Focus on AlpVision

Online authentication services for identifying genuine objects and documents

Most people think that sophisticated document security and brand protection techniques are only available using specialist "forensic" laboratory tests. However, digital imaging software and 'off-the-shelf' consumer electronics can now bring forensic-like authentication solutions to everyone and opens a new era in identifying fake products or documents worldwide.

In association with mobile networks and the Internet, AlpVision is now able to offer authentication services at a final consumer level, with 100 million products now protected by Digital Imaging Technology provided by The Company. This has been achieved through invisible marking and recognition solutions implemented through standard production processes.

AlpVision's practical approach

Manufacturers are often reluctant to add security marking or devices to their products for various valid reasons. However, all manufactured objects are unique, even though they may look identical at first glance, and provided these differences can be observed they can be used to identify and track authentic items later. AlpVision's practical approach to this fact provides an effective solution to product and document security. (see fig 1).

Authentication without fuss

Some authentication processes require investment in special security lights to identify microscopic differences on various material surfaces or to reveal security marks. AlpVision has developed a technology that only requires normal light and standard equipment such as a flatbed scanner, digital camera or a camera phone. For security marks normal printing ink is sufficient. Sophisticated digital imaging software that performs authentication, either locally or remotely can complete the cycle. (see fig 2)

From Fingerprint™ to Cryptoglyph™

For manufactured objects, Fingerprint™ is a read-only solution that requires no additional marking or modification of the production line. All products are different at a surface level and these surface imperfections can be used to recognise them later.

The Fingerprint™ solution from AlpVision requires digital image capture of part of an object as it exits the production line. Microscopic differences generated by the manufacturing process are stored in a secured server.

To authenticate a genuine object only requires a 'software' comparison that is done in a few seconds. Casino gaming chips, automotive parts, beverages, food, cosmetics and drugs are all items that can be authenticated in this cost effective manner.

For Fast Moving Consumer Goods, packaging is often the easiest element to secure as it is immediately visible. In this case, AlpVision generates an invisible marking on each pack using a large number of micro-points discreetly buried in the primary or secondary packaging of the items secured. These points are either printed or created as "holes" in the varnishing process. The points can even be placed on raw printed material before printing. This artificially "clones" a series of millions of products and identifies them using one single reference. The process is commercialised as a hybrid Cryptoglyph™, using Cryptoglyph technology coupled with the Fingerprint™ detection software process.

Finally for documents or goods of all types, the Cryptoglyph technology hides enciphered data inside a multitude of micro-points. These points are carefully camouflaged within the imperfections of the printed carrier and prevent fraudulent attacks such as tampering with the imprinted data on documents or labels too.

Of course, for added protection, these digital covert image marking and authenticating processes can also be combined with traditional overt security marking methods such as barcodes, datamatrix codes or holograms.

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