

NOTATION

Customer

The Bank of England Printing Works (BoEPW) is the part of the Bank of England responsible for the design and printing of all English banknotes.

Business Problem

Banknotes (and other security documentation such as gift vouchers and bonds) are a specialized form of design. Not only must the results look good, they must also incorporate a variety of features to identify the documents as genuine and to make counterfeiting difficult.

Although recent advances in technology have allowed the inclusion of devices such as foil holograms and fluorescent ink, traditional features – the wealth of fine detail, abstract geometric patterns and the like – still play a major part in banknote design.

Used since the mid-1980s, NOTATION is the software used by the BoEPW to design the currency of the nation. (It is also used by the national banks of Norway and Denmark). The BoEPW needed a company capable of providing maintenance of the software and support to the artists using it.

Tessella Solution

Tessella took over support of NOTATION in 1987. By combining support work with an active development programme (something that the Bank of England were already planning), Tessella were able to build up expertise in this complicated package (the current size runs to more than 1,800 files of source code, containing about 375,000 lines of program and comments).

Over the years, Tessella have updated and enhanced the software. Not only has this meant keeping it up to date as technology has evolved (originally conceived for a

character-cell terminal, NOTATION now has a modern GUI interface), it has also meant adding extra functionality.

An example of this can be seen in the background to the front of the £10 note: the center of the note shows a three-dimensional relief effect based on ammonite shells. The effect – known as “relief ruling” – is accomplished using a photographic image to control the distortion of lines in a pattern. This massively speeded up the creation of an effect that had previously been based on a mechanical process in which a stylus traced the contours of a 3-D model.



NOTATION creates the wealth of fine detail seen in banknotes

Results and Benefits

Although over 20 years old, NOTATION is still a valuable part of the design process. By contracting the software support and development out to Tessella, the BoEPW has been able to concentrate on the production of banknotes without worrying about the problems of software development.

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V1.R2.M1

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