

Carestream PACS v11.x System Administrator's Course Syllabus

Course Description

This course involves a careful examination of the critical role of a Picture Archive and Communications System (PACS) System Administrator. A combination of lecture-based and "hands-on" guided instruction will be provided on topics ranging from the basic configuration(s) of a Carestream Health PACS, to the function and operation of the multiple toolsets available to users of the system. The PACS System Administrator will receive training specific to performing routine maintenance, health and wellness checks, and general administration and management of the Carestream PACS.

Course Requirements

Attendance at this course presumes that the attendee's institution has, or will purchase a PACS System, and that the Installation and Implementation of that system will shortly follow the student's attendance at this course. The successful attendee will be the institution's personnel functioning as the PACS System Administrator, Assistant PACS Administrator or designee, or IT Department support personnel. The attendee will also have a basic general knowledge of the basic components of a PACS system, networks and networking, Radiology Information Systems (RIS), and the clinical workflow specific to the attendees' institution.

Topics & Student Learning Objectives

Day One: (Lecture)

- I. Course Introduction
 - A. Welcome & Introductions
 - B. Course Objectives

- II. Digital & Storage Workflow
 - A. Overview of v11 PACS Configurations
 - B. Digital Workflow

• *The student will be able to list the elements that will be covered in this course*

- *You will be able to describe the various components comprising a PACS system.*
- *You will be able to compare data and work flows in an analog environment vs. a digital environment*

- *You will be able to summarize how studies are archived, queried, & retrieved from the Carestream PACS system.*

III. Building Blocks

A. Overview

- *You will be able to identify the different software components that comprise a Carestream PACS system.*
- *You will be able to describe the concept of “streaming” and compression of images.*

B. User management

- *You will be able to identify the differences between users and groups*
- *You will be able to identify what profiles are, and how they are used.*
- *You will be able to construct Users & Groups on the Carestream PACS system.*

Day Two: (Lecture)

C. Database Management

- *You will be able to describe the features and functions of the Work Flow Manager Administration Tool*
- *You will be able to perform updates and reconciliation of studies in the PACS DB.*
- *You will illustrate the flow of images to be stored on the PACS System.*
- *You will be able to the DICOM Parsing function to map certain DICOM fields to other DICOM fields.*

D. InfoRouter

- *You will be able to describe the function of the InfoRouter software, demonstrate how to make an “InfoRouter” Rule, and how to monitor the InfoRouter jobs.*

E. IS Link

- *You will be able to describe the IS Link software and its relationship with Radiology Orders and Reports*

F. CD Direct

- *You will be able to describe and utilize the CD Direct key features and functions.*
- *You will be able to configure the CD Direct software.*

G. Email

- *You will be able to describe and utilize the email key features and functions.*
- *You will be able to configure the email software.*

H. Data Import

- *You will be able to describe and utilize the Data Import key features and functions*
- *You will be able to configure the Data Import software*

I. Non-DICOM Import

- *You will be able to describe and utilize the Non-DICOM Import key features and functions*
- *You will be able to configure the Non-DICOM Import software.*

Day Three: (Lecture & “Hands On” Training on Work Stations)

IV. The PACS Administrator’s Role

A. What/Who is a PACS Administrator?

- *You will be able to list eight (8) important functions that the PACS Administrator performs.*

- B. What the PACS Administrator will be expected to do during
1. Pre-Installation/Implementation of PACS
 2. Installation/Implementation of PACS
 3. Post-Installation/Implementation of PACS

- *You will be able to develop a Pre-Implementation strategic vision for the PACS, manage the project during the Installation/Implementation of the PACS, provide end-user PACS training, and will be able to take total ownership of the PACS at the completion of Implementation.*

- C. What the PACS Administrator will be expected to know

- *You will be able to begin developing a list of tasks to be performed, and information to be learned in order to manage the PACS.*

V. Carestream Client

- A. Archive Explorer

- *You will be able to successfully navigate the Archive Explorer*

- B. Display Area

- *You will be able to navigate to, select, and use various tools*

- C. Different viewing applications

1. Viewbox layout

- *You will be able to differentiate between viewbox layout and group layout, and will be able to navigate through stacked viewers.*

2. PowerViewer

- *You will be able to utilize the PowerViewer toolsets.*

3. MPR

- You will be able to adjust the parameters of MPR, and successfully utilize MPR options.*

4. 3-D

- You will be able to successfully utilize the 3-D toolsets such as volume rendering, angio MIP, bed/bone removal from an image, define volume of interest, tissue definition, VOLR protocol editor, and saving 3-D images/cine.*

5. Vessel Analysis

- You will be able to define a vessel, edit a defined vessel, create bookmarks, quantify vessel stenoses, and create aneurysm markings and reports.*

6. Mammography

- You will be able to utilize the system's mammography toolsets such as chest wall justification, quad zoom, and CAD markings.*

Day Four: (“Hands On” Training on Work Stations)

D. Overview of Clinical Extensions

- OrthoView
- Cardiac Analysis
- Cardiac PACS
- PET-CT/MRI Fusion
- Volume Matching

- You will be able to describe the basic functionality of the above listed clinical extensions*

VI. DICOM Basics

A. DICOM Header information

- *You will be able to describe what the DICOM Header is.*
- *You will be able to interpret the DICOM Header data as obtained from the imaging modalities, and utilize it to troubleshoot problems.*

VII. Display Protocols

- *You will be able to explain what a Display (“Hanging”) Protocol is, why they are important, how they are used, how they are built, what makes them work, and what they will not do.*

VIII. “Hands-ON” Instruction

- *In this unit of instruction the student will work through various scenarios on the work station, starting with basic, simple scenarios, and progressing to more complex, advanced scenarios. This is “hands-on” instruction, with the instructor providing each scenario. The student is expected to work through each scenario themselves, with the instructor available to provide assistance as needed.*

Day Five: (Lecture & “Hands On” as needed)

IX. System Service

A. Maintenance

- *You will be able to list how to start and stop processes, and perform them.*
- *You will be able to describe how to run the system check.*
- *You will be able to monitor the license status.*
- *You will be able to describe the preventative maintenance procedures to be performed on a daily, weekly, and on a situational basis.*

B. Digital Dashboard

- *You will be able to demonstrate a working knowledge of the Digital Dashboard application.*

C. Problem Detection / Logs

- *You will be able to identify how to research problems by utilizing the log files in the PACS System.*

D. Audit Trail

- *You will be able to identify problems on the server by using the Audit Trail events.*

E. System Configuration

- *You will be able to describe the configuration of the PACS WFM server.*
- *You will be able to describe Life Cycle configuration and Auto-Delete priorities.*
- *You will be able to explain what the RMS software agents do.*

F. Troubleshooting

- *You will be able to demonstrate proficiency in troubleshooting various common problems on the PACS system, and know when to call the Carestream Support Center.*

X. General Questions & Answers

XI. Final Written Exam

XII. Perform Course Evaluation

- A. Complete online course evaluation

XIII. Final Activities

- A. Presentation of Course Certificate
B. Promotional Items
C. CD of Course Content (copy of presentation materials)
D. Course Concludes