

TECHNOTE: On the Deferred Task Manager

By Matthew Xavier Mora
mxmora@apple.com
Apple Developer Technical Support (DTS)

This Note highlights two points – interrupt latency, and task record ownership – that might be unclear after reading the chapter “Deferred Task Manager” in *Inside Macintosh:Processes*.

This Note is intended for all developers who need to install a lengthy interrupt task capable of running with all interrupts enabled.

About Deferred Task Latency

There may be significant latency incurred between installing a deferred task with `DTInstall` and when that task is performed. This time is not deterministic and cannot be controlled. Real-time response cannot be guaranteed on Macintosh computers with or without the use of deferred tasks.

About the Ownership of the DeferredTask Record

When you install a deferred task with `DTInstall`, you are giving your `DeferredTask` record to the system; the system owns the record until the routine designated by the `DeferredTask` record's `dtAddr` field is entered. During the time the system owns a `DeferredTask` record, you must not change any of the fields of that record.

Similarly, you must not depend on the contents of the record when it is owned by the system. The system is free to alter the record in any fashion while it has ownership and restores the record to its original state prior to invoking the deferred task. You must not install a `DeferredTask` record which is already owned by the system. Finally, you must not use the `dtReserved` field for any purpose; it should be set to zero prior to installing a deferred task with `DTInstall`.

Further Reference

- *Inside Macintosh: Processes*, Chapter 6, The Deferred Task Manager
- *develop*, Issue 13, Asynchronous Routines on the Macintosh

Change History

This Technote was originally written by Jim Luther, in July, 1992. Most of the original information has been incorporated into *Inside Macintosh: Processes*,

The references section has been updated. Information found in the chapter "Deferred Task Manager" in *Inside Macintosh:Processes*, has been deleted.