TransSkel
Programmer's Notes

6: TransSkel and Low Memory Globals

Who to blame: Paul DuBois, dubois@primate.wisc.edu
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This Note describes the TransSkel policy on using low-memory global variables.

Use of low memory global variables was at one time common practice in Macintosh programming. However, Apple has warned against use of such variables for some time. For example, Programmer's Guide to MultiFinder states (p. 2-11) that "in the future, low memory will disappear." Inside Macintosh VI (p. 3-7) contains similar statements. This means that use of low memory globals will fail someday. Low memory access began to fail under A/UX, and for the Power Macintosh architecture, direct access to low memory is no longer available. Instead a set of accessor functions must be used.

Consequently, TransSkel makes no use of low memory globals. Below are some cases where low memory globals might have been used, but aren't:

- **Menu bar height.** If a machine has a 64K ROM, the menu bar height is assumed to be 20, otherwise it's obtained from the Script Manager routine `GetMBarHeight()`. The low memory global `MBarHeight` is not used. It doesn't exist on 64K ROM machines, anyway (TN OV 04).

- **Desktop region bounding box.** IM V-205 indicates that `GetGrayRgn()` is available on Macintosh Plus machines and up, which is taken to mean it's applicable to 128K ROMs and up. That leaves 64K ROM machines, for which `qd.screenBits.bounds` is used (decreased by the height of the menu bar). The low memory global `GrayRgn` is not used.

References:

Programmer's Guide to MultiFinder
Inside Macintosh, Volume V. Window Manager chapter
Macintosh Technical Note OV 04: Compatibility: Why and How