Canon PACS

New Features & Web Solutions

- **IHE** (Integrated Healthcare Environment)
- Enhanced PACS Features
- Web Integration
IHE: An Introduction

- Integrating the Healthcare Enterprise
  - an initiative designed to stimulate the integration of information systems
  - to ensure that all patient information is correct and available to healthcare professionals

- Sponsored by:
  - Healthcare Information and Management Systems Society (HIMSS)
  - Radiological Society of North America (RSNA)
IHE : Framework

- Provides a visible forum for encouraging the advancement and convergence of integration efforts
- Provides multi-year series of public demonstrations of products implemented in accordance with that framework
- Extends the use of existing standards, e.g. DICOM, HL7, et al., in their respective domains in an integrated manner
IHE Trauma Workflow Events

www.rsna.org/ihe

Diagnostic image and demographic info presented to radiologist

Report Repository

At a later time, the patient name and other demographics are entered

PACS

Diagnostic image and demographic info stored for network access

Image Manager and Archive

Film Lightbox

Film Folder

J Doe images stored
acquisition completed

J Doe images printed

Modality

Position patient and acquire image

acquisition completed

Patient and procedure information retrieved by the modality

modality worklist for J Doe

Orders Filled

Break down the entered order into specific radiology procedure steps to be performed

Orders Placed

examination orders for J Doe

RIS

Emergency Room physician orders the desired radiology procedure

J Doe

update patient info

Registration

Registration

update patient info

Updated demographic information is sent to the Order Placing and Order Filling systems

HIS

Emergency Room registration

Enter patient as J Doe

Patient later identified - enter proper data
IHE: Summary

- Provides enhanced workflow functionality
- Defines a procedure for providing accurate demographic information
- Helps resolve connectivity issues between vendors
- Provides consistent and optimum image quality for a variety of output devices.
Canon PACS

Enhanced Features

Printing – New Technologist Interface
Scanning – Improved Interface & Functionality
Display – Improved Demographic Content and Display Consistency
Improved Security – HIPAA compliance
Enhanced Fault Tolerance – Synchronized Servers
Printing – New Technologist Interface

Selection
Tools
Constructed Print Page

Series Display

Print Template Options
- Add All Series
- Add Current Series

Printer: Aurora
Copies: 20

Print All
Print Current Page

Series Display

SMITH JOSEPH
35yM
09/18/1997

BRAIN
09/18/1997

Page 10 of 10

AOP MEDICAL CENTER
Printed 07/31/2009

OK
PRINTING - Interface Tools

- Select Patient
- Config
- Quit

Print Template Options:
- Paper1
- Paper1x2
- Paper2x2
- Paper2x3
- Paper3x3
- Paper3x4
- Paper3x4d
- Paper3x5
- Paper4x4
- Paper4x5

- Add All Series
- Add Current Series

Image Skip: 0
New Page: Yes

Printer: Aurora
Copies: 20

Print All
Print Current Page

L:pg+  M:pg-  Shft:text  Ctl:prn  <>:zm

Ser#6 SMITH,JOSEPH [09/18/1997]
PRINTING – Thumbnail Image Selection

--- Reports ---
- obstetric_us
- obstetric_us2
- test

Copies: 1

Print All
Print Current Page

Ser#6 MASSON,P [11/21/1994]

MASSON,P
M 47 10/24/1967 foreign 00:00 11/21/1994
194341
SU-FF L/P
PD T-2 FAT/SAT AXIALS
256x256x16
Cont:N/A
Ser:6
AX

R
L

Im:13
Tk:3.0mm
Sp:4.0mm
Gp:1.0mm
FOV:150mm
Pos:0.0mm

TI:0ms
NEX:2.0
TE:14ms
TR:3000ms
Pos:90dg

74% Res

“Film Like” Annotation
Print Layouts

Assist in Automatic Preparation
Print Layouts - CT Example

- Same Series
- Multiple Windows
  - Bone
  - Lung
  - Liver
  - Tissue

Additional Thumbnails
RIscanc

- Refresh
- Transmit
- Thumbnails
- Accept 4 Transfer
- Delete Image

Status Bar For Thumbnails

Rotate Image

Status Bar For Image

Rational Imaging
RIscanc

Images in Red show that an error occurred during transmission.

Images in Yellow show the images that are accepted for transfer.

Accept
Delete
Improved Window/Level Techniques

- Median based technique improves exam to exam consistency.
- Enhanced cross-exam compatibility (Brain MR to Knee MR).
- Background suppression applied to improve window/level detection.
Load Template List
- OT_Dual3x3Stk
- MR_Brain
- MR_Chest
- MR_Kinematic
- **MR_Knee**
- MR_LSpine
- CT_Brain
- CT_Chest
- CT_Lumbar
- ...

Exam: Knee Left
Modality: MR

Find Best Match for:
**MR_KNEE_LEFT**
Image Presentation – New Fonts, Shadows

New Customizable Modality-dependent Image Demographics
HI PAA - Security

Workstation specific **Auto-Login** and **Auto-Logout** based on inactivity timer (w/wo warning)

Close All exams on Logout

User will be logged out in 1 minute

Stop Logout
Enhanced Fault Tolerance
Synchronized Authentication Servers

OLD METHOD
Single Point Of Failure

NEW METHOD
Multiple Servers
Canon Pacs

Web Integration

- Provides Summary PrintPages & Reports on-line
- Secure Access
- New Java based Enterprise-Wide Image Distribution
- 12bit Compression with Full dynamic range
- Distributed Compression for efficient processing
- Network efficient architecture
Enterprise-Wide Image Distribution

Reports Print Pages
Java Image Viewer

Out-Pt Imaging Center
RAG
Remote Hospital PACS
Internet
Encrypted Email

ISDN, FR, DSL, T1

Applet Server
Distributed Functionality

Web Server
Radiology

Java Image Viewer

Out-Pt Imaging Center
Welcome


For the past 75 years, St. Luke's Medical Center has provided world-class healthcare to everyone in the community. With the recent opening of the Medical Imaging Pavilion, St. Luke's now offers world-class radiology services.

Please explore our website and familiarize yourself to the types of services we offer, the most advanced imaging equipment available today, as well as our world-class radiologists.

ANNOUNCEMENTS

Announcing the arrival of our new ‘Multi-Slice’ CT scanner:
Fastest exams in town!

Now offering extended weekend hours. Check out our ‘Services’ page for information.

Now offering Dual-Energy Densitometry for Osteoporosis evaluation.

The Holidays are the toughest time for emotionally whacked people. Take one of your whacked friends out to coffee - maybe you'll save their life.

RESOURCES FOR HEALTH

- American Academy of Neurological and Orthopedic Surgeons
- American Academy of Orthopedics
- HIPAA Alert

UP & COMING EVENTS

11/15/00 Microadenoma
Evening discussion on microadenomas in women. Held in conference room B at 7:00 p.m. Refreshments will be served.
MRI

St. Lukes is proud to offer state-of-the-art high field Magnetic Resonance Imaging. By using "Quantum" gradients, the most powerful hardware in the industry, our MRI scanner produces the highest quality images in the shortest amount of time.

Patients experience less claustrophobia because of our scanner's shorter bore. Additionally, patients can bring their own CD and listen to their favorite music while undergoing their procedure. The MR suite is tastefully decorated to produce a calming effect, assuring a pleasurable experience.

Please refer to "Forms" section for patient prep forms and procedure information.
Ernest J. Ferris, M.D.

Professor and Chairman
Department of Radiology
University of Arkansas for Medical Sciences
Little Rock, AR 72205
501.660.5740

Undergraduate School
College of the Holy Cross
B.S. Biology 1954 - Cum Laude

Graduate School
Tufts University School of Medicine M.D. 1958
Internship: Boston City Hospital, 1958-1959
Residencies: Boston VA Hospital, Medicine 1959-1960 Boston City Hospital, Radiology 1961-1964

Certification
American Board of Radiology 1965
Medical Imaging Pavilion

1 Primary Care Lane
123-456-7890 • 123-456-7892

Billing: 999-999-9999
Appointments: 999-999-9999

Email: info@ctukses.com

Website: http://www.stuxes.com/mip

Driving Directions:
North/South Bound 405: Exit Sand Canyon, Go East on Sand Canyon to first intersection, Right on Alton Parkway, .1 miles to Telemetry turn left.
<table>
<thead>
<tr>
<th>Name</th>
<th>MRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>High Field Imaging</td>
</tr>
<tr>
<td>Description</td>
<td>St. Lukes is proud to offer state-of-the-art high field Magnetic Resonance Imaging. By using &quot;Quantum&quot; gradients, the most powerful hardware in the industry, our MRI scanner produces the highest quality images in the shortest amount of time.&lt;br&gt;Patients experience less claustrophobia because of our scanner's shorter bore. Additionally,</td>
</tr>
<tr>
<td>Sort Order</td>
<td>1</td>
</tr>
<tr>
<td>Small Icon</td>
<td></td>
</tr>
<tr>
<td>Large Icon</td>
<td></td>
</tr>
</tbody>
</table>
# Medical Imaging Pavilion

## Groups List

<table>
<thead>
<tr>
<th>Actions</th>
<th>Group Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit</td>
<td>Admin</td>
<td>System Administrators</td>
</tr>
<tr>
<td>Delete</td>
<td>Admin</td>
<td></td>
</tr>
<tr>
<td>Edit</td>
<td>Everyone</td>
<td>VirtualRad Users</td>
</tr>
<tr>
<td>Delete</td>
<td>Everyone</td>
<td></td>
</tr>
<tr>
<td>Edit</td>
<td>Guests</td>
<td>VirtualRad Guests</td>
</tr>
<tr>
<td>Delete</td>
<td>Guests</td>
<td></td>
</tr>
<tr>
<td>Edit</td>
<td>Radiologist</td>
<td>Radiologists</td>
</tr>
<tr>
<td>Delete</td>
<td>Radiologist</td>
<td></td>
</tr>
<tr>
<td>Edit</td>
<td>test</td>
<td>test</td>
</tr>
<tr>
<td>Delete</td>
<td>test</td>
<td></td>
</tr>
</tbody>
</table>

<<  <<  >>  >>
## Medical Imaging Pavilion

### Report Filter
- **Login Date Range:** All
- **Order By:** Login Count
- **Priority:** Descending

### Total of 9 Records Found:

<table>
<thead>
<tr>
<th>User Information</th>
<th>Total Logins</th>
<th>Last Login Date/Time</th>
<th>Total Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Administrator</td>
<td>469</td>
<td>Thursday, 11-23-2000 12:15:32 PM</td>
<td>0</td>
</tr>
<tr>
<td>Bruce Jones</td>
<td>40</td>
<td>Wednesday, 11-22-2000 10:43:39 AM</td>
<td>0</td>
</tr>
<tr>
<td>Rudy VanHemert</td>
<td>24</td>
<td>Wednesday, 11-22-2000 12:41:53 PM</td>
<td>0</td>
</tr>
<tr>
<td>Marc Funaro</td>
<td>14</td>
<td>Monday, 10-30-2000 4:09:01 PM</td>
<td>0</td>
</tr>
<tr>
<td>Michael Powell</td>
<td>6</td>
<td>Thursday, 8-24-2000 11:47:56 AM</td>
<td>0</td>
</tr>
</tbody>
</table>
Find Patient

Last Name: dan

Patient ID: 271948

OR

Find

Patient ID | Full Name
---|---
271948 | DANTE,E

File a document for DANTE,E:

Document Description:

and Upload an existing JPG File

OR Scan a new document:

Thomas Jefferson University Hospital
Jefferson Health System

OBSTETRICAL ULTRASOUND PRELIMINARY FINDINGS

NAME: [Redacted]

GRAVIDA  [Redacted] AB [Redacted] (at [Redacted] wks)

HISTORY: PARA [Redacted] MISCARRIAGES [Redacted]

DIABETES: [Redacted] Y N

HYPERTENSION: [Redacted] Y N

BLEEDING: [Redacted] Y N

ESTIMATED GESTATIONAL AGE:

by LMP of [Redacted] = [Redacted] wks by dates

ULTRASOUND AGE (1st Scan) = [Redacted] wks + interval of [Redacted] wks = [Redacted] wks

Date of first scan: [Redacted]

FIRST TRIMESTER:

GEST SAC SIZE X X X Avg Diam: [Redacted] wks

CRL = [Redacted] wks

HEART MOTION SEEN? Y N
Compression: 12bit JPEG

Decompression Speed
Network Efficiency
Preserve Dynamic Range

Liver Window
Lung Window
VirtualRad

Feature Summary

- Fully Integrated and Synchronized with PACS
  Demographic Updates (RIS / IHE)
  New Exams auto-populate Web & Image Server
  Archive/Retrieve configured to populate Image Server

- Process Balanced
  Data Preparation on each Receive station

- Load Balanced
  Data Access from Multiple Servers

- HIPPA Compliant
  Secure Access
  Provides Internal Audit & Trend Analysis Reports

- User Customizable
  Your Facilities’ Marketing Website

- Interactive System (Bi-Directional Access)
  Global Patient Access for Referring/Staff
  Add reports/pictures/… from the Browser to Patient Portfolio
SUMMARY:

Announce release of Rational Imaging (Version 6.0) with enhanced quality, functionality, and workflow integration.

Demonstrating the new enterprise image distribution system for staff viewing and teleradiology in our booth and welcome you to visit for a live demo.

Presenting IHE integration at the IHE center.

Thank you for your support!