Technical Note QD02
BitMapToRegion: So Many Bitmaps, So Little Time

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This Technical Note discusses the routine `BitMapToRegion`, which converts a bitmap to a region, and is available in the 32-Bit QuickDraw INIT and from Apple Software Licensing.

[Oct 01 1989]

Introduction

If you are using the 32-Bit QuickDraw version of this routine without the correct MPW include file, then you need to include one of the following definitions:

Pascal

```
FUNCTION BitMapToRegion (region: RgnHandle; bMap: BitMap): OSErr;
```

C

```
pascal OSErr BitMapToRegion (RgnHandle region, const BitMap *bMap)
```

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Assembly

The region will be built so that all one bits in bMap are inside the region and all zero bits are outside of it.

As with all QuickDraw calls which change a region, `BitMapToRegion` requires you to pass an existing region (originally created by `_NewRgn`). If the region cannot be built due to an insufficient heap space or a size greater than 32K, then the routine will return an appropriate error code and the region will be empty. If the region would have exceeded 32K, the error will be `rgnTooBigErr` (-500).

This function is useful for a number of situations where you have (or can produce) a bitmap representing an area. You can use `_CalcMask` to produce such a bitmap. Once you have a region, you can perform region operations (i.e., `_PtInRgn`, `_UnionRgn`, or `_InsetRgn`) or call `_DragGrayRgn`, for example.

This call is part of the 32-Bit QuickDraw INIT ($A8D7). If you do not wish to depend on 32-Bit QuickDraw, then you can obtain a version of `BitMapToRegion` in MPW object format which can be linked into an MPW program, by contacting Apple Software Licensing:

Apple Software Licensing
Apple Computer, Inc.,
20525 Mariani Avenue, M/S 38-I
Cupertino, CA, 95014
(408) 974-4667
AppleLink: SW.LICENSE

If you licensed the older version of this routine, `BitMapRgn`, contact Software Licensing about receiving an updated version. We recommend you update your application to use the new version as soon as possible.

The new version is now named `BitMapToRegion` to be consistent with the version in 32-Bit QuickDraw and the MPW interfaces. In addition, `BitMapToRegion` offers new features. You can now pass a one-bit pixelmap which has been coerced to a bitmap. If you pass a pixelmap which is too large, then you will get a `pixmapTooDeepErr` (-148) error. You can also pass the `portBits` of a window, much like you would do with a call to `_CopyBits`.

There is a potential problem with this routine, since MPW 3.1 include files contain information about 32-Bit QuickDraw. If you want `BitMapToRegion` to be available on all machines, then you must use the object file from Software Licensing. The problem is that when you compile your application with MPW 3.1 or later, the 32-Bit QuickDraw version gets preference over the object file. You **must** comment out the routine in the include files if you want to use the object file. If you only care about using `BitMapToRegion` on machines running 32-Bit QuickDraw, then you need not do anything.

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