


Technical Note PS505

Notification Manager Q&As

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[Oct 01 1990]

Macintosh background DA alerts

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How can I use the Notification Manager to alert the user to bring my DA to the front and then display an alert?

Basically, if your DA is in the foreground and you finish your task, you can just use `Alert()` to notify the user. If your DA is in the background when it finishes, post a notification with `NMInstall` that notifies the user by sound, icon, and mark in the process menu (but not an alert) that something is up in your desk accessory. When they switch to your DA, you then display your alert.

The following code is for a DA written in Think C that notifies the user as described above. Portions of the code are borrowed from the Think C example "Hex Dump DA." Basically, this code keeps track of whether the DA is in the foreground or background by setting the global variable `gInBackground` at every activate and deactivate event. If there is a notification pending and an activate event is received, the routine `MyResponse` is called to remove the notification and display the appropriate alert.

Note that for MPW you'll have to store your globals elsewhere, as MPW doesn't provide the Think C A4 feature. You'll have to modify the code to work with your function to get the proper resource IDs.

```
void PostNotify(StringPtr theStr)
{
    extern Boolean gInBackground; /* true=in background */
    extern NMRec *gNotify; /* global var pointing to notif. rec 0=none */
    Handle notIcon;
    Ptr txtPtr;

    /* blast away any other pending notification */

    if (gNotify) {
        DisposPtr((Ptr) gNotify->nmRefCon);
        NMRemove(gNotify);
        gNotify = nil;
    }

    /* see if we should notify or use alert */

    if (gInBackground) {

        /* allocate memory for notification */

        txtPtr = NewPtr(sizeof(Str255));
        if (MemError() != noErr)
            return;
        gNotify = (NMRec *)NewPtr(sizeof(NMRec));
        if (MemError() != noErr)
            return;

        /* copy notif. string to dynamically allocated block */

        BlockMove(theStr, txtPtr, 256);

        /* fill out notif. record */

        notIcon = GetResource('SICN', OwnedResourceID(NOTIF_ICON));
        gNotify->nmStr = nil;
        gNotify->qType = nmType;
        gNotify->nmMark = 1;
        gNotify->nmIcon = notIcon;
        gNotify->nmSound = (Handle)-1;
        gNotify->nmResp = nil;
        gNotify->nmRefCon = (long)txtPtr;
    }
}
```

```

        NMInstall(gNotify);
    }
    else {
        ParamText(theStr, "\p", "\p", "\p");
        StopAlert(OwnedResourceID(ALERT_DIALOG), nil);
    }
}

/* response procedure-- called on activateEvt */
pascal void MyResponse(QElemPtr nmReqPtr)
{
    StringPtr errTxt;

    errTxt = (StringPtr) ((NMRec *)nmReqPtr)->nmRefCon;
    NMRemove((NMRec *)nmReqPtr);

    ParamText(errTxt, "\p", "\p", "\p");
    StopAlert(OwnedResourceID(ALERT_DIALOG), nil);

    DisposPtr(errTxt);
}

/*-----*/
/* here's the piece of the code that handles activate events */
/*-----*/

doActivate(activate)
Boolean activate;
{
    extern Boolean gInBackground;
    extern NMRec *gNotify;
    Rect r;
    GrafPtr savePort;

    GetPort(&savePort);
    SetPort(wp);
    r = wp->portRect;
    r.top = r.bottom - 16;
    r.left = r.left - 16;
    InvalRect(&r);
    gInBackground = !activate;
    if ( activate ) {
        if (gNotify) {
            MyResponse((QElemPtr)gNotify);
            gNotify = nil;
        }
    }
    SetPort(savePort);
}

```

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