

State of the Art Digital Radiography

What is a Digital Radiography?

Digital Radiography, or commonly called “DR”, is the process by which x-ray radiation is captured via a digital imaging device called a detector or receptor, and then rapidly sent to a computer where it’s displayed on a computer monitor as a radiographic image. This process is vastly superior to traditional film-based radiography where film had to be run through a chemical process within a wet film processor before being available for viewing on a light box minutes later.

Why use Digital Radiography?

The benefits of DR are many. No searching for films, no filing, no lost films, superior image quality, advanced diagnostic tools and improved diagnostic capabilities, new methods of communication with referral centers and radiologists, easy intra-office image viewing, and portable formats (CDs and DVDs) to provide to clients to bring home or to a referral. After many years of hand-tanks and wet film processors, digital radiography is a quantum leap in technology. Speed and efficiency for both the procedure and the clinic as a whole is increased dramatically.

What is PACS (picture archiving communication systems)?

PACS is a software solution dedicated to image management. Storing and archiving, retrieving, sharing, viewing, transmitting, comparative studies, and CD/DVD burning are some of the many aspects of PACS. While DR is the modality by which digital radiography images (digital x-rays) are taken, PACS represents the control center and capabilities of the system so that users can efficiently make the most of their digitally acquired DICOM images and studies.

What is DICOM?

The Digital Imaging and Communications in Medicine (DICOM) is the standard for distributing and viewing any kind of medical image regardless of the origin. It is a very detailed file format and requirement set defined by NEMA (National Electrical Manufacturers Association). When facilities purchase systems that conform to the DICOM Standard, they are assured that their system can work with the systems from other organizations regardless of who the providers of these systems are. Currently, HDS is one of only 5 (five) organizations that have developed a conformant/compliant DICOM system with Veterinary Supplements (as defined by NEMA) which has been independently verified by a third party.

DR and PACS by Hudson Digital Systems (HDS)

[Hudson Digital Systems](#) provides the most advanced DR and PACS systems on the veterinary market today. Providing 100% fanless detectors and generators, and even

computers, the longevity of these devices are increased substantially as no hair/dust/corrosive chemicals can be drawn into the systems. Image quality is second to none thanks to the advanced detector technologies utilized by HDS as well as the custom processing developed by our partners at ContextVision AB, winner of The 2007 Frost & Sullivan Global Enabling Technology of the Year Award in the image enhancement market. The viewing and communication tools are simple yet powerful, and the systems as a whole have been positively acclaimed by radiologists across North America.

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