

How do I get the dimensions of a cursor or icon?

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Given a `HICON` or a `HCURSOR`, how do you get the dimensions of the icon or cursor?

The `GetIconInfo` function gets you most of the way there, returning you an `ICONINFO` structure which gives you the mask and color bitmaps (and the hotspot, if a cursor). You can then use the `GetObject` function to get the attributes of the bitmap. And then here's the tricky part: You have to massage the data a bit.

```
// Also works for cursors
BOOL GetIconDimensions(__in HICON hico, __out SIZE *psiz)
{
    ICONINFO ii;
    BOOL fResult = GetIconInfo(hico, &ii);
    if (fResult) {
        BITMAP bm;
        fResult = GetObject(ii.hbmMask, sizeof(bm), &bm) == sizeof(bm);
        if (fResult) {
            psiz->cx = bm.bmWidth;
            psiz->cy = ii.hbmColor ? bm.bmHeight : bm.bmHeight / 2;
        }
        if (ii.hbmMask) DeleteObject(ii.hbmMask);
        if (ii.hbmColor) DeleteObject(ii.hbmColor);
    }
    return fResult;
}
```

As we've learned over the past few days, an icon consists of two bitmaps, a *mask* and an *image*. A cursor is the same as an icon, but with a hotspot.

To get the dimensions of the icon or cursor, just take the dimensions of the color bitmap. If you have one.

If the icon/cursor is monochrome, then there is no color bitmap. As we've learned, in that case, the mask and image bitmaps are combined into a single double-height bitmap, and the color is reported as `NULL`. To get the size of the image, you therefore have to take the mask bitmap and divide its height by two.

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