

## Chapter 20 QuickDraw Auxiliary

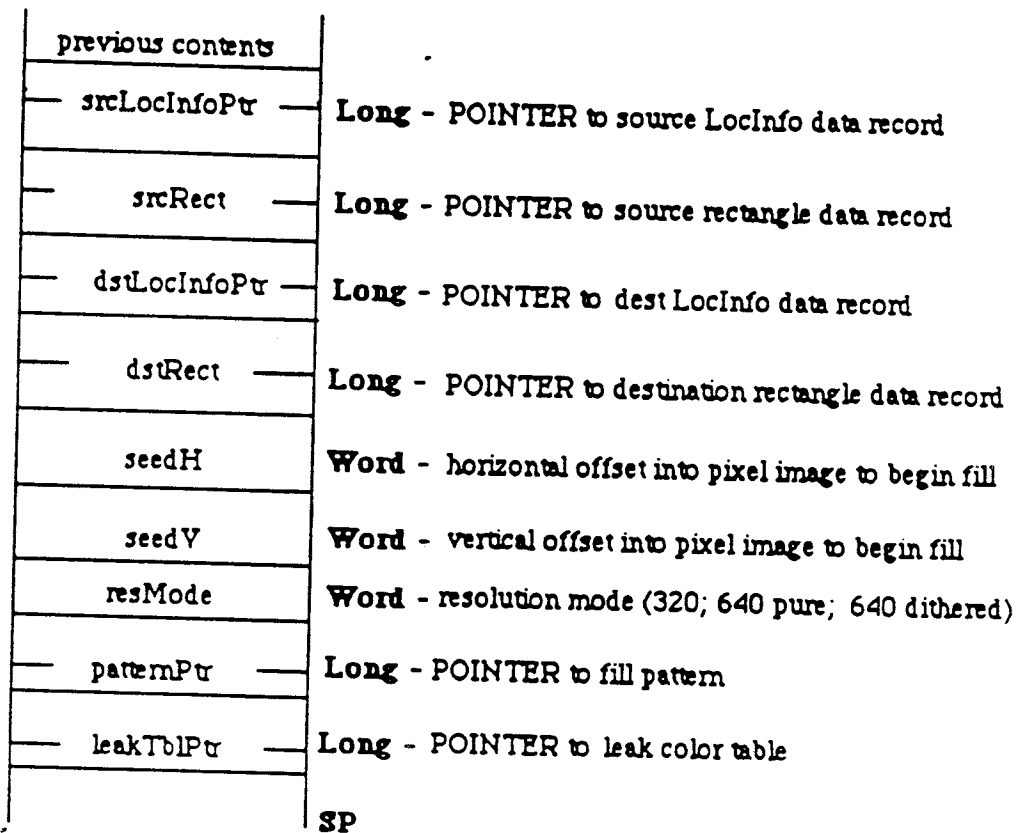
This new version of QuickDraw Auxiliary (QDAux) contains 2 new functions for the application programmer. These new functions provide enhanced functionality for the developer who wants to create graphics entry/editing software. These new functions are SeedFill and CalcMask. Given a pixel image, SeedFill fills the appropriate pixels with the given pattern. CalcMask generates a destination pixel image that replaces all the pixels with the fill pattern where paint cannot leak from any of the outer edges. No seed point is required since CalcMask begins at the outer boundaries and works its way in. CalcMask operates like the MacPaint lasso tool, and SeedFill operates like the MacPaint paint-bucket tool.

New Calls

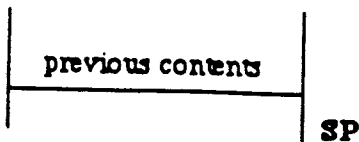
SeedFill

Call number \$0D12

Stack before call



Stack after call



Errors: \$1211 badRectSize

- 1) Height or width is negative value OR
- 2) dstRect not same size as srcRect OR
- 3) source or dst rect not completely within or equal to respective bounds rectangles.

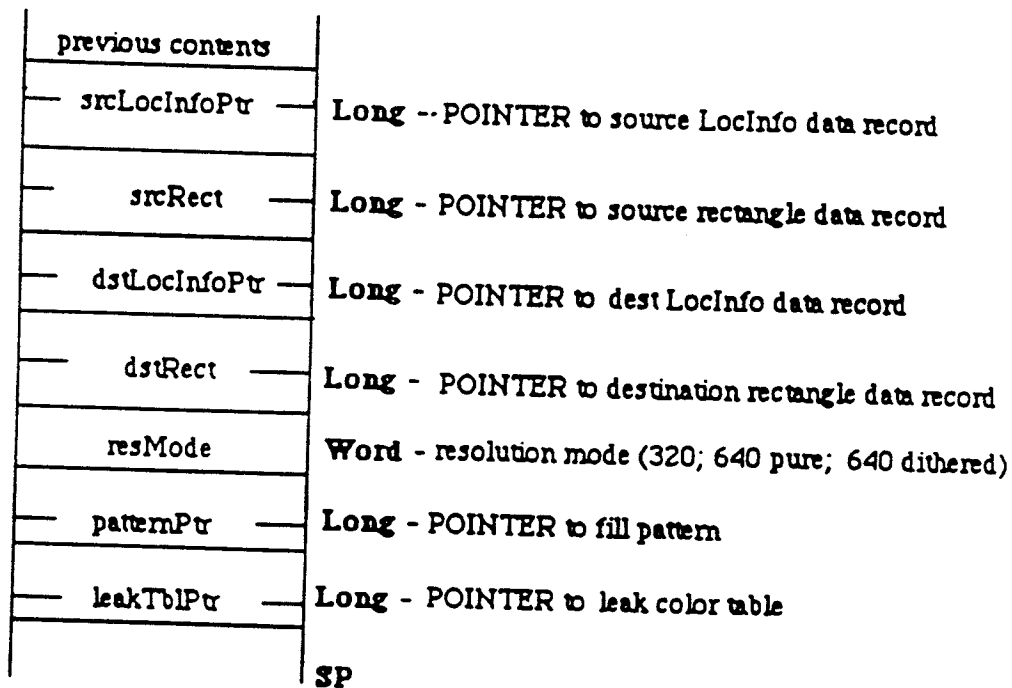
\$0201 memErr

NewHandle error occurred in SeedFill.

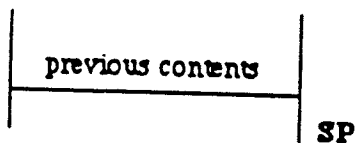
**CalcMask**

Call number \$0E12

Stack before call



Stack after call



Errors: \$1211 badRectSize

- 1) Height or width is negative value OR
- 2) dstRect not same size as srcRect OR
- 3) source or dst rect not completely within or equal to respective bounds rectangles.

\$0201 memErr

NewHandle error occurred in SeedFill.

In both the SeedFill and CalcMask routines, all the input parameters are equivalent with the exception that SeedFill has two additional parameters, seedH and seedV. The srcLocInfoPtr input

parameter points to a LocInfo data record which contains the SCB byte; pointer to pixel image; width; and boundary rectangle. SrcRect points to a rectangle in local coordinates where the source pixel image is located. DstLocInfoPtr and dstRect are provided for output. The new pixel image will be output at the location determined from the information provided in dstLocInfoPtr and dstRect. SeedH and seedV, for SeedFill, specify the horizontal and vertical offsets into the source pixel image to begin the seedfill. ResMode indicates the resolution mode as shown below in Table 1. The pointer to the fill pattern is patternPtr. The pattern is an 8-by-8 pixel image that is used for filling the region. The leakTblPtr parameter is a pointer to a data structure that indicates the number of colors to leak through, followed by each color's index into the color table. The format for this structure is displayed below:

Leak Color Table data structure:

```

word 1      ncolors - number of colors to replace with fill pattern
word 2      color1
word 3      color2
word 4      color3
:           :
word n+1    colom
    
```

No automatic scaling is performed, therefore, the source and destination rectangles must be of equal size. Also, calls to SeedFill and CalcMask are not clipped to the current port and are not stored into QuickDraw pictures.

\*Note that it is the application's responsibility to enforce that the srcRect and dstRect are aligned on word boundaries. The fill is not guaranteed to be accurate if this area is not aligned accordingly.

ResMode	Resolution Mode
0	640 pure
1	640 dithered
2	320

Table 1.