Emacs Features

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EMACS

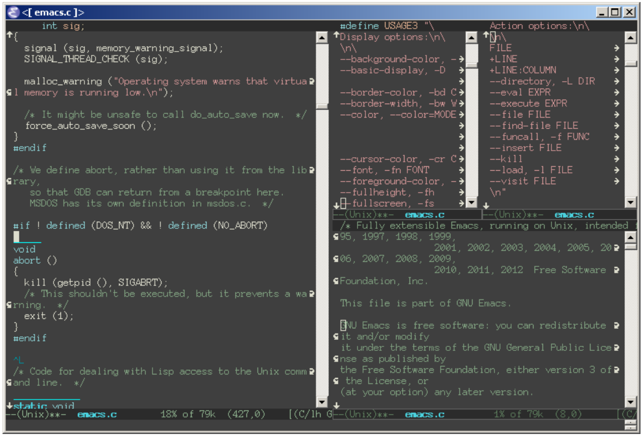
Emacs: Features already in Emacs

- Presentation of several features which are not always present in other text editor or IDE
- slide order is not important the first thing is not the most important
- don't panic about octopus shortcuts you will get used

Emacs: Split Screen 1/2

- split current frame as often as you want with horizontally “`Ctrl+x 2`”, vertically “`Ctrl+x 3`”, undo all split “`Ctrl+x 1`”
- increase/decrease size of frame (window for Emacs) with “`Alt+x enlarge-window ENTER`”, “`Alt+x enlarge-window-horizontally ENTER`”, “`Alt+x shrink-window ENTER`” or “`Alt+x shrink-window-horizontally ENTER`”

Emacs: Split Screen 2/2



<[emacs.c]>

```
   int sig;
{
   signal (sig, memory_warning_signal);
   SIGNAL_THREAD_CHECK (sig);

   malloc_warning ("Operating system warns that virtua
l memory is running low.\n");

   /* It might be unsafe to call do_auto_save now.  */
   force_auto_save_soon ();
 }
#endif

/* We define abort, rather than using it from the lib
rary,
   so that GDB can return from a breakpoint here.
   MSDOS has its own definition in msdos.c.  */

#if ! defined (DOS_NT) && ! defined (NO_ABORT)

void
abort ()
{
  kill (getpid (), SIGABRT);
  /* This shouldn't be executed, but it prevents a wa
rning.  */
  exit (1);
}
#endif

^L
/* Code for dealing with Lisp access to the Unix comm
and line.  */

static void
--(Unix)**-  emacs.c        18% of 79k   (427,0)    [(C/lh G
```

```
#define USAGE3 "\
Display options:\n\
\n\
--background-color, -
--basic-display, -D

--border-color, -bd C
--border-width, -bw W
--color, --color=MODE



--cursor-color, -cr C
--font, -fn FONT
--foreground-color, -
--fullheight, -fh
--fullscreen, -fs
--(Unix)**-  emacs.c
```

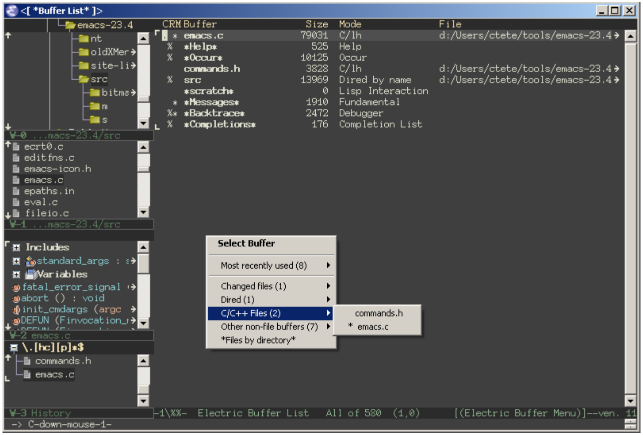
```
Action options:\n\
\n\
FILE
+LINE
+LINE:COLUMN
--directory, -L DIR
--eval EXPR
--execute EXPR
--file FILE
--find-file FILE
--funcall, -f FUNC
--insert FILE
--kill
--load, -l FILE
--visit FILE
\n"

--(Unix)**-  emacs.c
```

```
/* Fully extensible Emacs, running on Unix, intended
95, 1997, 1998, 1999,
                 2001, 2002, 2003, 2004, 2005, 20
06, 2007, 2008, 2009,
                 2010, 2011, 2012  Free Software
Foundation, Inc.

This file is part of GNU Emacs.

GNU Emacs is free software: you can redistribute
it and/or modify
it under the terms of the GNU General Public Lice
nse as published by
the Free Software Foundation, either version 3 of
 the License, or
(at your option) any later version.
--(Unix)**-  emacs.c        1% of 79k   (8,0)    [(C
```

Figure: Split in four windows

Emacs: No Tab 1/2

- Emacs do not use tab but history of opened files (buffers for Emacs)
- "`Ctrl+x`" "`Ctrl+b`" (for electric-buffer-list) or ECB history or "`Ctrl+Left Click`" to open context menu



<[*Buffer List*]>

```
emacs-23.4
  nt
  oldXMer
  site-li
  src
    bitma
    m
    s
```

```
V-0 ...macs-23.4/src
ecrt0.c
editfns.c
emacs-icon.h
emacs.c
epaths.in
eval.c
fileio.c
V-1 ...macs-23.4/src
```

```
Includes
standard_args : s
Variables
fatal_error_signal
abort () : void
init_cmdargs (argc
DEFUN (Finvocation_n
V-2 emacs.c
```

```
\.[hc][p]*$
  commands.h
  emacs.c
V-3 History
-> C-down-mouse-1-
```

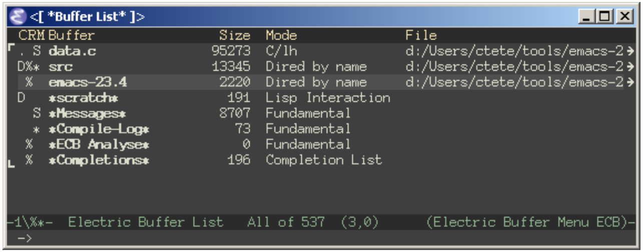
```
CRM Buffer            Size  Mode              File
 .  * emacs.c         79031  C/lh              d:/Users/ctete/tools/emacs-23.4
  %   *Help*            525  Help
  %   *Occur*         10125  Occur
      commands.h       3828  C/lh              d:/Users/ctete/tools/emacs-23.4
  %   src             13969  Dired by name     d:/Users/ctete/tools/emacs-23.4
      *scratch*           0  Lisp Interaction
   *  *Messages*       1910  Fundamental
  %*  *Backtrace*      2472  Debugger
  %   *Completions*     176  Completion List
```

```
-1\%%-  Electric Buffer List   All of 580   (1,0)     [(Electric Buffer Menu)]--ven. 11
```

Figure: ECB History (bottom-left), Buffer List (top-right) and Context Menu

Emacs: No Tab 2/2

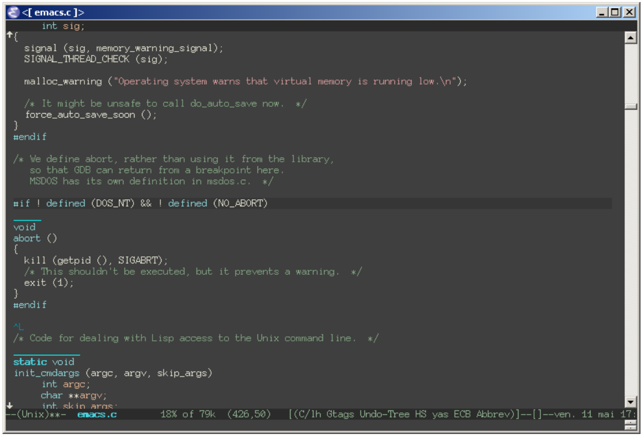
- List of buffer with "`Ctrl+x`" "`Ctrl+b`" show some informations about opened files
- in front a "%" means read only, "= * =" means modified and not saved
- mark a file/buffer to delete with "=d=" or "`Ctrl+d`", mark to save with "`s`", unmark with "`u`", apply to all marked with "`x`"



```
 CRM Buffer                 Size  Mode              File
 . S data.c                95273  C/lh              d:/Users/ctete/tools/emacs-2→
 D%* src                   13345  Dired by name     d:/Users/ctete/tools/emacs-2→
  %  emacs-23.4             2220  Dired by name     d:/Users/ctete/tools/emacs-2→
 D   *scratch*               191  Lisp Interaction
   S *Messages*             8707  Fundamental
   * *Compile-Log*            73  Fundamental
  %  *ECB Analyse*             0  Fundamental
  %  *Completions*           196  Completion List

-1\%*-  Electric Buffer List   All of 537  (3,0)      (Electric Buffer Menu ECB)-
 ->
```

Figure: Buffer List with some marked buffers

Emacs: Highlight current line

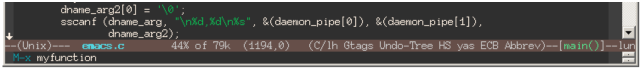


```
     int sig;
{
  signal (sig, memory_warning_signal);
  SIGNAL_THREAD_CHECK (sig);

  malloc_warning ("Operating system warns that virtual memory is running low.\n");

  /* It might be unsafe to call do_auto_save now.  */
  force_auto_save_soon ();
}
#endif

/* We define abort, rather than using it from the library,
   so that GDB can return from a breakpoint here.
   MSDOS has its own definition in msdos.c.  */

#if ! defined (DOS_NT) && ! defined (NO_ABORT)

void
abort ()
{
  kill (getpid (), SIGABRT);
  /* This shouldn't be executed, but it prevents a warning.  */
  exit (1);
}
#endif

^L
/* Code for dealing with Lisp access to the Unix command line.  */

static void
init_cmdargs (argc, argv, skip_args)
     int argc;
     char **argv;
     int skip_args;
--(Unix)**-  emacs.c       18% of 79k  (426,50)   [(C/lh Gtags Undo-Tree HS yas ECB Abbrev)]--[]--ven. 11 mai 17:
```

Figure: The highlight current line in center

Emacs: Command Completion/search or Minibuffer

- minibuffer is a tiny buffer at bottom where each complicated command are edited/displayed
- call a command with "`Alt+x myfunction ENTER`"
- it support completion for function or file with "`TAB`" and standard completion with "`Alt+/`" like in other buffers
- search in history forward with "`Ctrl+s`" or "`Alt+s`" and backward with "`Ctrl+r`" "`Alt+r`"

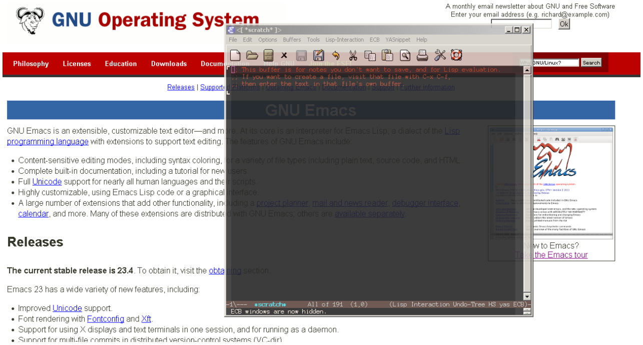


```
        dname_arg2[0] = '\0';
        sscanf (dname_arg, "\n%d,%d\n%s", &(daemon_pipe[0]), &(daemon_pipe[1]),
                dname_arg2);
--(Unix)---  emacs.c          44% of 79k  (1194,0)   (C/lh Gtags Undo-Tree HS yas ECB Abbrev)--[main()]--lun
 M-x myfunction
```

Figure: minibuffer when invoke a command "M-x myfunction"

Emacs: Transparency

- the whole window can be transparent (you can add custom function to toggle between transparency and opaque



```
;; This buffer is for notes you don't want to save, and for Lisp evaluation.
;; If you want to create a file, visit that file with C-x C-f,
;; then enter the text in that file's own buffer.

-1\---  *scratch*     All of 191  (1,0)     (Lisp Interaction Undo-Tree HS yas ECB)-
ECB windows are now hidden.
```

GNU Emacs is an extensible, customizable text editor—and more. At its core is an interpreter for Emacs Lisp, a dialect of the Lisp programming language with extensions to support text editing. The features of GNU Emacs include:

- Content-sensitive editing modes, including syntax coloring, for a variety of file types including plain text, source code, and HTML.
- Complete built-in documentation, including a tutorial for new users.
- Full Unicode support for nearly all human languages and their scripts.
- Highly customizable, using Emacs Lisp code or a graphical interface.
- A large number of extensions that add other functionality, including a project planner, mail and news reader, debugger interface, calendar, and more. Many of these extensions are distributed with GNU Emacs; others are available separately.

Releases

The current stable release is 23.4. To obtain it, visit the obtaining section.

Emacs 23 has a wide variety of new features, including:

- Improved Unicode support.
- Font rendering with Fontconfig and Xft.
- Support for using X displays and text terminals in one session, and for running as a daemon.
- Support for multi-file commits in distributed version-control systems (VC-dir)

Figure: Emacs in front of GNU Emacs home page

Emacs: Recenter, Top, Bottom

- scroll to have the current line at center with “`Ctrl+l`” (the current line will become the center line in the window)
- scroll to have the current line at top with “`Ctrl+l Ctrl+l`” (the current line will become the top line in the window)
- scroll to have the current line at bottom with “`Ctrl+l Ctrl+l Ctrl+l`” (the current line will become the bottom line in the window)

Emacs: Limit editing to a Narrow Region

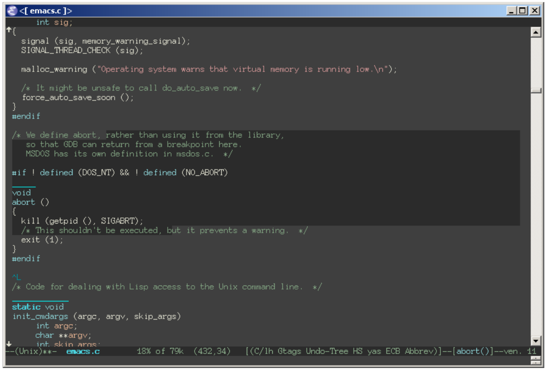
- limit editing to a narrow selected region with “`Ctrl+x n n`”
- only this region is accessible, the rest can not be modified or see, so it can not be tampered
- it’s not gone, if you save the file it will be also saved
- remove narrowing, and the entire buffer is accessible with “`Ctrl+x n w`”
- limit editing to the current function with “`Ctrl+x n d`”

Emacs: Move by paragraph/word/expression

- move from word to word with “`Ctrl+LEFT/RIGHT`”
- move from empty line to empty line (between paragraph/block) with “`Ctrl+UP/DOWN`”
- move from function beginning to ending with “`Ctrl+Shift+HOME/END`”
- move to preprocessing beginning with “`Ctrl+c Ctrl+u`”
- switch to *move from word to word* to *move from subword to subword* (place at CapitalLetterInThisWord) with “`Ctrl+c Ctrl+w`”
- and more about parentheses/bracket or source code block or sentence

Emacs: Selection with or without Shift

- put a mark "`Ctrl+SPACE`" (do not hold it) and move to select something
- select the whole current block with "`Alt+h`"
- select the whole function with "`Ctrl+Alt+h`"
- use keep "`Shift`" press and move (or with mouse)



```
     int sig;
{
  signal (sig, memory_warning_signal);
  SIGNAL_THREAD_CHECK (sig);

  malloc_warning ("Operating system warns that virtual memory is running low.\n");

  /* It might be unsafe to call do_auto_save now.  */
  force_auto_save_soon ();
}
#endif

/* We define abort, rather than using it from the library,
   so that GDB can return from a breakpoint here.
   MSDOS has its own definition in msdos.c.  */

#if ! defined (DOS_NT) && ! defined (NO_ABORT)

void
abort ()
{
  kill (getpid (), SIGABRT);
  /* This shouldn't be executed, but it prevents a warning.  */
  exit (1);
}
#endif

^L
/* Code for dealing with Lisp access to the Unix command line.  */

static void
init_cmdargs (argc, argv, skip_args)
     int argc;
     char **argv;
     int skip_args;
--(Unix)**-  emacs.c      18% of 79k  (432,34)   [(C/lh Gtags Undo-Tree HS yas ECB Abbrev)]--[abort()]--ven. 11
```

Figure: A region is selected

Emacs: Delete by word/block

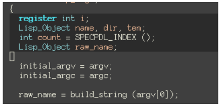
- remove all empty line except one "`Ctrl+x Ctrl+o`"
- remove all space except one "`Alt+SPACE`"
- delete word left "`Alt+BACKSPACE`" or "`Ctrl+BACKSPACE`"
- delete word right "`Alt+d`"

Emacs: Add/Remove Parentheses

- around a selection with parentheses with “`Alt+(`”
- remove a pair of parentheses with “`Alt+x delete-pair ENTER`”

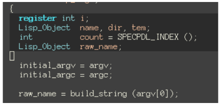
Emacs: Alignment

- align declaration, parameters of functions with “`Alt+x align ENTER`” (following the current languages)
- align anything with regex with “`Alt+x align-regexp ENTER`”



```
{
  register int i;
  Lisp_Object name, dir, tem;
  int count = SPECPDL_INDEX ();
  Lisp_Object raw_name;

  initial_argv = argv;
  initial_argc = argc;

  raw_name = build_string (argv[0]);
```

Figure: Before



```
{
  register int i;
  Lisp_Object  name, dir, tem;
  int          count = SPECPDL_INDEX ();
  Lisp_Object  raw_name;

  initial_argv = argv;
  initial_argc = argc;

  raw_name = build_string (argv[0]);
```

Figure: After "Alt+x align ENTER"

Emacs: Up/Down Case

- upcase a right word with “`Alt+U`”
- upcase a selected region with “`Ctrl+x Ctrl+u`”
- downcase a right word with “`Alt+l`”
- downcase a selected region with “`Ctrl+x Ctrl+l`”
- upcase first character and downcase others with “`Alt+c`”

Emacs: Remove All Useless Space

- automatically remove all trailing space when you save with "`(add-hook 'write-file-hooks 'delete-trailing-whitespace)`" in you setting

Emacs: Justify Plain Text

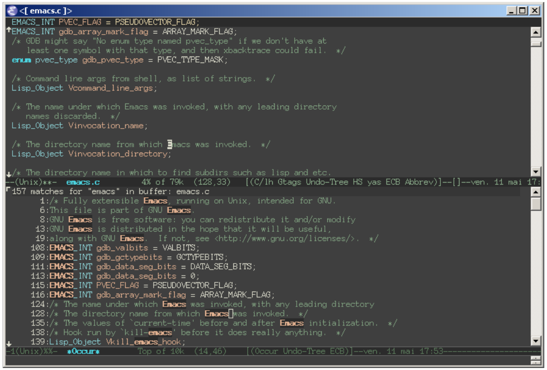
- justify a paragraph/block of text with “`Alt+q`” (without select it)
- justify a selected region with “`Alt+x fill-region ENTER`”
- center a line with “`Alt+o Alt+s`”
- the right margin is define by the variable “`fill-column`”, change it with “`Ctrl+x f`”

Emacs: Incremental Search

- start an forward incremental search with "`Ctrl+s`", regex with "`Ctrl+Alt+s`"
- backward incremental search with "`Ctrl+r`", regex with "`Ctrl+Alt+r`"
- last searched in forward with "`Ctrl+s Ctrl+s`" same for backward "`Ctrl+r Ctrl+r`", search in history "`Ctrl+s ENTER Alt+r`", etc
- during incremental search, select to the end of the word with "`Ctrl+w`", paste with "`Alt+y`", case sensitive with "`Alt+c`", start query replace with "`Alt+%`"
- the incremental search highlight all matches in the buffer
- any keys to move will close incremental search
- incremental search can be very useful to move in a buffer, even during selection

Emacs: Occurrences

- search each occurrences of a regex with "`Alt+s o`"
- you can navigate to the next or previous match with "`Alt+g Alt+n`" and "`Alt+g Alt+p`" (if you want use them I recommend to rebind them like "`F3`" "`Shift+F3`")
- to refresh with "g" when in * Occur* buffer

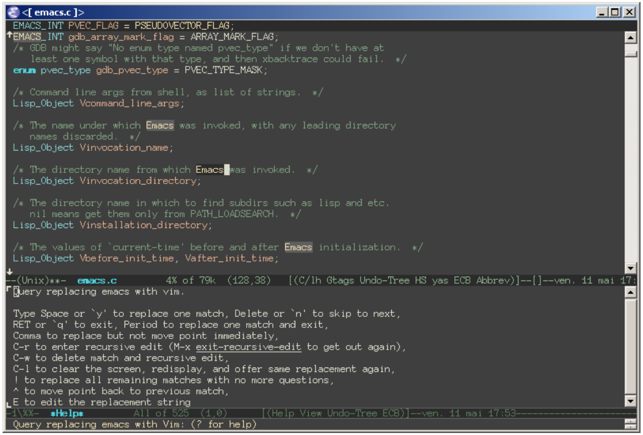


```
EMACS_INT PVEC_FLAG = PSEUDOVECTOR_FLAG;
EMACS_INT gdb_array_mark_flag = ARRAY_MARK_FLAG;
/* GDB might say "No enum type named pvec_type" if we don't have at
   least one symbol with that type, and then xbacktrace could fail.  */
enum pvec_type gdb_pvec_type = PVEC_TYPE_MASK;

/* Command line args from shell, as list of strings.  */
Lisp_Object Vcommand_line_args;

/* The name under which Emacs was invoked, with any leading directory
   names discarded.  */
Lisp_Object Vinvocation_name;

/* The directory name from which Emacs was invoked.  */
Lisp_Object Vinvocation_directory;

/* The directory name in which to find subdirs such as lisp and etc.
--(Unix)**-  emacs.c        4% of 79k  (128,33)   [(C/lh Gtags Undo-Tree HS yas ECB Abbrev)]--[]--ven. 11 mai 17:
157 matches for "emacs" in buffer: emacs.c
      1:/* Fully extensible Emacs, running on Unix, intended for GNU.
      6:This file is part of GNU Emacs.
      8:GNU Emacs is free software: you can redistribute it and/or modify
     13:GNU Emacs is distributed in the hope that it will be useful,
     19:along with GNU Emacs.  If not, see <http://www.gnu.org/licenses/>.  */
    108:EMACS_INT gdb_valbits = VALBITS;
    109:EMACS_INT gdb_gctypebits = GCTYPEBITS;
    111:EMACS_INT gdb_data_seg_bits = DATA_SEG_BITS;
    113:EMACS_INT gdb_data_seg_bits = 0;
    115:EMACS_INT PVEC_FLAG = PSEUDOVECTOR_FLAG;
    116:EMACS_INT gdb_array_mark_flag = ARRAY_MARK_FLAG;
    124:/* The name under which Emacs was invoked, with any leading directory
    128:/* The directory name from which Emacs was invoked.  */
    135:/* The values of `current-time' before and after Emacs initialization.  */
    138:/* Hook run by `kill-emacs' before it does really anything.  */
    139:Lisp_Object Vkill_emacs_hook;
-1(Unix)%%-  *Occur*        Top of 10k  (14,46)    [(Occur Undo-Tree ECB)]--ven. 11 mai 17:53--------------------
```

Figure: Search occurrences of "emacs"

Emacs: Replace Query

- query replace without regex with “`Alt+%`”
- query replace with regex with “`Ctrl+Alt+%`”



```
EMACS_INT PVEC_FLAG = PSEUDOVECTOR_FLAG;
EMACS_INT gdb_array_mark_flag = ARRAY_MARK_FLAG;
/* GDB might say "No enum type named pvec_type" if we don't have at
   least one symbol with that type, and then xbacktrace could fail.  */
enum pvec_type gdb_pvec_type = PVEC_TYPE_MASK;

/* Command line args from shell, as list of strings.  */
Lisp_Object Vcommand_line_args;

/* The name under which Emacs was invoked, with any leading directory
   names discarded.  */
Lisp_Object Vinvocation_name;

/* The directory name from which Emacs was invoked.  */
Lisp_Object Vinvocation_directory;

/* The directory name in which to find subdirs such as lisp and etc.
   nil means get them only from PATH_LOADSEARCH.  */
Lisp_Object Vinstallation_directory;

/* The values of `current-time' before and after Emacs initialization.  */
Lisp_Object Vbefore_init_time, Vafter_init_time;

--(Unix)**-  emacs.c        4% of 79k  (128,38)   [(C/lh Gtags Undo-Tree HS yas ECB Abbrev)]--[]--ven. 11 mai 17:
Query replacing emacs with vim.

Type Space or `y' to replace one match, Delete or `n' to skip to next,
RET or `q' to exit, Period to replace one match and exit,
Comma to replace but not move point immediately,
C-r to enter recursive edit (M-x exit-recursive-edit to get out again),
C-w to delete match and recursive edit,
C-l to clear the screen, redisplay, and offer same replacement again,
! to replace all remaining matches with no more questions,
^ to move point back to previous match,
E to edit the replacement string
-1\%%-  *Help*       All of 525  (1,0)      [(Help View Undo-Tree ECB)]--ven. 11 mai 17:53--------------------
Query replacing emacs with Vim: (? for help)
```

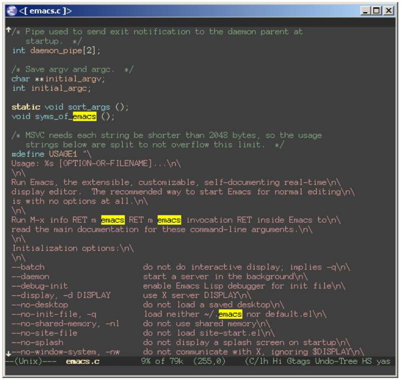
Figure: Query replacing "emacs" with "vim"

Emacs: Replace on a selected region

- replace without regex with "`Alt+x replace-string ENTER`"
- replace with regex with "`Alt+x replace-regexp ENTER`"
- it replace only in the selected region and do not interact with rest of the buffer

Emacs: Highlight

- highlight any text with regex with “`Alt+s h r`”
- the highlight will continue until you unhighlight with “`Alt+s h u`” or close the buffer with “`Ctrl+x k`”

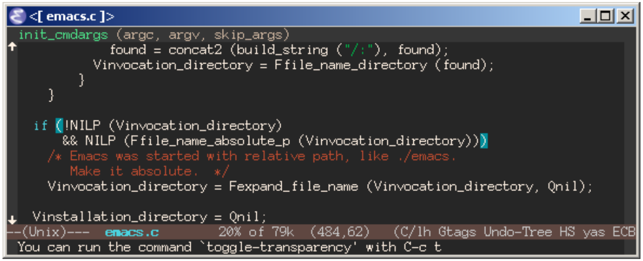


```
/* Pipe used to send exit notification to the daemon parent at
   startup.  */
int daemon_pipe[2];

/* Save argv and argc.  */
char **initial_argv;
int initial_argc;

static void sort_args ();
void syms_of_emacs ();

/* MSVC needs each string be shorter than 2048 bytes, so the usage
   strings below are split to not overflow this limit.  */
#define USAGE1 "\
Usage: %s [OPTION-OR-FILENAME]...\n\
\n\
Run Emacs, the extensible, customizable, self-documenting real-time\n\
display editor.  The recommended way to start Emacs for normal editing\n\
is with no options at all.\n\
\n\
Run M-x info RET m emacs RET m emacs invocation RET inside Emacs to\n\
read the main documentation for these command-line arguments.\n\
\n\
Initialization options:\n\
\n\
--batch                     do not do interactive display; implies -q\n\
--daemon                    start a server in the background\n\
--debug-init                enable Emacs Lisp debugger for init file\n\
--display, -d DISPLAY       use X server DISPLAY\n\
--no-desktop                do not load a saved desktop\n\
--no-init-file, -q          load neither ~/.emacs nor default.el\n\
--no-shared-memory, -nl     do not use shared memory\n\
--no-site-file              do not load site-start.el\n\
--no-splash                 do not display a splash screen on startup\n\
--no-window-system, -nw     do not communicate with X, ignoring $DISPLAY\n\
--(Unix)---  emacs.c       9% of 79k  (255,0)    (C/lh Hi Gtags Undo-Tree HS yas
```

Figure: Highlight "emacs" with yellow highlight

Emacs: Parentheses Match

- highlight automatically current parenthesis and its matching when you put the cursor on a parenthesis
- it work for for parenthesize, square bracket and curly bracket



```
<[ emacs.c ]>
init_cmdargs (argc, argv, skip_args)
              found = concat2 (build_string ("/:"), found);
            Vinvocation_directory = Ffile_name_directory (found);
          }
      }

    if (!NILP (Vinvocation_directory)
        && NILP (Ffile_name_absolute_p (Vinvocation_directory)))
      /* Emacs was started with relative path, like ./emacs.
         Make it absolute.  */
      Vinvocation_directory = Fexpand_file_name (Vinvocation_directory, Qnil);

    Vinstallation_directory = Qnil;
--(Unix)---  emacs.c        20% of 79k   (484,62)    (C/lh Gtags Undo-Tree HS yas ECB
You can run the command `toggle-transparency' with C-c t
```

Figure: Parentheses match

Emacs: Find File

- search recursively with pattern a file and open it with “`Alt+x find-name-dired ENTER`”

Emacs: Advanced Clipboard (Kill Ring)

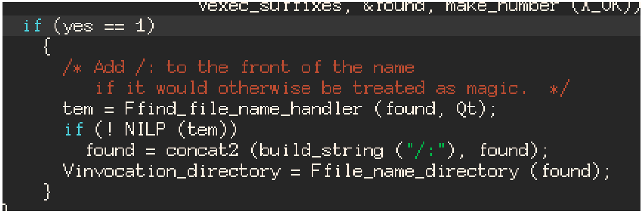
- cut (save & kill in Emacs) a selected region with "`Ctrl+w`" the text will be put in a ring memory called "kill ring"
- copy (save without kill in Emacs) a selected region with "`Alt+w`" the text will also be put in the kill ring
- paste (yank in Emacs) the head of the kill ring with "`Ctrl+y`"
- navigate in history of kill ring with "`Alt+y`" and will be the new head of the kill ring (only after a "`Ctrl+y`")
- some delete will be put in kill ring: delete word "`Alt+BACKSPACE`" or "`Ctrl+BACKSPACE`" and "`Alt+d`"
- cut rest of line with "`Ctrl+k`"

Emacs: Indentation

- indentation depend of the current language of the file
- all settings can be modify, tab vs space, number of space, etc
- indent correctly current line with “`TAB`” (cursor can be anywhere on the line)
- indent a selected region with “`Ctrl+Alt+\`”
- merge previous line and current without indentation with “`Alt+^`”
- split the current line and align new line with cursor with “`Ctrl+Alt+o`”
- insert spaces like tabulation with “`Alt+i`”

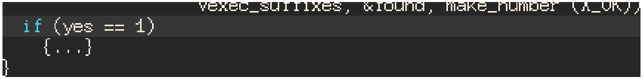
Emacs: Folding or Hide/Show Block

- hide block of preprocessing with “Ctrl+c @ Ctrl+d”
- show block of preprocessing with “Ctrl+c @ Ctrl+s”



```
  if (yes == 1)
    {
      /* Add /: to the front of the name
         if it would otherwise be treated as magic.  */
      tem = Ffind_file_name_handler (found, Qt);
      if (! NILP (tem))
        found = concat2 (build_string ("/:"), found);
      Vinvocation_directory = Ffile_name_directory (found);
    }
```

Figure: Before



```
  if (yes == 1)
    {...}
}
```

Figure: Hidden block (after)

Emacs: Compile

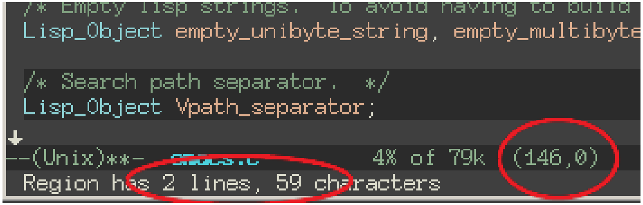
- you can compile in Emacs with “`Alt+x compile ENTER`” and customize the line of compilation
- it will open a new buffer which contains output of compiler
- with gcc you can jump directly to the line in source code which cause error, use next (with “`Alt+g n`”) and previous (with “`Alt+g p`”), etc
- ECB mode can control the buffer of compile to show/hide it like a quake console

Emacs: Completion (dumb)

- a (not so) dumb completion are already in Emacs with "`Alt+/`"
- it will complete the word with the last word type or used and also with all around in the current buffer and after with all word in others opened buffer
- just type again "`Alt+/`" to navigate in the completion list

Emacs: Information

- Count number of character and line in a selected region with “Alt+ =”
- Information about a character with “Ctrl+x =”
- line and column number in status bar of current buffer (modeline in Emacs)



```
Lisp_Object empty_unibyte_string, empty_multibyte

/* Search path separator.  */
Lisp_Object Vpath_separator;

--(Unix)**-  emacs.c          4% of 79k  (146,0)
Region has 2 lines, 59 characters
```

Figure: Information about a selected region and line and column number of cursor

Emacs: Undo

- undo the last modification with "`Ctrl+_`"
- undo can be done until the moment file was opened, even after multiple save
- undo is a command which is put at the head of the stack of "undo" so to redo the undo use the same shortcut that the reason why there is not "redo" function

Emacs: Macro

- start a macro recording with “`Ctrl+x (`”
- end a macro recording with “`Ctrl+x )`”
- run a macro with “`Ctrl+x e`”
- run a macro on a selected region with “`Ctrl+x Ctrl+k r`”
- start a macro recording by starting with last macro with “`C-u C-x (`” (it ends like a standard macro recording)
- name a macro with “`Alt+x name-last-kbd-macro ENTER`”
- insert macro to save it in emacs setting file with “`Alt+x insert-kbd-macro ENTER`”
- run a named macro with “`Alt+x macro-name ENTER`” or set a keyboard shortcuts

Emacs: Buffer Point Register

- set a point bookmark into a register with "`Ctrl+x r SPACE`" (and a key)
- jump to a point bookmark from a register with "`Ctrl+x r j`" (and a key)
- a register is a memory combined with a key

Emacs: Version Control Integration

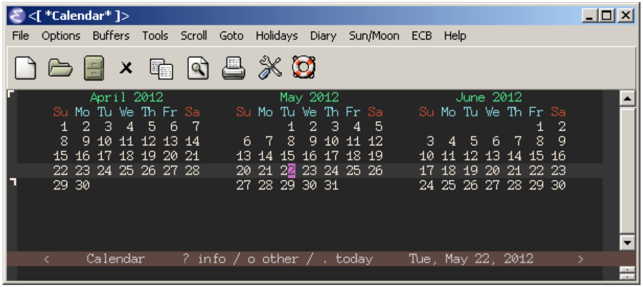
- generic command exist for version control in Emacs, the mode provides an interface between this generic command and a version control
- appropriate next operation with "`Ctrl+x v v`"
- add a new file with "`Ctrl+x v i`"
- update with "`Ctrl+x v +`"
- diff with "Ctrl+x v ="
- merge with "`Ctrl+x v m`"
- . . .

Emacs: Calculator

- invoke a calculator with “`Ctrl+x * c`”
- invoke a quick calculator only in minibuffer with “`Ctrl+x * q`”
- grab a selected region, compute and paste the results with “`Ctrl+x * e`”
- grab a selected rectangle and sum the columns with “`Ctrl+x * :`”
- grab a selected rectangle and sum the rows with “`Ctrl+x * _`”
- last result can be reuse with “`$`” (results are provided in decimal, hexa, octal, binary and ascii)
- in base N prefix with “`N#`”
- paste value in buffer with “`y`”
- quit calculator with “`Ctrl+x * x`”

Emacs: Calendar

- A calendar, with diary with "`Alt+x calendar`"
- if you set you latitude and longitude you can have sunset, zenith, sunrise (with "`S`") and moon phase (with "`M`")
- the diary can be synchronize with some mode



<[*Calendar*]>
File Options Buffers Tools Scroll Goto Holidays Diary Sun/Moon ECB Help

```
      April 2012                May 2012               June 2012
Su Mo Tu We Th Fr Sa    Su Mo Tu We Th Fr Sa    Su Mo Tu We Th Fr Sa
 1  2  3  4  5  6  7           1  2  3  4  5                    1  2
 8  9 10 11 12 13 14     6  7  8  9 10 11 12     3  4  5  6  7  8  9
15 16 17 18 19 20 21    13 14 15 16 17 18 19    10 11 12 13 14 15 16
22 23 24 25 26 27 28    20 21 22 23 24 25 26    17 18 19 20 21 22 23
29 30                   27 28 29 30 31          24 25 26 27 28 29 30

 <    Calendar     ? info / o other / . today     Tue, May 22, 2012      >
```

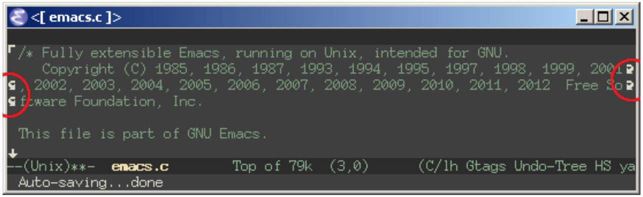
Figure: a window with Calendar

Emacs: Mouse Avoidance

- when you start to type, the mouse cursor will move away:
  - at a given position "`(mouse-avoidance-mode 'banish)`"
  - just do not cover text at keyboard cursor "`(mouse-avoidance-mode 'jump)`"
  - some exotics "`animate, exile, proteus`"

Emacs: Word Wrap

- truncate lines to show the whole line but on multiple rows
- it can be confusing but when you scroll down/up, nothing is hidden
- a symbol signals a truncate line at each return



```
/* Fully extensible Emacs, running on Unix, intended for GNU.
   Copyright (C) 1985, 1986, 1987, 1993, 1994, 1995, 1997, 1998, 1999, 2001
, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012  Free So
ftware Foundation, Inc.

This file is part of GNU Emacs.

--(Unix)**-   emacs.c        Top of 79k  (3,0)      (C/lh Gtags Undo-Tree HS ya
Auto-saving...done
```

Figure: A long truncated line

Emacs: Backup File

- each saved file are backup (by default “`myfile.c~`” in file directory)
- an auto save is enable (by default “`#myfile.c#`” in file directory)
- backup/auto-save file can be put in an unique folder
- backup/auto-save file can be save by date, location, etc

Emacs: Dictionary

- a speller can be used (ispell mode, with Aspell tool)
- it can complete a word with “`Alt+Tab`”, check spelling with “`Alt+$`”
- multiple languages are supported

Emacs: Scroll Acceleration

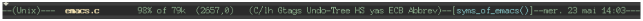
- scrolling down/up with mouse wheel has acceleration (like when you move the mouse cursor)
- with a long quickly scroll you can go to the top or bottom of file

Emacs: Repeat Command

- repeat anything with "`Ctrl+NUMBER`" or "`Ctrl+u NUMBER`"
- by example :
  - jump eleven bottom line with "`Ctrl+1 Ctrl+1 DOWN`" or "`Ctrl+u 11 DOWN`",
  - insert eighty "#" with "`Ctrl+8 Ctrl+0 #`" or "`Ctrl+u 80 #`"
  - etc
- "`0`" means infinite until first error
- it is also used when a function has a number parameter

Emacs: Status Bar or Modeline

- it can display file rights, encoding, line number, column number, position in file, file size, major and minor mode (languages, etc), date and time. . .



```
--(Unix)---  emacs.c       98% of 79k  (2657,0)   (C/lh Gtags Undo-Tree HS yas ECB Abbrev)--[syms_of_emacs()]--mer. 23 mai 14:03---
```

Figure: An example of Modeline

Emacs: Column Mode or Rectangle

- to select a rectangle do same as selected region but start and end of region is top-left and bottom-right of rectangle
- overwrite a rectangle with same string on each line with “`Ctrl+x r t`”
- delete a rectangle with “`Ctrl+x r d`”
- copy a selected rectangle in a register with “`Ctrl+x r r`”
- paste a rectangle from register with “`Ctrl+x r i`”
- insert a rectangle of space with “`Ctrl+x r o`”

Emacs: Yet Another Column Mode or CUA Selection 1/3

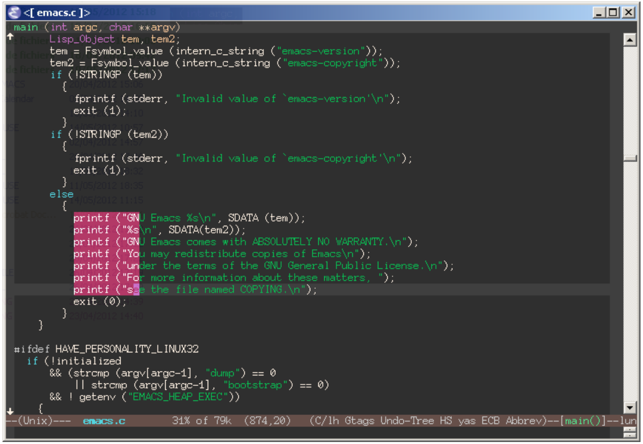
- CUA (Common User Access) set up shortcuts like Cut “Ctrl+x”, Copy “Ctrl+c”, Paste “Ctrl+v” and Undo “Ctrl+z”
- CUA Selection add features from CUA mode without the common shortcuts
- start a column selection with “`Ctrl+ENTER`” and insert anything by column
- overwrite a selected rectangle with same string on each line with “`Alt+s`” (during column selection)
- delete (kill in Emacs) a selected rectangle with “`Alt+k`” (during column selection)
- insert a rectangle of space with “`Alt+o`” (during column selection)

Emacs: Yet Another Column Mode or CUA Selection 2/3

- copy a selected rectangle with “`Alt+m`” (during column selection)
- replace with regex in a selected rectangle with “`Alt+r`” (during column selection)
- invert line order in a selected rectangle with “`Alt+R`” (during column selection)
- restrict a selected rectangle to line matching with regex with “`Alt+/`” (during column selection)
- upcase the selected rectangle with “`Alt+u`” (during column selection)

Emacs: Yet Another Column Mode or CUA Selection 3/3

- downcase the selected rectangle with “`Alt+l`” (during column selection)
- more command with “`Ctrl+?`” (during column selection)



<[emacs.c]>

```
main (int argc, char **argv)
      Lisp_Object tem, tem2;
      tem = Fsymbol_value (intern_c_string ("emacs-version"));
      tem2 = Fsymbol_value (intern_c_string ("emacs-copyright"));
      if (!STRINGP (tem))
        {
          fprintf (stderr, "Invalid value of `emacs-version'\n");
          exit (1);
        }
      if (!STRINGP (tem2))
        {
          fprintf (stderr, "Invalid value of `emacs-copyright'\n");
          exit (1);
        }
      else
        {
          printf ("GNU Emacs %s\n", SDATA (tem));
          printf ("%s\n", SDATA(tem2));
          printf ("GNU Emacs comes with ABSOLUTELY NO WARRANTY.\n");
          printf ("You may redistribute copies of Emacs\n");
          printf ("under the terms of the GNU General Public License.\n");
          printf ("For more information about these matters, ");
          printf ("see the file named COPYING.\n");
          exit (0);
        }
    }

#ifdef HAVE_PERSONALITY_LINUX32
  if (!initialized
      && (strcmp (argv[argc-1], "dump") == 0
          || strcmp (argv[argc-1], "bootstrap") == 0)
      && ! getenv ("EMACS_HEAP_EXEC"))
    {
--(Unix)---  emacs.c      31% of 79k  (874,20)   (C/lh Gtags Undo-Tree HS yas ECB Abbrev)--[main()]--lun
```

Figure: A selected rectangle (highlight in pink) in CUA mode

Emacs: minor Column Mode

- a minor column mode where the cursor is jumping always on the same column
- set the column goal with "`Ctrl+x Ctrl+n`" it will take the current column as goal
- every time the cursor is moving on a line (Up/Down arrow) it will jump one the selected column
- you can add/remove more easily with a goal column without using home/end left/right keys
- unset the column goal with "`Ctrl+u Ctrl+x Ctrl+n`"

Emacs: Integrated Explorer or Dired 1/3

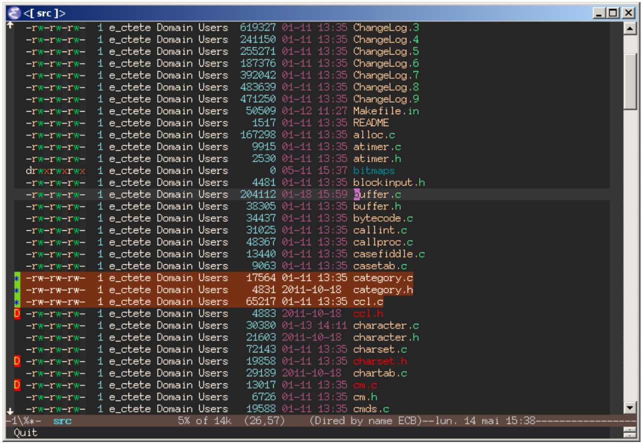
- explorer (dired in Emacs) is a buffer so can be manage like others
- open it with "`Ctrl+x d`" or "`Ctrl+x Ctrl+f directory-name`" ("`Ctrl+x Ctrl+f`": open a file so one shortcut for 2 features)
- when in dired mode:
    - copy with "`C`", rename with "`R`"
    - mark to delete with "`d`", unmark to delete with "`u`", apply modification with "`x`"
    - create a directory with "+", change rights with "`M`"
    - refresh with "g", refresh the current file with "`l`"
    - mark many file to be delete with regex with "`% d`" (during dired mode)

Emacs: Integrated Explorer or Dired 2/3

- when dired mode
  - mark current file with "`m`", mark all file with "`* s`"
  - remove all marks with "`U`", toggle all marked file with "`t`"
  - mark many file with regex with "`% m`"
  - upcase all marked file with "`% u`", downcase all marked file with "`% l`"
- incremental search can be invoke to point on a file

Emacs: Integrated Explorer or Dired 3/3

- edit directly in dired buffer, filename, group, users, rights with “`Ctrl+x Ctrl+q`”, apply modification with “`Ctrl+c Ctrl+c`”



```
<[ src ]>
  -rw-rw-rw-  1 e_ctete Domain Users  619327 01-11 13:35 ChangeLog.3
  -rw-rw-rw-  1 e_ctete Domain Users  241150 01-11 13:35 ChangeLog.4
  -rw-rw-rw-  1 e_ctete Domain Users  255271 01-11 13:35 ChangeLog.5
  -rw-rw-rw-  1 e_ctete Domain Users  187376 01-11 13:35 ChangeLog.6
  -rw-rw-rw-  1 e_ctete Domain Users  392042 01-11 13:35 ChangeLog.7
  -rw-rw-rw-  1 e_ctete Domain Users  483639 01-11 13:35 ChangeLog.8
  -rw-rw-rw-  1 e_ctete Domain Users  471250 01-11 13:35 ChangeLog.9
  -rw-rw-rw-  1 e_ctete Domain Users   50509 01-12 11:27 Makefile.in
  -rw-rw-rw-  1 e_ctete Domain Users    1517 01-11 13:35 README
  -rw-rw-rw-  1 e_ctete Domain Users  167298 01-11 13:35 alloc.c
  -rw-rw-rw-  1 e_ctete Domain Users    9915 01-11 13:35 atimer.c
  -rw-rw-rw-  1 e_ctete Domain Users    2530 01-11 13:35 atimer.h
  drwxrwxrwx  1 e_ctete Domain Users       0 05-11 15:37 bitmaps
  -rw-rw-rw-  1 e_ctete Domain Users    4481 01-11 13:35 blockinput.h
  -rw-rw-rw-  1 e_ctete Domain Users  204112 01-18 15:59 buffer.c
  -rw-rw-rw-  1 e_ctete Domain Users   38305 01-11 13:35 buffer.h
  -rw-rw-rw-  1 e_ctete Domain Users   34437 01-11 13:35 bytecode.c
  -rw-rw-rw-  1 e_ctete Domain Users   31025 01-11 13:35 callint.c
  -rw-rw-rw-  1 e_ctete Domain Users   48367 01-11 13:35 callproc.c
  -rw-rw-rw-  1 e_ctete Domain Users   13440 01-11 13:35 casefiddle.c
  -rw-rw-rw-  1 e_ctete Domain Users    9063 01-11 13:35 casetab.c
* -rw-rw-rw-  1 e_ctete Domain Users   17564 01-11 13:35 category.c
* -rw-rw-rw-  1 e_ctete Domain Users    4831 2011-10-18  category.h
* -rw-rw-rw-  1 e_ctete Domain Users   65217 01-11 13:35 ccl.c
D -rw-rw-rw-  1 e_ctete Domain Users    4883 2011-10-18  ccl.h
  -rw-rw-rw-  1 e_ctete Domain Users   30380 01-13 14:11 character.c
  -rw-rw-rw-  1 e_ctete Domain Users   21603 2011-10-18  character.h
  -rw-rw-rw-  1 e_ctete Domain Users   72143 01-11 13:35 charset.c
D -rw-rw-rw-  1 e_ctete Domain Users   19858 01-11 13:35 charset.h
  -rw-rw-rw-  1 e_ctete Domain Users   29189 2011-10-18  chartab.c
D -rw-rw-rw-  1 e_ctete Domain Users   13017 01-11 13:35 cm.c
  -rw-rw-rw-  1 e_ctete Domain Users    6726 01-11 13:35 cm.h
  -rw-rw-rw-  1 e_ctete Domain Users   19588 01-11 13:35 cmds.c
-1\%*-  src          5% of 14k  (26,57)    (Dired by name ECB)--lun. 14 mai 15:38----------------
 Quit
```

Figure: Dired mode with some file marked and marked to delete

Emacs: Bookmarks

- file or directory can be bookmarked
- bookmark current file or directory with "`Ctrl+x r m`"
- invoke list of bookmarks with "`Ctrl+x r l`"
- mark to delete a bookmark with "`d`" (in bookmark list)
- edit annotations with "`e`" (in bookmark list)
- show annotations with "`a`" (in bookmark list)
- apply all modifications with "`x`" (in bookmark list)

Emacs: Help 1/2

- Emacs help is pleasant like an old lady, she talks a lot and gives arcane answer
- start help about emacs with “`Ctrl+h r`”
- start help about help with “`Ctrl+h i`”
- a tutorial to start with emacs with “`Ctrl+h t`”
- in help
  - go back with “`l`”, go up with “`u`”, go top with “`t`”, go previous with “`r`”
  - go next topic with “`n`”, go previous topic with “`p`”
  - go to a node with “`m`”,

Emacs: Help 2/2

- help about a shortcut with “`Ctrl+h k`” and the shortcut
- help about anything with “`Ctrl+h a`”
- help about the shortcut of a function with “`Ctrl+h w`” and the function
- help about a function with “`Ctrl+h f`” and the function
- help about a variable with “`Ctrl+h v`” and the variable
- last 100 keys with “`Ctrl+h l`”

Emacs: Shortcuts with Windows and Menu keys

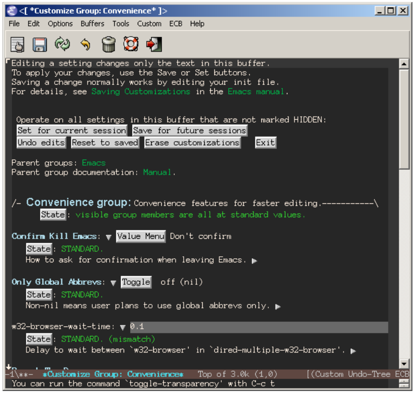
- every keys can be customize to be bound to a function
- the windows key or the menu keys (right after the right windows keys) can be used like extra modifier key (like Ctrl, Alt or Shift), called **Super** and **Hyper** in Emacs
- it can be useful to avoid shortcut like this one "`Ctrl+u Ctrl+x Ctrl+f`" which can replace with "`Hyper+f`"

Emacs: Customization 1/2

- everything can be customize in Emacs "`Alt+x customize ENTER`":
  - font: size, color (different for each mode/buffer/window)
  - window decoration toolbar, menubar. scrollbar
  - shortcuts: you can bind everything to anything
  - new functions/mode: you can extend Emacs by scripting it (in Emacs Lisp)
  - a lot of function or mode already exists on the web, just dig

Emacs: Customization 2/2

- every settings or customization are put in text file (like “.emacs” file)
- so it very easy to share/try/copy a setting or a new function



<[*Customize Group: Convenience*]>
File Edit Options Buffers Tools Custom ECB Help

```
Editing a setting changes only the text in this buffer.
To apply your changes, use the Save or Set buttons.
Saving a change normally works by editing your init file.
For details, see Saving Customizations in the Emacs manual.

 Operate on all settings in this buffer that are not marked HIDDEN:
 Set for current session  Save for future sessions
 Undo edits  Reset to saved  Erase customizations   Exit

Parent groups: Emacs
Parent group documentation: Manual.

/- Convenience group: Convenience features for faster editing.-----------\
      State: visible group members are all at standard values.

Confirm Kill Emacs: ▼ Value Menu Don't confirm
   State: STANDARD.
   How to ask for confirmation when leaving Emacs. ▶

Only Global Abbrevs: ▼ Toggle  off (nil)
   State: STANDARD.
   Non-nil means user plans to use global abbrevs only. ▶

w32-browser-wait-time: ▼ 0.1
   State: STANDARD. (mismatch)
   Delay to wait between `w32-browser' in `dired-multiple-w32-browser'. ▶

-1\**-  *Customize Group: Convenience*   Top of 3.0k (1,0)      [(Custom Undo-Tree ECB
You can run the command `toggle-transparency' with C-c t
```

Figure: Customization of group Convenience

MODE

Mode: Extensions/Add-on

- extensions or add-on are named Mode in Emacs (like "`c-mode`", "`asm-mode`", "`tool-bar-mode`", ...)
- modes are written in Emacs lisp (source in .el file and compile in .elc file)
- a lot of modes are already in Emacs some other can be found on the web
- there are two type of mode:
  - major: language or task specific, given in modeline (only one at a given time)
  - minor: small features (multiple minor can be invoke)
- the following list is just an insight of Emacs modes

Mode: CEDET/EDE/Semantic/Completion 1/2

- CEDET is a "`Collection of Emacs Development Environment Tools`" which contains:
    - EDE: a manager of project, generic or with GNU Global or with autotools
    - Semantic: a parser conjugated with a database for all functions, variable, symbols. . .
    - Completion: smart for oriented object languages
    - Senator: to move from file to file in a project
- this mode is use by ECB mode

Mode: CEDET/EDE/Semantic/Completion 2/2

- parse the current buffer with "`Ctrl+c , ,`"
- jump to definition of symbol with "`Ctrl+c , j`"
- open include file with "`Ctrl+c , u`"
- find all calls of current function with "`Ctrl+c , G`"

Mode: ECB 1/3

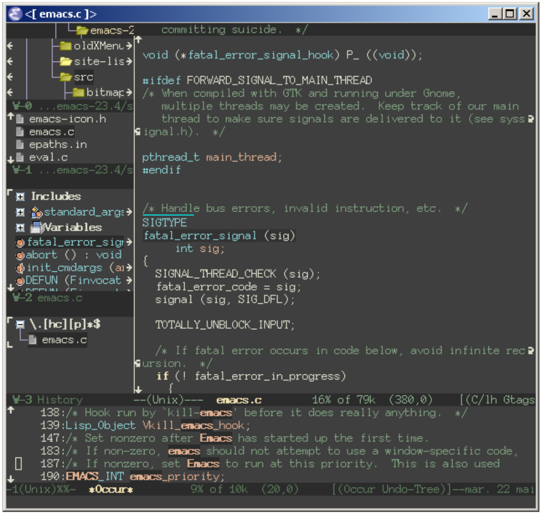
- ECB is an "`Emacs Code Browser`" which contains:
    - directory list frame
    - source list frame
    - method/function frame
    - history list frame
    - a quake like window but bottom for compile/grep/custom. . .
- all list in each frame can be filtered with regex
- different layout for all frame
- need CEDET to work

Mode: ECB 2/3

- Example of a layout in the screenshot in Part 3/3

```
+-----------+---------------+
| Directory |               |
+-----------+               |
|  Sources  |               |
+-----------+  File emacs.c |
|  Methods  |               |
+-----------+               |
|  History  |               |
+-----------+---------------+
|  Compile/Grep/Customize   |
+---------------------------+
```

Mode: ECB 3/3



```
    committing suicide.  */

void (*fatal_error_signal_hook) P_ ((void));

#ifdef FORWARD_SIGNAL_TO_MAIN_THREAD
/* When compiled with GTK and running under Gnome,
   multiple threads may be created.  Keep track of our main
   thread to make sure signals are delivered to it (see syss
ignal.h).  */

pthread_t main_thread;
#endif


/* Handle bus errors, invalid instruction, etc.  */
SIGTYPE
fatal_error_signal (sig)
     int sig;
{
  SIGNAL_THREAD_CHECK (sig);
  fatal_error_code = sig;
  signal (sig, SIG_DFL);

  TOTALLY_UNBLOCK_INPUT;

  /* If fatal error occurs in code below, avoid infinite rec
ursion.  */
  if (! fatal_error_in_progress)
    {
--(Unix)---  emacs.c       16% of 79k  (380,0)    [(C/lh Gtags
    138:/* Hook run by `kill-emacs' before it does really anything.  */
    139:Lisp_Object Vkill_emacs_hook;
    147:/* Set nonzero after Emacs has started up the first time.
    183:/* If non-zero, emacs should not attempt to use a window-specific code,
    187:/* If nonzero, set Emacs to run at this priority.  This is also used
    190:EMACS_INT emacs_priority;
-1(Unix)%%-  *Occur*       9% of 10k  (20,0)     [(Occur Undo-Tree)]--mar. 22 mai
```

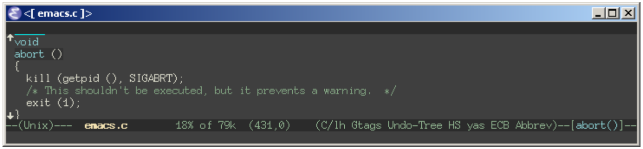
Figure: Example of layout

Mode: Gtags

- GNU Global mode for tags and to manage project file
- jump to definition
- search symbol in all project file (tags with grep)
- search file in project
- can be use by CEDET mode

Mode: Which function

- minor mode to show in modeline the current function



```
void
abort ()
{
  kill (getpid (), SIGABRT);
  /* This shouldn't be executed, but it prevents a warning.  */
  exit (1);
}
--(Unix)---  emacs.c        18% of 79k  (431,0)    (C/lh Gtags Undo-Tree HS yas ECB Abbrev)--[abort()]--
```

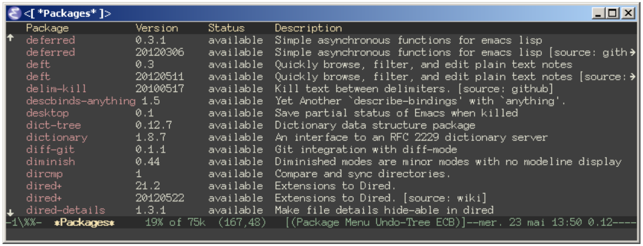
Figure: show function abort() in cyan

Mode: Dired+ And Dired Sort

- add color to dired mode
- sort like in MS Windows Explorer
- open with default program

Mode: Packages Repository

- add a manager of repositories (like in Linux distribution)
- each repositories contain packages
- a package is a mode for Emacs which can be download and install



```
<[ *Packages* ]>
  Package          Version   Status    Description
↑ deferred         0.3.1     available Simple asynchronous functions for emacs lisp
  deferred         20120306  available Simple asynchronous functions for emacs lisp [source: gith→
  deft             0.3       available Quickly browse, filter, and edit plain text notes
  deft             20120511  available Quickly browse, filter, and edit plain text notes [source:→
  delim-kill       20100517  available Kill text between delimiters. [source: github]
  descbinds-anything 1.5     available Yet Another `describe-bindings' with `anything'.
  desktop          0.1       available Save partial status of Emacs when killed
  dict-tree        0.12.7    available Dictionary data structure package
  dictionary       1.8.7     available An interface to an RFC 2229 dictionary server
  diff-git         0.1.1     available Git integration with diff-mode
  diminish         0.44      available Diminished modes are minor modes with no modeline display
  dircmp           1         available Compare and sync directories.
  dired+           21.2      available Extensions to Dired.
  dired+           20120522  available Extensions to Dired. [source: wiki]
↓ dired-details    1.3.1     available Make file details hide-able in dired
-1\%%-  *Packages*    19% of 75k  (167,48)   [(Package Menu Undo-Tree ECB)]--mer. 23 mai 13:50 0.12----
```

Figure: insight of packages list

Mode: Home End

- a minor mode to add features to the “`HOME`” and “`END`” keys
- “`HOME`” and “`END`” keys have normally behavior
- go to the top/bottom of screen with “`HOME HOME`”/“`END END`”
- go to the top/bottom of buffer/file with “`HOME HOME HOME`”/“`END END END`”

Mode: Syntax Coloration

- a mode exists for a lot of languages, just search on the web

Mode: Highlight Current Symbol

- idle two seconds on a symbol/word and all similar symbol/word will be highlight

Mode: Google Calendar

- synchronize Emacs Calendar and Diary with Google Calendar

Mode: Column Indicator

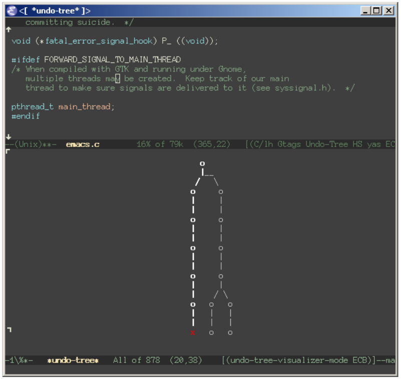
- show a thin line at a column to ease editing

Mode: Produce Document

- Muse mode can produce document from plain text
  - wiki
  - pdf
  - presentation (**like this one**)
  - blog

Mode: Undo Tree Mode

- show undo like a tree with "`Ctrl+x u`"
- move in the tree to see undo/redo on the file



```
   committing suicide.  */

void (*fatal_error_signal_hook) P_ ((void));

#ifdef FORWARD_SIGNAL_TO_MAIN_THREAD
/* When compiled with GTK and running under Gnome,
   multiple threads may be created.  Keep track of our main
   thread to make sure signals are delivered to it (see syssignal.h).  */

pthread_t main_thread;
#endif

--(Unix)**-  emacs.c       16% of 79k  (365,22)   [(C/lh Gtags Undo-Tree HS yas EC
```

```
-1\%*-  *undo-tree*   All of 878  (20,38)    [(undo-tree-visualizer-mode ECB)]--ma
```

Figure: Undo tree to navigate in modifications

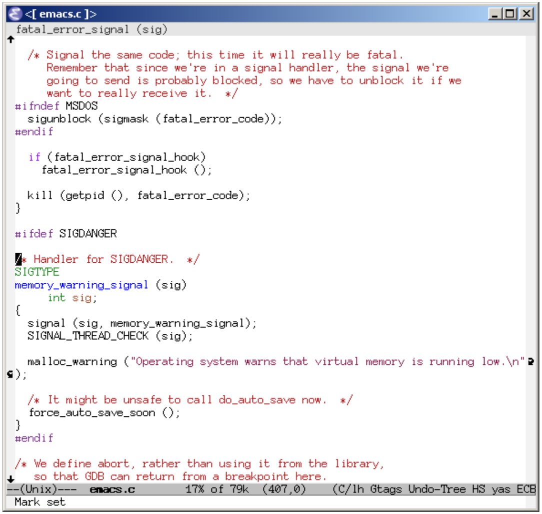
Mode: org mode

- a mode to organize in plain text
    - keeping notes
    - maintaining ToDo lists
    - project planning
    - publish document

Mode: Parentheses Match not visible

- when try to match a parentheses not visible display in minibuffer the match and line after

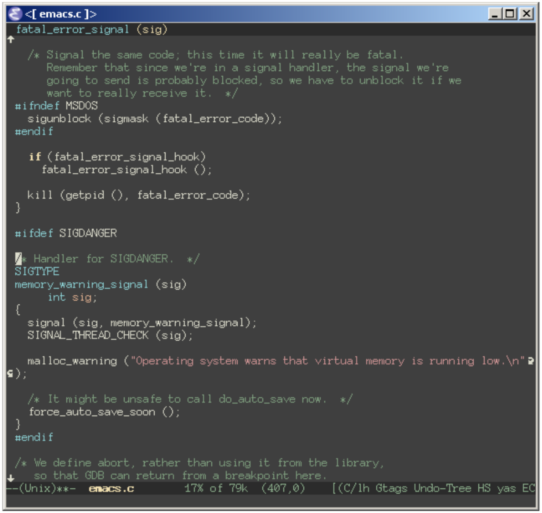
Mode: Color Theme 1/3



```
fatal_error_signal (sig)

  /* Signal the same code; this time it will really be fatal.
     Remember that since we're in a signal handler, the signal we're
     going to send is probably blocked, so we have to unblock it if we
     want to really receive it.  */
#ifndef MSDOS
  sigunblock (sigmask (fatal_error_code));
#endif

  if (fatal_error_signal_hook)
    fatal_error_signal_hook ();

  kill (getpid (), fatal_error_code);
}

#ifdef SIGDANGER

/* Handler for SIGDANGER.  */
SIGTYPE
memory_warning_signal (sig)
     int sig;
{
  signal (sig, memory_warning_signal);
  SIGNAL_THREAD_CHECK (sig);

  malloc_warning ("Operating system warns that virtual memory is running low.\n"
);

  /* It might be unsafe to call do_auto_save now.  */
  force_auto_save_soon ();
}
#endif

/* We define abort, rather than using it from the library,
   so that GDB can return from a breakpoint here.
--(Unix)---  emacs.c        17% of 79k   (407,0)     (C/lh Gtags Undo-Tree HS yas ECB
Mark set
```

Figure: Default Colors without Color Theme mode

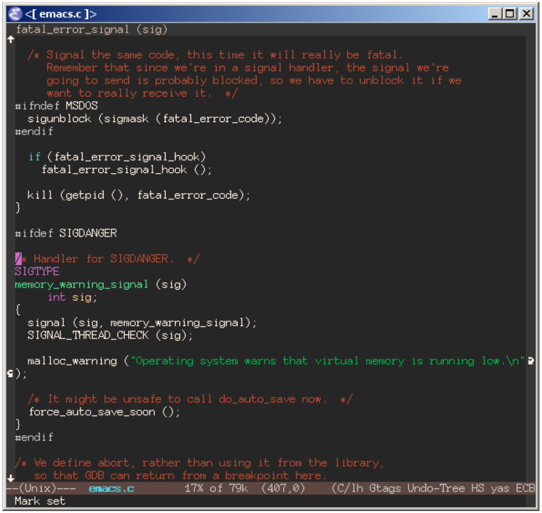
Mode: Color Theme 2/3



```
fatal_error_signal (sig)

  /* Signal the same code; this time it will really be fatal.
     Remember that since we're in a signal handler, the signal we're
     going to send is probably blocked, so we have to unblock it if we
     want to really receive it.  */
#ifndef MSDOS
  sigunblock (sigmask (fatal_error_code));
#endif

  if (fatal_error_signal_hook)
    fatal_error_signal_hook ();

  kill (getpid (), fatal_error_code);
}

#ifdef SIGDANGER

/* Handler for SIGDANGER.  */
SIGTYPE
memory_warning_signal (sig)
     int sig;
{
  signal (sig, memory_warning_signal);
  SIGNAL_THREAD_CHECK (sig);

  malloc_warning ("Operating system warns that virtual memory is running low.\n"
);

  /* It might be unsafe to call do_auto_save now.  */
  force_auto_save_soon ();
}
#endif

/* We define abort, rather than using it from the library,
   so that GDB can return from a breakpoint here.
--(Unix)**-  emacs.c       17% of 79k  (407,0)    [(C/lh Gtags Undo-Tree HS yas EC
```

Figure: Zenburn Color Theme (a ported Vim color scheme)

Mode: Color Theme 3/3



```
<[ emacs.c ]>
fatal_error_signal (sig)

  /* Signal the same code; this time it will really be fatal.
     Remember that since we're in a signal handler, the signal we're
     going to send is probably blocked, so we have to unblock it if we
     want to really receive it.  */
#ifndef MSDOS
  sigunblock (sigmask (fatal_error_code));
#endif

  if (fatal_error_signal_hook)
    fatal_error_signal_hook ();

  kill (getpid (), fatal_error_code);
}

#ifdef SIGDANGER

/* Handler for SIGDANGER.  */
SIGTYPE
memory_warning_signal (sig)
     int sig;
{
  signal (sig, memory_warning_signal);
  SIGNAL_THREAD_CHECK (sig);

  malloc_warning ("Operating system warns that virtual memory is running low.\n"
);

  /* It might be unsafe to call do_auto_save now.  */
  force_auto_save_soon ();
}
#endif

/* We define abort, rather than using it from the library,
   so that GDB can return from a breakpoint here.
--(Unix)---  emacs.c        17% of 79k   (407,0)    (C/lh Gtags Undo-Tree HS yas ECB
Mark set
```

Figure: Sweet Color Theme (mine)

CUSTOMIZE

Customize: example 1/2

Some example of customization, new function:

- word/symbol incremental search under cursor (at point)
- manage setting profiles (my configuration)
- select word/symbol under cursor (at point)
- word/symbol occurrences under cursor (at point)
- toggle width of ECB mode window (change layout)
- search TAB character
- integration with graphical clearcase (checkout, history, compare)

Customize: example 2/2

Some example of customization, settings:

- ignore insert key
- never dialog box
- never tooltips
- filter/group ECB windows (source/directory/method. . .)
  - do not show hidden folder
  - do not show compiled file
  - group C file, Lisp file,
  - group file from an include folder
  - . . .