



PARASCRIPT®

A Colorado County Study of Automatic Signature Verification for Vote-by-Mail

parascript.com
888.225.0169
contact@parascript.com

@2022 Parascript Management, Inc. All rights reserved.





As Vote-by-Mail programs expand, more focus is placed on the ballot verification process to ensure each mail-in ballot can be attributed to a registered voter. Manual signature review by election judges is currently the primary method of reliable Vote-by-Mail ballot verification.

Verification Process

During the verification process, election judges are tasked with comparing the signatures on ballot envelopes against verified reference signatures to ensure voter authenticity. If the signature is not a clear match, the ballot is escalated to a second tier of review where a bipartisan team reviews the signature against more reference signature samples. This process must be completed by hand for every ballot in a short period of time, creating a significant time and cost investment. As a result, election officials are turning to automated systems as a more efficient method for verifying signatures on ballots.



**SignatureXpert.AI
is a signature
verification
software that
detects forgeries
with high
accuracy**

Parascript Automated Signature Verification

Parascript, a software company based in Colorado, offers Automated Signature Verification (ASV) solutions that were recently tested through a large-scale study in a Colorado county. This study was conducted to compare two generations of Parascript's ASV software, SignatureXpert and SignatureXpert.AI, and after analyzing more than 100,000 signatures, both products demonstrated reliable and accurate signature verification. Strong results from both products show that more than half of resources required for the manual signature verification process could be eliminated using automation, and election judges would only need to manually review the remaining signatures that fell below the software's pre-set operating point.

A donut chart with a blue center and an orange ring. The orange ring represents 67% of the total, while the grey outer ring represents the remaining 33%.

67%

SignatureXpert.AI

Signature Match Rate

During the study, the newest product, SignatureXpert.AI, demonstrated a signature match rate of more than 67%, accurately verifying signatures against reference signature data. The previous generation product, SignatureXpert, demonstrated a match rate of 53%.

The new product improves the match rate using Parascript's newest proprietary AI technologies that offer much more powerful recognition capabilities. SignatureXpert.AI is also tuned to ballot envelope layouts, low-resolution signatures, and reference signatures from multiple sources.

A donut chart with a white center and an orange ring. The orange ring represents 53% of the total, while the grey outer ring represents the remaining 47%.

53%

SignatureXpert

Signature Match Rate

Overall, this study validates the usage of SignatureXpert and SignatureXpert.AI in real-world Vote-by-Mail use cases, and it emphasizes the time and cost-saving benefits of automated signature verification.



SignatureXpert.AI
Reduces Manual Data
Entry And Ensures High
Levels Of Verification

Benefits Of Automation

Not only does ASV software process signatures much more quickly than humans, but it also reduces the need for the personnel hiring and training, and for equipment required for manual signature verification. Once the ballots are scanned into the system, ASV software can run continuously at a high level of performance to produce the fast and accurate signature verification that election officials need to deliver results quickly.



In Summary

Voting by mail is likely to increase in popularity in the coming years, and elections can be processed faster at lower cost when using Automated Signature Verification software. It is a solution that should pique the interest of both election officials and voters with its time and cost-saving benefits.

Contact Us Today To Learn More

parascript.com

888.225.0169

contact@parascript.com

@2022 Parascript Management, Inc. All rights reserved.