

**CASE STUDY**

"The work on Blue Planet has been so successful that we're now looking at a considerable inventory of programming that would benefit from HD conversion".

Andy King

BBC Resources' Technology Development Manager

Alchemist™ Platinum Converts BBC's £7m Production

Snell & Wilcox conversion technology handles mixed media and allows uncompressed program editing

The Customer

The BBC provides a wide range of distinctive commercial-free programs and services for a mass audience. They include television, radio, national, local, children's, educational, language, and other services for key interest groups. BBC services are accessed by over 90 percent of the UK population every week.

The BBC also runs orchestras, actively develops new talent and supports training and production skills for the British broadcasting, music, drama and film industries. The BBC is financed by a TV license paid by households. It does not have to serve the interests of advertisers, or produce a return for shareholders.

The Challenge

The BBC faced a complex set of issues with their £7m natural history series Blue Planet when converting it into multiple formats. The producers needed a standards converter that could handle mixed media material and perform uncompressed program editing to allow for future conversion of the natural history series.

In order to maximize the picture quality of any future HD conversion of SD material, the BBC required a converter that would also stay in the uncompressed domain during mastering to avoid artifact build-up in HD material caused by multiple compression passes.

The Snell & Wilcox Solution

The Alchemist Ph.C standards converter – 12-bit, 4:4:4 and 'transparent' – is the only conversion system capable of handling the extensive frame rate changes involved in the BCC project. It offers both analog composite and digital video I/Os, accepting and outputting SDI with embedded audio and composite analog in, NTSC, PAL, NTSCi, PAL-N, PAL-M, and SECAM formats. The Alchemist produces high-quality, noise free, standard-definition masters that flawlessly upconvert to HD.

CASE STUDY▶ **The Results**

The BBC's source material, comprising of a wide range of film and video formats, proved no problem for the Alchemist, which provided a seamless transfer to high-definition via its motion-compensated technology in a single-step process. The resulting HD output had the added benefit of accurate motion portrayal, particularly significant for wildlife programs.

"The series was always going to be mastered at 625/50i. Making the seamless conversion to 1080/59.94i was extremely important and we are delighted with the result", said Andy King, BBC Resources' Technology Development Manager. "The work on Blue Planet has been so successful that we're now looking at a considerable inventory of programming that would benefit from HD conversion".

Alchemist Platinum

In	625(576)/50 (-)
Ref	Free-Run
Out	525(480)/59.94

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