

ユーティリティ関数群

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Table of Contents

- [1. org バッファを評価](#)
- [2. ユーティリティ関数](#)
 - [2.1. サボっていると Kyoko さんに怒られる](#)
 - [2.2. org-buffer を dokuwiki 形式に変換し, kill-ring に格納](#)
 - [2.3. コンソールでカレントバッファのあるディレクトリに移動する](#)
- [3. ファイルに含まれるテーブルを使って定時に growl のアラートを表示する](#)
 - [3.1. 頻繁に利用するファイルを ring 形式でたどる](#)
 - [3.2. 引数の org バッファを開く](#)
 - [3.3. org バッファにいつものヘッダを追加する](#)
 - [3.4. 議事録ひな形を書き入れる](#)
 - [3.5. ランダム of 文字列を取得する](#)
 - [3.6. Auto-install をセットアップする](#)
 - [3.7. 行頭に " - " を挿入する](#)
 - [3.7.1. キーバインド](#)
 - [3.8. 日付などを簡単に挿入する](#)
 - [3.8.1. キーバインド](#)
 - [3.9. XHTML を利用したガントチャート生成](#)
 - [3.10. 定期実行関数](#)
 - [3.11. ブラウザの設定](#)
 - [3.12. ミニバッファに日時を表示](#)
 - [3.13. バックアップファイルの削除](#)
 - [3.14. その他](#)
- [4. 未設定 / テスト中](#)
 - [4.1. byte-compile の警告を抑制する](#)
 - [4.2. \[window-resizer.el\] 分割したウィンドウサイズを変更する](#)
 - [4.3. \[idle-requite\]](#)
 - [4.4. \[pdf-preview\]](#)
 - [4.5. \[EasyPG\]](#)
 - [4.6. \[eblook\]](#)
 - [4.7. \[iBuffer\]](#)
 - [4.8. キーバインド](#)
- [5. provide](#)

[init.el](#) に記述していた便利関数を、`utility.el` として分離しています。`init.el` では `autoload` を用いて `utility.el` を遅延読み込みするように設定してます。このようなファイルの分離で 60[ms]ほど起動を高速化できます。

注意：コピペだけでは動かない可能性があります。

1. org バッファを評価

org-buffer を評価して Emacs の設定ファイルを生成／読み込みまでを自動化します。
この設定では、init.org と utility.org の2つのバッファでのみ評価されるようになっています。

```
(defun eval-org-buffer ()
  "Load init.org/utility.org and tangle init.el/utility.el."
  (interactive)
  (if (and (eq major-mode 'org-mode)
          (or (string= (buffer-name) "init.org")
              (string= (buffer-name) "utility.org"))))
      (progn
        (org-babel-tangle)
        (let ((tangled-file
              (concat (file-name-sans-extension (buffer-file-name)) ".el"))))
          (when (file-exists-p tangled-file)
            (byte-compile-file tangled-file)))
        (message "Nothing to do for this buffer."))
      (message "Nothing to do for this buffer.")))
```

2. ユーティリティ関数

2.1. サボっていると Kyoko さんに怒られる

MacOS 用の関数です。別途、Kyoko さんの音声をインストールしておく必要があります。Mavericks だと、Otoya さんも使えます。

```
(defvar kyoko-mad-mode nil)
(defun kyoko-mad-mode-toggle ()
  (interactive)
  (setq kyoko-mad-mode (not kyoko-mad-mode))
  (cond (kyoko-mad-mode
        (message "Kyoko mad mode: ON"))
        (t
         (message "Kyoko mad mode: OFF"))))
;; She will be mad if you do nothing within 10 min.
(run-with-idle-timer
 600 t
 '(lambda ()
   (when kyoko-mad-mode
     (shell-command-to-string
      "say -v Kyoko おいおまえ、遊んでないで、仕事しろ")))))
```

2.2. org-buffer を dokuwiki 形式に変換し、kill-ring に格納

外部プログラム org2dokuwiki.pl を使います。

```
(defun org2dokuwiki-cp-kill-ring ()
  "Convert the current org-file to dokuwiki text, and copy it to kill-ring."
  (interactive)
  (when (eq major-mode 'org-mode)
    (cond (buffer-file-name
```

```
(kill-new
  (shell-command-to-string
    (concat "cat " buffer-file-name "| perl "
      (expand-file-name "~/Dropbox/scripts/org2dokuwiki.pl"))))
(message "Copying %s ... done" buffer-file-name)
(sit-for 1.5)
(message "")
(t (message "There is NOT such a file."))))
```

2.3. コンソールでカレントバッファのあるディレクトリに移動する

Finder で開きたいだけならば、M-! でミニバッファに open . と打ち込むだけです。

```
(defcustom open-current-directory-console-program "iTerm2.app"
  "Specify a console program"
  :type 'string
  :group 'takaxp-mac)

(defun open-current-directory ()
  "Open Current Directory for MacOSX
0) Put this function in your .emacs
1) M-x open-current-directory
2) Terminal will open automatically
3) Type M-v to paste and move to a path to the current directory in Emacs"
  (interactive)
  (let ((file-path (buffer-file-name (current-buffer))))
    (unless (string= file-path nil)
      (let ((directory
        (substring file-path 0
          (-
            (length file-path)
            (length (buffer-name (current-buffer)))))))
        (message "%s" directory)
        (shell-command-to-string (concat "echo cd " directory " |pbcopy"))
        (shell-command-to-string
          (concat "open -a " open-current-directory-console-program))))))
```

*

3. ファイルに含まれるテーブルを使って定時に growl のアラートを表示する

```
(eval-after-autoload-if-found
  '(set-alarms-from-file my:desktop-notify) "todochiku" nil t nil
  '(
    (setq todochiku-icons-directory "~/Dropbox/emacs.d/todochiku-icons")
    (add-to-list 'todochiku-icons '(emacs . "emacs.png"))

    (defun set-alarms-from-file (file)
      "Make alarms from org-mode tables. If you have an org-mode file
      with tables with the following format:
      |-----+-----+-----+-----|
      | Flag | Time | Content |
      |-----+-----+-----+-----|
      |      | 07:00 | Wakeup |
      |      |      | Read papers |
      |-----+-----+-----+-----|")
```

```

| X      | 12:00 | Clean up your desk |
When it is 7:00 and 12:00, Growl notify with a message which is specified
content column from the table. \"Read papers\" will be ignored.
\"Clean up your desk\" will be shown by sticky mode"
(let
  ((lines (read-line file)))
  (cancel-function-timers 'my:desktop-notify) ;; clear existing timers
  (while lines
    (set-alarm-from-line (decode-coding-string (car lines) 'utf-8))
    (setq lines (cdr lines))
    ;;      (message "")
  )))

(defun set-alarm-from-line (line)
  "NOTE: this function need (require 'todochiku)"
  (require 'cl)
  (when (require 'todochiku nil t)
    (let
      ((hour nil)
       (min nil)
       (current-hour nil)
       (current-min nil)
       (action nil))
      (when (string-match "\\([0-2]?[0-9]\\):\\([0-5][0-9]\\)" line)
        (setq hour (substring line (match-beginning 1) (match-end 1)))
        (setq min (substring line (match-beginning 2) (match-end 2)))
        (when (string-match
              "\\|\\s-*\\([^\|]+[^\ ]\\)\\s-*\\|$" line (match-end 2))
          (setq action
                (substring line (match-beginning 1) (match-end 1)))))
      (when (and (and hour min) action)
        ;;      (message "[%s:%s] => %s" hour min action)
        (setq current-hour (format-time-string "%H" (current-time)))
        (setq current-min (format-time-string "%M" (current-time)))
        (when (> (+ (* (string-to-number hour) 60)
                     (string-to-number min))
                  (+ (* (string-to-number current-hour) 60)
                     (string-to-number current-min)))
          (let
            ((s nil))
            (when (string-match "^\\|\\s-*X\\s-*\\|" line)
              (setq s 'sticky))
            ;;      (set-notify-growl hour min action s)
            (set-notify-osx-native hour min action s)
            (set-notify-mail hour min action s)
            )))))

(defun my:desktop-notify (type title hour min action s)
  (cond
    ((string= type "growl")
     (require 'cl)
     (when (require 'todochiku nil t)
       (todochiku-message
        title
        (format "[%s:%s %s" hour min action)
        "Emacs" s)))
    ((string= type "osx-native")
     (shell-command-to-string
      (concat "terminal-notifier -title \"Emacs\" -message \""
              (format "[%s:%s %s" hour min action) "\\\""))))

```

```

(t nil)))

(defun set-notify-mail (hour min action s)
  (run-at-time (format "%s:%s" hour min) nil
    'my:desktop-notify
    "mail" "りまいんだ" hour min action nil))

(defun set-notify-growl (hour min action s)
  (run-at-time (format "%s:%s" hour min) nil
    'my:desktop-notify
    "growl" "== REMINDER ==" hour min action s))

(defun set-notify-osx-native (hour min action s)
  "terminal-notifier is required."
  (run-at-time (format "%s:%s" hour min) nil
    'my:desktop-notify
    "osx-native" "Emacs" hour min action nil))

(defun read-line (file)
  "Make a list from a file, which is divided by LF code"
  (with-temp-buffer
    (insert-file-contents-literally file)
    (split-string
      (buffer-string) "\n" t)))
))

```

3.1. 頻繁に利用するファイルを ring 形式でたどる

<http://d.hatena.ne.jp/rubikitch/20111120/elispbook>

```

(defvar my:file-ring nil)
(defun takaxp:make-file-ring (files)
  (setq my:file-ring (copy-sequence files)))
;; (setf (cdr (last my:file-ring)) my:file-ring))
(takaxp:make-file-ring
 '("~/Dropbox/org/work.org" "~/Dropbox/emacs.d/config/init.org"
   "~/Dropbox/org/buffer.org" "~/Dropbox/emacs.d/config/utility.org"
   "~/Dropbox/org/research.org" "~/Dropbox/org/next.org"))

(defun takaxp:open-file-ring ()
  (interactive)
  (find-file (car my:file-ring))
  (setq my:file-ring
    (append (cdr my:file-ring)
      (list (car my:file-ring)))))

;; (setq my:file-ring (cdr my:file-ring)))

```

3.2. 引数の org バッファを開く

```

(defun show-org-buffer (file)
  "Show an org-file on the current buffer"
  (interactive)
  (if (get-buffer file)
    (let ((buffer (get-buffer file)))
      (switch-to-buffer buffer)
      (message "%s" file))
    (find-file (concat "~/Dropbox/org/" file))))

```

3.3. org バッファにいつものヘッダを追加する

```
(defun insert-org-file-header-template ()
  (interactive)
  (when (string= major-mode 'org-mode)
    (let ((title "#+TITLE:\t\n")
          (date "#+DATE: \t\n")
          (update "#+UPDATE:\t\n")
          (author "#+AUTHOR:\tTakaaki ISHIKAWA <takaxp@ieee.org>\n")
          (option "#+OPTIONS:\t\\n:t\n")
          (other "\n"))
      (goto-char 0)
      (save-excursion
        (insert title date update author option other))
      (org-end-of-line))))
```

3.4. 議事録ひな形を書き入れる

```
(defun insert-minutes-template ()
  (interactive)
  (when (string= major-mode 'org-mode)
    (let ((date "日時: \n")
          (place "場所: \n")
          (attendance "出席者: \n")
          (documents "資料: \n\n"))
      (save-excursion
        (insert date place attendance documents))))))
```

3.5. ランダムの文字列を取得する

引数で桁数を渡すと、ランダムな数値の文字列を取得できます。org-mode で適当なタイトルのツリーを生成したい時に使っています。

```
(defun get-random-string (length)
  "Get a string contain the length digit number with random selection"
  (interactive)
  (random t)
  (cond ((> length 0)
    (let
      ((count length)
       (string nil)
       (tmp nil))
      (while (< 0 count)
        (setq count (1- count))
        (setq tmp string)
        (setq string
          (concat tmp (number-to-string (random 10)))))
      (message "%s" string))
    (t "0"))))
```

3.6. Auto-install をセットアップする

いつも auto-install を使うわけではないので、必要時に init-auto-install を実行してパラメータを設定してから auto-install でパッケージを取得するようにしています。

cask+pallet 環境に移行してからは使っていません。

```
(defun init-auto-install ()
  "Setup auto-install.el.
1. Set my:auto-install-batch-list-el-url
2. M-x init-auto-install
3. M-x auto-install-batch hoge"
  (interactive)
  (when (and (require 'auto-install nil t)
             my:auto-install-batch-list-el-url)
    (setq auto-install-batch-list-el-url my:auto-install-batch-list-el-url)
    (setq auto-install-directory default-path)
    (setq auto-install-wget-command "/opt/local/bin/wget")
    (auto-install-update-emacs-wiki-package-name t)
    ;; compatibility
    (auto-install-compatibility-setup))) ; for install-elisp users
```

3.7. 行頭に" - "を挿入する

```
(defun add-itemize-head (arg)
  "Insert \" - \" at the head of line.
  If the cursor is already at the head of line, it is NOT returned back to the
  original position again. Otherwise, the cursor is moved to the right of the
  inserted string. \" - [ ] \" will be inserted using C-u prefix."
  (interactive "P")
  (let ((item-string " - "))
    (when arg
      (setq item-string " - [ ] "))
    (cond ((= (point) (line-beginning-position))
           (insert item-string))
          (t (save-excursion
                (move-beginning-of-line 1)
                (insert item-string))))))
```

3.7.1. キーバインド

C-u C-M-- とすれば、[] を付加できます。

```
(global-set-key (kbd "C-M--") 'add-itemize-head)
```

3.8. 日付などを簡単に挿入する

http://www.fan.gr.jp/~ring/doc/elisp_20/elisp_38.html#SEC608

```
(defun insert-formatted-current-date ()
  "Insert a timestamp at the cursor position. C-u will add [] brackets."
  (interactive)
  (insert (format-time-string "%Y-%m-%d")))
(defun insert-formatted-current-time ()
  (interactive)
  (insert (format-time-string "%H:%M")))
(defun insert-formatted-signature ()
  (interactive)
  (insert (concat (format-time-string "%Y-%m-%d") " " " user-full-name
                  " <" user-mail-address ">")))
```

```
(defun insert-formatted-current-date (arg)
  "Insert a timestamp at the cursor position. C-u will add [] brackets."
  (interactive "p")
  (case arg
    (4 (if (equal major-mode 'org-mode)
        (org-time-stamp-inactive)
        (insert (format-time-string "[%Y-%m-%d]")))))
    (t (insert (format-time-string "%Y-%m-%d"))))
  )
(defun insert-formatted-current-time ()
  (interactive)
  (insert (format-time-string "%H:%M")))
(defun insert-formatted-signature ()
  (interactive)
  (insert (concat (format-time-string "%Y-%m-%d") " " " user-full-name
                  " <" user-mail-address ">"))))
```

3.8.1. キーバインド

```
(global-set-key (kbd "C-0") 'insert-formatted-current-date)
(global-set-key (kbd "C--") 'insert-formatted-current-time)
```

3.9. XHTML を利用したガントチャート生成

最近使っていません。

```
(defcustom my:auto-install-batch-list-el-url nil
  "URL of a auto-install-batch-list.el"
  :type 'string
  :group 'takaxp-utility)

;; Publish an xml file to show a Gantt Chart
(defcustom default-timeline-csv-file nil
  "source.csv"
  :type 'string
  :group 'takaxp-utility)

(defcustom default-timeline-xml-business-file nil
  "XML file for business schedule"
  :type 'string
  :group 'takaxp-utility)

(defcustom default-timeline-xml-private-file nil
  "XML file for private schedule"
  :type 'string
  :group 'takaxp-utility)

(defcustom default-timeline nil
  "a template index.html"
  :type 'string
  :group 'takaxp-utility)

(defun export-timeline-business ()
  "Export schedule table as an XML source to create an web page"
  (interactive)
  (when (and default-timeline
              (and default-timeline-csv-file
                    default-timeline-xml-business-file))
    (shell-command-to-string (concat "rm -f " default-timeline-csv-file))
```



```

(org-table-export default-timeline-csv-file "orgtbl-to-csv")
(shell-command-to-string (concat "org2gantt.pl > "
                                default-timeline-xml-business-file))
(shell-command-to-string (concat "open " default-timeline))))

(defun export-timeline-private ()
  "Export schedule table as an XML source to create an web page"
  (interactive)
  (when (and default-timeline
              (and default-timeline-csv-file
                    default-timeline-xml-private-file))
    (shell-command-to-string (concat "rm -f " default-timeline-csv-file))
    (org-table-export default-timeline-csv-file "orgtbl-to-csv")
    (shell-command-to-string (concat "org2gantt.pl > "
                                    default-timeline-xml-private-file))
    (shell-command-to-string (concat "open " default-timeline))))

```

3.10. 定期実行関数

org バッファからカレンダーを生成し、外部サーバに投げます。また、MobileOrg に最新情報を流しています。

```

(with-eval-after-load "org"
  (run-with-idle-timer 600 t 'reload-ical-export)
  (run-with-idle-timer 1000 t 'org-mobile-push))

(defun reload-ical-export ()
  "Export org files as an iCal format file"
  (interactive)
  (when (string= major-mode 'org-mode)
    (my:ox-icalendar)))

```

3.11. ブラウザの設定

```

;; http://stackoverflow.com/questions/4506249/how-to-make-emacs-org-mode-open-
links-to-sites-in-google-chrome
;; http://www.koders.com/lisp/fidD53E4053393F9CD578FA7D2AA58BD12FDDD8EB89.aspx?s="skim
(eval-after-autoload-if-found
  '(my:browse-url-chrome) "browse-url" nil t nil
  '((defun my:browse-url-chrome (url &optional new-window)
     "Set default browser to open a URL"
     (interactive (browse-url-interactive-arg "URL: "))
     (start-process "google-chrome" nil "google-chrome" url))
    ;; Open a link with google-chrome for Linux
    (when (not (eq window-system 'ns))
      (setq browse-url-browser-function 'browse-url-generic
            browse-url-generic-program "google-chrome"))
  )
))

; (setq browse-url-browser-function 'browse-
url-default-macosx-browser)
; (setq browse-url-browser-function 'browse-
url-default-windows-browser)
; (setq browse-url-browser-function 'browse-
url-chrome)

```

3.12. ミニバッファに日時を表示

```
;;;###autoload
(defun takexp:date ()
  (interactive)
  (message "%s" (concat
    (format-time-string "%Y-%m-%d") " ("
    (format-time-string "%a") ") "
    (format-time-string "%H:%M"))))
(global-set-key (kbd "C-c t") 'takexp:date)
```

3.13. バックアップファイルの削除

```
;; find ~/env/emacs_backup -type f -name '*15-04-24_*' -print0 | while read -r
-d '' file; do echo -n " \"$file\""; done | xargs -0
(defun recursive-delete-backup-files (count)
  (if (= count 1)
    1
    (recursive-delete-backup-files (1- count)))
  (delete-backup-files count))

(defun delete-backup-files (&optional day-shift)
  "Delete backup files created in yesterday.
> find ~/env/emacs_backup -type f -name '*YY-MM-DD_*' -print0 | xargs -0"
  (interactive)
  (unless day-shift
    (setq day-shift 1))
  (let* ((backup-dir "~/env/emacs_backup")
        (cmd (concat "find " backup-dir " -type f -name \"'\"
          (format-time-string
            "%y-%m-%d_"
            (time-subtract (current-time)
              (seconds-to-time
                (* day-shift (* 24 3600))))))
          "\" -print0 | while read -r -d \"\\\" file; \"
          \" do echo -n \" \\\" \"$file\\\"\"; done | xargs -0"))
        (files (shell-command-to-string cmd)))
    ;; (message "%s" cmd)
    (unless (string= files "")
      (message "%s" files)
      (shell-command-to-string (concat "rm -r " files))))))
```

3.14. その他

```
;;; Test function from GNU Emacs (O'REILLY, P.328)
(defun count-words-buffer ()
  "Count the number of words in the current buffer"
  (interactive)
  (save-excursion
    (let ((count 0))
      (goto-char (point-min))
      (while (< (point) (point-max))
        (forward-word 1)
        (setq count (1+ count)))
      (message "buffer contains %d words." count))))

;;; Test function for AppleScript
;;; Cite: http://sakito.jp/emacs/emacsobjectivec.html
```

```
(defun do-test-applescript ()
  (interactive)
  (do-applescript
    (format
      (concat
        "display dialog \"Hello world!\" \" \r\"))))

(defun describe-timer ()
  "A modified. see http://masutaka.net/chalow/2009-12-05-1.html"
  (interactive)
  (let ((tl timer-list) time
        (timer nil))
    (pop-to-buffer (get-buffer-create "*timer*"))
    (erase-buffer)
    (insert
      "TIME          FUNCTION\n"
      "-----\n")
    (while tl
      (setq timer (car tl))
      (insert
        (concat
          (format-time-string "%m/%d %T"
                                (list (aref timer 1)
                                      (aref timer 2)
                                      (aref timer 3)))
          " "
          (symbol-name (aref timer 5))
          "\n"))
      (setq tl (cdr tl)))))
```

4. 未設定 / テスト中

4.1. byte-compile の警告を抑制する

```
;; Avoid warning (for sense-region)
;; Warning: 'mapcar' called for effect; use 'mapc' or 'dolist' insted
(setq byte-compile-warnings
  '(free-vars unresolved callargs redefine obsolete noruntime
    cl-functions interactive-only make-local))
```

4.2. [window-resizer.el] 分割したウィンドウサイズを変更する

http://d.hatena.ne.jp/khiker/20100119/window_resize

以下の警告を参考に書き換えた。

```
In my:window-resizer:
utility.el:333:23:Warning: `last-command-char' is an obsolete variable (as of
  Emacs at least 19.34); use `last-command-event' instead.
;;###autoload
(defun takexp:window-resizer ()
  "Control separated window size and position.
  Type {j,k,l,m} to adjust windows size."
  (interactive)
  (let ((window-obj (selected-window))
        (current-width (window-width)))
```

```

(current-height (window-height))
(dx (if (= (nth 0 (window-edges)) 0) 1
      -1))
(dy (if (= (nth 1 (window-edges)) 0) 1
      -1))
action c)
(catch 'end-flag
  (while t
    (setq action
      (read-key-sequence-vector (format "size[%dx%d]"
                                       (window-width)
                                       (window-height)))))

(setq c (aref action 0))
(cond ((= c ?l)
      (enlarge-window-horizontally dx))
      ((= c ?h)
      (shrink-window-horizontally dx))
      ((= c ?j)
      (enlarge-window dy))
      ((= c ?k)
      (shrink-window dy))
      ;; otherwise
      (t
       (let ((last-command-event (aref action 0))
             (command (key-binding action)))
         (when command
           (call-interactively command)))
       (message "Quit")
       (throw 'end-flag t))))))

```

4.3. [idle-require]

```

(require 'idle-require)
(idle-require-mode 1)

```

4.4. [pdf-preview]

```

(require 'pdf-preview)

```

4.5. [EasyPG]

```

(when (require 'epa-setup nil t)
  (epa-file-enable))

```

4.6. [eblook]

```

;; eblook
(when (require 'eblook nil t)
  (autoload 'edict-search-english "edic"
    "Search for a translation of an English word" t)
  (autoload 'edict-search-kanji "edict"
    "Search for a translation of a Kanji sequence" t)
  (setq *edict-files* '("/Users/taka/Dropbox/Dic/LDOCE4"))
  (setq *edict-files* '("/Users/taka/Downloads/edict/edict")))

```

4.7. [iBuffer]

iBuffer で list-buffers をオーバーライド (C-x C-b で表示)

```
(defalias 'list-buffers 'ibuffer)
```

4.8. キーバインド

```
;; Multiple combination  
; Editing with a rectangle region  
(global-set-key (kbd "C-x r C-SPC") 'rm-set-mark)  
(global-set-key (kbd "C-x r C-x") 'rm-exchange-point-and-mark)  
(global-set-key (kbd "C-x r C-w") 'rm-kill-region)  
(global-set-key (kbd "C-x r M-w") 'rm-kill-ring-save)
```

5. provide

```
(provide 'utility)
```