

# Sante PACS Server

## CD/DVD Burning and Label Printing

Copyright © 2023 [Santesoft LTD](#), all rights reserved

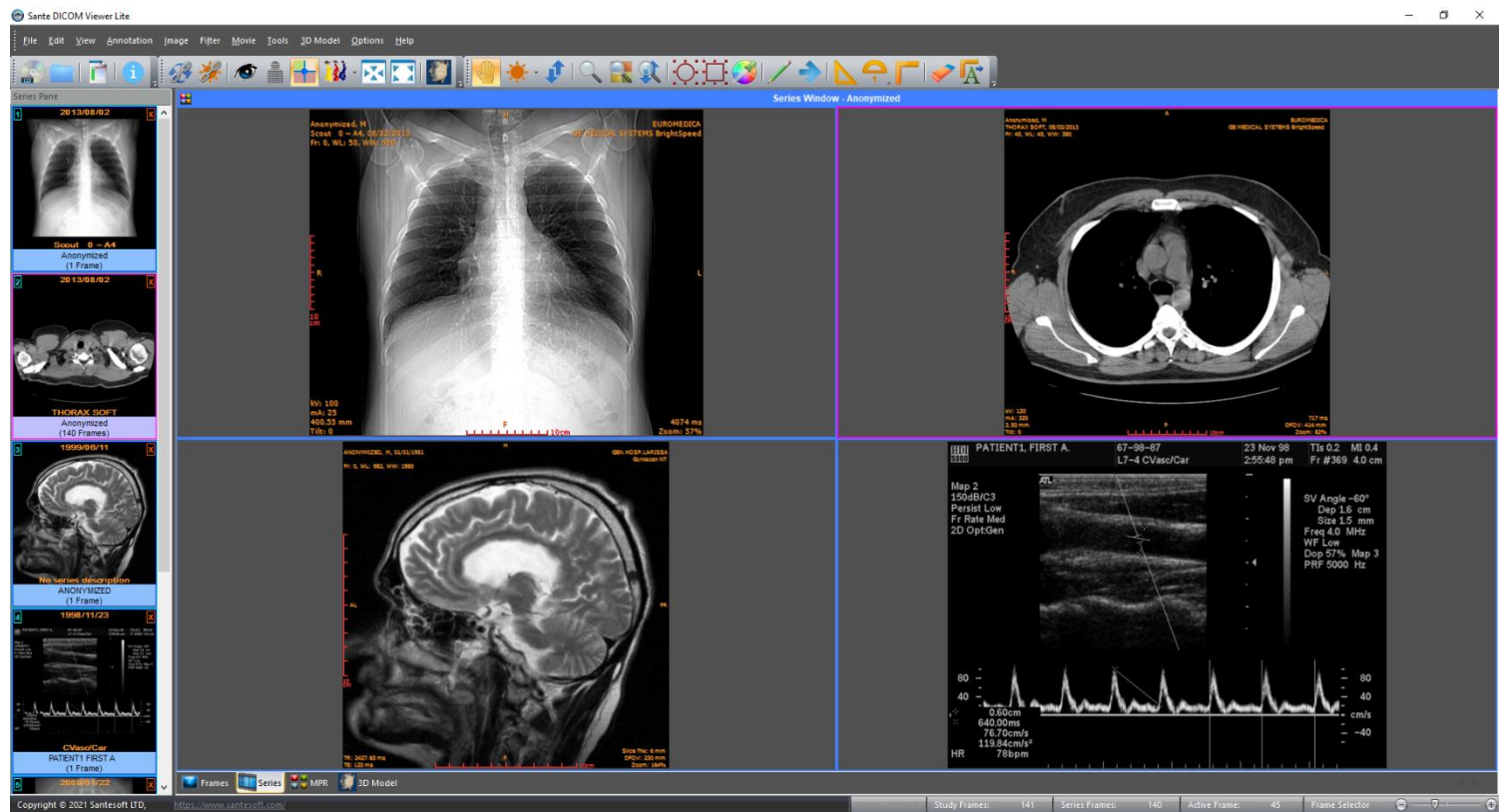
### Table of Contents

Overview .....	2
Label Printing on CD/DVD Robot Producers .....	2
CD/DVD creation options .....	3
Create and burn DICOM CD/DVD disks from patient/studies/series stored in the database.....	4
Create and burn DICOM CD/DVD disks from files that have been loaded to built-in viewer .....	4
Create and burn DICOM CD/DVD disks from DICOMDIR files.....	5
Create and burn DICOM CD/DVD disks from a folder with DICOM files .....	5
Automatic CD/DVD burning and printing of received studies .....	6
Delayed automatic CD/DVD burning and printing of received studies.....	7
Example with Epson Disk Publisher .....	8
Example with Primera Disk Publisher .....	10
Report of active CD/DVD Producer jobs .....	11
Report of finished CD/DVD Producer jobs .....	11

## Overview

The program allows the user to create and burn DICOM CD/DVD disks from files/series/studies that have been already opened, from patient files stored in the local database, from DICOMDIR files and from disk folders. The program adds to the CD/DVD disk a free DICOM viewer that allows the patient and/or physician to view the patient's images on the disk.

### The DICOM viewer of the CD/DVD (Sante DICOM Viewer Lite)



## Label Printing on CD/DVD Robot Producers

The program can print a CD/DVD label on the robotic disk publisher devices of EPSON and PRIMERA, automatically or manually. The label can have the patient's name, patient ID, study date, study description and other useful information.



## CD/DVD creation options

- The program can create CD/DVD disks from the studies stored in the database, from files that have been loaded to built-in viewer, from DICOMDIR files on the disk and from disk folders that contain DICOM files.
- The destination can be a local CD/DVD writer, an EPSON or PRIMERA CD/DVD robotic producers, a local folder or USB disk, or a zip file.
- The user can select to add in the CD/DVD disk instead of the Sante DICOM Viewer Lite any DICOM Viewer of his choice.
- The user can select the method that the files will be stored on the CD/DVD disk. The files can be stored as they are or can be stored with JPEG (lossless) or JPEG2000 (lossless) compression. The compressed files have the same quality as the original files, occupy less disk space and are loaded faster. Moreover, the files can be stored uncompressed.

The screenshot shows the 'Sante PACS Server' dialog box with the 'CD/DVD Options' tab selected. The dialog is organized into three main sections: 'Device', 'Viewer On The Disk', and 'Files On The Disk'. At the bottom, there are 'OK' and 'Cancel' buttons.

**Sante PACS Server** [Close]

**CD/DVD Options**

**Device**

- Local CD/DVD Writer
  - Media: 
    - Number of copies:
  - Media:
- Remote CD/DVD Writer
- Local drive/folder/USB stick, Cloud sheared drive (OneDrive, DropBox, etc.)
- Zip File With Viewer

**Viewer On The Disk**

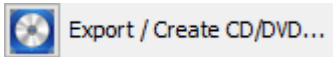
- Built-in Santesoft Free Viewer
- Other Viewer
- Select the folder with the viewer files
  -

**Files On The Disk**

- As they are
- JPEG lossless compressed (same quality, less space, faster loading times)
- JPEG2000 lossless compressed (same quality, less space, faster loading times)
- Uncompressed

## Create and burn DICOM CD/DVD disks from patient/studies/series stored in the database

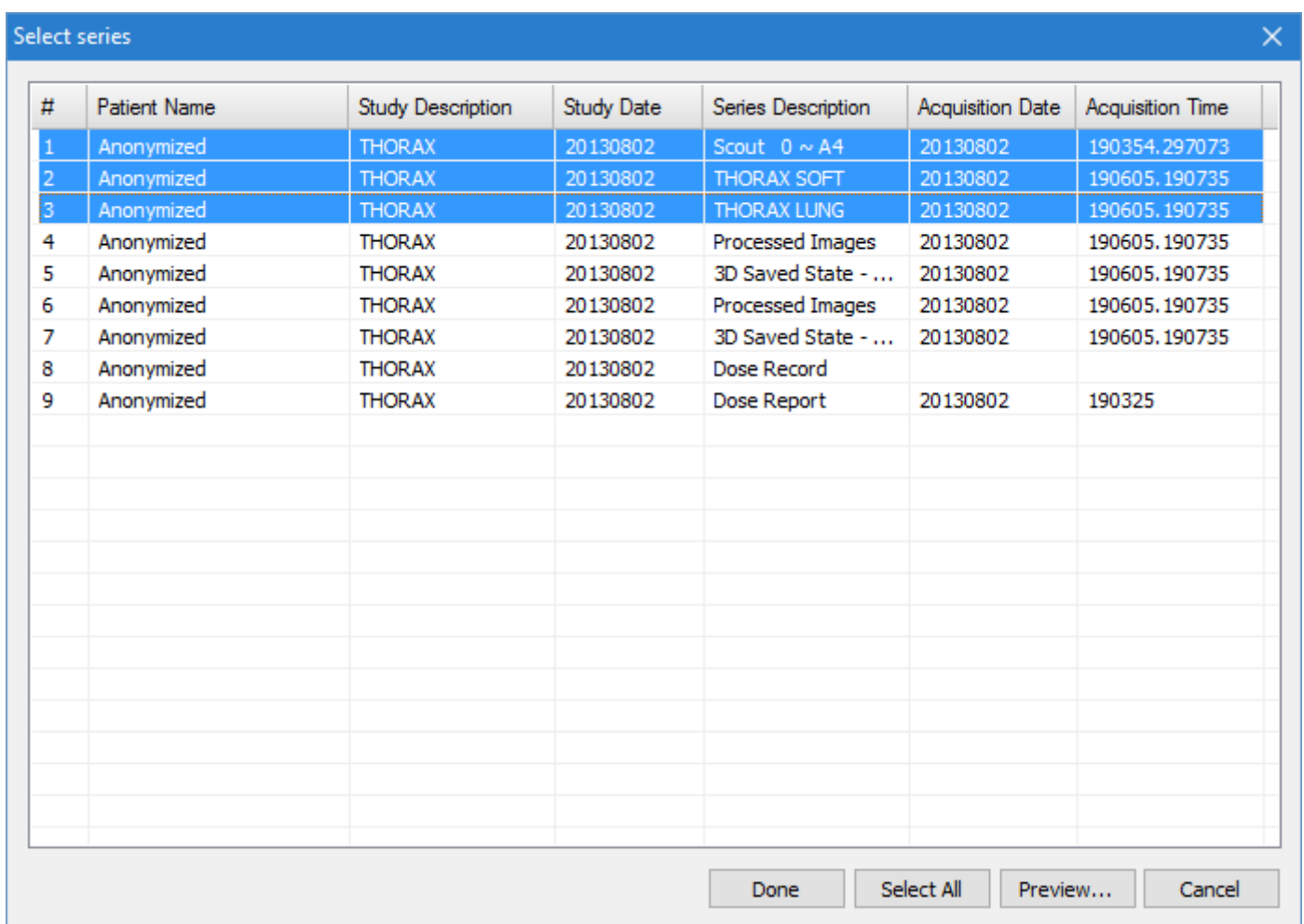
Select the desired patients/studies/series from the database and press the “Export / Create CD/DVD...” button.



After that, the program asks the user to select the CD/DVD writer, the desired DICOM Viewer on the disk and the method that the files will be stored on the CD/DVD disk.

## Create and burn DICOM CD/DVD disks from files that have been loaded to built-in viewer

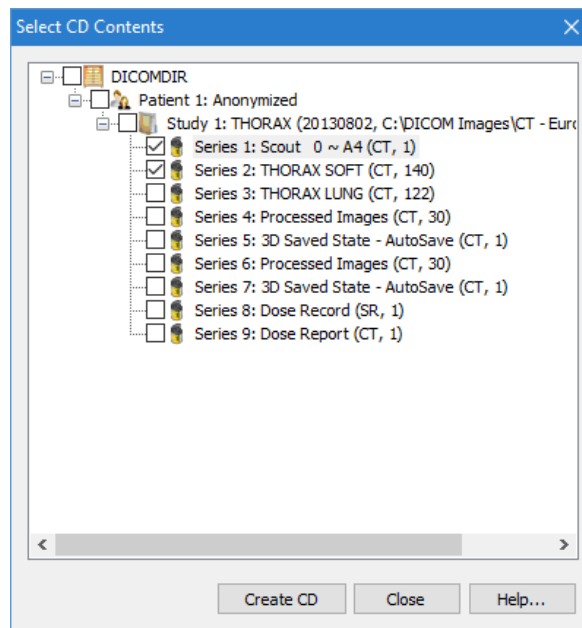
Select the menu command “**File** ➔ **Create DICOM CD/DVD**” of the built-in DICOM viewer. A dialog box appears and allows you to select the desired series. You can select more than one series by holding down the <Control> key of the keyboard and selecting many series.



After that, the program asks the user to select the CD/DVD writer, the desired DICOM Viewer on the disk and the method that the files will be stored on the CD/DVD disk.

## Create and burn DICOM CD/DVD disks from DICOMDIR files

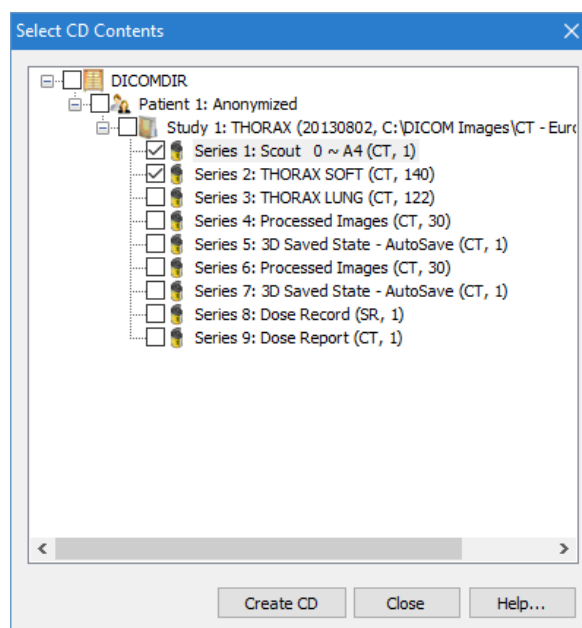
Select the menu command "**Utilities** ➤ **Create DICOM CD/DVD From DICOMDIR**". A dialog box lets the user select the desired series from the contents of the DICOMDIR file. The user can select more than one series by checking its checkbox.



After that, the program asks the user to select the CD/DVD writer, the desired DICOM Viewer on the disk and the method that the files will be stored on the CD/DVD disk.

## Create and burn DICOM CD/DVD disks from a folder with DICOM files

The program lets the user create and burn a DICOM CD/DVD disks from the contents of a folder and its sub-folders. Select the menu command "**Utilities** ➤ **Create DICOM CD/DVD From Folder**". A dialog box lets the user select the desired series from the contents of the DICOMDIR file. The user can select more than one series by checking its checkbox.



After that, the program asks the user to select the CD/DVD writer, the desired DICOM Viewer on the disk and the method that the files will be stored on the CD/DVD disk.

## Automatic CD/DVD burning and printing of received studies

Sante PACS Server when receives studies, except of storing them on the disk it can also send them automatically for CD/DVD burning and label printing to robotic disk publisher devices of EPSON and PRIMERA.



For this purpose it uses two additional AE Titles, one with the addition of "\_E" suffix in the original AE Title and one with the addition of "\_P" suffix. **E.g.** If the defined AE Title is **SANTESRV1**, the program creates the AE Titles **SANTESRV1\_E** and **SANTESRV1\_P** as well. These additional AE Titles are used for automatic CD/DVD burning and printing.

Sante PACS Server ✕

**Network Server Setup**

This DICOM Server

AE Title	Port
SANTESRV1	11121

IP Address : 192.168.1.6

Automatic burning and printing of received series/studies

If a client/scanner uses a single connection to send all the contents of a CD/DVD use the AE Titles below:

AE Title for automatic burning and printing on Epson robot:  
SANTESRV1\_E ←

AE Title for automatic burning and printing on Primera robot:  
SANTESRV1\_P ←

Delayed burning and printing of received series/studies

If a client/scanner uses multiple connections to send the contents of the same CD/DVD use the AE Titles below:

AE Title for delayed burning and printing on Epson robot:  
SANTESRV1\_TE

AE Title for delayed burning and printing on Primera robot:  
SANTESRV1\_TP

Delay Time (sec)

Studies will be burned on the same CD/DVD if they have the same:

Enable Debug Mode

- If a client DICOM node (a CT/MR/US/DX or other medical scanner, a DICOM workstation etc.) instead of using the original AE Title of Sante PACS Server it uses the AE Title with the "\_E" suffix, then Sante PACS Server stores the received series/studies on the database and automatically sends them for printing and burning to an **EPSON** producer.
- If a client DICOM node (a CT/MR/US/DX or other medical scanner, a DICOM workstation etc.) instead of using the original AE Title of Sante PACS Server it uses the AE Title with the "\_P" suffix, then Sante PACS Server stores the received series/studies on the database and automatically sends them for printing and burning to a **PRIMERA** producer.

## Delayed automatic CD/DVD burning and printing of received studies

Some medical scanners use multiple connections to send a whole study (usually one connection per series of the study). In that case, the program by using the AE title with "\_E" and "\_P" suffixes that described in the previous paragraph, will create one CD/DVD per connection, that is one CD/DVD for every series, and not one CD/DVD for the whole study that contains all the series of the patient.

In that case the client DICOM node (a CT/MR/US/DX or other medical scanner, a DICOM workstation etc.) must use the AE Title with a "\_TE" or "\_TP" suffix. With these suffixes the program waits for a specific time before sending the received series of the study for printing and burning. If it receives a new series that belongs to the study in delay, it waits again the specified time for the next series and so on. If it does not receive in the specified time a series that belongs to the study in delay, it sends the study for burning and printing.

The user specifies the delay time in the control **Delay Time (sec)** control of the dialog box below. The default value is 120 sec.

The user can specify the method (same Patient ID or same Study UID) that the program will use to group the series together so to burn them in the same CD/DVD, from the relative combo box.

Network Server Setup

This DICOM Server

AE Title	Port
SANTESRV1	11121

IP Address : 192.168.1.6

Automatic burning and printing of received series/studies

If a client/scanner uses a single connection to send all the contents of a CD/DVD use the AE Titles below:

AE Title for automatic burning and printing on Epson robot:  
SANTESRV1\_E

AE Title for automatic burning and printing on Primera robot:  
SANTESRV1\_P

Delayed burning and printing of received series/studies

If a client/scanner uses multiple connections to send the contents of the same CD/DVD use the AE Titles below:

AE Title for delayed burning and printing on Epson robot:  
SANTESRV1\_TE ←

AE Title for delayed burning and printing on Primera robot:  
SANTESRV1\_TP ←

Delay Time (sec)  ←

Studies will be burned on the same CD/DVD if they have the same:  ↓

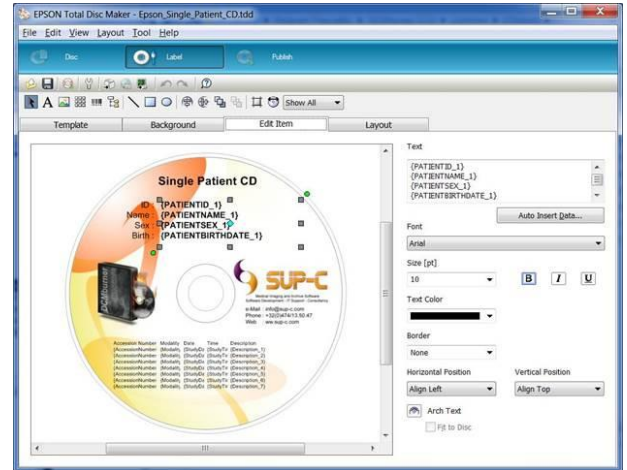
Enable Debug Mode

## Example with Epson Disk Publisher

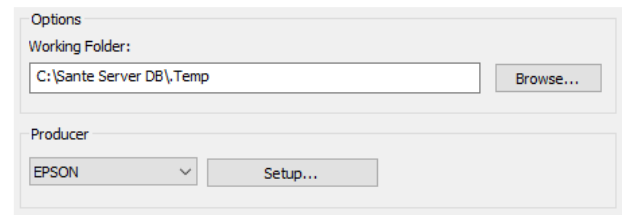
### ATTENTION!

If the user burns/prints on CD disks, he must set with EPSON software the JOLIET system as CD disk file system and not the ISO 9960 system, which is the default. Otherwise, the program cannot burn/print the CD disk. For DVD disks there is no need for any file system adjustment.

With Epson software (Epson Total Disk Maker) create a label file (\*.tdd) that describes the layout of the DVD labels.

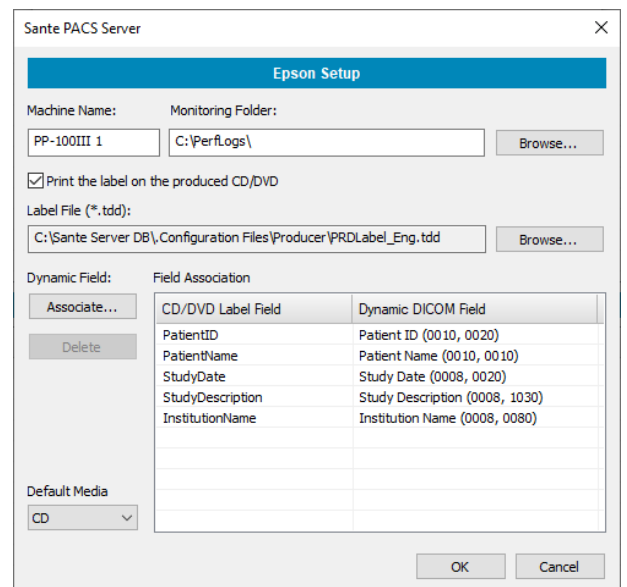


Then you must associate a label name (e.g. PATIENTNAME\_1) with a DICOM field (e.g. 0010,0010 Patient Name). To do that, select the menu command **"Options → CD/DVD Producer Setup"**.



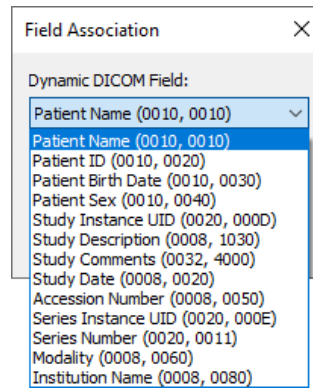
Select the **"EPSON"** as producer and press the **"Setup..."** button. In the follow dialog box:

- 1) Insert the correct Machine Name (e.g. PP-100 II, PP-100 III etc.)
- 2) Select the path of the tdd file that you created
- 3) Associate the labels of the CD/DVD with a DICOM tag





The "**Associate...**" button creates an association between a "CD Label Field" and a "Dynamic Field" of the dropdown combo box that contains basic DICOM fields.

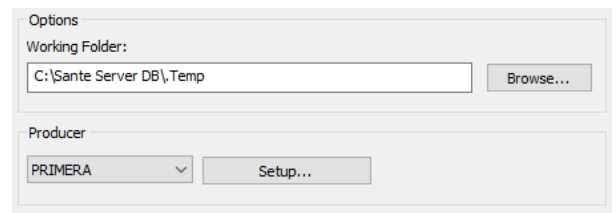


### Example with Primera Disk Publisher

With Primera software create a label file (\*.std) that describes the layout of the DVD labels.

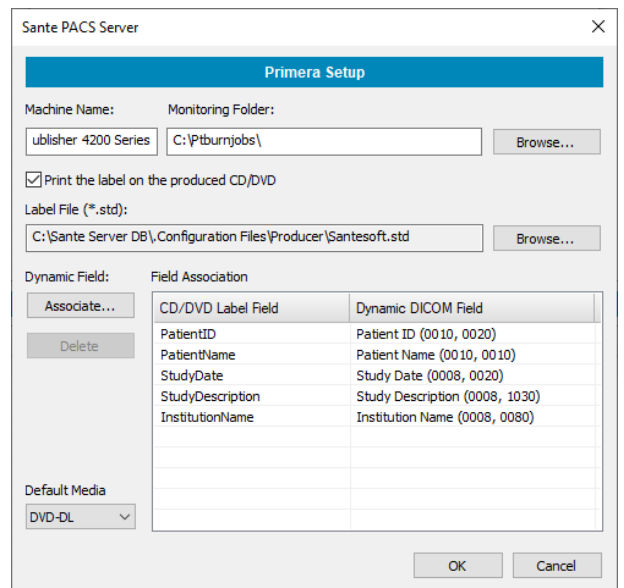


Then you must associate a label name (e.g. PATIENTNAME\_1) with a DICOM field (e.g. 0010,0010 Patient Name). To do that, select the menu command **"Options → CD/DVD Producer Setup"**.



Select the **"PRIMERA"** as producer and press the **"Setup..."** button. In the follow dialog box:

- 1) Insert the correct Machine Name (e.g. Disc Publisher 4200 Series)
- 2) Select the path of the std file that you created
- 3) Associate the labels of the CD/DVD with a DICOM tag



The **"Associate..."** button creates an association between a "CD Label Field" and a "Dynamic Field" of the dropdown combo box that contains basic DICOM fields.

