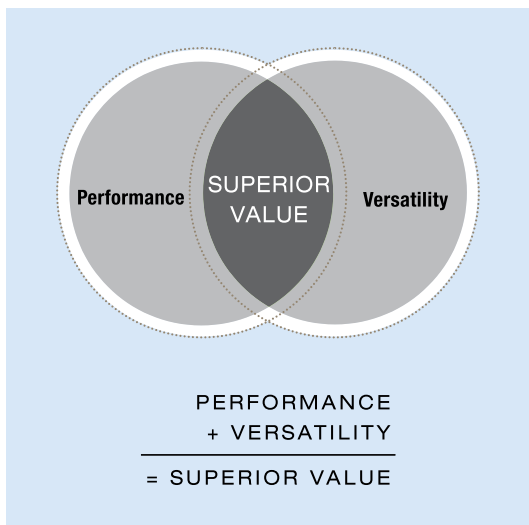


Adaptus® Imaging Technology 5.0

Michael A. Ehrhart, Senior VP & Chief Technology Officer, Honeywell Imaging and Mobility



Introduction

The health and vitality of an industry can be measured by the rate and magnitude of its technical innovation. This innovation fuels economic growth, enables new and exciting applications, and gives consumers increasingly better product choices. The natural evolution of technology and its effect on economics was termed “creative destruction” in 1942 by the economist Joseph Schumpeter. In his landmark paper “Capitalism, Socialism and Democracy,” Schumpeter explained, “The interaction of technical innovation with the competitive marketplace is the fundamental driving force in capitalist industrial progress” (Schumpeter, 1942). Simply put, it is necessary to leave older technology behind in favor of bright innovations that fuel economic growth. According to Schumpeter, for an industry to grow, its technology must continuously offer customers a choice of improved function and performance beyond their current implementation. It is this philosophy that drove the development of Honeywell’ Adaptus® Imaging.

Technology. Adaptus Imaging Technology 5.0 – The Next Generation

The philosophy behind Adaptus Imaging Technology is a commitment to delivering an optimized combination of performance and versatility, providing customers with a solution that offers a superior value. Honeywell’s unwavering commitment to meeting end-user requirements has now led to the creation of our next generation of imaging innovation: Adaptus Imaging Technology 5.0



Adaptus® Imaging Technology 5.0 delivers performance that enables a single device to service an application with challenging and diverse requirements

What Is Adaptus Imaging Technology?

While Honeywell has been delivering high performance and versatile products for many years, this next generation of data collection solutions, powered by Adaptus Imaging Technology 5.0, sets a new standard for customer value. When applied to today's applications, Adaptus Imaging Technology 5.0 delivers:

- >> Greater Depth of Field (DOF)
- >> Increased Motion Tolerance
- >> Improved Low Light Reading
- >> Decreased Time To Read (TTR)
- >> Increased Resolution and Image Quality

Combined, these attributes make products with Adaptus 5.0 easier to use in real-world data collection applications.

Adaptus Imaging Technology 5.0: High Performance

The high performance of Adaptus Imaging Technology 5.0 delivers aggressive read rates and depths of field on linear, 2D, PDF417, stacked linear, and matrix bar codes. This aggressiveness applies even in challenging reading environments where lighting conditions might be difficult and bar codes are of poor quality. High performance and aggressive behavior over a broad range of targets and environments deliver the most important benefit: product ease of use in many bar code reading applications. The buying agent and end user does not need to wonder if the Adaptus 5.0 reader will do the job as conditions (bar code density, ambient light, and required depth of field) change. They can just be confident that it works.



Adaptus Imaging Technology 5.0: *Versatility*

Adaptus Imaging Technology 5.0 delivers a rich and diverse set of functions well beyond older technologies that are limited to linear barcode reading. The additional functions enable a single device to be used in many applications, including those that may not be presently known. Adaptus Imaging 5.0 enables a device to serve the users' application today, no matter how diverse, while providing additional functions for future needs.

For example, think of a package delivery application that reads linear and PDF417 bar codes today, but may require converting to Data Matrix in the next five years to consolidate the number of bar codes on a package. Adaptus Imaging 5.0 enables world-class linear and PDF417 reading today, but preserves the product investment by providing Data Matrix functionality as well.

Adaptus Imaging Technology 5.0: *Value*

The secret to the value of Adaptus Imaging Technology 5.0 lies in its three technology building blocks:

- >> Innovative electro-optics
- >> Leading-edge computing architectures
- >> Fifth generation decoding and image processing

These three components are the result of thirty years of Honeywell's design and manufacturing perseverance. When tightly integrated, they seamlessly work to deliver multi-functional data collection capabilities that serve as a launch pad for future applications. This ability to meet needs today and well into the future allows Adaptus Imaging 5.0 to deliver the lowest total cost of ownership (TCO) in the industry today. The logic that is processed by the Adaptus Imaging Technology 5.0 brain is Honeywell's fifth generation of decoding and image processing. This software defines the personality of Adaptus 5.0 by enabling aggressive decoding, even in difficult environments, and a rich base of functionality beyond linear bar code reading. The efficient design of the software further enables robust algorithms that emphasize read rate and accuracy.

The Eye



The Miniature Image Engine houses the innovative optics of Adaptus Imaging Technology 5.0. This product combines a digital camera, illumination, and aiming optics in a package roughly the size of a sugarcube.

The Brain



The brain of Adaptus Imaging Technology 5.0 is its leading-edge computing architecture. With a 32-bit processor at its core, and other state-of-the-art components, the architecture is expertly balanced to deliver high-end processing performance while being considerate of battery consumption.

Adaptus Imaging Technology 5.0: Product Solutions

IMAGE ENGINE FAMILY:

Available to OEM customers around the world, Adaptus Imaging Technology 5.0 delivers extraordinary reading performance to enable ease of use and versatility in a broad range of applications. OEMs have the ability to choose the version of Adaptus 5.0 that best fits their integration requirements, while enabling optimal performance:

5000 ENGINE SERIES

- >> Linear imager-like performance on linear codes, plus the ability to read 2D codes
- >> Digital Image Capture
- >> Available in 3 focal options (Standard Range/Special Focus/High Density)
- >> LED and Laser aimer options

HONEYWELL SOLUTIONS:

Through stringent real-world testing, many of Honeywell's solutions have earned the Adaptus Imaging Technology brand name.

LINEAR IMAGER PRODUCTS: 3800g, 3800r, 3800i, 3820

- >> Industry-leading depth of field on high, medium and low-density bar codes, all in one device
- >> Extraordinary read rate
- >> Aggressive reading of poor-quality codes
- >> Ability to read future codes

2D IMAGER PRODUCTS: 4600g, 4820, 4600r, 4800i, 4820i, DOLPHIN 9500, DOLPHIN 7900, DOLPHIN 7850, DOLPHIN 7600, IMAGE KIOSK 8560/8570

- >> Enables high-performance 2D reading as well as aggressive linear reading, all in one device
- >> Industry-leading PDF417 reading
- >> Aggressive reading of specialty codes, including Data Matrix, postal, and OCR
- >> Digital image capture for processing, storage, and retrieval
- >> Capture, correct, and compress signatures
- >> Omni-directional reading of all codes
- >> Increased resolution and image quality
- >> Reading multiple symbols with one trigger pull
- >> Operation in a wider range of temperatures contributing to application versatility
- >> Improved high visibility aiming and improved LED aiming

Conclusion

Adaptus Imaging Technology 5.0 from Honeywell is the next logical progression in innovative data collection solutions. It is the creative choice that favors high performance and versatility over solitary (linear reading only) functionality. This latest generation delivers enhanced performance and versatility to produce a superior customer ROI. By partnering with Honeywell, the global market leader in linear and 2D imaging, customers can be confident that they are investing in a technology, and a company, committed to their profitability.

For more information visit:

www.honeywell.com/aidc

Honeywell Imaging and Mobility

Honeywell
700 Visions Drive
PO Box 208
Skaneateles Falls, NY 13153-0208
www.honeywell.com

