



# **Exa<sup>®</sup> PACS/RIS**

## **Feature Summary: Mammography DMs**

The information below provides a summary of tasks related to mammography DMs (hanging protocols). See also, “Work with display management” in the user’s manual.

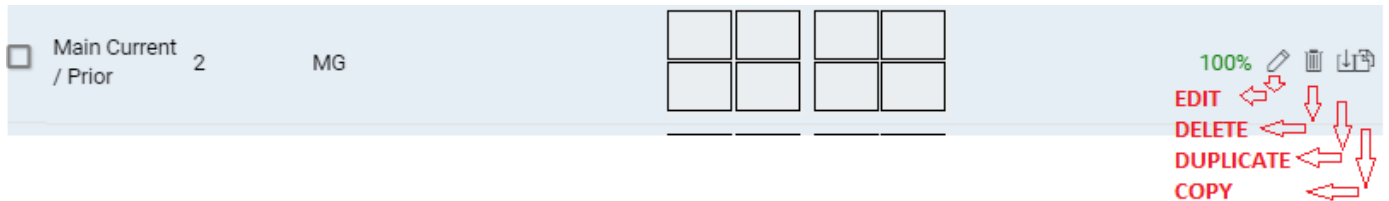
Mammography uses two main view groups or “families”: CC and MLO. These families contain the following other views.

| CC Family |                                  | MLO Family |                                       |
|-----------|----------------------------------|------------|---------------------------------------|
| CC        | Craniocaudal                     | MLO        | Mediolateral Oblique                  |
| XCC       | Exaggerated Craniocaudal         | ML         | Mediolateral                          |
| XCCL      | Exaggerated Craniocaudal Lateral | LMO        | Lateromedial Oblique                  |
| XCCM      | Exaggerated Craniocaudal Medial  | LM         | Lateromedial Oblique                  |
| FB        | From Below: Caudocranial         | SIO        | Superolateral to Inferomedial Oblique |

**Additional positioning:** Implant Displacement, Spot compression, Cleavage, Rolled lateral, Rolled medial, Rolled superior, Rolled inferior, Tangential, Axillary tail, Magnification

Typically, we build DMs so that you can scroll through these views with the mouse wheel.

It can be useful to duplicate a DM or copy one for another user by using the buttons on the right side of the main screen (see the figure below). To edit an existing DM, double-click it or click the pencil button.



With the proper rights, you can import and export DMs. Otherwise, you can copy a DM for a user who does have the proper rights.

The following is an example of how to build a DM that displays priors on top and current images (RCC, LCC, RMLO, LMLO) on the bottom. This DM shows all main views, specialty views such as spot and cleavage, synthesized views, and implant displaced views.

1. In the viewer, on the toolbar, click the **DM** button, and then in the button shortcut menu, select **DM Manager**.
2. Click **ADD New DM**.
3. Type a name for the DM, and then enter required settings.  
**Note:** OPTIONAL: In the **Body Part** list, select the most accurate option.

**DM Manager** x

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HP Properties SAVE CLEAR BACK

Name \*   Inactive  Private

HP Identifier **Modality**

Modalities \* MG

Body Part \*  ▼

4. Type the number of pages. Pages refers to the number of monitors.
  5. Click the layout (such as 2\*2 or 1\*1), and then select the number of cells.
  6. Select the **Allow missing cells** check box for each page and/or cell as needed.
- Note:** This allows the DM to hang even if not all images are present in the cell or page, such as for a unilateral diagnostic.

Preview 0% Page Count \*

2\*2  

|                              |                              |
|------------------------------|------------------------------|
| 1*1 <input type="checkbox"/> | 1*1 <input type="checkbox"/> |
| 1*1 <input type="checkbox"/> | 1*1 <input type="checkbox"/> |

1\*1

← Allow missing cells:  
 Checking these boxes  
 allow either the page  
 or cell to be missing.  
 Meaning it will show  
 regardless if the  
 criteria matches.

7. Select a cell, and then on the **MATCHING RULES** tab, click **ADD GROUP**.
  8. In the list, select **OR**, and then click **ADD MAMMO RULE**.
- Note:** "OR" tells the system that if this does not match, then check for this.

MATCHING RULES
DISPLAY MANAGEMENT

ADD GROUP
ADD GENERAL RULE
ADD MAMMO RULE
ADD PRIOR RULE

ADD GROUP
ADD MAMMO RULE
ADD PRIOR RULE
DELETE GROUP
OR ▼

We build mammography DMs in a group to have the system look for multiple views, which allows us to use one DM for multiple scenarios.

9. For the top left cell, add the following rule.

Right, CC Family, DON'T CARE, Processed

Mammo Rule

Side \*  Left  Right  ?

View \*

Processing Type \*  Unprocessed  Tomosynthesis  Synthesized View  Processed  ?

Image Index

CANCEL

This rule means, “Right side, CC Family (All views- see above), any specialty view in the list except ID (Implant displacement), and processed.”

Click **SAVE**. After adding this rule you will see the 5 rules.

MATCHING RULES    DISPLAY MANAGEMENT

10. Click **Add Mammo Rule** inside the group, and then add the following additional rules.

- Right, CC Family, Don't Care, Synthesized
- Right, CC Family, ID, Processed
- Right, CC Family, ID, Synthesized

11. From outside the group, click **ADD PRIOR RULE** for this cell.

**Note:** It is outside the group because we want to apply the rule to the entire group.

- a. Prior Rule : Study Index
  - i. Any: Displays all MG priors. The specific number is controlled by the Auto Open rule under MG Modality Options.
  - ii. 1: shows the First prior
  - iii. 2 shows the Second Prior, etc

12. Logic for this cell:

MATCHING RULES    DISPLAY MANAGEMENT

ADD GROUP    ADD GENERAL RULE    ADD MAMMO. RULE    ADD PRIOR RULE

ADD GROUP    ADD GENERAL RULE    ADD MAMMO. RULE    ADD PRIOR RULE    DELETE GROUP    OR

- DONT CARE / CC // ANY - Side: Right | Processing Type: Processed |
- DONT CARE / XCC // ANY - Side: Right | Processing Type: Processed |
- DONT CARE / XCCL // ANY - Side: Right | Processing Type: Processed |
- DONT CARE / XCCM // ANY - Side: Right | Processing Type: Processed |
- DONT CARE / FB // ANY - Side: Right | Processing Type: Processed |
- DONT CARE / CC // ANY - Side: Right | Processing Type: |
- DONT CARE / XCC // ANY - Side: Right | Processing Type: |
- DONT CARE / XCCL // ANY - Side: Right | Processing Type: |
- DONT CARE / XCCM // ANY - Side: Right | Processing Type: |
- DONT CARE / FB // ANY - Side: Right | Processing Type: |
- ID / CC // ANY - Side: Right | Exam: | Processing Type: Processed |
- ID / FB // ANY - Side: Right | Exam: | Processing Type: Processed |
- ID / XCC // ANY - Side: Right | Exam: | Processing Type: Processed |
- ID / XCCL // ANY - Side: Right | Exam: | Processing Type: Processed |
- ID / XCCM // ANY - Side: Right | Exam: | Processing Type: Processed |
- ID / CC // ANY - Side: Right | Exam: | Processing Type: |
- ID / FB // ANY - Side: Right | Exam: | Processing Type: |
- ID / XCC // ANY - Side: Right | Exam: | Processing Type: |
- ID / XCCL // ANY - Side: Right | Exam: | Processing Type: |
- ID / XCCM // ANY - Side: Right | Exam: | Processing Type: |

13. In the Display Management tab, change the way the image displays by modifying the following options.

Auto orient, rotate, Mirror flip (for Radiologists who view Left on Left, Right on Right), Zoom, Invert, Sigmoid, Linear, Clahe, Fusion, LUT, Bone Enhance, Window/Level, Reprocess.

14. Start on the next cell. When finished click **SAVE** at the top.