

Software Vision Solution

Honeywell SwiftDecoder™ is a leading software solution that enhances customer productivity. SwiftDecoder leverages the latest vision technologies to enable data capture and processing at the edge using barcode decoding, OCR, Augmented Reality (AR) and more to enable customers to become more efficient.

Honeywell helped pioneer the barcode scanning market in the 1970s, and over the years, these innovations have helped retailers, distribution centers, transportation and logistics and healthcare organizations achieve significant operational improvements in efficiency, speed and accuracy.

SwiftDecoder is a reliable, comprehensive, and easy-to-integrate SDK (Software Development Kit) that offers developers optimal barcode decoding, OCR, Augmented Reality and other machine vision capabilities in a feature rich solution. SwiftDecoder's advanced image processing algorithms are capable of decoding barcodes in the most complex workflows by quickly capturing, processing and correcting image defects enabling you to seamlessly scan at various distances regardless of barcode quality. By leveraging the optics of any device, coupled with our advanced technology, SwiftDecoder can help you achieve maximum performance.

Whether developing hybrid or native applications, the SwiftDecoder supports a variety of operating systems and development frameworks including iOS®, Android™, Universal Windows® Platform, Windows®, Linux®, Cordova™, Xamarin™, React Native™, JavaScript and more, ensuring flexibility regardless of how the app is developed.

SwiftDecoder enables workflows with optimized performance and support for a wide range of scanning modes using proven core technology that has been deployed in Honeywell barcode scanners worldwide for more than 40 years, reliably scanning millions of barcodes daily.



POTENTIAL APPLICATIONS

For use in consumer or professional-grade devices such as mobile phones, tablets, wearable scanners, drones, robots, kiosks, healthcare diagnostic machines, payment terminals and other camera enabled devices. Use cases in a variety of applications include self-shopping, inventory management, line-busting, track and trace, proof of delivery, age verification, identity verification, compliance, data entry, access control and more.

BENEFITS



Multi-platform support, SwiftDecoder runs on a wide range of hardware including mobile phones, tablets, PCs, payment terminals, drones, robots and much more.



Comprehensive barcode library supports over 100 barcode symbologies used across various industries including retail, healthcare, warehouse, access control and hospitality. SwiftDecoder is used globally in both consumer and enterprise applications.



Fast and accurate barcode decoding that is up to three times snappier than similar offerings in low light conditions (typical warehouse environment is defined for 120 Lux) for any type of barcode symbology.



Rigorous penetration testing to identify and support prevention of cybersecurity risks or vulnerabilities, giving customers peace of mind that SwiftDecoder is secure and safe to deploy in their most critical applications.



Flexible pricing and licensing through subscription and perpetual models meeting customers' complex needs.

SWIFTDECODER™ SOFTWARE VISION SOLUTION

HIGHLIGHTS

- **Reads poor quality barcodes:** Comprehensive optimization parameters enable developers to build decoding software that is capable of reading and decoding difficult-to-read barcodes – low contrast, plastic-covered, poorly printed, scratched, torn, warped or wrinkled – increasing productivity and reducing errors in demanding environments
- **Omnidirectional:** 360° ability to read and decode barcodes to enhance application ease-of-use
- **Mirror image processing:** Reads and decodes inverted barcode images
- **Barcode location coordinates:** Enables programmers to overlay visual information (such as augmented reality elements) improving barcode visibility and enhancing end user workflows by providing information
- **Scalability:** Provided through OCR and augmented reality add-ons that enable adjacent workflows

AVAILABLE ADD-ONS



OCR
Enhances workflows using template-based recognition, including OCR-A, OCR-B, MICR E-13B, SEMI



Passport and Travel Document Scanning
Reads and parses data from passports, visas, IDs and other Machine Readable Travel Documents (MRTD)



Driver License Scanning
Reads and parses data from U.S. and Canadian driver's licenses using the PDF417 barcode



High-Speed Scanning
Provides high-speed scanning for maximum throughput in postal carrier sorting and manufacturing operations



Boarding Pass Scanning
Reads and parses data from boarding passes using the PDF417 barcode



Motor Vehicle Document Scanning
Reads and parses data from motor vehicle documents using the PDF417 barcode



Price Verification
Designs a template OCR based on customer price tag requirements



Augmented Reality
Enables screen overlays of data-rich information, increasing workers' productivity and guiding customers through the decision journey

TABLE 1. SCANNING MODES

Mode	Description	Availability
Windowing	Captures a barcode when within a user-defined window overlay on the camera feed.	iOS®, Android™, UWP®, Cordova™, React Native™, Xamarin™, JavaScript
Targeting	Captures a barcode when targeted by the aimer overlay on the camera feed.	
Batch scan	Searches for a user-defined number of barcodes before returning the results back to the application; SwiftDecoder™ for Android™ and iOS® can process up to 10 codes per frame.	
Preview and select	Allows you to select the desired barcode from the highlighted barcodes in the viewfinder. Only collects decoded data from the selected barcode. This mode now includes freeze frame capabilities.	
Continuous scan	Scans barcodes and returns decoded results continuously.	
Manual	Default mode for identifying and decoding barcodes within the captured image.	
Unattended	Reads barcodes with a known location, symbol size or/and orientation for high speed decoding.	

TABLE 2. SUPPORTED SYMBOLOGIES

Code	Symbology
1D	Codabar, Code 11, Code 128, Code 39, Code 93, GS1 Databar, GS1 Databar Expanded, GS1 Databar Limited, Hong Kong 2 of 5, interleaved 2 of 5, EAN-8, EAN-13, ISBN, ITF-14, ISSN Korea Post, Label Code, Matrix 2 of 5, MSI Plessey, NEC 2 of 5, Pharmacode, Straight 2 of 5, Straight 2 of 5, Telepen, Trioptic, UPC (-A, -E, 2 digit supplement, and 5-digit supplement)
1D Stacked	GS1 Databar stacked, GS1 Databar Expanded Stacked
2D	Aztec code, Data Matrix, Dotcode, GridMatrix, Han Xin, Maxicode, Micro QR, QR Code
2D Stacked	Codablock A, Codablock F, GS-1 Composite, MicroPDF417, PDF417, TLC39
Postal	Australia Post (Australia 4-state), Brazil Post (Brazil 4-state, CEPNet), Canada Post (Canada 4-state), Dutch Post (KIX code), Finland Post (Posti), Japan Post (Japan 4-state), New Zealand Post (New Zealand 4-state), Portugal Post (Portugal 4-state, Portugal 4-state, UPU), Royal Mail (InfoMail, Customer Code, Mailmark), Sweden Post (Sweden 4-state), US Postal (Planet, Postnet, UPU, Intelligent Mail)

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TABLE 3. IDE AND PROGRAMMING LANGUAGE SUPPORT

Language	Supported IDE	Programming Language	Platform Support
Android™	Android Studio	Java and Kotlin	Android 8 +
iOS®	Xcode	Objective-C and Swift	iOS 12 +
Linux®	N/A	C/C++	armv8.2-a, armv5, armv-a, armv7-a_hf, armv8-a, x64
Windows® UWP	Visual Studio	C#, ASP.NET	x64, x86, ARM
Windows®	Visual Studio	C/C++ and C#	x64, x86
Apache Cordova™	N/A	JavaScript	10.0.0+
React Native™	N/A	JavaScript	N/A
Xamarin™	Visual Studio	C#	N/A
JavaScript	N/A	JavaScript	Android 8 +

TABLE 4. CAMERA MANAGER API INCLUDED

SDK	Image Capture
iOS®	✓
Android™	✓
Windows® UWP	✓
Windows®	✗
Linux®	✗
Xamarin™	✓
React Native™	✓
Apache Cordova™	✓
JavaScript	✓

FOR MORE INFORMATION

- **Free trial program:** Available for 60 days; this program enables you to try all of the features SwiftDecoder offers in your hardware or software application. Please visit: sps.honeywell.com/swiftdecoder
- **Full demo application:** Available for download in both the Apple® and Google Play store so you can experience the performance of SwiftDecoder first-hand. Search for 'HONEYWELL BARCODE SCANNER'

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NOTICE

MISUSE OF DOCUMENTATION

- The information presented in this datasheet is for reference only. Do not use this document as a product installation guide.
- An integration manual is available by request on our [website](#). Please contact your Honeywell sales representative.

FOR MORE INFORMATION

To learn more about Honeywell scan engines and barcode decoding software, visit our [website](#).

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