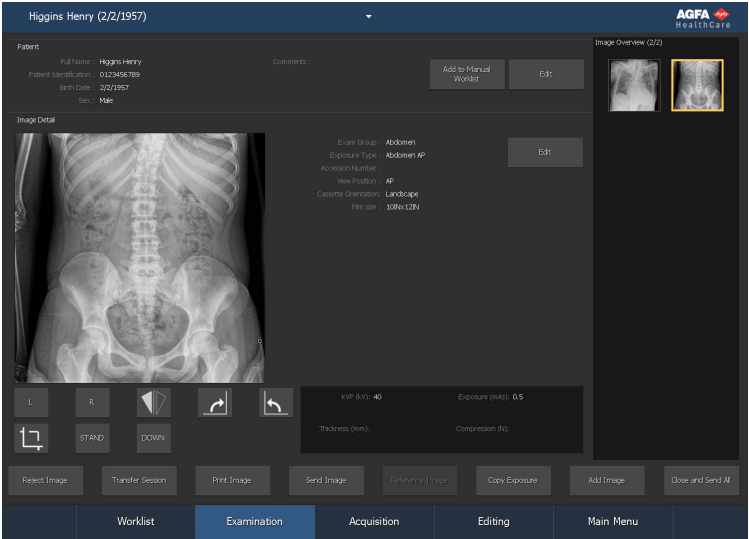


# MUSICA Acquisition Workstation

## Problem Solving Sheets



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# Legal Notice

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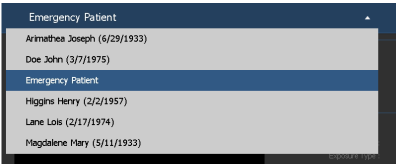
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# DR image is not displayed

Details	An image is acquired using a DR detector, but not displayed in the examination.
Cause	<p>The DR Detector could not send the image directly after the exposure to the NX workstation.</p> <p>The image recovery process is able to recover such an image in most cases. Demographic data might be lost however and default data are used.</p>
Brief Solution	<p>For wireless DR detectors perform following actions:</p> <ol style="list-style-type: none"><li>1. Perform activities described in error message.</li><li>2. Check DR detector connection status in soft console.</li><li>3. Put DR detector close to access point.</li><li>4. Select another empty thumbnail. Create one if none is available. This initiates an image recovery process from the panel.</li></ol> <p>For a wired DR detector check cabling.</p> <p>The recovered image is available on the NX workstation in a new examination. It is processed using a default exposure type.</p>  <p><b>Figure 1: Check the drop-down list in the title bar of the window for a new examination containing the recovered image.</b></p> <p>The recovered image can be transferred to the right patient using the <b>Transfer Session</b> button in the <b>Examination</b> window.</p> <p>If image does not show up on NX after 10 minutes, restart NX.</p> <p>To restart NX, go to the <b>MUSICA Acquisition Workstation Control Center</b> &gt; <b>NX</b> and click <b>Restart NX Completely</b>.</p> <p>In case the image cannot be processed, it is copied to a directory on the D: drive of the PC. This is done to pre-</p>

	vent, that the software continues crashing during the automatic image recovery in case the image is the reason for the fault.
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# CR image is not displayed

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Details	An image is acquired using a CR digitizer, but not displayed in the examination.
Cause	The digitizer could not send the image to the NX workstation where the image was identified and the image is rerouted to another NX workstation.
Brief Solution	<p>If the image is stored on the digitizer, it can be rerouted to another NX workstation. For more information about rerouting images on the digitizer, refer to the digitizer User Manual.</p> <p>After rerouting, the recovered image is available on the other NX workstation in a new examination. It is processed using a default exposure type.</p>

# Real-time dynamic image halts

Details	Real-time fluoroscopy or rapid sequence image halts during exposure
Cause	A problem occurred while displaying the real-time image.
Brief Solution	<div><div><div>1. Stop the exposure.</div><div>2. Press the key combination CTRL + ALT + K</div></div><div>The Dynamic Image pane is displayed, showing the acquired dynamic image.</div></div>

# Only part of the image is displayed

Details	DR images and CR 10-X images are cropped to the collimation area that is automatically detected by NX. The cropping is intended to remove non relevant areas of the image. Nevertheless it can occur that the cropping makes useful diagnostic information invisible. In this case you must be able to turn black border and cropping off or recollimate the image manually.
Cause	Failing auto collimation.
Brief Solution	<p>This problem is solved by:</p> <ul style="list-style-type: none"><li>• Turning off the black border and cropping.</li><li>• Applying manual collimation.</li></ul> <p>To prevent this problem, use the ROI detection exposure techniques as described in “Working with collimation”.</p>
Solution Steps	<p>To turn the black borders and cropping on or off:</p> <ol style="list-style-type: none"><li>1. Select an image in the <b>Image Overview</b> pane.</li><li>2. From the first drop-down list in the <b>Image Processing</b> tool section, select the following icon.</li></ol> <div data-bbox="370 920 443 993"></div> <p>To draw a rectangular collimation area:</p> <ol style="list-style-type: none"><li>1. Select an image in the <b>Image Overview</b> pane.</li><li>2. In the <b>Editing</b> window, from the first drop-down list in the <b>Image Processing</b> tool section, select the icon below.</li></ol> <div data-bbox="406 1256 481 1331"></div> <ol style="list-style-type: none"><li>3. Click once to define one corner of the rectangle.</li><li>4. Move the pointer.</li><li>5. Click again to define the opposite corner.</li><li>6. To display the collimation area, select the icon below.</li></ol>





To draw a polygonal collimation area:

1. Select an image in the **Image Overview** pane.
2. In the **Editing** window, from the first drop-down list in the **Image Processing** tool section, select the icon below.



3. Click to define the starting point.
4. Move the pointer and click to define each corner.
5. Click the starting point to close the polygon.
6. To display the collimation area, select the icon below.



# Part of the image is masked by the black border

Details	During the automatic collimation process, NX normally applies black borders to the image. These black borders are intended to mask non relevant areas of the images. Nevertheless it can occur that the black borders do mask useful diagnostic information. In this case you must be able to either hide the black border or re-collimate the image manually.
Cause	Failing auto collimation.
Brief Solution	<p>This problem is solved by:</p> <ul style="list-style-type: none"><li>• Hiding the black border.</li><li>• Applying manual collimation.</li></ul> <p>To prevent this problem, use the ROI detection exposure techniques as described in “Working with collimation”.</p>
Solution Steps	<p>To show/hide black borders:</p> <ol style="list-style-type: none"><li>1. The <b>Image Detail</b> pane in the <b>Examination</b> window has a set of buttons to perform basic operations on an image. With this button you can remove the black border in case of failed collimation. Click the button to show/hide black borders.</li></ol> <div data-bbox="406 1018 480 1091"></div> <p>To draw a rectangular collimation area:</p> <ol style="list-style-type: none"><li>1. Select an image in the <b>Image Overview</b> pane.</li><li>2. In the <b>Editing</b> window, from the first drop-down list in the <b>Image Processing</b> tool section, select the icon below.</li></ol> <div data-bbox="406 1359 480 1432"></div> <ol style="list-style-type: none"><li>3. Click once to define one corner of the rectangle.</li></ol>

4. Move the pointer.
5. Click again to define the opposite corner.
6. To display the collimation area, select the icon below.



To draw a polygonal collimation area:

1. Select an image in the **Image Overview** pane.
2. In the **Editing** window, from the first drop-down list in the **Image Processing** tool section, select the icon below.



3. Click to define the starting point.
4. Move the pointer and click to define each corner.
5. Click the starting point to close the polygon.
6. To display the collimation area, select the icon below.








# NX is not running

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Details	NX is not active, no activity takes place.
Solution Steps	<p>If you see NX in the taskbar, click NX in the taskbar.</p> <p>The NX application appears.</p> <p>Alternative solution:</p> <p>Go to the <b>MUSICA Acquisition Workstation Control Center</b> &gt; <b>NX</b> and click <b>Restart NX Completely</b></p>

# Window/Level setting is completely out of range

Details	During the auto processing of an image, NX calculates auto collimation parameters and applies these parameters (such as window/level settings) to the image. In specific situations, these auto collimation parameters may be wrong.
Causes	<ul style="list-style-type: none"><li>• automatic collimation failed to detect region of interest</li><li>• region of interest is extremely small</li></ul>
Brief Solution	<ul style="list-style-type: none"><li>• If MUSICA image processing is used: apply manual collimation</li><li>• If MUSICA2/MUSICA3 image processing is used: adjust the global contrast and intensity (window/level)</li></ul>
Solution Steps for MUSICA Image Processing	<p>To manually draw a rectangular collimation area (for MUSICA image processing):</p> <ol style="list-style-type: none"><li>1. Select an image in the <b>Image Overview</b> pane.</li><li>2. In the <b>Editing</b> window, from the first drop-down list in the <b>Image Processing</b> tool section, select the icon below.</li></ol> <div></div> <ol style="list-style-type: none"><li>3. Click once to define one corner of the rectangle.</li><li>4. Move the pointer.</li><li>5. Click again to define the opposite corner.</li><li>6. To display the collimation area, select the icon below.</li></ol> <div></div> <p>To manually draw a polygonal collimation area (for MUSICA image processing):</p> <ol style="list-style-type: none"><li>1. Select an image in the <b>Image Overview</b> pane.</li></ol>

	<div><div>2. In the <b>Editing</b> window, from the first drop-down list in the <b>Image Processing</b> tool section, select the icon below.</div><div></div><div><div>3. Click to define the starting point.</div><div>4. Move the pointer and click to define each corner.</div><div>5. Click the starting point to close the polygon.</div><div>6. To display the collimation area, select the icon below.</div></div><div></div></div>
<div>Solution Steps for MUSICA2/MUSICA3 Image Processing</div>	<div><div>To adjust the global contrast and intensity (for MUSICA2/MUSICA3 image processing):</div><div><div>1. Select an image in the <b>Image Overview</b> pane.</div><div>2. Select the following icon.</div></div><div></div><div><div>3. Use the mouse to adjust the global contrast and intensity.</div><div>4. When the desired contrast and intensity have been reached, click in the image pane.</div></div></div>

## Archive button is disabled

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Details	<p>After you have performed the quality control tasks and have inspected the images of a study on the NX station, the image must normally be sent to an archive (or a printer, depending on your workflow). You must know that you can only archive an image once. So when an image is archived, it can still be consulted at the NX station but cannot be archived again (the Archive button is disabled). If you still want to archive the image a second time, you have to save it as a new image.</p> <p>The archive button can also be disabled because the image has been rejected. In this case you need to unreject the image if you want to archive it.</p>
Cause	Image has already been archived before. The image has been rejected.
Brief Solution	Saving the image as a new image.
Solution Steps	<p>To save a processed image as a new image:</p> <ol style="list-style-type: none"> <li>1. Go to the <b>Editing</b> window.</li> <li>2. Select an image in the <b>Image Overview</b> pane.</li> <li>3. Process the image.</li> <li>4. In the <b>Editing</b> window, click <b>Save as New</b>.</li> </ol> <p>The processed image is added to the exam and appears in the <b>Image Overview</b> pane.</p> <p>To unreject an image:</p> <ol style="list-style-type: none"> <li>1. Select the image in the <b>Image Overview</b> pane.</li> </ol> <p>The image is displayed in the <b>Image Detail</b> pane.</p> <ol style="list-style-type: none"> <li>2. Click <b>Unreject Image</b>.</li> </ol>

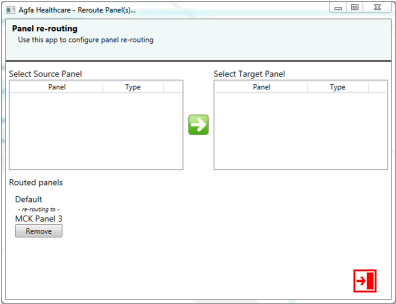
# Archive cannot be selected in drop down list

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Details	After you have performed the quality control tasks and have inspected the images of a study on the NX station, the image must normally be sent to an archive (or a printer, depending on your workflow). You must know that you can only archive an image once. So when an image is archived, it can still be consulted at the NX station but cannot be archived again (the archive cannot be selected anymore from the list of archives). If you still want to archive the image a second time, you have to save it as a new image.
Cause	Image has already been archived to that archive.
Brief Solution	Saving an image as a new image.
Solution Steps	<p>To save a processed image as a new image:</p> <ol style="list-style-type: none"><li>1. Go to the <b>Editing</b> window.</li><li>2. Select an image in the <b>Image Overview</b> pane.</li><li>3. Process the image.</li><li>4. In the <b>Editing</b> window, click <b>Save as New</b>.</li></ol> <p>The processed image is added to the exam and appears in the <b>Image Overview</b> pane.</p>

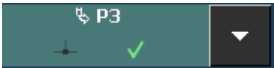


# DR Detector is out of order

Details	The DR detector status is red.
Cause	The communication between the NX workstation and the DR detector is lost.
Brief Solution	<div><div><div>1. Stop NX completely.</div><div>To stop NX completely, go to the <b>MUSICA Acquisition Workstation Control Center &gt; NX &gt; Service</b> and click <b>Stop NX</b> and confirm the procedure by pushing enter in the command window.</div><div>2. Restart the X-Ray system.</div><div>This will restart the fixed DR detector that is part of the X-Ray system. Refer to the X-Ray system user manual for more information.</div><div>3. Start NX.</div><div>To start NX, go to the <b>Musica Acquisition Workstation Control Center &gt; NX</b> and click <b>Restart NX Completely</b>.</div><div>4. Restart the portable DR detector.</div><div>Refer to the DR detector user manual for more information.</div></div></div>
Cause	The DR detector is malfunctioning.
Brief Solution	<div><div><div>If another DR detector is available and configured on the NX workstation, it can be temporarily configured as a replacement for the DR detector that is out of order.</div><div>1. Open the rerouting dialog by going to the <b>MUSICA Acquisition Workstation Control Center &gt; NX</b> and click <b>DR-Panel Rerouting</b>.</div></div><div></div></div>

- 2. Select the malfunctioning DR Detector from the list on the left side and the replacement DR Detector from the list on the right side.
- 3. Click the green arrow button.
- 4. Close the dialog.

Each time an examination is started that is configured to use the malfunctioning DR detector, the replacement DR detector will be used instead. This is indicated in the **DR Detector Switch** by an arrow preceding the name of the DR detector.



- 5. When the DR detector is functioning again, click the **Remove** button in the rerouting dialog.

# Cassette is identified with the wrong exposure - detected prior to scanning

Details	Normally you select an exposure at the NX station, insert the cassette with the exposure in the ID Tablet and then identify the exposure by pressing the ID button. It may be possible that you have initially selected the wrong exposure at NX and identify this cassette with the wrong exposure. You must be able to solve this mistake by making a new identification.
Cause	User mistake.
Brief Solution	Re-identifying with the right exposure.
Solution Steps	<div>To re-identify a cassette with the right exposure:</div> <div><div>1. Re-insert a cassette in the ID Tablet.</div><div>2. Select the correct thumbnail in the <b>Exam Overview</b> pane.</div><div>3. In the <b>Examination</b> window, click <b>ID</b>.</div></div>

# Cassette is identified with wrong exposure and the image has been received

Details	Normally you select an exposure at the NX station, insert the cassette with the exposure in the ID Tablet and then actually identify exposure by pressing the ID button. It may be possible that you have initially selected the wrong exposure at NX and identify this exposure with the wrong cassette. If you discover this mistake when the image is already digitized and displayed on NX, you must be able to solve this mistake by editing the data of the exposure (without re-identifying or re-digitizing the cassette).
Cause	User mistake.
Brief Solution	Edit exposure data.
Solution Steps	<p>To edit the exposure data:</p> <ol style="list-style-type: none"><li>1. Go to the <b>Examination</b> window.</li><li>2. Make sure the image you want to edit is selected.</li><li>3. Click <b>Edit</b> in the <b>Image Detail</b> pane.  The <b>Edit Image Detail</b> pane opens on top.</li><li>4. To change the <b>Exposure Type</b>, click the button displaying the exam/exposure name.  This brings up the Add Image dialog where you can select the new exam/exposure type.  After you have selected an exposure type, this dialog closes automatically.</li><li>5. Click <b>OK</b> to apply the changes and close the Edit dialog.</li></ol>

# Cassette is identified with the wrong patient data due to a user mistake

Details	It is possible that an image displayed on NX in conjunction with wrong patient data. This can be caused by identifying cassettes with wrong patient data. In this case, the most efficient solution is to transfer the image from one examination to another (from the wrong to the correct patient).
Cause	User mistake.
Brief Solution	Transfer an image to the right patient.
Solution Steps	<p>To transfer images to the right patient:</p> <ol style="list-style-type: none"><li>1. In the <b>Worklist</b> window, select the exam from which you want to transfer the images. The images are displayed in the <b>Image Overview</b> pane.</li><li>2. Click <b>Transfer Images</b>.</li></ol> <p>The <b>Transfer Images</b> wizard opens.</p> <ol style="list-style-type: none"><li>3. In the <b>Image Overview</b> pane, select the image(s) that you want to transfer.</li></ol> <p>The image is displayed in the wizard.</p> <ol style="list-style-type: none"><li>4. Click <b>Continue</b>.</li><li>5. In the <b>Worklist</b> window, select the exam to which the image should be transferred.</li></ol> <p>The patient data is displayed in the wizard.</p> <ol style="list-style-type: none"><li>6. Click <b>Continue</b>.</li></ol> <p>A transfer overview is displayed to check if all information is correct.</p> <ol style="list-style-type: none"><li>7. Click <b>Finish</b>.</li></ol> <p>The image is transferred.</p>

# Error "no valid image plate gain calibration file found" when identifying cassette for DX-M digitizer

Details	When identifying a cassette, this error is displayed: “Error, no valid image plate gain calibration file found”. The cassette cannot be used.
Cause	The IP gain calibration file is not available on the NX workstation.
Solution 1: if the IP Gain Calibration CD is available	Fetch the CD labeled “IP Gain Calibration” that is delivered with the cassette and load the IP gain calibration file on the NX workstation.
Solution Steps	To install the gain calibration file:  <ol style="list-style-type: none"><li>1. Insert the CD in the NX Workstation.</li><li>2. Browse to the CD.</li><li>3. Run the application ‘install.exe’.</li><li>4. Follow the instructions on the screen.</li></ol>
Solution 2: if the IP Gain Calibration CD is not available	Contact the Service organization.

# Digital tomosynthesis reconstruction fails

Details	The acquisition sequence is visible, but there is no reconstruction sequence made. An error message is displayed.
Cause	The error message indicates the cause of the problem.
Brief Solution	<p>If the error message says that there is a hardware problem with the GPU, try adjusting the reconstruction settings and repeat the reconstruction. If the problem persists, contact your local service organization.</p> <p>If the error message says that the reconstruction failed because of missing data, try adjusting the reconstruction settings to a smaller region of interest or reduced sharpness and repeat the reconstruction.</p> <p>If the reconstruction keeps failing, review the patient position and the X-ray modality settings to control the X-ray system movement, the X-ray exposure parameters.</p>