New Technical Notes
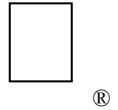## Macintosh

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Developer Support

Problem with WaitNextEvent in MultiFinder 1.0
Toolbox

Revised by: March 1988
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This Technical Note discusses a bug in `WaitNextEvent` in MultiFinder 1.0. This bug only occurs when `WaitNextEvent` is called from the background. This bug will be fixed in the next release of MultiFinder.
Change since 11/87: the bug will be fixed in Systems with versions greater than `$04FF`.

In MultiFinder 1.0, applications that use `WaitNextEvent`:

```
FUNCTION WaitNextEvent(mask: INTEGER; VAR event: EventRecord;
                       sleep: LONGINT; mouseRgn: RgnHandle): BOOLEAN;

pascal Boolean WaitNextEvent(mask,event,sleep,mouseRgn)
    unsigned short mask;
    EventRecord *event;
    unsigned long sleep;
    RgnHandle mouseRgn;
```

should **not** call `WaitNextEvent` from the background with a value of `sleep` that is greater than `50`. This value has been determined empirically for a Macintosh II; larger values can be used on the Macintosh Plus and the Macintosh SE. If an application uses a large value of `sleep` when running in the background, MultiFinder 1.0 will hang under the following circumstances:

• The application that is calling `WaitNextEvent` with a large `sleep` value has been put in the background.
• That application becomes the foreground application when another application (including the desk accessory handler) quits.

If you use a value of `sleep` that is small enough, this problem will not occur. If you use an algorithm to calculate `sleep`, make sure that the maximum is clipped to `50`.

This problem will be fixed in the next release of MultiFinder. You can call `SysEnvirons` to test for the system version number. This bug will not happen when the System version is greater than `$04FF`.

Further Reference:
•   M.TB.Multifinder
•   M.TB.MultifinderMisc.