Apple IIGS: A descriptive list of tools in the IIGS Toolbox

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Among other features, the Apple IIGS' built-in Toolbox distinguishes the
Apple IIGS from earlier Apple II's in that IIGS applications can call the
Toolbox routines like Macintosh applications can call the Macintosh Toolbox.
Supporting the desktop user interface, the IIGS Toolbox makes developing new
applications easier.

  1. Tool Locator

      The Tool Locator provides the mechanism for dispatching tool calls.
      It maintains vectors to all of the managers and their associated
      routines and allows for the patching of these routines with RAM tools
      or substitutions.

  2. Memory Manager

      Controlling memory allocation, the memory manager attempts to parcel
      out sections of memory for an application's use in response to a
      request by that application. If the memory manager cannot grant that
      request because of lack of memory, then it is up to the application to
      deal with an "Out Of Memory" error condition.

  3. QuickDraw II

      Many of the routines in QuickDraw II are the same as those in the
      Macintosh. However, QuickDraw II does have the added capability of
      drawing in color (in both 320 and 640 resolution).

  4. SANE Numerics

      SANE stands for Standard Apple Numeric Environment. An extended-
      precision floating point routine package, it conforms to IEEE standard
      (754) arithmetic.

  5. The Desk Accessory Manager

      The Desk Accessory Manager keeps track of active Desk accessories on

the desktop. On the Apple IIGS, there are two types of Desk
Accessories: classic desk accessories that can run either in the Apple
IIGS desktop environment or with old-style applications (like
AppleWorks) and new desk accessories that run only in the Apple IIGS
desktop environment.

6. Event Manager

   This manager is responsible for keeping track of events that occur in
   the computer system while the current application is doing something
   else. The application can, when it is done with its current task, ask
   the event manager what happened while it was busy, and the manager
   will return a record describing the events that occurred.

7. Menu Manager

   This manager is responsible for the maintenance and selection of menus
   and their associated items. It handles both mouse and keyboard
   selection.

8. Window Manager

   This manager is responsible for keeping track of which areas are
   covered by which windows including overlapping windows. Whenever a
   mouse down event is detected, the application calls this manager to
   find out in which window the event took place.

9. Control Manager

   Controls are little "hot spots" on the screen; clicking in controls
   gives the application commands: yes/no buttons, check boxes, and
   scroll bars. The control manager is responsible for the placement
   of these controls on the screen and for alerting the application
   when the user clicks the mouse in one of them.

10. Line Editor

    The Line Editor provides a standard text input interface. Text can be
    entered, deleted, cut, and pasted within limits.

11. Dialog Manager

    This manager is responsible for placing alert messages and text-filled
    boxes on the screen.

12. Scrap Manager

    This manager is responsible for handling the transmission of data from
    one application to another, often appearing as the clipboard or the
    scrapbook.

13. Print Manager

The print manager provides for a standard interface for applications among the many printers available for the Apple IIGS.

14. Integer Math Tools

These are a series of fast, extended-precision routines for arithmetic on integer numbers only.

15. Sound Manager

The Sound Manager, a set of routines that controls the Digital Oscillator Chip (DOC) and the Note Synthesizer, oversees the transmission of data to the sound RAM and activates and deactivates all of the 15 voices the Apple IIGS can produce.

16. The Scheduler

Much of the system code in the Apple IIGS is not re-entrant. This means that an interrupt routine cannot call the section of code that was running when the interrupt occurred. The Scheduler makes it possible to delay the execution of tasks that require non-re-entrant system code whenever that code is already in use.

17. Miscellaneous Tools

These tools allow modifying of battery RAM (Control Panel settings) and the clock chip, preparing interrupts and installing interrupt handling routines, as well as mouse control, data compaction, and other small but necessary routines.

Apple Technical Communications

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