

PARASCRIP[®]

Parascript[®] CheckStock[®]

Create a frontline defense against counterfeit checks.

Counterfeiting is one of the leading loss categories for financial institutions and is the fastest-growing source of fraudulent checks today. According to recent industry studies banks incur 15% of all check-related losses due to counterfeit checks .

The variety of check fraud schemes committed throughout the country ranges from depositing single stolen checks to counterfeiting thousands of negotiable documents and processing them through multiple bank accounts.

With the prevalence of computer technology it has become easy for computer criminals to re-create or duplicate the most sophisticated images of financial documents produced by any corporation. Fraudsters attack institutions with the least-sophisticated detection systems and are aware of the potential of the fraud-prevention systems that allow them to stay “below the radar screen.” This situation requires the institutions to be proactive in applying adequate counterfeiting safeguards and innovative tools able to reliably detect counterfeited documents.

Parascript *CheckStock* uses a secure filter for detecting even the most sophisticated counterfeit checks. The product provides scrupulous verification of all main preprinted elements on business and personal bank checks and IRDs, offering the industry's highest accuracy and reliability.

Instant verification of check authenticity

Its combination of multiple forgery-detection algorithms allows *CheckStock* to scrutinize each individual preprinted object on a check presented for verification and execute a faster comparison against the corresponding object on a reference check stock. In its analysis *CheckStock* also considers the size of the documents, and the distances and complex relations between different check stock elements. A registration algorithm locates a sufficient number of connected components on the images and examines them for similarities to ascertain the correlations between them.

This innovative technology enables analysis of a minimal number of zones and avoids possible distortions from real-life noises and rotations.

Product Benefits

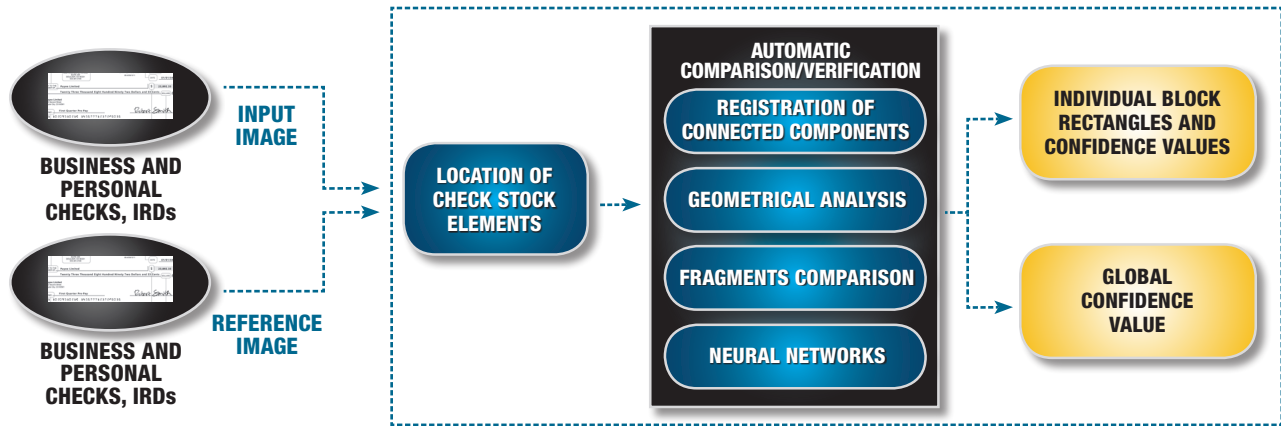
- Verify multiple document types.**
CheckStock performs pair-wise verification of business and personal bank check stocks and Image Replacement Documents (IRDs).
- Validate different check stock objects**
CheckStock combines multiple approaches to automatically locate and perform image comparison of preprinted objects like headers of blocks such as check number, date, payee, dollar sign, memo, payor block, payor bank on a suspect check or IRD image versus corresponding blocks on a reference check stock. The product analyzes the elements' content, font type, font size and font spacing as well as the placement of each block and relative distances between sets or pairs of blocks.
- Ensure tolerance of real-life image challenges**
CheckStock is fine tuned to work efficiently with images scanned on different transports with different resolution. It can reliably compare images even if the input image presented for verification and the reference image have different resolutions. *CheckStock* also provides unfailing verification when dealing with real-life documents with noise, stamps, marks, inscriptions, and other distortions. Due to its advanced optimization algorithms, it can use a minimal clean portion of an image to ensure a reliable comparison.
- Get the advantage of diverse output options**
 Applications that may benefit from check stock verification are diverse and so are the accuracy requirements, purposes, and scenarios that have to be implemented in these applications. *CheckStock* issues a global confidence value that serves as a basis for making a decision about how documents match and draws a conclusion about the probability that an object is counterfeit. Depending on the confidence

value chosen as a threshold, it is possible to regulate the percentage of false positives versus the percentage of false negatives to make them optimal for a specific application. In addition to the global confidence value, *CheckStock* also returns the coordinates of each analyzed block and individual confidence values for each block. This mechanism provides a flexibility that allows elaborate decision-making, implementation

of different scenarios for interpreting results, and efficient integration with alternative decision tools.

- Meet application speed requirements**
CheckStock exploits efficient comparison algorithms and allows optimizing data extraction and analysis to meet different speed requirements. *CheckStock* integrates easily with any existing check fraud detection application.

How *CheckStock* Works



Technical Product Specifications

System Structure

- Recognition engines are organized as Dynamic Link Libraries (DLLs).
- Available in C API. Software development kit contains: setup, program files and sample application.

Components and File Sizes

- DLLs: 12 MB
- Data Files: 4.1 MB
- Softlock Files: 1 MB

Requirements

- Platforms: Windows® NT 4.0 Service pack 4 and higher, Windows® 2000 Professional,

Windows® XP Professional, Windows 2003 Server. Porting to other systems is available upon request.

- CPU: Pentium III, 500 MHz minimum required
- RAM: 256 MB minimum required
- Storage: Complete installation requires a minimum of 18 MB free disk space

Input

- Image format: black and white or grayscale 8 bits/pixel images, JPEG, BMP and TIFF industry standard
- Image Resolution: 200 to 300 DPI
- Check Image type: personal checks, business checks, Image Replacement Documents (IRD)

Output

- The overall confidence value indicates the confidence of the verification process that an incoming image matches the reference image. In addition, the values for individual confidence levels and block locations are available.

License Protection

- Softlock

CheckStock is just one of many solutions within Parascript's product suite. For more information visit our web site at www.parascript.com



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