
MQSA Quality Control Manual For EIZO Diagnostic Monitors used for Mammography

Revision 5.00
August. 2025



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1. OVERVIEW OF THE QUALITY CONTROL MANUAL

1.1. Scope

This document defines the recommended Quality Control (QC) tests to be applied to the *EIZO Diagnostic Monitors* labeled for final interpretation of images acquired using a full-field digital mammography (FFDM) image acquisition system. This document is intended to constitute an element of the Quality Assurance Plan (QAP) of the mammographic facility.

In Ver5.0, the contents of each test have been revised to make quality control easier in the remote / home reading environment which has been expanding in recent years.

It is intended to provide guidance to mammography facilities and their personnel. It represents the equipment manufacturer's current thinking on appropriate procedures for conducting the QC tests. Procedures described in guidance represent supplementary information on acceptable ways of doing a test but, unlike regulations, do not bind the facility to using that way only. An alternative procedure may be used if such a procedure satisfies the requirements of the applicable statute, regulations, or both.

The link below is one of a reference for the facility,
[Ref - FDA MQSA Requirement Part 900.12 \(e\) 6.](#)

This manufacturer's recommendation is for the following products:

Diagnostic displays certificated with FDA 510(k) for Mammography

Item	Description
RadiForce RX1270	EIZO 12MP Color display
RadiForce RX850-BK	EIZO 8MP Color display
RadiForce RX840MG-BK	EIZO 8MP Color display
RadiForce RX560	EIZO 5MP Color display
RadiForce RX570	EIZO 5MP Color display
RadiForce GX560-BK	EIZO 5MP grayscale display
RadiForce GX550-BK	EIZO 5MP grayscale display
RadiForce GX540-BK	EIZO 5MP grayscale display
RadiForce GX530-BK	EIZO 5MP grayscale display

*Note: RadiForce RX840-BK (No "MG" version shall not be used for mammography reading.)

Calibration Tools

Item	Description
RadiCS UX2*	EIZO calibration software and UX2 photometer package (RadiCS software Version 5.0.0 or later)

*Note: RadiCS LE version cannot be used for the QC tests described in this document.

These tests are intended to monitor the performance of the *LCD displays* as a component of the full-field digital mammography system and not the performance of the system as a whole. Hence, a characteristic such as compatibility of the component with the communication protocols used in an imaging network is not an element of these tests.

These tests are intended to monitor the consistency over time of the device's performance. While they may be included as elements of acceptance testing, they are not intended to represent the entirety of an acceptance test.

Prior to this quality control test in this document, it is recommended to perform correlation using RadiCS software to adjust the measurement result of the Integrated Front Sensor to the measurement result of the UX2 sensor for reference. Refer to the User's Manual of the RadiCS for detailed procedure.

1.2. Regulatory Considerations

Facilities subject to the provisions of the Mammography Quality Standards Act (MQSA) that use image receptors other than screen/film must follow a quality assurance program substantially the same as the one recommended by the image receptor manufacturer. For full-field digital mammography and digital breast tomosynthesis systems, the quality assurance program shall be substantially the same as the quality assurance program recommended by the ACR Digital Mammography Quality Control Manual and Supplement for Digital Breast Tomosynthesis (or such a manual that incorporates the Supplement and may be known by a different name but is unchanged in content) [21 CFR 900.12(e)(6)]. It remains the responsibility of the facility to determine whether or not this QC plan is substantially the same as the one recommended by the image receptor manufacturer for the FFDM system in use at that facility.



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2. QC TESTS FOR THE RADIOLOGIC TECHNOLOGIST

2.1. Introduction

QC tests are simple checks which ensure that the EIZO Diagnostic Monitor is operating to its design standards. They are intended to detect any changes in settings which might compromise image quality, as well as any deterioration in equipment performance over time.

QC tests for the *EIZO Diagnostic Monitor* are described in the following sections:

- **Section 2.3** **Luminance, Grayscale Calibration Check – Scheduler Setup.**
- **Section 2.4** **Image Quality Check (Visual Check (optional)).**

2.2. QC Intervals

The QC tests described in this section should be performed at least as frequently as specified in the test descriptions and as summarized in Table 2.2.1.

2.2.1. INTERVALS FOR PERFORMING QC TESTS

Procedure	Minimum Frequency	Section
Luminance, Grayscale Calibration Check	Monthly (Automated by software)	2.3
Image Quality Check (optional)	Monthly (optional)	2.4

Refer to **Section 4**, Guidance, for additional information regarding application of the QC Tests.

2.3. Luminance, Grayscale Calibration Check – Scheduler Setup

2.3.1. Frequency

Monthly (automatically).

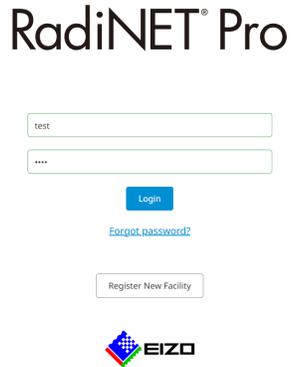
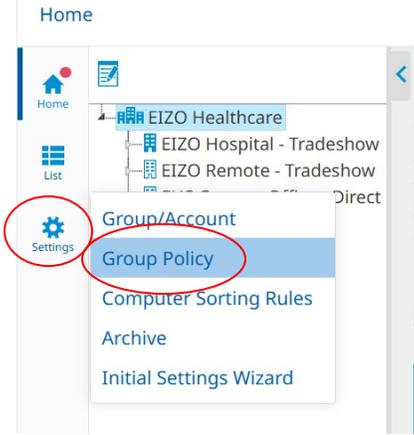
2.3.2. Objective

This procedure is to set up RadiCS software to automatically perform monthly (when monitors are used for viewing mammography images) luminance and grayscale calibration checks, ensuring that the display is properly calibrated for the reading of mammographic images.

2.3.3. Equipment Required

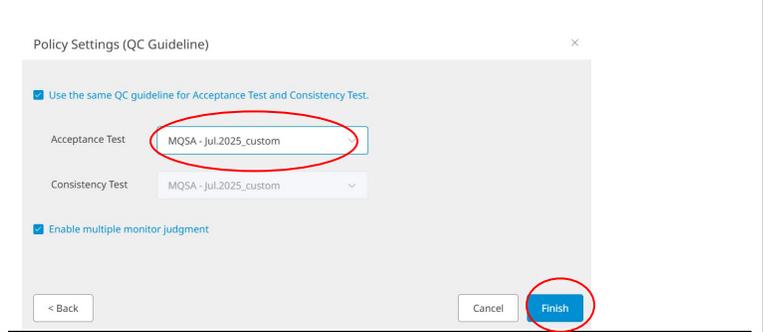
RadiCS QA software

2.3.4. Procedure (via RadiNET Pro)

1. Login to RadiNET Pro using an account.	 <p>The screenshot shows the RadiNET Pro login page. It features a title 'RadiNET Pro' at the top right. Below it are two input fields: the first contains the text 'test' and the second contains three dots. A blue 'Login' button is positioned below the fields. Underneath the button are two links: 'Forgot password?' and 'Register New Facility'. At the bottom center is the EIZO logo.</p>
2. Click "Settings" > "Group Policy"	 <p>The screenshot shows the RadiNET Pro interface with a settings menu open. The 'Settings' icon (a gear) in the left sidebar is circled in red. The settings menu is also open, and the 'Group Policy' option is highlighted with a blue background and circled in red. Other visible options in the menu include 'Group/Account', 'Computer Sorting Rules', 'Archive', and 'Initial Settings Wizard'. The background shows a tree view of facilities including 'EIZO Healthcare', 'EIZO Hospital - Tradeshov', and 'EIZO Remote - Tradeshov'.</p>

<p>3. Click the list icon on the right of QC guideline.</p>							
<p>4. Click “+” button on the top left of the list.</p>	<p>Policy List (QC Guideline)</p> <p>Edit/create/delete policies and change to policy statuses. Settings will also be applied to subordinate groups.</p> <p><input checked="" type="checkbox"/> Enable group policy for RadiNET Pro</p> <p></p> <table border="1"> <thead> <tr> <th>Status</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>Not Applicable <input checked="" type="checkbox"/> Applied</td> <td>MX317W DICOM</td> </tr> <tr> <td>Not Applicable <input checked="" type="checkbox"/> Applied</td> <td>RX1270 DICOM</td> </tr> </tbody> </table>	Status	Target	Not Applicable <input checked="" type="checkbox"/> Applied	MX317W DICOM	Not Applicable <input checked="" type="checkbox"/> Applied	RX1270 DICOM
Status	Target						
Not Applicable <input checked="" type="checkbox"/> Applied	MX317W DICOM						
Not Applicable <input checked="" type="checkbox"/> Applied	RX1270 DICOM						
<p>5. Enter a guideline name.</p> <p>6. Click “Next”.</p>	<p>Policy Settings (QC Guideline)</p> <p>Please input policy name.</p> <p><input type="text"/></p> <p>Cancel </p>						
<p>7. Select a model name from the pull-down menu.</p> <ul style="list-style-type: none"> If you have several models for mammo, you need to create a guideline for each model. <p>8. Check “Next”.</p>	<p>Policy Settings (QC Guideline)</p> <p>Model <input type="text" value="RX1270"/></p> <p>CAL Switch Mode <input type="text" value="DICOM"/></p> <p>< Back Cancel </p>						

9. Select “MQSA – month 20xx_custom” from the pull-down menu.
 - If the facility will not execute Image Quality Check, select “MQSA for Remote – month 20xx_custom”
 - The existing customer who are already using “Basic Mammo QC” or “Masic Mammo QC for Remote” can continue to use those guidelines (complementary use).



10. Then click “Finish”.

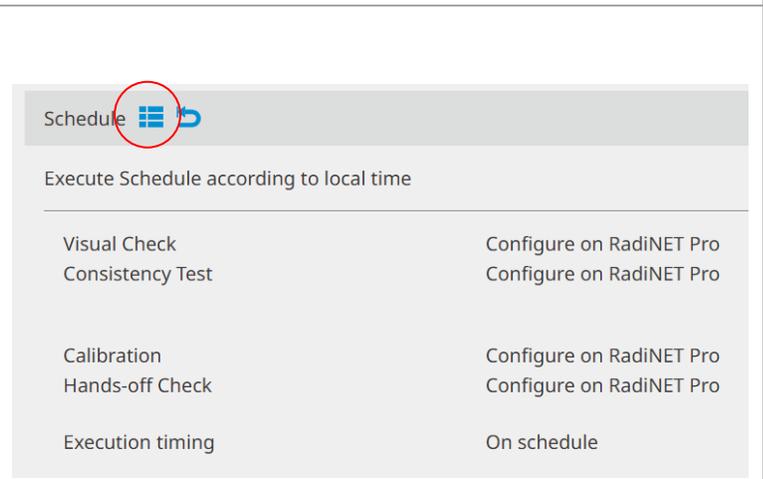
11. New guideline appears on the list.

12. Click the radio button to apply the new guideline.

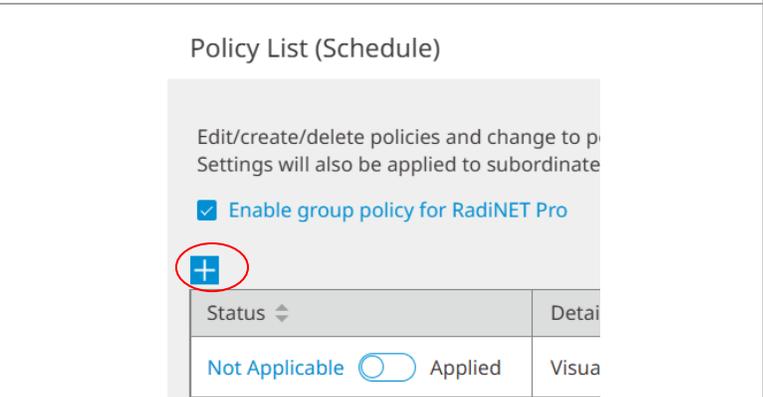
13. Click “OK”.

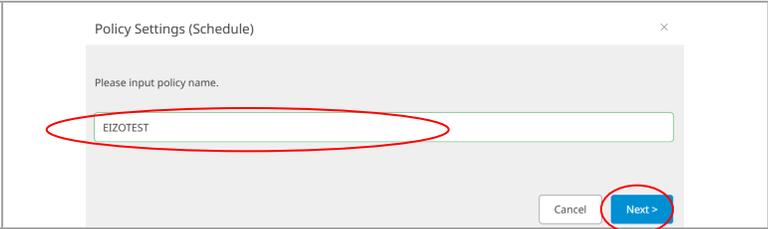
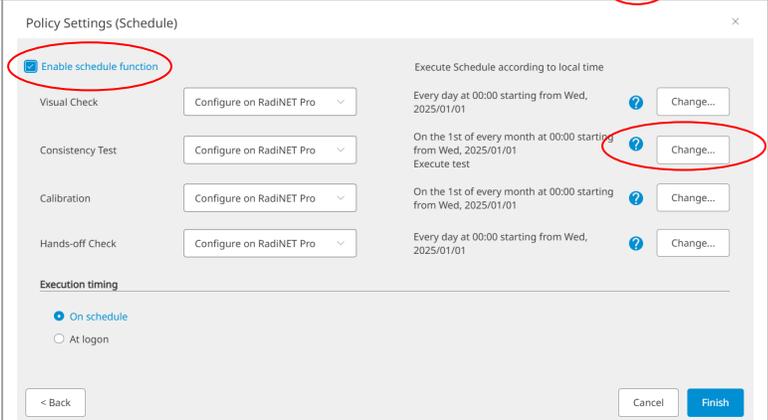
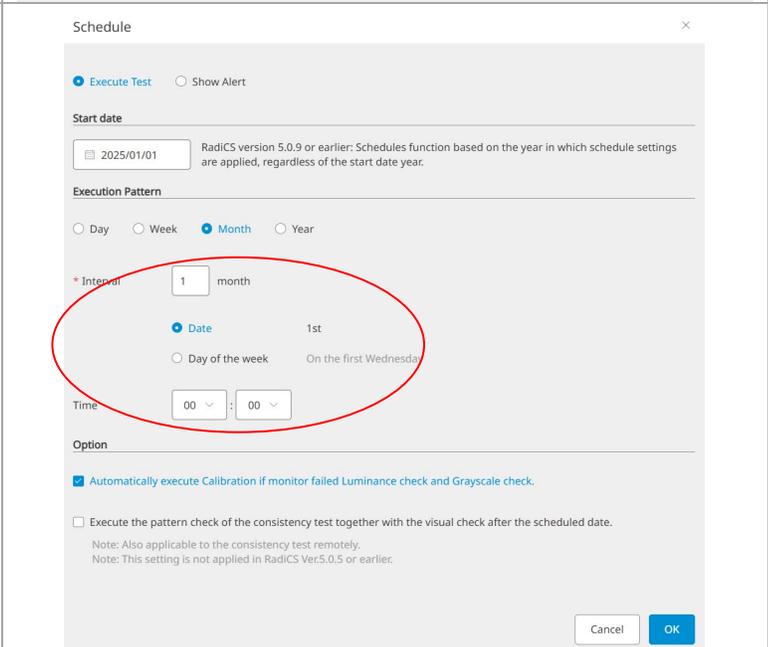
Status	Target	Detail	Information
Not Applicable <input checked="" type="radio"/> Applied	RK1270 DICOM	Acceptance Test, Consistency Test MQSA - Jul.2025_custom, Multi-Monitor Judgment ON	mammo device - 1270 EIZO USA Demo
Not Applicable <input type="radio"/> Applied	MK317W DICOM	Acceptance Test, Consistency Test Basic-QC Primary for Remote, Multi-Monitor Judgment ON	test EIZO USA Demo
Not Applicable <input type="radio"/> Applied	RK1270 DICOM	Acceptance Test, Consistency Test MQSA - Jul.2025_custom, Multi-Monitor Judgment ON	EIZOTEST
Not Applicable <input type="radio"/> Applied	RK1270 DICOM	Acceptance Test, Consistency Test Basic Mammo QC, Multi-Monitor Judgment ON	test 2 EIZO USA Demo

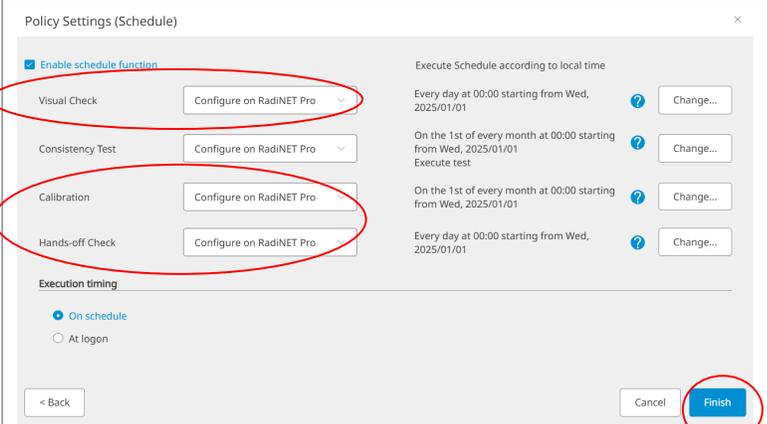
14. Click the list icon on the right of “Schedule”.



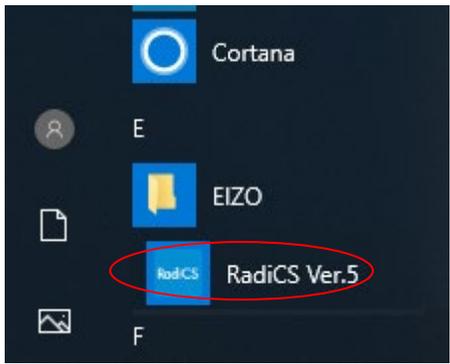
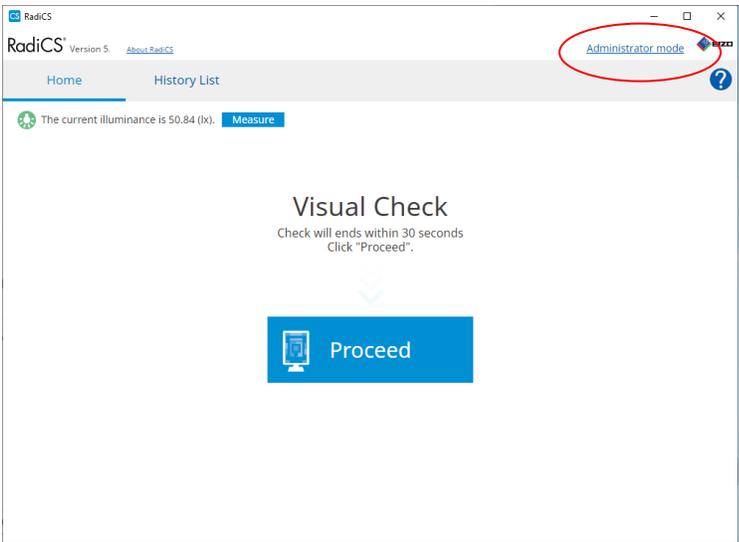
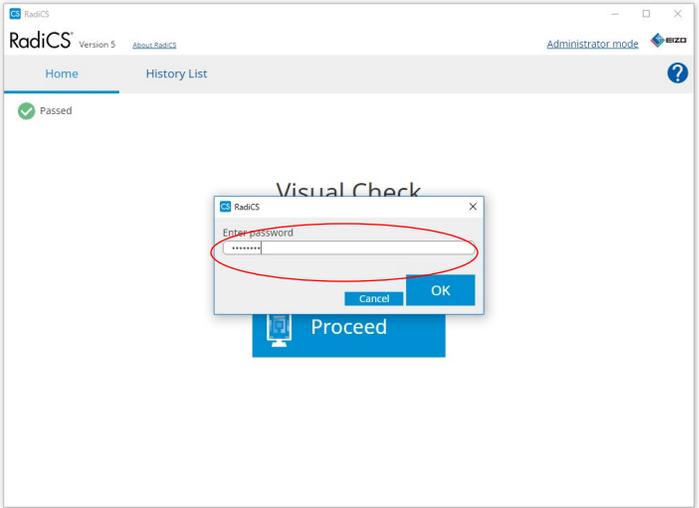
15. Click “+” button on the top left of the list.

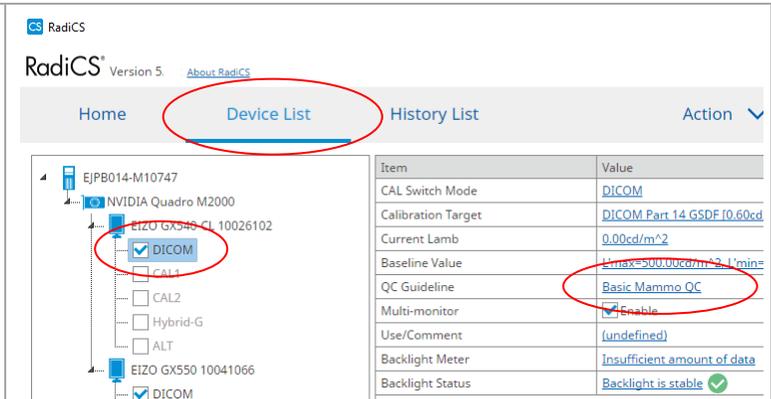
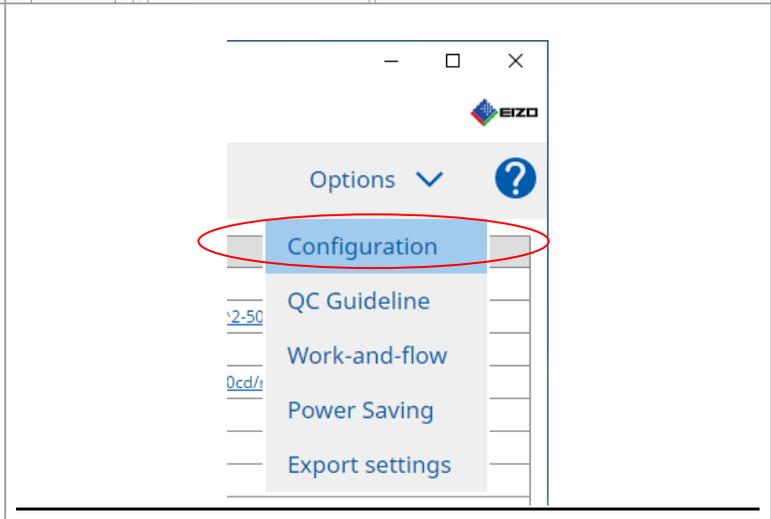
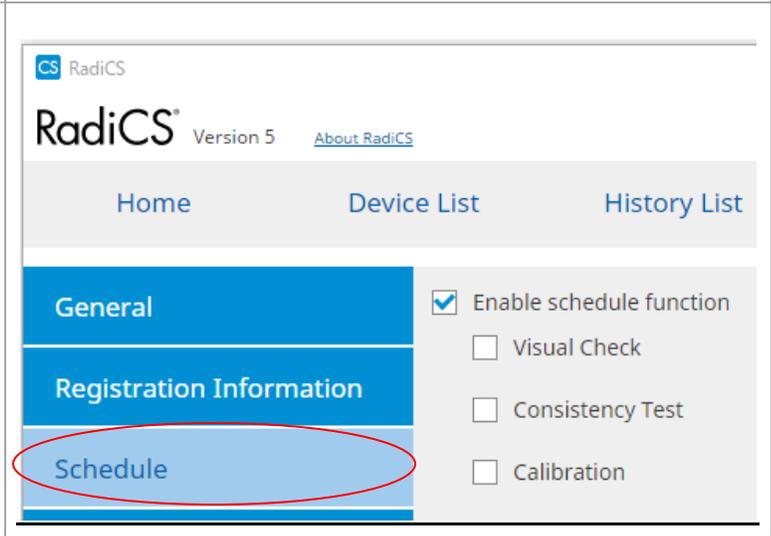
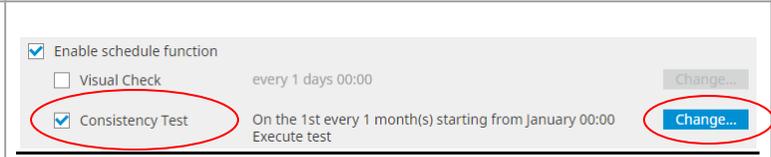


<p>16. Enter a schedule name.</p> <p>17. Click “Next”</p>	
<p>18. Click the check box for “Enable schedule....”</p> <p>19. Click “Change....” on the right of Consistency Test</p>	
<p>20. Set up an execution timing according to your preference</p> <p>21. Specify interval, day and start time when Consistency test to be started.</p> <p>22. Click “OK”.</p>	

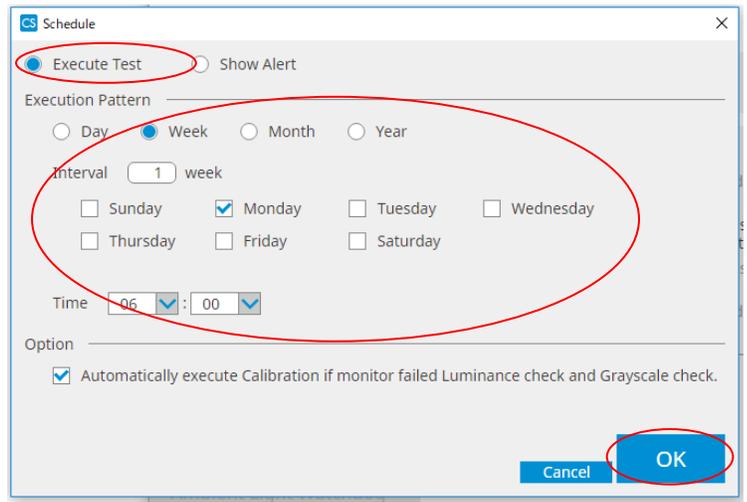
<p>23. Select “Disable” from the list for Visual Check, Calibration and Hands-off Check.</p> <p>24. Click “Finish”.</p>	
<p>25. New schedule appears on the list.</p> <p>26. Click the radio button to apply the new schedule.</p> <p>27. Click “OK”.</p>	
<p>28. The new guideline and schedule are automatically applied to the model when a monitor is connected to RadiNET Pro.</p>	

2.3.5. Procedure (if the facility does not have RadiNET Pro access)

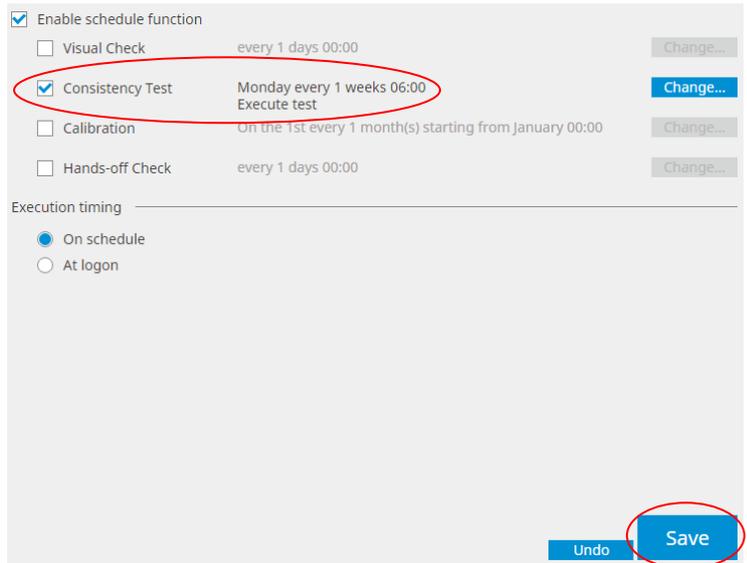
<p>1. Click on “RadiCS Ver.5” from the start menu.</p>	
<p>2. RadiCS will launch in user mode. Click “Administrator mode”</p>	
<p>3. Enter the password. Default password is “passwordv5”.</p> <p>4. Click the “OK” button.</p>	

<p>5. Go to “Device List” tab, verify the following 2 points:</p> <ul style="list-style-type: none"> • Is “DICOM” checked? • Is QA Policy set to “Basic Mammo QC” on all monitors? 	 <p>The screenshot shows the RadiCS interface with the 'Device List' tab selected. In the tree view, 'EIZO GX546 CL 10026102' has 'DICOM' checked. The table on the right lists parameters such as 'CAL Switch Mode' (DICOM), 'QC Guideline' (Basic Mammo QC), and 'Multi-monitor' (Enable).</p>
<p>6. Go to the tab with “Options” located in the upper right corner.</p> <p>7. Click “Configuration”.</p>	 <p>The screenshot shows a dropdown menu for 'Options' with 'Configuration' highlighted. Other options include 'QC Guideline', 'Work-and-flow', 'Power Saving', and 'Export settings'.</p>
<p>8. Go to “Schedule” tab.</p> <p>9. Check “Enable schedule function”.</p>	 <p>The screenshot shows the 'Schedule' configuration page. The 'Enable schedule function' checkbox is checked. Other options like 'Visual Check', 'Consistency Test', and 'Calibration' are unchecked.</p>
<p>10. Check “Consistency Test”.</p> <p>11. Then click “Change...” button.</p>	 <p>This close-up shows the 'Consistency Test' checkbox checked. The 'Change...' button next to it is highlighted. The test is set to execute every 1 month starting from January 00:00.</p>

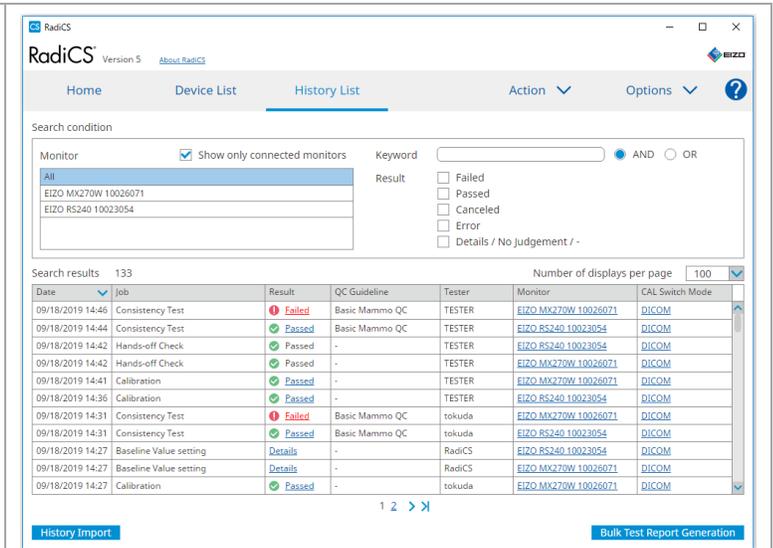
12. "Schedule" dialog box appears.
13. Select "Execute Test".
14. Select "Month".
15. Specify interval, day and start time when Consistency test to be started.
16. Click "OK" to close the dialog box.



17. Review the schedule and click "Save" to confirm the schedule.
18. Click "Exit" to Close RadiCS software.



19. RadiCS automatically performs the scheduled quality test.
20. The test result can be seen in “Result” column on Main page, click “passed” or “failed” to access the detailed test result.



The screenshot shows the RadiCS software interface. At the top, there are navigation tabs: Home, Device List, and History List (which is active). Below the tabs is a search condition area with a 'Monitor' dropdown set to 'All', a 'Show only connected monitors' checkbox checked, and a 'Keyword' search box. To the right of the search area are radio buttons for 'AND' (selected) and 'OR'. Below the search area is a table of search results. The table has columns for Date, Job, Result, QC Guideline, Tester, Monitor, and CAL Switch Mode. The results show a mix of 'Failed' and 'Passed' tests. At the bottom of the interface, there are buttons for 'History Import' and 'Bulk Test Report Generation'.

Date	Job	Result	QC Guideline	Tester	Monitor	CAL Switch Mode
09/18/2019 14:46	Consistency Test	Failed	Basic Mammo QC	TESTER	EIZO MX270W 10026071	DICOM
09/18/2019 14:44	Consistency Test	Passed	Basic Mammo QC	TESTER	EIZO RS240 10023054	DICOM
09/18/2019 14:42	Hands-off Check	Passed	-	TESTER	EIZO RS240 10023054	DICOM
09/18/2019 14:42	Hands-off Check	Passed	-	TESTER	EIZO MX270W 10026071	DICOM
09/18/2019 14:41	Calibration	Passed	-	TESTER	EIZO MX270W 10026071	DICOM
09/18/2019 14:36	Calibration	Passed	-	TESTER	EIZO RS240 10023054	DICOM
09/18/2019 14:31	Consistency Test	Failed	Basic Mammo QC	tokuda	EIZO MX270W 10026071	DICOM
09/18/2019 14:31	Consistency Test	Passed	Basic Mammo QC	tokuda	EIZO RS240 10023054	DICOM
09/18/2019 14:27	Baseline Value setting	Details	-	RadiCS	EIZO RS240 10023054	DICOM
09/18/2019 14:27	Baseline Value setting	Details	-	RadiCS	EIZO MX270W 10026071	DICOM
09/18/2019 14:27	Calibration	Passed	-	tokuda	EIZO MX270W 10026071	DICOM

2.3.6. Action Limits

Item	Criteria
Luminance Check	L'max/L'min > 250 L'max > 450 cd/m ² Lamb < Lmin/1.5
Grayscale Check	Target error rate < 10% of GSDF

2.4. Image Quality Check (optional)

2.4.1. Frequency

Monthly (optional)

*This test is a part of monthly consistency test of ACR guideline.

*Testing is not required monthly for monitors that have not been used for a certain period of time, such as vacation of Dr or back-up.

2.4.2. Objective

To ensure that the display is calibrated for the reading of mammographic images.

From a technical/scientific aspect, Image Quality Check is an optional procedure to detect uniformity issues, dirt, scratches, etc, which cannot be measured by measurement test.

For reference, ACR Digital Mammography Quality Control Manual and Supplement for Digital Breast Tomosynthesis suggests performing the image quality check as a part of technologist test.

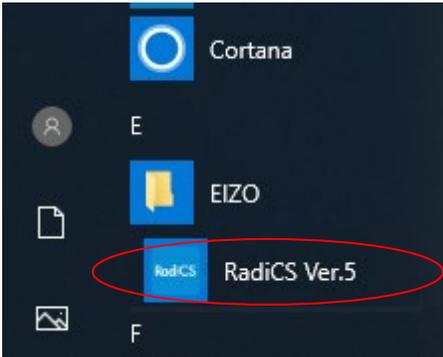
Ref. [Mammography-Quality-Control-Manual.pdf](#)

2.4.3. Equipment Required

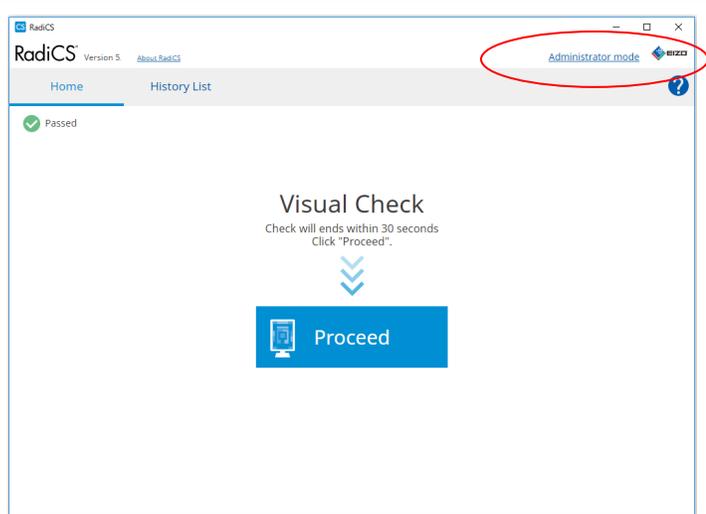
RadiCS QA software

2.4.4. Procedure

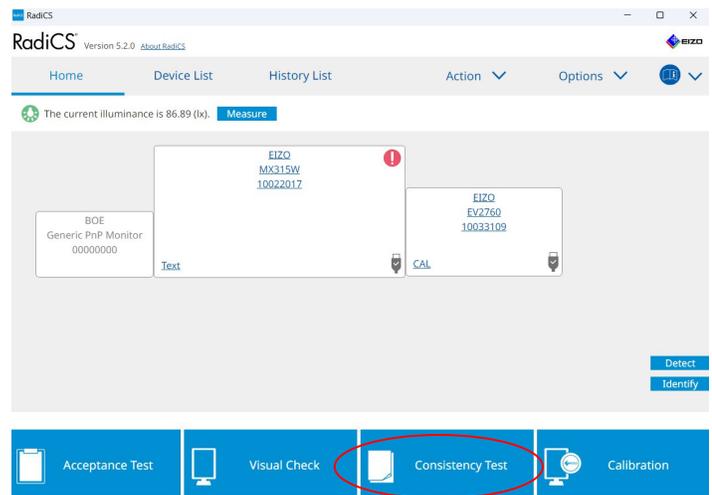
Confirm automated luminance and grayscale calibration check has passed. Then perform the visual check using the RadiCS software. If any dust, fingerprints, scratches, etc. are found on the surface of the display during the test, stop the test and clean the surface according to the method in Supplement 5, and test it again.

<p>1. Check RadiCS task Tray icon to see if automated luminance and grayscale test result is OK. RadiCS icon will show warning mark only when test failed.</p> <p>*In case failed mark shown, stop further test and see section 4.3.</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Passed</p> </div> <div style="text-align: center;">  <p>Failed</p> </div> </div>
<p>2. Click on RadiCS Ver.5 from the start menu. RadiCS will launch in user mode.</p>	

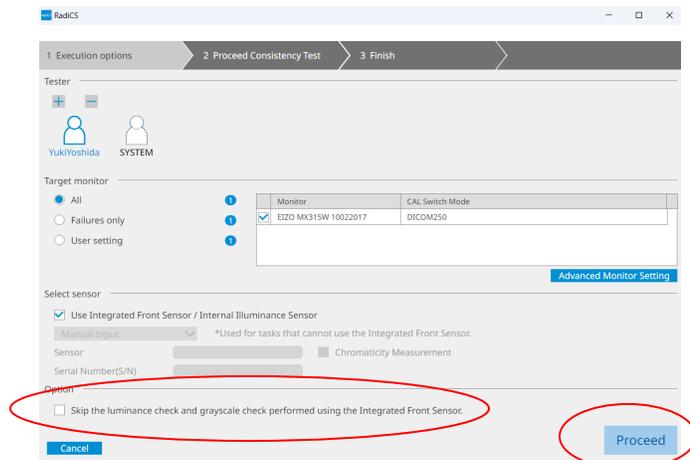
3. Click “Administrator mode”.
4. Enter the password
 - Default password is “passwordv5”



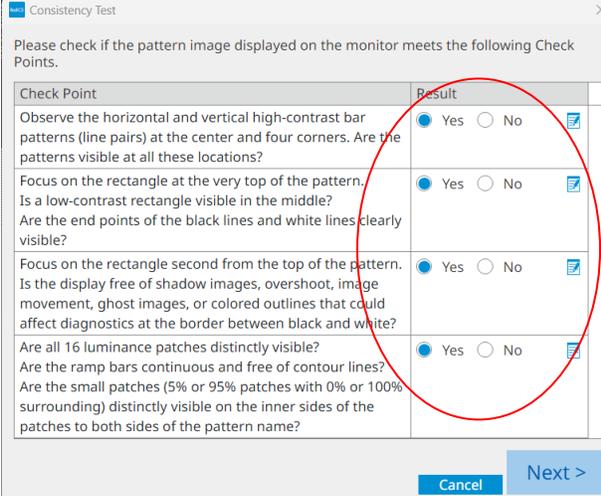
Click “Consistency Test”.



5. Check the check box for “Skip the luminance check....” in the “Option” section.
6. Click Proceed.



7. Check the “Yes” if you visually assess that the monitor meets the question. If not, check “No”
 - You can see the help guide on the screen when you mouse over each statement.
8. Click “Finish”

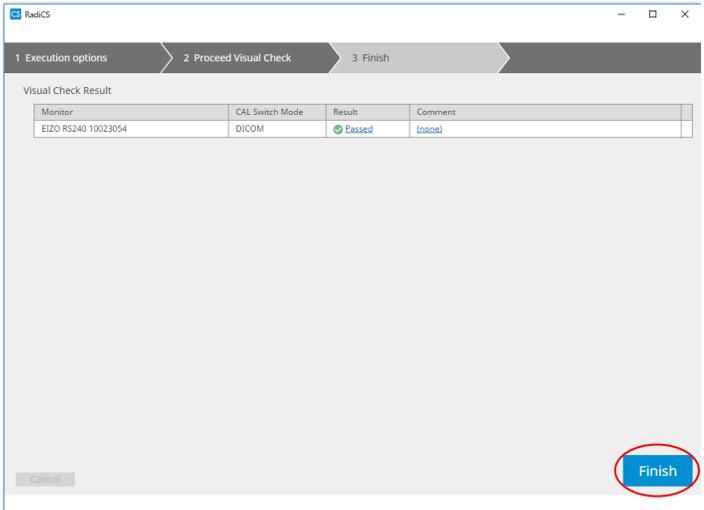


Consistency Test

Please check if the pattern image displayed on the monitor meets the following Check Points.

Check Point	Result
Observe the horizontal and vertical high-contrast bar patterns (line pairs) at the center and four corners. Are the patterns visible at all these locations?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Focus on the rectangle at the very top of the pattern. Is a low-contrast rectangle visible in the middle? Are the end points of the black lines and white lines clearly visible?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Focus on the rectangle second from the top of the pattern. Is the display free of shadow images, overshoot, image movement, ghost images, or colored outlines that could affect diagnostics at the border between black and white?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Are all 16 luminance patches distinctly visible? Are the ramp bars continuous and free of contour lines? Are the small patches (5% or 95% patches with 0% or 100% surrounding) distinctly visible on the inner sides of the patches to both sides of the pattern name?	<input checked="" type="radio"/> Yes <input type="radio"/> No

Cancel Next >



RadiCS

1 Execution options 2 Proceed Visual Check 3 Finish

Visual Check Result

Monitor	CAL Switch Mode	Result	Comment
EIZO RS240 10023054	DICOM	Passed	(none)

Cancel Finish

2.4.5. Action Limit

If any of the indicated test conditions are not met, the display fails the test. Take action as specified in **Section 3.2.4**

For the action limit of automated luminance and grayscale check, see **Section 2.3.6**

2.4.6. Use of Test Results

If the system fails the test, the source of the problem must be identified and corrective action taken, before any further mammographic images are reviewed or interpreted using the display. See **Section 4.1. / 4.3.**



3. QC TESTS FOR THE MEDICAL PHYSICIST

3.1. Introduction

The QC tests listed in this section must be performed by the Medical Physicist to ensure that the EIZO Diagnostic Monitor provides a high level of mammographic image quality. [Ref – FDA MQSA Requirement Part 900.2 \(bb\), 900.12 \(a\)\(3\), 900.12 \(d\)](#). These tests also form the basis of the equipment evaluations that must be performed following the installation of EIZO Diagnostic Monitor, the repair or replacement of a major component of the system, the relocation of the display to a new viewing environment, or substantial change of the illumination of an existing viewing environment.

The QC tests described in this section must be performed at least as frequently as specified in the test descriptions and as summarized in **table 3.1.1**. These tests are described in **Sections 3.2, 3.3, and 3.4**. Charts for recording the results of the QC tests are provided in **Section.3.4**

The test name used in this manual for “Display Luminance and Grayscale Calibration Check” has been changed to “Accepted Test” since Ver5.0 (updated August 2025). Tests performed before August 2025 are stored in the RadiCS software under the name “Consistency Test”. Tests performed before August 2025 will remain valid after this update and will not need to be reperformed with this update (Aug. 2025).

3.1.1. INTERVALS FOR PERFORMING QC TESTS

Procedure	Minimum Frequency	Section
Viewing Conditions Check and Setting	Annually	3.2
Display Luminance and Grayscale Calibration Check	Annually	3.3

3.2. Viewing Conditions Check and Setting

3.2.1. Frequency

Annually

3.2.2. Objective

To ensure optimal viewing conditions.

3.2.3. Equipment Required

Illuminance photometer with a minimum resolution not exceeding 1 lux.
(EIZO Integrated Illuminance Sensor is available)

3.2.4. A: Procedure (w/ external photometer)

1. Place the displays in optimal positions in the room. See **Section 4.2**.
2. Reduce any lighting coming from sources such as viewboxes, overhead, and/or task lighting to the minimum, to reproduce typical ambient lighting conditions that would be set for reading digital images on the display.
3. Check that the ambient lighting set at Step 2 is stable (no flickering effect due to any of the lighting sources that are turned on).
4. Make each display as dark as possible. For example, minimize the application windows or display a black, flat field.
5. Obtain the illuminance reading at each display. Position the photometer with its sensitive area facing away from the surface of the display and located at the center of the display and on the display surface.

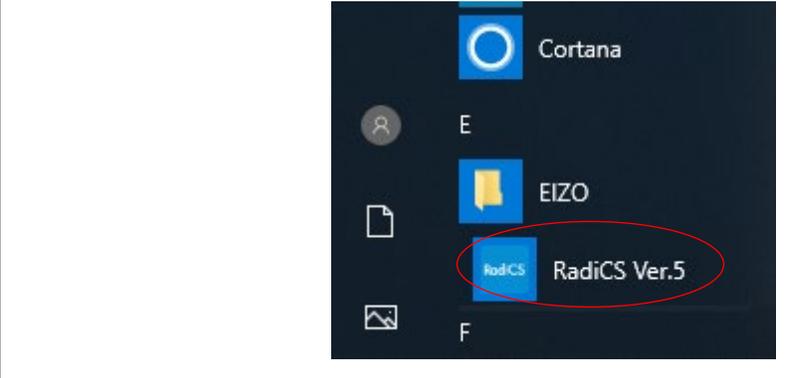
NOTE—The medical physicist must take care not to block any light that could be detected by the photometer.

6. Read the illuminance value and verify that it does not exceed the value specified in the Action Limit.
7. If the value is greater than the specified limit, adjust the room ambient light and/or the room configuration in such a way that the illuminance does not exceed that limit.
8. Record a description of the room configuration established as optimal in the data form as detailed in Steps 9 through 11.
9. Fill out a check-list of the condition of major elements in the reading room (for example, display positions, room lights, desk lights, curtains).
10. Record the illuminance on the data form.
11. Draw a room layout on the data form sufficiently accurate to enable the Radiologic Technologist to reproduce the illumination conditions as they were at the time the illuminance level was set.
12. Restore each display to its normal condition, i.e., undo any measures taken in Step 4 to darken the display.

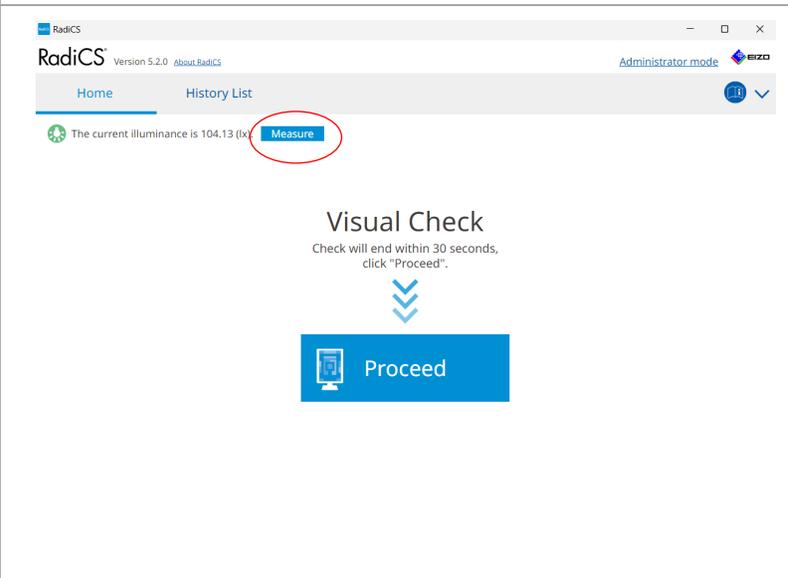
B: Procedure (w/ EIZO integrated illuminance Sensor)

1. Place the displays in optimal positions in the room. See **Section 2**.
2. Reduce any lighting coming from sources such as viewboxes, overhead, and/or task lighting to the minimum, to reproduce typical ambient lighting conditions that would be set for reading digital images on the display.
3. Check that the ambient lighting set at Step 2 is stable (no flickering effect due to any of the lighting sources that are turned on).

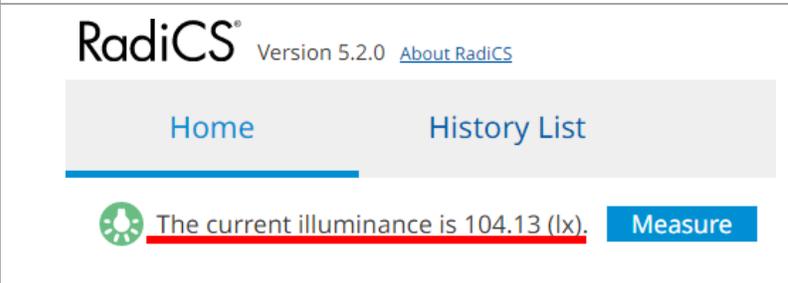
4. Click on RadiCS Ver.5 from the start menu.



5. RadiCS will launch in user mode. Click "Measure"



6. Check the measurement value does not exceed the value specified in the Action Limit.



7. If the value is greater than the specified limit, adjust the room ambient light and/or the room configuration in such a way that the illuminance does not exceed that limit.
8. Record a description of the room configuration established as optimal in the data form as detailed in Steps 9 through 11.

9. Fill out a check-list of the condition of major elements in the reading room (for example, display positions, room lights, desk lights, curtains).
10. Record the illuminance on the data form.
11. Draw a room layout on the data form sufficiently accurately to enable the Radiologic Technologist to reproduce the illumination conditions as they were at the time the illuminance level was set.
12. Restore each display to its normal condition, i.e., undo any measures taken in Step 4 to darken the display.

3.2.5. Action Limit

The ambient light level must not exceed 20 lux. The measured value must be stable over one minute, with a tolerance of ± 5 lux over the measuring time with regards to the nominal lighting value. If the system fails the test, the source of the problem must be identified and corrective action taken, before any further mammographic images are reviewed or interpreted.

For reference, ACR/AAPM Technical Standard defines Ambient luminance (L_{amb}) and Minimum Luminance (L_{min}) should satisfy the $L_{amb} < L_{min} / 4$ and be at least 1.0 cd/m^2 .

Also, $L'_{min} (= L_{min} + L_{amb})$ should be $< 1.2 \text{ cd/m}^2$.

Ref. [ACR–AAPM–SIIM TECHNICAL STANDARD FOR ELECTRONIC PRACTICE OF MEDICAL IMAGING 3. D. 2. Display characteristics](#)

3.2.6. Use of Test Results

If the system fails the test, the source of the problem must be identified and corrective action taken, before any further mammographic images are reviewed or interpreted using the display. See **Section 4.2**

3.3. Display Luminance and Grayscale Calibration Check

3.3.1. Frequency

Annually or Medical Equipment Evaluation (performing when installed new Workstation or replaced a Workstation)

3.3.2. Objective

To ensure that each display is calibrated for the reading of mammographic images.

3.3.3. Equipment Required

RadiCS QA software with IFS(Internal Front Sensor). EIZO UX1 sensor / EIZO UX2 sensor (external photometer) can be used. The UX1 sensor / UX2 sensor is recommended recalibration annually (contact EIZO for more information). Date of last calibration should be indicated.

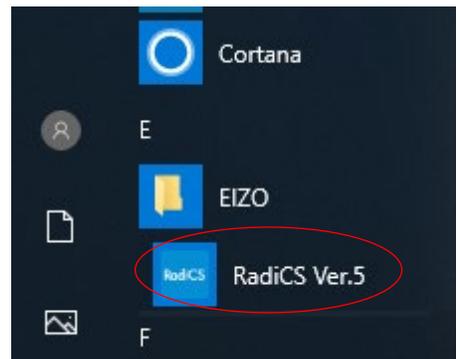
3.3.4. Action Limits

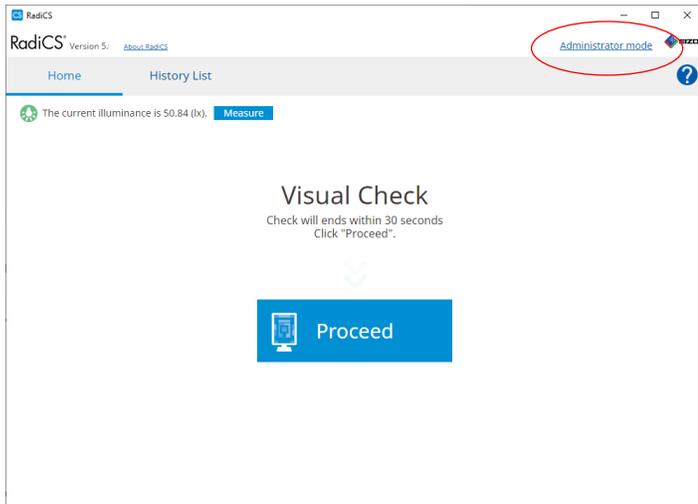
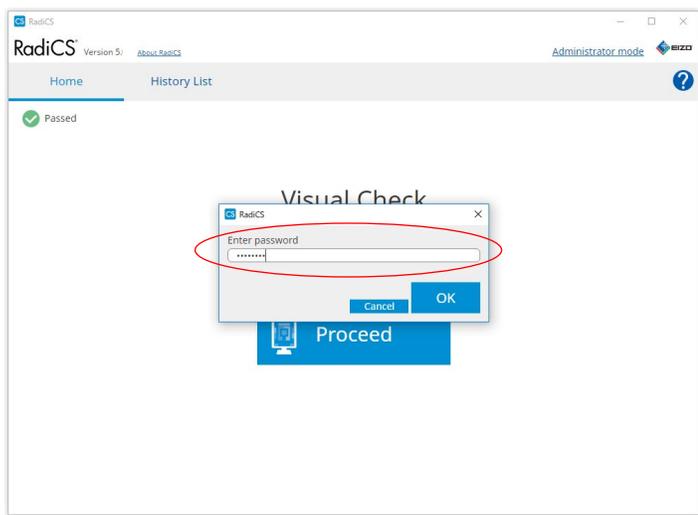
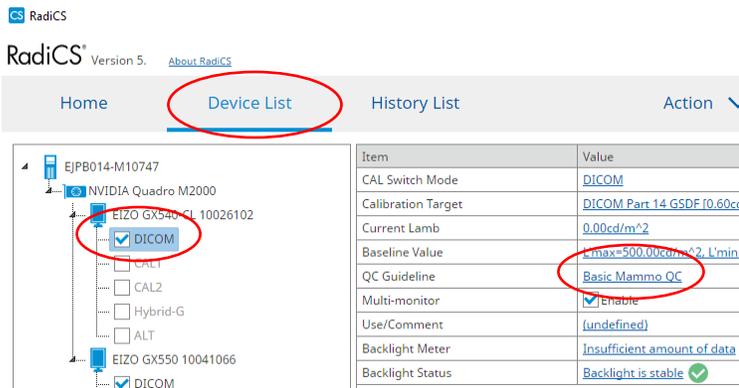
Item	Criteria
Pattern Check (Test pattern used)	TG18-QC TG18-UN80
Luminance Check	$L'_{max}/L'_{min} > 250$ $L'_{max} > 450 \text{ cd/m}^2$ $Lamb < Lmin/1.5$
Grayscale Check	Target error rate < 10% of GSDF

3.3.5. Procedure

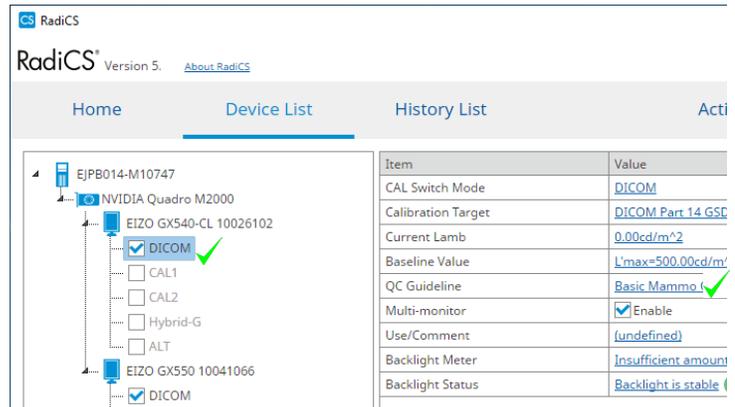
Perform the Luminance and Grayscale calibration check using the RadiCS software

1. Click on RadiCS Ver.5 from the start menu.



<p>2. RadiCS will launch in user mode. Click “Administrator mode”</p>																					
<p>3. Enter the password. Default password is “passwordv5”.</p> <p>4. Click the “OK” button.</p>																					
<p>5. Click “Device List” tab.</p> <p>6. Check if “DICOM” mode is activated on each EIZO Diagnostic monitor used for Mammography reading.</p> <p>7. Also uncheck the monitor NOT to be tested.</p>	 <table border="1" data-bbox="1023 1480 1412 1732"> <thead> <tr> <th>Item</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>CAL Switch Mode</td> <td>DICOM</td> </tr> <tr> <td>Calibration Target</td> <td>DICOM Part 14 GSD F0.60cd</td> </tr> <tr> <td>Current Lamb</td> <td>0.00cd/m²</td> </tr> <tr> <td>Baseline Value</td> <td>L_{max}=500.00cd/m², L_{min}=</td> </tr> <tr> <td>QC Guideline</td> <td>Basic Mammo QC</td> </tr> <tr> <td>Multi-monitor</td> <td><input checked="" type="checkbox"/> Enable</td> </tr> <tr> <td>Use/Comment</td> <td>(undefined)</td> </tr> <tr> <td>Backlight Meter</td> <td>Insufficient amount of data</td> </tr> <tr> <td>Backlight Status</td> <td>Backlight is stable <input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Item	Value	CAL Switch Mode	DICOM	Calibration Target	DICOM Part 14 GSD F0.60cd	Current Lamb	0.00cd/m ²	Baseline Value	L _{max} =500.00cd/m ² , L _{min} =	QC Guideline	Basic Mammo QC	Multi-monitor	<input checked="" type="checkbox"/> Enable	Use/Comment	(undefined)	Backlight Meter	Insufficient amount of data	Backlight Status	Backlight is stable <input checked="" type="checkbox"/>
Item	Value																				
CAL Switch Mode	DICOM																				
Calibration Target	DICOM Part 14 GSD F0.60cd																				
Current Lamb	0.00cd/m ²																				
Baseline Value	L _{max} =500.00cd/m ² , L _{min} =																				
QC Guideline	Basic Mammo QC																				
Multi-monitor	<input checked="" type="checkbox"/> Enable																				
Use/Comment	(undefined)																				
Backlight Meter	Insufficient amount of data																				
Backlight Status	Backlight is stable <input checked="" type="checkbox"/>																				

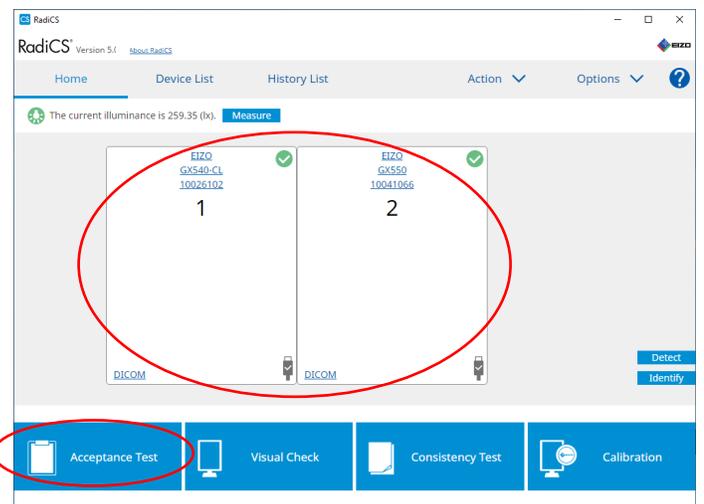
8. Verify the following 2 points:
- Is “DICOM” checked?
 - Is QA Policy set to “Basic Mammo QC”, “Basic Mammo QC for Remote”, “MQSA – month 20xx_custom” or “MQSA for Remote – month 20xx_custom” on all EIZO monitors used for Mammography reading?



The screenshot shows the RadiCS software interface. On the left, a tree view shows the device list with 'EIZO GX540-CL 10026102' and 'EIZO GX550 10041066' selected, both with 'DICOM' checked. On the right, a configuration table is displayed:

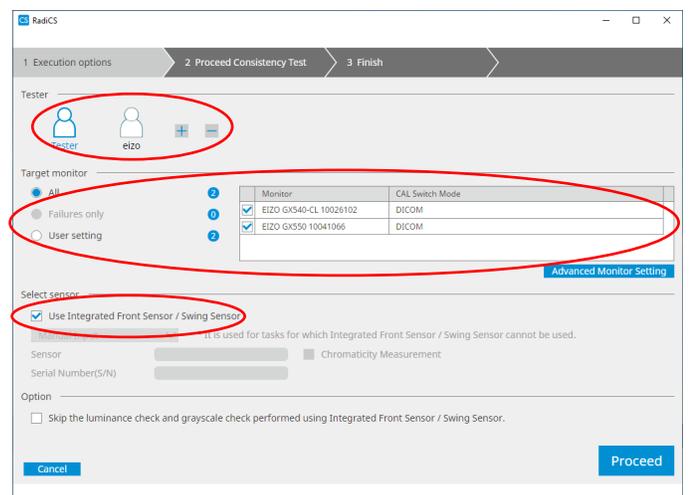
Item	Value
CAL Switch Mode	DICOM
Calibration Target	DICOM Part 14 GSP
Current Lamb	0.00cd/m ²
Baseline Value	L _{max} =500.00cd/m ²
QC Guideline	Basic Mammo ✓
Multi-monitor	<input checked="" type="checkbox"/> Enable
Use/Comment	(undefined)
Backlight Meter	Insufficient amount
Backlight Status	Backlight is stable

9. Go to “Home”
10. Confirm the list of the display to be tested.
11. Click “Acceptance Test” button.



The screenshot shows the RadiCS software interface in the Home view. It displays two monitors: 'EIZO GX540-CL 10026102' (labeled 1) and 'EIZO GX550 10041066' (labeled 2). Both have green checkmarks. The 'Acceptance Test' button in the bottom navigation bar is circled in red.

12. Select the person or click “+” and type the name of the person performing the test. This name will be recorded and shown in the test report.
13. Select the monitor performing the test.
14. Select the sensor.



The screenshot shows the RadiCS software interface in the 'Proceed Consistency Test' step. The 'Tester' field is set to 'eizo'. The 'Target monitor' section has two monitors selected: 'EIZO GX540-CL 10026102' and 'EIZO GX550 10041066'. The 'Select sensor' section has 'Use Integrated Front Sensor / Swing Sensor' checked. The 'Proceed' button is highlighted.

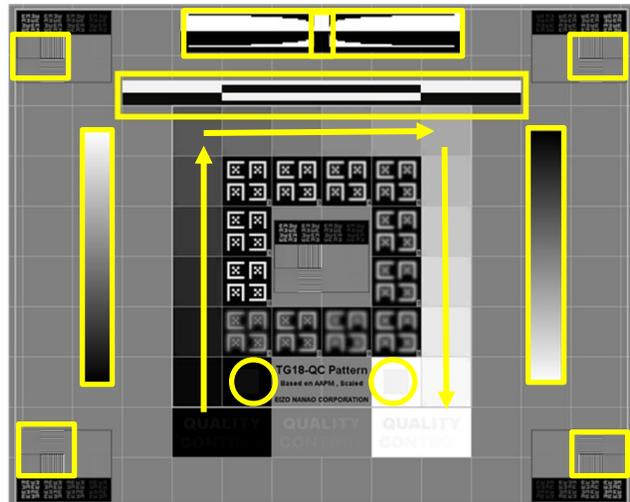
15. Check the “Yes” if you visually assess that the monitor meets the question. If not, check “No”

CS Consistency Test X

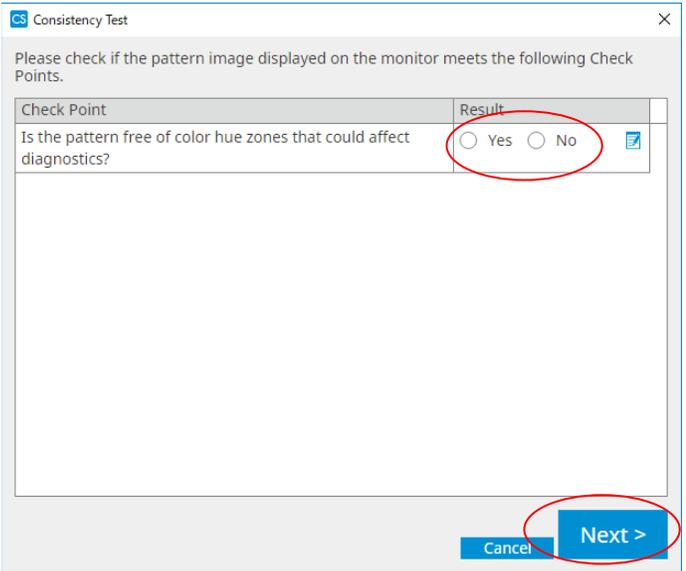
Please check if the pattern image displayed on the monitor meets the following Check Points.

Check Point	Result
Observe the horizontal and vertical high-contrast bar patterns (line pairs) at the center and four corners. Are the patterns visible at all these locations?	<input type="radio"/> Yes <input type="radio"/> No [?]
Focus on the rectangle at the very top of the pattern. Is a low-contrast rectangle visible in the middle? Are the end points of the black lines and white lines clearly visible?	<input type="radio"/> Yes <input type="radio"/> No [?]
Focus on the rectangle second from the top of the pattern. Is the display free of shadow images, overshoot, image movement, ghost images, or colored outlines that could affect diagnostics at the border between black and white?	<input type="radio"/> Yes <input type="radio"/> No [?]
Are all 16 luminance patches distinctly visible? Are the ramp bars continuous and free of contour lines? Are the small patches (5% or 95% patches with 0% or 100% surrounding) distinctly visible on the inner sides of the patches to both sides of the pattern name?	<input type="radio"/> Yes <input type="radio"/> No [?]

Cancel
Next >



16. Click the “Yes” button if you visually assess that the monitor meets the question. If not, click “No”

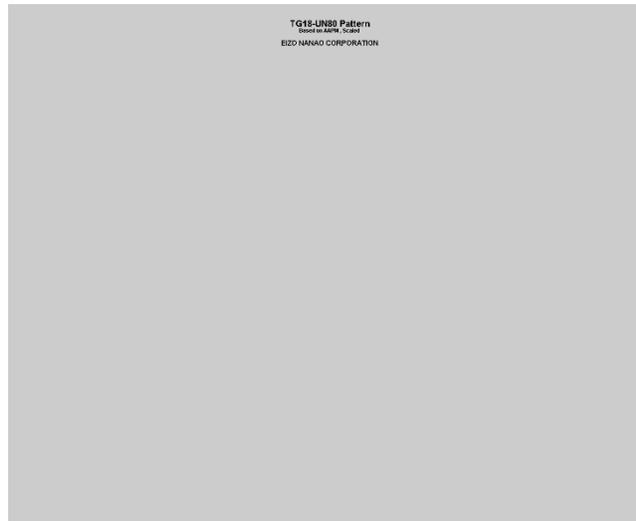


CS Consistency Test

Please check if the pattern image displayed on the monitor meets the following Check Points.

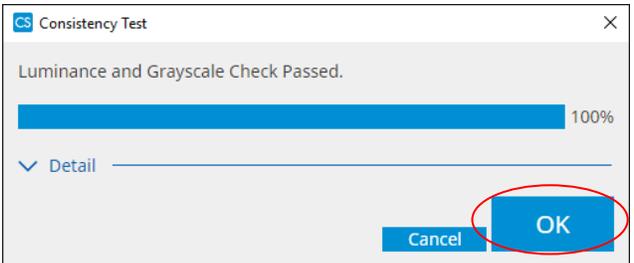
Check Point	Result
Is the pattern free of color hue zones that could affect diagnostics?	<input type="radio"/> Yes <input type="radio"/> No <input type="checkbox"/>

Cancel Next >



17. A progress bar to be displayed while IFS measures the luminance. The monitor screen will display a black background.

18. Click “OK”.



CS Consistency Test

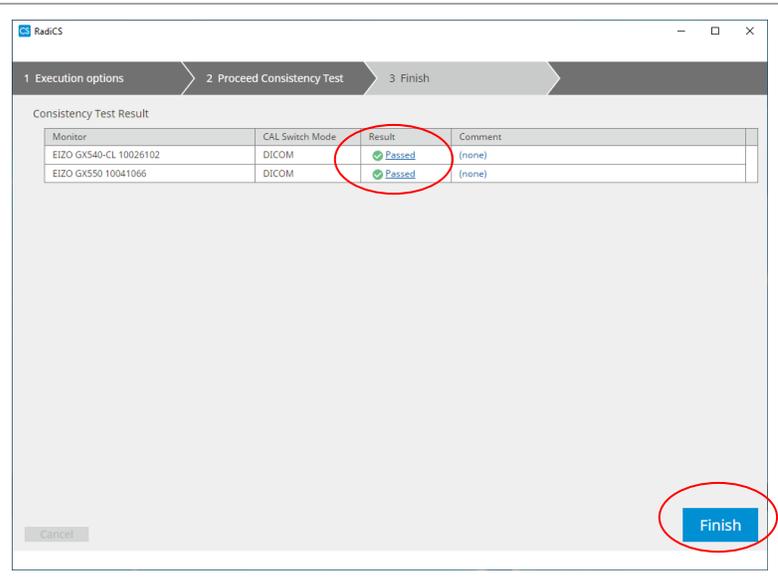
Luminance and Grayscale Check Passed.

100%

Detail

Cancel OK

19. See “Result” column to confirm the test result.
20. Click “Finish” button to confirm test result.



3.3.6. Use of Test Results

If the system fails the test, the failing measurement shall be repeated. If the failure persists, the source of the problem must be identified and corrective action taken within 30 days of the test date. See **Section 3**.



3.4 Medical Physicist QC Test Results Record Forms

3.4.1 Site and System Summary

Facility Name:	
Address:	
Room:	
Date of Installation:	
Date of Test:	
Type of Test:	Annual Survey Mammography Equipment Evaluation <i>(Circle the applicable one)</i>
Room ID:	
Serial Numbers	
Mammographic Unit:	
Diagnostic Workstation:	
Left Display:	
Right Display:	
Medical Physicist:	
Signature:	

3.4.2 Viewing Conditions Check and Setting

Facility:			
Room:		Date:	
Room description			
Display positions:			
Room lights:			
Desk Lights:			
Others:			
	Ambient Illuminance:		
	NOTE: Confirmation of this value is not part of the Visual Check by the Radiologic Technologist.		

Requirement:

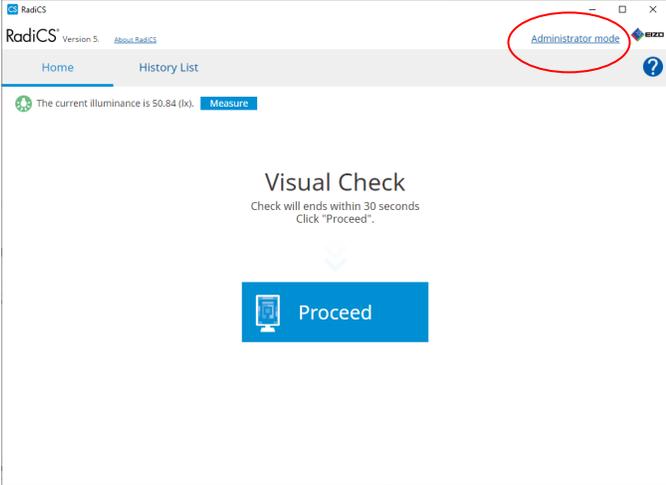
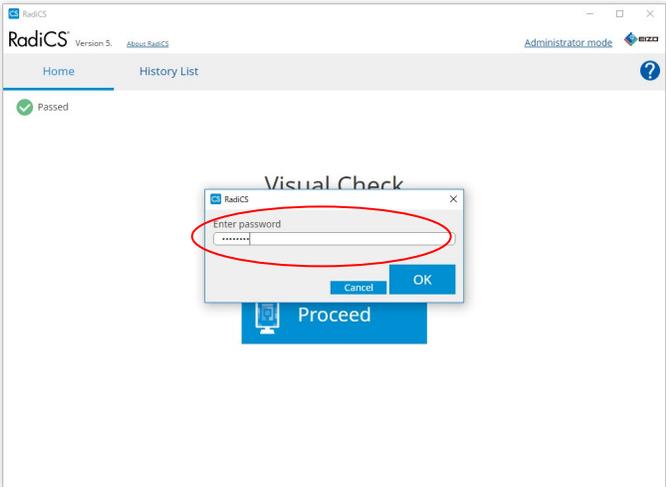
Display Type	Ambient Illuminance	Pass	Fail
LCD	< 20 Lux		

Room layout:

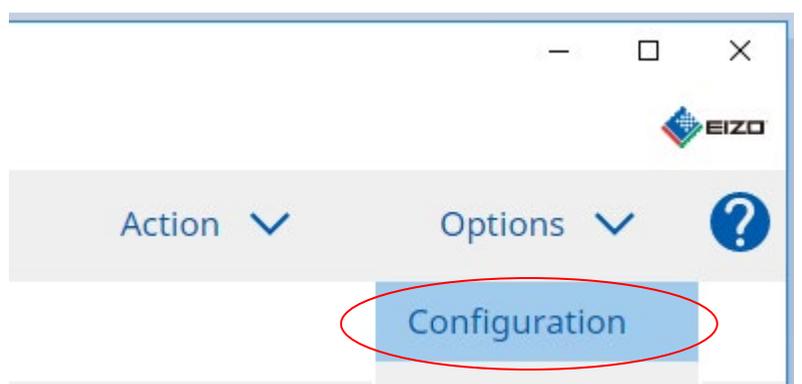
3.4.3 Display Luminance and Grayscale Calibration Check

Luminance, Grayscale and Image Quality calibration checks are stored in the RadiCS software history report. Reports can be printed if hardcopy documentation is desired.

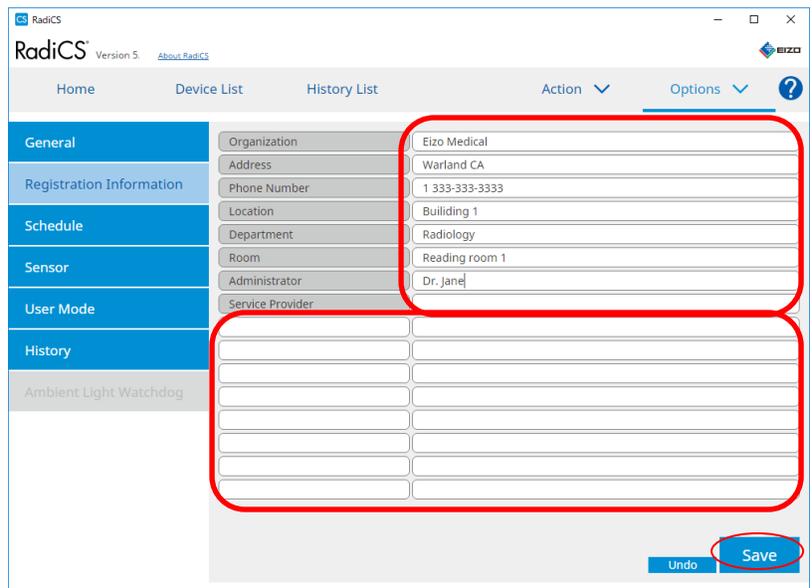
Procedure

<p>1. Click on RadiCS Ver.5 from the start menu.</p>	
<p>2. RadiCS will launch in user mode. Click "Administrator mode"</p>	
<p>3. Enter the password. Default password is "passwordv5".</p> <p>4. Click the "OK" button.</p>	

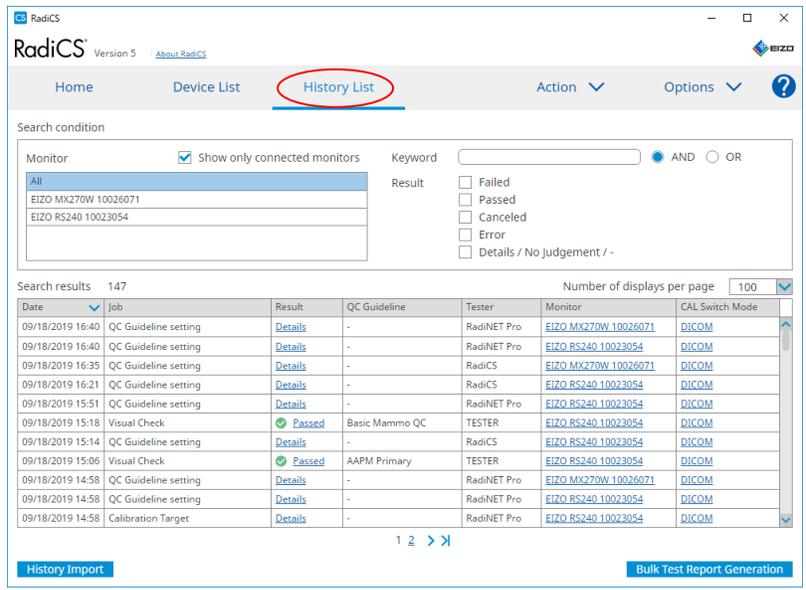
5. Click the “Options” menu located in the top right corner go to “Configuration”.



6. Please type in registration information. This information will be shown in the test report.
7. User defined fields also available.
8. Click “Save” to update the information on RadiCS.



9. Click the “History List” to go to the QC test report list.



10. Double-click the line item to open the test result.

Date	Time	Test Name	Result	Reason	Monitor
09/18/2019	16:40	QC Guideline setting	-		RadiNET Pro EIZO MX270W 10026071
09/18/2019	16:40	QC Guideline setting	-		RadiNET Pro EIZO RS240 10023054
09/18/2019	16:35	QC Guideline setting	-		RadiCS EIZO MX270W 10026071
09/18/2019	16:21	QC Guideline setting	-		RadiCS EIZO RS240 10023054
09/18/2019	15:51	QC Guideline setting	-		RadiNET Pro EIZO RS240 10023054
09/18/2019	15:18	Visual Check	Passed	Basic Mammo QC	TESTER EIZO MX270W 10026071
09/18/2019	15:14	QC Guideline setting	-		RadiCS EIZO RS240 10023054
09/18/2019	15:06	Visual Check	Passed	AAPM Primary	TESTER EIZO RS240 10023054
09/18/2019	14:58	QC Guideline setting	-		RadiNET Pro EIZO MX270W 10026071
09/18/2019	14:58	QC Guideline setting	-		RadiNET Pro EIZO RS240 10023054
09/18/2019	14:58	Calibration Target	-		RadiNET Pro EIZO RS240 10023054

11. Click “OK” button to open the report in PDF format. (*PDF reader software needs to be installed)

12. If “Save as a file” is checked, PDF file will be saved to the specified location.



13. Print the Acceptance Test Report and save it with your display QA records

Image quality assurance in medical imaging devices
Basic Mammo QC Consistency Test

Registration Information

System Information

Graphics Card

General Information

Monitor Layout (Total 3 monitors)

Luminance Check

Measurement Result

Measurement Result(Delta L/L for a JND)

Item	Unit	Target Value	Measurement Value	Pass/Fail
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
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CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
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CC1_100	cd/m²	1.0000	1.0002	Pass
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CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
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CC1_100	cd/m²	1.0000	1.0002	Pass
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CC1_100	cd/m²	1.0000	1.0001	Pass
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CC1_100	cd/m²	1.0000	1.0002	Pass
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CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_100	cd/m²	1.0000	1.0002	Pass
CC1_100	cd/m²	1.0000	0.9999	Pass
CC1_100	cd/m²	1.0000	1.0001	Pass
CC1_100	cd/m²	1.0000	0.9998	Pass
CC1_1				

4. GUIDANCE

MQSA final regulations consider performance of the image receptor manufacturer's QC Test procedures to be a requirement for compliance with the regulations. This Guidance section is not considered an element of those regulations. It is intended to provide guidance to mammography facilities and their personnel. It represents the equipment manufacturer's current thinking on appropriate procedures for conducting the QC tests. Procedures described in guidance represent supplementary information on acceptable ways of doing a test but, unlike regulations, do not bind the facility to using that way only. An alternative procedure may be used if such a procedure satisfies the requirements of the applicable statute, regulations, or both. Mandatory language, such as "shall," "must," and "require," is used when referring to statutory or regulatory requirements. Non-mandatory language, such as "should," "may," "can," and "recommend" is used when referring to guidance. It is the responsibility of the facility to read, understand, and follow the final regulations.

Under its own authority, a state may impose more stringent requirements beyond those specified under MQSA and its implementing regulations. A facility may want to check with the state or local authorities regarding their requirements. Tests may be performed more frequently than specified in the QC tests if required by local regulations or hospital requirements.

QC tests may be used as a check for correct operation, for example, after a change of operating parameters.

The following sections provide specific guidance for sections in the QC tests.

4.1 Image Quality Check

If the system fails the Image Quality Check, it is possible that re-calibration of the display is needed. It is recommended to have your Medical Physicist or your field service engineer perform the display calibration check described in Section 3.3. If the display does not pass the display calibration check, it is recommended that you contact your field service engineer to re-calibrate the display or identify any other source of the problem and plan corrective action.

4.2 Viewing Conditions Check and Setting

For a workstation incorporating more than one display it is recommended that the displays be positioned at angles such that the light from one screen does not illuminate the adjacent screen. For reading, it is recommended that the distance between the user and a display be approximately 50 cm. In order to obtain the optimum ambient illuminance, it is recommended to check artificial lighting, the adjustment of variable lighting, natural lighting, and main lighting (curtains or door openings, environmental conditions). If the system fails the Viewing Conditions Check and Setting, it is recommended that you contact your field service engineer.

4.3 Display Luminance and Grayscale Calibration Check

If the system fails the Display Luminance and Grayscale Calibration Check, it is recommended to perform re-calibration of the display.

5. Supplement

In digital diagnosis, a diagnostic monitor must maintain the correct display status. In addition to management according to MQSA manual, it may be necessary to keep the monitor cleanliness and check the viewing condition as needed. In this section, EIZO provides how to clean a monitor and check the viewing condition as reference information for users. There are not items that must be performed but rather shall be performed when a user supposes it is needed.

5.1 Display Screen Cleanliness

5.1.1.Frequency

When there are dusts / stains on the display surface that affect the diagnosis, or when the user determines that cleaning is needed.

5.1.2.Objective

To ensure good image review conditions by keeping the display screens free of dust, fingerprints, and other marks.

5.1.3.Equipment Required

The front panel is extremely sensitive to mechanical damage. Avoid all scratches, knocks, etc. Any drops of water that collect should be removed immediately; contact with water over a longer period can cause discoloration or calcium deposits forming on the surface. Clean the front panel when dirty using a microfiber cloth and, if necessary, a cleaning agent. A preferred approach is to apply a small amount of water to the microfiber cloth. Please consult the operator's manual for other recommended cleaning agents.

Reference: [FAQ | EIZO CORPORATION](#)

5.1.4.Procedure

1. Check the screen to verify that it is free from dust, fingerprints, and other marks.
2. If dust, fingerprints, or other marks are observed to be present, clean the display screens using a cloth or cleaning tissue to remove dust, fingerprints, and other marks.

5.1.5.Action Limit

The screen must be free from dust, fingerprints, and other marks.

5.2 Viewing Conditions Check for the Display

5.2.1.Frequency

When there are any issues on the surface of the monitor caused by room environment.

5.2.2.Objective

To ensure optimal viewing conditions.

5.2.3.Equipment Required

None

5.2.4.Procedure

1. Review the data form “Viewing Conditions Check and Setting” posted in the reading room during the most recent Medical Physicist’s evaluation. On this data form you will find the reading room conditions established as optimal during this evaluation.
2. Compare the reading room condition, especially for the ambient light condition to the one specified in the data form.
3. If differences exist between the configuration specified and the actual one, adjust the room configuration to match the configuration specified in the data form. For example, if desk lights were specified to be turned off, turn them off, or, if curtains were specified to be closed, close them. For additional information on maintaining the appropriate illuminance level, see Section 4.2.

NOTE On the “Viewing Conditions Check and Setting” data form recorded by the Medical Physicist you will find the value of the ambient illuminance. This is a record of the most recent measurement and provides a comparison value for the next Medical Physicist survey. The Radiologic Technologist is not required to measure the ambient illuminance as part of the Viewing Conditions Check.

5.2.5.Action Limit

The viewing conditions must agree with those established during the most recent evaluation by a Medical Physicist.

5.2.6.Use of Test Results

If the reading room configuration has changed, the source of the problem must be identified and corrective action taken, before any further mammographic images are reviewed or interpreted using the display. See **Section 4.2**.

6. Revision Trace

No.	Date	Alteration
3.00A	April 2 2012	Established
3.00B	April 3 2012	Minor Corrections made
3.01	July 27 2012	Revised for RadiCS Ver.4.1.2
3.01b	Aug 7 2012	Minor Corrections
3.02a	Dec. 3 2012	Added RX840-MG
3.02b	Dec. 13 2012	Minor Corrections
3.03	Sep. 11 2013	Added GX540, Revised for RadiCS Ver.4.2.1
3.04	July. 18 2014	Added RX850, Revised for RadiCS Ver.4.3.1
3.05	May 22 2015	Revised for RadiCS Ver.4.4.0
3.06	Sep 20 2016	Added GX550, Revised for RadiCS Ver.4.5.3
3.07	Dec 07 2016	Revised for RadiCS Ver.4.5.4
3.08	Jan 18 2018	Added RX560, UX2 sensor, Revised for RadiCS Ver.4.6.2
3.09	June 27 2018	Added GX560, Revised for RadiCS Ver.4.6.4
4.00	Sep 18 2019	Revised for RadiCS Ver.5.0.3
4.01	Oct 15 2020	Added RX1270
4.02	Jan 09 2025	Change the Visual Check as optional. Added the ambient light measurement procedure using integrated sensor Revised some wording and added some references
5.0	Aug 01 2025	Review the items and frequency of each test, taking into account recent changes in the diagnostic environment and the latest ACR guidelines and FAQs.

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