

System Administrator Guide, Sectra MDM, AWS



SECTRA

System Administrator Guide, Sectra MDM, AWS

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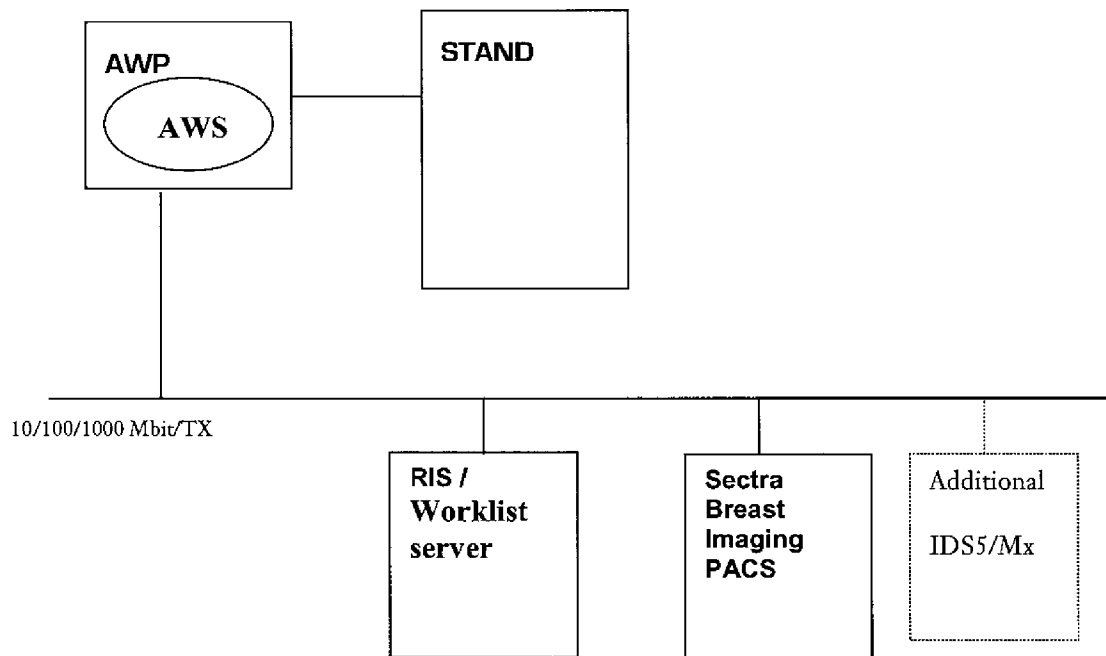
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1. Intended Purpose / Indications For Use

This manual describes how to maintain the Acquisition Workstation Software from now on addressed as AWS.

It is a supplement to the installation manual and describes how additional configuration should be done when the system is up and running.

2. Sectra Microdose Mammography Overview



2.1 Acquisition Workstation Software Usage

Acquisition Workstation Software is the user interface to handle patient and examination workflow. Examinations can be created locally on the AWS or the AWS can retrieve examinations from RIS/Worklist Server.

It is also the interface for managing exposure parameters for the stand, and to store images retrieved from the stand.

The AWS is also responsible for sending images to the PACS system used.

2.2 Document Overview

2.2.1 SAG – System Administration Guide

The SAG describes how to configure, maintain and service a running system.

2.3 Image handling

The images are Stored under c:\SectraMDM\AWSStorage

If you want to change this, see 4.1.

3. Stand Communication

AWS will try to connect to the CCS on startup. If it fails it will retry until it succeeds.

An successful startup of AWS Software should give this information in the

AWS log file, e.g. c:\program files\sectra\AW\log\acquisition_workstation.2005.10.14.txt

```
2003-07-29 07:53:57.781 T2532 NT_Menubar_app::local_init - Numeric locale: C
2003-07-29 07:53:57.812 T2532 trace_regen - 8 variables found in registry.
2003-07-29 07:53:57.812 T2532 trace_regen - AW: SYSLOG_DATE_FORMAT=%Y.%m.%d
2003-07-29 07:53:57.812 T2532 trace_regen - AW: SYSLOG_BACKUP_COPIES=31

2003-07-29 07:53:57.812 T2532 trace_regen - AW: LANG=swedish
2003-07-29 07:53:57.812 T2532 trace_regen - AW: SECTRA=C:\Program Files\Sectra\AW\
2003-07-29 07:53:57.812 T2532 trace_regen - AW:
MDM_STORAGE_PATH=D:\SectraMDM\AWSStorage
2003-07-29 07:53:57.812 T2532 trace_regen - AW:
MDM_STUDY_STORAGE_PATH=D:\SectraMDM\AWStudyStorage
2003-07-29 07:53:57.812 T2532 trace_regen - AW: MDM_SERIAL_NUMBER=
2003-07-29 07:53:57.812 T2532 trace_regen - AW: SI_CONFIG_DIR=C:\Program
Files\Sectra\AW\config
2003-07-29 07:53:57.812 T2532 NT_Menubar_app::load_gui_resources - mdm_resources.dll
2003-07-29 07:53:57.812 T2532 Mammogram_builder::Mammogram_builder - IPK build 017
2003-07-29 07:53:57.828 T2532 NT:load_library - Loading mdm_work_window_commands.dll
2003-07-29 07:53:57.828 T2532 NT:load_library - Loading nt_common_cmd.dll
2003-07-29 07:53:59.078 T2532 Stand_control::InitializationDone - Event received
2003-07-29 07:54:00.921 T2532 User::login - User authentication successful: Administrators
```

CCS

The CCS log file contain an entry that connection was established

```
2003.07.29_07.48.29 SocketServer : Accepted connection from 10.0.0.2
```

```
2003.07.29_07.48.29 ExaminationModel : ExaminationModel goes from state NotStarted to
Starting
```

4. Add separate image disk

Control Panel > Administrative Tools > Computer Management

Go to Storage and Disk Management.

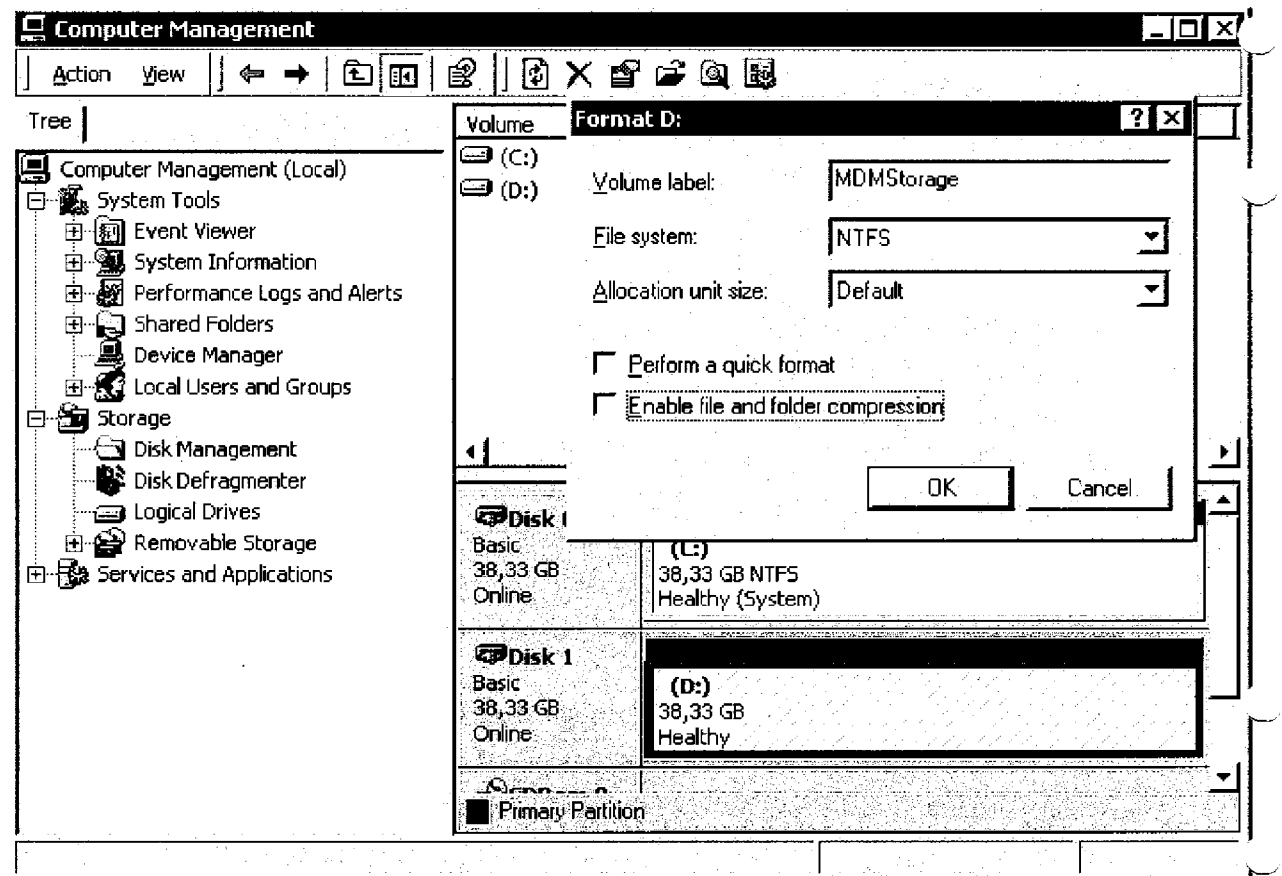
Mark the disk that you would like to format in this case (D:)

Select Action > All Tasks > Format in the menu.

Set Volume label to MDMStorage and deselect the Enable file and folder compression

Click on OK when done.

The disk is then marked with status Formatting and a percentage.



4.1 Change storage in AWS

Move c:\SectraMDM catalog to d:\ which is the new disk in our example.

Start a command window and enter c:\Program Files\Sectra\AW\bin\regenv.exe

Change MDM_STORAGE_PATH and MDM_STUDY_STORAGE_PATH to the new location.

```
C:\> c:\Program Files\Sectra\AW\bin\regenv.exe
```

```
-----
Available products:
```

1. AW

Select product (1-1) or q to quit: 1

Defined variables for AW:

1. SYSLOG_DATE_FORMAT=%Y.%m.%d
 2. SYSLOG_BACKUP_COPIES=31
 3. LANG=swedish
 4. SECTRA=C:\Program Files\Sectra\AW\
 5. MDM_STORAGE_PATH=C:\SectraMDM\AWStorage
 6. MDM_STUDY_STORAGE_PATH=C:\SectraMDM\AWStudyStorage
 7. MDM_SERIAL_NUMBER=MDM00001
 8. SI_CONFIG_DIR=C:\Program Files\Sectra\AW\config
-

Enter command (h for help): m 5

New value for MDM_STORAGE_PATH: D:\SectraMDM\AWStorage

Really set MDM_STORAGE_PATH to D:\SectraMDM\AWStorage? (y/n): y

Defined variables for AW:

1. SYSLOG_DATE_FORMAT=%Y.%m.%d
 2. SYSLOG_BACKUP_COPIES=31
 3. LANG=swedish
 4. SECTRA=C:\Program Files\Sectra\AW\
 5. MDM_STORAGE_PATH=D:\SectraMDM\AWStorage
 6. MDM_STUDY_STORAGE_PATH=C:\SectraMDM\AWStudyStorage
 7. MDM_SERIAL_NUMBER=MDM00001
 8. SI_CONFIG_DIR=C:\Program Files\Sectra\AW\config
-

Enter command (h for help): m 6

New value for MDM_STUDY_STORAGE_PATH: D:\SectraMDM\AWStudyStorage

Really set MDM_STUDY_STORAGE_PATH to D:\SectraMDM\AWStudyStorage?
(y/n): y

Defined variables for AW:

1. SYSLOG_DATE_FORMAT=%Y.%m.%d
 2. SYSLOG_BACKUP_COPIES=31
 3. LANG=swedish
 4. SECTRA=C:\Program Files\Sectra\AW\
 5. MDM_STORAGE_PATH=D:\SectraMDM\AWStorage
 6. MDM_STUDY_STORAGE_PATH=D:\SectraMDM\AWStudyStorage
 7. MDM_SERIAL_NUMBER=MDM00001
 8. SI_CONFIG_DIR=C:\Program Files\Sectra\AW\config
-

Enter command (h for help): q

When this is done you need to restart the Sectra MDM Cleanup Service.

5. Replace Separate Image Disk

Copy all data on d:\ to other media if it should be saved/moved to the old disk.
Shutdown the AWP

Replace disk

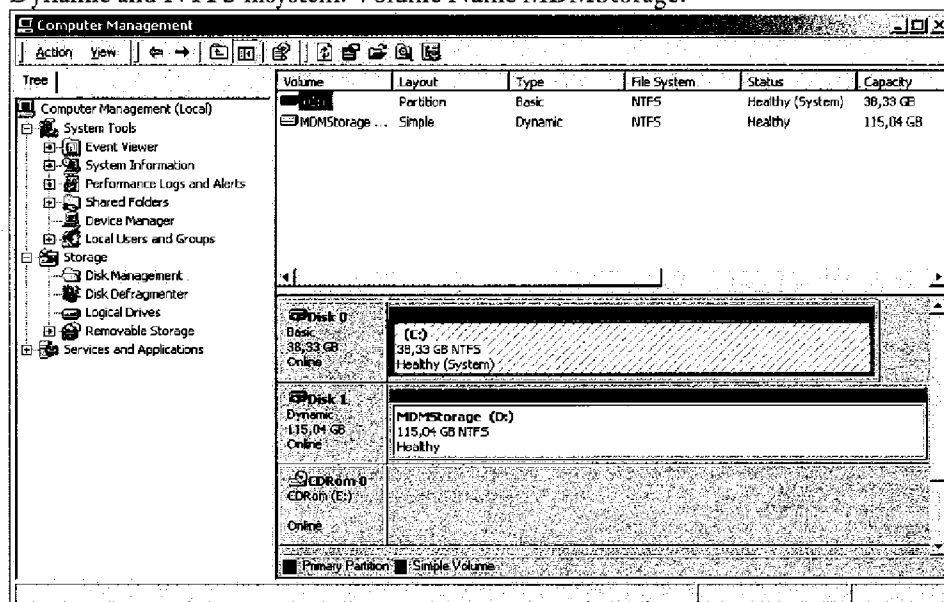
Note hardware configuration of old disk and transfer the configuration to the new disk.

Insert the disk. And startup AWP

The AWS will show message did not succeed to create storage directory. Acknowledge that message.

Format disk it will take about 30 min.

Dynamic and NTFS filesystem. Volume Name MDMStorage.



Move back ..\SectraMDM to d:\

```
MDM_STORAGE_PATH      REG_SZ      D:\SectraMDM\AWStorage
MDM_STUDY_STORAGE_PATH REG_SZ      D:\SectraMDM\AWStudyStorage
```

Reboot

6. Configure local storage

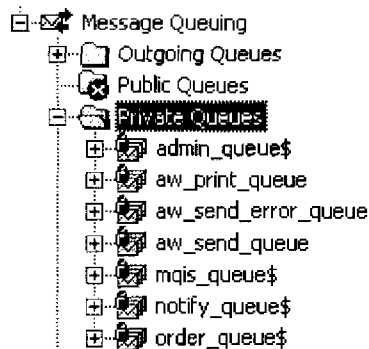
The send_service can be configured to save images on local disc if PACS is not available. By doing this the user can perform image acquisitions as normal. Send_service starts a local PACS when it is started. When approving an examination the send_service sends the images to the local PACS. The configuration for this is in system_configuration.def. See 9.2 and 9.4 for more configuration details. Specify in the configuration for the send_service a directory where the images shall be stored, an AE Title and a port. Then configure the PACS configuration to use localhost as Host, the configured port as Port and the configured AE title as Called_AE_Title.

Note: This shall only be used if PACS is not available.

7. Message Queuing

Dicom Print SCU and Dicom Store SCU are using Microsoft Message Queuing service to keep track of examination sent to PACS och Filmprinter. The message queues can be found in the

Computer Management tool (Control Panel->Administrative Tools->Computer Management)
under Services and Applications.



Failed transmissions are also kept in an error queue. The content of the aw_send_queue and aw_send_error_queue can be shown in the AW GUI by selecting Send queue or Error queue in the Admin menu.

Removal of items in the queues can only be done by the Computer Management tool.

Note: The queues are cleared when the computer reboots.

8. Create Windows user for AWS

Create Users

1	Go to Windows Control Panel and run Computer Management
2	Select the Local Users and Groups
3	Mark the Users folder, and select New User... in the Action Menu.
4	Type in User name as: AWSUser
5	Type in Full name as: AWS User
6	Type in Description as: User account for AWS
7	Enter a password and Confirm the password.
8	Select whether the user can change password or not and if the password should expire.
9	Press Create and Close

Change Group membership

10	Still in the Users folder
11	Mark the user AWSUser and select Properties in the Action menu.
12	Mark the AW Users Group and Press <u>A</u> dd
13	Finish with Apply, OK and OK

Add the rest of the users at the apartment the same way to the AW Users account.

Then close the Computer Management Tool

9. System configuration

The system configuration is located in the system_configuration.def file

9.1 Institution

```
Institution {
    Name <Mamea>
}
```

Name	Values	Default	Description
Name	STRING	Mamea	Name of the institution. This name is stored in acquired images in DICOM tag 0008,0080. This value should be replaced by the institution name.

9.2 System Integration

9.2.1 Station name

```
StationName <Sectra MDM>
```

Name	Values	Default	Description
StationName	STRING	SECTRA_MDM	Name of the station. This name is stored in acquired images in DICOM tag 0008,1010.

9.2.2 Worklist SCP information (RIS)

The AWS can connect to several worklist SCP. These are used when defining worklists

```
ModalityWorklistSCP {
    Name_1 {
        DisplayName <Offis WL server>
        DICOM {
            Calling_AE_title <SECTRA_MDM>
            Called_AE_title <OFFIS>
            Port <104>
            Host <localhost>
        }
    }
    Name_2 {
        DisplayName <Some other RIS>
        DICOM {
            Calling_AE_title <SECTRA_MDM>
            Called_AE_title <OTHER_RIS>
            Port <8888>
            Host <localhost>
        }
    }
    ...
}
```

Name	Values	Default	Description
Name_x	STRING	offis and other	Internal name of the Worklist SCP. Used in worklist definitions.
DisplayName	STRING		Name shown in GUI.
Calling_AE_title	STRING	SECTRA_MDM	AE title of the modality.
Called_AE_title	STRING		Called AE title.
Port	INT_STRING	104	Port number to connect to.
Host	STRING	localhost	Host to connect to.

9.2.3 Modality Performed Procedure Step SCP information

The AWS can connect to several MPPS SCP. These are used when defining worklists. In the default configuration no MPPS SCP are configured. If MPPS shall be used it is necessary to add MPPS SCP configuration to local configuration.

```
ModalityPerformedProcedureStepSCP {
  Name_1 {
    Default
    DisplayName <RIS MPPS Manager>
    DICOM {
      Calling_AE_title <SECTRA_MDM>
      Called_AE_title <CALLED_AE>
      Port <104>
      Host <localhost>
    }
  }
  Name_2 {
    DisplayName <Some other MPPS manager>
    DICOM {
      Calling_AE_title <SECTRA_MDM>
      Called_AE_title <CALLED_AE>
      Port <8888>
      Host <localhost>
    }
  }
  ...
}
```

Name	Values	Default	Description
Default			If a MPPS SCP is set to default, this SCP is used when examinations are added locally in the AWS or if no SCP is specified in the worklist configuration. If no SCP is set to default, MPPS is not sent if not SCP is specified.
DisplayName	STRING		Name shown in GUI.
Name_x	STRING	ris and other	Internal name of the MPPS SCP. Used in worklist definitions.
Calling_AE_title	STRING	SECTRA_MDM	AE title of the modality.
Called_AE_title	STRING	CALLED_AE	Called AE title.

Port	INT_STRING	104	Port number to connect to.
Host	STRING	localhost	Host to connect to.

9.2.4 PACS

The connection to PACS shall be configured.

```
PACS {
  DICOM {
    Calling_AE_title <MDM_AE>
    Called_AE_title <DICOM_STORAGE>
    Port <7810>
    Host <localhost>
    Enabled <1>
  }
  # Controls compression used during transmission:
  # NONE, No compression
  # SECTRA-RC-1, DPCM/Huffman compression
  # SECTRA-LS-1, (DPCM/Golomb)/RLE compression
  CompressionType <NONE>
  # StorageCommit required when set to 1
  StorageCommit <0>
  # Log is in verbose mode if set to 1
  LogVerbose <0>
}
```

Name	Values	Default	Description
Calling_AE_title	STRING	MDM_AE	AE title used by the modality.
Called_AE_title	STRING	DICOM_STORAGE	AE title of the called server.
Port	INT_STRING	7810	Port number to connect to.
Host	STRING	localhost	Host to connect to.

9.2.5 AWS

AWS configuration:

```
AW {
  IdleTimeout <30>
  StudySignatureMethod <CURRENT_USER>
  PreFilter <mdm_prefilter.dll>
  DiskCheckUpperLimit <90>
  ImagesToPACS <DERIVED>
}
```

Name	Values	Default	Description
IdleTimeout	INT_STRING	30	Auto-logout time limit (minutes)
StudySignatureMethod	STRING	CURRENT_USER	CURRENT_USER is the only valid value.
PreFilter	STRING	mdm_prefilter.dll	Name of the filter dll.
DiskCheckUpperLimit	INT_STRING	90	If the disk usage exceeds this limit, the user is prevented to open a study. If a study is open the user is warned.
ImagesToPACS	NONE, ORIGINAL, DERIVED,	DERIVED	Specifies which images the AWS shall send to PACS when the user approves or re-sends

	ALL		an examination.
--	-----	--	-----------------

9.2.6 AWS

AWS configuration:

```
AW {
  IdleTimeout <30>
  StudySignatureMethod <CURRENT_USER>
  DiskCheckUpperLimit <90>
  ImagesToPACS <DERIVED>
}
```

Name	Values	Default	Description
IdleTimeout	INT_STRING	30	Auto-logout time limit (minutes)
DiskCheckUpperLimit	INT_STRING	90	Upper limit. Do not add images if disk usage exceeds the limit (%). The limit should be chosen in a way that at least one more examination will be possible to store.
ImagesToPACS	NONE, ORIGINAL, DERIVED, ALL	DERIVED	Type of images to send to PACS.

9.2.7 ServiceTool

Service tool configuration:

```
ServiceTool {
  STPath <C:\Program Files\Sectra\ServiceTool\MDMService>
}
```

Name	Values	Default	Description
STPath	STRING	C:\Program Files\Sectra\ServiceTool\MDMService	Path to the ServiceTool application.

9.3 Cleanup service

Cleanup service removes old examinations from local disk

```
CleanupService {
  Mode <DAILY>
  RunAt <01:00>
  RunInterval <1:00>
  StudyAge <48:00>
  DiskCheckLowerLimit <50>
  CleanAllAge <336:00>
}
```

Name	Values	Default	Description
Mode	DAILY or INTERVAL	DAILY	Defines when the cleanup service runs
Run At	TIME	01:00	If "Mode" is DAILY then the cleanup service runs at this time.

RunInterval	TIME	1:00	If "Mode" is INTERVAL then cleanup service runs with this interval.
StudyAge	TIME	48:00	A study is removed by the cleanup service if the study is approved and the age of the study older than "StudyAge"
DiskCheckLowerLimit	INT_STRING	50	If the disk usage is lower than this limit, cleanup service does not remove any studies.
CleanAllAge	TIME	336:00	Even if the study is not approved it will be removed if the age exceeds this time.

9.4 Send service

Send service sends images to PACS.

```

SendService {
  window_left <1.0>
  window_right <1.0>
  post_filter_dll <mdm_postfilter.dll>

  LocalStorage {
    Storage_Path <C:\tmp\StoreImg>
    Port <7820>
    AE_Title <MDM_LOCAL_AE>
  }
}

```

Name	Values	Default	Description
window_left	FLOAT_STRING	1.0	Window levels are modified with this multiplier when the image is transmitted to PACS.
window_right	FLOAT_STRING	1.0	Window levels are modified with this multiplier when the image is transmitted to PACS.
post_filter_dll	STRING	mdm_post_filter.dll	Name of the post filter dll which filters the image before it is transmitted to PACS.
LocalStorage			A local PACS that can save the examinations on a local drive.
StoragePath	STRING	C:\tmp\StoreImg	Path where the images are stored.
Port	INT_STRING	7820	Port to local storage SCP.
AE_Title	STRING	MDM_LOCAL_AE	AE title of local storage SCP.

9.5 Image Data

```

ImageData {
  WindowLevel {
    Width <1400>
    Center <1800>
  }
  CreateImages <CREATE_UNFILTERED_FILTERED>
}

```

```

Hand {
  Manual <1>
  Rotation <270>
}
Specimen {
  Manual <1>
  Rotation <270>
}
Phantom {
  Manual <1>
  Rotation <270>
}
}

```

Name	Values	Default	Description
Width	INT_STRING	1400	Default window level width. Used when the image first is presented in the AWS and when the user resets the image.
Center	INT_STRING	1800	Default window level center. Used when the image first is presented in the AWS and when the user resets the image.
CreateImages	CREATE_UNFILTERED_FILTERED	CREATE_UNFILTERED_FILTERED	CREATE_UNFILTERED_FILTERED is the only valid value.
Hand			Configuration for object type "Hand". These settings are used when "Type" is set to HAND in selected image setting.
Phantom			Configuration for object type "Phantom". These settings are used when "Type" is set to PHANTOM in selected image setting.
Specimen			Configuration for object type "Specimen". These settings are used when "Type" is set to SPECIMEN in selected image setting.
Manual	1 or 0		If set to 1, images of this object type is rotated according to the value specified in the "Rotation" field.
Rotation	0, 90, 180 or 270		Degrees of rotation.

9.6 Patient information

Fields in the "Add/Edit patient" dialog can be configured.

```

PatientInformation {
  # Birth date in dialog
  ShowBirthDate <1>
}

```

Name	Values	Default	Description
ShowBirthDate	INT_STRING	1 or 0	Selects if the dialog shall contain the date of birth field. If set to 1 the field is

			present in the dialog and the user is required to enter a value.
--	--	--	--

9.7 Delete image info

When the user deletes an image it might be required that the reason for the removal is logged.

```

DeleteImageInfo {
  UseReasons <1>
  DeleteReasons {
    1 {
      Message <Positioning>
      Initialized <1>
    }
    2 {
      Message <Patient Motion>
      Initialized <0>
    }
  }
  ...
}

```

Name	Values	Default	Description
UseReasons	INT_STRING	1 or 0	Selects if the user has to select reasons (1) when deleting an image or if the user only has to confirm the deletion (0).
Message	STRING		This will be the message that is logged.
Initialized	INT_STRING	1 or 0	1 of the reason shall be pre-selected when the dialog is initialized, 0 if not.

9.8 Fonts

Some fonts are configurable. Not all used fonts are configurable.

```

Fonts {
  DefaultFont {
    Lowres {
      Family <MS Sans Serif>
      Size <8>
      Style <normal>
    }
  }
  DialogFont {
    Lowres {
      Family <MS Sans Serif>
      Size <8>
      Style <normal>
    }
  }
  ToolbarFont {
    Lowres {
      Family <MS Sans Serif>
      Size <8>
      Style <normal>
    }
  }
  ImageSettingsFont {

```

```

    Lowres {
        Family <Tahoma>
        Size <18>
        Style <normal>
    }
}
ProjectionFont {
    Lowres {
        Family <Tahoma>
        Size <25>
        Style <normal>
    }
}
ImageInfoFont {
    Lowres {
        Family <Tahoma>
        Size <14>
        Style <normal>
    }
}
}

```

Name	Values	Default	Description
DefaultFont			Default font.
DialogFont			Font used in some dialogs.
ToolbarFont			Font used in the toolbar.
ImageSettings Font			Font used for the image setting name at the top of the mammogram.
ProjectionFont			Font used for the projection information at the top of the mammogram.
ImageInfoFont			Font used for the image information at the bottom of the mammogram.
Family	STRING		Name of the font.
Size	INT STRING		Size of the font.
Style	light, normal or bold	1 or 0	Style of the font.

9.9 Image Info

```

ImageInfo {
    Breast {
        L {
            Elements {
                1 {
                    Format <[var_1,,,^,$(1), $(2)]>
                    Data {
                        var_1 <[10,10,PN]>
                    }
                }
                2 {
                    Format <[var_1,,,,,$(-11)$(-10)$(-9)$(-8)$(-7)$(-6)$(-5)$(-
4)$(-3)$(-2)$(-1)]>
                    Data {
                        var_1 <[10,20,LO]>
                    }
                }
            }
        }
    }
}

```

```

3 {
  Format <Exposure: [var_1,%.0f] kV, [var_2,%.1f] mAs>
  Data {
    var_1 <[18,60,DS]>
    var_2 <%exposure_mas>
  }
  ...
}
}
}
Hand {
  L {
    Elements {
      ...
    }
  }
}
Specimen {
  L {
    Elements {
      ...
    }
  }
}
Phantom {
  L {
    Elements {
      ...
    }
  }
}
}
}

```

Name	Values	Default	Description
Breast			Image information for breast images.
L			Lower info block.
Elements			Elements in block.
Format	STRING		Format string for info.
var_x	STRING		Where to find value. If preceded by % it is a special value. Defined special values: %agd_mgy: AGD in mGy (float) %exposure_mas: Exposure i mAs (float) %thickness_inch: Compression height i inch (float) %force_lbs: Compression force in lbs %force_dN: Compression force in decaNewton
Hand			Image information for hand images.
Specimen			Image information for specimen images.

Phantom			Image information for phantom images.
---------	--	--	---------------------------------------

9.10 Image View

```
image_view {
  max_image_size<75000000>
}
```

Name	Values	Default	Description
max_image_size	INT_STRING	75000000	The maximum amount of memory that can be allocated for an image.

9.11 Examination

```
Examination {
  [Type] {
    Codes {
      1 {
        Code <MCODE1>
        Description <Screening>
        Default <Normal>
      }
      ...
    }
    ImageSettings {
      1 {
        Name <Normal>
        Type <BREAST>
        Label <>
        Implant <0>
        Spot <0>
        ExposureMode<Normal>
        Default
      }
      ...
    }
  }
}
```

Name	Values	Default	Description
[Type]	Breast, Hand, Phantom		Type of examination
Codes			Examination codes defined for this examination type. The examination code of an examination is compared with the codes in order to determine which kind of examination type it is. If the examination code of the examination cannot be found among the codes specified for breast, hand or phantom the examination type for the examination is assumed to be breast.
Code			Code to compare with the examination code in the examination.
Description			Description. Shown in add/edit examination dialog.

Default			Default image setting when opening an examination with this examination code.
ImageSettings			Image settings valid for selected examination type.
Name	STRING		Label shown in the AWS GUI.
Type	BREAST, HAND, SPECIMEN or PHANTOM		Object type. Is used for determine the rotation of the image and which DICOM tags that shall be present.
Label	STRING		Special label, Entered into the DICOM tag 0008,103E
Implant	1 or 0		If set to 1, the image is labeled with implant present in DICOM tag 0028,1300, else the image is labeled with implant not present.
Spot	1 or 0		If set to 1, the image is labeled with spot compression in DICOM sequence 0054,0222 in DICOM sequence 0054,0220.
Default			If present this setting shall be the default setting when opening an examination of the selected type. Default shall be used in only one setting configuration for every examination type.
ExposureMode	STRING		Exposure mode. Sent to CCS before exposure. Is used for calculating exposure parameters. Possible values are defined by ServiceTool.

10. Worklist definitions

The worklist definitions are located in the worklist_configuration.def file. There are no default worklist definitions but there are some examples in the default worklist_configuration.def. Use them as examples and place them in the local configuration.

10.1 Worklists

```
Worklists {
  0 {
    Default
    DisplayName <Today>
    ModalityWorklistSCP <offis>
    ModalityPerformedProcedureStepSCP <ris>
    SearchCriteria {
      Modality <MG>
      ScheduledStationAETitle <SECTRA_MDM>
      ScheduledStationName <>
      ScheduledPerformingPhysiciansName <>
      RelativeDateRange {
        Begin <0>
        End <0>
      }
      RelativeTimeRange {
        Past <>
        Future <>
      }
    }
  }
}
```

```

}
1 {
  DisplayName <Tomorrow>
  ModalityWorklistSCP <offis>
  ModalityPerformedProcedureStepSCP <ris>
  SearchCriteria {
    Modality <MG>
    ScheduledStationAETitle <SECTRA_MDM>
    ScheduledStationName <>
    ScheduledPerformingPhysiciansName <>
    RelativeDateRange {
      Begin <1>
      End <1>
    }
    RelativeTimeRange {
      Past <>
      Future <>
    }
  }
}

```

Name	Values	Default	Description
Default			Indicates that this is the default worklist definition at startup.
DisplayName	STRING		The name shown in the AWS. Note that this name is not translated.
ModalityWorklistSCP	STRING		Name of the worklist SCP to use for this definition.
ModalityPerformedProcedureStepSCP	STRING		Name of the MPPS SCP to use for this definition.
SearchCriteria	STRING		The search criteria sent to the worklist SCP in order to retrieve a worklist.
Modality	STRING		Modality.
ScheduledStationAETitle	STRING	SECTRA_MDM	This station AE title.
ScheduledStationName	STRING		The name of the station. Leave empty if "don't care".
ScheduledPerformingPhysiciansName	STRING		Name of physicians. Leave empty if "don't care".
RelativeDateRange			
Begin	INT_STRING		Date range. 0 is today. Leave empty if "don't care".
End	INT_STRING		Date range. 0 is today. Leave empty if "don't care".
RelativeTimeRange			
Past			Time range. 0:00 is now. Leave empty if "don't care".
Future			Time range. 0:00 is now. Leave empty if "don't care".

11. Stand configuration

Configurations concerning the stand. The stand configuration is located in the stand_control.def file.

11.1 Stand control

11.1.1 Compression

```
Compression {  
    AutoRelease <1>  
}
```

Name	Values	Default	Description
AutoRelease	1 or 0	1	If set to 1, the compression will be released directly after exposure. If set to 0 compression is kept until manually released.

11.1.2 Projections for breast

Configurations of the different projection buttons in AWS.

```
Projections {  
    ProjectionList {  
        Dx1 {  
            Angle <0>  
            MinAngle <-15>  
            MaxAngle <15>  
        }  
        Sin1 {  
            Angle <0>  
            MinAngle <-15>  
            MaxAngle <15>  
        }  
        Dx2 {  
            Angle <-45>  
            MinAngle <-60>  
            MaxAngle <-30>  
        }  
        Sin2 {  
            Angle <45>  
            MinAngle <30>  
            MaxAngle <60>  
        }  
        Dx3 {  
            Angle <90>  
            MinAngle <75>  
            MaxAngle <100>  
            Code <R-10228>  
        }  
        Sin3 {  
            Angle <-90>  
            MinAngle <-100>  
            MaxAngle <-75>  
            Code <R-10228>  
        }  
    }  
}
```

```

    }
}
}

```

Name	Values	Default	Description
ProjectionList			List of the different projections.
Dx1			Configuration for Dx1.
Dx2			Configuration for Dx2.
Dx3			Configuration for Dx3.
Sin1			Configuration for Sin1.
Sin2			Configuration for Sin2.
Sin3			Configuration for Sin3.
Angle	INT_STRING		Preferred angle of stand.
MinAngle	INT_STRING		Lower limit of the angle.
MaxAngle	INT_STRING		Upper limit of the angle.
Code	R-10242 = CC R-10226 = MLO R-10228 = LM R-10224 = ML R-10230 = LMO R-10244 = FB (CC) R-102D0 = SIO R-102CF = XCC Y-X1770 = XCCL Y-X1771 = XCCM	R-10228	Projection definition, only for Dx3 and Sin3. Specifies how the image shall be labeled.

11.1.3 Projections for hands

Configurations of the different projection buttons in AWS for hand examinations.

```

HandProjections {
  ProjectionList {
    Dx1 {
      Angle <0>
      MinAngle <-45>
      MaxAngle <45>
    }
    Sin1 {
      Angle <0>
      MinAngle <-45>
      MaxAngle <45>
    }
  }
}

```

Name	Values	Default	Description
ProjectionList			List of the different projections.
Dx1			Configuration for Dx1.
Sin1			Configuration for Sin1.
Angle	INT_STRING		Preferred angle of stand.
MinAngle	INT_STRING		Lower limit of the angle.
MaxAngle	INT_STRING		Upper limit of the angle.

11.1.4 Projections for phantoms

Configurations of the different projection buttons in AWS for phantom examinations.

```
QualityProjections {
  ProjectionList {
    Dx1 {
      Angle <0>
      MinAngle <-15>
      MaxAngle <15>
    }
    Sin1 {
      Angle <0>
      MinAngle <-15>
      MaxAngle <15>
    }
    Dx2 {
      Angle <-45>
      MinAngle <-60>
      MaxAngle <-30>
    }
    Sin2 {
      Angle <45>
      MinAngle <30>
      MaxAngle <60>
    }
    Dx3 {
      Angle <90>
      MinAngle <75>
      MaxAngle <100>
      Code <R-10228>
    }
    Sin3 {
      Angle <-90>
      MinAngle <-100>
      MaxAngle <-75>
      Code <R-10228>
    }
  }
}
```

Name	Values	Default	Description
ProjectionList			List of the different projections.
Dx1			Configuration for Dx1.
Dx2			Configuration for Dx2.
Dx3			Configuration for Dx3.
Sin1			Configuration for Sin1.
Sin2			Configuration for Sin2.
Sin3			Configuration for Sin3.
Angle	INT_STRING		Preferred angle of stand.
MinAngle	INT_STRING		Lower limit of the angle.
MaxAngle	INT_STRING		Upper limit of the angle.
Code	R-10242 = CC R-10226 = MLO R-10228 = LM R-10224 = ML R-10230 = LMO	R-10228	Projection definition, only for Dx3 and Sin3. Specifies how the image shall be labeled.

	R-10244 = FB (CC) R-102D0 = SIO R-102CF = XCC Y-X1770 = XCCL Y-X1771 = XCCM		
--	---	--	--

11.1.5 Generator settings

Generator-depending configurations.

```
GeneratorSettings {
    TubeTooHotLimit <10>
}
```

Name	Values	Default	Description
TubeTooHot Limit	INT_STRING	10	When the tube is too hot the AWS normally shows a dialog that informs the user. But if the expected time until the tube is cold again is less than this value, the dialog is not shown.

11.1.6 Compression paddles

Compression paddle configuration. The AWS can use several compression paddles which have their own configuration. In the stand_control.def file there are only examples and the have to be modified and moved to local configuration. The default compression paddle is automatically added to the list of compression paddles in the AWS. In order to translate the name of the default compression paddle translate the string "Normal_compression_paddle" in the language file.

```
CompressionPlates {
    1 {
        Label <Spot>
        Height <10>
        AutoKeep <0>
    }
    2 {
        Label <Axill>
        Height <20>
        AutoKeep <1>
    }
}
```

Name	Values	Default	Description
Label	STRING		Name of the paddle. This is shown in the GUI of the AWS.
Height	INT_STRING		The height of the paddle. This value is given to the stand in order to help the stand to calculate dose.
AutoKeep	1 or 0		If set to 1, the compression paddle is kept to next image without asking the user. If set to 0 the user is asked after every image if the paddle shall be kept or not.

12. DICOM tag mappings

This configuration is located in the dicom_mappings.def file.

12.1 Worklist DICOM map

The AWS can be configured to use data from other DICOM tags from the information received from worklist SCP than the AWS stores them in the image.

```
Worklist_DICOM_Map {
  ExaminationCode <0040,0007>
  ExaminationID <0040,0009>
  RequestNumber <0008,0050>
  MedicalAlerts <0010,2000>
  Attendance <0010,21B0>
  RISType <0019,01A6>
}
```

Name	Values	Default	Description
Examination Code	STRING		Use this tag to get information that is stored in 0040,0007.
ExaminationID	STRING		Use this tag to get information that is stored in 0040,0009.
RequestNumber	STRING		Use this tag to get information that is stored in 0008,0050.
MedicalAlert	STRING		Use this tag to get information that is stored in 0010,2000.
Attendance	STRING		Use this tag to get attendance information. This tag is not added to the image.
RISType	STRING		Use this tag to get information that is stored in 0019,01A6

13. Window levels

The window level commands are configured in the window_level_configuration.def file.

13.1 Windows

It is possible to configure commands that set a customized window level (center and width) on the current image.

```
WindowLevel {
  Windows {
    1 {
      Label <Window 1>
      Width <100>
      Center <1700>
      AcceleratorKey <SI_KP_1>
      AcceleratorLabel <NUM 1>
    }
    2 {
      Label <Window 2>
      Width <200>
      Center <2000>
      AcceleratorKey <SI_KP_2>
    }
  }
}
```

```

        AcceleratorLabel <NUM 2>
    }
}
...
}

```

Name	Values	Default	Description
Label	STRING		Label shown in the AWS GUI.
Width	INT_STRING		Window level width.
Center	INT_STRING		Window level center.
AcceleratorKey	KEY_STRING		Key.
Accelerator-Label	STRING		Label in the AWS GUI.

14. DICOM print

Configuration for the DICOM printer is located in the dicom_printer.def file

14.1 DICOM print

```

Export_class {
    Film {
        DICOM_print {
            Factory <create_dicom_print_cmd>
            # Default <example>
            Printers {
                * {
# NOTE: Following parameter is not used by the AW.
                Tracelevel <0>
# NOTE: Following parameter is not used by the AW.
                Tempdir </var/tmp/camera>

                Resolution <2000>
                Size <350:420>

# NOTE: Following parameter is not used by the AW.
                Get_all_printer_status <0>
# NOTE: Following parameter is not used by the AW.
                calling_app_title <DICOM_PRINT SCU>
# NOTE: Following parameter is not used by the AW.
                called_app_title <PRINT_SERVER SCP>
                copies <1>
                priority <MED>
                medium_type <BLUE FILM>
                film_destination <MAGAZINE>
                film_orientation <PORTRAIT>
                film_size <14INX17IN>
                magnification_type <NONE>
                border_density <BLACK>
                empty_image_density <BLACK>
                trim <YES>
                polarity <NORMAL>
            }
            example {
#                 node <host># Must be configured
#                 port <104> # Must be configured
#                 Label <This is an example> # Must be configured
#             }
        }
    }
}

```

```
}
}
}
}
```

Name	Values	Default	Description

15. Printer storage

General printer storage is located in the printer_configuration.def file.

15.1 Print

```
Print {
    StoragePath <C:\\SectraMDM\\AWPrintStorage>
}
```

Name	Values	Default	Description
StoragePath	STRING		Path to temporary storage until the image is sent to printer.

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