Flash-It™ v.3.0.2
Screen-Capture Utility

April 22, 1993

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(This document uses Times, Helvetica, Symbol and Zapf Dingbats fonts.)

0. What is Flash-It?

Flash-It is a screen-capture utility for Apple Macintosh computers. It is a combination of a system extension and a control panel. To install Flash-It, copy it to inside the System Folder, and restart the system. Flash-It then defines up to five screen-capture key combinations (from now on we call them HotKeys). Each HotKey performs one of the following functions:

* Capture a portion of (or the entire) monitor screen image to the Clipboard, then
* Leave the captured image in the Clipboard and quit, or save it to a PICT-based disk file, or to Scrapbook DA file, or send it to the printer,
* Optionally scaling the image by a pre-specified factor,
* With an option to choose the destination of the image on the fly,
* And more.

Therefore, with Flash-It you can capture a screen image, paste it to a document, save it in the Scrapbook or a separate disk file, and print it very quickly. HotKey key combinations and their behaviors are programmable from the Control Panel.

Besides these five HotKeys, Flash-It offers two more HotKeys for your convenience: one is to send a PICT image which is presently stored in the Clipboard to a disk file, Scrapbook or to the printer. The last HotKey is to re-configure a limited selection of options of Flash-It without invoking the control panel.

1. Shareware Information

Flash-It™ v.3.0.2 is a Shareware software. If you like it and decide to keep it for your use, please send in your Shareware fee of US. $15 per copy to -
> Nobu Toge
> 2425B Channing Way, Suite #314
> Berkeley, CA 94704-2209
> U.S.A.

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> CompuServe: 76334,650
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Flash-It v.3.0.2 may be distributed freely through BBSs, by nonprofit users groups which hold regular open meetings, communications networks, and the like, provided there is no charge except for normal duplication or usage fees. The

author, Nobu Toge, hereby grants nonprofit users groups to sell share/freeware collection disks

which include Flash-It. In so doing such nonprofit users groups are not obliged to become registered users. However, they are advised to contact me, so that they are sure to have the latest version of Flash-It.

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2. Main Features

*   The screen capturing works whether the monitor is in black-and-white or color modes.
*   It works even while pull-down or pop-up menus are being displayed.
*   It has an option to capture only the front-most window (or alert / dialog box), or only the displayed pull-down / popup menu.
*   It can record the pointer (also known as cursor or arrow) image when capturing the screen. Color pointers are supported, too. This option can be turned off if so desired.
*   It can scale up / down the captured image in the range 5 - 3200 % in 5 % steps.
*   You can specify the final image destination on the fly.
*   It supports Apple Extended Keyboards. HotKeys can include PF keys and keypad keys.
*   It supports multiple-monitor environments.
*   You can specify the document creator for saving the PICT-based disk files.

3. System Requirements and Installation

Flash-It v.3.0.2 works on Macintosh Plus or higher, with system software version 6.0.3 or later. Use of system 6.0.5 or later is recommended. Flash-It v.3.0.2 is compatible with system 7, 7.0.1 and 7.1, with 24 / 32-bit addressing modes and virtual memory.

To install Flash-It in your system, go through the steps as follows:

1. Trash the old version of Flash-It, if you have any.
2. Copy the file Flash-It to the Control Panel Folder within the System Folder (or in the case of system 6, copy the file Flash-It to the System Folder).
3. Re-boot the system. (If you hold down the mouse button when booting the system, Flash-It will not install itself. Might be a handy feature in some cases.)

4. Control Panel Interface

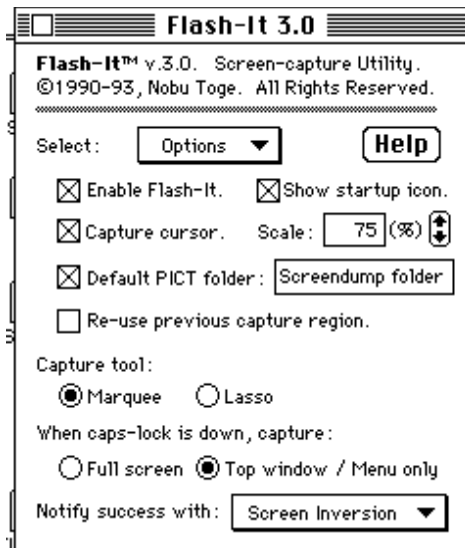You can configure HotKey definitions and their behaviors to your taste with the control panel.

> **Note:** All changes you make with the Control Panel will be immediately in effect. That is, you do not have to re-boot the system to see the effects. ▲

The Flash-It control panel has two pages, the **Options** page and the **HotKey** page. You can toggle the two pages by using the **Select** popup menu near the top of the window.

On the control panel window, help messages are available by clicking on the **Help** button. Under system 7, balloon help is available, too.

4.1. Options Page

The figure below shows the Options page of the Flash-It control panel.

Enable Flash-It function:
By checking / un-checking the box you can enable / disable Flash-It functions.

> **Note:** This switch does not remove or reinstall Flash-It in the system memory.   It simply flags whether the Flash-It functions should be invoked upon HotKeys. ▲

Show startup icon:
Some people do not like to see too long a march of start-up icons when booting the system. In that case, un-check here to remove the contribution from Flash-It.

Capture pointer:
Choose whether the pointer (also called cursor or arrow) image should be recorded or not, when capturing a screen image.
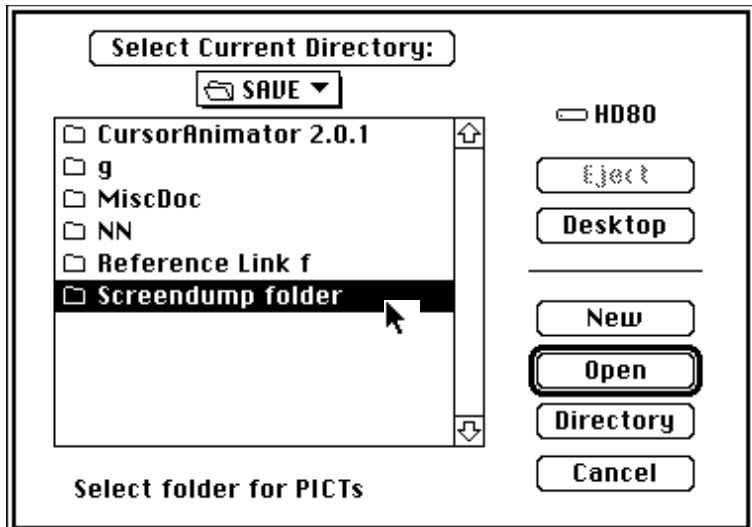
Scale:
Specify (de)magnification scale of captured images.   Clicking on the up / down arrows changes the scale in the range 5 - 3200 % in 5 % steps.   Note that 100 % means 1 : 1 scaling, i.e. no magnification / no reduction.

> **Note:** You can change the step size (default is 5 %) by using ResEdit. The rsDT resource ID -4064 in Flash-It file is a single-byte resource which contains the step size in % (valid range is $1 \sim 20$). ▲

Default PICT folder:
Check this box if you wish to use a default folder for saving PICT files with Flash-It. To select a default PICT folder, click on the rectangular text box next to this check box. It puts up a directory selection / open dialog as shown below.

You may:
- Click on the **Select Current Directory** to select the folder whose contents are currently shown, or
- Click on the **Directory** button to select the currently highlighted folder, or
- Click on the **New** button to create a new folder and define that to be the default PICT folder for Flash-It.

Re-use previous capture region:
If this box is checked, Flash-It reuses the screen-capture region that has been defined the last time. This is handy if you wish to repeatedly capture exactly the same selection.

Capture Tool:
If the Re-use previous capture region box is *not* checked (and when the caps-lock key is out... see below), whenever you press a screen-capture HotKey you have to drag the mouse, while pressing the mouse button, to manually select the screen-capture region. In so doing there are two methods you may use:

(1) Rectangular selection using a Marquee tool.
(2) Free-hand selection using a Lasso tool, which resembles that of HyperCard.

Click on the radio-buttons to specify your choice.

When caps-lock is down - :
When you press HotKeys while the caps-lock key is down, Flash-It immediately captures an image without letting you drag the mouse. There you have two choices:

(1) Capture the entire screen, or
(2) Capture the front-most window (or alert or dialog box). In this case, if a menu is shown, only the displayed menu (whether pull-down, hierarchical or popup-types) will be captured.

Click on the radio-buttons to specify your choice.
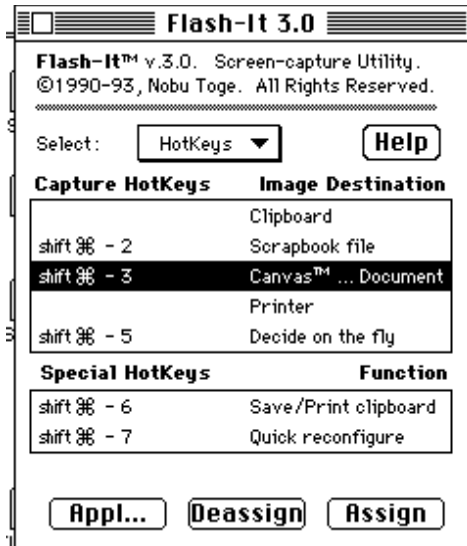
Notify Success with :
Whenever Flash-It successfully captures a screen region of your choice, Flash-It beeps to let you know. You can select the sound to use for this purpose with the popup menu here. You may select to inverse the captured screen region with this popup menu, too.

> **Note:** Up to 127 flavors of system sounds are supported here. Due to the buffer limit internal to Flash-It the 128th or later sound flavors will be ignored. I guess not many people would have that many sounds installed in the system. ▲

> **Note:** Under system 7 or later, Apples original FKEY 3 that captures a screen image uses a notification which sounds like a camera shutter. Flash-It knows to dig this sound resource out, if it exists. It shows up as an item shutter in the popup menu. ▲

4.2. HotKeys Page

The figure below shows the HotKeys page of the Flash-It control panel.

```
≡□≡≡≡≡ Flash-It 3.0 ≡≡≡≡≡
Flash-It™ v.3.0.  Screen-capture Utility.
©1990-93, Nobu Toge.  All Rights Reserved.

Select:    HotKeys  ▼       ( Help )
Capture HotKeys      Image Destination
                     Clipboard
shift ⌘ - 2          Scrapbook file
shift ⌘ - 3          Canvas™ ... Document
                     Printer
shift ⌘ - 5          Decide on the fly
Special HotKeys              Function
shift ⌘ - 6          Save/Print clipboard
shift ⌘ - 7          Quick reconfigure

( Appl... )  ( Deassign )  ( Assign )
```

HotKey List:
> A rectangle which occupies the middle portion of the window shows the list of HotKeys -- the HotKey list. To modify a HotKey, you need to select an item by single-clicking on it in the HotKey list first. Then, use one of the buttons below - **Assign**, **Deassign** and **Appl...**.

Assign:
> With this button you can re-define the key combination for the selected HotKey. When you click on this button, a small window will show up, asking you to press your new key assignment. Any combinations of shift, control, option, command keys plus a character / keypad / arrow / PF key are accepted. The caps-lock and power-on keys are ignored. If you decide not to modify the HotKey definition, a single mouse click (anywhere on the screen) dismisses the dialog.
>
>> **Note:** If you double-click on a HotKey in the HotKey list, the key (re-)assignment can be done without clicking on the **Assign** button. ▲

Deassign:
> This button lets you wipe out the key definition for the selected HotKey.

Appl...:
> This button is *valid only for the 3rd HotKey* in the HotKey list. The HotKey 3, after screen-capturing, saves the captured image to a PICT-based disk file. The **Appl...** button is for changing the creator of those PICT files. It calls an open file dialog and lets you choose an application, which will be the file creator from then on.
>
>> **Notes:**
>> * You should select an application which supports files of PICT format-type. Examples include most drawing and image processing applications.
>> * Most word processing applications allow to paste PICTs from the Clipboard directly onto their documents; however, they usually do not properly open the files written in PICT format, which Flash-It creates. Likewise, some painting programs may not understand PICT format (for example, MacPaint).
>> * Special case: If you select ResEdit™ (by Apple) as the file creator, Flash-It writes a resource file with a PICT resource in it. A feature which some programmer-types may find useful. ▲

5. How to Use HotKeys

HotKey 1: Screen → Clipboard:

Press this HotKey, any time you decide, to capture a screen image. The pointer (usually an 11 oclock arrow) changes its shape to a cross-hair when using a Marquee tool, and to a rope ring when using a Lasso tool.

Place the cursor to an appropriate point to start defining the capture region (Check the **Capture tool:** item in the control panel). Press the mouse button, then without releasing it, drag the mouse on the screen. Broken lines indicate the selected area. Release the mouse button when you are satisfied with the selection.

After a short while Flash-It gives you a beep or inverts the selected screen area, depending on your choice of **Notify success with** in the control panel. The pointer should return to its original shape. Now the screen image has been stored in the Clipboard.

> **Note:** If you keep the caps-lock key down when you use any HotKeys, the entire screen image of the monitor or the front-most window / displayed menus-only will be captured (the choice is specified with radio buttons in the control panel). In this case, the pointer does not change its shape. Flash-It takes the picture immediately. ▲

> **Note:** Likewise, if you have checked on the reuse capture region box in the control panel, Flash-It uses the previously selected screen region, and it will not let you drag the mouse. ▲

> **Note:** You can gracefully cancel the screen-capturing, if you like. To do so, hold down the esc key on the keyboard, when you release the mouse button at the end of point-click-drag action. If you do this, Flash-It does not attempt screen-capturing, and leave the Clipboard unchanged. ▲

Once the Clipboard has the screen image in it, you can paste it to a document within an application which supports PICT data.

> **Note:** Some applications may fail or freeze when you try to paste an *excessively large* Clipboard PICT. ▲

The procedure to capture a pull-down or pop-up menu is similar. First, keep the menu display by holding down the mouse button at an appropriate location on the screen. Then without releasing the mouse button, press the HotKey. (So, this is a two-hand action. Hence, you will not want to use too-exotic a HotKey combination which would require too many fingers to reach!) After the cursor changed its shape to a cross-hair, release the mouse button once. Notice that at this moment the displayed menu still stays.   Select the capture region in the same manner as described earlier, that is - press, hold, and drag. Watch the selection rectangle drawn with broken lines. Release the mouse button.   The system beeps to notify the completion of screen-capturing.   The cursor shape returns to the original one. The displayed menu will go away. The Clipboard has the image now.

This screen-capturing procedure is same for all other screen-capture HotKeys which follow. Also, all those HotKeys leaves the captured image in the Clipboard.

HotKey 2: Screen → Scrapbook file:

Use this HotKey to do screen-capturing then save the captured image to Scrapbook at once.   Scrapbook is a Desk Accessory (DA) which is included in all Macintosh system software. It is used to save/retrieve/organize pictures and text data.
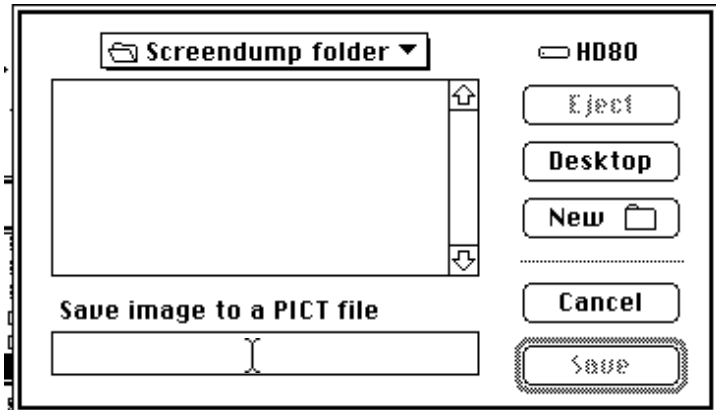
This HotKey posts an error message if:

 (1) Scrapbook file is absent in the system folder or
 (2) Scrapbook file is already open, for example, when Scrapbook DA is currently running.

The cures are: For case 1), run Scrapbook DA once and create the data file in the system folder; For case 2), quit from Scrapbook DA.

Note: Users of non-English systems, please, look at Section 8. International Scrapping. ▲

HotKey 3: Screen → PICT file:

Use this HotKey to do screen-capturing then save the captured image to a PICT-based disk file at once. An open-file dialog shows up to select the file name (and directory).

Note: If you have checked on the **Default PICT folder** check box in the control panel, and if the selected folder is valid, the open file dialog always opens first to that folder. ▲

Note: The file creator application of the PICT files is specified from the Control Panel. ▲
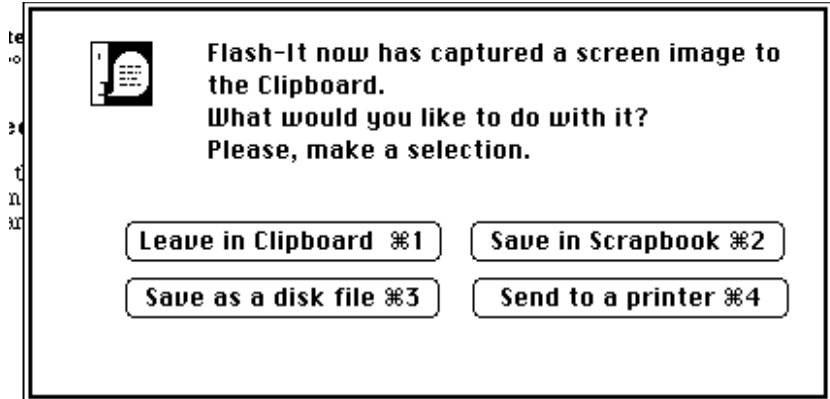
HotKey 4: Screen → Printer:

Use this HotKey to do screen-capturing then send the captured image to a printer at once. Before starting the actual print job, it lets you go through two dialogs; one to make the page setup, the next to specify the number of copies etc.

Note: Use Chooser DA to select the desired printer beforehand. This HotKey does not invoke Chooser. ▲
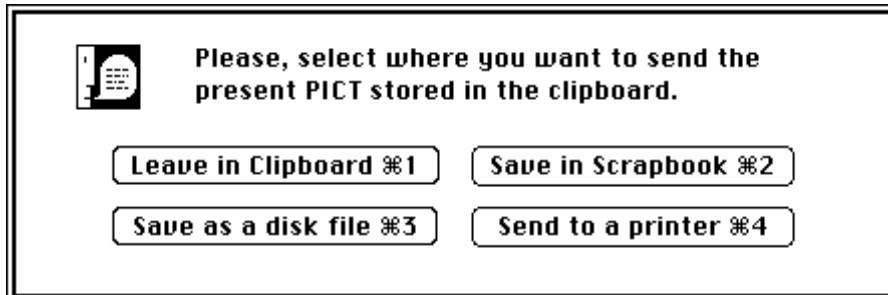
HotKey5: Screen → Decide on the Fly:

If you use this HotKey, Flash-It puts up a dialog asking you to make the last-second decision on where the captured image should go. Click on your choice. Keyboard shortcuts are available as indicated with the button titles.

This HotKey is for those of you who do not want to remember five different HotKeys. For instance, it may be that most of the time you save captured images to PICT-based disk files (HotKey 3), and only occasionally your images need to be sent elsewhere.   The HotKey 5 will serve handy in such circumstances.
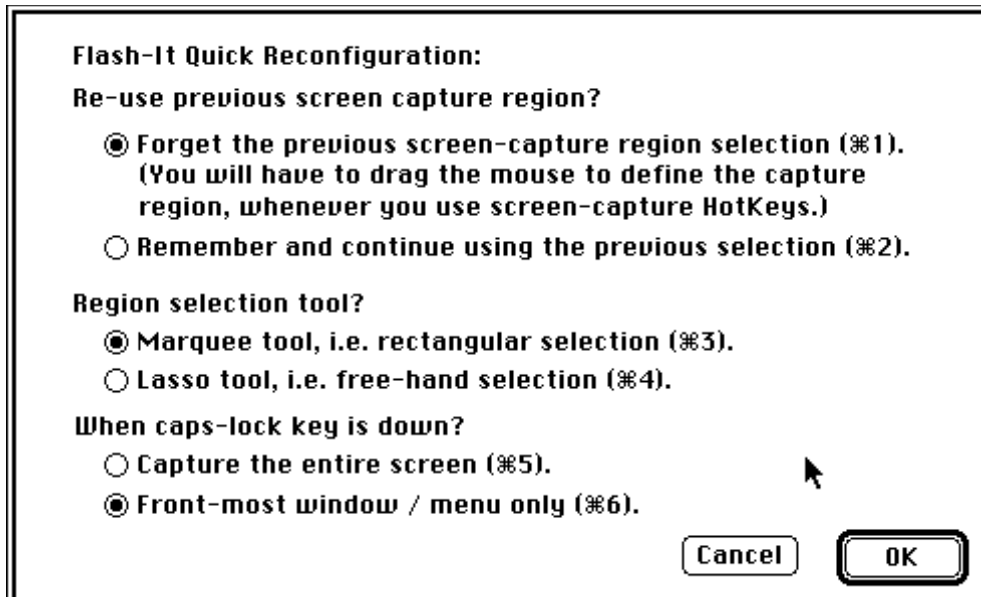
HotKey6: Save / Print Clipboard

This HotKey is not for capturing screen images. Instead, this HotKey sends an existing PICT data stored in the Clipboard to a PICT file, Scrapbook data or to the printer. It puts up a dialog similar to **HotKey 5: Screen →Decide on the Fly**.

This HotKey may be handy when the captured image need to go to more than one destinations.
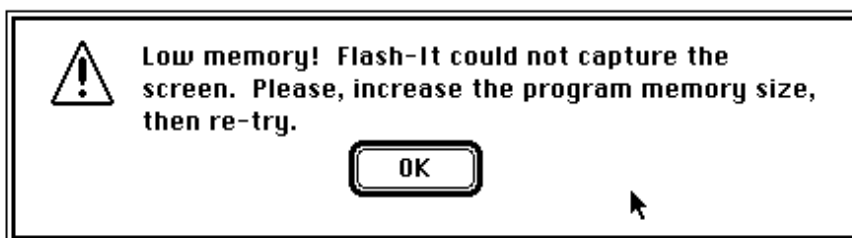
HotKey7: Quick reconfigure

This HotKey allows to modify some option choices of Flash-It without having to go through the control panel. It puts up a dialog as follows:

Flash-It Quick Reconfiguration:

Re-use previous screen capture region?
- ⦿ Forget the previous screen-capture region selection (⌘1). (You will have to drag the mouse to define the capture region, whenever you use screen-capture HotKeys.)
- ○ Remember and continue using the previous selection (⌘2).

Region selection tool?
- ⦿ Marquee tool, i.e. rectangular selection (⌘3).
- ○ Lasso tool, i.e. free-hand selection (⌘4).

When caps-lock key is down?
- ○ Capture the entire screen (⌘5).
- ⦿ Front-most window / menu only (⌘6).

[Cancel] [OK]

> **Details:** Some of you may wonder perhaps I should invent a HotKey to directly invoke the Flash-It control panel. I agree that is what I should do. Allow me some more time to figure out how to do that with high level events and file system calls. ▲

6. Low-Memory Errors when Attempting to Capture Screen

When you attempt to capture a large screen area, particularly in a color mode, sometimes Flash-It will fail, posting an error message as shown below.

⚠ Low memory! Flash-It could not capture the screen. Please, increase the program memory size, then re-try.

[OK]

When you run into this, you can get out of it by clicking on the OK button or by pressing the return or enter key. When this condition occurs, the content of the Clipboard will be automatically cleared.

> **Note:** With Flash-It v.3.0.2 this error condition should be much less frequent under system 7, because Flash-It now uses a memory area called system heap zone, if necessary. Unfortunately this feature is not available on system 6. ▲

What is it supposed to mean?? A bit of technical stuff follows -

Once installed, the code of Flash-It that performs the screen-capture functions (and others as well) is permanently residing in the system memory. The size of the memory that is occupied by Flash-It is roughly 9 K bytes (not so large).

However, when a HotKey is pressed, Flash-It temporarily grabs an extra chunk of memory as a buffer to process the screen data. This extra memory is borrowed from whatever Macintosh program that happens to be active when you

press the HotKey. The larger the screen area or the bigger the screen color depth, the larger this extra memory requirement.

When you are running under MultiFinder™, each application (including Finder) has a certain maximum memory allocation specified. When you are running under system 6 without MultiFinder, such limits are not in effect, but the absolute physical memory size would still be a limit. Anyway, if a sufficient memory area is not available, Flash-It detects the error status, aborts the action and reports to you, thus the alert message.
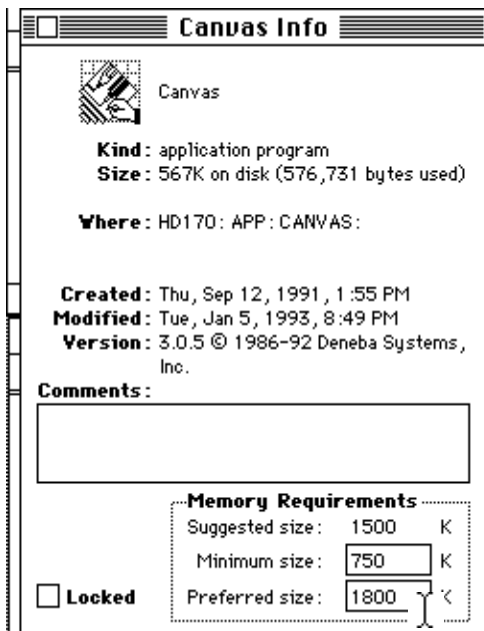
7. How to Prevent Low-Memory Situations

The solution to the low-memory error is to maximize the free memory available for the program *which is active when you invoke HotKeys*. This can be done by changing the application memory allocation.

> **Note:** No, it is NOT the memory allocation of Flash-It. What is said here is the memory allocation of the active application when you use HotKeys of Flash-It. ▲

For instance, if you frequently run into a low-memory problem when you try to capture a color graphics window when Canvas™ is active, you will want to increase the memory allocation for Canvas.

To do so, single-click on the Canvas icon. Then press command-I or select Get Info from the File menu.   It will display a window like the one shown below.   Modify the Application Memory Size as appropriate.   You will have to experiment on it depending on your need.


```
═════════ Canvas Info ═════════
 [icon]  Canvas

     Kind: application program
     Size: 567K on disk (576,731 bytes used)

    Where: HD170: APP: CANVAS:


  Created: Thu, Sep 12, 1991, 1:55 PM
 Modified: Tue, Jan 5, 1993, 8:49 PM
  Version: 3.0.5 © 1986-92 Deneba Systems,
           Inc.
 Comments:
          ┌─────────────────────────┐
          │                         │
          └─────────────────────────┘
          ┌─ Memory Requirements ──────
          │ Suggested size:   1500    K
          │ Minimum size:    [750   ] K
 □ Locked │ Preferred size:  [1800  ] K
```

Likewise, you can increase the memory partition size of Finder™ on System 6. This helps when you wish to capture desktop images with many color icons etc. To do so, follow the same procedure going through the Get Info now of Finder.

8. International Scrapping

If you do not intend to use Macintosh systems other than the English version, forget this section.

When you send a captured image to the Scrapbook with Flash-It, it does the work by finding a file called Scrapbook File in the system folder. Flash-It will get lost on some non-English systems which use different names for the Scrapbook file. This situation can be fixed by patching up one of the resources in Flash-It. You need to use ResEdit™ (by Apple Computer, Inc.) and proceed as follows:

1. First, using Finder™, look at the file directory inside your system folder, and find how your system calls the file that corresponds to Scrapbook file (e.g. Album or something, in French, etc.).
2. Launch ResEdit™ and open Flash-It, then -
3. Open STR# resource, then -
4. Select STR# resource ID = -4044 and open it, then -
5. Modify the character string there, according to your finding in 1, then -
6. Save and close Flash-It. Quit ResEdit.
7. Re-boot your system.

If you have problems dealing with ResEdit, please drop me a note with (1) the correct filename for your system and (2) your return address (prefer electronic ones). I will send you a patched-up version.

9. Technical Stuff

This section summarizes known problems, known compatibility issues, and usage tips for Flash-It. For the problems that were there in Flash-It 3.0 / 3.0.1 but that are fixed in 3.0.2, see the Section 10, Revision History.

Known Problems :

*   Under system 6.0.x in a tight memory condition, if you use the Lasso free-hand selection tool to capture a large screen region with a very complicated shape, the system may crash. The crash occurs when Flash-It attempts to build a QuickDraw region data structure based on your mouse dragging (This type of crash should not occur with the Marquee tool). If you try to use a complicated shape the resultant region structure data takes a large memory area, and if enough memory space is not available, a memory shortage error follows.

    Unfortunately, this error occurs in the middle of a QuickDraw trap call, and I do not have a bullet-proof way to predict to take adequate preventive actions.

    Under system 7, this problem can be avoided, to a large extent, by using the system heap zone for those region data structures. This is because, the system 7 knows to expand the system heap zone if necessary (That is the only expandable heap zone). Under system 6.0.x, this feature is not available. The work-around in that case is to increase the memory partition of the application which would be running when you invoke such a Lasso capturing (It is *NOT* the memory partition of Flash-It, since no such thing exists). Try an increase of 100 KB or so.

*   When you have a huge PICT data (like > 500 KB) stored in the clipboard, and when you try to display it with the Show Clipboard command off the Edit menu of some applications, including Finder, the system may go unstable or crash. This depends on how each software is well prepared against very large clipboard data. You may need to exercise your commonsense in such situations.

Known Compatibility Issues :

*   With SuperBoomerang™ 4.0.x or NowMenus™ 4.0.x (both by Now Software), when you press a Flash-It HotKey during the menu selection time, the key combination may be trapped by those utilities for up to 30 - 40 % of the time. That is, your HotKey action can be taken (by SB / NM) as you are assigning a new keyboard shortcut to the selected menu item. That is, rather than invoking the Flash-It screen-capturing functions. This oddity occurs,

because SB / NM and Flash-It are competing for the same keydown events and sometimes SB / NM can win.

If this problem happens, use the delete key to remove the accidentally assigned keyboard shortcut from the displayed menu. Then simply try the Flash-It HotKey once again. If it still fails, repeat trying. You will succeed eventually. Previous versions of Flash-It (2.3b or earlier) would not work properly at all in this situation. With Flash-It v.3.0.2 this conflict has been reduced. However, obviously what I have managed to reach is only a partial solution. This is one of my homework tasks for Flash-It 3.1 and later.

* Be careful when you try to capture an image of file open / save dialogs, *if* you are using system extensions that patch PACK 3 system routines in a non-reentrant way. For instance, when you try to capture the image of a file save dialog put up by Flash-It itself, some aspects of the dialog (such as the popup menu to change the directory) may not work properly. System extensions of this category include (once again) SuperBoomerang (Now Software) and OpenWide (by James Walker).

* NowMenus 4.0.1 changes the appearance of hierarchical menus somewhat. In some cases it confuses the menu-only capturing of Flash-It. It is as follows. If NowMenus is active, then the top line a hierarchical menu that branches off the first (top) item of a pull-down menu comes right below the main menu bar. This fools Flash-It into thinking that the hierarchical menu is the pull-down menu to capture. The work-around for now: Turn off NowMenus if you want to capture such pull-down + hierarchical menus properly.

* Flash-It v.3.0.2 control panel is incompatible with Polly McBeep (Delta Tao Software). This is a system extension which randomizes the sound to use for system beeps. (However, Flash-It is compatible with a shareware software SpeedBeep v.2.0 by Robert L. Mathews, which serves a similar purpose.)

* When Flash-It puts up a dialog window for Quick reconfigure or Decide-on-the-fly, if Escapade 1.3.2 (shareware by Christopher R. Wysocki) is active, the window behind that Flash-It dialog may not update properly after the Flash-It dialog is dismissed.

Tips :

* Be aware of the caps-lock key option and Re-use capture region option. When you press a screen-capture HotKey and if you do not see any changes of the pointer shape, suspect that one of these options may be turned on.

* When Flash-It does not work for you no matter what and when you become desperate, create a single-floppy system disk with Flash-It in it, and try it from there. If it still does not work, please, let me know.

* Flash-It patches several Macintosh toolbox traps. All patches are so-called head-patches (i.e. not tail-patches). This is an attempt to ensure maximum compatibility with the system (and any other) software.

* The technique with which Flash-It captures the pointer (i.e. cursor) image is based on technical information which Apple Computer, Inc. does not officially document. This is particularly the case for capturing color pointers.   I intend to keep up with future changes in the System, though.

* The technique with which Flash-It captures menus-only is based on my own studies on how the Macintosh Menu Manager and Window Manager interact when the menus are displayed. Apple Computer, Inc. has not been releasing any official information on how the menus are drawn and where the internal data structures are organized. As such, this menus-only function of Flash-It may be broken with future system releases, if they change the working of Menu / Window Managers drastically. How likely it is, I do not know. For now, it works just fine with systems 6.0.x, 7.0, 7.0.1 and 7.1 without any problems.

* Some applications display menu-like objects which are not really based on toolbox traps provided by Apple (i.e. _MenuSelect and _PopupMenuSelect calls). Examples include font menus in the MicroSoft Word ribbon. The menus-only capturing of Flash-It would not work in such cases.

* If you select an FKEY-type key combination as your HotKey (i.e. shift-command-number), from then on the FKEY which has been assigned to it will be ignored.

* Flash-It *cannot* override HotKeys which have been already defined and used by QuicKeys 2 or later (CE Software). Conversely, QuicKeys cannot drive Flash-It very well, except for the case when you keep the caps-lock held down

to capture only the front-most or the whole screen image or when you have Re-use the capture region turned on. QuicKeys does not reproduce the mouse-dragging part of Flash-It to select/capture a part of the screen.

* Some applications may not properly respond to changes in the Clipboard that Flash-It updates. This happens when applications use private scraps. In such cases, depending on the internal working of such applications, image ➔ Scrapbook function may still work (so, give a try!). Example: DarkSide.

* When you print a color screen image onto a black-and-white printer, some portion of the image may not be printed as black. This depends on the definition of which colors would be interpreted as dark enough so that they show up black on the output.

   One possible work-around is to use a printer driver which does an automatic color ➔ gray scale rendering. The availability of such a driver (Chooser document) depends on the printer. Another possible work-around is to use fancy graphics applications which allow to convert colors to gray-scale images. If you are using Flash-It for creating references of a Macintosh software, depending on the printer driver you intend to use, it may be advisable to capture images from a B/W (1-bit) mode screen from the beginning.

* Note that Flash-It HotKey 3 creates *PICT2 formatted files* (except in the case where ResEdit is selected as the file Creator). Some drawing applications (particularly old ones) may not know how to properly interpret some aspects of the PICT2 format. For example, Claris CAD and MacDraw cannot decipher srcBic bitmap transfer modes. What this means is that they cannot display a captured pointer image and its outline properly.

* To best suit your purposes, you may find it necessary (or adequate) to convert the PICT files into EPS, TIFF or MacPaint format etc. Consult the manual of each application. Flash-It does not create MacPaint files.

* More on the captured pointer (cursor) image: When you look at a captured screen image with drawing/painting applications, in many cases you will notice that the captured pointer is treated as a separate bitmap object. This is because of the way that Flash-It HotKeys grab the cursor image. To make sure that the screen image *and* the pointer image are held together when you manipulate them, you should use Select-All then Group command from within such applications. The exact command names may vary. Consult the manual of each application.

* A similar grouping will be needed when you deal with a captured image which came from a screen area that goes across multiple monitors.

* To capture screen images drawn by AfterDark™ (Berkeley Systems), you have to assign shift-command-3 as the HotKey for Flash-It. Thanks to Jack Eastman for the tip.

10. Revision History

Flash-It v.3.0.2 supersedes the previous releases, v.3.0, v.2.2 and all other beta versions such as v.2.3b1 through 2.3b6. The version 2.3 series never went final. I jumped from 2.2 to 3.0, 3.0.1 then to 3.0.2. Modifications and improvements done from Flash-It v.2.2 to v.3.0.2 are summarized below, *if* you want to know:

New Features since v.2.2:

* Option to capture menus only.
* Improved memory handling under system 7. Memory shortage failures are mostly gone.
* A new HotKey to do **Quick-reconfigure** HotKey.
* A New HotKey to do **Clipboard ➔ PICT file, scrapbook, printer**.
* Notification of a successful screen-capturing with a sound of your choice, or with a screen inversion.
* Option to use free-hand lasso selection, besides marquee selection, to define the screen capture region.
* Option to repeatedly use the same screen capture region.
* Option to use a default folder when saving captured screen images to PICT files.

Interface improvements done between v.2.2 and v.3.0:

* A new, extended control panel.
* Balloon help is available under system 7.
* HotKey display properly shows non-English characters if they are used in HotKey definitions.
* The Flash-It control panel issues a warning message when you try to assign a HotKey combination which is already in use.
* You can now gracefully cancel the screen-capturing. To do so, hold down the escape key on the keyboard, when you release the mouse button at the end of point-click-drag action. If you do this, Flash-It does not attempt screen-capturing, and leave the Clipboard unchanged.

Bug-fixes, compatibility improvements and others done between v.2.2 and v.3.0:

* The clip region rectangle of the PICT data that represents the captured screen area is now set properly.
* Flash-It has not been able to capture images when McSink (or Vantage) DA is front-most. This has been fixed.
* Compatibility with SuperBoomerang 4.0.x and NowMenus 4.0.x has been improved.
* HotKey to do **capture image ➜ printer** no longer crashes McKermit, MicroPhone II and Termulator.
* A compatibility problem with Thunder 7 has been resolved.
* Menu-capturing with Mac-Gambit Scheme interpreter and Thomas interpreter no longer crashes.
* Under certain conditions, Flash-It was reporting a bogus memory shortage error. This has been fixed.
* Flash-It has been disposing a same relocatable memory block twice under certain conditions. This has been fixed.
* Flash-It has been leaving a few relocatable memory blocks un-disposed upon exit. This has been fixed.
* Under system 7, if the user keeps the mouse button down for a prolonged period while selecting a screen-capturing region, the cursor shape changed from a cross-hair to a watch symbol. This no longer happens.
* All character string data used by Flash-It have been moved to resources. Localization work (translation to other language systems) can be done more gracefully.
* When the user is using shift-command-3 as a Flash-It HotKey, once in a while that HotKey invoked Apples original system FKEY 3 instead of Flash-It screen-dump. This no longer happens.
* Behaviors of Flash-It in multiple-monitor setup have been improved.

Bug-fixes in v.3.0.1.

* Murphys Law on the software business says, Never trust a software release which says version *n.0* (where *n* is an integer). Always wait until v.*n.0.1* comes out . I tried very hard to break this rule when I worked on Flash-It v.3.0. The reality did not cooperate. Thus here is Flash-It v.3.0.1.
* If MasterJuggler 1.5x is used to open sound files for system use, when the user attempts to open the Flash-It control panel the system would crash. This has been fixed in v.3.0.1.
* When **image ➜ decide-on-the-fly** HotKey is used while the mouse pointer is set on a menu item which would bring up a dialog box with editable text items, in some cases the system could crash. This has been fixed in v.3.0.1.
* Lasso selection tool: While dragging the mouse to define the capture region, if the user presses the caps-lock key in the middle of that, the screen-capture region could become unpredictably large. When repeated, it can eventually lead to a crash. This has been fixed in v.3.0.1.
* When file-sharing is turned on and when the user tries to assign Desktop as the default folder for PICT files for Flash-It, the system jumps into a debugger. This has been fixed in v.3.0.1.
* Under system 6.0.x, when Flash-It is invoked from the Control Panel DA, the Flash-It window redraws itself in a somewhat annoying way. This has been fixed in v.3.0.1.
* Under system 6.0.x, the menu-only capturing, when attempted on the right-most menu off the main menu bar, fails to properly capture the menu title. This has been fixed in v.3.0.1.

Bug-fixes in v.3.0.2.

* Murphys Law on the software business says, Actually the first bugfix version *n.0.1* (where *n* is an integer) might be insufficient, so better wait until v.*n.0.2* comes out . I tried very hard to break this rule when I worked on Flash-It v.3.0.1. Again the reality did not cooperate. Thus here is Flash-It v.3.0.2.
* Flash-It 3.0.1 control panel crashes if there are more than 128 flavors of sounds attached to the system, whether directly installed or indirectly with MasterJugger or Suitcase. I thought I have put in a fix for this problem in v.3.0.1, but that bugfix had a bug. Flash-It 3.0.2 has a proper bugfix for this.
* For known compatibility problems, see Section 8, Technical Stuff.

11. Acknowledgments

My thanks to many users of previous versions of Flash-It who gave me encouragement, particularly the ones who cared to pay the Shareware fees!!!
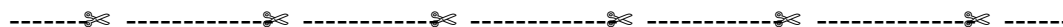
Special thanks go to Hiro Yamamoto of zeta soft for countless discussions on Macintosh programming.

In the early stage of development of Flash-It the following people gave me useful comments: Hugh Atkins, Dave Charlesworth, Bruno Dassas, Ric Ford, Richard Fowell, Peter Lennon, Ben Liberman, Bob Mueller. The folks at Berkeley Macintosh Users Group allowed me to use their lab for testing Flash-It v.2.0 / 2.0.3.

The following beta testers of Flash-It 2.3 / 3.0.1 enthusiastically helped me by finding out bugs and oddities, sometimes risking their Macintoshes with crashes and freezes: Jim Baughman, Charles Bess, Bob Boonstra, Keenan Brock, Jonathan Duke, Chris Ellens, Greg Francis, Neil Kenji Guy, Brian Hall, Len Humbird, Paul Jacoby, Kris Jorgensen, Michael Kerney, Bjorgvin R. Leifsson, Rajiv A. Manglani, Steve Marbit, Peter Moller, Tom Nakada, Seth Novogrodsky, Anand C. Patel, Chris Ryan, Motoyuki Mos Sano, John A. Savage, Mike Skoglund, John M. Stafford, Terry Teague, Darren Tong, Rodney Van Cooten, Michael L. Weasner, Jason S. White, Harry Wolfson and Andreas Würtz. Andreas also provided me with nice system 7 style icons for Flash-It.

Jim Beaupre, Janet Calvert, Bob Nichols and Ray Zimmerman gave me improtant problem reports on Flash-It 3.0. My extra thanks to them for helping me come up with Flash-It 3.0.1 then 3.0.2.

OK, this is it. I hope you like Flash-It.

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Flash-It v.3.0.2 Registration / Comments -
please send this form to

Nobu Toge
2425B Channing way, Suite #314
Berkeley, CA 94704-2209
U.S.A.
(e-mail to: 76334.650@compuserve.com)

Date: _____

Name: _____

Address: _____

_____

_____

Electronic Address (Please, make characters 1, L and I distictive.):

_____

I am enclosing (check one of the following)

_____ U.S. $15 for Registration.

_____ U.S. $20 for Registration and one disk upgrade in the future.

Note: I cannot accept credit card payments. Sorry. ▲

I got Flash-It from:

_____

I use Macintosh Model: _____, Memory _____ MB, Monitor _____

Comments :

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