Power Editing: Building a Productive Editing Environment for Yourself

Hoxie Ackerman

UC Berkeley
Department of Statistics
Student Productivity Seminar

April 1, 2011
Goals of This Talk

1. Spark interest in productive editing on your part
2. Share ideas about functionality your editor should contain
3. Demonstrate Textmate (my setup)
4. Start a dialog in the department about efficient editing
Goals of This Talk

1. Spark interest in productive editing on your part
Goals of This Talk

1. Spark interest in productive editing on your part
2. Share ideas about functionality your editor should contain
Goals of This Talk

1. Spark interest in productive editing on your part
2. Share ideas about functionality your editor should contain
3. Demonstrate Textmate (my setup)
Goals of This Talk

1. Spark interest in productive editing on your part
2. Share ideas about functionality your editor should contain
3. Demonstrate Textmate (my setup)
4. Start a dialog in the department about efficient editing
Behold the Power of the Editor...
Behold the Power of the Editor...
Get Textmate

- Software Central! All Berkeley students can download certain applications that the university has purchased licenses for
- License information available at software-central.berkeley.edu/software/71-TextMate
- Download Textmate (Mac only) 30-day trial at macromates.com, install as usual, enter Berkeley license when you first run the application
Power Editing

Goals and Motivation

Get Textmate

Basic Functionality

Automation + Customization

External Integration

Closing Thoughts

Project Management

Project management demonstration

Document drawer

Syntax highlighting and aesthetics

TODO functionality (Control + Shift + t)

Better than emacs here?
Project management demonstration

- Document drawer
Project management demonstration

- Document drawer
- Syntax highlighting and aesthetics
Project management demonstration

- Document drawer
- Syntax highlighting and aesthetics
- TODO functionality (Control + Shift + t)
Project management demonstration

- Document drawer
- Syntax highlighting and aesthetics
- TODO functionality (Control + Shift + t)
- Better than emacs here?
Getting Around (No Mouse!)
Getting Around (No Mouse!)

- Emacs keyboard shortcuts (general OS X trick!)
  Control + p, d, f, b, a, e, d, l, etc.
Getting Around (No Mouse!)

- Emacs keyboard shortcuts (general OS X trick!)
  Control + p, d, f, b, a, e, d, l, etc.
- Move to line
Getting Around (No Mouse!)

- Emacs keyboard shortcuts (general OS X trick!)  
  Control + p, d, f, b, a, e, d, l, etc.
- Move to line
- New line from middle of previous line
Moving Code Around
Moving Code Around

- Duplicate line/selection
Moving Code Around

- Duplicate line/selection
- Change indentation levels
Moving Code Around

- Duplicate line/selection
- Change indentation levels
- Code folding
Moving Code Around

- Duplicate line/selection
- Change indentation levels
- Code folding
- Column selection
Creating Content

Like our English essay, you still have to write code yourself, but...

Auto completion: (), {}, [], $, ', "
Works on highlighted text!
Variable name completion!
Comment/uncomment sections of code
Snippets, commands, etc.
Creating Content

Like our English essay, you still have to write code yourself, but...

- Auto completion: ( ), { }, [ ], $ $, ‘ ’, “ ”, < >
  Works on highlighted text!
Creating Content

Like our English essay, you still have to write code yourself, but...

- Auto completion: (),{}, [], $ $, ‘’, “”, <>
  Works on highlighted text!
- Variable name completion!
Like our English essay, you still have to write code yourself, but...

- Auto completion: ( ), { }, [ ], $ $, ‘ ’, “ ”, <>
  Works on highlighted text!
- Variable name completion!
- Comment/uncomment sections of code
Creating Content

Like our English essay, you still have to write code yourself, but...

- Auto completion: (), {}, [ ], $ $, ‘ ’, “ ”, <>
  Works on highlighted text!
- Variable name completion!
- Comment/uncomment sections of code
- Snippets, commands, etc.
Snippets

A snippet is an action (usually the insertion of some predefined text) based on a trigger. Triggers can be either keyboard shortcuts or expanded keywords. Examples:

- Often-used TeX symbols and code
- Tedious mathematical constructs (string them together!)
- Common R code

Save keystrokes (especially annoying ones), better coding practices, fewer typos, better programming experience.

Available in many editors (for example, gedit), though may be under a different name. ('Macros'?)
A **snippet** is an action (usually the insertion of some predefined text) based on a trigger. Triggers can be either keyboard shortcuts or expanded keywords. Examples:

- Often-used TeX symbols and code
A **snippet** is an action (usually the insertion of some predefined text) based on a trigger. Triggers can be either keyboard shortcuts or expanded keywords. Examples:

- Often-used TeX symbols and code
- Tedious mathematical constructs (string them together!)
A snippet is an action (usually the insertion of some predefined text) based on a trigger. Triggers can be either keyboard shortcuts or expanded keywords. Examples:

- Often-used TeX symbols and code
- Tedious mathematical constructs (string them together!)
- Common R code
A snippet is an action (usually the insertion of some predefined text) based on a trigger. Triggers can be either keyboard shortcuts or expanded keywords. Examples:

- Often-used TeX symbols and code
- Tedious mathematical constructs (string them together!)
- Common R code
A snippet is an action (usually the insertion of some predefined text) based on a trigger. Triggers can be either keyboard shortcuts or expanded keywords. Examples:

- Often-used TeX symbols and code
- Tedious mathematical constructs (string them together!)
- Common R code

Save keystrokes (especially annoying ones), better coding practices, fewer typos, better programming experience.
A **snippet** is an action (usually the insertion of some predefined text) based on a trigger. Triggers can be either keyboard shortcuts or expanded keywords. Examples:

- Often-used TeX symbols and code
- Tedious mathematical constructs (string them together!)
- Common R code

Save keystrokes (especially annoying ones), better coding practices, fewer typos, better programming experience. Available in many editors (for example, gedit), though may be under a different name. (‘Macros’?)
Commands

Commands are small scripts that operate on sections (usually whatever you highlight) of your code. Written in a scripting language, they provide all the power of logic, flow control, regex, string manipulation, etc. for editing that section of code.

Examples:

Source: 'comment selection'
R: 'as vector'

In Textmate, can be written in any scripting language. More complicated... many come included with Textmate!
Commands are small scripts that operate on sections (usually whatever you highlight) of your code. Written in a scripting language, they provide all the power of logic, flow control, regex, string manipulation, etc. for editing that section of code.
**Commands** are small scripts that operate on sections (usually whatever you highlight) of your code. Written in a scripting language, they provide all the power of logic, flow control, regex, string manipulation, etc. for editing that section of code. Examples:

- Source: ‘comment selection’
**Commands** are small scripts that operate on sections (usually whatever you highlight) of your code. Written in a scripting language, they provide all the power of logic, flow control, regex, string manipulation, etc. for editing that section of code. Examples:

- Source: ‘comment selection’
- R: ‘as vector’
Commands are small scripts that operate on sections (usually whatever you highlight) of your code. Written in a scripting language, they provide all the power of logic, flow control, regex, string manipulation, etc. for editing that section of code. Examples:

- Source: ‘comment selection’
- R: ‘as vector’
**Commands** are small scripts that operate on sections (usually whatever you highlight) of your code. Written in a scripting language, they provide all the power of logic, flow control, regex, string manipulation, etc. for editing that section of code. Examples:

- **Source:** ‘comment selection’
- **R:** ‘as vector’

In Textmate, can be written in *any* scripting language.
Commands are small scripts that operate on sections (usually whatever you highlight) of your code. Written in a scripting language, they provide all the power of logic, flow control, regex, string manipulation, etc. for editing that section of code. Examples:

- Source: ‘comment selection’
- R: ‘as vector’

In Textmate, can be written in any scripting language. More complicated... many come included with Textmate!
Some editors make documentation for programming languages accessible directly from editor. Very convenient (and searchable!)
Some editors make documentation for programming languages accessible directly from editor. Very convenient (and searchable!)
Get applications working together! Examples:

- Send R code to R session
- ‘Watch’ a LaTeX document
- Compile BibTeX file, index it too for easy references!
Power Editing

Goals and Motivation

Get Textmate

Basic Functionality

Automation + Customization

External Integration

Closing Thoughts

A powerful text editor can make your life much easier. Textmate is great for Mac users, but there are many: en.wikipedia.org/wiki/Comparison_of_text_editors

It's worth it to find a powerful editor and get good with it... we're going to be doing this for a while!
A powerful text editor can make your life much easier
A powerful text editor can make your life much easier.

Textmate is great for Mac users, but there are many:

en.wikipedia.org/wiki/Comparison_of_text_editors
Closing Thoughts

- A powerful text editor can make your life much easier
- Textmate is great for Mac users, but there are many: en.wikipedia.org/wiki/Comparison_of_text_editors
- It’s worth it to find a powerful editor and get good with it... we’re going to be doing this for a while!
These slides available on Wiki, with my Textmate bundles
Resources

- These slides available on Wiki, with my Textmate bundles
Resources

- These slides available on Wiki, with my Textmate bundles
- Google... tons of good information about this stuff online
Resources

- These slides available on Wiki, with my Textmate bundles
- Google... tons of good information about this stuff online
- Me: hoxie@stat
Resources

- These slides available on Wiki, with my Textmate bundles
- Google... tons of good information about this stuff online
- Me: hoxie@stat
- Thanks for listening!