

# PixelRay<sup>®</sup> CR2

Computed Radiography System

**Computed Radiography (CR): The Robustness of Film and the Convenience and Speed of Digital Imaging**

The PixelRay CR2 system is your fast and easy-to-use alternative to standard film/screen systems. PixelRay gives you the freedom to take X-ray images with a reusable phosphor screen in your ballistic cassette and then digitize the images in less than a minute (for a 14"x17" screen at 3.8 lp/mm). The resulting image can then be inspected, measured, annotated, exported and stored for future study.



Once an image has been digitized the user can zoom in on areas of interest and apply color look-up tables (LUT's) to see image details that are difficult or impossible to see in the grayscale image. Images can be exported in TIF, JPG and BMP formats.

## Desktop Model

(Cabinet not included)



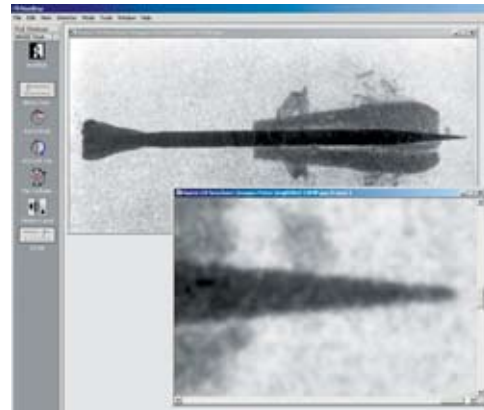
The PixelRay CR2 system scans re-usable storage phosphor screens and creates high quality digital images similar to normal x-ray film screens. The images are grayscale with sixteen bits per pixel (16bpp).

## Portable


(Transportable case included)



## Screen Shot



PixelRay<sup>®</sup> CR2  
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L3 communications  
Applied Technologies  
Pulse Sciences

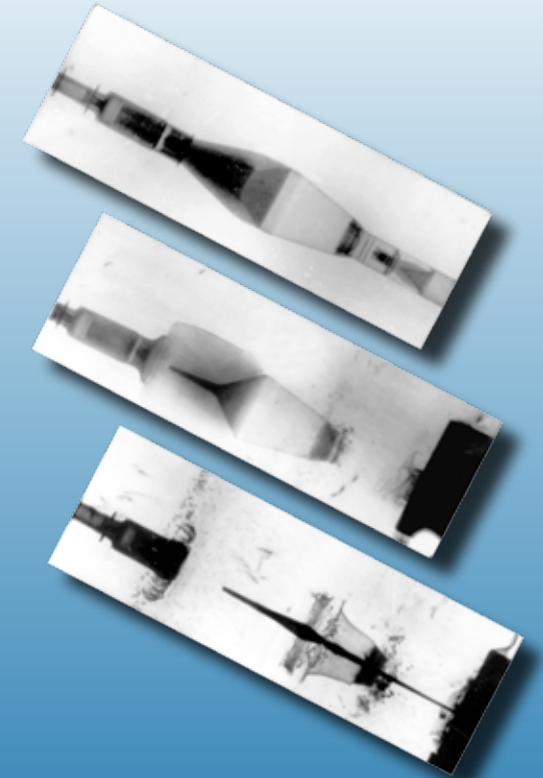
2700 MERCED STREET  
SAN LEANDRO, CA 94577-0599

# NEW PixelRay<sup>®</sup> CR2

Computed Radiography System

**16 bits per pixel Grayscale Images up to 10 lp/mm resolution**

Makes capturing and analyzing digital X-ray images so fast and easy that you will never go back to your old system. PixelRay CR2 now scans and analyzes 16 bit grayscale images.



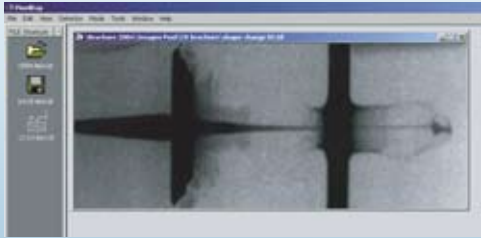
**Digital X-ray images fast, robust and convenient on your PC**



communications

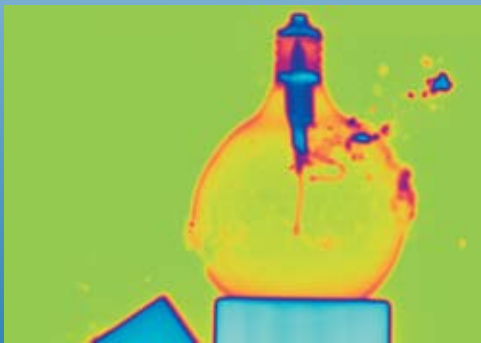
Applied Technologies  
Pulse Sciences

## STEP 1 Capture and Digitize Your Images



Capture an Image with your existing cassettes and X-ray sources setup. Digitize the image with the PixelRay CR2 system.

## Flash X-ray Example



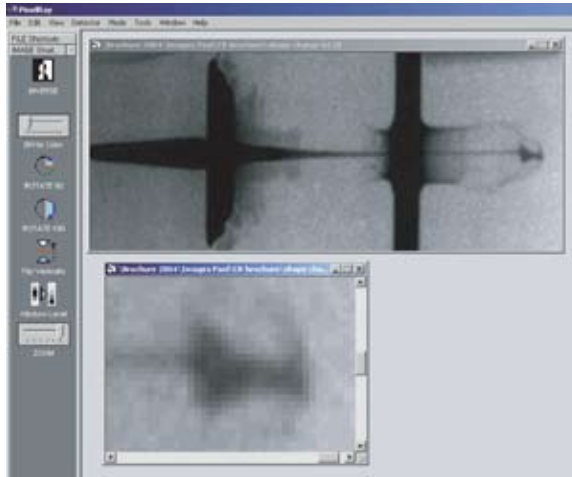
Fragments rupturing a light bulb (20 ns exposure) User selected coloring allows display of 16 bpp grayscale images on conventional color monitors.

# Fast and Easy X-ray Imaging Using your flash X-ray source

**CR is Better than Film. No Chemicals, No Liquids, No Mess, No Darkroom**

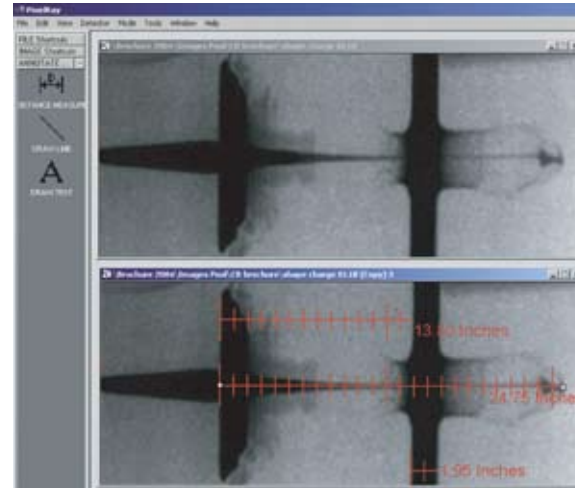
**Reusable Phosphor Screens:** The phosphor imaging screen can take the same punishment as film/screen cassettes and still produce high quality images. The reusable phosphor screens can be erased using visible light. A well cared for screen can be reused hundreds, often thousands of times.

## STEP 2 Inspect Your Image



User selected color tables (LUTs) can make small details easy to see. Filters, zoom and magnifier tools are also available.

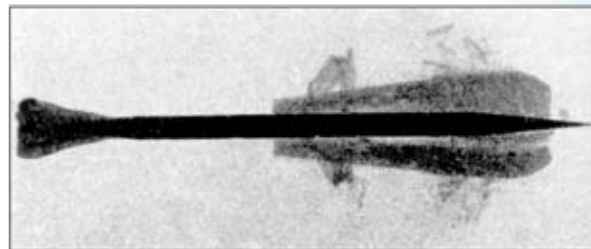
## STEP 3 Measure and Annotate Your Image



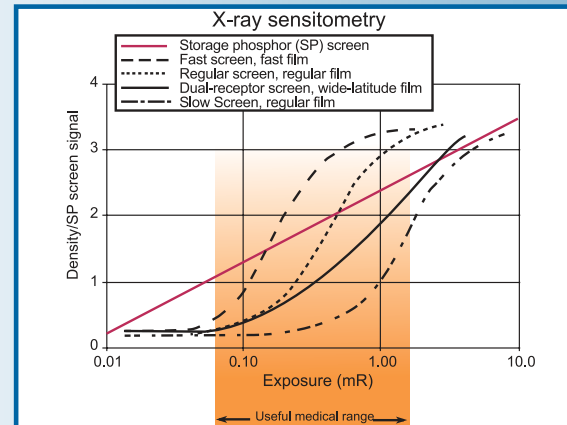
Measure points, distances and angles, plus use our full array of drawing tools to annotate your image

## Flash Soft X-ray Example

Digitize images made with either hard or soft X-rays



Above: 120 mm kinetic penetrator tank round during sabot separation



CR's Linear response allows for a much broader imaging range.

## Specifications

### Spatial Resolution

Maximum resolution: 10 lp/mm (50  $\mu$ m/pixel)  
Nominal resolution: 3.8 lp/mm (132  $\mu$ m/pixel)

### Intensity Resolution

16 bpp, or up to 65,536 shades of gray

### Scan Rate Examples:

14" by 17" Screen @ 3.8 lp/mm < 1 minute  
14" by 51" Screen @ 3.8 lp/mm < 3 minutes

### Screen Size Examples:

8" by 10" Screen  
14" by 17" Screen  
14" by 51" Screen  
Other sizes available. Maximum width is 14"

### Minimum Imaging Radiation (MD-10 Screen)

<0.1 mRad at the film plane for shadow graph

## Dimensions

	Portable		
	Desktop	Open Case	Storage
Width	28"	61"	31"
Depth	18"	20"	20"
Height	15"	27"	28.5"
Weight	43 lbs.	133 lbs.	
Power	100-250 Vac, 50/60 Hz		

## L-3 PS Flash X-ray Sources

L-3 Pulse Sciences sells 150kV, 300kV, 450kV and 1MV flash X-ray systems. These sources generate flash X-ray bursts of durations between 20 and 70 nanoseconds. Please contact us or visit our website for additional information at [www.flashxray.com](http://www.flashxray.com)



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