

Codonics® Virtua™ Scheduled Archive

Overview

The Codonics Virtua Scheduled Archive feature provides a method of creating a set of discs that contain all studies received by Virtua. This provides an economical way to store studies for future referral or import into PACS systems. Discs are automatically recorded to ensure all new studies are added to the archive. All discs are in DICOM format for easy viewing of studies or transfer to PACS. A viewer is provided to view the images. An index is included on each disc that identifies all studies on that disc and previous discs in the archive.

WARNING: CD and DVD media are not intended to be used as the only method for archiving medical information. An overall strategy for archiving medical information that includes CD and DVD media must ensure that multiple copies of the the information be stored at multiple locations. Media quality, handling, and storage conditions are important factors that must be considered.

Enabling Scheduled Archiving

NOTE: A feature key is required for the Scheduled Archive feature. Contact Codonics Technical Support or your Sales Representative to acquire the proper feature key.

Scheduled Archive is configured from the **Schedule** tab on the Setup screen in the user interface.



All settings are stored on the SmartDrive in the archive profile `\profiles\scheduling\default.archive.txt`. Each setting on the user interface has a corresponding parameter in the archive profile. A few settings can only be changed by editing the profile on the SmartDrive. These settings are noted in this document.

The Scheduled Archive function is accessible by anyone logged in with administrator permissions.

CAUTION: If a user deletes a study manually before it is archived, that study will not be included in the archive set.

Scheduled Archive supports only one configuration profile, called the default profile. The profile can be enabled or disabled to provide high-level control of the Scheduled Archive feature. When the profile is disabled, automatic archiving functions are suspended, but manual archiving can still be performed from the **Start Archive** button. This means that studies received by Virtua will not be automatically archived and will be deleted when space is needed for new studies.



When Scheduled Archive is enabled, it performs archive operations automatically. This happens even if no user is logged in. All studies received by Virtua are recorded onto an archive disc before they are deleted from the system.

Archive Disc Creation

There are three ways an archive disc is created:

- ◆ A specific time can be set for the archive operation to occur. This is done using the options on the **Schedule** tab to select to the days of week and time of day for the archive operation to occur.



- ◆ Archiving can be started manually by pressing the **Start Archive** button. The **Stop Archive** button will abort an archive operation that is in progress. Any files that were not archived when the operation was stopped will be included in the next archive operation.



- ◆ The system automatically starts an archive operation when unarchived studies need to be deleted to make room for new studies. This can happen at any time. It ensures that studies are archived before they are deleted.

All archive operations keep track of studies that have been successfully written to an archive disc. If an archive operation fails for any reason, the studies are preserved on Virtua until successfully written to an archive disc. This ensures that studies will not be automatically deleted when an archive operation fails.

Archive Options

There are several configurable options that provide control over the production of archive discs. The options are:

- ◆ **Wait for Full Disc.** This option makes sure archive discs are full or near full by deferring an archive cycle until enough studies are present to fill a disc.



- ◆ **Copies.** This controls how many copies of an archive disc will be created. Multiple sets of discs allow separate archive sets to exist for additional redundancy.



- ◆ **DICOM Viewer.** This allows a DICOM Viewer to be included on each archive disc. The inclusion of a viewer on each disc facilitates viewing of archived studies directly from a PC.



- ◆ **Disc Label.** A special set of archive labels are stored on the SmartDrive in the directory \labels\archive. These labels contain specific information for easy identification of archive discs. A default label is provided, but additional labels can be created and stored on the SmartDrive.



Profile Settings

The Scheduled Archive profile is located on the SmartDrive directory \profiles\scheduling\default.archive.txt.

The following parameters are contained in the profile:

Parameter: **[ScheduledArchiveProfile]**
 Settings: None
 Default: None
 Description: Scheduled Archive profile identifier. This appears at the beginning of the profile.

Parameter: **enabled**
 Settings: **true** or **false**
 Default: **false**
 Description: Specifies if the Scheduled Archive feature is enabled or disabled.

Parameters: **runOnMonday**
runOnTuesday
runOnWednesday
runOnThursday
runOnFriday
runOnSaturday
runOnSunday
 Settings: **true** or **false**
 Default: **false**
 Description: Specifies which days of the week the Scheduled Archive feature will automatically run.

Parameter: **timeOfDay**
 Setting: **hh:mm** [optional **AM** or **PM**]
 Default: **03:00**
 Description: Specifies the time of day that Scheduled Archive operations will run. This applies to all seven days of the week. If AM or PM is included after the time, then the time is in 12-hour format. Otherwise, the time is 24-hour format.

NOTE: To prevent the automatic study removal and the archiving operations from occurring at the same time, the archiving operation is set to 3 AM, while automatic study removal is set to 2 AM.

Parameter: **waitForFullDiscSet**
 Settings: **true** or **false**
 Default: **true**
 Description: Specifies whether the archive feature will wait until enough studies are present to record at least 70% of the media.

Parameter: **includeSelfCheckProgram**
 Settings: **true** or **false**
 Default: **false**

Description: Specifies whether an executable self-check program that will verify the integrity of the disc when executed will be included on each archive disc.

Parameter: **verifyDiscsAfterRecord**

Settings: **true** or **false**

Default: **false**

Description: Specifies whether a read after write verification of archive discs will be performed before they are ejected from Virtua. If the verification fails, the disc will have a reject label printed on it.

Parameter: **copies**

Settings: **1** to **99**

Default: **1**

Description: Defines the number of copies of each archive disc to create.

Parameter: **daysToWaitForReport**

Settings: **0** to **99**

Default: **0**

Description: Specifies the number of days to leave a study unarchived while waiting for a report. This helps make better use of disc space in the archive by avoiding archiving a study once when it is received, then archiving the entire study a second time when the report arrives. A value of 0 means do not wait for the report.

Parameter: **discLabel**

Settings: **disc_label_design_filename**

Default: **Ink_Saver_Archive**

Description: Specifies the file name of the label to be printed on the archive disc. Archive disc labels are located on the SmartDrive in the directory \labels\archive.

Parameter: **includedDicomViewer**

Settings: **Dicom_viewer_filename**

Default: **Codonics_Viewer.zip**

Description: Specifies the file name that contains the DICOM Viewer to include on the disc. If the parameter is blank, then no viewer will be included.

Parameter: **mediaType**

Settings: **CD** or **DVD**

Default: **DVD**

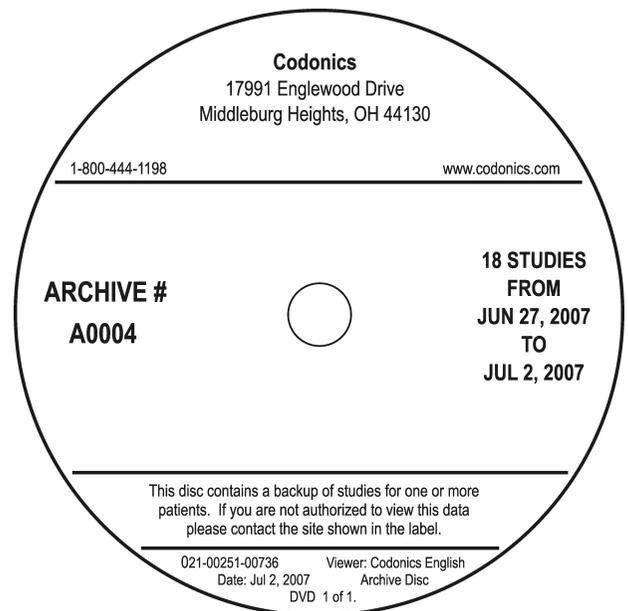
Description: Specifies the type of media to use when recording archive discs. DVD media is recommended for performance and manageability because of the smaller archive set.

The following is a sample Scheduled Archive profile:

archive.default.txt
[ScheduledArchiveProfile]
enabled = true
runOnMonday = true
runOnTuesday = false
runOnWednesday = true
runOnThursday = false
runOnFriday = true
runOnSaturday = false
runOnSunday = false
waitForFullDisc = true
includeSelfCheckProgram = false
verifyDiscsAfterRecord = false
copies = 1
daysToWaitForReport = 0
timeOfDay = 03:00
discLabel = Ink_Saver_Archive
includedDicomViewer = Codonics_Viewer.zip
mediaType = DVD

Archive Disc Labeling

The following is an example of the default disc label.



Archive Disc Content

Each archive disc is IHE PDI-compliant with DICOM studies that conform to DICOM Part 10 specifications. Studies on the disc can be imported into PACS or DICOM review workstations. A DICOM viewer can be included on the disc that allows the studies to be directly viewed on a PC.

A log file that contains a cumulative list of all studies archived on all discs to date is included on each archive disc in the directory \archive_log. This means that last disc on an archive can always be used to search for any study in the archive. The layout of the file is:

<index number>	<i>Index number referring to archive (disc or discs)</i>
<archive date>	<i>yyyy-mm-dd</i>
<patient name>	<i>DICOM name</i>
<patient id>	<i>DICOM id</i>
<patient DOB>	<i>yyyy-mm-dd</i>
<study date>	<i>yyyy-mm-dd</i>
<modality>	
<report included>	<i>Use word report if present or empty if no report</i>
<study description>	
<referring physician>	<i>Raw DICOM physician name</i>
<accession number>	

Foreign characters are supported in text fields of the archive log file.

How to Save and Read Archive Logs

The archive log file is in CSV (Comma Separated Values) format. The archive log can be imported into an Excel spreadsheet by saving the log file as ANSI, and renaming it as archiveLog.csv. One issue, some International characters may not import properly into the spreadsheet.

Each line in the log file represents one study in the archive and contains the data in the following order:

Archive Disc #, Archive Date, Patient Name, Patient ID, Patient DOB, Study Date, Modality, Report Included, Study Description, Referring Physician, Accession Number.

For example:

```
"A0001", "6/28/07", "FIRENZE, MARY", "000000  
06272007152346", "9/11/54", "6/27/07", "DR", "",  
"PANCREAS", "WOHLERT", "000000 06272007152346 "
```

Technical Support

If problems occur, contact Codonics Technical Support between the hours of 8:30AM and 5:30PM EST (weekends and U.S. holidays excluded).

Phone: 440-243-1198

Email: support@codonics.com

Website: www.codonics.com

Get it all with just one call
1-800-444-1198

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17991 Englewood Drive
Middleburg Heights, OH 44130 USA
(440) 243-1198
(440) 243-1334 Fax
Email info@codonics.com
www.codonics.com

Codonics Limited KK
New Shibaura Bldg. F1
1-3-11, Shibaura
Minato-ku, Tokyo, 105-0023 JAPAN
Phone: 81-3-5730-2297
Fax: 81-3-5730-2295