

POC2 analysis:

Vulnerability type: integer overflow

Function `gdi_RectToCRgn` can cause integer overflow when reading the width of a bitmap

```
/**
 * Convert a rectangle to region coordinates.
 * @param rect source rectangle
 * @param x xl
 * @param y yl
 * @param w width
 * @param h height
 */

INLINE void gdi_RectToCRgn(const HGDI_RECT rect,
                          INT32* x, INT32* y,
                          INT32* w, INT32* h)
{
    *x = rect->left;
    *y = rect->top;
    *w = rect->right - rect->left + 1;
    *h = rect->bottom - rect->top + 1; 已用时间 <= 1ms
}
```

Next, when the bitmap data is cached, `nWidth * formatSize` will cause a copy of a large value range, causing a heap overflow.

```
srcp = gdi_get_bitmap_pointer(hdc, nXDest, nYDest);
formatSize = GetBytesPerPixel(hdc->format);

for (y = 1; y < nHeight; y++)
{
    BYTE* dstp = gdi_get_bitmap_pointer(hdc, nXDest, nYDest + y);
    memcpy(dstp, srcp, nWidth * formatSize);
}

break;
```