CaptureID Augmented Reality App

Modernizes Workflows

Augmented Reality App, CaptureID, Uses Real-Time Data for Better Real-World Results

Barcodes Behind Big Business Breakthrough

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There's no question, Augmented Reality (AR) has beamed directly from science fiction into daily life. Once a staple of entertainment, gaming, and fashion, AR technology has set its sights on business operations. Behind this push is Germany's P4IT, a software company aiming to modernize logistics, healthcare, in-store retail, auto service, and commercial real estate management with CaptureID.

First-of-its-kind, the CaptureID mobile app pairs AR with the humble barcode to transform camera-equipped smartphones into superior business intelligence tools.

"When a CaptureID user scans a barcode, they get an additional layer of information—basically, a data overlay—on their screen," explains Dipl. Ing. Joachim Lang, P4IT's head of Business

P4IT's CaptureID App overlays real-time product info, such as price and inventory levels.

Development. "Depending on the industry and what the employee might need to see, it can be anything from inventory, service history, or delivery instructions; the possibilities are endless."

Going Green(field) with P4IT
In P4IT's view, AR for business is a "greenfield opportunity" because CaptureID sprung from a clean slate. There's been nothing quite like it

An AR overlay with real-time data expedites workflows; CaptureID can also work offline.

before to tackle issues, from knowing retail stock levels to properly medicating patients.

So, what makes CaptureID's AR-based approach unique? Real-world results in real-time.

Upon scanning a barcode, CaptureID overlays computer-generated data on top of what users see on their screens, providing actionable, real-time data. CaptureID's functionality is ideal for industries where barcode scanning is a fixture of operations, such as manufacturing, logistics, healthcare, transport, and retail. The premise is simple: although each scan captures data and moves it to higher-level enterprise systems, it doesn't immediately help frontline personnel. P4IT saw this as an opportunity to revitalize workflows with real-time information.

In retail, for example, CaptureID allows for real-time inventory access, price reductions, or re-labeling upon scanning an article's barcode. Rather than leaving to check inventory, the clerk can engage the customer and nurture the sale by providing instant stock, pricing, product information, and show reviews.

"We're bringing the online shopping experience into the local retailer," advocates Lang.

Swift Surface-to-Screen Scanning

P4IT began in 2003 by developing apps for the global AutoID market (automatic identification and data capture). In their quest for perfection, P4IT's team tested various barcode scanning software development kits (SDKs), but none of them could match the performance of Code Corporation's CortexDecoder.

"The first camera scanning solution we used was open source, but it was not good enough," recalls Sebastian Hoppe, a P4IT software developer. "We began testing other brands and found that CortexDecoder's performance far outpaced the competition. Additionally, when we have an issue with the library, we can resolve it quickly with Code's internal team, and that makes a big difference."

P4IT tested on all sorts of surfaces, including direct part marking (DPM) used on metal components and in tool management and environmen ts CaptureID users were likely to encounter. These ranged from dim auto service centers to vibrant, neon-lit retail operations.

CaptureID App's AR Pick-One feature enables users to scan multiple barcodes simultaneously to find a specific item (out of many).

"Our customers used to have problems with fast scanning or the reading of bad barcodes at difficult angles," says Lang. "Take tires or wheels with very tiny DPM barcodes and the light conditions; CortexDecoder could scan all of those very well. Its performance is at a high level, really."

CaptureID: Identifying Improvements Instantly
Built on Code's CortexDecoder SDK, CaptureID works on Android- and iOS-based devices. Additionally, Capture ID can be used in real-time (with an Internet or intranet connection) and offline when Wi-Fi connectivity isn't possible, such as shopping in large department stores.

In logistics and transport, CaptureID's AR overlay allows the identification of special shipments and the near-instant retrieval of specs. For instance, the delivery person can view package information and drop-off instructions, such as 10:00 a.m. delivery, cash on delivery, or temperature requirements, right on their mobile screen.

Sometimes users might want to scan several codes simultaneously to find the one they need— another instance where AR has a significant impact. Imagine CaptureID helping a harried baggage handler quickly find a specific suitcase in a looming pile. Or allowing warehouse management to identify a particular package.

CaptureID creates a foundation for high-performance applications in mobile data acquisition, making itself a great fit with virtually any industry. Take the automotive sector, for example. AR overlays make it easy to find customer tires in the warehouse and visualize customer requirements such as rim repair, wheel washing, balancing, or nitrogen filling. Immediate access to this information improves safety and quality while increasing customer satisfaction.

Similarly, commercial real estate investment trusts (REITs) can use CaptureID in risk management, e.g., verifying maintenance or tracking the lifespan of mandatory certifications. Integrating digital records with the user's environment in real-time can bolster healthcare accuracy, for example, a patient's photo is displayed alongside treatment data.

Given its ability to service mass-market and niche businesses alike, CaptureID is customizable to display specific information. The P4IT team has even confirmed it can work with smart glasses. But as Lang sees it, this greenfield technology means the sky is the limit.

"There are many great untouched areas and processes that could benefit from our AR overlay, and it's these greenfields that provide excellent opportunities for us," summarizes Lang.

To learn more about improving your workflows with augmented reality, contact P4IT 02339 12 17 90.

To incorporate enterprise-grade data capture into your product, process, or project, contact Code Corporation at +01 801-495-2200 or info@codecorp.com.