LEGEND

C Class	**A** *AbstractClass*

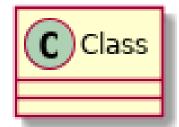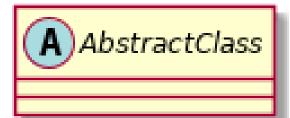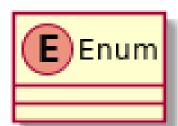|	
E Enum	**Members**

Members
- □ private field
- ◇ protected field
- ○ public field
- <u>static field</u>
- □ privateMethod()
- ◇ protectedMethod()
- ○ publicMethod()
- <u>staticMethod()</u>
- *virtualMethod()*

Final Architecture

BufferType

CursorMovement (E)
NormalModeCursor
InsertModeCursor
IteratorCursor

Cursor (C)
- line : Int
- col : Int

PtrCursor (C)
- wrapAtEOL() : Bool
- canPointAtEOL() : Bool
- moveRight(Int) : Void
- moveLeft(Int) : Void
- moveDown(Int) : Void
- moveUp(Int) : Void
- moveBeginOfLine() : Void
- moveEndOfLine() : Void
- enforceBoundaries() : Void
- setType(CursorMovement) : Void
- getType() : CursorMovement
- isEOL() : Bool
- isEOF() : Bool

Coordinates (C)
- x : Int
- y : Int

Component (A)
- size : Coordinates
- posn : Coordinates
- getSize() : Coordinates
- setSize(Coordinates) : Void
- setPosn(Coordinates) : Void
- enforceFitIntoSize(Coordinates) : Void
- appendChildren(Component) : Void
- detachChildren(Component) : Void
- draw(Coordinates, TextDisplay) : Void

FileBuffer (C)
- fileName : String
- type(String) : Void
- typeNewLine() : Void
- delete_forward(Int) : Void
- delete_backward(Int) : Void
- write(String) : Void
- typeWithinLine(String) : Void

TextDisplay (A)
- putc(Coordinates, Char) : Void
- puts(Coordinates, String) : Void
- flush(Coordinates) : Void
- redraw() : Void
- resizeHandler(Coordinates) : Void
- setCursorPosition(Int, Int) : Void
- getMainComponent() : Component
- setMainComponent(Component) : Void

BufferView (C)
- cursor : Cursor
- setLineNumbers(Bool) : Void
- moveScreen(Bool) : void
- moveHalfScreen(Bool) : void
- setCursor(Coordinates, TextDisplay) : Bool
- getLineNumberWidth() : Int

Input (A)
- getChar() : Int

ClipBoard (C)
- multiline : Bool
- theClipBoard : String

NCursesDisplay (C)
- getMainDisplay() : NCursesDisplay
- resizeHandler(Int) : Void

NCursesInput (C)

Controller (C)
- undoStack : Stack<UndoableCommand>
- redoStack : Stack<UndoableCommand>
- macroRecKey : Char
- MacroMap : Map<Vector<Command>>
- message : String
- programIsRunning : Bool
- getAndProcessChar() : Void
- changeMode(Mode) : Void
- changeBuffer(FileBuffer) : Void
- setBufferView(BufferView) : Void
- setMacroReckey(Char) : Void
- setMessage(String) : Void
- runUndoableCommand(UndoableCommand) : Void
- runSimpleCommand(Command) : Void
- pushCommand(Command) : Void
- recordIfToggledCommand(Command) : Void
- quit(Bool) : Void

ParserStages (E)
EarlyStage
QuantifierStage
CommandStage
MotionStage

StatusBar (C)
- setCursor(Coordinates, TextDisplay) : Bool

MainView (C)
- getBufferView() : BufferView

Application (C)
- run() : Void

ParserHelper (C)
- motionsParser : Map<Int, Function<Motion, Int, Char>>
- commandParser : Map<Int, Function<Command, Int>>
- comandWithMotionParser : Map<Int, Function<Command, Int, Motion>>

Mode (A)
- processChar(Int) : Void
- flush() : Void
- onExit() : Void
- getStatusBarLeft() : String
- getStatusBarRight() : String
- getStatusBarCursor() : Int

ExitHandler (A)
- quantifier : Int
- postExit(Controller, MutationCommand) : Void

CommandMode (C)
- commandBuffer : String
- parse() : Command
- parseMotion(String, Char) : Motion

LazyCommandMode (A)
- commandString : String
- getStatusBarLeftIndicatorChar() : Char

ReplaceMode (C)
- replaceBuffer : Vector<UndoableCommand>

InsertMode (C)
- insertBuffer : Vector<UndoableCommand>

InsertHandler (C)

DeleteInsertHandler (C)

OpenLineHandler (C)

ColonCommandMode (C)
- parseCommand(String, String) : Command

SearchCommandMode (C)

Modes (C)

Commands

A Motion

A Command
- count : Int
- doCommand(Controller) : void
- clone() : Command
- setQuant() : Void

Subclasses of Command (top row):
- YankCommand
- DotCommand
- MoveCommand
- MoveScreenCommand
- QuitCommand
- RedoCommand
- SetLineCommand
- UndoCommand
- ToggleRecordMacroCommand
  - key : Char
- EOLEnterInsertCommand
- DeleteCharInsertCommand
- DeleteLineInsertCommand
- EnterColonCommand
- EnterInsertCommand
- EnterReplaceCommand
- EnterSearchCommand
- EOLEnterInsertCommand
- EscapeCommand
- RightEnterInsertCommand

C Cursor

A Command

A UndoableCommand
- startPosn : Cursor
- endPosn : Cursor
- undoCommand(Controller) : Void
- redoCommand(Controller) : Void
- undoableClone() : UndoableCommand

A Motion

C DeleteCommand
- beginPosition : Cursor
- buffer : String
- isMultiline : Bool

C PasteCommand
- toPaste : String
- multiline : Bool
- pasteAfter : Bool
- pasteStarts : Cursor

C ReplaceCharCommand
- deleted : Char

C WriteCommand

A MutateCommand
- toMutate : Char

C JoinLines

C MutationCommand
- theMutateCommands : Vector<UndoableCommand>

C ReadInCommand
- fileNameToReadFrom : String
- contents : BufferType

C RunMacroCommand
- key : Char
- sequence : Vector<Command>

C DeleteBackWardCommand

C DeleteForwardCommand

C InsertCommand

C OpenLineCommand

C ReplaceLineCommand
- deleted : Char

E WordState
ALPHA_NUM_UNDERSCORE
WHITESPACE
OTHER

E Direction
UP
DOWN
LEFT
RIGHT

A Motion
- quantifier : Int
- isMultiLine : Bool
- startPosition(PtrCursor) : Cursor
- endPosition(PtrCursor) : Cursor
- clone() : Motion

C WordMotion

C SearchMotion

C FindMotion

C DirectionMotion

C AbsoluteMotion

C BraceMatch

C BegLineMotion

C EOLMotion

C FirstCharMotion

C WholeLineMotion