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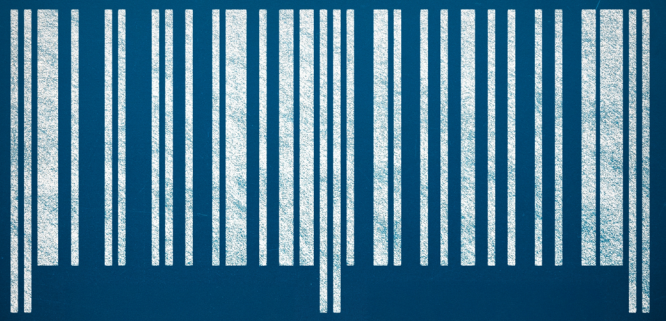
How Barcodes Became the Gold Standard for Identity and Trust

Get Started



The History of the Barcode

It is easy to take the barcode for granted because it has been used for over 50 years. In June 1974, the first-ever grocery product marked with a Universal Product Code (UPC)—now commonly known as the 'barcode'—was scanned at a supermarket checkout in Miami, Ohio. Since then, the barcode has become universal, a small but mighty keystone around which modern-day buying and selling has evolved. Despite its age, the original barcode remains one of the world's most accurate means of product identificaton. It's estimated that barcodes are scanned 10 billion times daily and are recognized symbols of identity, trust, and a seamless customer experience.

The first barcode scan was for a multipack of Wrigley's Juicy Fruit chewing gum at Marsh Supermarket in Miami, Ohio.

The original UPC barcode was 1-dimensional (1D) and binary, with white and black lines representing 0s and 1s. In the 1980s, 2-dimensional (2D) barcodes were introduced because they could store data in horizontal and vertical directions, enabling them to hold significantly more information than traditional 1D barcodes. NASA was an early adopter and used them to track spacecraft parts. The new 2D barcodes have brought many advantages compared to 1D, such as 100 times the character capacity and accurate scans of damaged barcodes using error correction. They can represent the same data at 1/30th the size. They also can take different forms, including the QR code introduced in 1994.

Another barcode standard, PDF417, was introduced in 1991. "PDF" stands for Portable Data File and "417" describes the barcode pattern of four bars and spaces that are 17 units long. This barcode encodes up to 1,850 alphanumeric characters or 2,710 digits and includes error correction capabilities that can recover a barcode with up to 50% of it being damaged. The International Organization for Standardization (ISO) standardized PDF417 in 1997 as ISO/IEC 15438, and government-issued IDs and driver's licenses became a typical application.

Driver's License Identification Verification

Why barcodes are the most reliable and accurate verification technique.

The American Association of Motor Vehicle Administrators (AAMVA) adopted PDF417 as the standard for encoding data on driver's licenses in the late 1990s. AAMVA is an organization founded in 1933 that represents state, provincial, and territorial officials in the United States and Canada who administer and enforce motor vehicle laws. Its programs encourage uniformity and reciprocity among the states and provinces.

The driver's license and identification card (DL/ID) verification program from the AAMVA is designed to improve the uniformity of identification cards across the United States, Canada, and Mexico. The primary goal is to improve the consistency of driver's license and ID implementation across all jurisdictions following AAMVA DL/ID standards and specifications. We can thank AAMVA for the fact that digitally checking IDs is very fast and accurate using the barcode found on the back. With the right knowledge, the barcode check is quick and accurate when used with the camera on your phone, read with a scanning device at a retailer, or inserted into the desktop device at a bank.

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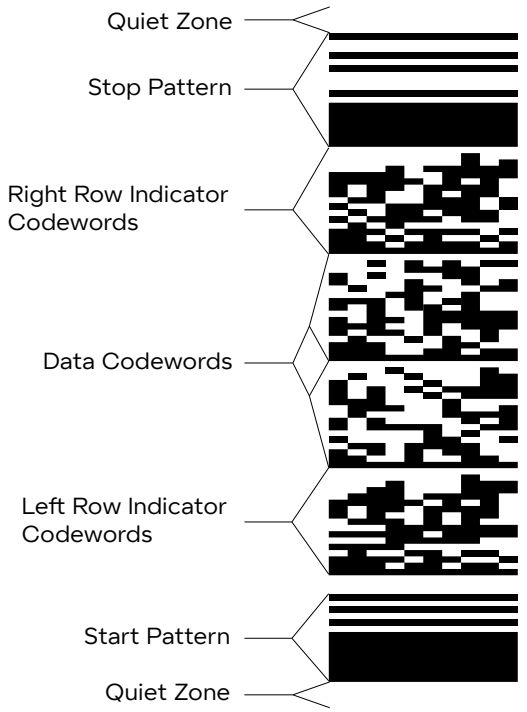
For more than 25 years, Intellicheck has been the only company to run the AAMVA's DL/ID Card Verification Program lab testing certification.



Security Measures for Barcodes

The value of having a standard, consistent, and reliable barcode across IDs is clear. However, since PDF417 is an ISO standard available to the public, anyone can produce the identical readable barcodes found on licenses. Plenty of websites allow you to create your own driver's license barcode with free mobile apps to read these barcodes. To make it very difficult to counterfeit standardized barcodes, each DMV jurisdiction adds additional unique security features to their barcodes.

Intellicheck is the lab testing certification partner for the AAMVA DL/ID Card Verification Program. This relationship gives Intellicheck access to authoritative data in DMV-issued ID barcodes, making it the only identity validation and proofing service that uses a unique and proprietary analysis to create trusted, real-time customer identity verification experiences.

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ID Verification Challenges

- Human verification of IDs is error-prone because machine learning can create high-quality fakes nearly undetectable with visual verification.
- Techniques, like optical character recognition (OCR), struggle with out-of-focus, poor lighting, glare, and low-resolution devices.
- Machine learning of license fronts using OCR or templating without complimentary authoritative barcode checks are inaccurate and easy to trick.

Inaccurate verification blocks legitimate customer transactions or verifies fraudulent identities.

Intellicheck Verified

Fraud starts with fake IDs. Although driver's license barcode scans are fast, scanning doesn't mean it is valid—all fakes will scan. Intellicheck's SaaS solution confidently proves identity in real time with the only service that leverages an authoritative proprietary database for ID barcodes to stop fraudsters and safeguard customers. Our approach to proving identity differs, enabling a frictionless customer experience that seamlessly fits into existing workflows using your existing technology, scanning devices, or our mobile app. With Intellicheck, your identity verification process creates a business advantage by facilitating rapid customer acquisition and ongoing customer retention—and trust at the point of service—while preventing unauthorized ID use and stopping identity-based fraud.

Intellicheck Customers

8k	**Bank branches**
30k	**Retail locations**
50+	**Law enforcement agencies**
5	**Of the top twelve banks and credit card issuers**

	Other Driver License Scanners AAMVA Parsed Data (That is publicly available)	**Intellicheck's Exclusive Validation Visibility** DMV Issued Authoritative Data & Hidden Security Keys	
First Name	**Joe**	**Joe**	#HED3
Mlddle Name	**ISA**	**ISA**	
Last Name	**Fraudster**	**Fraudster**	
Address	**1234 Easy Street**	**1234 Easy Street**	CHECK123
City	**Orlando**	**Orlando**	JURISDICTIONKEY
State	**FL**	**FL**	
Zip	**32789**	**32789**	300054*
Document ID Number	**0002345666**	**0002345666**	ENCRYPTIONKEY21#
Issue Date	**061520233**	**061520233**	
Experation Date	**08252026**	**08252026**	
Height	**073 IN**	**073 IN**	HENCODED
Weight	**168**	**168**	
Eye Color	**BRO**	**BRO**	
Hair Color	**BL**	**BL**	
Race / Ethnicity	**W**	**W**	
Inventory Control Number	**76544333**	**76544333**	JURISDICTION52#HH
Document Discriminator	**10000234**	**10000234**	
Endorcement Codes	**None**	**None**	

Contact Intellicheck Identity Experts

Stop Fraudsters and Safeguard Customers.

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