



Guided Mark-Up in Metron: DAR Analysis for Canine



Click F11 on your keyboard for full screen display!

Dependent on your screen size, the menu buttons on the Database Browser screen may appear in one or two rows.



Guided Mark-Up in Metron: DAR Analysis for Canine

This online training session will provide you with the details of how to use
"Guided Mark-Up in Metron: Dorsal Acetabular Rim for Canine."



Click F11 on your keyboard for full screen display!

Dependent on your screen size, the menu buttons on the Database Browser screen may appear in one or two rows.

1

Guided Mark-Up: DAR Analysis | Canine



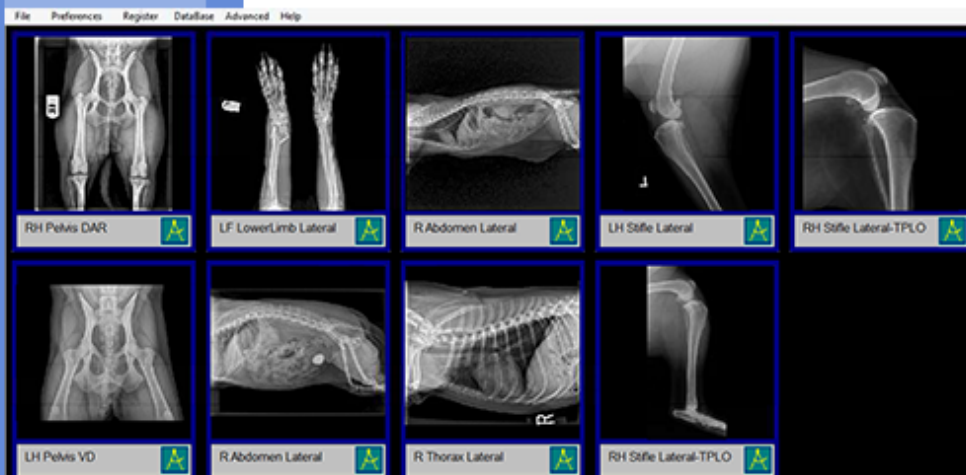
The screenshot displays the Metron software interface. On the left, a grid of eight medical image thumbnails is shown, each with a label and a small green icon. The labels are: RH Pelvis DAR, LF LowerLimb Lateral, R Abdomen Lateral, LH Stifle Lateral, RH Stifle Lateral-TPLO, LH Pelvis VD, R Abdomen Lateral, R Thorax Lateral, and RH Stifle Lateral-TPLO. On the right, the 'DATABASE BROWSER' panel is visible, featuring a search bar, a 'Browse & Acquire' section with filters for Owner (Bob Miller), Animal (Cooper), and Date (9-Apr-2014), and a 'Select Items' section with various icons for image management. A yellow callout box is overlaid on the bottom left of the image grid.

With Metron, you will always start in the 'Database Browser' screen where thumbnails of all the images of the currently selected study are displayed on the screen.

METRON
SUPPORT SERVICES

2

Guided Mark-Up: DAR Analysis | Canine



A study is the group of images for a particular owner, animal and date combination. Metron always starts at the study you were viewing when you last used Metron.



METRON
SUPPORT SERVICES

3

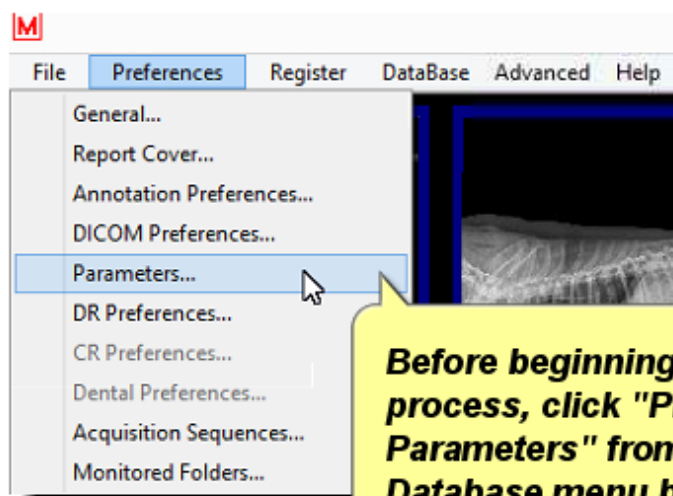
Guided Mark-Up: DAR Analysis | Canine



METRON
SUPPORT SERVICES

4

Guided Mark-Up: DAR Analysis | Canine



Before beginning a Guided Mark-Up process, click "Preferences" then "Parameters" from the Metron Database menu bar.

5

Guided Mark-Up: DAR Analysis | Canine

User Preferences can be selected here for Mark-Up line width...

User Preferences

Parameter Display

Size: Photos: Radiographs:

Background: Background:

☒ Force labels to stay within the image

Guided Mark-Up Complexity

☒ Modern Default (simpler) ☐ Classic Style (more complex)

☐ Use Secondary Breed Matching in Comparison Sets

☐ Exclude if criterion marked 'Not Sure'

Min/Max Bounds Shown in Compare Mode

☐ Simple Minimum and Maximum of All Values

☒ Average Value + or - 3 Sigma (N >)

OK

METRON
SUPPORT SERVICES

6

Guided Mark-Up: DAR Analysis | Canine

***...font color for Mark-Up
description in photographs...***

User Preferences

Parameter Display

Photos: Yellow

Radiographs: White

Background: Transparent

☒ Force label in the image

Guided Mark-Up Complexity

☒ Modern Default (simpler) ☐ Classic Style (more complex)

☐ Use Secondary Breed Matching in Comparison Sets

☐ Exclude if criterion marked 'Not Sure'

Min/Max Bounds Shown in Compare Mode

☐ Simple Minimum and Maximum of All Values

☒ Average Value + or - 3 Sigma (N > 0)

OK

7

Guided Mark-Up: DAR Analysis | Canine

**and font color for Mark-Up
description in radiographs.**

Parameter Display

Size: 1 Photos: Yellow Radiographs: White

Background: Black Background: Tra

☒ Force labels to stay within the image

Guided Mark-Up Complexity

☒ Modern Default (simpler) ☐ Classic Style (more complex)

☐ Use Secondary Breed Matching in Comparison Sets

☐ Exclude if criterion marked 'Not Sure'

Min/Max Bounds Shown in Compare Mode

☐ Simple Minimum and Maximum of All Values

☒ Average Value + or - 3 Sigma (N > 0)

OK

METRON
SUPPORT SERVICES

8

Guided Mark-Up: DAR Analysis | Canine

All other areas checked are set as Metron default settings and seldom need to be changed.

User Preferences

Parameter Display

Size: Photos: Radiographs:

Background: Background:

☒ Force labels to stay within the image

Guided Mark-Up Complexity

☒ Modern Default (simpler) ☐ Classic Style (more complex)

☐ Use Secondary Breed Matching in Comparison Sets

☐ Exclude if criterion marked 'Not Sure'

Min/Max Bounds Shown in Compare Mode

☐ Simple Minimum and Maximum of All Values

☒ Average Value + or - 3 Sigma (N >)

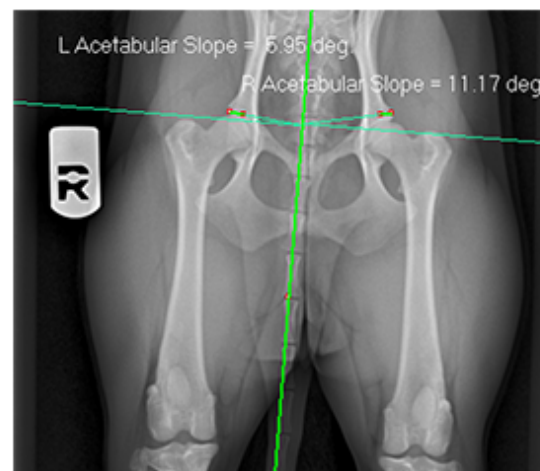
OK

9

Guided Mark-Up: DAR Analysis | Canine

What is Guided-Mark-Up?

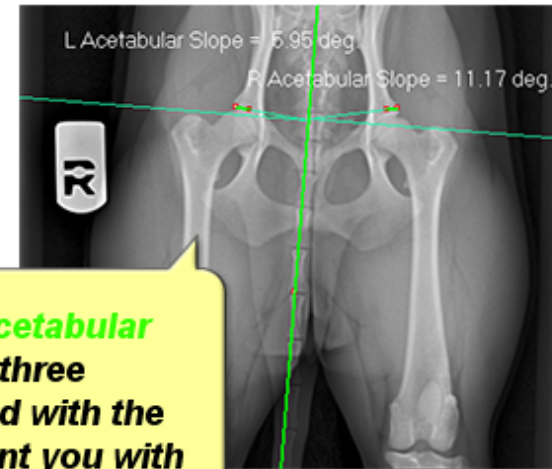
Metron supports a process called "Guided Mark-Up" in which the user is prompted to pick key points in certain images of the canine joints, and Metron then uses those picked points to compute important parameters of the DAR (Dorsal Acetabular Rim) view.



Guided Mark-Up: DAR Analysis | Canine

What is Guided-Mark-Up?

Metron supports a process called "Guided Mark-Up" in which the user is prompted to pick key points in certain images of the canine joints, and Metron then uses those picked points to compute important parameters of the DAR (Dorsal Acetabular Rim) view.



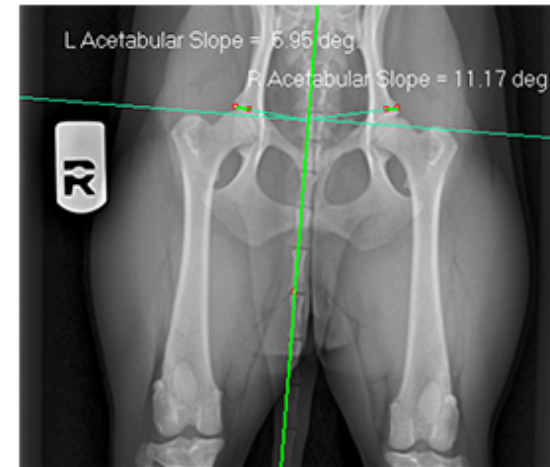
What is the DAR (Dorsal Acetabular Rim) Analysis? A series of three measurements that are used with the Metron algorithms to present you with a complete analysis of the joints.

11

Guided Mark-Up: DAR Analysis | Canine

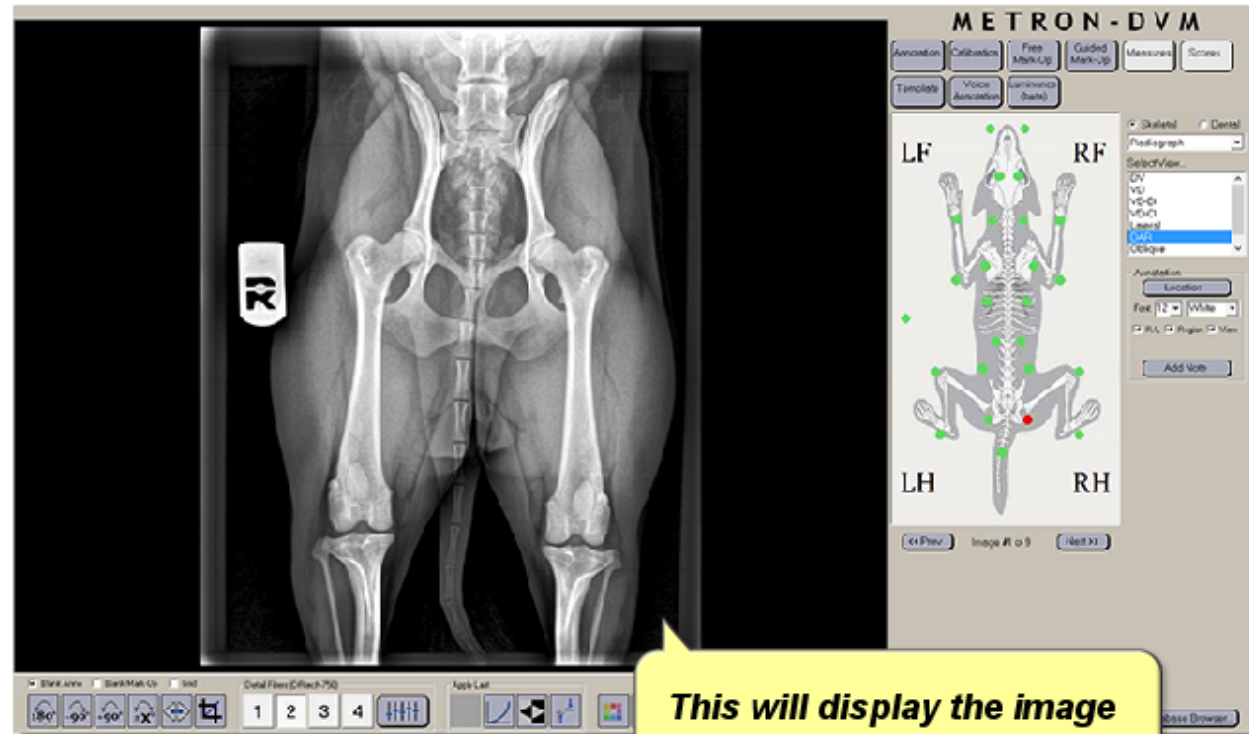
What is Guided-Mark-Up?

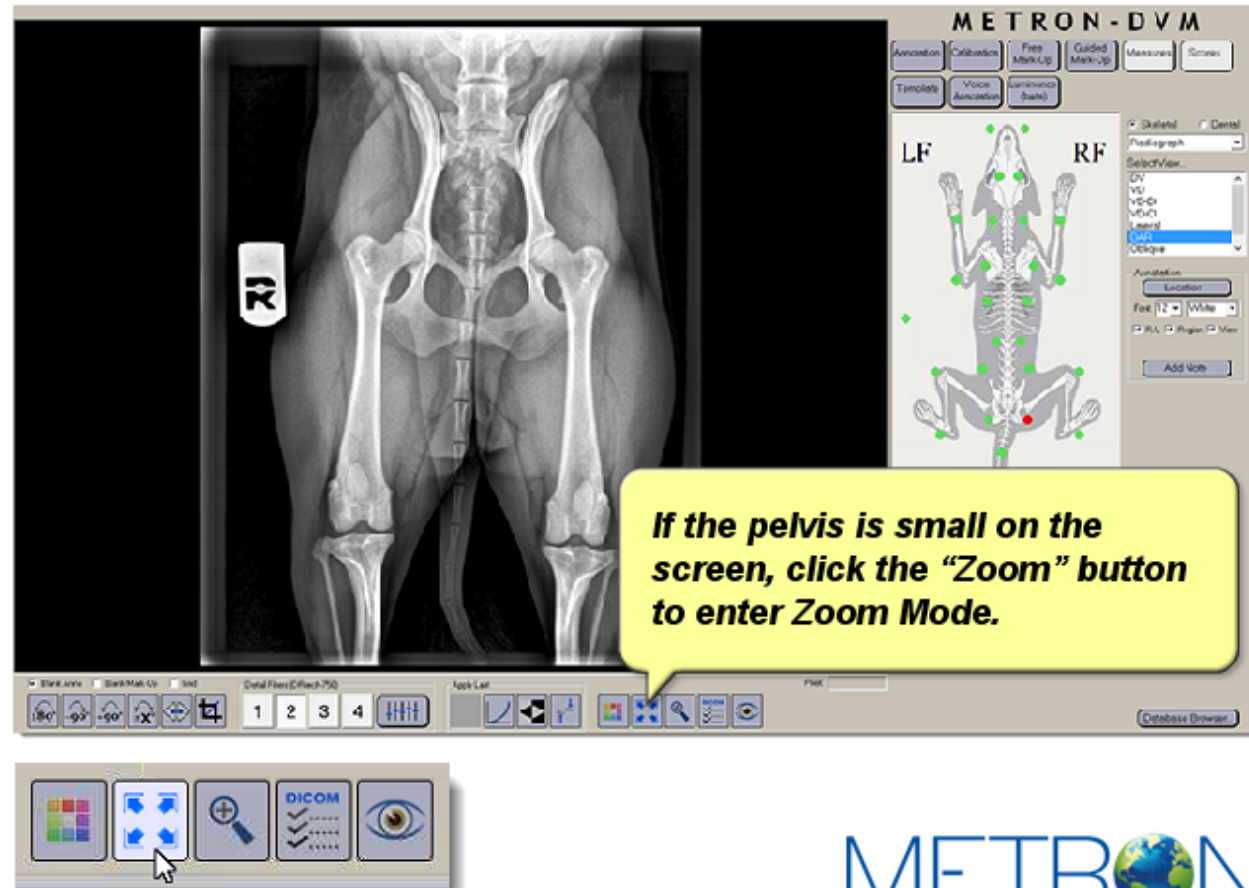
Metron supports a process called "Guided Mark-Up" in which the user is prompted to pick key points in certain images of the canine joints, and Metron then uses those picked points to compute important parameters of the DAR (Dorsal Acetabular Rim) view.

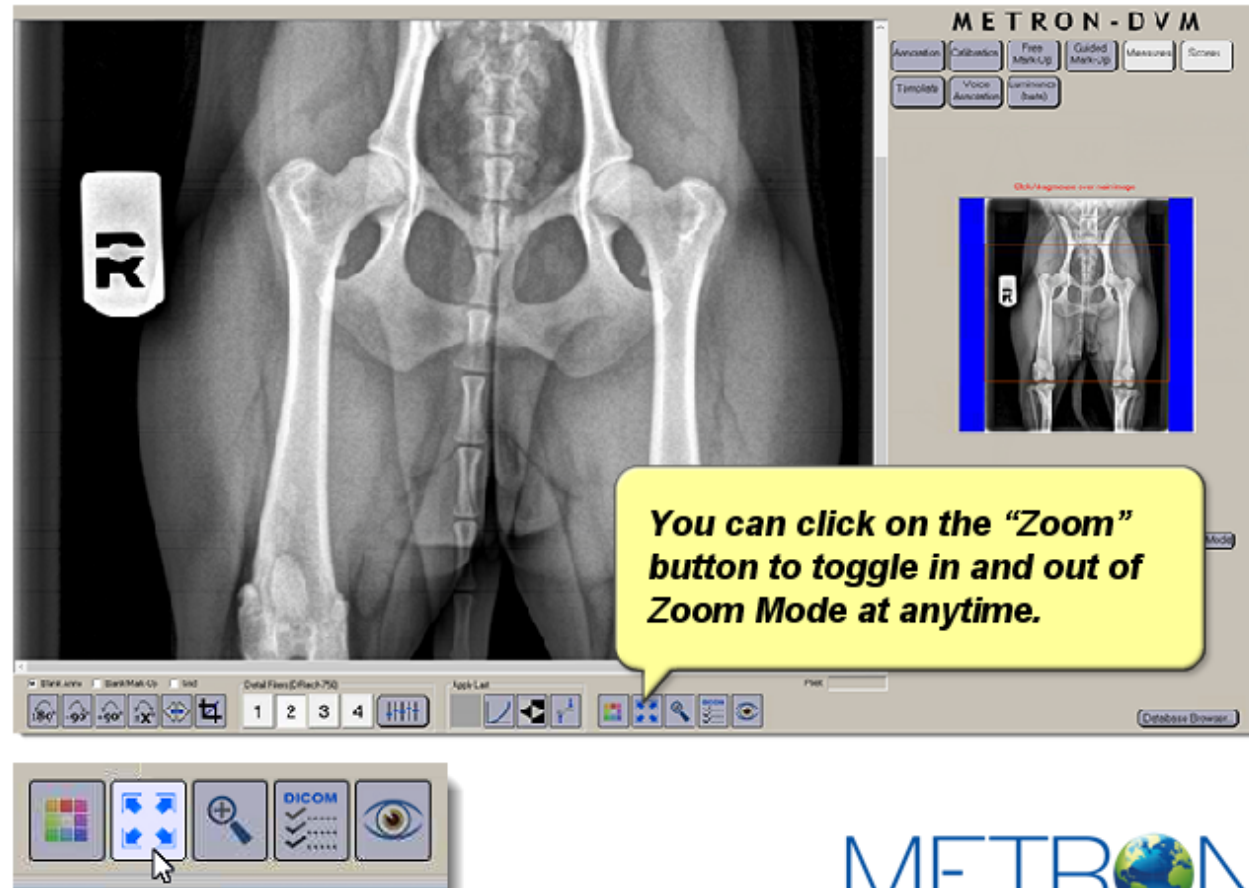




**Select an image by
double clicking on
that image.**

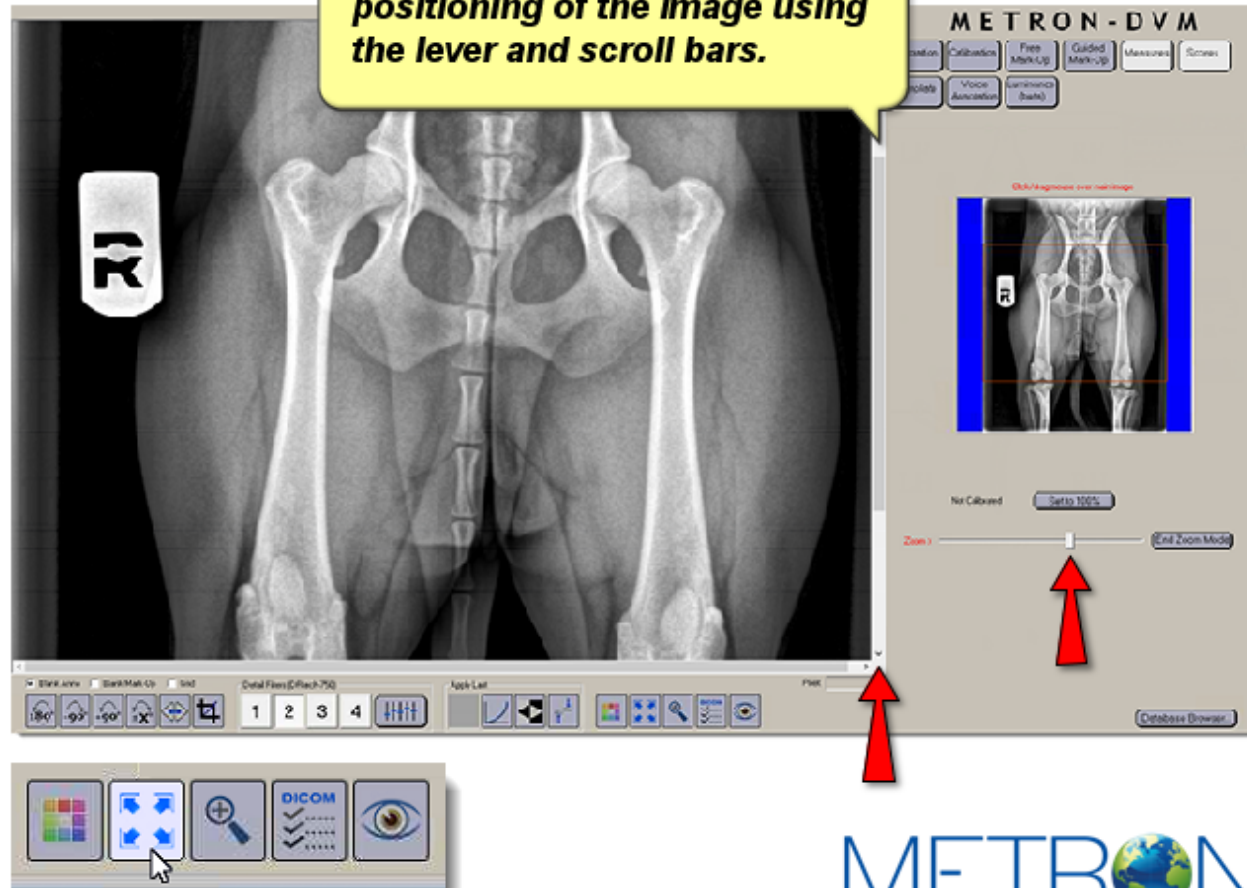




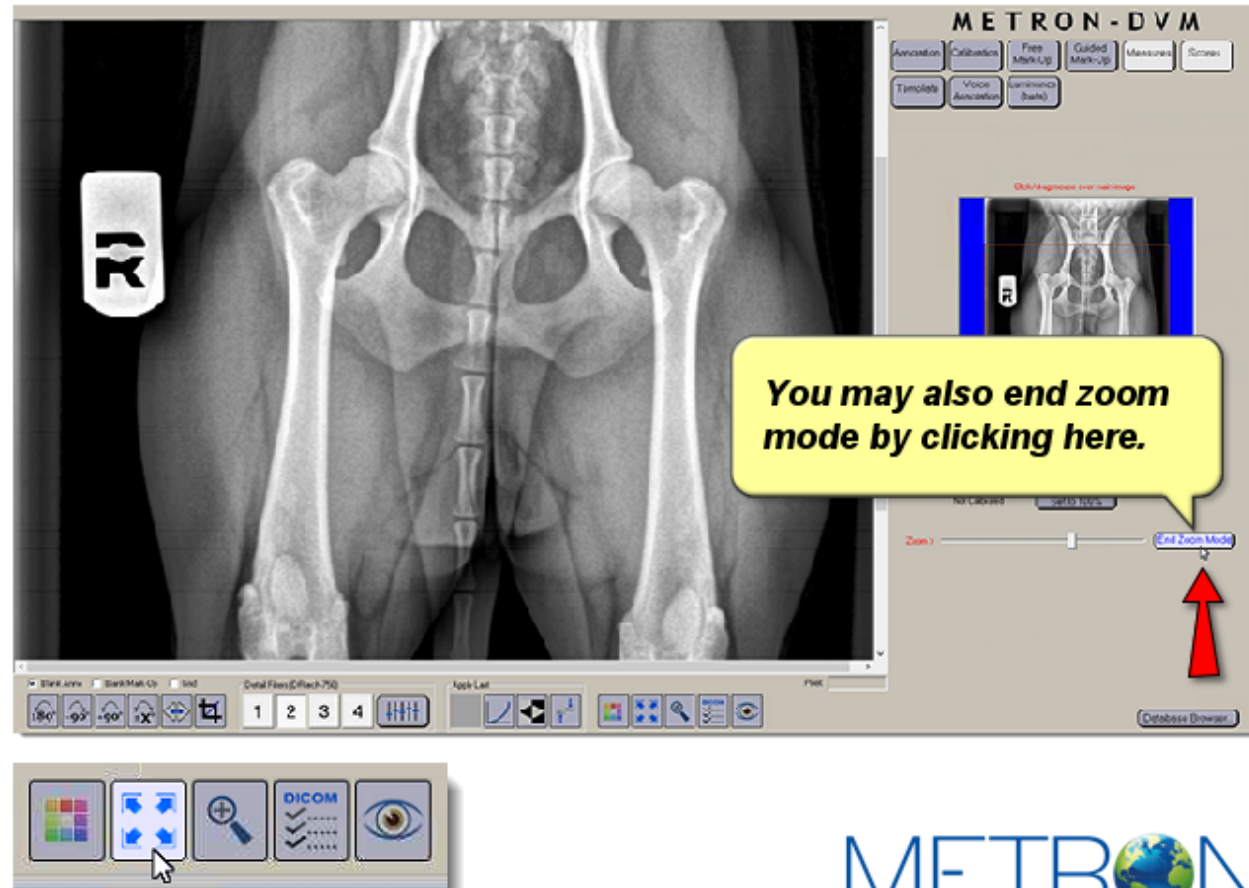


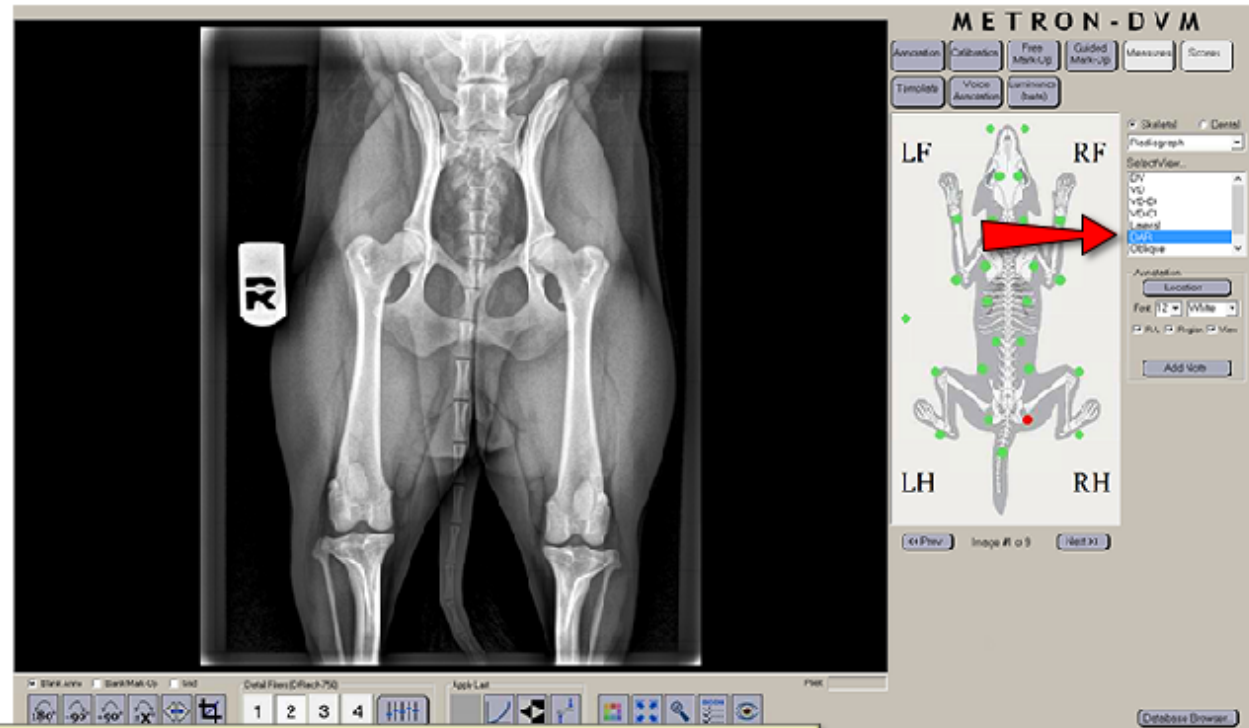
Guided Mark-Up: DAR Analysis | Canine

Adjust the size and positioning of the image using the lever and scroll bars.

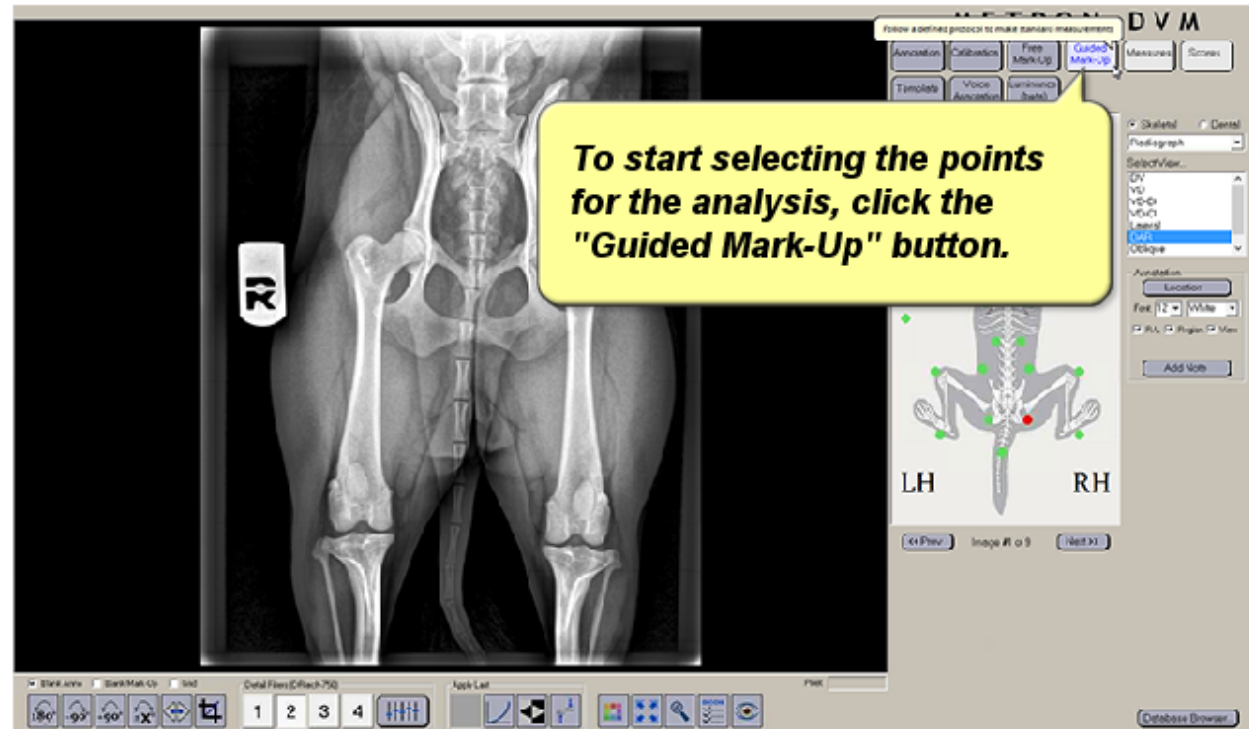


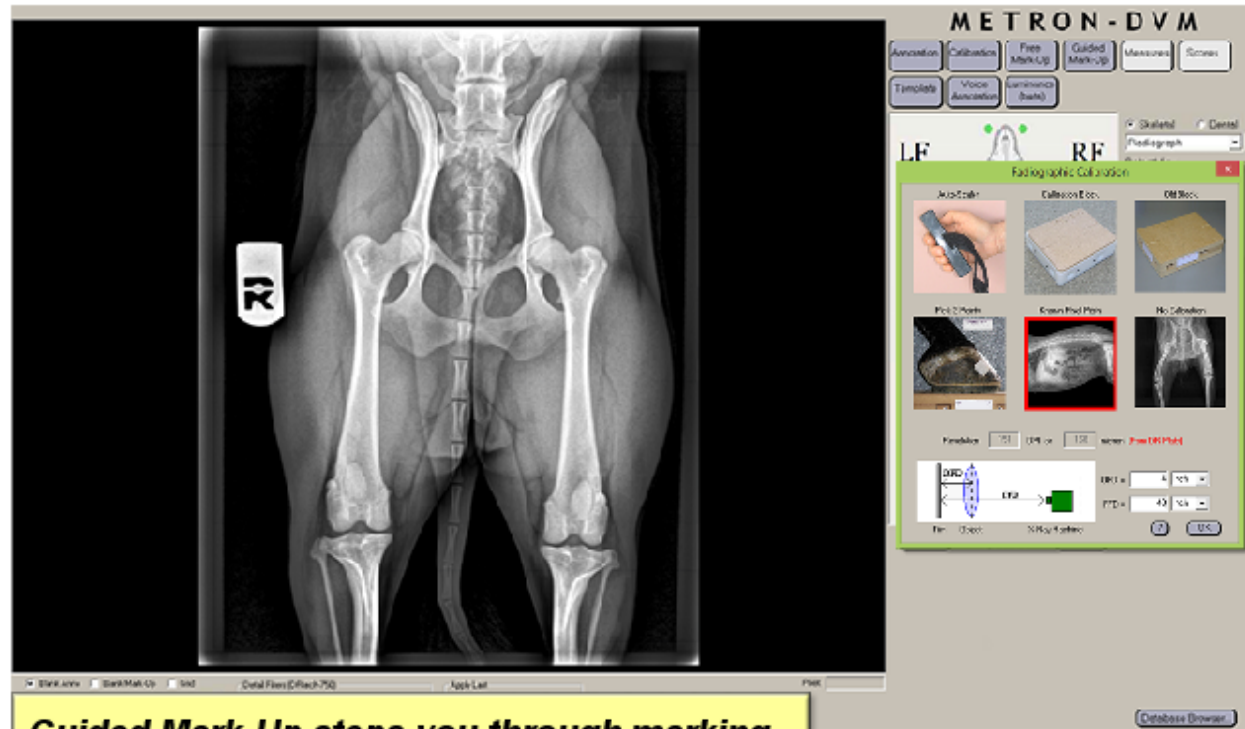
METRON
SUPPORT SERVICES





Guided Mark-Up is available only for certain "anatomical regions." For this "Guided Mark-Up" to be available, select the "DAR" image view and select the right or left pelvis (with a red dot).



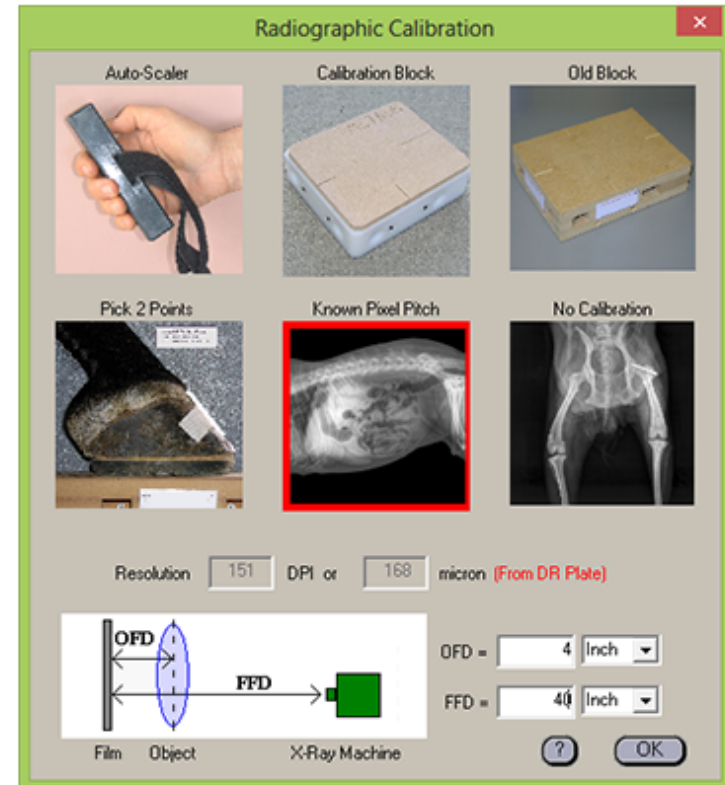


Guided Mark-Up steps you through marking key points on your image. When you click the "Guided Mark-Up" button and you have not previously calibrated this image, you will first be brought to the Calibration panel.

Guided Mark-Up: DAR Analysis | Canine

If the calibration panel pops up, and the image was taken with a CR or DR system controlled by Metron, the entries as shown to the right can be used to calibrate.

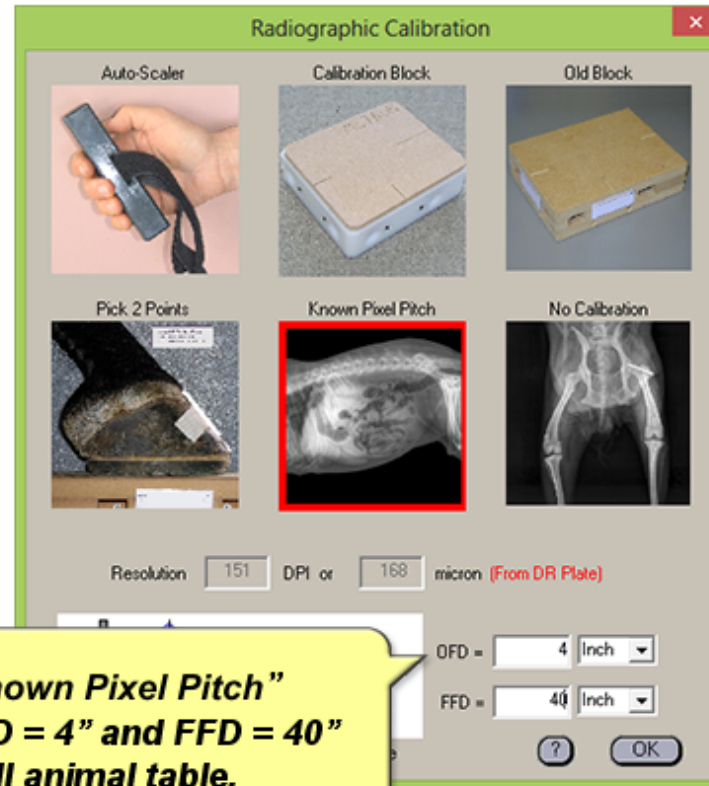
In fact, the DAR method does not require careful calibration, since only angles are measured.



Guided Mark-Up: DAR Analysis | Canine

If the calibration panel pops up, and the image was taken with a CR or DR system controlled by Metron, the entries as shown to the right can be used to calibrate.

In fact, the DAR method does not require careful calibration, since only angles are measured.



**Use "Known Pixel Pitch"
and OFD = 4" and FFD = 40"
for small animal table.**

METRON
SUPPORT SERVICES

Guided Mark-Up: DAR Analysis | Canine

Follow the three steps as indicated on the window.

Step 1: "Central Axis"

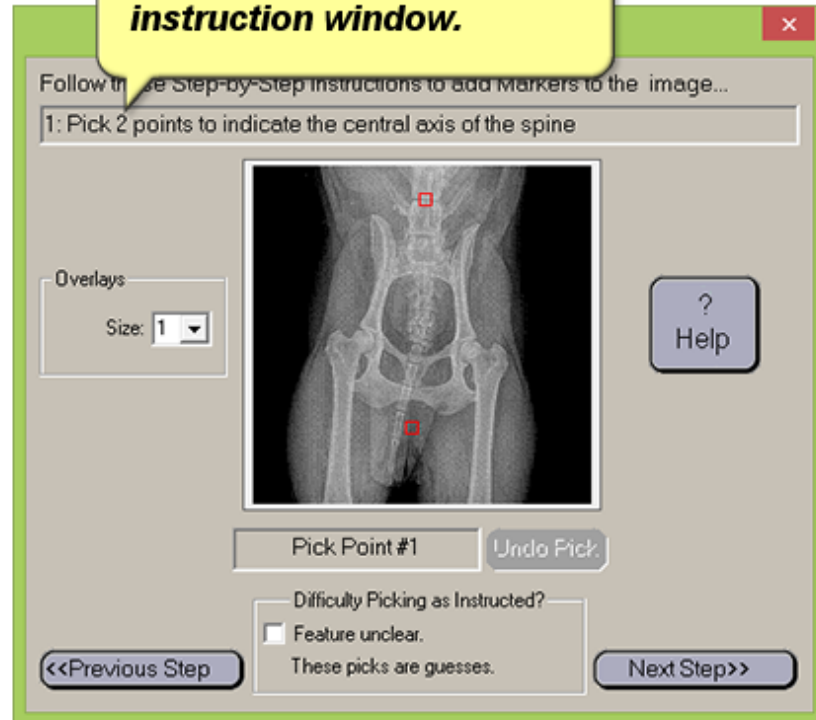


Guided Mark-Up: DAR Analysis I Canine

Follow the three steps as indicated on the window.

Step 1: "Central Axis"

Pick two points on your image as indicated in the instruction window.

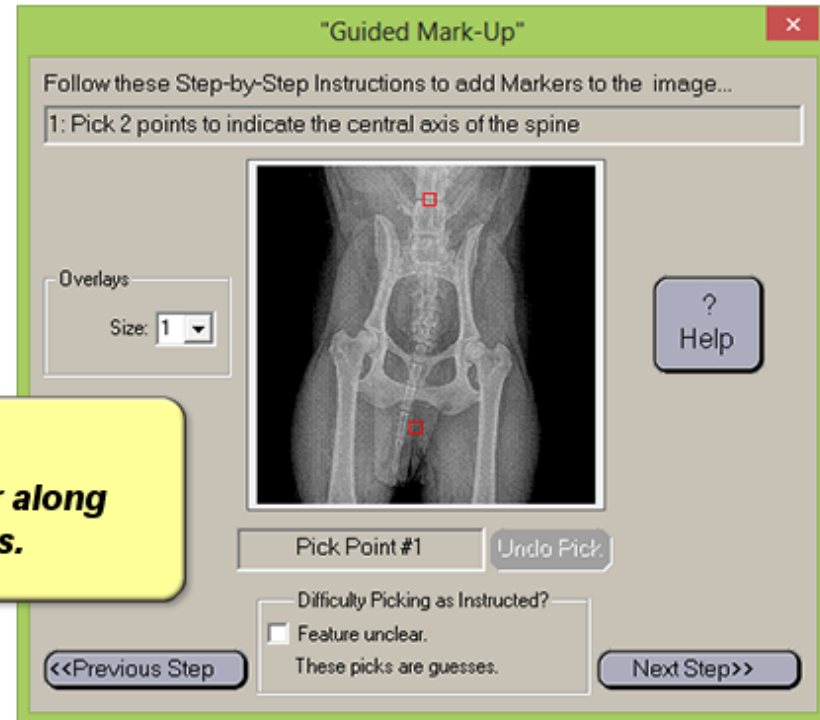


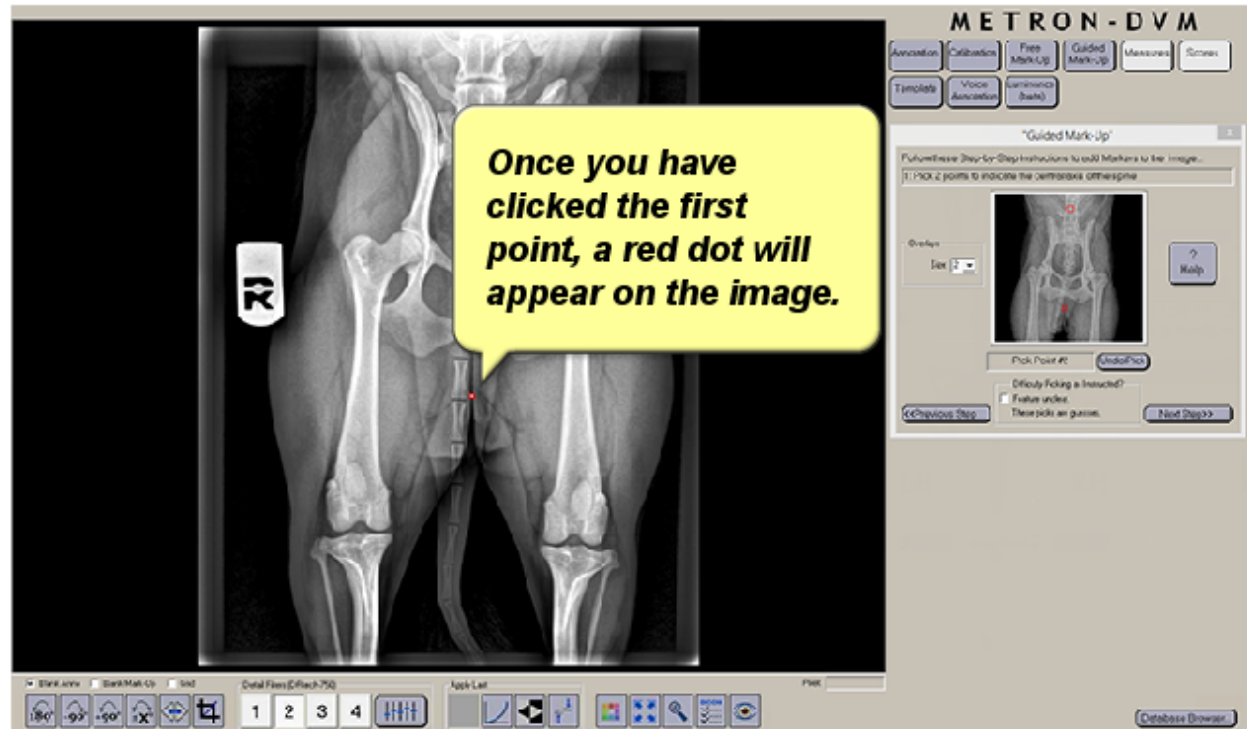
Guided Mark-Up: DAR Analysis | Canine

Follow the three steps as indicated on the window.

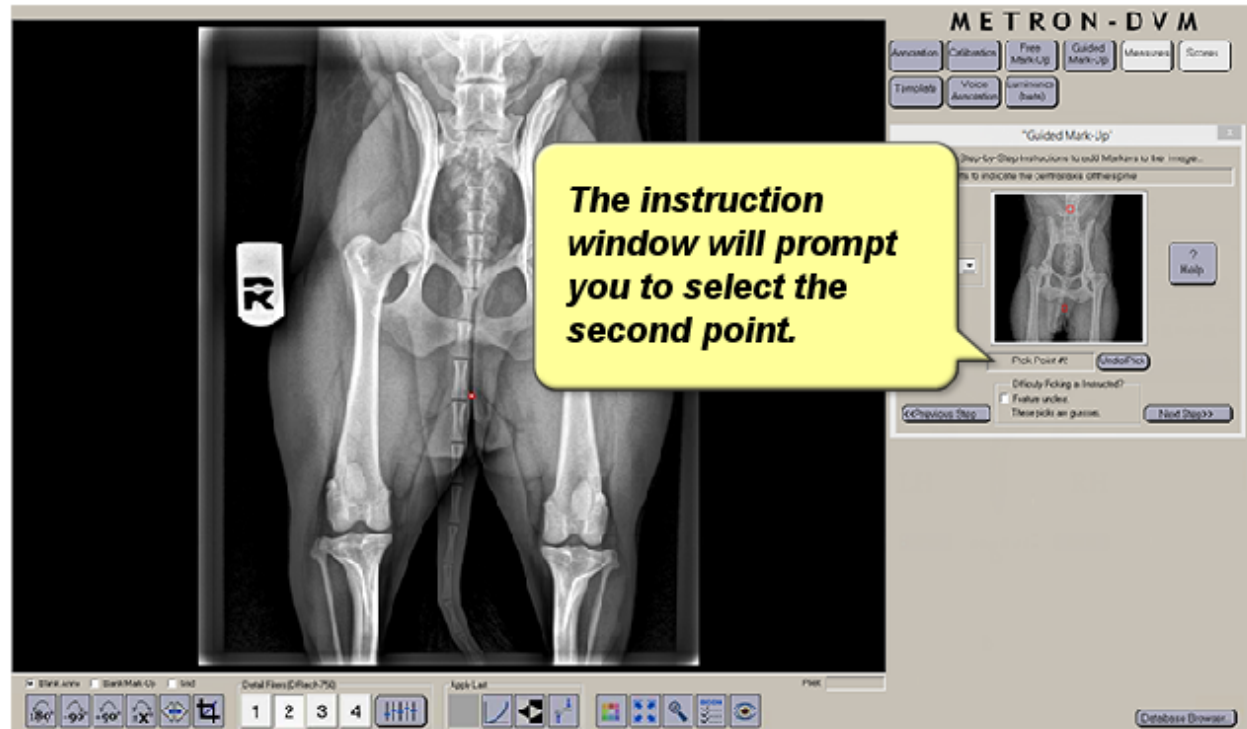
Step 1: "Central Axis"

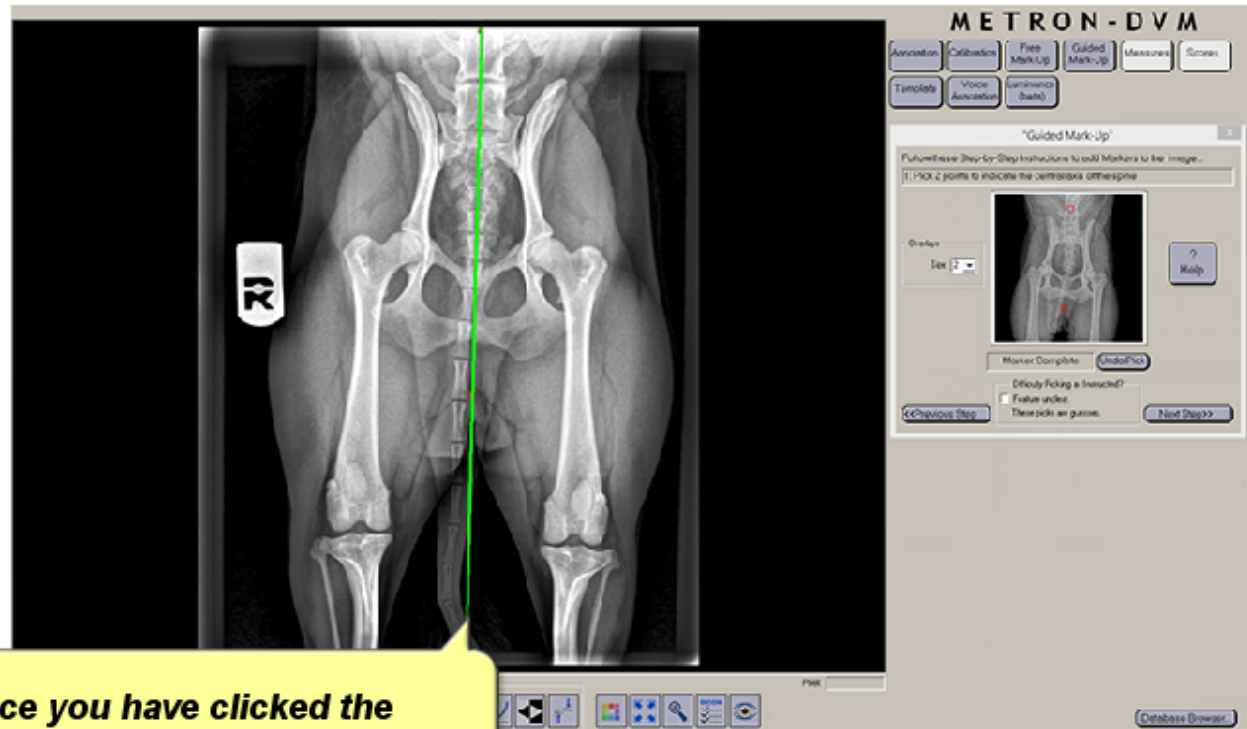
Pick two points along the centerline of the spine, or along the centerline of the pelvis.





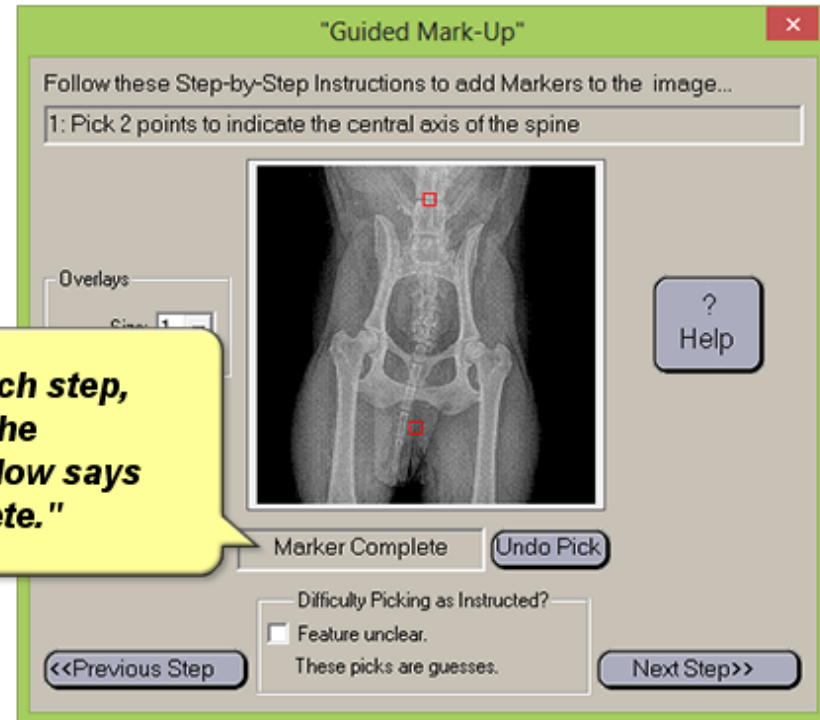
Guided Mark-Up: DAR Analysis | Canine

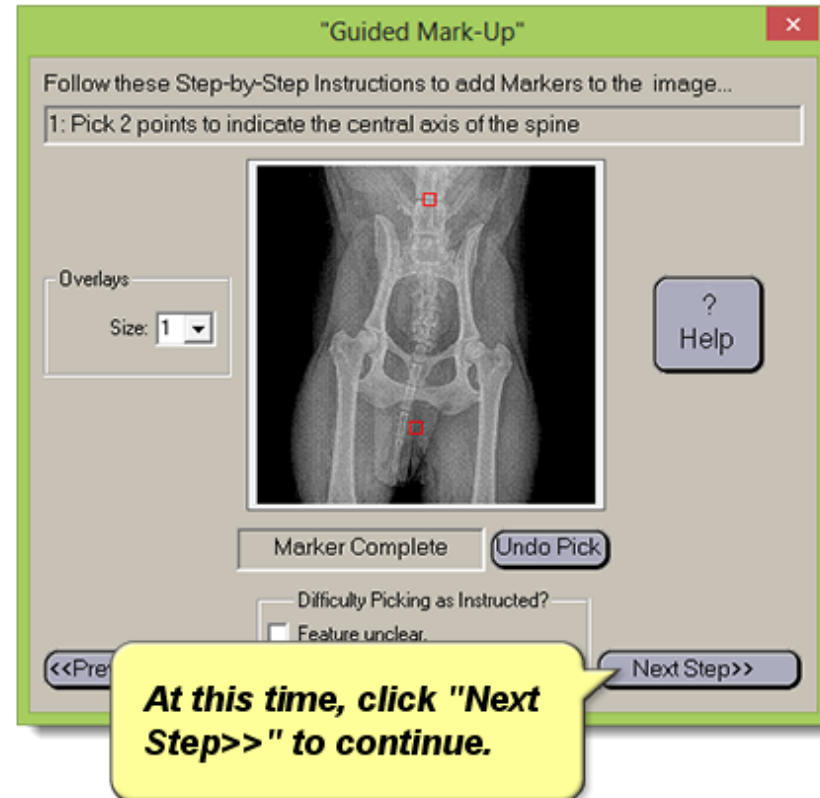




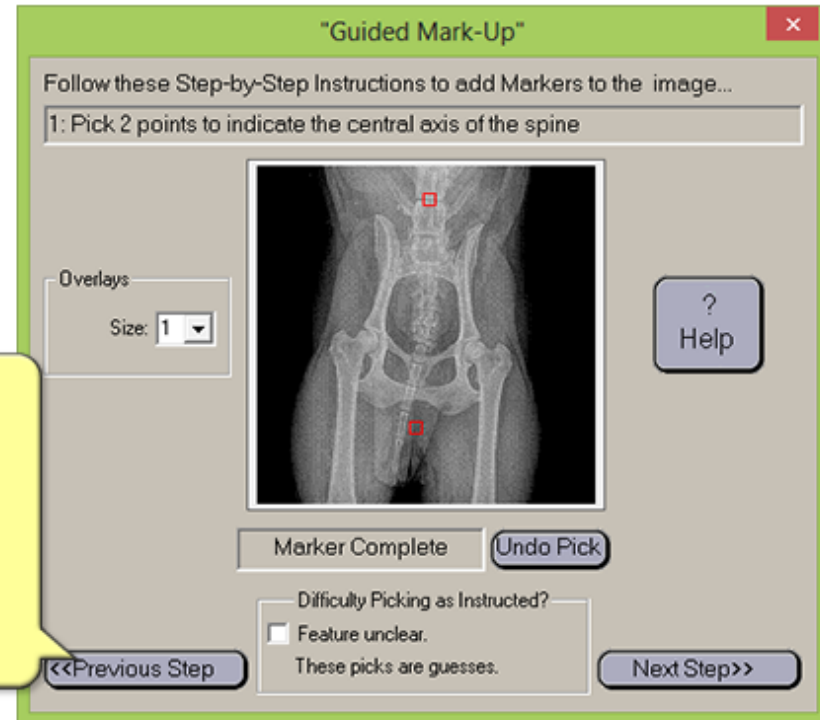
Once you have clicked the second point, Metron will automatically draw the line representing the central axis.

***At the end of each step,
you will notice the
instruction window says
"Marker Complete."***

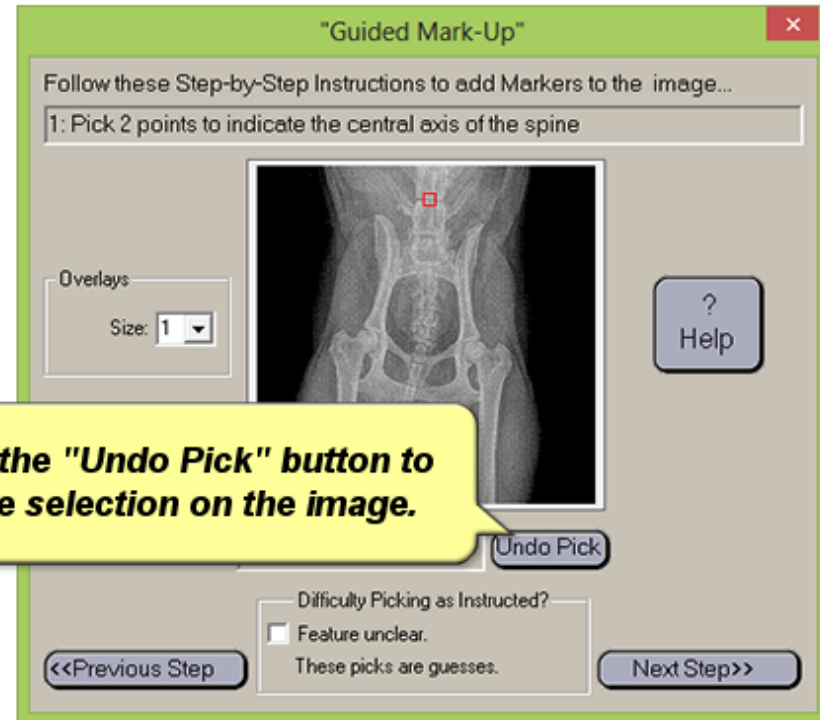


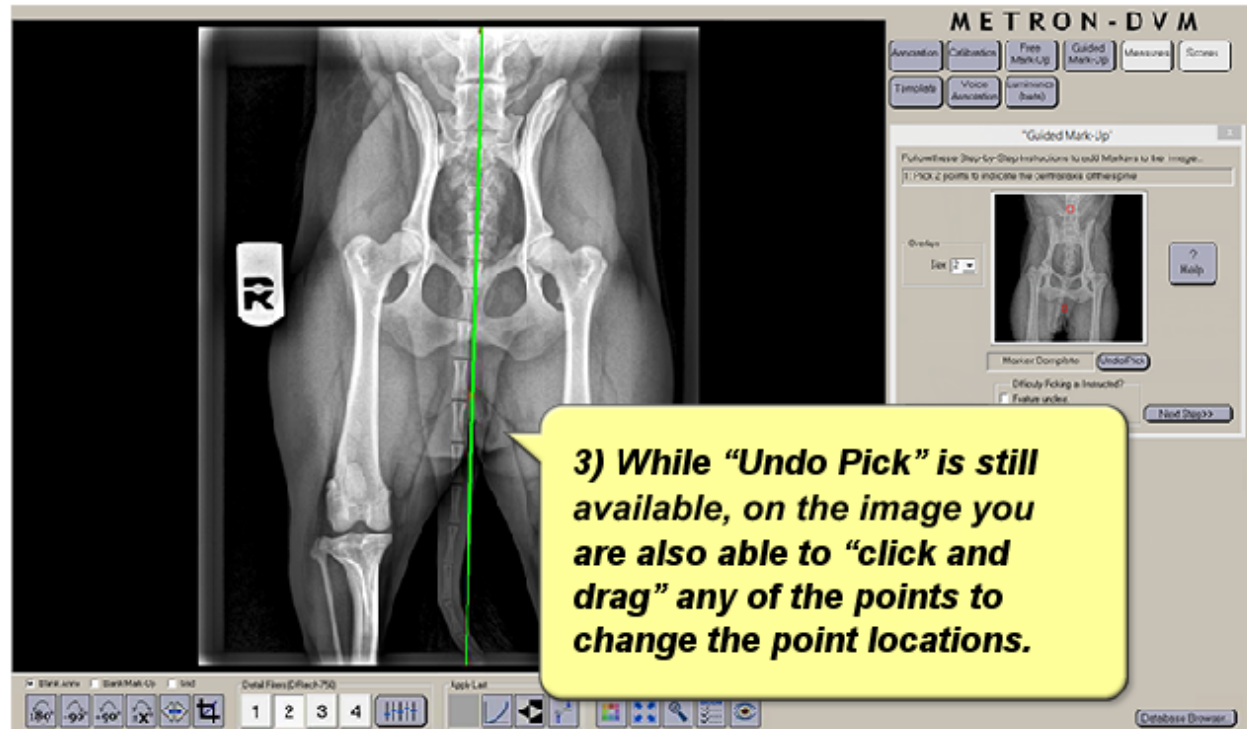


Also, at any point you are able to:
1) Click the
"<<Previous Step"
button to move back
one step at a time.



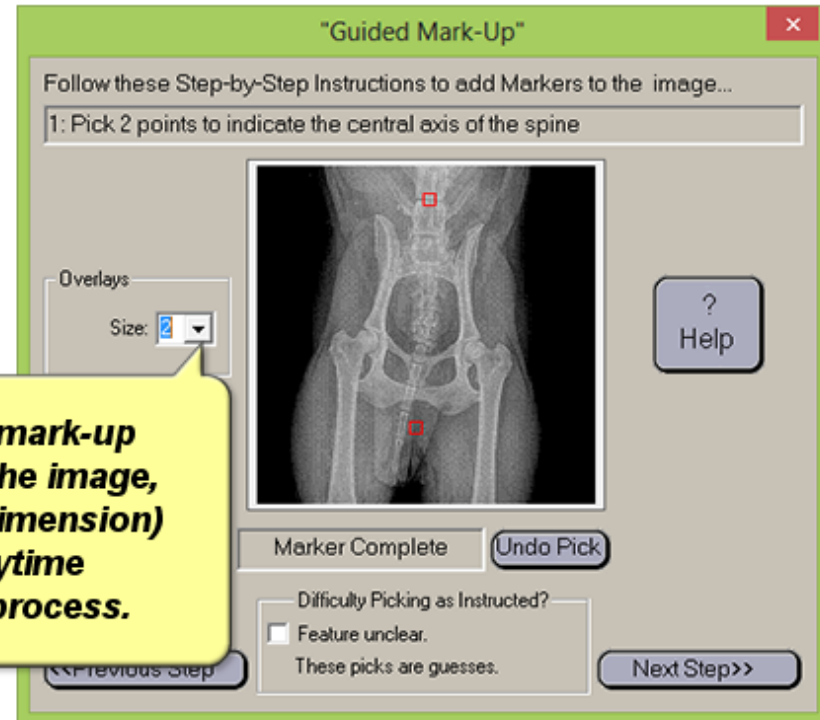
2) Click the "Undo Pick" button to erase the selection on the image.



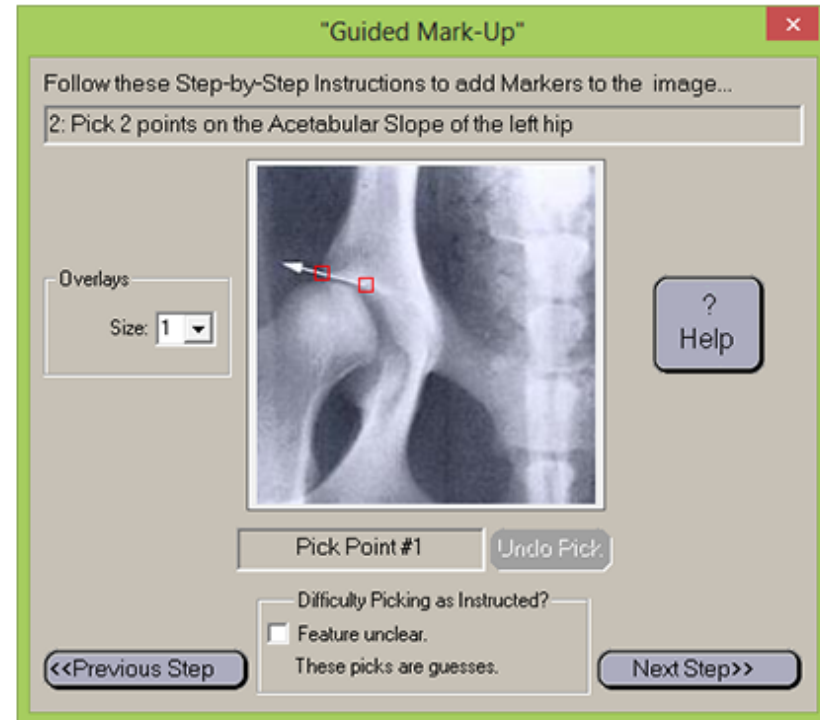




If you have Zoomed and the mark-up seems large and coarse on the image, you can adjust the size (or dimension) of the mark-up objects at anytime during the Guided Mark-Up process.



Step 2:
**"Left Acetabular
Slope"**

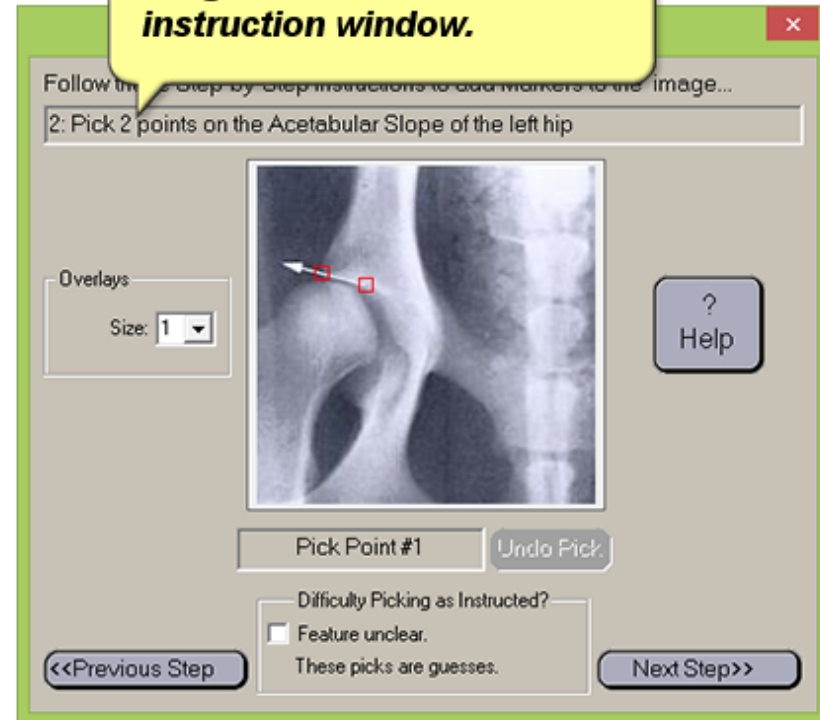


37

Guided Mark-Up: DAR Analysis | Canine

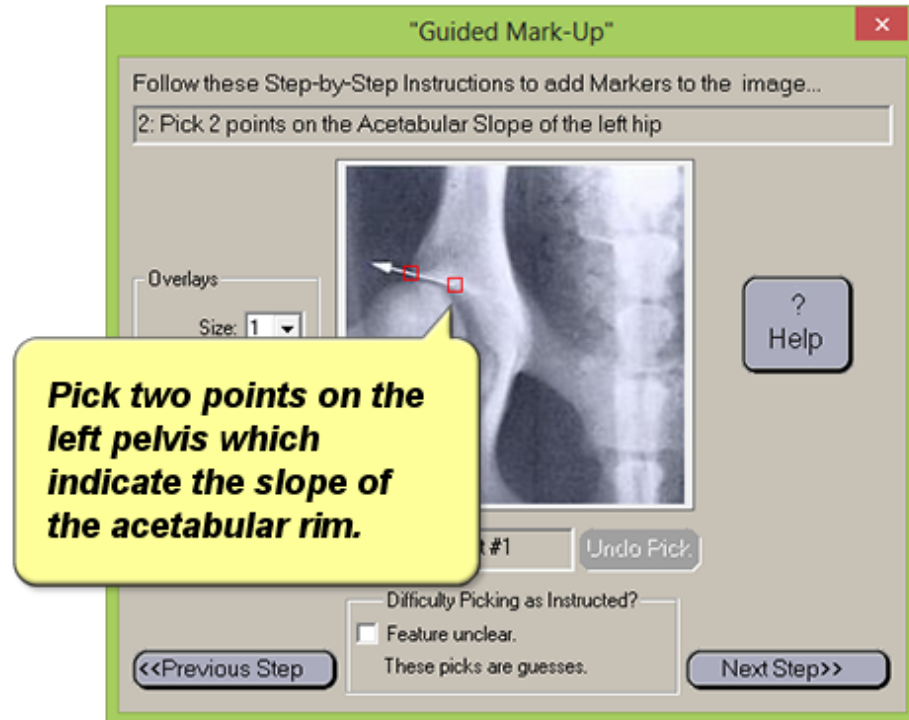
Step 2: “Left Acetabular Slope”

***Pick two points on your
image as indicated in the
instruction window.***

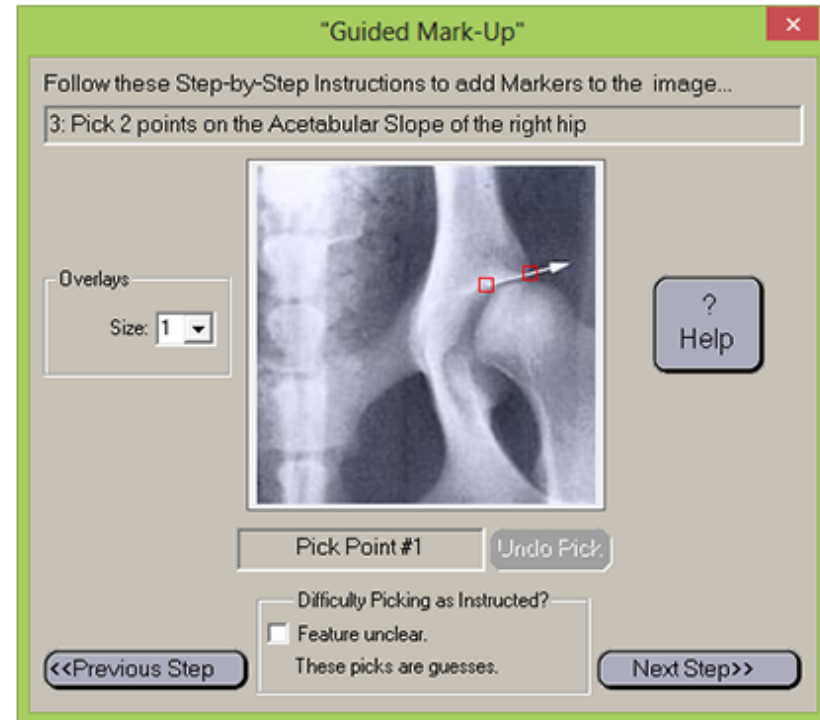


METRON
SUPPORT SERVICES

Step 2:
**"Left Acetabular
Slope"**

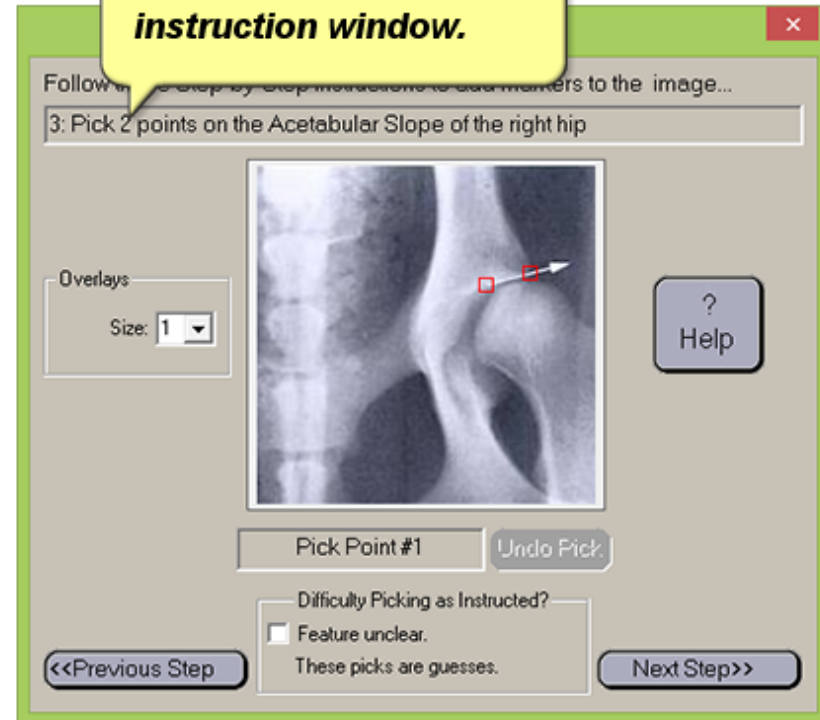


Step 3:
**“Right Acetabular
Slope”**

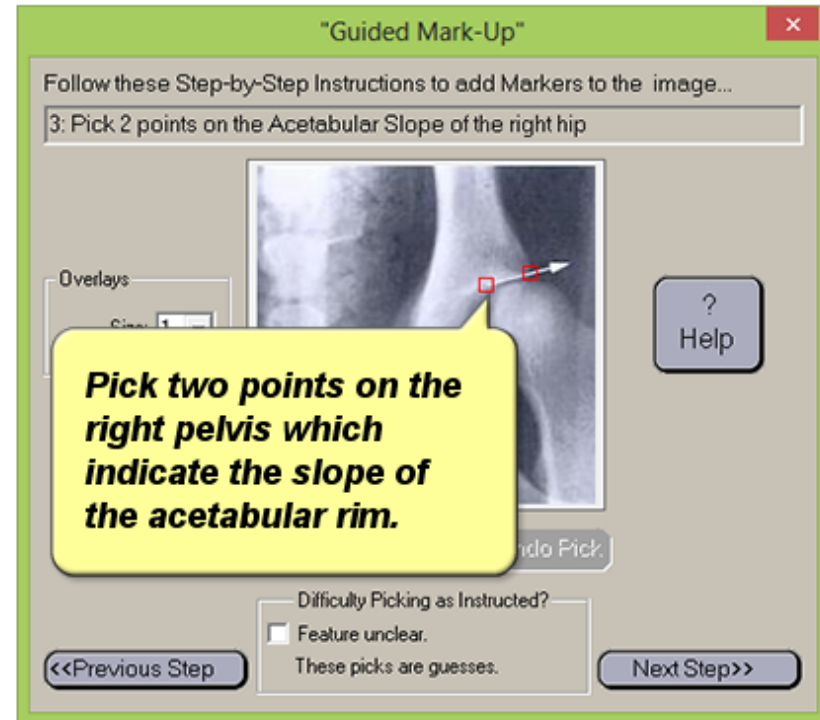


**Step 3:
“Right Acetabular
Slope”**

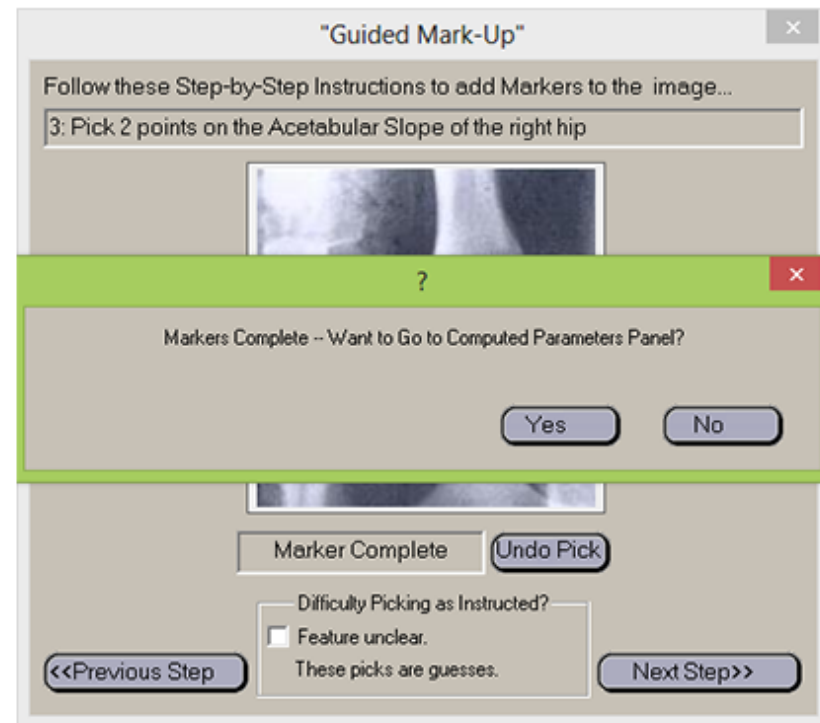
*Pick two points on
your image as
indicated in the
instruction window.*



Step 3:
**"Right Acetabular
Slope"**



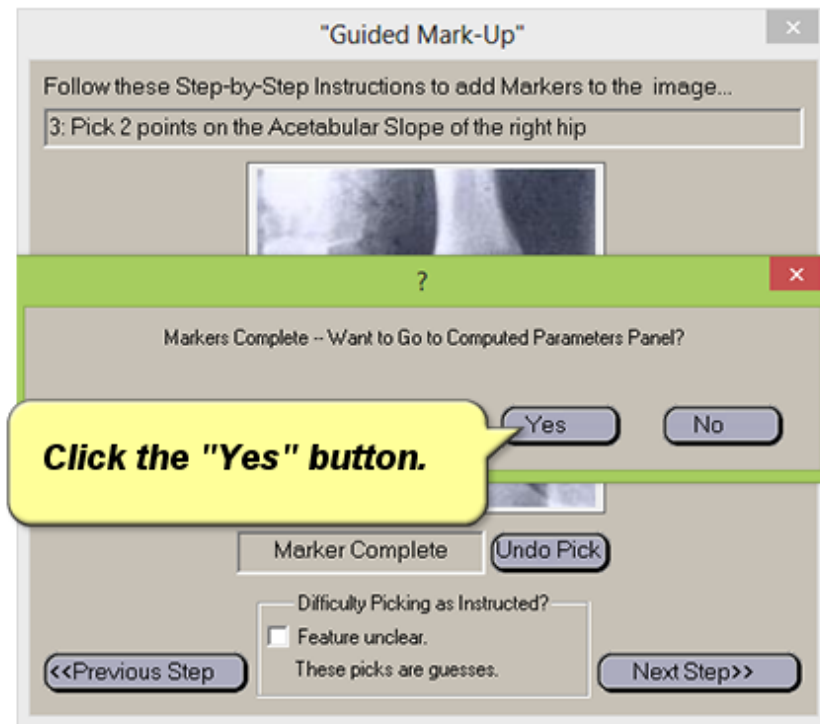
After finishing step three, you are asked if you are ready to have Metron calculate the parameters.



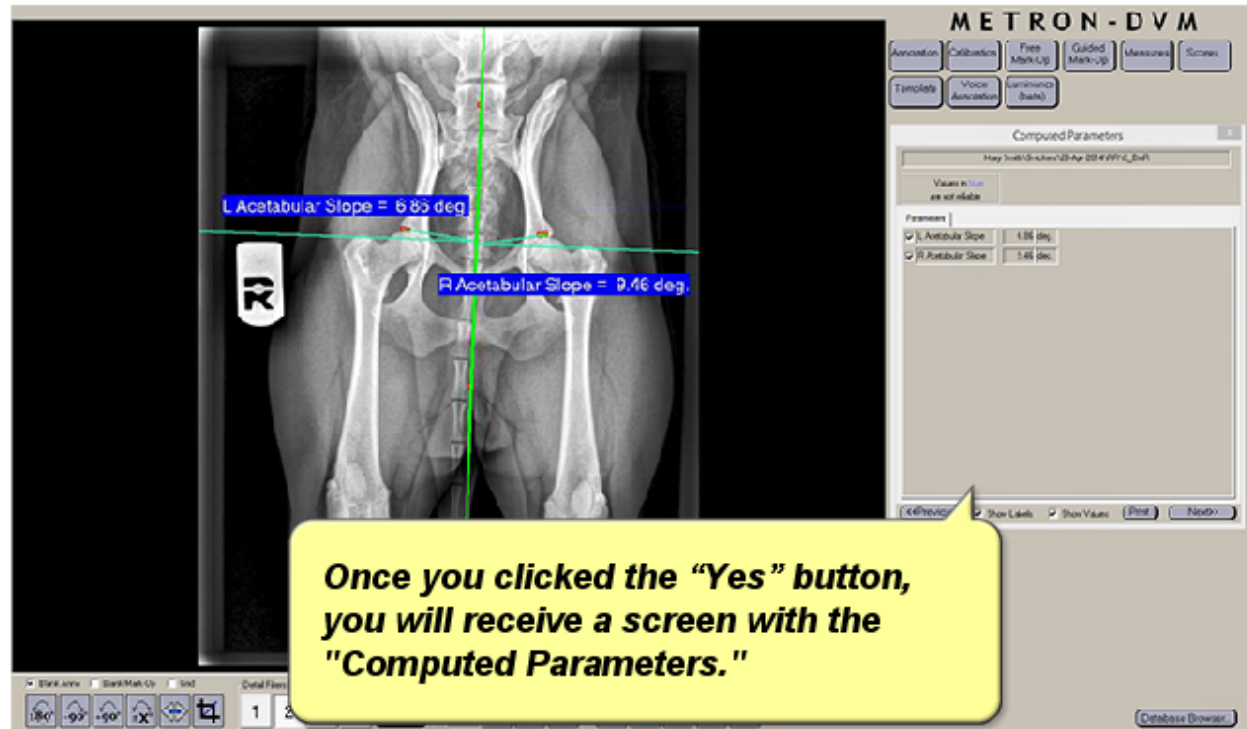
43

Guided Mark-Up: DAR Analysis | Canine

After finishing step three, you are asked if you are ready to have Metron calculate the parameters.



METRON
SUPPORT SERVICES



Select the check box to the left of any of the parameters and the related mark-up will be shown on the image.

Computed Parameters

Mary Smith\Bios\cor\128 Apr 2014\RRWL_DAR

Values in blue are not reliable

Parameters

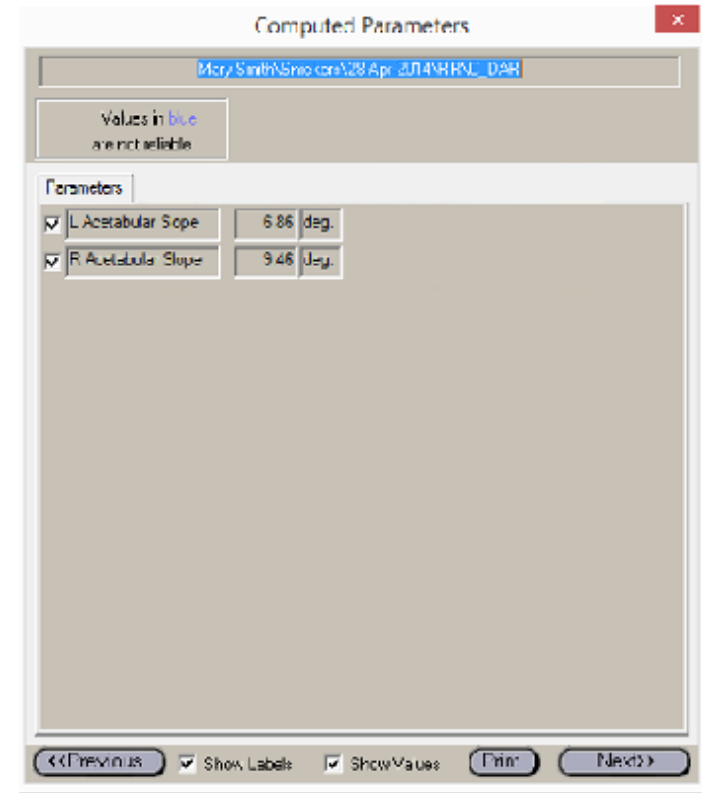
☒	L Acetabular Slope	6.86 deg.
☒	R Acetabular Slope	9.46 deg.

<< Previous ☒ Show Labels ☒ Show Values Print Next >>

Guided Mark-Up: DAR Analysis | Canine

Our analysis computes two values. The first value is the **Left Acetabular Slope**. The second is the **Right Acetabular Slope**.

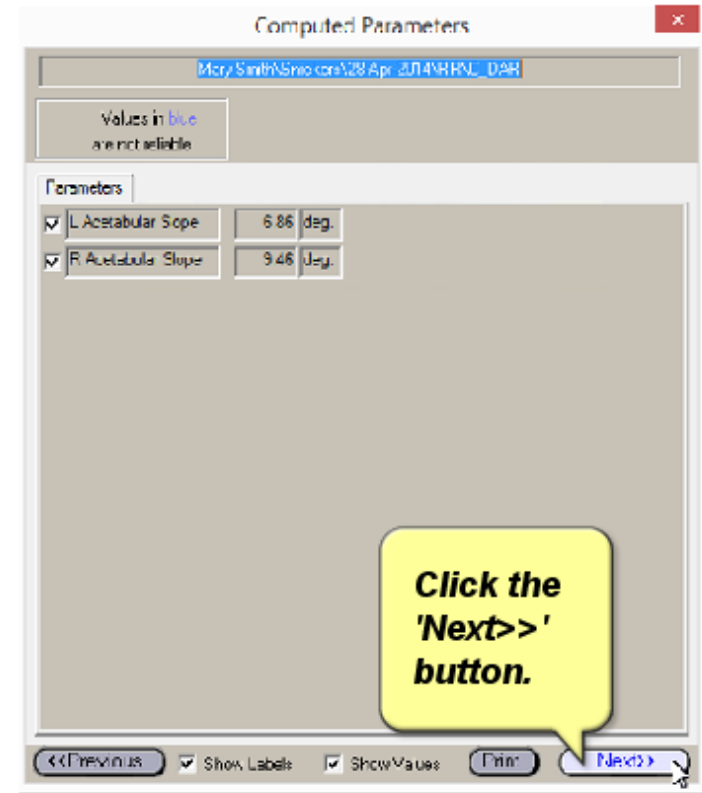
Remember you can select Metric units under "**Preferences**" in the top menu bar then choose "**General**" to display and change options including units of measure.



Guided Mark-Up: DAR Analysis | Canine

Our analysis computes two values. The first value is the **Left Acetabular Slope**. The second is the **Right Acetabular Slope**.

Remember you can select Metric units under "**Preferences**" in the top menu bar then choose "**General**" to display and change options including units of measure.



Guided Mark-Up: DAR Analysis | Canine

When you click **"Next>>"**, you are brought to the **"Computed Parameters and Rule-Based Scoring"** window that shows the scores for this stifle.

Guided Mark-Up: DAR Analysis | Canine

When you click "**Next>>**", you are brought to the "**Computed Parameters and Rule-Based Scoring**" window that shows the scores for this stifle.

For DAR analysis, Metron will compare the computed values to the specification in the scoring rule (in this example "At Most 7.5 degrees" is specified) and Metron will highlight any out-of-range parameters in red.

Parameter Name	Value	Best when...	Importance
L Acetabular Slope	5.86 deg	At Most 7.500	High
R Acetabular Slope	9.46 deg	At Most 7.500	High

Guided Mark-Up: DAR Analysis | Canine

When you click **"Next>>"**, you are brought to the **"Computed Parameters and Rule-Based Scoring"** window that shows the scores for this stifle.

Computed Parameters and Rule-Based Scoring

May Smith\Smith\Canine\284-2014\RR\0_DAR

Rule: CanineDAR [Load Rule] [Save Rule] [Delete Rule]

Parameters

Parameter Name	Value	Unit	Best when...	Importance	Action
L Acetabular Slope	5.86	deg	At Most 7.500	High	Edit..
R Acetabular Slope	9.46	deg	At Most 7.500	High	Edit..

If you don't agree with the statement "At Most 7.5 degrees", then you can edit the scoring rule by clicking the "Edit.." button to the far right.

<<Previous Highlight Less 0 % Score 87.4 % Print



Guided Mark-Up in Metron: DAR Analysis for Canine

This completes the "Guided Mark-Up in Metron: Dorsal Acetabular Rim for Canine" online training. Please feel free to view it again or select another online training session to review.



Click F11 on your keyboard to minimize the browser screen
and click the window closed to exit this training session.

