Aquamacs User Help

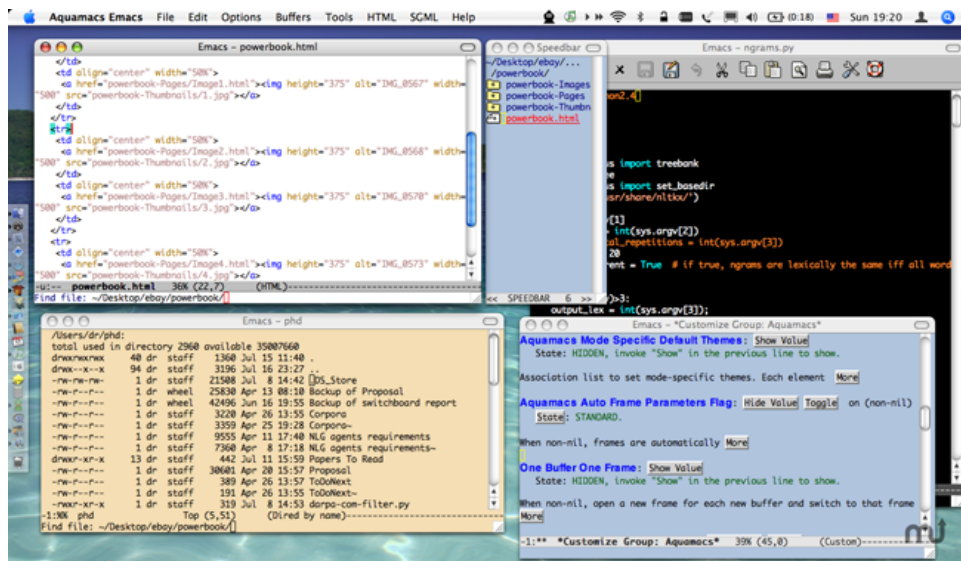David Reitter and Kevin Walzer

November 26, 2005

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Figure 1: Aquamacs combines the legendary power of Emacs with user-friendly customizations to provide a more Aqua-specific user experience.

1 Aquamacs Emacs: a User-friendly Emacs Distribution

Aquamacs is an freely-available Aqua-native build of the powerful Emacs text editor (`http://www.gnu.org/software/emacs/emacs.html`). By "Aqua-native," we mean more than just the fact that this version of Emacs runs as a standard OS X application. Aquamacs features extensive customization that enables it to conform better with Apple's standard Human Interface Guidelines (HIG) than standard versions of the editor do.

Emacs is a text editor of legendary power and configurability, but it also has an enormously complex interface that, while consistent across platforms, is usually at odds with the specific interface conventions of the particular platform on which it is being used. The original GNU version of Emacs for the Mac, called Carbon Emacs, is no different.

Aquamacs Emacs implements the standard OS X keyboard shortcuts and other interface conventions, integrating Emacs into the Aqua environment to a far greater degree than other versions of Emacs. This allows Mac users who might be unfamiliar with Emacs' complex standard interface to harness its amazing editing power in a familiar way.

You can always download the latest version of Aquamacs from the project home page, `http://aquamacs.org`. The direct download link is `http://aquamacs.org/cgi-bin/download.cgi`. Just download the disk image (DMG), move the Aquamacs application bundle to your hard drive, and launch.

This documentation aims to introduce Aquamacs to novice users of Aquamacs Emacs, to help them get started with this powerful text editor. The documentation also aims to introduce Aquamacs to experienced users of Emacs, who may find aspects of its interface inconsistent with their experience.

The Aquamacs documentation will focus on the following areas:

- What's New in this Release

- Tutorial: Aquamacs for Beginners

- In-Depth: The Aquamacs Interface

- Aquamacs for Emacs Veterans

Our hope is that using Aquamacs will be a rewarding experience both for new users, who come to appreciate the power of Emacs without the steep learning curve, and for experienced Emacs users, who may find Emacs' integration into the Aqua environment an unexpectedly pleasant surprise.

1.1 Terminology in this Manual

GNU Emacs uses a terminology that is different from what users of modern, graphical environments are used to. Windows become *frames*, and documents are held in *buffers*. We will concentrate on the Emacs terminology in this manual in places where this is not confusing.

Aquamacs Emacs is an extensive *distribution* of GNU Emacs will modified defaults – almost up to the point where it could be called a *fork* - a completely new program. However, Aquamacs always contains the latest version of GNU Emacs. It is useful to understand the relationship between Emacs and Aquamacs. In this manual, we will use the term *Emacs* to refer to the core which is used on many different operating systems and built and distributed by the GNU Project. We will use the term *Aquamacs Emacs* (or just *Aquamacs*) to refer to the present implementation.

2 What's New in This Release

This is version 0.9.7-beta of Aquamacs, released November 19, 2005. Aquamacs 0.9.7 includes several bug fixes, optimizations, and improvements.

2.1 Changes—0.9.7

- *S*ummary: New functions: Mac-style printing, Export to PDF and HTML, Spelling suggestions, New buffer in mode / change major mode menus, a context menu (right mouse click), speed improvements, nXML and AUCTeX included text display improved (international characters and proportional fonts), "wrong command-p" bug fixed and much more.

- Printing: Aquamacs now supports full What-you-see-is-what-you-get printing. Choose 'Preview and Print' from the File menu, and the current buffer (or the current region, if one is marked) is typeset using the color theme and the syntax coloring that is active. You can then preview or print it with the standard Mac OS X printing dialogs, selecting a standard Mac printer. (Output to US Letter format only at this point. Sorry!)

- Export to PDF and HTML: The current buffer (or a region if selected) can now be exported to a PDF or HTML file. Syntax coloring (and the chosen color theme except for the background color) are respected.

- LaTeX: Aquamacs now comes with the latest version of AUCTeX, which will allow you to most comfortably edit LaTeX source code and even preview some of the results (e.g. formulas) directly in your document. No need to install an additional AUCTeX package. AUCTeX already works out-of-the box.

  It is recommended that you remove any previous installations of AUCTeX.

- nXML: Edit XML code more comfortably with the included nxml-mode. It validates the document as you type. Suggestion from Tim Bray.

- Speed: Aquamacs is a little faster now when opening new frames, when frame appearance themes have been defined.

- Right-Mouse-clicks in text now bring up a context menu which allows you to copy/paste, search the word under the mouse in Google or look it up in the system dictionary and switch the buffer.

- Control-Mouse-click is always mapped to mouse-3 (right mouse button) now so Apple mouse and laptop users will consistently get the same functionality. To do mouse-2, just hold down the Command key while clicking. (This does mouse-yank-at-click, a useful functionality that you might be used to from Linux / X11 machines!)

- Alt-Mouse-click&drag allows you to select a secondary selection. (This used to be on Command-mouse-1-drag.)

- Spelling correction (flyspell) will make suggestions upon right-clicking on a misspelled word.

- Fonts/Display: Aquamacs Emacs can now display an even wider range of characters with any font available on OS X. Some characters will look nicer. Patches by Yamamoto Mitsuharu

- Text Display: Aquamacs now displays text in variable-width fonts with much better letter-spacing. It'll look like in other OS X apps, and reading and editing long texts is much more fun now. Patches by Yamamoto Mitsuharu

- Navigation in wrapped lines (not word wrap) is easier now: arrow keys will jump to the next visual line, not to the next buffer/file line. Navigation is visual now for variable width fonts like Lucida.

- Scrolling and setting the point with the mouse has improved: 'scroll-margin' defaults to 0 now, so scrolling won't happen until you've reached the first or last line in the window - except when you use the cursor up/down keys (and osx-key-mode is on). Then, scrolling takes place a few lines before you reach the boundary. You can configure this via Aquamacs' customization variable 'visual-scroll-margin'.

- Command- comments the line or the region (in programming modes)

- Command- uncomments the line or the region (in programming modes)

- Command-' comments or uncomments (toggling) the line or the region (in programming modes)

- Command-Delete kills (erases) the rest of the current line. (Command-Backspace kills the whole line.)

- Filenames with spaces can now be entered without hassle.

- Modifier-Key configuration: Several previously deprecated variables have been removed: 'mac-reverse-ctrl-meta' and 'mac-command-key-is-meta'. Use the much simpler, yet equally powerful variables 'mac-command-modifier', 'mac-option-modifier', 'mac-control-modifier' and 'mac-function-modifier' (experimental) instead. Additionally, 'mac-pass-option-to-system' is deprecated now: instead, set 'mac-option-modifier' to nil to reach the same effect. The use of the Option menu is recommended.

  To set the Apple key to Meta (not recommended), add this to your Preferences.el file:

  (setq mac-command-modifier 'meta)

- Fn-key can act as Meta. If you have an Fn key on your laptop, you can use it as Meta key now. Add this to your Preferences.el file:

  (setq mac-function-modifier 'meta)

  Note that support of the Fn key is experimental. Rare combinations may fail on non-English keyboard layouts, and some keys will not work correctly in combination with Fn and Shift.

- Modifier keys such as Command or Shift show up correctly in the shortcuts (menu)

- New-Buffer menu contains many more modes now, such as modes for Fortran, ObjectiveC, C++, PHP, CSS, JavaScript... You can add your own in the customization variable 'aquamacs-known-major-modes'. The menu is updated automatically.

- Change-Buffer-Mode menu (in File menu) allows to change the mode of the current buffer to something hopefully more useful.

- Recently used major modes are now displayed in New-Buffer and Change-Buffer-Mode menus .

- M-w (kill-ring-save) will now deactivate the mark after saving the region, that is deselect the region, just like on standard Emacs. Apple-C will not deselect the region, just like it's done on the Mac.

- Run executables from within Emacs that lie in your PATH as set in
  .bash$_profile (or the appropriate shell configuration file). Aquamacs will set 'exec-$
  $path' automatically from PATH. We don't add paths to exec-path anymore (except one default te text$

- Questions like "Save to file before closing?" will be asked with a proper dialog and not with a menu appearing out of nothing - if the last action was carried out with the mouse.

  Thanks to CarbonEmacsJP project for part of this.

- Info mode: C-h i will bring up not only up-to-date info nodes for Emacs, but also info on installed packages on the system. (unless you have an INFOPATH environment variable set)

- Mode-specific themes: With a new menu function, you can now apply the theme assigned to some other mode, effectively copying it over.

- Mode-specific themes are not applied any more for the major-mode of buffers shown in temporary windows inside frames such as the *Completions* buffer. This prevents ugly font-switching etc. for the whole frame when just a small window is opened inside the frame.

- New Packages: findr, htmlize, ruby's friends, auctex (latex-mode), nxml-mode, matlab-mode, javascript-mode,

- Notable Updated external packages: ruby-mode, ruby-*, carbon-font

- Apple/Command key is now called 'A-' internally because it looks like "Apple-" (while it's really the otherwise unused "Alt" key). It used to be "H-" (or: hyper), so change your configuration code in case you've defined your own shortcuts.

- One-Buffer-One-Frame is a minor mode now (called one-buffer-one-frame-mode). Use the Options menu (and Save Options) to turn it on/off, as before. In this minor mode, you have some additional key bindings now:

  C-x B, C-x C-B, C-x S-left, C-x S-right they all do the same as their corresponding functions without the Shift key, but they will show the buffer that they are switching to in the same window, even though one-buffer-one-frame-mode is on.

  The mode has been revised to open fewer extra windows when their content is related to a specific frame - for example version control checkin comments.

- Command-p-Bugfix: For some users, Emacs locked up at random times, showing a message like (wrong command-p ...) in the echo area of a frame on every input. This bug in the underlying GNU Emacs should be fixed now. Patches by Yamamoto Mitsuharu, Richard Stallman, et al.

- Bugfix: Aquamacs now correctly remembers the positions of frames with specific files, so they open again on the same screen position if the file is re-loaded (in the same session, or after "Save Options" in the next session).

- Bugfix: Bookmarks did not work with 'one-buffer-one-frame' turned on.

- Bugfix: Some Show/Hide options weren't saved by "Save Options".

- Bugfix: links from describe-variable/function help buffers to the source files are correct now for the Aquamacs-specific objects

- Donate: Happy about the new version? Want further improvements? Please donate to the Aquamacs project at http://aquamacs.org - Thank you.

2.2   Changes—0.9.6

- Aquamacs now provides extended input methods for Korean, Japanese and Chinese (GB/BIG5). You can select them in the Options menu, under "Aquamacs Multilingual Environment" / "Set Language Environment" - everything is integrated with Mule.

  In order to load more fixed-width fonts suitable for use with Asian languages, you may want to load the carbon-font package, which is included (but not activated) in Aquamacs. Just add the following to the file /Library/Preferences/Aquamacs Emacs/Preferences.el:

  (require 'carbon-font)

  (maintained by Mahn-Soo Choi.)

- CSS-Mode fixed. (First reported by Kris Khaira and Michael Jakl.)

- Dual-head setups (two screens) with one screen on the left, the system menu on the right and Aquamacs frames on the left caused problems. (reported by Otto Karl Florian Diesenbacher)

- osx-key-mode-map can now be changed to modify key assignments, in particular those of Apple Command keys (implemented in Emacs as Hyper = H- keys.) (reported by William Ziemer)

- "font-lock-keywords ... void" message used to appear when attempting to load a new file. This bug in the underlying GNU Emacs has been fixed.

- Apple-Q and iconized frames: When all frames where iconized and one attempted to quit Aquamacs, the application seemed to hang (because it was showing a minibuffer prompt in an iconized frame.)

- Thanks for the donations!

2.3 Interface/Usability Improvements—0.9.5

- The application is now called Aquamacs Emacs.

- The menu of Recent Files will abbreviate long paths now.

- Renamed "Option key produces only special characters" to "Option key for Meta (not for extra characters)."

- C-x C-f (find-file) will bring up a window first before asking for the name of the file to be loaded.

- Files saved with Aquamacs have a nice file icon now.

- Text is now nicely shown a little to the right in windows. In the left "fringe", you can see small dots indicating the end of the buffer, and a small triangle indicating continued lines. If you cannot see them, your Frame / default theme overwrites it. Select "Options / Frame Appearance Themes / Reset all themes" to make the fringes appear.

- The "frame appearance themes" system has been revised. *Messages* now has a distinctive colored background. To change this background (or the one for *Help* buffers), customize the variable 'aquamacs-buffer-specific-frame-themes'. Also, you can turn Frame Appearance Themes on and off with a menu item.

- Setting the frame font gives a warning now (that the font is only set for the current frame), or sets it as default if Frame Appearance Themes are off.

- Frame-related functions from File menu are now in Buffers menu.

- 1on1-* customization variables are gone—most of them were not in working order (in Aquamacs) anyways due to the way we were using the Oneonone package. This gets rid of quite a bit of doubly implemented functionality.

- You can switch the Option key from its Emacs-specific Meta meaning to its Mac typical use (composing keys such as ü (Engl. keyboard) or the backslash (German keyboard) by typing Apple-; – this is equivalent to the Options menu entry "Option key for Meta."

- The customization variable aquamacs-auto-frame-parameters allows you to turn off mode-specific themes—your frames stay the same, no matter what major mode you switch to.

- Frame Appearance Themes have a better menu structure now in the Options menu. Also, there is a new function "Delete all mode-specific themes".

- Many menu items are now greyed out (cannot be selected) when no frame is visible.

- Help (Aquamacs Manual) has been revised.

- (Even) speedier startup.

- Every Aquamacs frame has a toolbar-button now. Use it to turn the toolbar in the given frame on and off.

- Improvement when working with multiple frames: when no frame is visible, Aquamacs no longer raises some other frame as soon as a file is loaded.

- Mode-specific themes revised: the full set of parameters coming from color themes is now supported, in addition to the font and toolbar setting.

- Menu item to delete the mode-specific theme for the current major mode.

2.4 New and Updated Major Modes—0.9.5

- Better support for editing HTML: HTML-Helper-Mode is included.

- Emacs Speaks Statistics is included. (Minor glitches with toolbar and info files are known and will be addressed.)

- Auctex configuration now turns on abbrev-mode and flyspell-mode when latex-mode is started (instead of toggling them). (reported by Robert Sloan)

- Page-wise scrolling is more reliable–that is, it is really page-wise and you can always return to the same line. (Pager package)

2.5 Bug Fixes—0.9.5

- Font "Bitstream Vera Sans" works again.

- Exiting view mode (e.g. help) with 'q' deletes the frame instead of iconifying it.

- The (Apple Help) manuals work now on systems where tcsh is the default shell. (Reported by Arthur Ogus)

- Startup with arguments -nw (tty / in terminal) revised.

- You can now redefine Aquamacs keys like this:

  ```
  (define-key osx-key-mode-map [end] 'end-of-line)
  ```

  (Thanks for reporting: Andreas Hess.)

- If the user changes mac-command-modifier, it may be advisable to call

  ```
  (osx-key-reset-mode-map)
  ```

  This will ensure that the keymap is updated and Aquamacs installs its Mac-like keyboard commands (provided you want this).

- New frames will not open behind the Dock any more.

- An error message (harmless) when clicking on "Finish" in customize is gone.

- Error message during version check on startup removed (occurred in certain cases where users had upgraded their system.)

- In particular in TeX mode, Aquamacs tended to give audio signals all the time when there were internal exceptions (internal errors signaled) with parsing the TeX code. Therefore, we do not ring the bell any more, i.e. aquamacs-ring-bell-on-error-flag is nil by default. (Reported by Ken Bloom and Andreas Hess)

- Speedbar works when one-buffer-one-frame ("Open Buffers in Separate Frames") is turned off.

- Option-up/down (if Option is meta) now scrolls page-wise.

- Other bug-fixes.

2.6 Bug Fixes—0.9.4

- Bug reports contain the subject line that the user entered.

- No more (delay due to) tramp mode on startup in cases where tramp mode had been used before (recentf).

- Files on externally mounted volumes are not checked for readability any more for exclusion from recent files list. (Reported by Bill Clementson)

- No more warnings when fonts are missing (on startup).

- Drag and Drop while in minibuffer works again.

- Mouse-2 works again.

- default-major-mode and initial-major-mode are respected now. initial-frame-alist is not modified any more. Note that other than in any standard Emacs, mode-specific settings always take precedence over default-frame-alist (but not over initial-frame-alist). (Reported by Rick Zaccone, Joe Davison and Peter Dyballa)

- No more warnings in customization buffers that the values have been changed outside customize (for certain variables).

- Gnus articles (newsreader) open in same frame now.

- Gnus has a useful (free) nntp server set so you can start right away.

- Send Email with Sendmail is gone from menu (doesn't usually work on OS X).

- Fonts corrected: Some glyphs in some fonts turned out wrong when in bold or italic. Also, font sizes are correct again (Lucida 14 is Lucida Grande 14, not 12 or so). The default font size for text-mode (and similar ones) is set to Lucida 13 to make up for the change. Apologies for any inconvenience this may cause with your default settings. (Reported by William Henney)

- Better customization for aquamacs-mode-specific-default-themes

- The customizations file (customizations.el) doesn't grow any more. (Reported by Alastair Rankine.)

- Various corrections in the Aquamacs Manual.

- Plugin support: All files named site-start.el anywhere in the load-path are loaded at startup, before the user's init files are loaded. For example, such a file may be placed in /Library/Application Support/Aquamacs Emacs/myPlugin. This feature enables support for easily installable plugins.

- We anticipate shorter startup times in the next release. Stay tuned.

2.7 Bug Fixes—0.9.3a and 0.9.3b

- Fixed "wrong argument type" problem (version check), which could occur in new installations or those updated from 0.9.1.

- Monaco 18 font present (suggestion: David M. Cook).

- Emacs Manual available again.

- Save mac-pass-option-to-system when saving options.

2.8 Bug Fixes—0.9.3

- Initial-frame-alist is respected. (Reported by Alastair Rankine)

- When saving a buffer and the Finder is not running, the Finder is not opened any more. (Reported by George W. Gilchrist.)

- Using dead-keys (like Option-u or Option-n on most keyboards) works again. (Reported by Howard Melman and Pierre Albarede

- When modified files existed, but no frame was visible and one tried to quit Aquamacs, the application seemed to hang while prompting for keyboard input (Save file? y/n) in an invisible window. This has been fixed.

- If no frame is visible and you input text, the frame is made visible so you can see what you are doing.

- Closing windows consistently with the mouse now works properly.

- Clicking on links to source files in help buffers properly opens a new frame (if "open buffers in separate frames" is on).

- When the buffer shown in a frame changes, sometimes the color theme and font were not set correctly; this has been addressed. This could happen when "Show Buffers in Separate Frames" was off, and one killed a buffer. (Reported by Peter Dyballa.)

- When "Show Buffers in Separate Frames" was off, and one killed a buffer (kill-buffer, C-x k), the frame was deleted.

- You have the option to save newly created buffers (Command-N) that have not been saved yet when you quit Aquamacs.

- Less frame-dancing (resizing) on startup.

- AUCTeX uses the standard commands again. The menu is unstructured for this reason. (Reported by Robert Sloan.)

- No frames could be opened when using a two-screen setup with the menu bar on the right screen, and a currently selected frame on the left screen. This has been addressed. (Reported by George W. Gilchrist.)

- Customizing a theme for a special display frame (e.g. help or customization) works now.

- Recent Files/Clear Menu works again.

- Paths and other environment variables are now derived from the shell when you start Aquamacs.

- Your settings for highlight parens,"Blinking Cursor," etc. are now persistent. The function Options/Save Options (menu-bar-option-save) now correctly saves such settings. This should include most

customization settings except some that Aquamacs relies on for proper clipboard copy/paste functionality.

- The font menu (Options) no longer includes non-existent fonts.

- Option/Show-Hide/Menu Bar is gone because you cannot turn off the menu bar on OS X.

- "Send Emacs Bug Report" now uses the OS X default mail program to compose a message. This ensures that bug reports actually go through. Before, they did not, unless you were running a local SMTP server (sendmail/postfix), which is not enabled by default.

- Fixed loading of files when file names contain certain Kanji characters, due to a bug in AppleScript.

- The menu shortcut entries were corrected.

- Characters that require the use of the option key work again. For example, Alt-3 produces the pound sign (£) on a US keyboard, Alt-L the 'at' sign @ and Alt-Shift-7 the backslash $\backslash on a German one. Inputting the Euro sign works, too. Howe$

```
(setq mac-option-modifier 'meta)
```

- Improvements in the fontset selection allow you to display the Euro sign with the default font.

2.9   Features and Changes: 0.9.3

2.9.1   New Address

- We have moved Aquamacs to `http://aquamacs.org`.

- The Aquamacs wiki is now at `http://www.emacswiki.org/cgi-bin/wiki/AquamacsEmacs/`.

- The Aquamacs bug reporting address is now `mailto:aquamacs-bugs@aquamacs.org`. This can be accessed from directly within the Aquamacs Help menu.

- The general Aquamacs mailing list is still `mailto:macosx-emacs@email.esm.psu.edu`; e-mail `mailto:macosx-emacs-on@email.esm.psu.edu` to subscribe.

2.9.2 Running Aquamacs

- Slightly faster startup.

- Runs on OS X 10.3.9, 10.4.0 and 10.4.—tested.

- Aquamacs automatically checks for updates and notifies the user if there is something new. This function communicates with an internet server; it does not transmit any information identifying the user. If you would like to know more about what is transmitted, use M-x aquamacs-check-version-information. If you like to turn this check off, add this to your file /Users/ yourname / Library /Preferences /Aquamacs Emacs/ Preferences.el:

  ```
  (setq aquamacs-version-check-url nil)
  ```

- Adding Emacs packages is easier now: Emacs automatically finds packages in subdirectories within the /Library/Preferences— Application Support/Emacs—Aquamacs Emacs/ paths.

- Aquamacs now sets the file creator information of files it writes. This helps to open the file from Finder with Aquamacs when you double-click it. Feature can be turned off via customization option "aquamacs-set-creator-codes-after-writing-files." Also, Emacs will appear in the Finder's context menu under "Open With" for a lot of files that it is commonly used to edit.

- You can start Aquamacs in a terminal (by running /Applications/ Emacs.app /Contents/ MacOS/ Emacs) with parameter -nw and will show up in the terminal rather than as a Carbon application. Basic file editing and all traditional commands work. However, Aquamacs-specific keyboard commands (with the Command key) will not work and other functionality may be limited, too. *Warning:* This mode of use, which may break in future versions, is not supported by the Aquamacs team.

2.9.3 Frame and Window Operations

We make sure that the *Completions* buffer (and similar things) open as a window inside the frame directly above the Minibuffer, and not in a new frame.

All newly opened frames open in a somewhat useful position, so they are not in the way. (If you do not like this, we suggest you set your own

static frame positions via "set current theme as default" and also add this to your file / Users / yourname / Library / Preferences/ Aquamacs Emacs/ Preferences.el:

```
(setq smart-frame-positioning-enforce nil)
```

Or, if you would like to go with the default position all the time, turn the global minor mode off:

```
(smart-frame-positioning-mode nil)
```

2.9.4 Fonts

- Aquamacs should not complain about missing fonts any more when you have upgraded from earlier versions and set scalable fonts as default fonts for modes or all frames. They get filtered automatically.

- Users with certain setups (cyrillic Lucida Grande) should not get a "default font not found" error any more.

2.9.5 Interface

- "Recursive Minibuffers" are enabled.

- "Subscribe to mailing list" in Help menu.

- PHP-Mode included (M-x php-mode).

- Ruby-Mode included (M-x ruby-mode)

- yes-or-no-p is customizable now. Use the new customization variable aquamacs-quick-yes-or-no-prompt. (Thanks: Pavel Hlavnicka.)

- Soft word wrap (longlines-mode) is available from the Options menu. To make it the default, add this to your preferences file: `(set-default 'longlines-mode t)`

- Case-insensitive search option has gone into "search" submenu (in "Edit").

- If you are in an empty frame (i.e. a frame with an empty buffer) and you load (find) a file, Aquamacs will not open an additional frame. This is useful also for drag and drops, when a scratch frame is open.

- The secondary selection is back: use the Command (Apple) key together with clicking/dragging the mouse cursor over text in order

to select text that is not related to the point (cursor). This way, you can select text and then scroll somewhere else. Extend your selection with shift-command-mouse1. To copy/cut the text in the secondary selection to the clipboard, use Shift-Command-C/X, respectively.

- Some key-bindings are more like the original Emacs ones–in particular M-w, which does kill-ring-save again. (Idea: Joe Davison) Also, Home and End keys work as expected.

- No more annoying system "ding" (bell ringing) all the time. The bell is turned off completely, until Emacs developers eliminate the use of the bell on user-initiated abort actions (such as ESC ESC ESC when in minibuffer, of pressing Cancel in the file selection dialog).

- The toolbar is only displayed in normal frames, but not in frames that show help/info buffers. (tool-bar+ and aquamacs-tool-bar packages). Turn such toolbars on/off in Options/Show/Hide menu.

- The "About Emacs" dialogue has been improved.

- Key combinations with the option key that involve another modifier (that is, ctrl or command) will now work, even though simple option combinations are handled by the system to produce special characters.

- The Speedbar is back. Activate in Options/ Show/Hide.

- The redo function is in the Edit menu now.

- New buffers (File / New) open in Text Adapt Fill mode now.

- .save-places and customizations.el do not show up in the recent files list any more.

- auto-save-files (in / Users / yourname /.emacs.d) are now saved to / Users / yourname/Library/Preferences.

- "Save Place in Files in between sessions" will not generate files in the user's home folder any more. Instead, the file goes into / Users / yourname/Library/Preferences/Aquamacs Emacs/ where it belongs.

- Command-' now cycles between different windows (suggested by Joseph Kiniry.)

- Option is mapped to Meta by default, allowing you to enter key combinations such as C-M- easily. If you'd like to map it to alt instead, just add this to your .emacs:

```
(setq mac-option-modifier 'alt)
```

2.9.6 Configuration

- Color Themes: The color-themes package has been integrated in Aquamacs. Use the Option/Color Theme... menu command to choose a set of predefined colors for editing source code or writing texts. This applies to the current frame only, but you can make it the default for all new frames or for all frames in a specific mode with the according menu commands.

- There is a new customization group called "Aquamacs" that allows you to modify the customizations introduced by Aquamacs. This is fairly untested - unexpected results may occur. If so, try to locate and fix the bug and send us a patch. If you couldn't find the problem, please report via Help/Send Bug Report... PLEASE NOTE that a lot of customization variables have changed their names—usually, you just need to prepend 1on1 to them.

- Aquamacs will load YOUR configuration files not just from / Users / yourname/.emacs, but also from the location that is appropriate for a Mac OS X installation:

  / Library / Preferences /Aquamacs Emacs / Preferences.el
  / Users / yourname/Library/Preferences/Aquamacs Emacs/Preferences.el
  /Library/Preferences / Emacs / Preferences.el
  / Users / yourname / Library/Preferences/Emacs/Preferences.el

  It is recommended to use these instead of / Users / yourname/.emacs on OS X-only installations. The first two files should be used for the host-wide and user-specific Aquamacs configs, the latter two for general Emacs configurations.

- There is a new configuration option that gives you more fine-grained control over how the option modifier key is handled.

- If mac-pass-option-to system is nil, your Aquamacs will get all key combinations. If you press option-3, Aquamacs will see "M-3" (or,

depending on mac-option-modifier "A-3"). If it is non-nil, you will simply get the pound sign (Â£) on a US keyboard.

2.9.7 External Tools Support

- TeXniScope support in LaTeX mode (if installed in /Applications).

2.9.8 User Documentation

- We have two great manuals available comfortably via Apple Help now, directly from within Aquamacs Emacs (Help menu). There is a brand-new Aquamacs manual, and there is Richard Stallman's original Emacs manual. They can be searched (e.g. via Spotlight on OS X 10.4). We also provide direct access to the online configuration Wiki, which has been filling up with content nicely. Please contribute; everybody has write access!

3 Tutorial: Aquamacs for Beginners

3.1 What Makes Aquamacs Like Other Text Editors

When you first launch Aquamacs, you will see that it is like many other text editors such as Bare Bones Edit, Dreamweaver, or similar programs: you can type text, cut and paste text, and save and close a file using the menubar or standard OS X keyboard shortcuts (Apple-S for save, Apple-X for cut, Apple-V for paste, and so on). If you are writing one of the many text formats that is supported by Aquamacs, such as HTML, you will also note Aquamacs' use of *syntax coloring*, which sets certain parts of the text— such as HTML markup—in a different color than the text content. This makes editing the text and adjusting the markup easier.

3.2 What Makes Aquamacs (Emacs) Different from Other Text Editors

If you look at some of the menu items and keyboard shortcuts, you will see some of the features that make Emacs different from other text editors. Although Aquamacs has been designed to present many of these features in an Aqua-friendly way, it does not hide these features. Aquamacs is a complete editing environment.

OS X Term	Emacs Term
Window	Frame
Tab/pane	Window
Document	Buffer
Cursor	Point
Mouse pointer	Pointer
Keyboard shortcut	Key (binding)

Table 1: Key Emacs terms and their Apple counterparts.

- **Sophisticated text processing.** Aquamacs features text editing capabilities that go far beyond the average text editor. For instance, Aquamacs features several kinds of search and replace: it can replace text incrementally, it can search and replace text by complex patterns of characters (regular expressions) and not just by word matching, and so on. Aquamacs also features support for virtually every kind of text file imaginable: computer code such as C/C++, HTML, LaTeX, XML, and other formats.

- **Buffers.** One of the features that makes Emacs such a productive editing environment for experienced users is the concept of *buffers.* A buffer is, simply said, a document that is being edited. It can be displayed in any window, and you can even display a buffer twice. But buffers don't just hold text files. They can hold messages from a program that's running, they can be shown in a window that you can use to actually send commands that Aquamacs executes, and other functions. The Buffers menu in Aquamacs Emacs allows you to switch quickly between windows, to send execute or preview the code you are writing with a couple of keystrokes, and to monitor logs of commands you are executing.

- **Integration with additional tools.** Aquamacs' "Tools" menu provides access to file comparison and version control, compiling and debugging of program code, the ability to read e-mail and newsgroups, and more.

In addition to its large number of features, Aquamacs also defines some interface terms differently than other OS X applications. See Table 1 for more information.

This list provides just a small sampling of the functionality available in Emacs. Aquamacs' customizations make Emacs much easier to learn; it is possible to get started and become productive quickly. However, harnessing all of Emacs' power, even with assistance from the Aqua shortcuts, will take time.

4   In Depth: The Aquamacs Interface

In this section, we will walk through the Aquamacs interface step by step, and will introduce relevant points about how Aquamacs Emacs solves particular editing problems in a distinctive way. Here our discussion will focus on how Aquamacs is configured, as opposed to Emacs in general.

4.1   File

The File menu includes basic operations for opening, closing, and printing files. Opening and saving files uses standard Mac keyboard shortcuts (Apple-O, Apple-S), and uses standard Aqua dialog boxes. You can also open a directory; from the menubar this brings up a standard Aqua dialog box, through the keyboard shortcuts are the traditional Emacs one (Control-x d), and it brings up a directory name in the "minibuffer" (small space for commands at the bottom of the main window, or frame).

You can open a new buffer from the File menu – you will need to choose a buffer from a list of recently and commonly used editing modes. You may also change the current editing mode.

Printing is fully supported, although no "Setup Page" option is available at this point. You will see a print screen (in the system's Preview.app) from where you can select a printer. This may take a few seconds to appear with very large buffers. (Printing of embedded images is currently not supported.)

You may export your buffer to PDF or to HTML format. This operation preserves all the formatting, including any word-wrapping - so you may want to choose a font and resize the frame so that the lines are wrapped in the intended way (if Soft Wrapping is used).

Printing and PDF export are in US Letter format at this point.

4.2   Edit

The Edit menu is the heart of Aquamacs' textual wizardry. Aquamacs supports all customary editing functions, such as cut, copy, paste, and simple

search and replace. In Aquamacs these basic functions are supported by standard Aqua keyboard shortcuts. There is a great deal more functionality, however, than the average text editor. For instance, Aquamacs Emacs allows you to go to a specific line number in the file you are editing, to the top or bottom of the buffer, and so on. It also supports searches with *regular expressions,* which are sophisticated text patterns that go beyond simply matching a specific set of characters (or "string"). Aquamacs Emacs also stores more than twenty of the most recently-copied items on the clipboard, and these are accessible from the menu in case you need to paste these items again. The Edit menu also supports "bookmarks," a feature that allows you to save your place in a specific file.

4.3   Options

The Options menu is where you can easily customize your settings. The options that you can configure include syntax coloring, matching of parentheses (useful for text markup that depends on open and close brackets), how to display buffers and frames, color theme, fonts, and other settings. If you change a setting, such as the color theme or fonts, be sure to select the "Save Options" item in the menu. The changes will not be saved by default. For more information on fonts, please see Section 4.3.2.

If you want to delve deeply into customizing Aquamacs, select "Customize Emacs:Top-Level Customization Group" in the Options menu. A new frame titled "Customize Group: Emacs" will open. Scroll down and find the "Aquamacs Group" listing, and push the "Go to Group" button. This will open a new frame with all of the configuration options for Aquamacs Emacs—deep-level customization that can be implemented by Aquamacs power users in the Emacs scripting language, elisp—and each option is documented there. Table 4 displays a complete list of the options.

4.3.1   Languages of the World - Dealing with Different Character Sets

Computer keyboards were designed to input text in languages with a small character set. Aquamacs Emacs lets you use your keyboard with a variety of *input methods* in order to input text in languages with many characters, among them Asian languages.

The Multilingual Environment, present in GNU Emacs, provides a number of predefined input methods. Aquamacs Emacs extends this: On Mac OS X, because of the particular ways of user interface and unicode handling, these standard Emacs language environments are not enough to read

and write some international languages. One needs to set additional parameters, especially, the language specific coding systems.

You can find these new language environments (Korean, Japanese, Chinese-GB and Chinese-BIG5) – among other ones – under "Aquamacs Multilingual Environment". Updates for more languages will be provided later on.

4.3.2 The Right Look: Colors and Fonts for Frames and Modes

Aquamacs allows you to alter specific features of the current frame via functions in the Options menu. "Set Color Theme..." will let you choose a pre-defined combination of colors and fonts. "Set Font..." gives you a choice of pre-defined fonts to use.
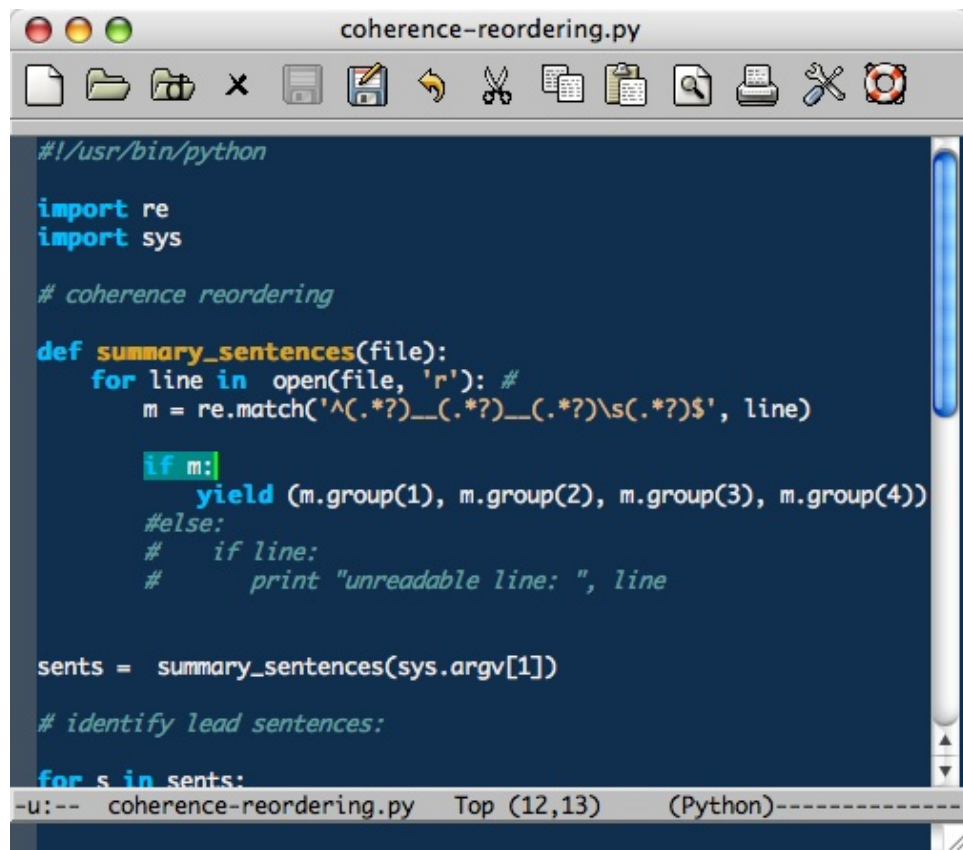
These settings only apply to the current frame. To make them "stick," use the function "Set current theme as default." Then, all future frames will open with the new colors and fonts chosen. This applies to all frame-settings that a mode or you as a user have chosen using Emacs' configuration system. The choice of a default theme will stick until you restart Aquamacs Emacs.

Aquamacs Emacs also offers you to pick a theme specific to the current mode. For example, you can use different settings when you are editing C or LaTeX, then when you are editing a text file. That is what the function "Set current theme for current mode" is for. Again, the setting will stick for newly opened frames or or whenever you newly use a given mode, until you restart Aquamacs Emacs.

Finally, you may want to save your settings so they will stick even when you restart Aquamacs Emacs. To do so, use the function "Save Options."

4.4 Buffers

The Buffers menu allows you to navigate through the windows/frames that you may have open. Note that a "buffer" is not synonymous with a window or frame, in that you can split a frame and have more than one buffer contained within. (Multiple windows/frames is a feature of Aquamacs; standard Emacs does not support this.) In addition to standard frames that display open files, there are a few other important buffer types. One is the "scratch" buffer, which is simply a buffer to type notes into; this can also be the starting point for a file to save, and a buffer to type configuration commands for Aquamacs (an advanced feature). Another is the "Messages" buffer, which displays a log of output from Emacs commands and operations. Finally, there is the "info" buffer, in which Aqua-

```python
#!/usr/bin/python

import re
import sys

# coherence reordering

def summary_sentences(file):
    for line in  open(file, 'r'): #
        m = re.match('^(.*?)__(.*?)__(.*?)\s(.*?)$', line)

        if m:
            yield (m.group(1), m.group(2), m.group(3), m.group(4))
        #else:
        #    if line:
        #        print "unreadable line: ", line


sents =  summary_sentences(sys.argv[1])

# identify lead sentences:

for s in sents:
```

-u:--   coherence-reordering.py   Top (12,13)   (Python)------------

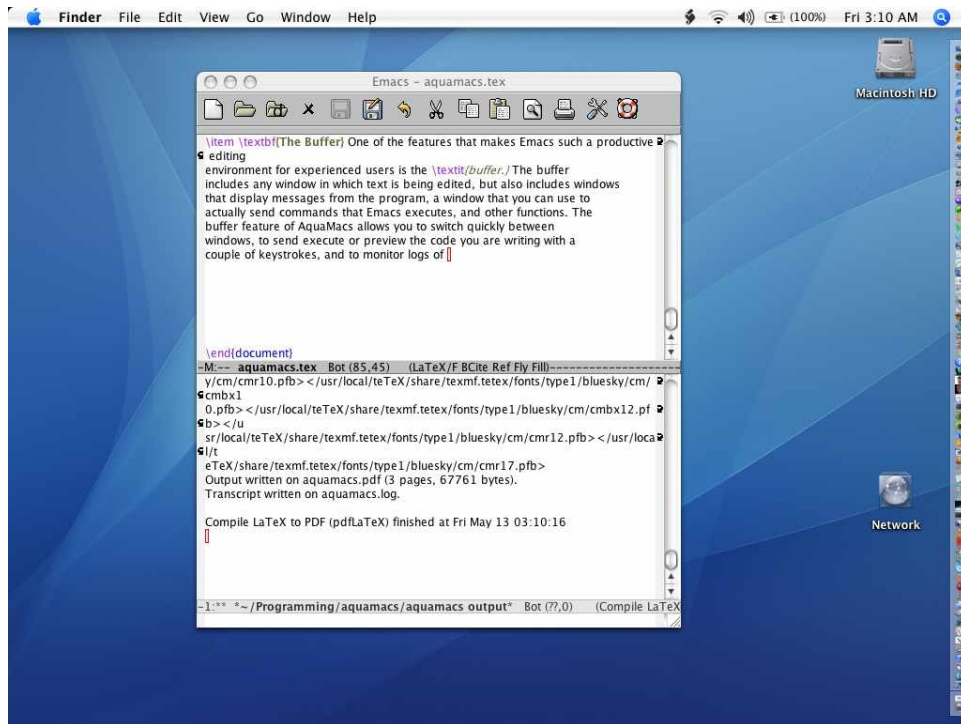Figure 2: Aquamacs with a custom theme applied.

Figure 3: The "buffer" feature of Emacs, which Aquamacs preserves, is a powerful tool for enhancing productivity.

macs Emacs displays built-in user help, tutorials and other documentation in Emacs' "info" format.

From the Buffers menu, you can also open a new "frame," or window, or split the open window into two separate buffers. The keyboard shortcuts for these commands are the traditional Emacs ones (see the menubar).

4.5   Tools

The Tools menu provides access to a variety of functions, including integration with version control systems, running shell commands, searching external files for text, and compiling and debugging software code. The Tools menu also provides access to newsgroups and e-mail in a command-line capacity.[1]

---

[1]The functionality provided in the Tools menu is, to say the least, diverse, and is part of the attraction of Emacs for a large number of users—particularly advanced users. It is

4.6 Help

The Help menu contains a wealth of information about Aquamacs Emacs and GNU Emacs. Except for the help provided in this document, Aquamacs' Help menu also provides documentation of the Mac-specific customizations with the present User Manual. The general Emacs user help is comprehensive and detailed to the point of possibly overwhelming the inexperienced user. The beginner should definitely start with the Emacs tutorial contained in the Help menu. While geared toward the traditional Emacs interface instead of the OS X Aquamacs version, the tutorial is a good introduction to Emacs' unique capabilities. And, as you gain more experience, you will appreciate the depth of the Emacs documentation.

5 Aquamacs for Emacs Veterans

While experienced users of Emacs on other platforms can continue to use all the key combinations to which they are accustomed, we recommend that they use the Aquamacs-specific conventions to get the most benefit from the applications. Many of the standard Emacs behaviors and interface conventions have been modified in Aquamacs in the interest of proving a more Aqua-native experience. In this section, we discuss some of the ways that Emacs conventions are mapped to Aqua conventions, and outline some advanced ways that users can modify Aquamacs to their specific preferences.

5.1 Keyboard Shortcuts

Emacs has a well-defined set of keyboard shortcuts, which Aquamacs revises to accomodate OS X conventions. See Table 2 and Table 3 for details.

5.2 Customizing Aquamacs

One of the distinguishing features of Emacs is the degree to which it can be customized by the end user. Emacs includes its own internal scripting language, elisp, which allows the user to customize such things as keyboard

---

not necessary to use Aquamacs as an e-mail client to appreciate its considerable power and utility, however.

shortcuts, window settings, fonts, and more. The Aquamacs customizations themselves are implemented in elisp.[3]

We recommend that user customizations be placed in specific locations:

- /Library/Preferences/Emacs/Preferences.el: Preferences for all Carbon Emacs installations

- /Library/Preferences/Aquamacs Emacs/Preferences.el: Preferences for Aquamacs and for all users

- /Users/username/Library/Preferences/Emacs/Preferences.el: User-specific preferences for all Carbon Emacs installations

- /Users/username/Library/Preferences/Aquamacs Emacs/Preferences.el: User-specific preferences for Aquamacs

If in doubt, use the last option:

- /Users/username/Library/Preferences/Aquamacs Emacs/Preferences.el

This replaces the usual ~/.emacs file, which is still loaded for compatibility.

Below are some specific customization items that may be of interest:

- **Frame.** Aquamacs opens new files (and other buffers) in new frames. That is usually more convenient and allows you to use the graphical user interface of today's computers, which did not exist when Emacs was conceived almost three decades ago. If you do not like this behavior, perhaps because you are used to traditional Emacs, just deselect "Display Buffers in Separate Frames" in the Options menu and save your choice with "Save Options."

- **mac-option-modifier.** This is the modifier to use for the Mac alt/option key. The value can be alt, hyper, or super for the respective modifier. If the value is nil then the key will act as the normal Mac option modifier, and the option key can be used to compose characters depending on the chosen Mac keyboard setting.

---

[3]The Aquamacs customizations are stored in elisp files in the application bundle. It is possible to modify these files directly, but we discourage this practice and provide no support for it.

- **Additional customization.** Of course, Aquamacs Emacs offers you almost all the customization possibilities that Emacs has. Under "Customize Emacs," you will find a sub-menu that allows you to browse the vast space of customization settings. Beware: some of them are complex and not easy to understand. If you would like to tinker with some Aquamacs-specific behavior, you can customize the group "Aquamacs." See Table 4 for a complete list of the items that can be configured here.

The range of possible customizations—including restoring some of Emacs' traditional interface conventions—is beyond the scope of this help document. However, we provide a wiki for users to share their modifications. See `http://www.emacswiki.org/cgi-bin/wiki/AquamacsEmacs/` for more details.

5.3 LaTeX Support

One special feature of Aquamacs is its extensive support for the editing of LaTeXdocuments, especially Emacs' AucTeX mode.

AUCTeX comes with its own manual, accessible via the LaTeX menu (when in latex mode after loading a .tex file), "Read the AUCTeX manual". If you have a question, please consult the manual. If that doesn't work, or you suspect you've found a bug in AUCTeX, please turn to the AUCTeX mailing lists, accessible here: `http://www.gnu.org/software/auctex/mailing-lists.html`.

To access the enhanced LaTeX functionality that Aquamacs offers, you will need to install a LaTeX system. Our recommendation: Install Gerben Wierda's TeX package for Mac OS X. This package is the most complete and user-friendly TeX distribution for the Mac. You can download the installer package at `http://www.rna.nl/tex.html`. While you can obtain TeX from other sources, the Gerben Wierda distribution is particularly well supported in Aquamacs.

5.3.1 Enhanced Carbon Emacs Plugin Under Development

Enrico Franconi, developer of the old Enhanced Carbon Emacs distribution that had special support for LaTeX editing via its customizations for AucTeX mode, has revived ECE as an external plugin that can be installed on any Carbon Emacs,including Aquamacs. At this time, the ECE plugin is undergoing beta testing. The beta version can be downloaded from this location:
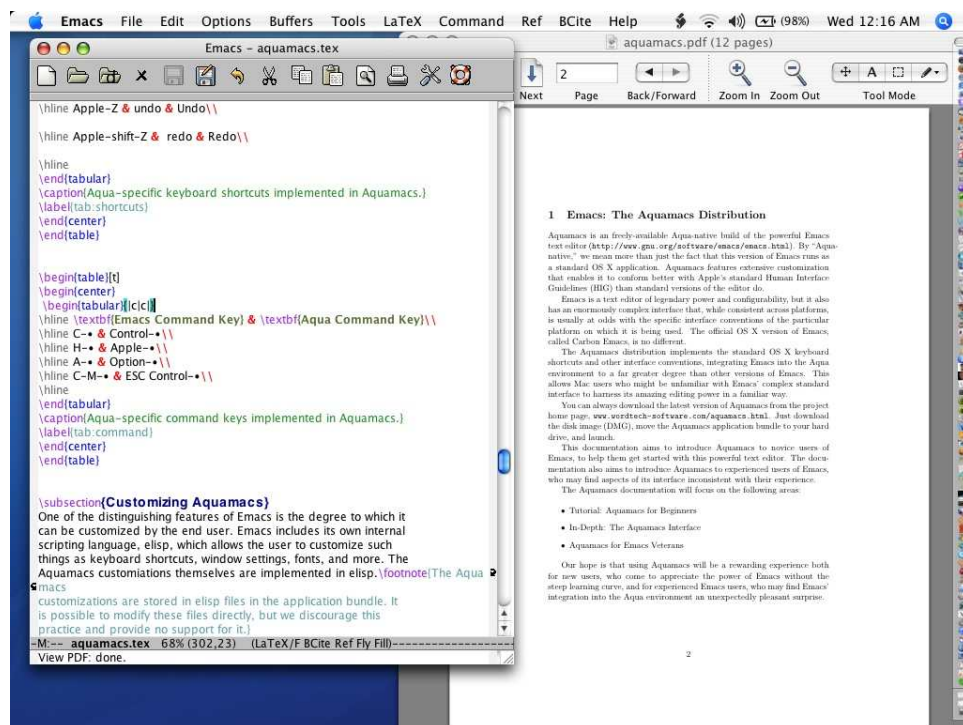
Figure 4: Aquamacs offers extensive support for LaTeX documents.

```
http://www.inf.unibz.it/~franconi/enhanced-carbon-emacs/
ec-emacs-plugin-beta.dmg
```

5.3.2 TEXniscope: A Superb LATEX Previewer

One special feature of the Enhanced Carbon Emacs plugin is its support for
TEXniscope, a Cocoa-based LaTEX previewer that can display both PDF and
DVI formats. We recommend TEXniscope as a superb LaTEX previewer and
complement to Aquamacs/Enhanced Carbon Emacs. TEXniscope can be
downloaded from `http://www.ing.unipi.it/~d9615/homepage/texniscope.`
`html`.[4]

TEXniscope needs a bit of configuration to work well with Aquamacs.
See the Wiki page at `http://www.emacswiki.org/cgi-bin/wiki/`
`AquamacsTexniscope` for up-to-date configuration info.

6 Getting Help

There are many options for getting help with Aquamacs.

From within Aquamacs, you can access user documentation from the
menu or from specific key combinations: C-h k (key/menu entry) brings
up help for some input items; C-h f (function) gives help for an elisp func-
tion; autocompletion support is available with (tab); and C-h a brings up
apropos, a search function.

For help from other Aquamacs/Emacs users, the best place to begin
is the OS X Emacs mailing list. The searchable list archives are located at
`http://www.esm.psu.edu/mac-tex/MacOSX-Emacs-Digests/`. For
more information on subscribing to the list, see `http://aquamacs.org`.

Another option for general Emacs help is the gnu.emacs.help news-
group.

Apart from answering questions at the OS X Emacs mailing list, you
can also file bug reports on Aquamacs. Use the "Send Bug Report" func-
tion in the Help menu (general Emacs bugs, too), and also our Aquamacs-
specific bug report system at `http://sourceforge.net/projects/`
`aquamacs`.

In addition to requesting help, you can also offer it in these mailing lists.
Please note that in case we have helped you with a configuration problem on the

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[4]The developer of TEXniscope, Massimiliano Gubinelli, is also the creator of the Aqua-
macs icon.

mailing list, we may ask you to write a little note in the Aquamacs Wiki so others can profit, too. Remember: Aquamacs is an Open Source community project!

7 Donations

Aquamacs Emacs is a project that depends on your support. You can donate very small amounts by looking at ads, or small or larger amounts directly. Both is appreciated. Your contributions will be used towards maintaining the Aquamacs web site and further development.

```
http://aquamacs.org/donations.shtml
```

8 Acknowledgments

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9 Licenses

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details of this license, please see `http://www.gnu.org/copyleft/fdl.html#SEC1`.

Shortcut	Elisp Command	Function
Apple-N	new-frame-with -new-scratch	Create new buffer
Apple-O	mac-find-file- other-frame	Open a file
Apple-Shift-S	mac-save-file-as	Save as
Apple-A	mark-whole-buffer	Select all text
Apple-V	yank	Paste text
Apple-C	clipboard-kill-ring-save	Copy text
Apple-X	clipboard-kill-region	Cut text
Apple-S	save-buffer	Save file
Apple-L	goto-line	Go to specified line
Apple-F	isearch-forward	Search
Apple-G	isearch-repeat-forward	Repeat search
Apple-W	intelligent-close	Close selected window
Apple-M	iconify-or-deiconify- frame	Minimize window to the Dock
Apple-.	keyboard-quit)	Keyboard quit
Apple-,	customize	Show Customization Buffer
Apple-;	toggle-pass-option- to-system	Change Option key function
Apple- / / '	(un)comment-region-or-line current line or region if marked	Comment out or in the
Apple-Backspace	kill-whole-visual-line	Deletes the current line
Apple-Delete	kill-visual-line	Deletes the remainder of the current line
Apple-Q	save-buffers-kill-emacs	Save file, exit program
Apple-Z	undo	Undo
Apple-Shift-Z	redo	Redo

Table 2: Aqua-specific keyboard shortcuts implemented in Aquamacs.

Emacs Command Key	Aquamacs / Mac Command Key
C-*	Control-*
A-*	Apple-*
M-*	Option-*[2] (or Esc)

Table 3: Aqua-specific command keys implemented in Aquamacs.

Variable
Aquamacs Set Creator Codes After Writing Files
Aquamacs Quick Yes Or No Prompt
Aquamacs Ring Bell On Error
Aquamacs Mode Specific Default Themes
Aquamacs Buffer Specific Frame Themes
Aquamacs Auto Frame Parameters Flag
One Buffer One Frame
Smart Frame Positioning Enforce
Smart Frame Positioning Mode
Mac Option Modifier
Mac Control Modifier
Mac Command Modifier
Aquamacs Known Buffer Modes height

Table 4: Aquamacs-specific variables that can be customized in the Aquamacs customization group.