



Guided Mark-Up in Metron: Hoof Analysis

How To | Part 1 | Steps 1-5



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: Hoof Analysis

How To | Part 1 | Steps 1-5

This online training session will provide you with the details of how to use "Guided Mark-Up in Metron: Hoof Analysis | Part 1".



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The Training Session Objectives:

Describe types of images Metron supports for the Hoof Guided Mark-Up

How to create a "Guided Mark-Up" of the hoof

How to change Preferences for the Guided Mark-Up image

How to pick the points for the "Guided Mark-Up" image

(Video Length: 9 minutes)



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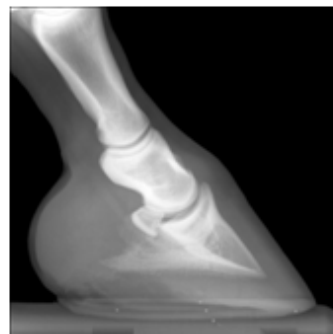
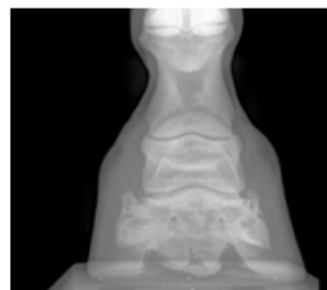
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Guided Mark-Up: Hoof Analysis

How To | Part 1

In this session we will only step you through one of the five image types. They all have instruction windows with 3-4 steps similar to the example provided. The training video will take you through the first five steps of the Lateral Radiograph and how to pick the points.



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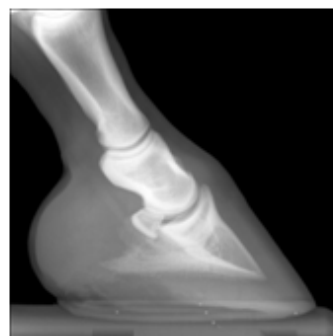
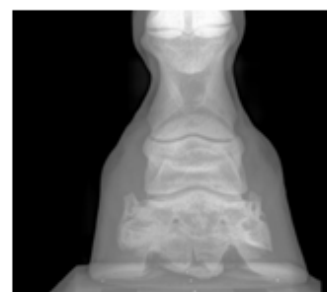
2

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How To | Part 1

What types of images does Metron support for the Hoof Guided Mark-Up?

Metron supports Guided Mark-Up for five different images of the foot.



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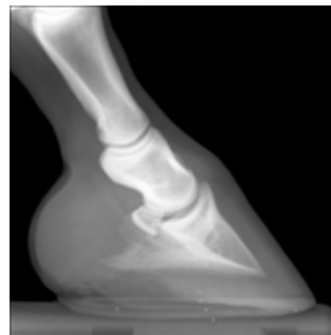
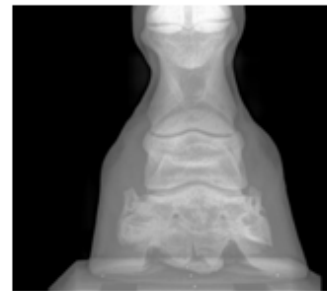
3

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How To | Part 1

What types of images does Metron support for the Hoof Guided Mark-Up?

Metron supports Guided Mark-Up for five different images of the foot.



***Two images are radiographs:
The Lateral and the DP -
sometimes called 'AP'.***

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Guided Mark-Up: Hoof Analysis

How To | Part 1

What types of images does Metron support for the Hoof Guided Mark-Up?

Metron supports Guided Mark-Up for five different images of the foot.

Three are photographs:
Solar, Lateral, and AP
(sometimes called Frontal).



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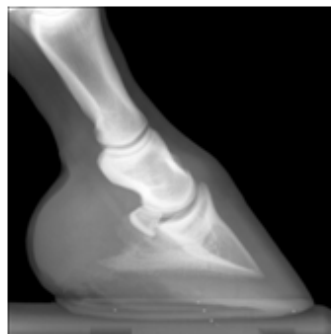
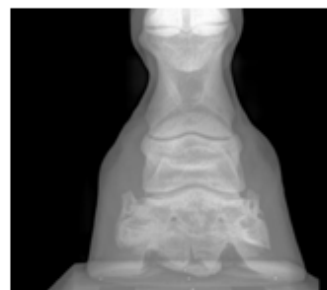
Guided Mark-Up: Hoof Analysis

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What types of images does Metron support for the Hoof Guided Mark-Up?

Metron supports Guided Mark-Up for five different images of the foot.

Each of these images show different aspects and allow different measurements to be made.



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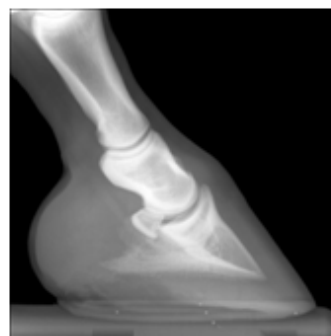
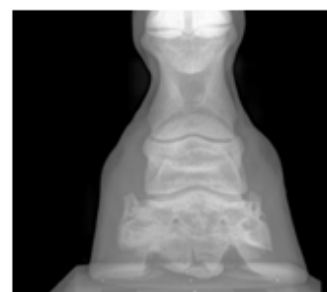
Guided Mark-Up: Hoof Analysis

How To | Part 1

What types of images does Metron support for the Hoof Guided Mark-Up?

Metron supports Guided Mark-Up for five different images of the foot.

A Metron user can use any one of these images or all five of them when analyzing the hoof.



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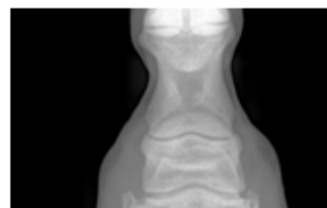
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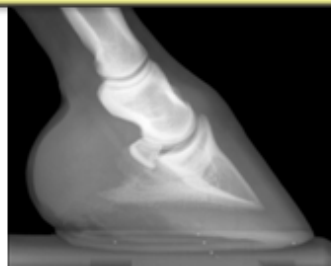
How To | Part 1

What types of images does Metron support for the Hoof Guided Mark-Up?

Metron supports Guided Mark-Up for five different images of the foot.



In this session we will only step you through one of the five image types. They all have instruction windows with 3-4 steps similar to this example. The following will take you through the 10 steps of the Lateral Radiograph.

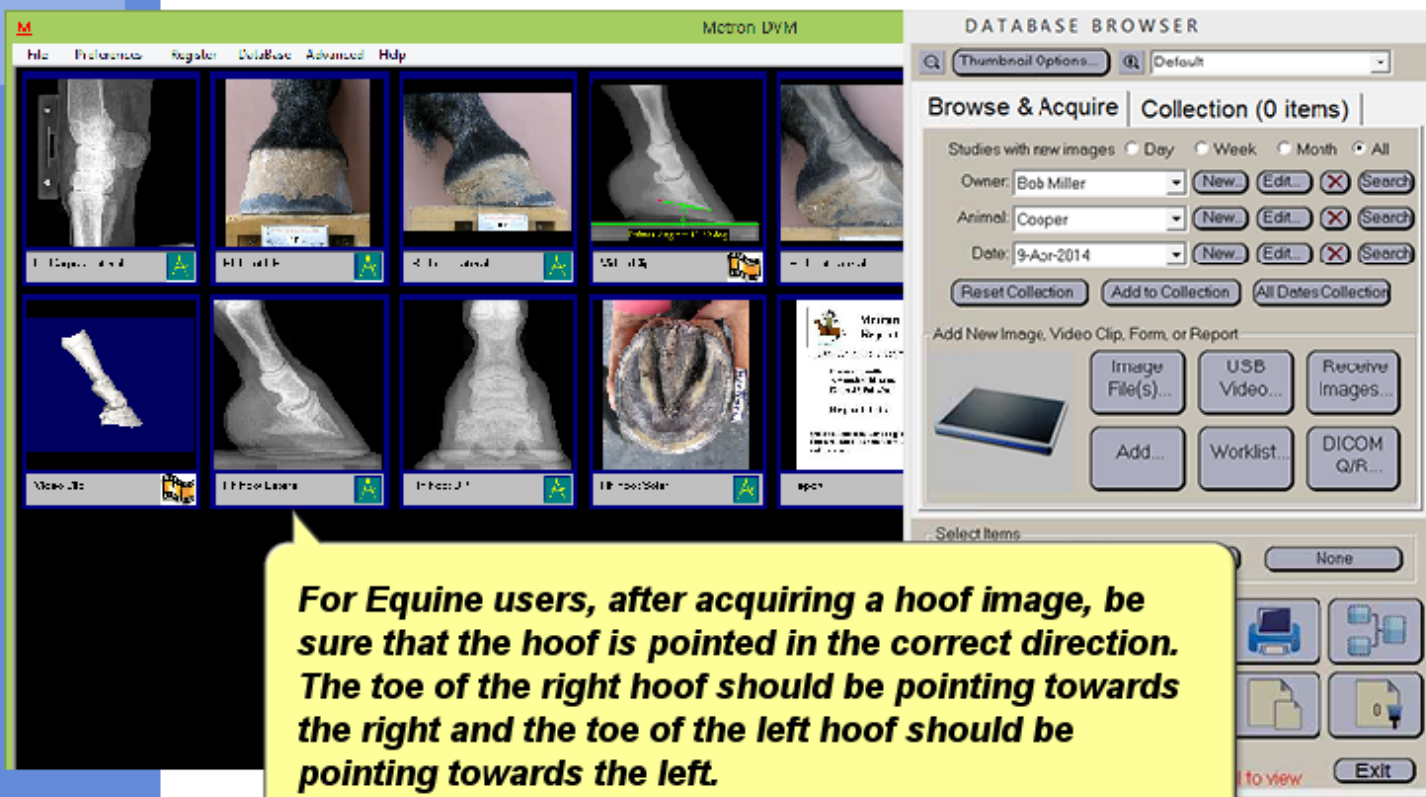


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Guided Mark-Up: Hoof Analysis

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The screenshot displays the Metron DVM software interface. The main window shows a grid of ten images, including various views of hooves and a 3D model of a hoof. The right-hand panel is titled 'DATABASE BROWSER' and contains a 'Browse & Acquire' section with fields for Owner (Bob Miller), Animal (Cooper), and Date (9-Apr-2014). Below these fields are buttons for 'New', 'Edit', and 'Search'. There are also buttons for 'Reset Collection', 'Add to Collection', and 'All Dates Collection'. The 'Add New Image, Video Clip, Form, or Report' section includes buttons for 'Image File(s)...', 'USB Video...', 'Receive Images...', 'Add...', 'Worklist...', and 'DICOM Q/R...'. At the bottom of the database browser, there are icons for 'None', 'Print', 'Copy', 'Paste', 'Find', and 'Exit'.

For Equine users, after acquiring a hoof image, be sure that the hoof is pointed in the correct direction. The toe of the right hoof should be pointing towards the right and the toe of the left hoof should be pointing towards the left.

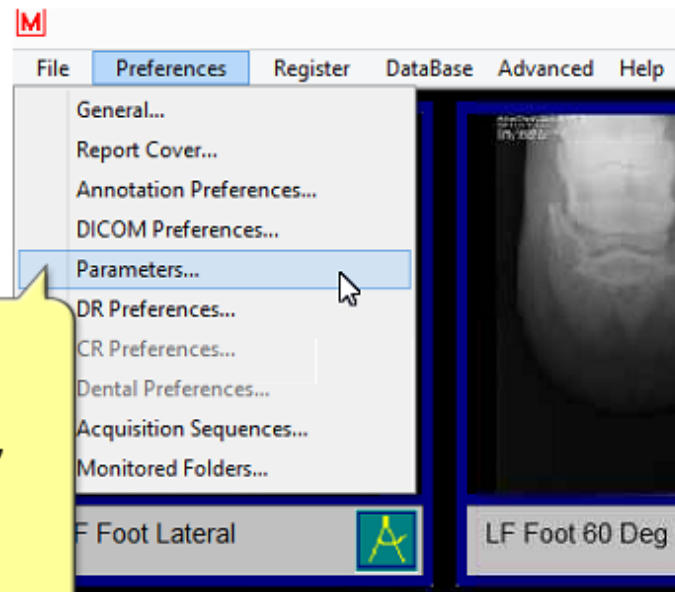
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Before beginning a Guided Mark-Up process for the first time or to change preferences, click "Preferences" then "Parameters" from the Metron Database menu bar.



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Guided Mark-Up: Hoof Analysis

How To | Part 1

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 >)

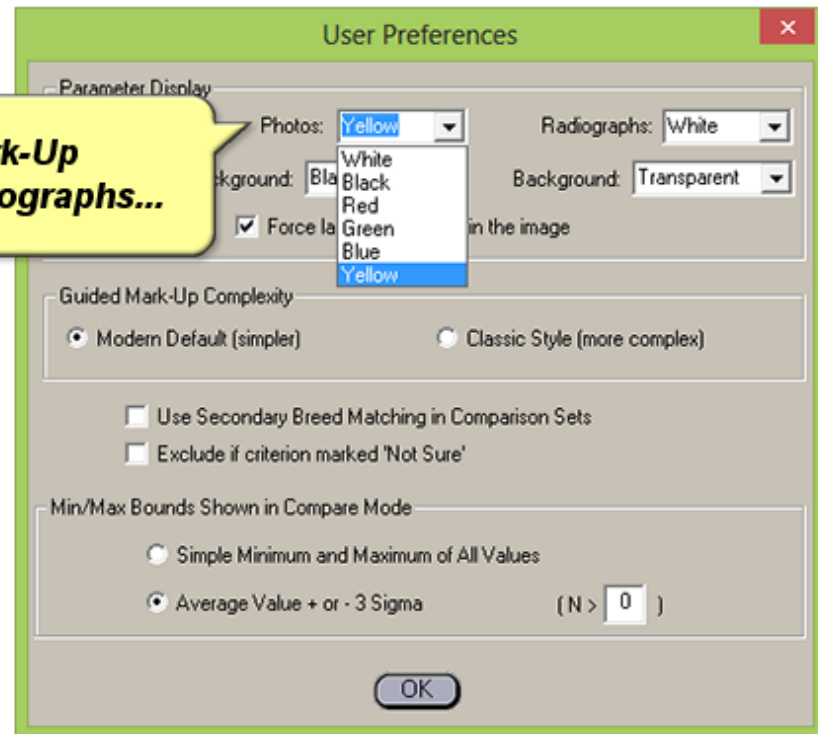
OK

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

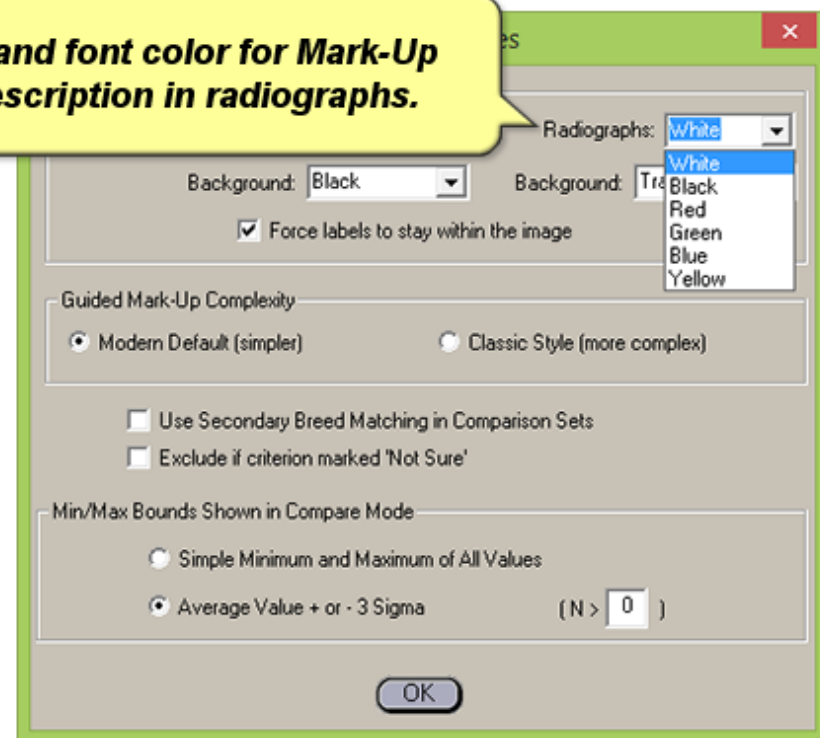


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Guided Mark-Up: Hoof Analysis

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



The screenshot shows a software dialog box titled "Guided Mark-Up Complexity". It contains several settings for radiograph analysis. A yellow callout bubble points to the "Radiographs" dropdown menu, which is currently open, showing a list of color options: White, Black, Red, Green, Blue, and Yellow. The "Background" dropdown is set to "Black". The "Force labels to stay within the image" checkbox is checked. Under "Guided Mark-Up Complexity", the "Modern Default (simpler)" radio button is selected. There are checkboxes for "Use Secondary Breed Matching in Comparison Sets" and "Exclude if criterion marked 'Not Sure'", both of which are currently unchecked. The "Min/Max Bounds Shown in Compare Mode" section has two radio button options: "Simple Minimum and Maximum of All Values" and "Average Value + or - 3 Sigma", with the latter being selected. A text input field next to it shows "(N > 0)". An "OK" button is located at the bottom right of the dialog box.

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Guided Mark-Up: Hoof Analysis

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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

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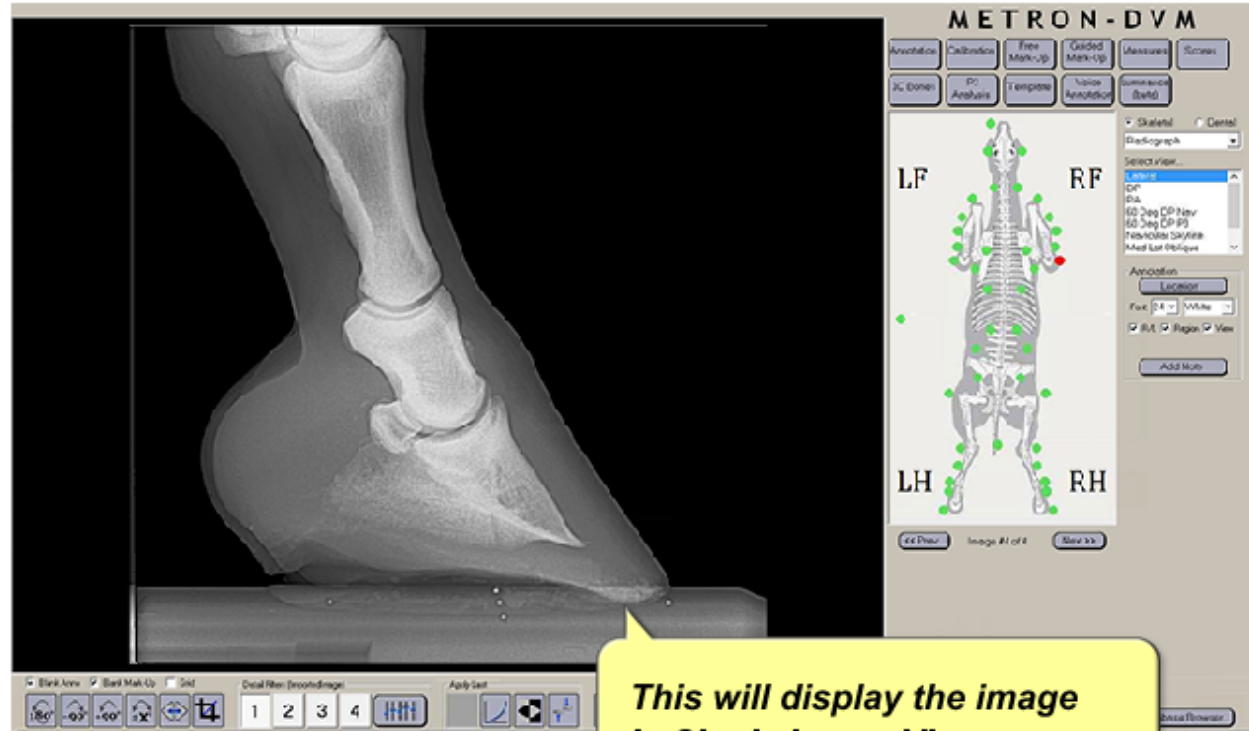


Select an image by double clicking on the image.

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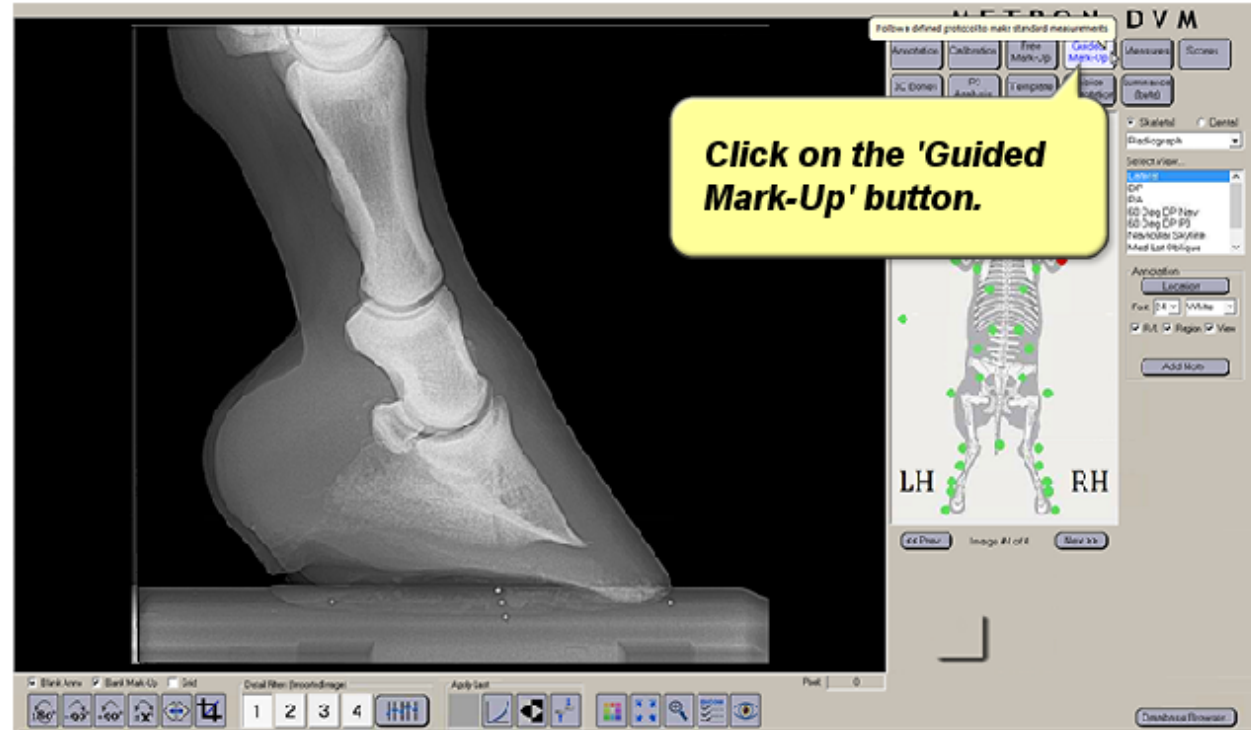


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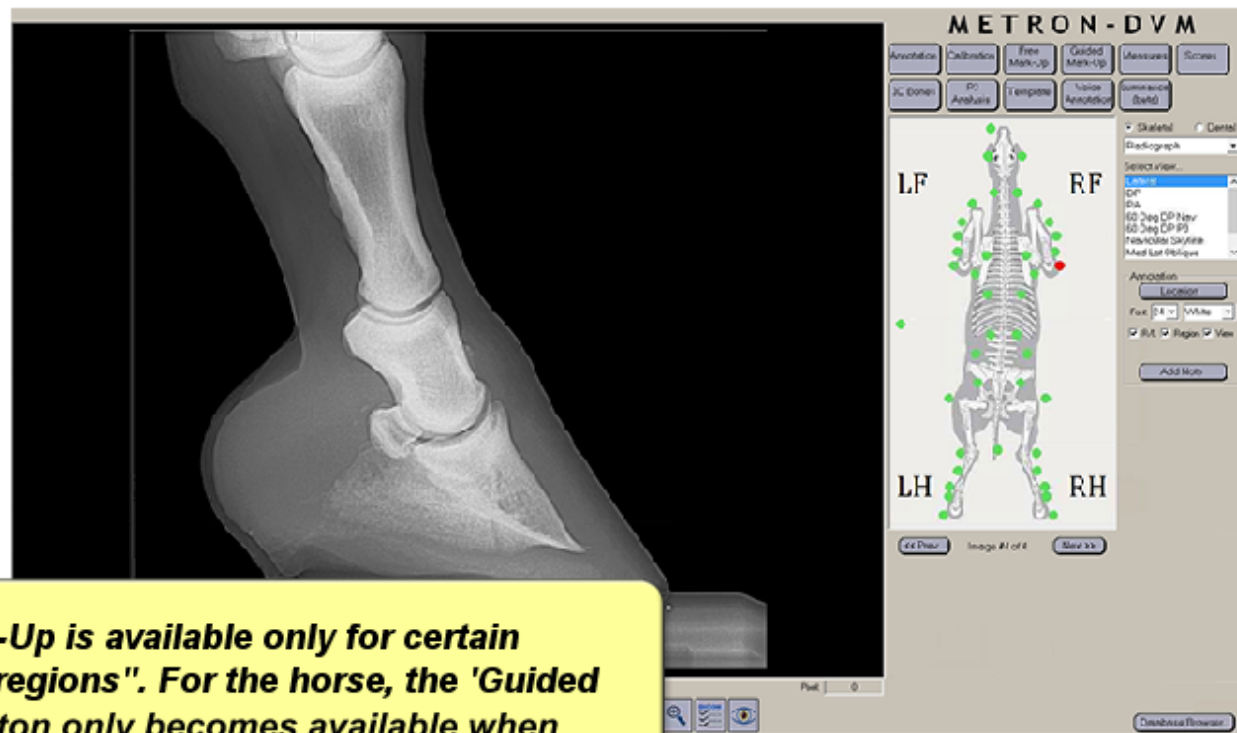
Guided Mark-Up steps you through doing mark-ups on your image. When you click the 'Guided Mark-Up' button and you have not previously calibrated this image, you will first be brought to the Calibration window.

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Guided Mark-Up is available only for certain "anatomical regions". For the horse, the 'Guided Mark-Up' button only becomes available when you indicate that the image is of the foot. In future Metron releases, other regions of the horse may have Guided Mark-Up options.

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The following are the ten steps as indicated on the instruction window.

Step 1: "Front of P3"



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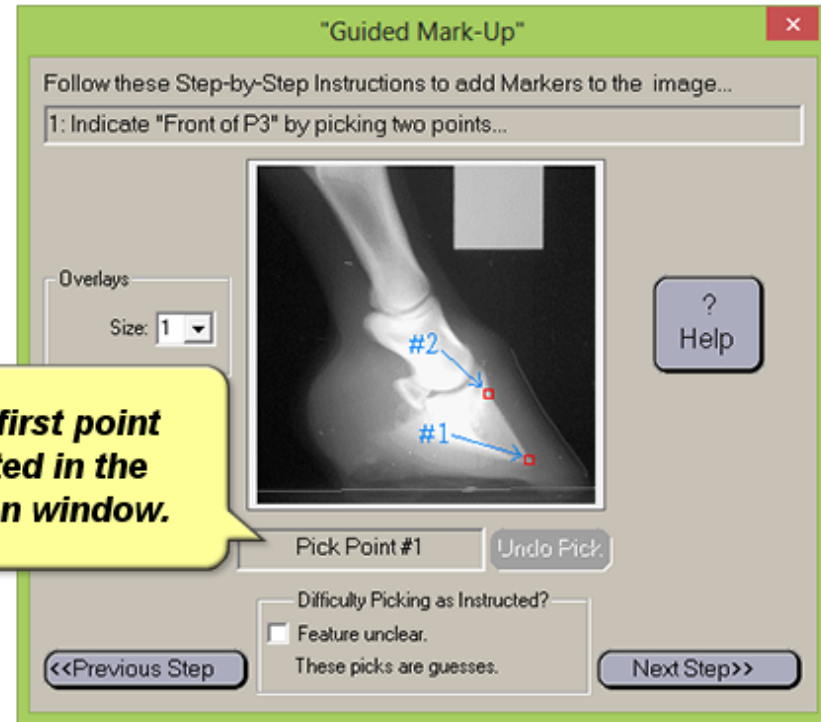
Guided Mark-Up: Hoof Analysis

How To | Part 1

The following are the ten steps as indicated on the instruction window.

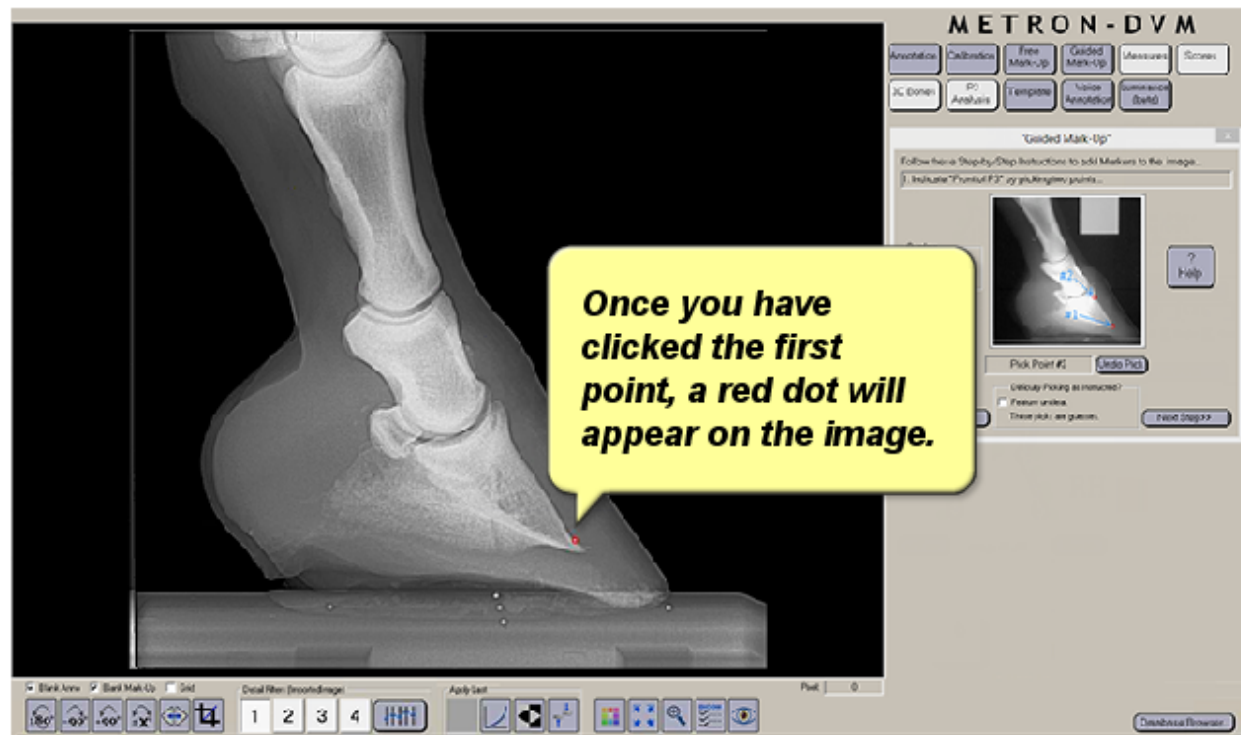
Step 1: **"Front of P3"**

*Click the first point
as indicated in the
instruction window.*



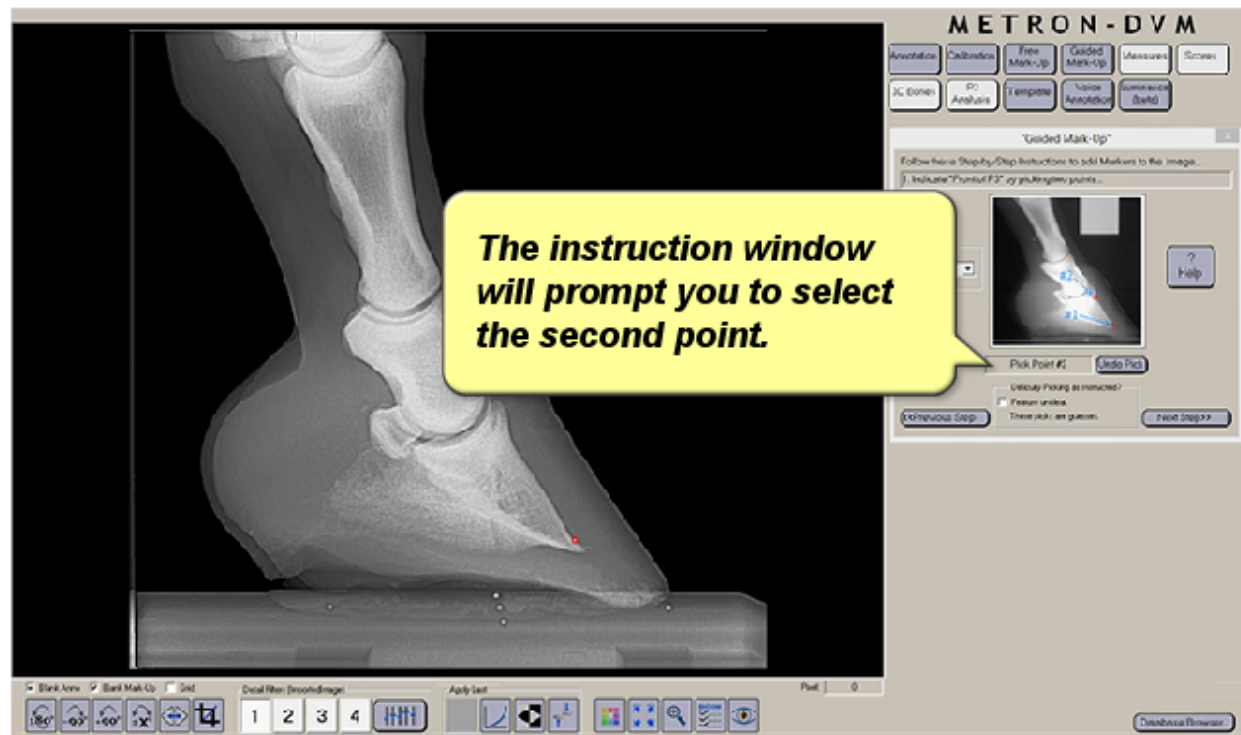
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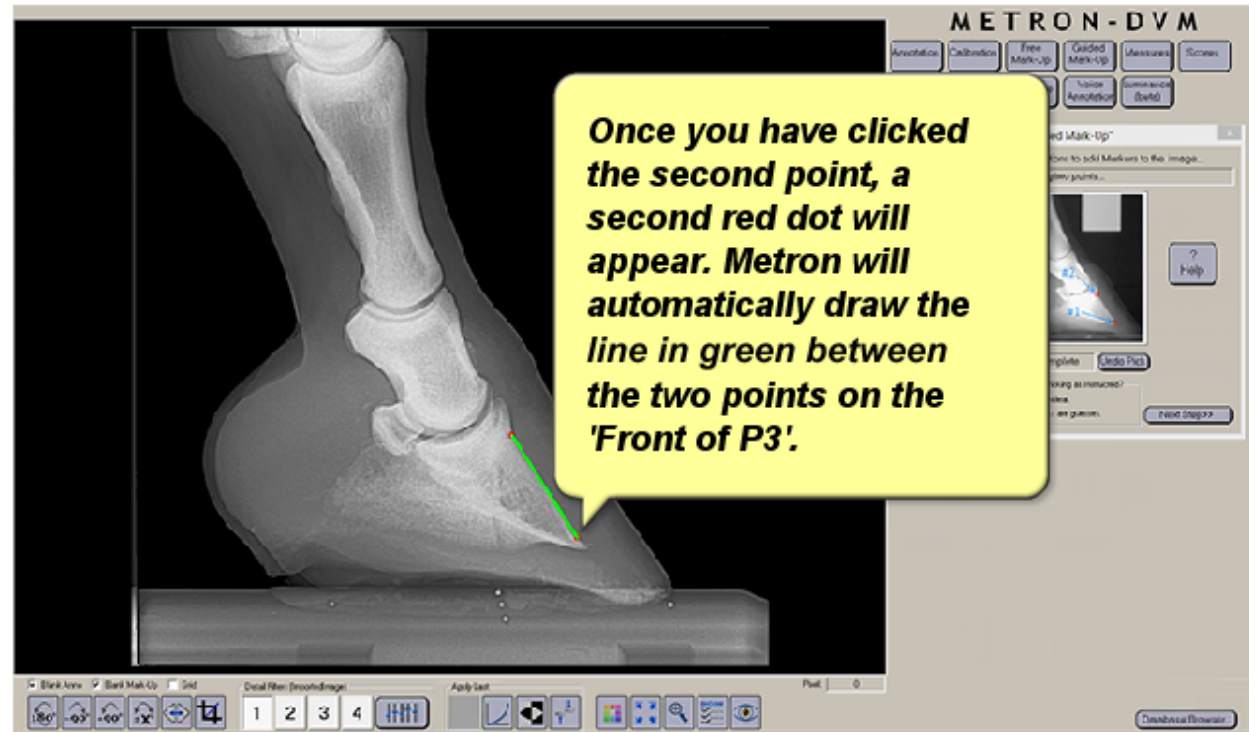
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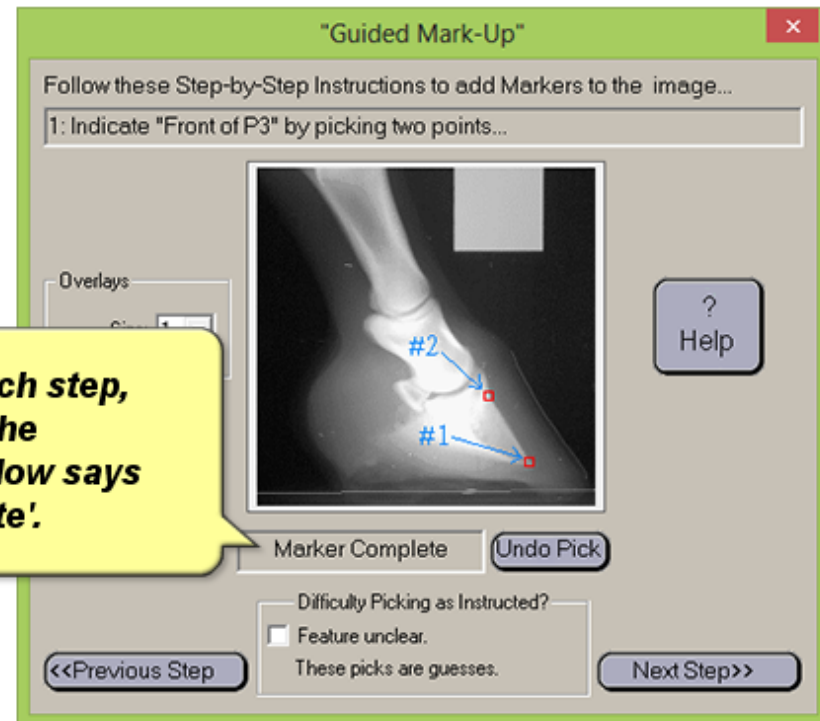
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Guided Mark-Up: Hoof Analysis

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



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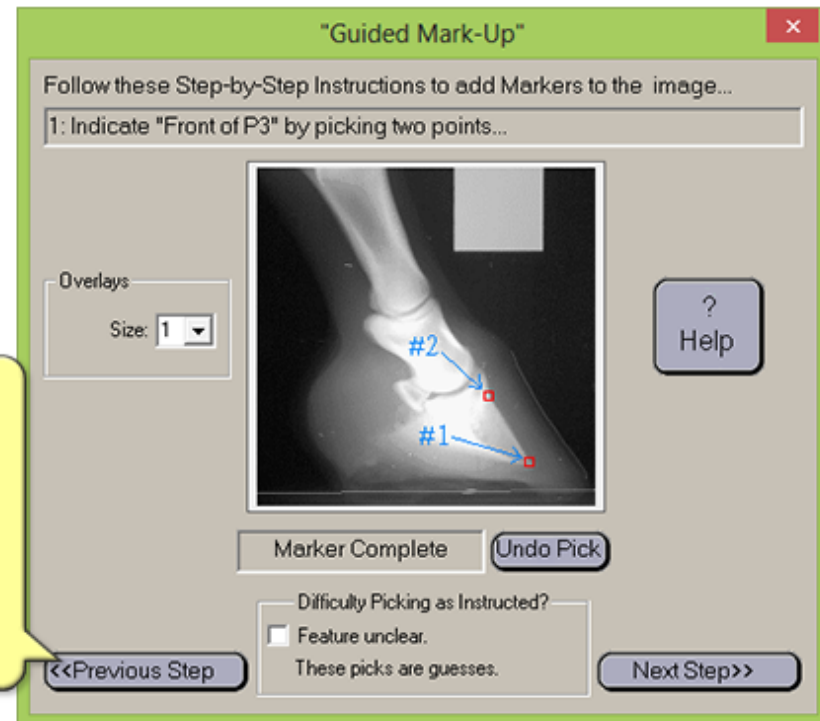
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Guided Mark-Up: Hoof Analysis

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



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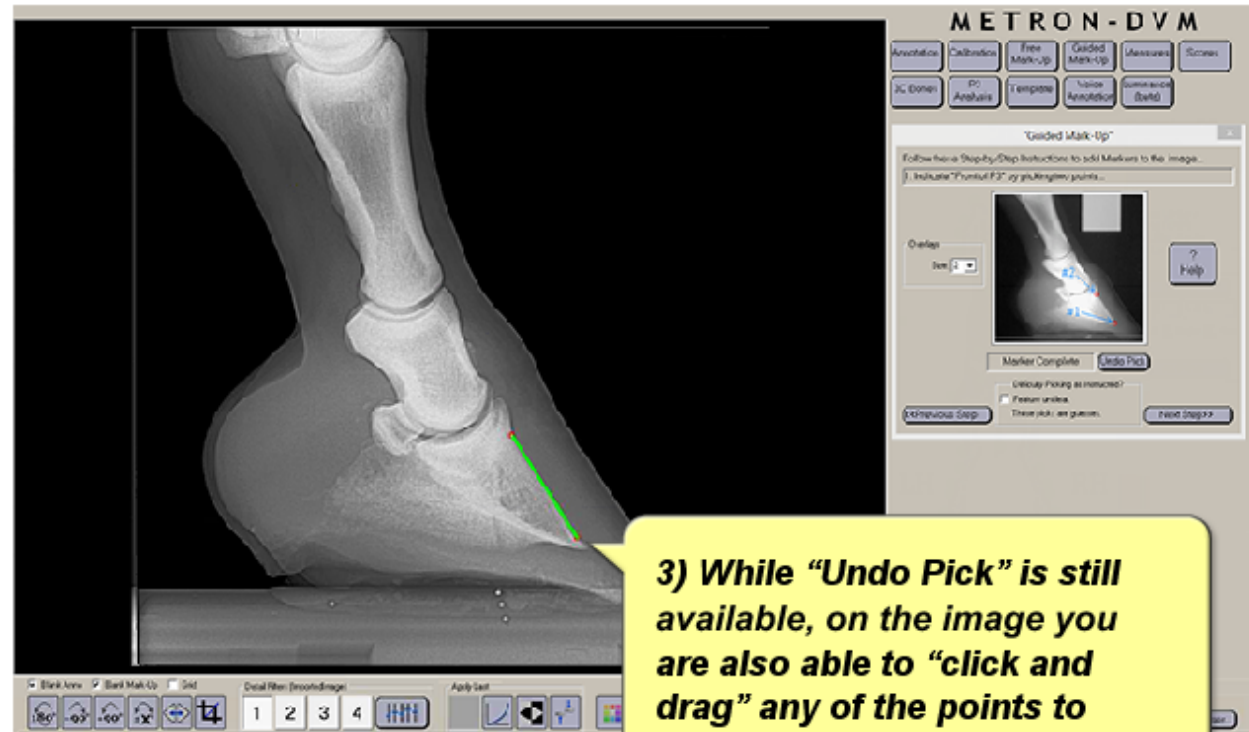
How To | Part 1



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

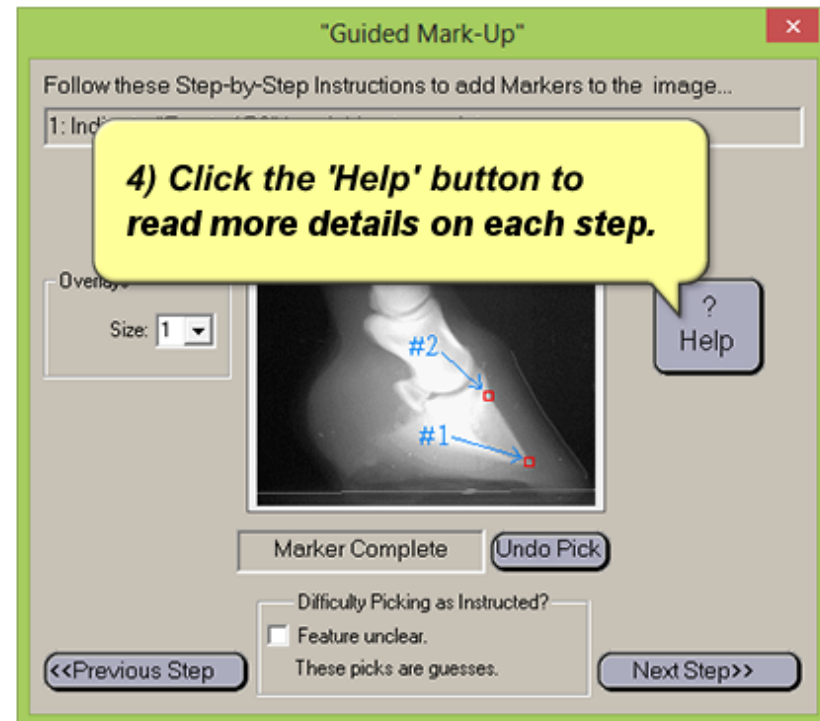
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Guided Mark-Up: Hoof Analysis

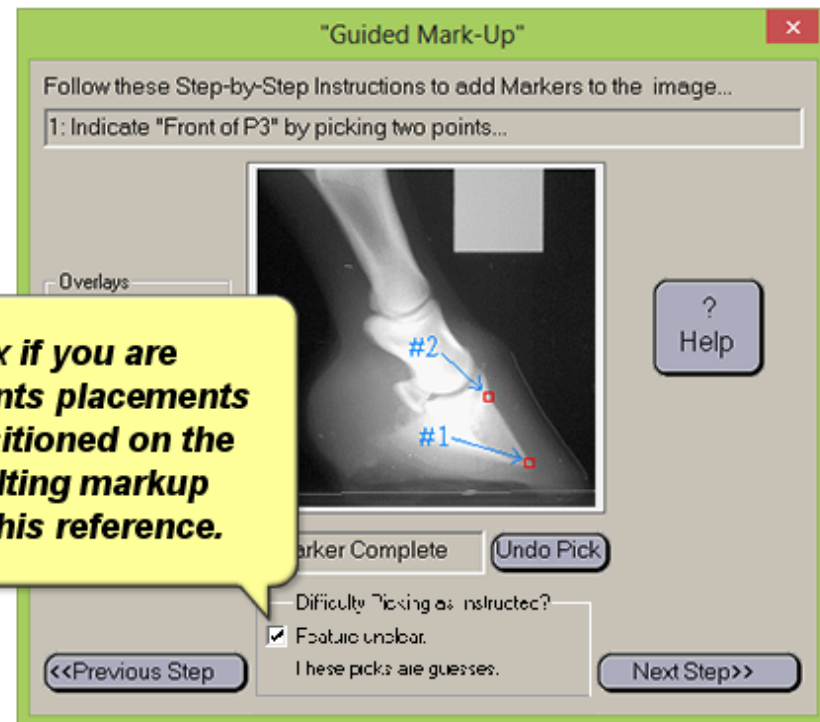
How To | Part 1



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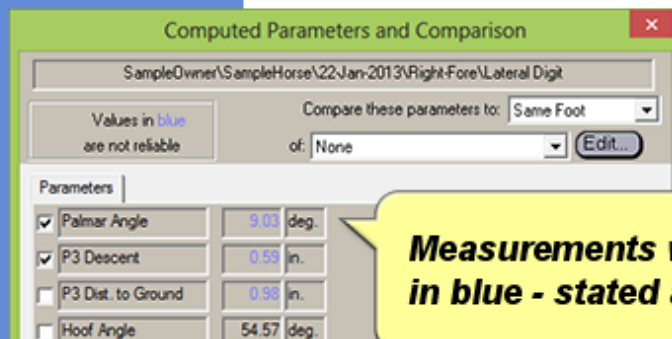
5) Check this box if you are unsure if the points placements are correctly positioned on the image. The resulting markup data will reflect this reference.



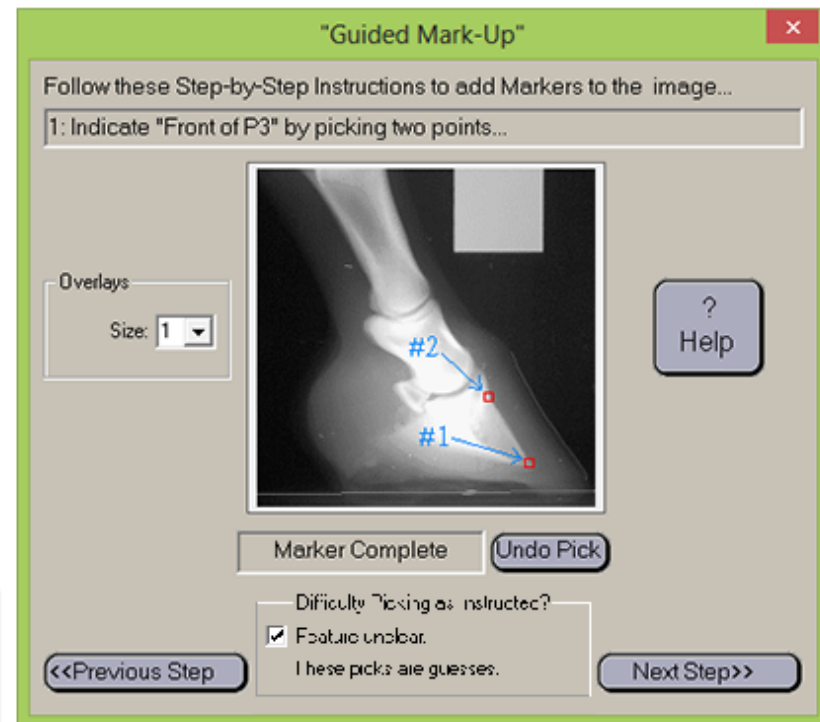
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Measurements will then be displayed in blue - stated as unreliable.

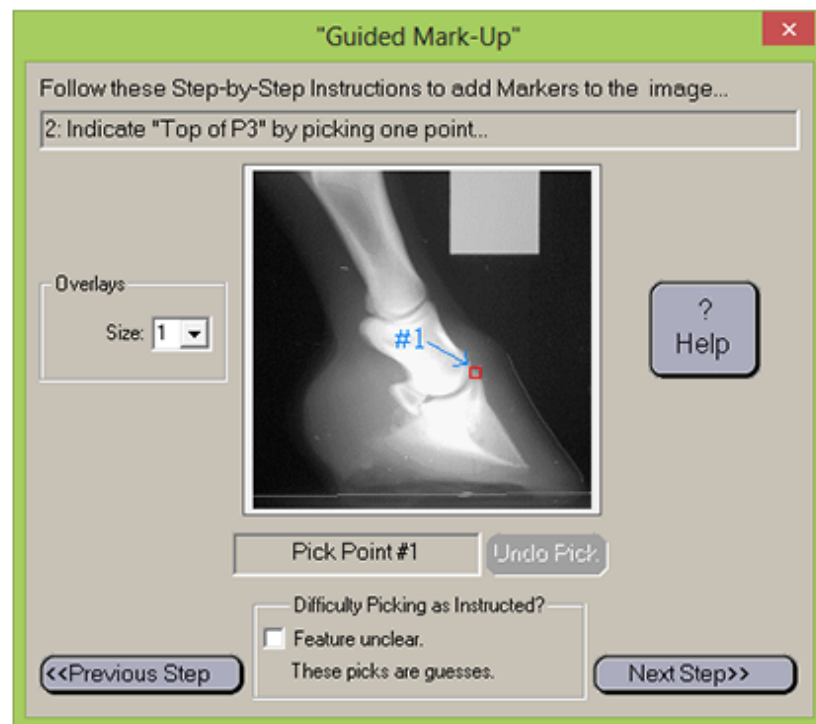


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Step 2: "Top of P3"

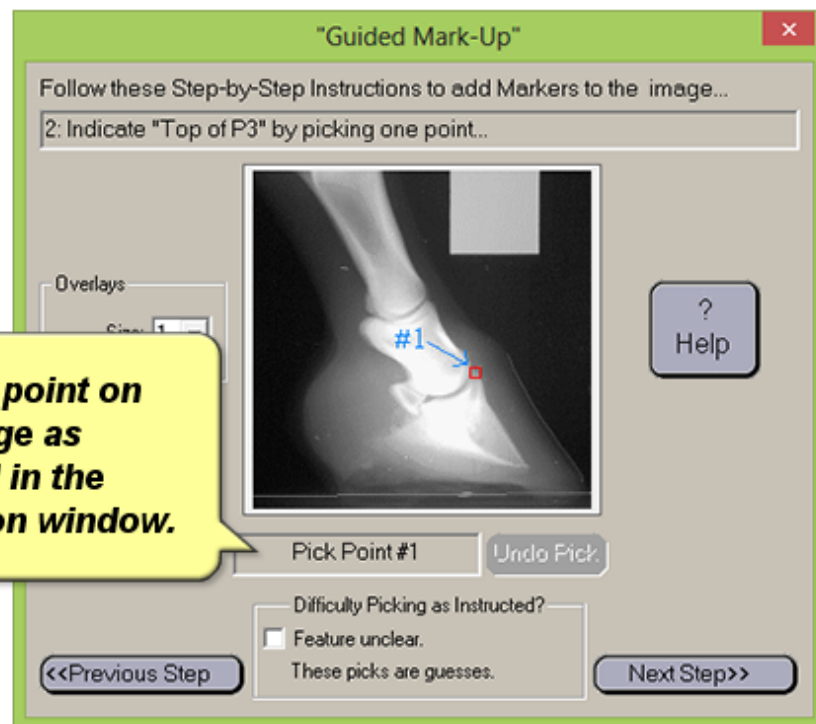


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Step 2: "Top of P3"

**Click the point on
your image as
indicated in the
instruction window.**



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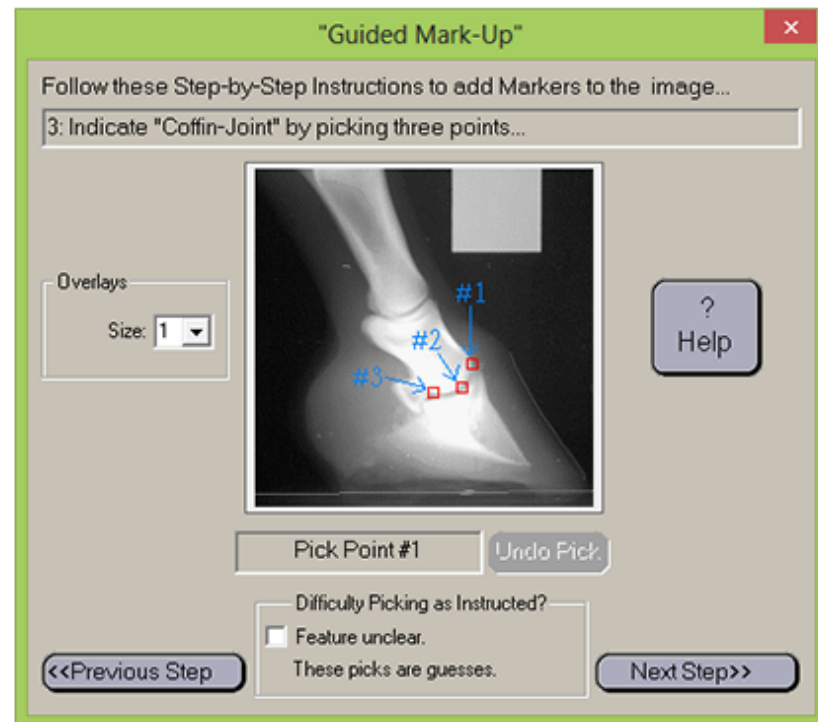
How To | Part 1



Guided Mark-Up: Hoof Analysis

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Step 3: "Coffin-Joint"

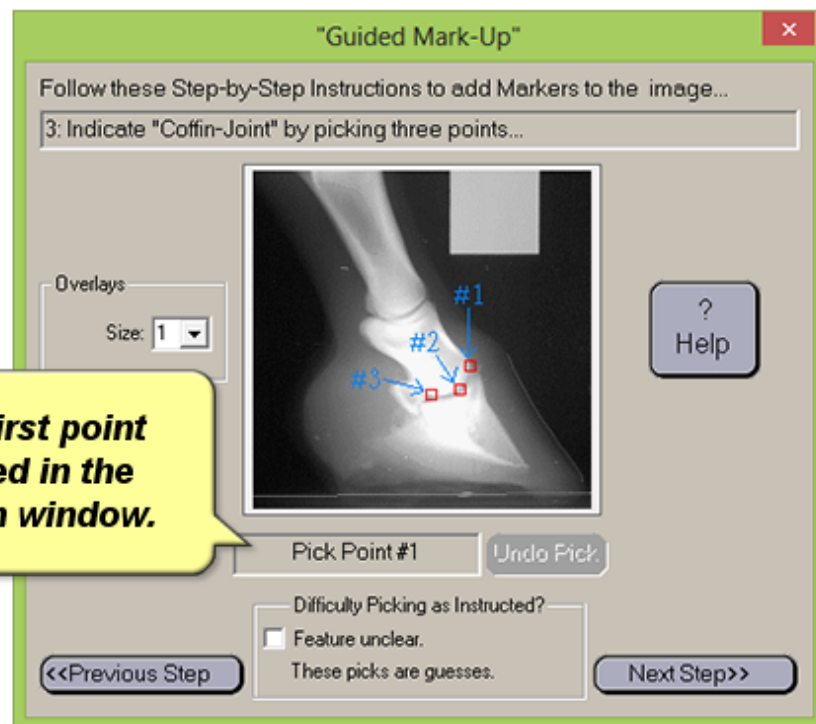


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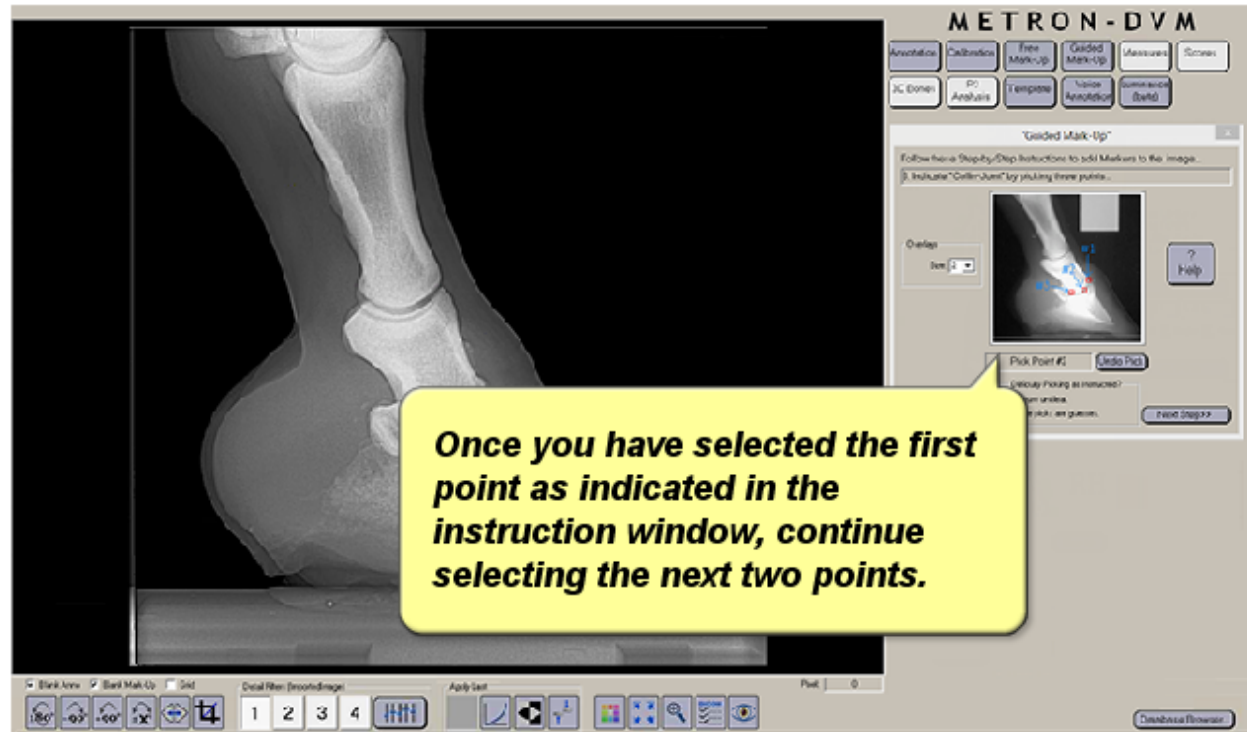
Step 3: "Coffin-Joint"

**Click the first point
as indicated in the
instruction window.**



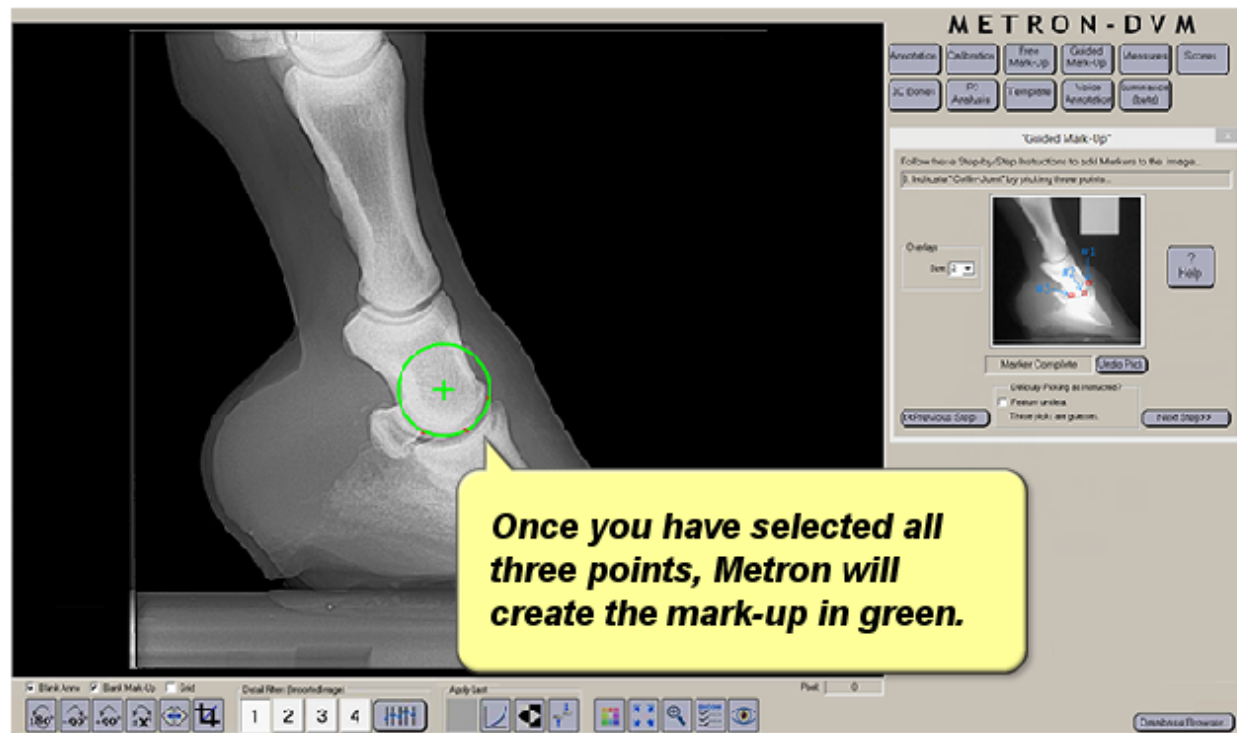
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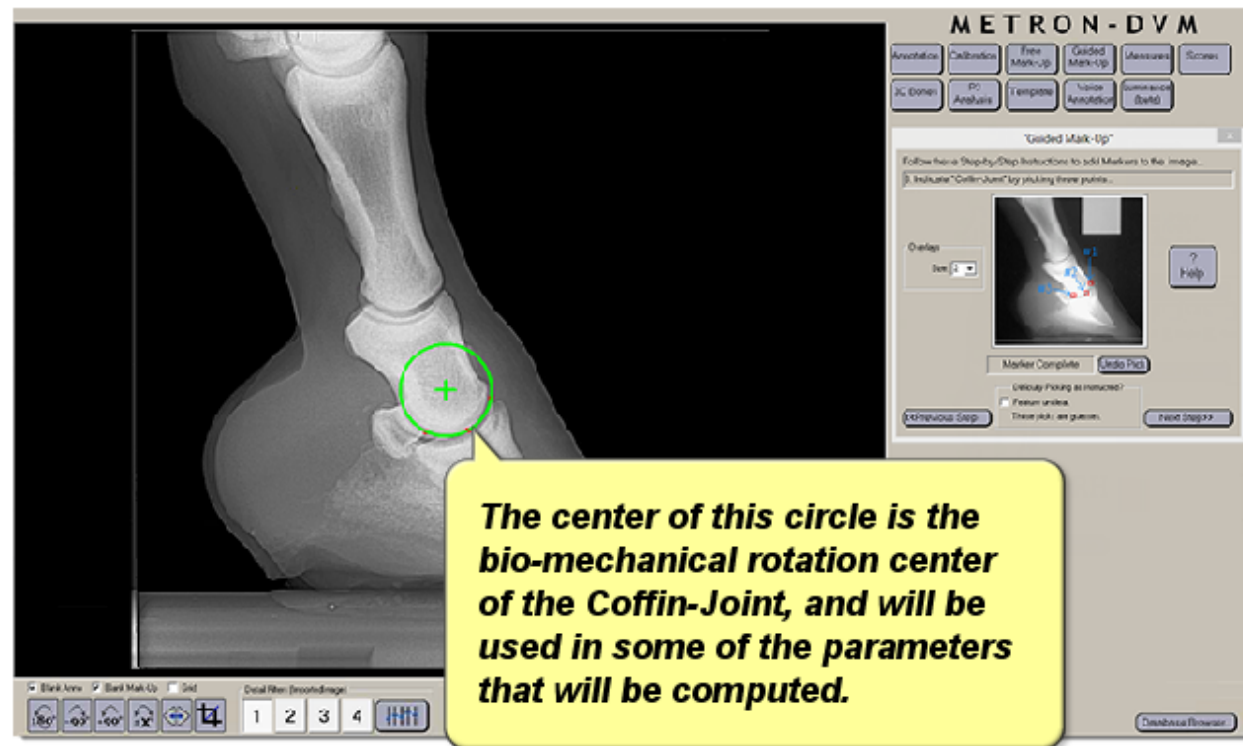
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Guided Mark-Up: Hoof Analysis

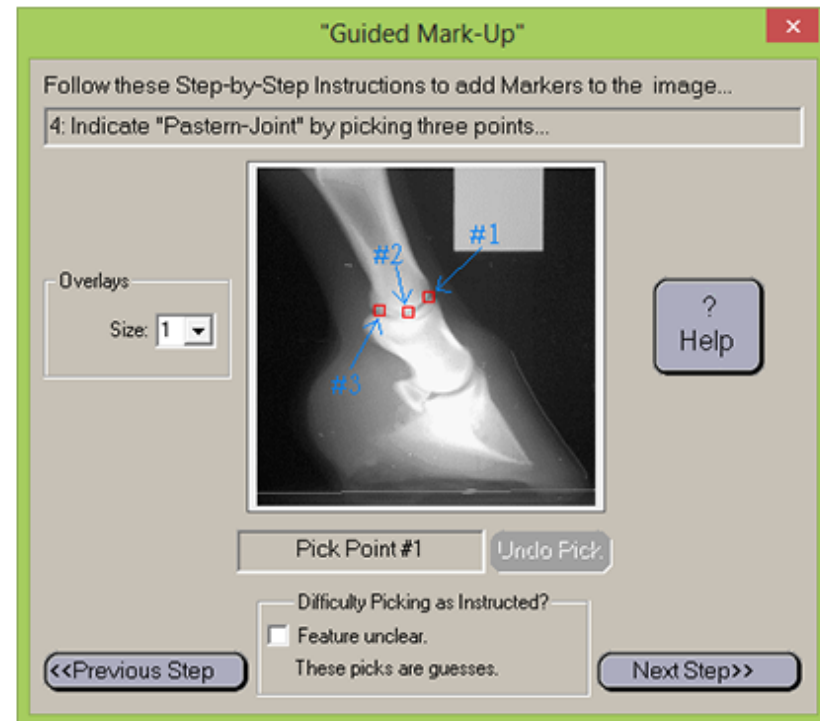
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Step 4: "Pastern-Joint"

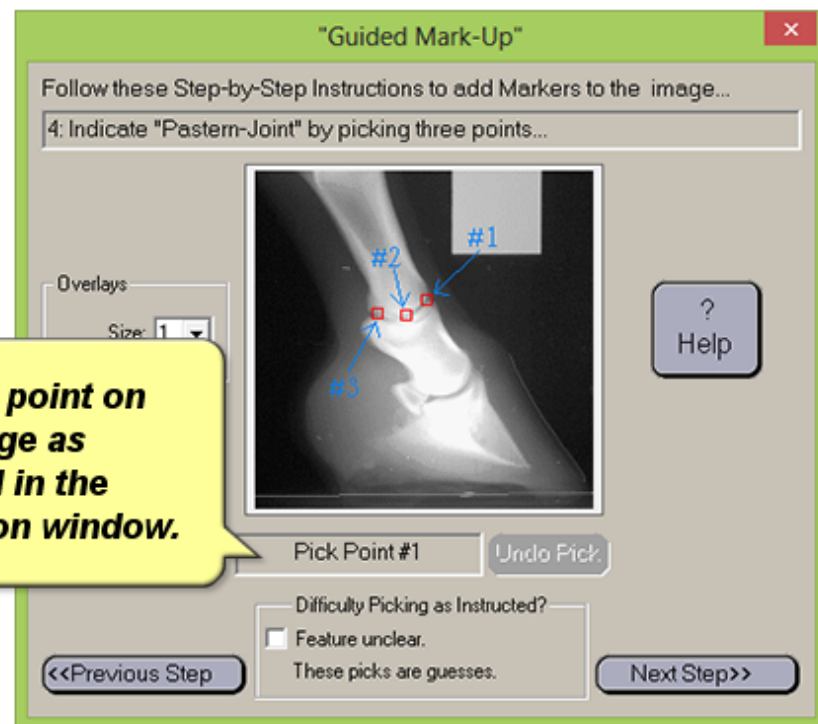


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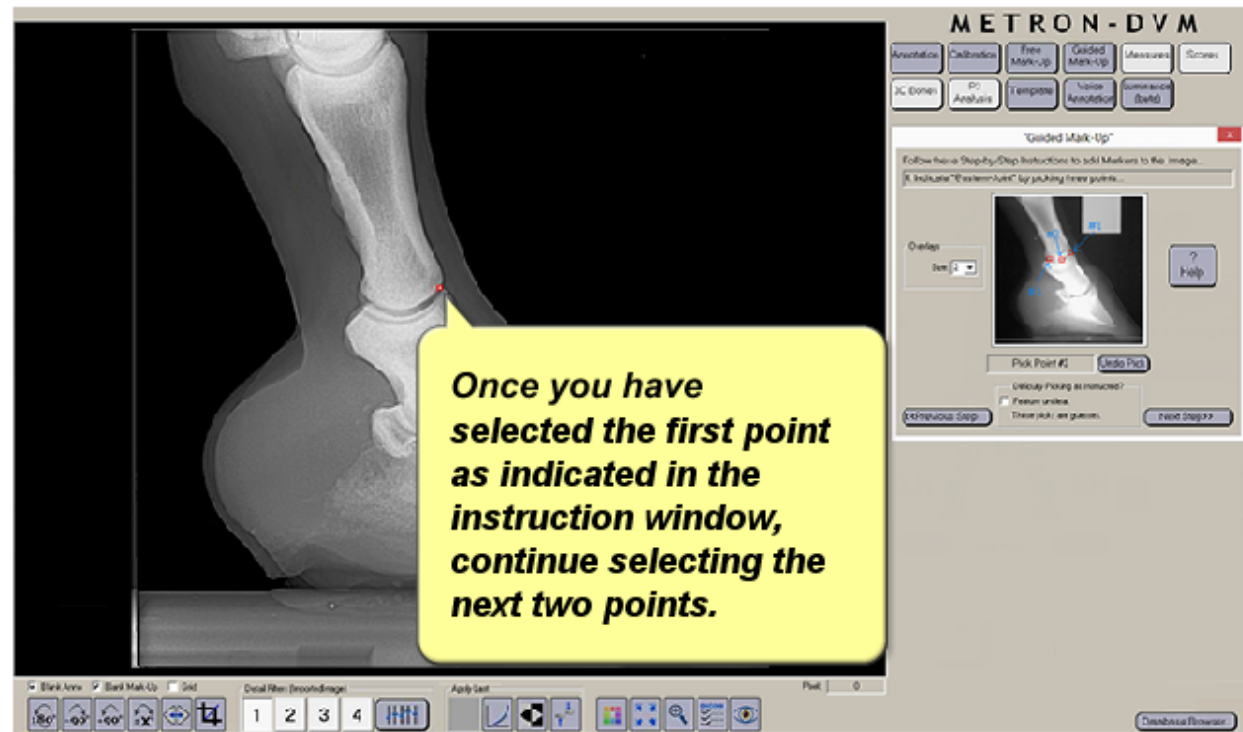
Step 4: "Pastern-Joint"

**Click the point on
your image as
indicated in the
instruction window.**



Guided Mark-Up: Hoof Analysis

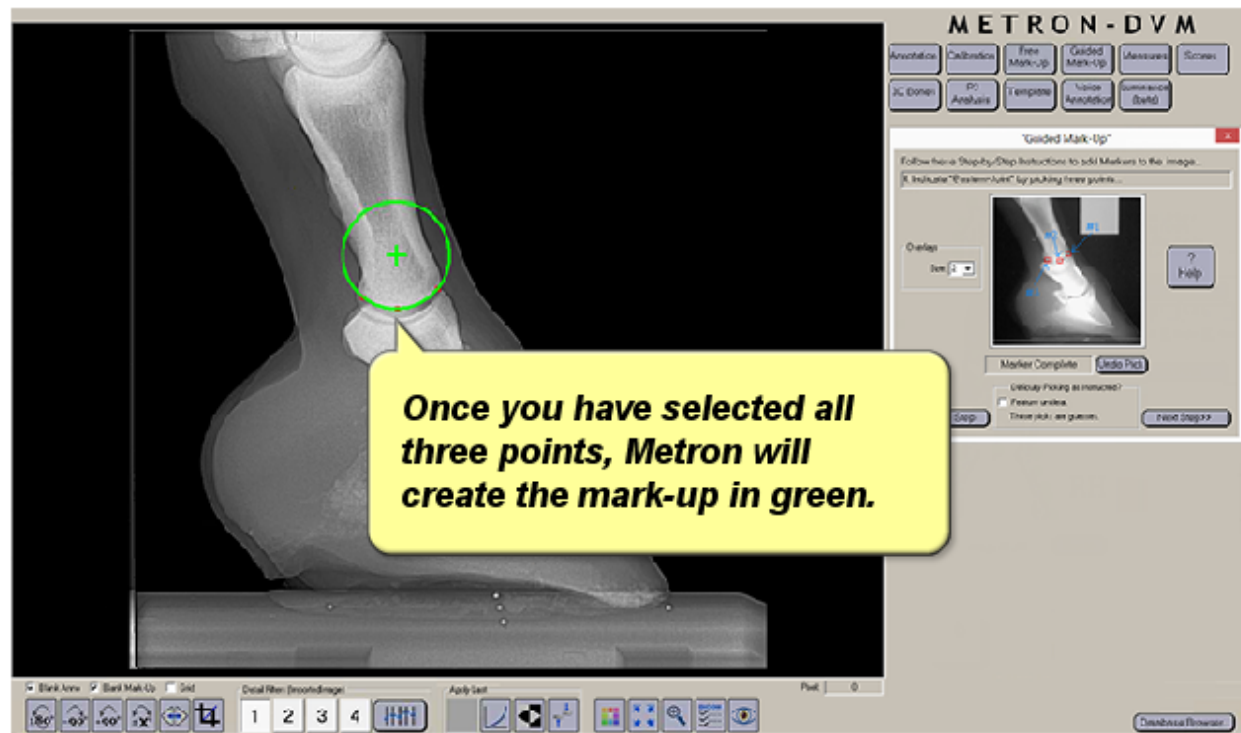
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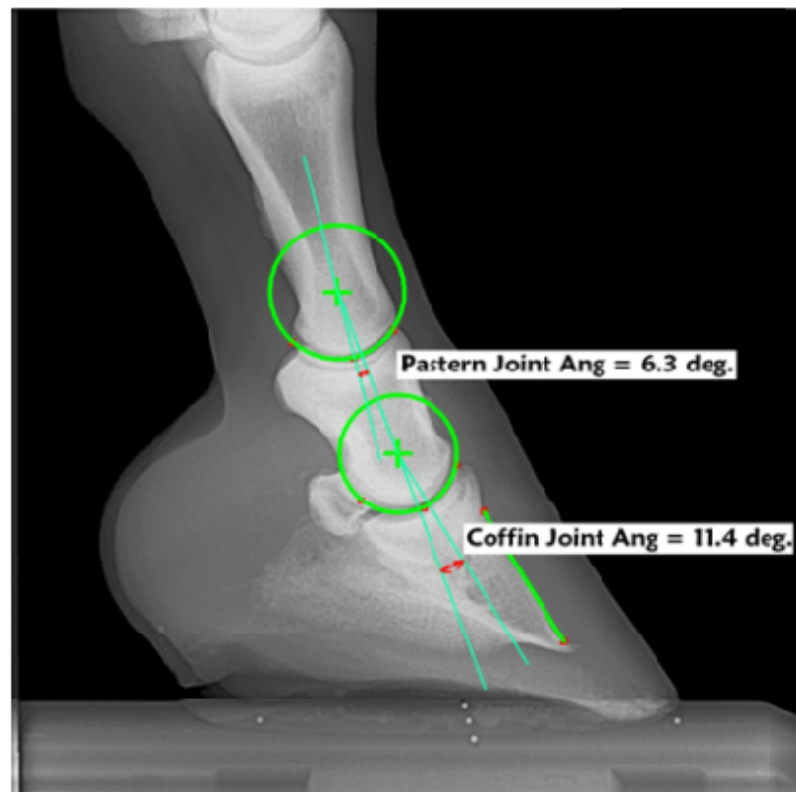
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Now that you have completed steps 1, 3 and 4 - these markups will be used by Metron to complete the **"Coffin Angle"** & **"Pastern Angle"** measurements.

These are measures of how the horse is standing and they quantify terms such as "broken-back pastern" that one hears in the field.

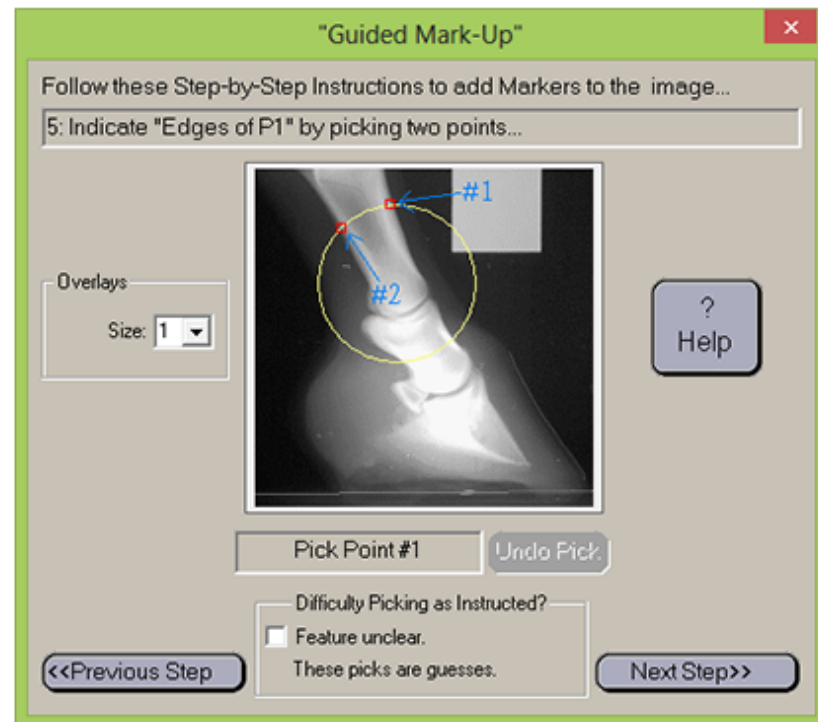


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Step 5: "Edges of P1"

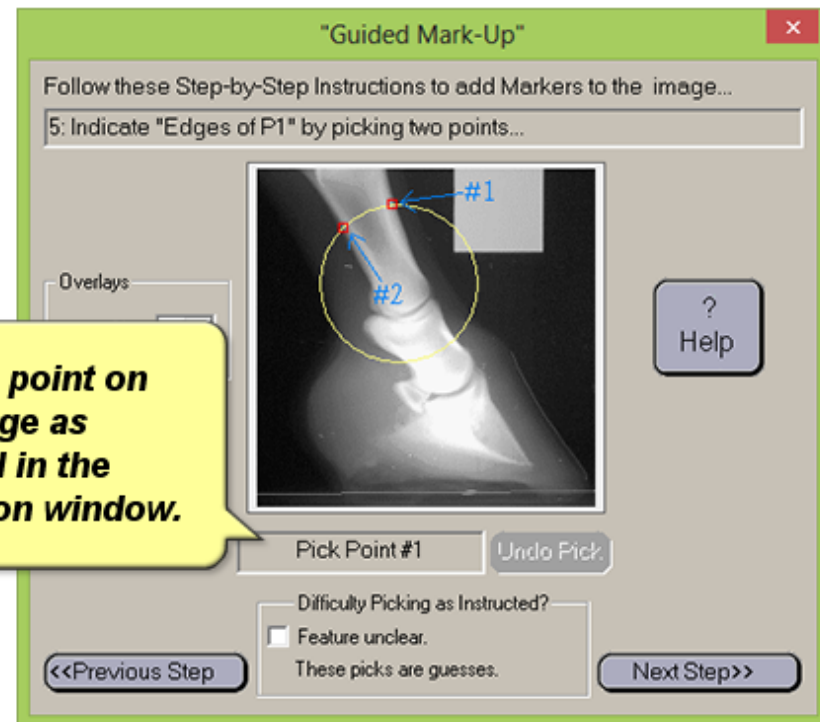


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Step 5: "Edges of P1"

**Click the point on
your image as
indicated in the
instruction window.**

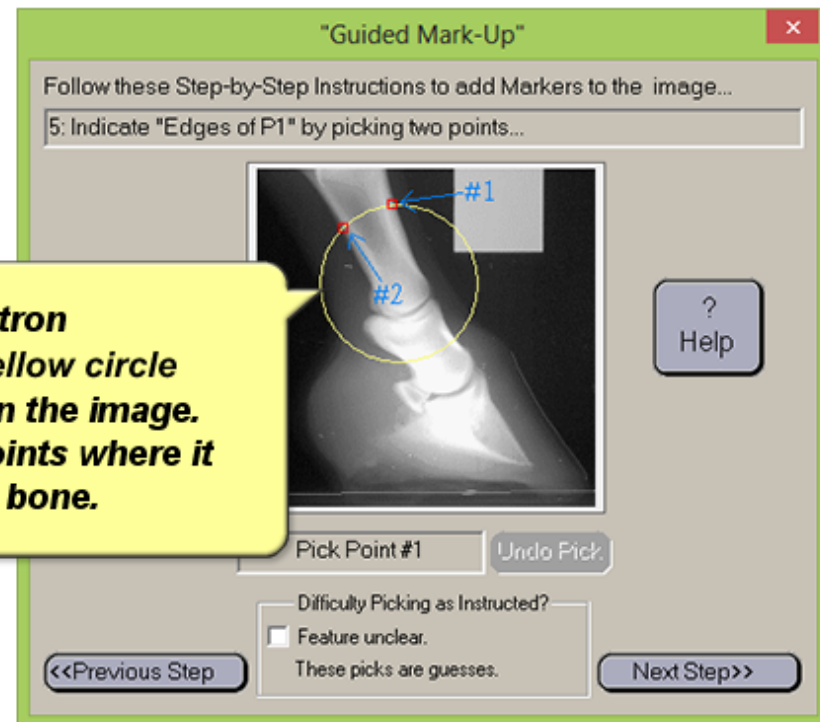


Guided Mark-Up: Hoof Analysis

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Step 5: "Edges of P1"

In this case Metron constructs a yellow circle that shows it on the image. Pick the two points where it crosses the P1 bone.



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Once you have selected the first point as indicated in the instruction window, continue by selecting the second point.



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Once you have selected both points on the circle, Metron will create the mark-up in green.

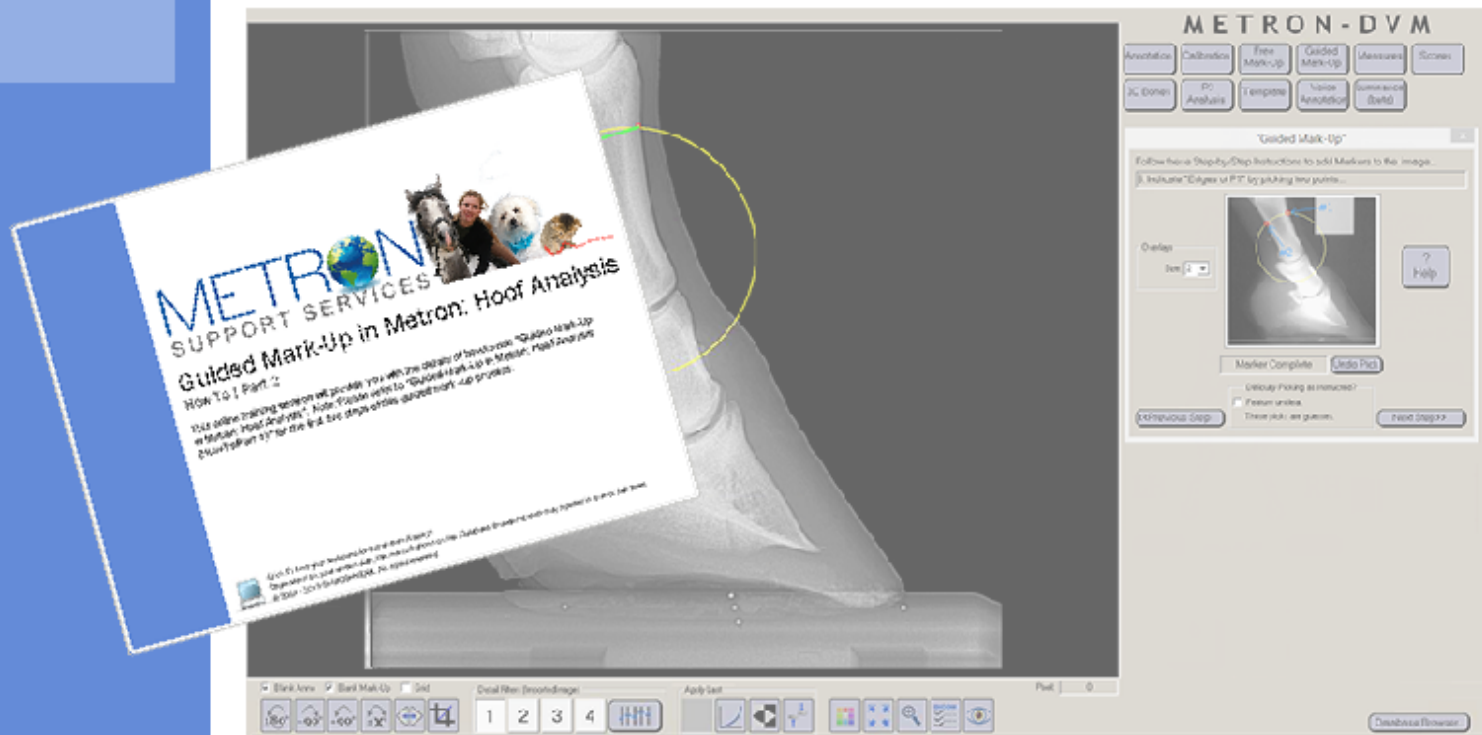


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Guided Mark-Up: Hoof Analysis

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In the following seven slides, you will be presented questions to evaluate your knowledge of

"Guided Mark-Up: Hoof Analysis How To | Part 1".

Let's get started!



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Guided Mark-Up: Hoof Analysis

How To | Part 1

Metron supports five (5) images of the foot.
They are:

- ☐ (5) radiographs
- ☒ (2) radiographs – lateral & the DP or AP; (3) photographs – solar, lateral, and AP.
- ☐ (5) photographs

Submit

Congratulations, your answer is correct!

Sorry, your answer is incorrect. Please try again.

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Guided Mark-Up: Hoof Analysis

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User preferences can be selected in the "Parameters Display" window. "Photos" selects the font color for mark-up description in photographs. "Radiographs" selects the font color for mark-up descriptions in radiographs. "Size" selects _____:

- ☒ The mark-up line width
- ☐ The size of the image.
- ☐ The font size of the annotation

Submit

Congratulations, your answer is correct!

Sorry, your answer is incorrect. Please try again.

METRON
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Guided Mark-Up: Hoof Analysis

How To | Part 1

When you click the Guided Mark-Up button and you have not previously calibrated this image, you will be taken directly to the:

- ☐ Annotations window
- ☐ Measures window
- ☒ Calibration window

Submit

Congratulations, your answer is correct!

Sorry, your answer is incorrect. Please try again.

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Guided Mark-Up: Hoof Analysis

How To | Part 1

Guided Mark-Up is available only for certain “anatomical regions.” For the horse, the “Guided Mark-Up” button only is available when you indicate the image is from the:

- ☐ Leg
- ☒ Hoof
- ☐ Shin

Submit

Congratulations, your answer is correct!

Sorry, your answer is incorrect. Please try again.

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Guided Mark-Up: Hoof Analysis

How To | Part 1

There are ten steps to add markers to an image. Metron will guide you through each step. At the end of each step, the instruction window says "Marker Complete" and you click:

- ☒ "Next Step"
- ☐ "Undo Pick"
- ☐ "Previous Step"

Submit

Congratulations, your answer is correct!

Sorry, your answer is incorrect. Please try again.

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Guided Mark-Up: Hoof Analysis

How To | Part 1

At any time, you can click “Previous Step” and move back one step at a time, you can click “Undo Pick” button to erase the selection on the image, or you can:

- ☐ “Click and Drag” any of the images to a different position on the screen
- ☐ “Click and Drag” to change image parameters
- ☒ “Click and Drag” any of the points to change the point locations

Submit

Congratulations, your answer is correct!

Sorry, your answer is incorrect. Please try again.

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Guided Mark-Up: Hoof Analysis

How To | Part 1

Mark-Ups created in steps 1, 3, and 4 are used to create the “Coffin Angle” and the “Pastern Angle” measurements for the hoof. These measurements describe:

- ☒ How the horse is standing
- ☐ What the veterinarian should do
- ☐ What is the problem with the hoof

Submit

Congratulations, your answer is correct!

Sorry, your answer is incorrect. Please try again.

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Guided Mark-Up in Metron: Hoof Analysis

How To | Part 1 | Steps 1-5

This completes the "Guided Mark-Up: Hoof Analysis | Part 1" 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.

