

CD/DVD Burning and Label Printing

User Guide

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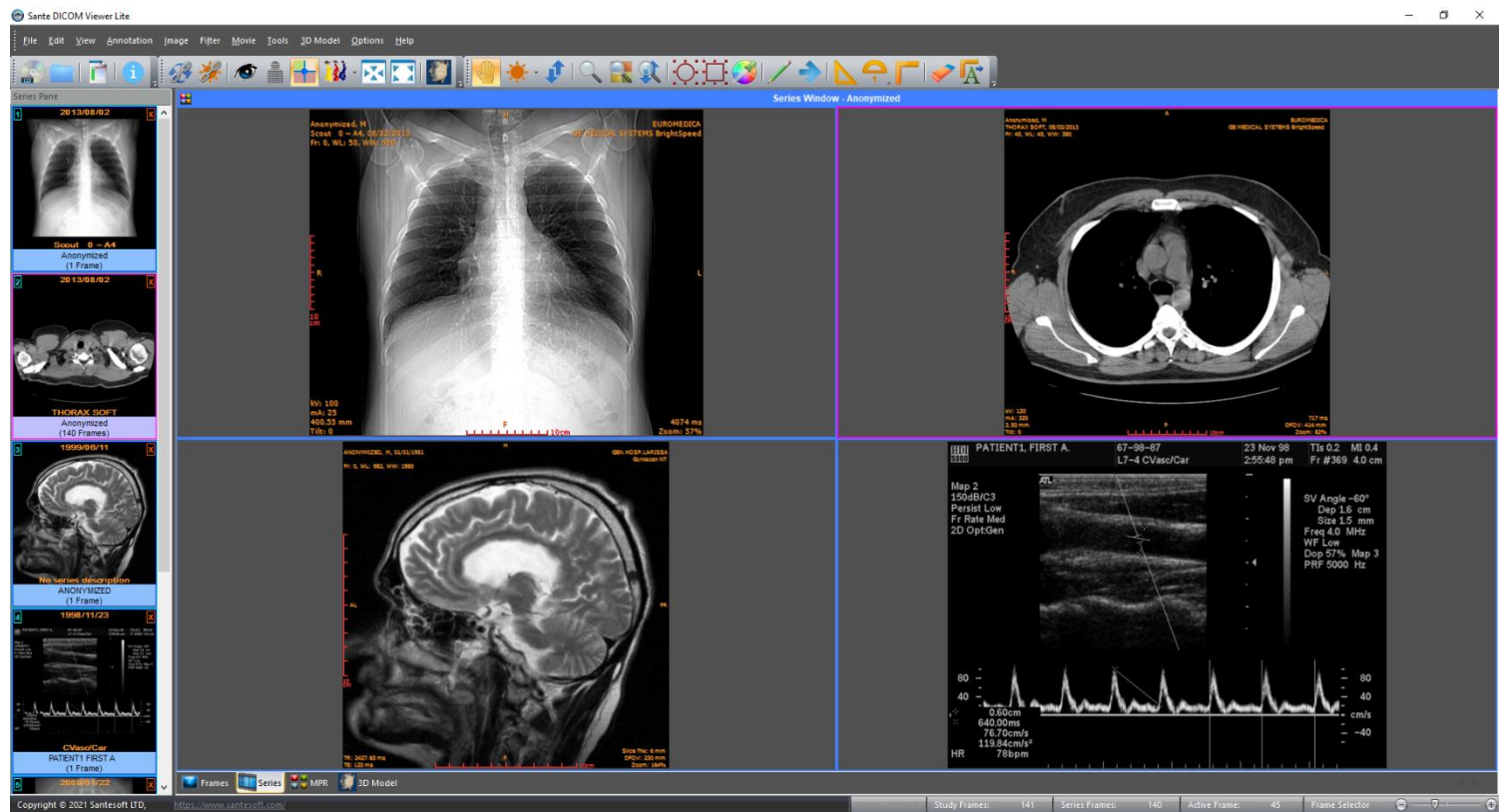
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Overview

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 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 with 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 divided into three main sections: 'Device', 'Viewer On The Disk', and 'Files On The Disk'. In the 'Device' section, 'Local CD/DVD Writer' is selected. Under 'Remote CD/DVD Writer', there are dropdown menus for 'Epson', 'Media' (set to 'CD'), and 'Number of copies' (set to '1'). In the 'Viewer On The Disk' section, 'Built-in Santesoft Free Viewer' is selected, and there is a 'Browse...' button next to a text field for selecting viewer files. In the 'Files On The Disk' section, 'As they are' is selected. At the bottom right, there are 'OK' and 'Cancel' buttons.

Sante PACS Server

CD/DVD Options

Device

Local CD/DVD Writer

Remote CD/DVD Writer

Epson Media Number of copies

CD 1

Local disk/folder/USB stick

Zip File With Viewer

Viewer On The Disk

Built-in Santesoft Free Viewer

Other Viewer

Select the folder with the viewer files

Browse...

Files On The Disk

As they are

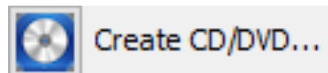
JPEG lossless compressed (same quality, less space, faster loading times)

JPEG2000 lossless compressed (same quality, less space, faster loading times)

OK Cancel

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

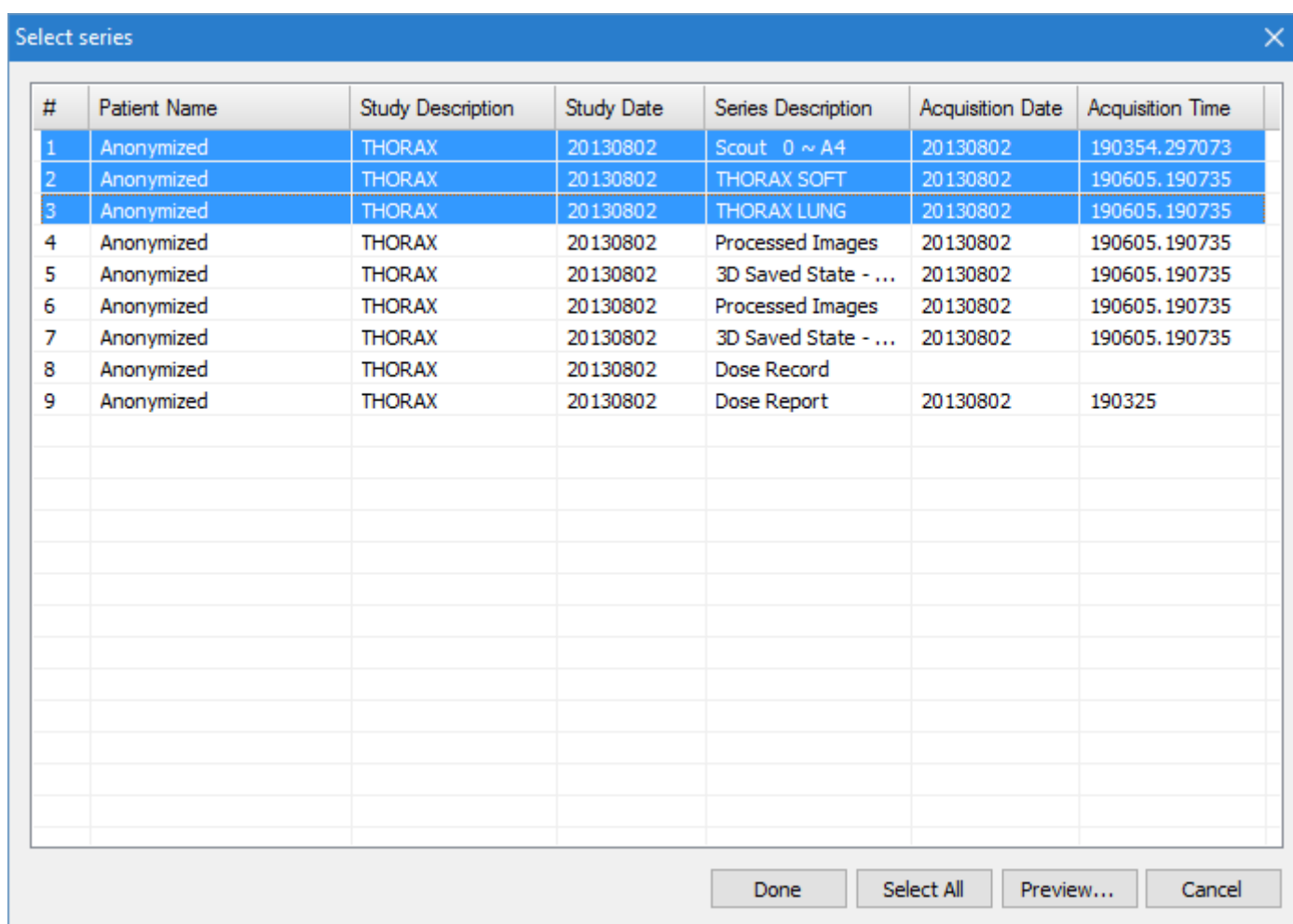
Select the desired patients/studies/series from the database and press the “Create CD/DVD” button.



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

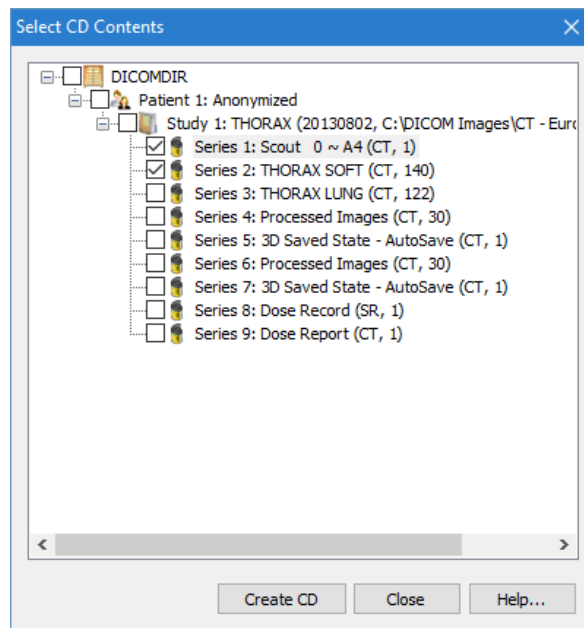
Select the menu command “File → Create DICOM CD/DVD” of the built-in DICOM viewer. A dialog box appears and allows you to select the desired series. You can select more than one series by holding down the <Control> key of the keyboard and selecting many series.



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

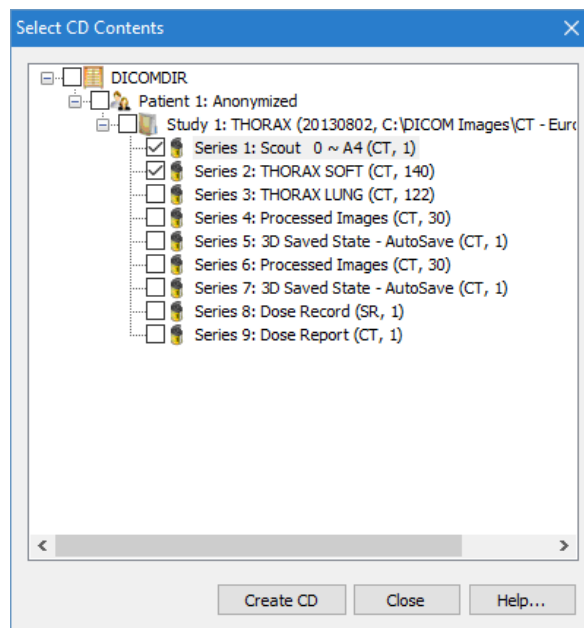
Select the menu command **"Utilities → Create DICOM CD/DVD From DICOMDIR"**. A dialog box lets the user to select the desired series from the contents of the DICOMDIR file. The user can select more than one series by checking its checkbox.



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 to 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 to 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)

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 an **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 belong 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 belong 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.

Network Server Setup
✕

This DICOM Server

AE Title	Port
SANTESRV1	11121

IP Address : 192.168.1.6

Run the server as service

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) ←

Enable Debug Mode

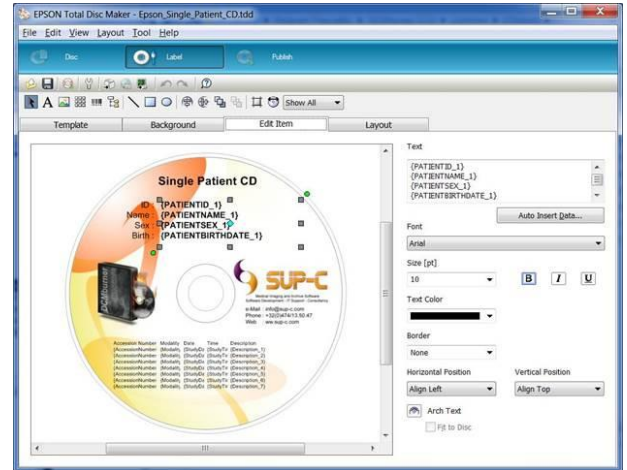
OK
Cancel
Help...

Example with Epson Disk Publisher

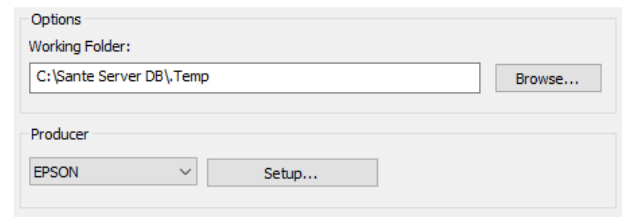
ATTENTION!

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.

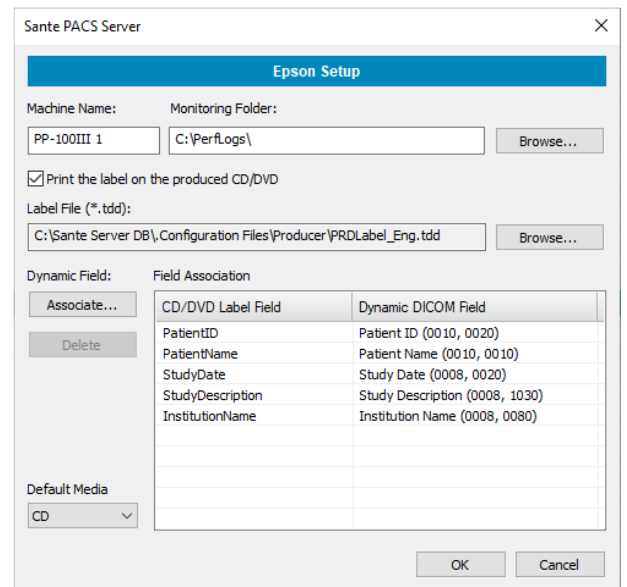


Then you must associate a label name (e.g. PATIENTNAME_1) with a DICOM field (e.g. 0010,0010 Patient Name). To do that, select the menu command "Options → CD/DVD Producer Setup".

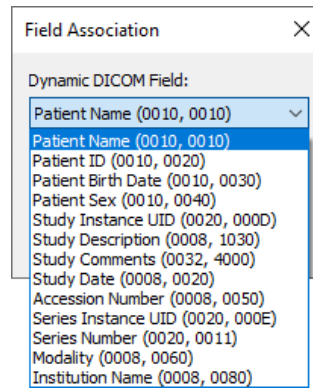


Select the "EPSON" as producer and press the "Setup..." button. In the follow dialog box:

- 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.

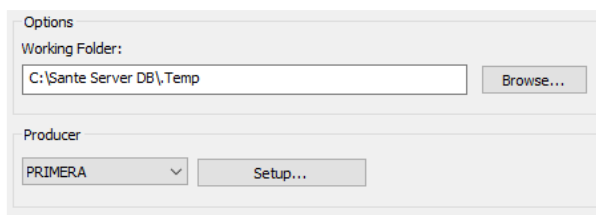


Example with Primera Disk Publisher

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

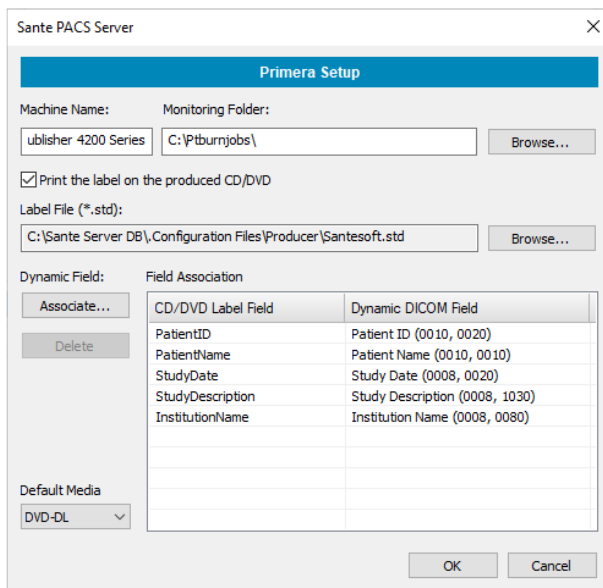


Then you must associate a label name (e.g. PATIENTNAME_1) with a DICOM field (e.g. 0010,0010 Patient Name). To do that, select the menu command "Options → CD/DVD Producer Setup".

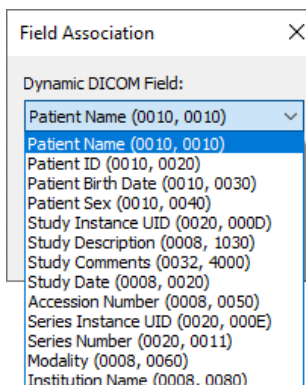


Select the "PRIMERA" as producer and press the "Setup..." button. In the follow dialog box:

- 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

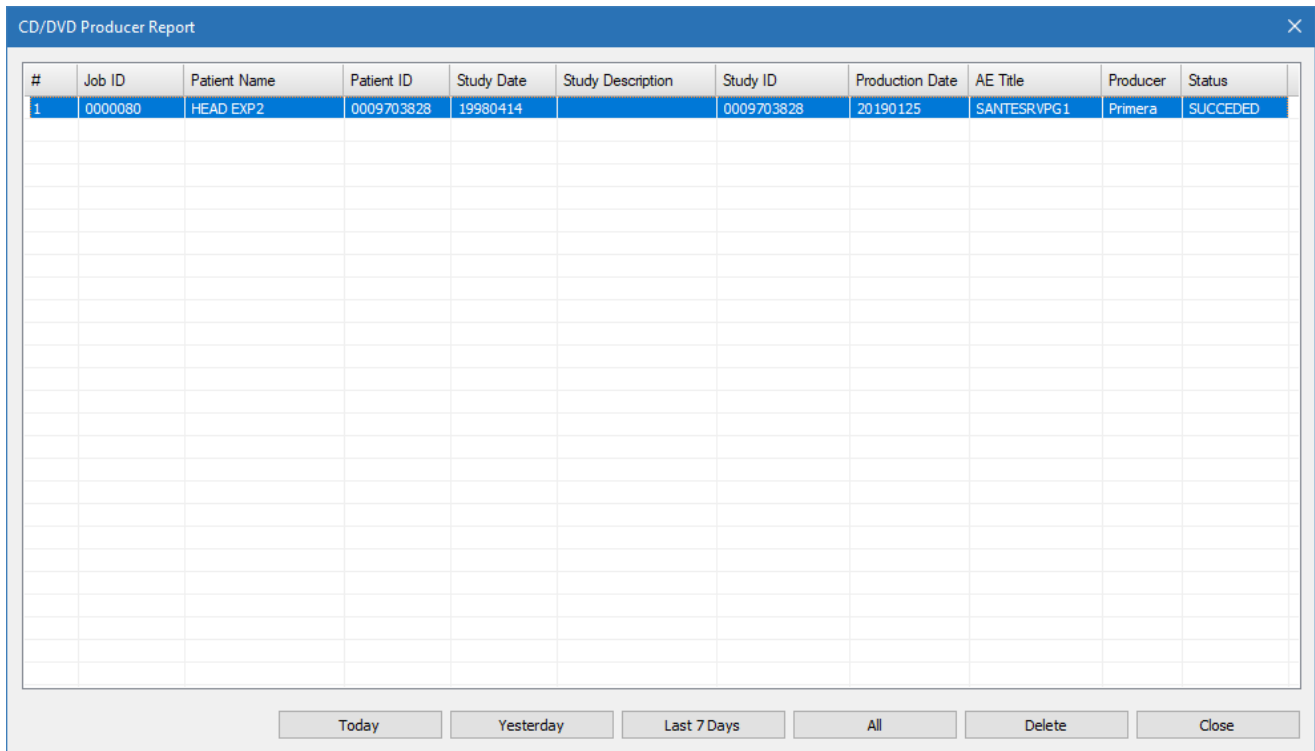


The "Associate..." button creates an association between a "CD Label Field" and a "Dynamic Field" of the dropdown combo box that contains basic DICOM fields.



Report of active CD/DVD Producer jobs

Select the menu command **“Report → Active CD/DVD Producer Jobs”** to review the status of the active jobs of the producer.

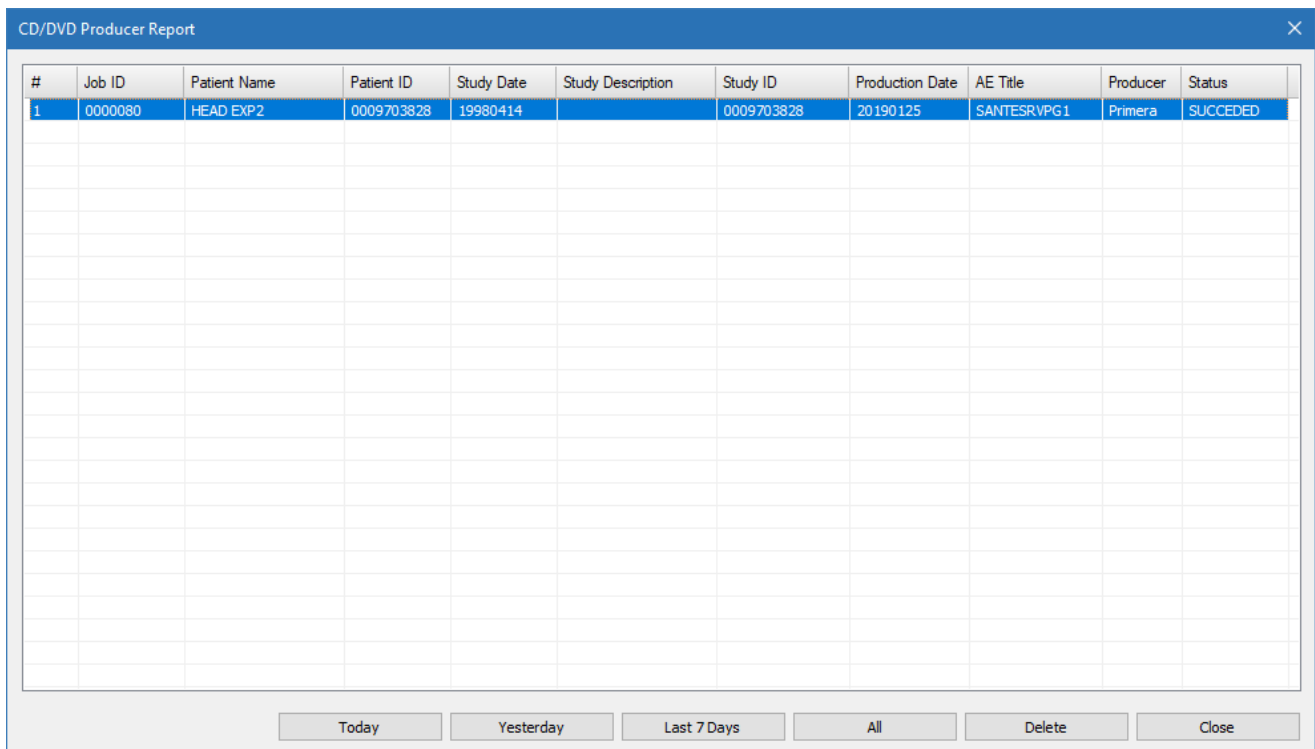


The screenshot shows a window titled "CD/DVD Producer Report" with a close button (X) in the top right corner. The window contains a table with the following columns: #, Job ID, Patient Name, Patient ID, Study Date, Study Description, Study ID, Production Date, AE Title, Producer, and Status. The first row is highlighted in blue and contains the following data: # 1, Job ID 0000080, Patient Name HEAD EXP2, Patient ID 0009703828, Study Date 19980414, Study ID 0009703828, Production Date 20190125, AE Title SANTESRVP1, Producer Primera, and Status SUCCEEDED. Below the table, there are six buttons: Today, Yesterday, Last 7 Days, All, Delete, and Close.

#	Job ID	Patient Name	Patient ID	Study Date	Study Description	Study ID	Production Date	AE Title	Producer	Status
1	0000080	HEAD EXP2	0009703828	19980414		0009703828	20190125	SANTESRVP1	Primera	SUCCEEDED

Report of finished CD/DVD Producer jobs

Select the menu command **“Report → CD/DVD Producer Jobs”** to review the report of the finished jobs of the producer.



The screenshot shows a window titled "CD/DVD Producer Report" with a close button (X) in the top right corner. The window contains a table with the following columns: #, Job ID, Patient Name, Patient ID, Study Date, Study Description, Study ID, Production Date, AE Title, Producer, and Status. The first row is highlighted in blue and contains the following data: # 1, Job ID 0000080, Patient Name HEAD EXP2, Patient ID 0009703828, Study Date 19980414, Study ID 0009703828, Production Date 20190125, AE Title SANTESRVP1, Producer Primera, and Status SUCCEEDED. Below the table, there are six buttons: Today, Yesterday, Last 7 Days, All, Delete, and Close.

#	Job ID	Patient Name	Patient ID	Study Date	Study Description	Study ID	Production Date	AE Title	Producer	Status
1	0000080	HEAD EXP2	0009703828	19980414		0009703828	20190125	SANTESRVP1	Primera	SUCCEEDED