

Is the pixel about to die?

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A new vector-based video codec developed at Bath may signal the death of the pixel.

(Phys.org)—Researchers launching a new vector-based video codec are claiming their work will lead to the death of the pixel within the next five years.

The team behind the project, consisting of the University, Root6 Technology, Smoke & Mirrors and Ovation Data Services – are now looking for industry buy-in to the research to expand its potential [applications](#). The codec was launched at the CVMP 9th European Conference on Visual Media Production held at Vue Cinema in Leicester Square, London.

Digital pictures are built from a rectangular grid of coloured cells, or

pixels. The smaller and closer the pixels are together, the better the quality of the image. So [pixel](#)-based movies need huge amounts of data and have to be compressed, losing visual quality. They are also difficult to process.

The alternative, a vector-based format, presents the image using contoured colours. Until now there has not been a way to fill in between the colours at the quality needed for professional use. The Bath team has finally solved this problem.

A codec is a computer programme capable of encoding or decoding a digital video stream. The researchers at Bath have developed a new, highly sophisticated codec, which is able to fill between the contours, overcoming the problems previously preventing their widespread use. The result is a resolution-independent form of movie and image, capable of the highest visual [quality](#) but without a pixel in sight.

Professor Phil Willis, from the University's Department of Computer Science, said: "This is a significant breakthrough which will revolutionise the way visual media is produced.

"However, to accelerate this project we'll need companies from around the world to get involved. At the moment we're focusing on applications in post-production and we're working directly with leading companies in this area, however there are clear applications in web, tablets and mobile which we haven't explored in detail yet.

"Involvement from a greater variety of companies with different interests will extend the project in a variety of ways and increase the potential applications of this game-changing research."

Provided by University of Bath

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