normal (Command)

Q
Ex
:vi

i I a A o O gi gI s S C cc
Insert

c Esc Ctrl-C operator
Operator Pending
motion or text object
motion or text object
It's called 'Operator Pending', but it seems a better name would be 'Motion Pending'.

R gR
Esc
Insert
Insert
Ctrl-X
Ctrl-X Mode
Ctrl-X Mode
Ctrl-X
Ctrl-V
Ctrl-Q
Special Character
Special Character
Ctrl-V
Ctrl-Q
Replace Modes
Virtual Replace
Replace
:startgreplace
:startreplace
:start

gr
Printable Character, NL or CR
Special Character
Ctrl-V Ctrl-Q Esc Ctrl-C
Virtual Replace Character Pending
Replace Character Pending
Replace Character Pending Modes

r
Replace Character Pending

: ? / =
Esc Ctrl-C CR
Command-Line (Cmdline)
:
!

Esc Ctrl-C
undocumented
Esc
Stops visual mode
Ctrl-C
Printable and some Special Characters
Special Character
Ctrl-V Ctrl-Q
Printable Character, NL or CR
Ctrl-C
Visual Replace Character Pending
Visual Virtual Replace Character Pending
Esc
r
gr
Note: Esc does not cancel in this mode. Esc enters ^[character!
In fact any special character, such as <Tab>, can be entered directly.

C
c
s
S
R
I
A
Note: s is equivalent to c from visual mode
Note: R is equivalent to S in visual mode (Vim help says R may change after Vim 7.3?)
Also note, S is overridden by the surround.vim plugin from visual mode.

v V Ctrl-V gv
v V Ctrl-V
Visual
Visual Line
Visual Block
v V
V
v
Ctrl-V
v
Esc Ctrl-C
o
O
$
I
A
Esc Ctrl-C J gJ u U g? operator
gv
Visual Modes

Ctrl-G Ctrl-G
Printable Character, NL, or CR
Select Modes
Visual Mode Command
Select Visual
Ctrl-O
Ctrl-O
Select
Select Line
Select Block
Ctrl-C
Esc
gh
gH
g Ctrl-H

Insert Visual Modes
Ctrl-C
Esc
Visual Mode Command
v
V
Ctrl-V
Insert Visual
Insert Visual Line
Insert Visual Block
Esc
Normal Mode Command
Insert Normal
Ctrl-O
Ctrl-G Ctrl-G
Insert Select Modes
gh
gH
g Ctrl-H
Insert Select
Insert Select Line
Insert Select Block
Select Mode Command
Esc

Enter Special Character State Diagram
Ctrl-V Ctrl-Q
Enter from
Insert, Replace, Virtual Replace Mode
or one of the Replace Character Pending Modes
Special Character Pending
Special Character Except: [0-9XoOxXuU]
o O x X u U
up to 3 decimal digits [0-9]{0,3}
up to 3 octal digits [0-7]{0,3}
up to 4 hex digits [0-9a-fA-F]{0,4}
up to 4 hex digits [0-9a-fA-F]{0,4}
up to 8 hex digits [0-9a-fA-F]{0,8}
Return to
Insert, Replace, or Virtual Replace Mode
or Normal Mode if coming from one of the Replace Character Pending Modes

Ctrl-X Mode
Ctrl-X
Enter from
Insert or Replace Mode
Ctrl-X (Insert Completion) Mode
After leaving Completion Mode
Return to
Insert or Replace Mode

Esc Ctrl-C
Esc