

Let there be light...



And there is CIT

Manufacturer's of World's Most Advanced Digital Computed Radiography Imaging Technology



Computerised Information Technology Ltd.

PRODUCT SHEET

DR3100 VHD Radiograph Film/Gamma X-ray film/Neutron Radiography Film Digitisation System

Film radiography has been used for industrial Non-Destructive Testing (NDT) purposes since long. It has proven itself as one of the most suited method for inspection. However, films have to be chemically processed in dark rooms, require a lot of storage space in air-conditioned rooms. Furthermore, they degrade with time, and retrieval and duplication takes lot of time. **DR3100 VHD Film Digitisation System** is designed to digitize the conventional radiographic films/ Gamma X-ray films and neutron radiography films to obtain the benefits of digital images.

Objectives

- ¾ Enable digital archiving of radiographic films without loss of quality
- ¾ Reduce storage space and costs
- ¾ Improve accessibility of data
- ¾ Streamline and semi-automate report generation
- ¾ Eliminate accidental damage of films due to handling
- ¾ Extend archive life



Benefits

- ¾ Eliminates ageing of films, retaining image quality
- ¾ Physical archive storage to computer data cabinets
- ¾ Deliverables are electronic data media with 25-50 years of data life
- ¾ Associated documents such as UT, MPI and associated reports can also be archived
- ¾ Full traceability is integral to the system, with tamper-proof designing at each stage
- ¾ Radiographs can be electronically reported and archived
- ¾ Online information at different PCs in different parts of world
- ¾ The electronic information along with DR3100 software application can be used to efficiently carry out plant integrity assessment

Customer Acceptance Standards and International Codes Compliance

- ¾ ASME V Article II on Digitized Radiograph Films
- ¾ NUREG 1452 Radiograph Digitization Retrieval
- ¾ Nuclear NAS 160/AES 6001/BS2633, CEN 1435
- ¾ CEN 472/473 Radiographic Training System Requirements
- ¾ API1104 ASNT and ASTM 7002, 2033, 7020 Technical Working and Practice Inspection Data Retrieval

Application Areas

- ¾ Oil and Gas Pipelines
- ¾ Compressor Pipework
- ¾ Nuclear Power Plant NDE Data
- ¾ Petrochemical Refineries
- ¾ Ship Building
- ¾ Aerospace



Technical Specifications

1. Digitisation Scanner Unit

- ¾ Type: Flatbed
- ¾ Templates: 8.5"x4.5", 6.5"x3.5", 12"x3 1/3"
- ¾ Scanning Area: 12"x16" /305 mmx406mm
- ¾ Scanning Mode: 8-bit, 12-bit, 16-bit grayscale
- ¾ Scan speed: 3200 dpi Scan Time
12inch x 15.8inch (full size) = 43min' 57s"
12 inch x 3.5 inch = 10min' 06s"
- 400 dpi Scan Time
12inch x 15.8inch (full size) = 5min' 36s"
12 inch x 3.5 inch = 1min' 24s"
- ¾ Optical Resolution: 8 µm maximum (3200 x 6400 dpi)
- ¾ Dmax: 4.7 Dmax
- ¾ Interface: Hi-Speed USB (USB 2.0)
- ¾ Dimension (L X W X H) : 627.6 x 367.2 x 180.5 mm
- ¾ Weight: 16.1 kgs
- ¾ Power Supply: 100 to 240 VAC, 47 to 63 HZ
- ¾ Max Power Consumption: 45 Watts
- ¾ Certification: CE, FCC, RoHS, ISO 9001:2000

2. Radiograph Image Display (Black and white) high brightness screen

	Basic System	Optional upgrade	Optional upgrade
Monitor TFT type	2Megapixel	3Megapixel	5Megapixel
Resolution	1600 X1200	2048X1536	2560X1536
Screen brightness	>700 cd/m2	>700 cd/m2	>700 cd/m2
Diagonal Size	18"	20.8"	21"
Pixel pitch	0.26mm	0.20mm	0.165mm
Availability	Mono or Color or dual	Mono or colour	Black and white

3. Radiograph Computer Processor (Minimum)

Industrial Standard Laptop, industrial ruggedised portable computer
OR High performance Work station with 4GB DDR2, 2T HD, BluRay Drive

4. CIT Digital Radiographic Application Basic Software

Dedicated digital computed radiography software is provided that enables acquisition, storage, and analysis to be carried out. The information is saved as permanent archiving in the customised product profile, radiographic technique and authorisation process.

Options of software

Software upgrade:

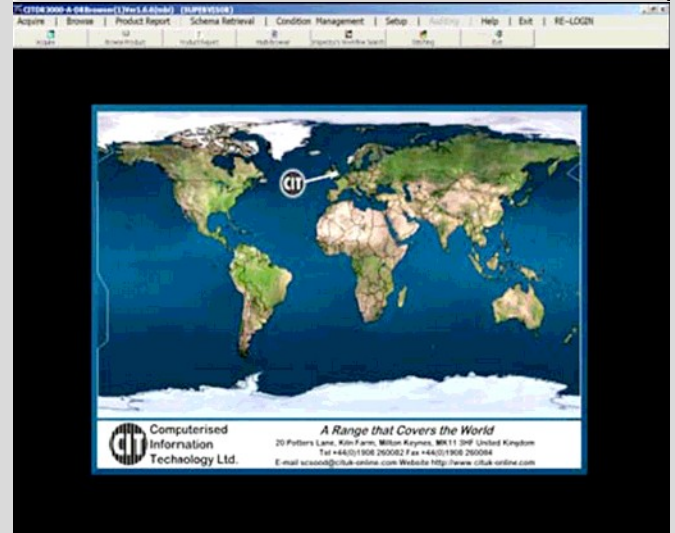
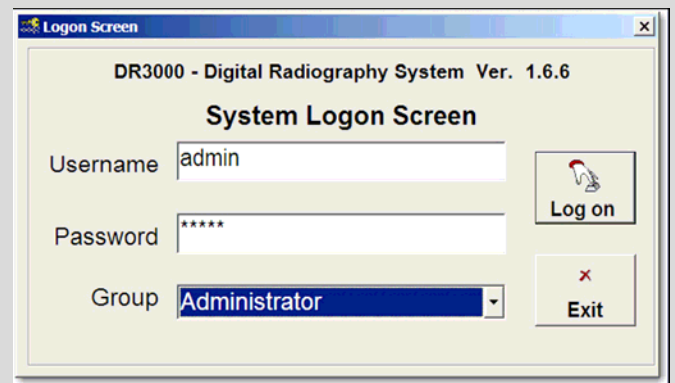
Advanced Radiograph Image Analysis

Other Optional Software Modules

- Corrosion & Condition Management
- Flaw depth Measurement
- Schema based Inspection

5. Other Optional Hardware

- Archive disk management system
- Document ADF Scanner/Printer



6. Site working facility required

Line stabilization:- Recommended UPS with battery time of at least 30 minutes

Portakabin/Office environment: Dust proof with subdued indirect light and air conditioning to provide slight positive air pressure in room.