

PIXELRAY[®] DIGITAL X-RAY IMAGING SYSTEM

Advanced digital imaging system captures X-ray images with grayscale up to 16 bits per pixel (bpp)

A versatile interface that allows image capture, review and enhancement to solve a variety of image digitization problems.

MODERN DIGITAL IMAGING SOLUTIONS

Computed Radiography (CR) is a system by which reusable phosphor plates are exposed to X-rays and processed by a reader to create digital X-ray images.

CR has replaced film in radiographic imaging and is capable of higher resolution images than amorphous silicon panels can produce. The reusable phosphor plates are erased using visible light.

PixelRay is an advanced digital imaging system that captures X-ray images with grayscale up to 16 bits per pixel (BPP) (depending on the spatial resolution that the user has selected). It has a versatile interface that allows image capture, review and enhancement to solve a variety of image digitization problems. Its many built-in video tutorials and wizards help the user to learn the software.

Different readers allow the selection of different pixel spatial resolutions. A common resolution is 100 micrometer (μm) per pixel, or about 254 pixels per inch, or 5 line pairs per millimeter (lpmm).

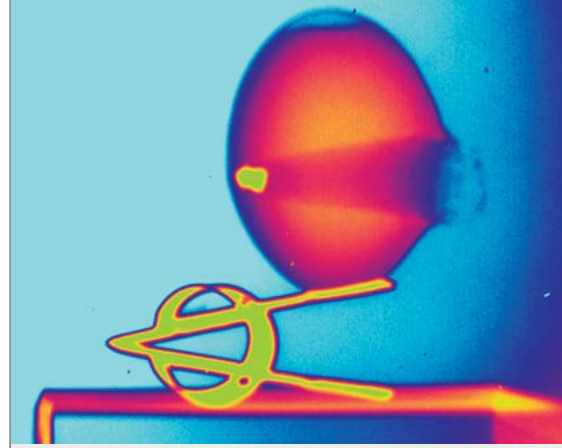
The maximum commonly used spatial resolution is about 50 μm per pixel. With different readers and screens, resolutions of 25 μm or better are possible.

The spot size of the scanning laser is different for different readers. For example, ScanX Discover HC is ~50 μm , and ScanX Discover HR is ~14 μm .

Each scanned image has a user selected spatial resolution of between 12 and 16 bits per pixel (bpp) of grayscale information. For example, the ScanX Discover HC and HR can be set to 16 bpp @ 67 μm , 15.6 bpp @ 50 μm , or 14.6 bpp @ 25 μm . Note that the true pixel resolution is also dependent on factors such as the phosphor imaging plate that is selected, the X-ray source spot size, and the geometry of the imaging setup.

L3Harris has scanned screens that are over 100" long. The minimum bend radius is about 3" (screen dependent). Screens can be reused over 1,000 times if they are properly cared for.

The scan speed is dependent on the spatial resolution that was chosen by the user.



MAJOR FEATURES

- > Windows 7 through 11 ready
- > Over a dozen video tutorials
- > One-touch magnifier
- > User-customizable filters
- > ScanX PMT wizard
- > Fast image rotation
- > Automatic pan window
- > Flexible histogram interface
- > ScanX scanning preview window
- > Preprogrammed lookup tables (LUTs)

DIGITAL IMAGE SIZE

Screen size	Scan speed	File size
14 in by 17 in	100µm	30 MB
14 in by 17 in	50µm	120 MB
14 in by 51 in	50µm	360 MB

PC SPECIFICATIONS*

Component	Minimum	Recommended
Operating System (OS)	Win 7	Windows 10 or higher
CPU speed	1.8 GHz	>3 GHz
Hard disk size	40 GB	>300 GB
RAM	512 MB	>=4 GB
Monitor size (resolution)	15 in (1024x768)	20 in (1280x1024)
USB ports	1 (for ScanX)	2 (for external devices)

*The specifications of the controlling PC are flexible as they will change with ever changing computer models and depend on the CR reader that is to be controlled.

READER TEMPERATURE LIMITS

Operating -7 to 46° C (20 to 115° F)

Storage -18 to 65° C

WARRANTY

Computer: 1 year from manufacturer

Reader: 1 year

Screens: 90 days

ScanX DISCOVER, HR/HC SYSTEMS

Laptop computer	OS Windows 7, 8, 10, or 11
Processor speed	>2.1 GHz
RAM	>=4 GB
Hard disk space	>300 GB
3 USB2	Scanner and pointing device, etc.

COMPUTED RADIOGRAPHY HARDWARE

> ScanX Discover HC (High Contrast) System

Includes Computer, Reader, In-line Eraser, PixelRay® Software, Optional Long Screen Handling Trays

> ScanX Discover HR (High Resolution) System

Includes Computer, Reader, In-line Eraser, PixelRay® Software, Optional Long Screen Handling Trays

COMMON SCREEN SIZES

- > 8x10
- > 10x12
- > 14x17
- > 14x36
- > 14x51
- > Other sizes are available

PixelRay® Digital X-Ray Imaging System

© 2023 L3Harris Technologies, Inc. | 04/2023 | 62802 | CKB

Nonexport-controlled Information

L3Harris Technologies is a Trusted Disruptor for the global aerospace and defense industry. With customers' mission-critical needs always in mind, our 46,000 employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains.



1025 W. NASA Boulevard
Melbourne, FL 32919