

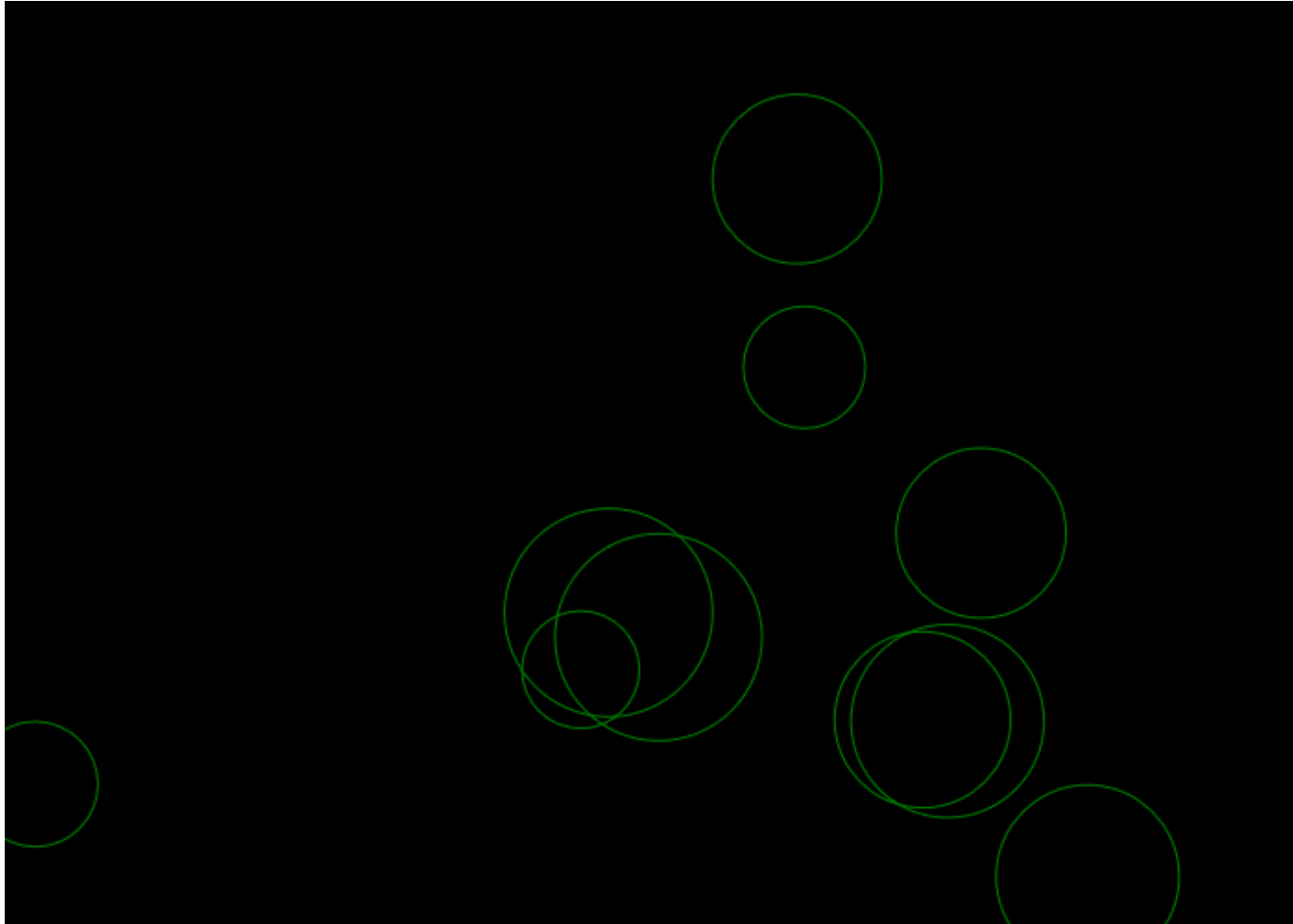
Marching Squares Algorithm

Marching Squares

Marching squares:

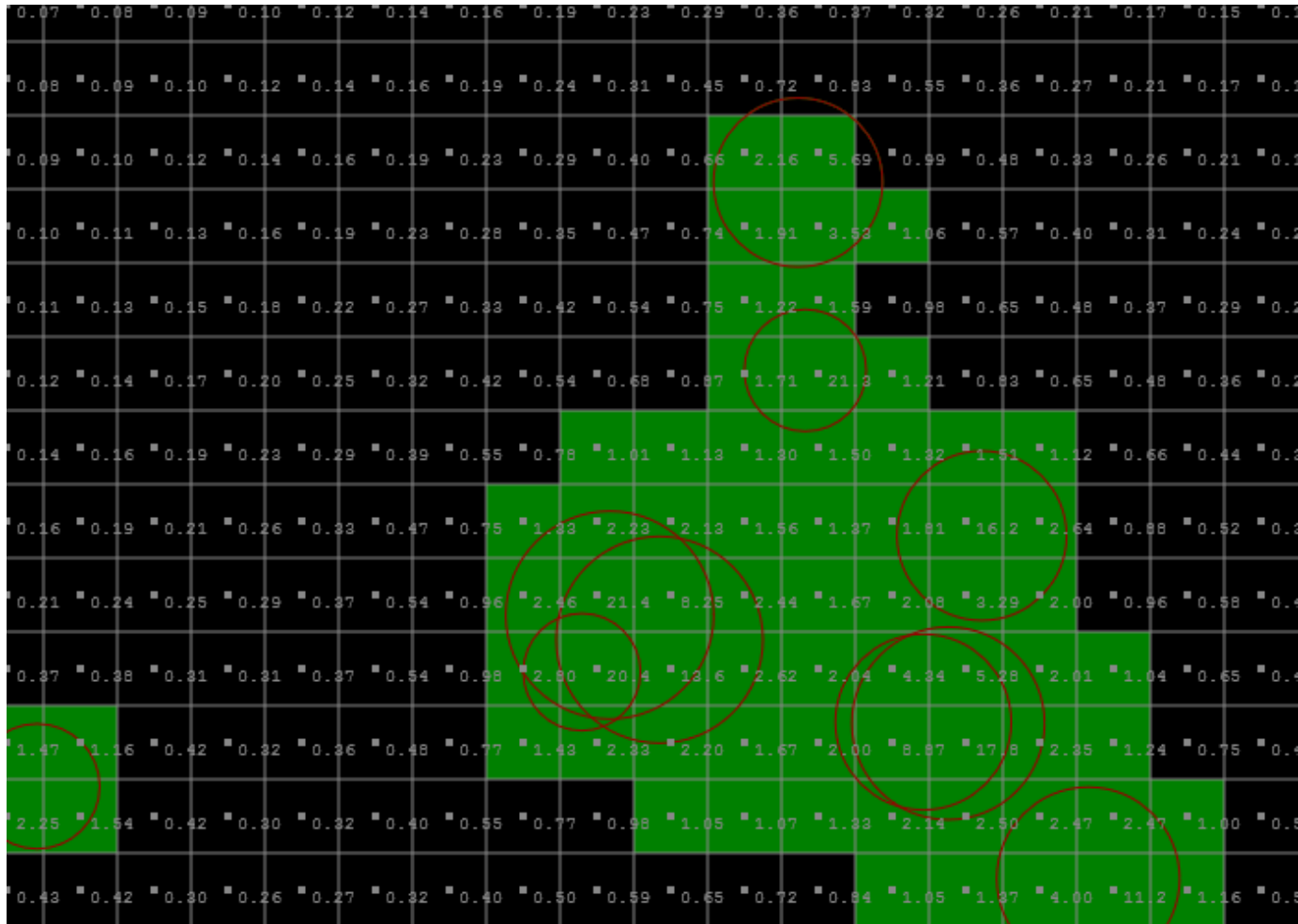
Approximating perimeter of 2D blobby surfaces through area sampling.

2D Blobs: comprised of circles



Source: <http://jamie-wong.com/2014/08/19/metaballs-and-marching-squares/>

2D Blobs: comprised of circles



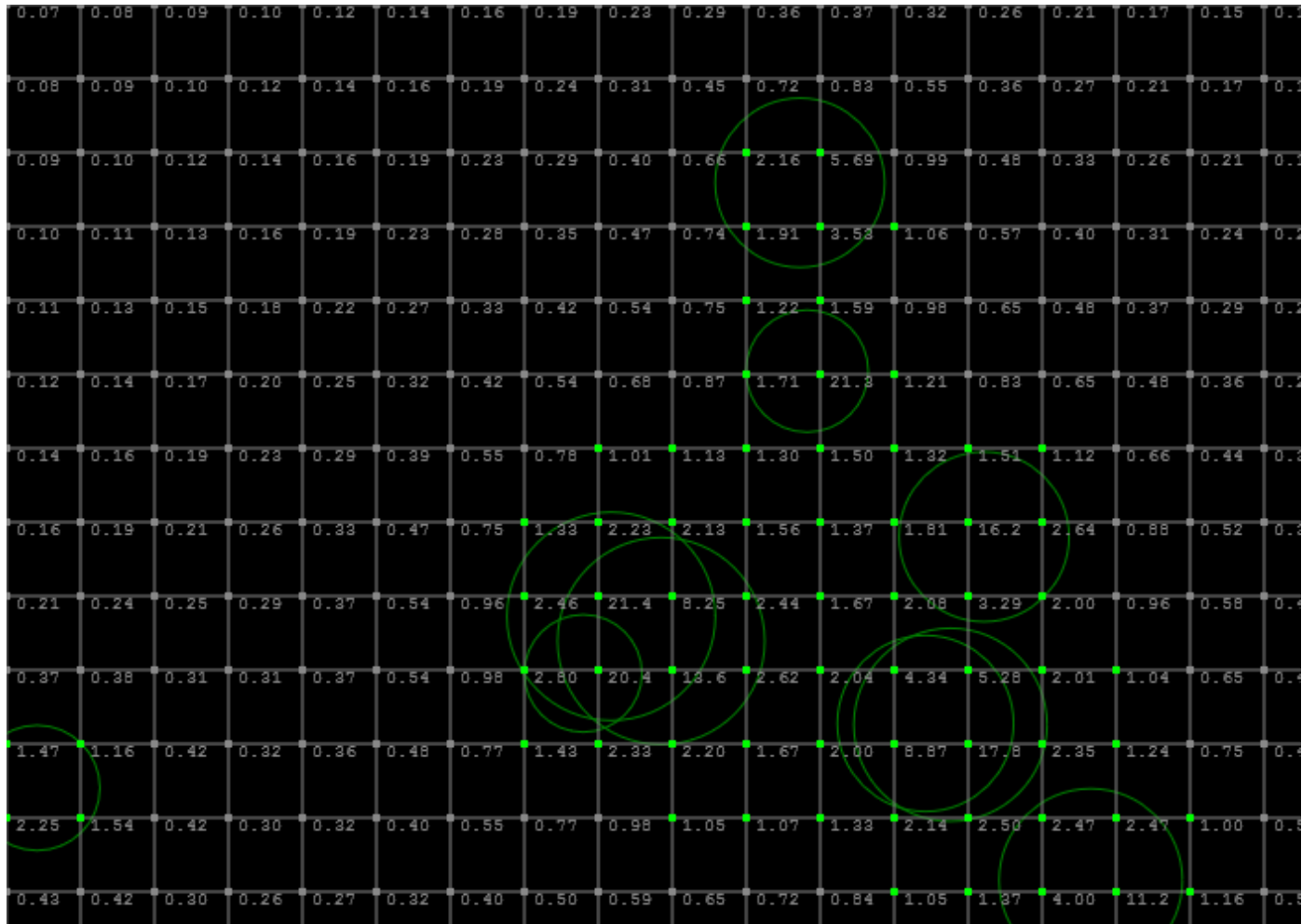
Source: <http://jamie-wong.com/2014/08/19/metaballs-and-marching-squares/>

2D Blobs: decrease square size



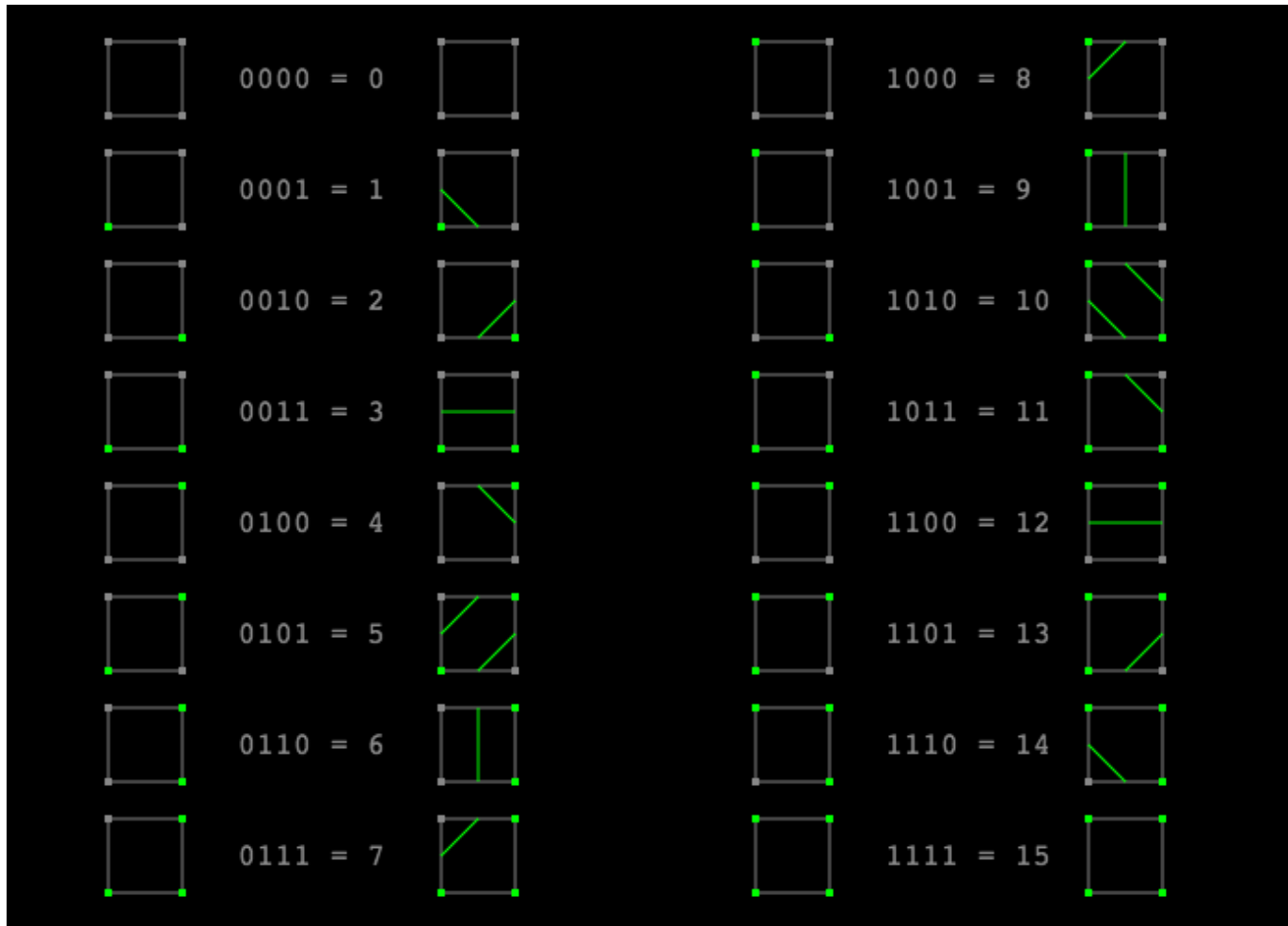
Source: <http://jamie-wong.com/2014/08/19/metaballs-and-marching-squares/>

Sample with squares



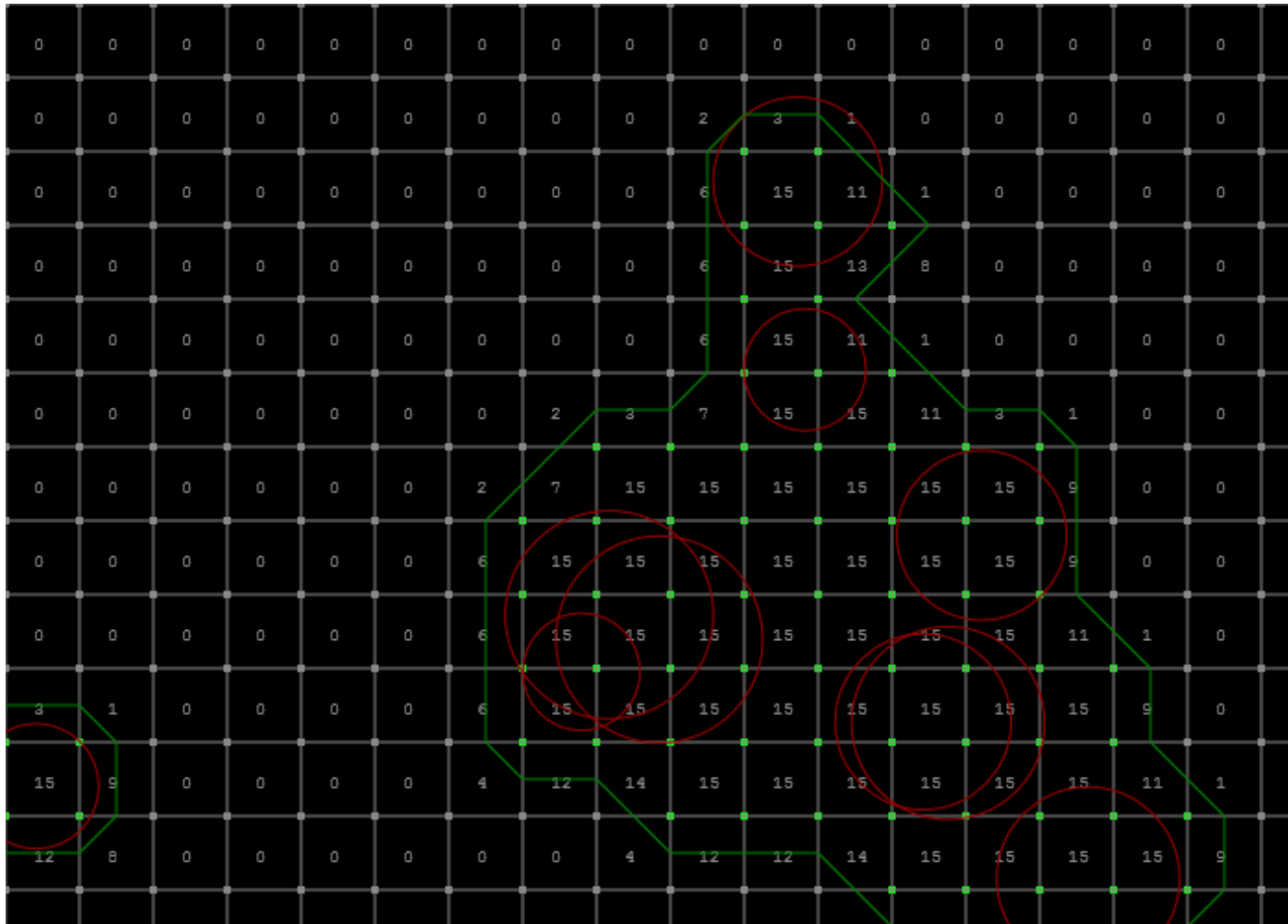
Source: <http://jamie-wong.com/2014/08/19/metaballs-and-marching-squares/>

Marching squares: 16 cases



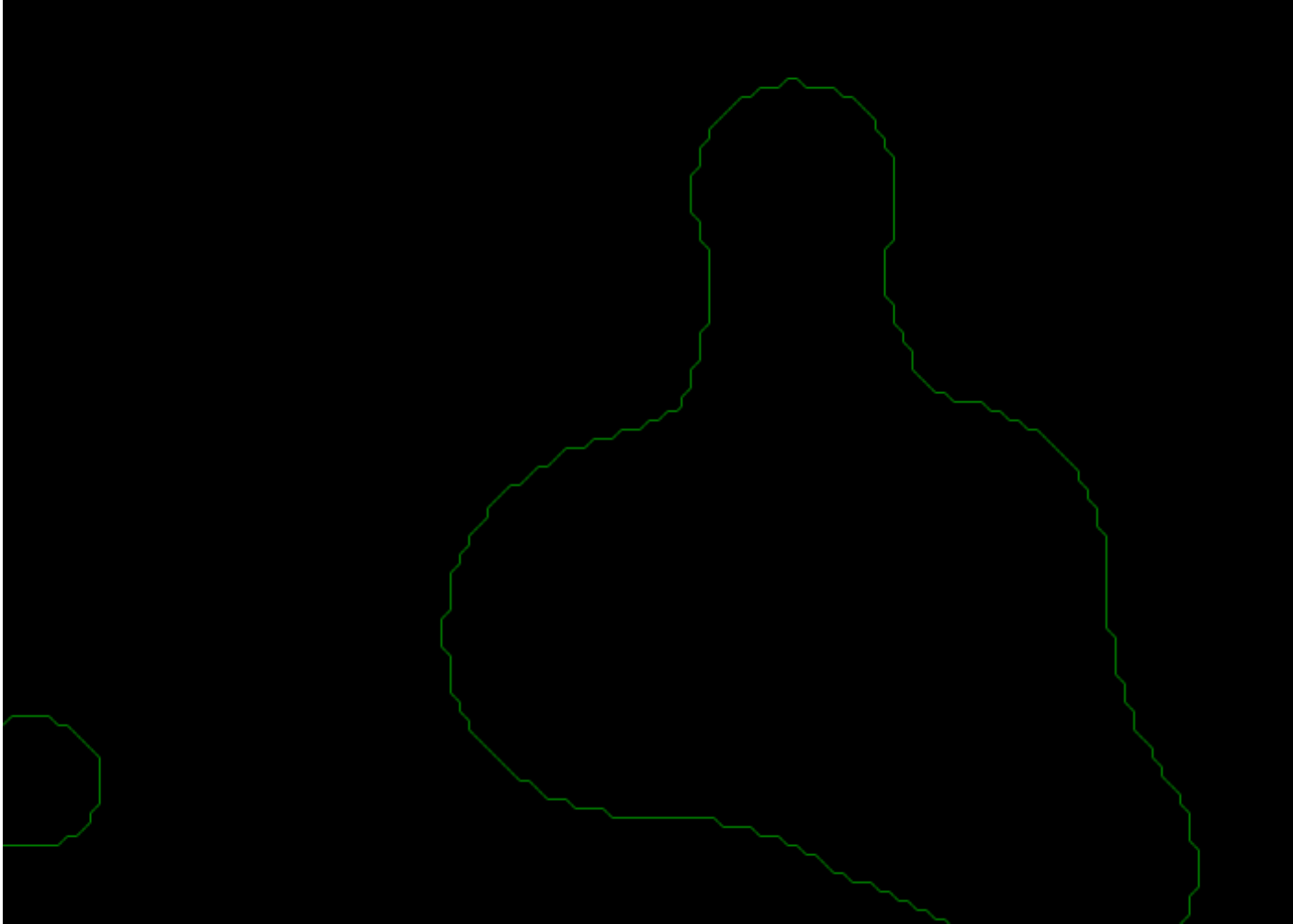
Source: <http://jamie-wong.com/2014/08/19/metaballs-and-marching-squares/>

Marching squares: 16 cases



Source: <http://jamie-wong.com/2014/08/19/metaballs-and-marching-squares/>

The Blob approximated



Source: <http://jamie-wong.com/2014/08/19/metaballs-and-marching-squares/>

For Further Reading

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Lorensen, W. E., Cline, H. E. (1987). Marching cubes: A high resolution 3D surface construction algorithm. *Computer Graphics* 21(4), 163-169.

Paul's Projects. (n.d.). <http://www.paulsprojects.net/opengl/metaballs/metaballs.html>

Wong, J. (2014). Metaballs and Marching Squares. Retrieved from <http://jamie-wong.com/2014/08/19/metaballs-and-marching-squares/>

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