Genera 8.2 NXP1000 User's Guide and Release Notes

User's Guide to the Symbolics NXP1000

Genera 8.2 NXP ECO#1 Release Notes

Genera 8.2 is a minor release built upon Genera 8.1 and ECO's to Genera 8.1. In addition, it includes the results of general bug-fixing since Genera 8.1.

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Genera 8.2 Introduction and Highlights

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Changes to Lisp in Genera 8.2

- The function **map-into** has been updated to conform to dpANS Common Lisp with respect to its treatment of the fill pointer of the target sequence. If the target sequence has a fill pointer, **map-into** now updates the fill pointer of the target sequence to be the number of times that the user function was invoked; in prior releases, **map-into** did not modify the value of the fill pointer.

- The bug that caused your machine to crash into the FEP if you created a zero length adjustable array and extended it using **vector-push-extend** has been fixed.

- In Genera 8.1, the dpANSI Common Lisp **loop** construct "for ... by" was incompletely implemented so that a form like

        (loop for x by 6 do (print x))

    did not work. This bug has been fixed.

- A bug in the table system where a table fills up with vacated slots without being rehashed, resulting in the error message `Too many collisions, can't happen`, has been fixed.

Changes to Command Processor Commands in Genera 8.2

- The Copy World command now works over remote terminals. Using the keyword :Show Blocks Copied (which prints the number of blocks finished copying, every 100 blocks) is useful when using Copy World from a remote terminal.

- The Compare Directories command has been given a new keyword argument, :Ignore Versions:

  :Ignore Versions   {Yes or No} The default is No. If Yes, then consider files with the same name and type to be the same even if they have different version numbers.

Changes to Zmacs and Zmail in Genera 8.2

- When you store your mail files on a UNIX host, Zmail is now careful to create a new version of the file, retaining a backup copy of the previous contents.

- The Zmail command Merge Keywords In Conversation (m-X) has been changed slightly to provide more flexibility in the case of the pop-up menu. When there is a conflict in the keywords, you are now asked not only which keywords to add and remove, but also whether you want to apply these changes to just the current message, to just unlabeled messages in the conversation, or to all messages in the conversation.

Changes to Utilities in Genera 8.2

Changes to Utilities on the NXP1000

- A bug that sometimes caused the :Boot Machine command on the NXP1000 to fail before causing the machine to reboot has been fixed.

- To halt the netboot process on an NXP1000, press the NMI button on the front panel of the machine. This is the equivalent of h-c-FUNCTION on other Symbolics machines.

- On the NXP1000, FUNCTION-SUSPEND and the Emergency Break Activity in the System menu are inoperative unless the debug switch is in the DEBUG (that is, up) position. This is different from other Symbolics systems.

Changes to SCT

- The bug in SCT that caused some modules not to be loaded when the systems specified in their **:load-when-systems-loaded** clauses were finally loaded has been fixed. This bug prevented the files UNIX-LPD and LASERWRITER-VIA-APPLETALK from both being loaded into a 3600-family world after loading the UX-Support and MacIvory-Support systems.

- Several SCT functions check to see if the system directory has changed, and if it has, issue a message. Previously, this message was misleading. In Genera 8.3, the message has been clarified.

Changes to the File System

- The value of the **:block-size** property reported by **fs:directory-list** for Macintosh and ISO9660 file systems is now the number of bits in a block; in earlier releases, it was the number of bytes in a block.

- The value of the **:block-size** property reported by **fs:directory-list** for the FEP filesystem of an Ivory machine is now accurate; in earlier releases, it was the number of bits in a block on the FEP filesystem of a 3600-family machine.

Miscellaneous Changes to Utilities

- An incompatibility was inadvertently introduced that makes it impossible to net-boot an 8.3 or 8.2 world from an 8.1 Netboot Server. This incompatibility is resolved by a patch for Genera 8.1 netboot servers. This patch for Genera 8.1 is included in Genera 8.3 distribution, and should be loaded on all 8.1 netboot servers. The patch in the 8.3 distribution is called `sys:netboot;netboot-compatibility-for-8-1`.

- The function **tv:mouse-y-or-n-p** now offers both a `Yes` and a `No` option that can be clicked on. Formerly, you had to move the mouse off of the menu in order to respond `No` to such a query; this is still possible, but it is no longer the only way to respond `No`.

- A bug in **who-calls** that caused the **:package** keyword to be ignored if both **:package** and **:system** were specified has been fixed.

- A bug that caused **get-universal-time** to stop properly tracking time if it is not called at least once every 36 minutes has been fixed. When this bug triggered, consecutive calls to **get-universal-time** would always return the same value regardless of how much time elapsed between calls.

- The Document Examiner and other documentation viewing utilities tend to hold open file streams to documentation files longer than most other applications hold open files. They expect to refer to further documentation in those files. Sometimes due to temporary network problems or the rebooting of a file server host, these long-lived file streams would be lost without the documentation viewing software realizing it. When the user attempted to read further documentation from such a stream the error handler was invoked. The documentation viewing substrate has been made more robust against such problems. It will now attempt to re-open a stream that was lost, rather than issuing an error.

Notes and Clarifications for Genera 8.2

Function Q Update

The Options for FUNCTION Q were never adequately explained in *Genera Handbook,* specifically, the options available when you supply an argument, FUNCTION 0 Q were not documented. Here is the corrected documentation for FUNCTION Q.

FUNCTION Q

Function Q	Captures a screen image for hardcopying or inserting in a file.
Function *n* Q	(where *n* is any numeric argument, for example FUNCTION 0 Q) Displays a menu of options for capturing screen images. Note that the choices you make remain in effect for subsequent uses of FUNCTION Q.

```
Source: Whole Screen  Main Screen  Selected Window  Window under mouse  Status area  Specify rectangle
Include blinkers and mouse cursor: Yes  No
Destination: Printer
   Printer: File  a printer
   Orientation: Landscape  Portrait  Best-Fit                    ▶
Announcement method: None  Beep  Flash
Shutter trigger: Mode Lock  Time delay  None
```
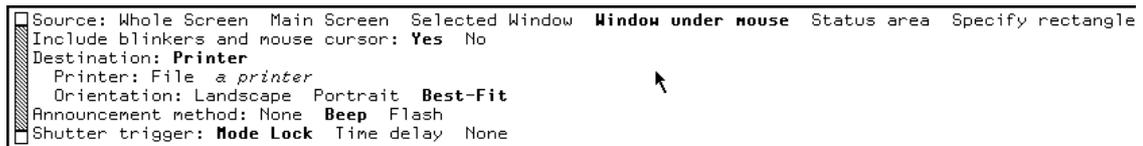
Figure 104. FUNCTION 0 Q

Source: options identify the area of the screen to capture:

Whole Screen   A bitmap image of the entire screen

Note that a full-screen bitmap image includes a border around the actual screen image. If you do not want this extra whitespace around the image, select the Named Image option and edit the bitmap image using the "Refit Bounding Box Bitmap Editor Command".

Main Screen   All but the status area

Selected Window The window of the selected activity (for example, Symbolics Concordia)

Window Under the Mouse
                The window under the mouse cursor

Use this option when you cannot use the mouse to specify a portion of the screen (for instance, to take a snapshot of a pop-up menu).

Status Area	The window at the bottom of the screen (including the mouse information line(s))
Specify Rectangle	Specify the area of the screen to be captured using the mouse
Window History	The history of the specified window

Shutter Trigger:

Mode Lock	Captures the image when the MODE LOCK key is pressed. This allows you to *set up* the screen a certain way, perhaps with a menu showing, or the mouse cursor in a certain place.
Time Delay	Allows you to specify a time delay before capturing the image. The default is 5 seconds.
None	Captures the image as soon as you click on [Done]. This is the default.

How to Delete and Expunge a File Left Open by an Aborted Restore Distribution

If your machine halts at an inopportune time, for instance when a file is open for writing during a Disk Restore, you might leave LMFS's data structures in an inconsistent state; c-m-ABORT or, in some circumstances, c-ABORT can do this, especially on Ivory machines. If the internal structure is inconsistent LMFS is not able to Delete and Expunge. This leaves the file marked with a W. Deleting and expunging seems to have no effect. The file has length 0, and you cannot open it because it is already open. [Close All Files] doesn't affect the file's status. Try a warm boot (of the server machine, of course). After a boot, LMFS's datastructures are rebuilt. The file is still marked with a W because LMFS knows that it was in the middle of being written, but you can delete and expunge it normally.