UV Technology Sheds New Light on Check-Fraud Detection

Check fraud costs financial institutions globally billions of dollars a year. New UV technology can help detect check fraud efficiently and at a low cost.
While more publicity surrounds payment-card security breaches these days, check fraud continues to plague financial institutions around the world. In fact, an estimated 90 percent of the organizations that experience fraud are victims of check fraud.

And the costs of check fraud are high. The American Bankers Association reported that $12.2 billion in check fraud was attempted at U.S. banks in 2006. The ABA expects the problem to grow by 20 percent each year. Fortunately, prevention systems caught 92 percent of the attempts. However, that means thieves stole nearly $1 billion through check fraud in the United States alone. And in May 2009, a massive check-counterfeiting ring was uncovered in New York City that was responsible for more than $1 million in fraudulent checks cashed.

In most cases, the fraud is perpetrated by altering the check in some fashion. Criminals may “wash” a legitimate check, erasing the original information and substituting amounts or altering who the payee is. In other cases, they may attempt to create a fraudulent check. With advances in graphic technology, it can be difficult for a check acceptor to detect check fraud at the point of sale. Therefore, the financial institution or check processor is often the last line of defense against fraud.

Special UV inks can help identify tampering in a check, making fraud detection easier.
Physically inspecting each paper check is impossible. While image-capture technology has improved efficiency in the check-clearing cycle, the process also inhibits spotting some of the visual cues necessary to identify a fraudulent check.

To improve the level of fraud detection while maintaining check-processing efficiency, Seac Banche, a provider of data and image capture solutions located in Florence, Italy, developed a sensor for ultraviolet (UV) light that is incorporated into a standard image capture camera. The camera captures an image of the check for processing and fraud detection. It also captures a UV image that can identify alterations to the check.

Detecting check fraud with Seac Banche's technology is simple. First, the checks must be printed with UV ink in critical areas, such as the signature, codeline, amount areas and bank logo. The UV ink is sensitive to UV light, which comes from the scanners equipped with UV-capable cameras.

The UV-equipped scanners create an X-ray-like image of the check, which can reveal if the areas printed with UV inks have been altered or tampered with in any way. The image provides an indication of fraud when chemicals have been used to alter information or if the check is not an original, but rather a high-quality copy. In either case, the absence of UV ink is easily visible on the image.

The scanning software reads the amount of UV ink present and creates a fraud risk index ranging from 1 to 99 (indicating a highly suspect check). Images of the suspect items can be reviewed at any time in the clearing process from a remote location. Also, these images can be used as part of a fraud report.

Unique benefits of check-fraud detection
UV imaging technology provides a higher level of fraud detection without interfering with the clearing process. Seac Banche has developed UV detection systems for use in two points of the check-processing cycle.

A financial institution may choose to install a UV system at both the teller point and the ATM to detect fraud before the check enters the system. That way, a fraudulent document can be identified and mitigated almost immediately.

In addition, the UV system can be integrated seamlessly into back-office processing systems. A centralized system allows a high-volume operation to implement UV detection into the current workflow without disruptions. This arrangement may be the most cost-effective way to add UV detection to a financial institution’s security measures.

As a digital product, the special UV images are available for review without the need to inspect paper documents and can be stored, forwarded and displayed instantly, regardless of geographic location. In addition, other fraud-detection systems, such as handwriting recognition and payment profiling, can be integrated with the UV image to build a robust defense against fraud.

The entire process is automated, so efficient on-screen inspection replaces labor-intensive physical review of suspect documents. Fraud detection is performed automatically without slowing down the process. Because the process is automated, each check receives the same amount of protection, regardless of its value.

Any documents that meet the threshold level of fraud risk by the system are flagged for further review. Security experts then may take an active role in detecting and mitigating fraud.

The required inks for UV printing are sold only to authorized financial document printers. They are not available to the general public and are not compatible with the desktop-imaging devices used by most criminals, minimizing the likelihood that criminals will discover a way around UV-ink fraud detection.

Of course, low fraud rates have a positive effect on a financial institution’s bottom line, and consumers and regulatory agencies have a more positive view of a bank that minimizes losses due to fraud.

**Conclusion**
Financial institutions have come to accept a certain amount of losses from fraud as a cost of doing business. But UV imaging technology means banks no longer have to accept those losses. The technology can be seamlessly incorporated into the existing check-clearing process, and the check stock printed with the UV inks can be integrated into the customers’ usage patterns.

In the past, a financial institution may have physically inspected checks worth only a certain amount or higher. With UV fraud detection integrated into the clearing process, every check can receive the same level of inspection. This will remove the need for manual inspection of any check, and broaden the detection to all checks.

Efficiency improvements from the elimination of manual inspection and the reduction in losses from fraud contribute to a high return on investment for UV check-fraud detection solutions.

**About the sponsor:** Established in 1987, Seac Banche SpA, located in Calenzano (Florence), Italy, is a leading provider of data and image capture solutions to banking and financial markets. The company develops, manufactures and distributes its check processing solutions through its five regional offices and worldwide distributor network. Seac Banche products are the result of a continuous technology innovation utilizing 20 years of experience in research and development. Its Quality System is UNI EN ISO 9001:2000 certified.