

CDOT Measure XY Distance Tool



This document guides you through measuring distances using the Measure XY Distance Tool. This tool can be used in both MicroStation and Redline.

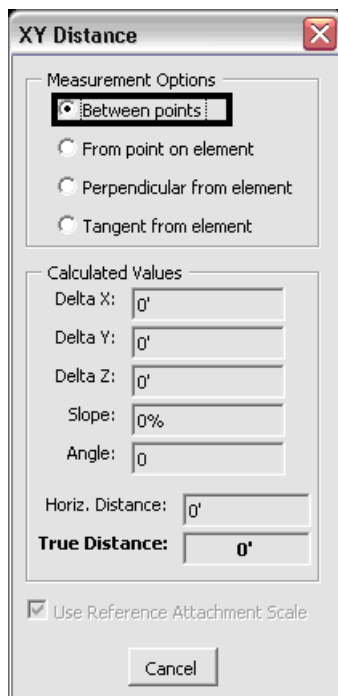
Measure XY Distance

Launching Measure XY Distance

1. The Measure XY Distance utility can be used in both MicroStation and Redline. For either application it is launched in the same way. From the *CDOT Menu* select *Add On's > Measure XY Distance*.

Measuring Between Points

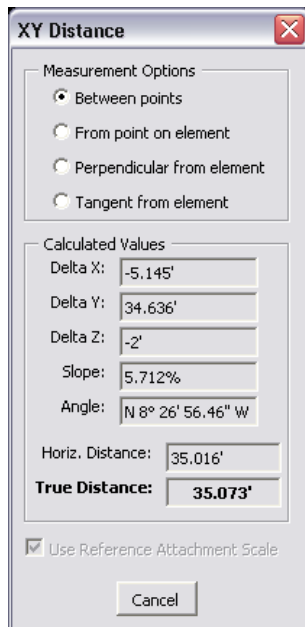
1. In the *XY Distance* dialog under *Measurement Options* select *Between points*.



Note: The *Use Reference Attachment Scale* option is grayed out when the *Between points* option is selected. Using the reference attachment scale calculation requires an element be selected from a reference attachment. Since this option does not require a selected element the option is disabled.

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2. <D> two points in the design file to measure the distance between and the **Calculated Values** fields will display the computed data.



The screenshot shows a dialog box titled "XY Distance" with a close button (X) in the top right corner. The dialog is divided into two main sections: "Measurement Options" and "Calculated Values".

Measurement Options:

- Between points
- From point on element
- Perpendicular from element
- Tangent from element

Calculated Values:

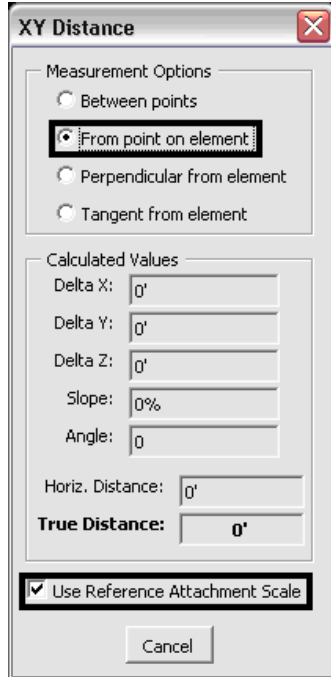
Delta X:	-5.145'
Delta Y:	34.636'
Delta Z:	-2'
Slope:	5.712%
Angle:	N 8° 26' 56.46" W
Horiz. Distance:	35.016'
True Distance:	35.073'

At the bottom of the dialog, there is a checkbox labeled "Use Reference Attachment Scale" which is checked, and a "Cancel" button.

Note: Distance and Angle values will be displayed based on **Coordinate Readout** settings establish in the design files settings. To change coordinate readout settings select **Settings > Design File** and choose **Coordinate Readout** from the **Category** list.

Measuring from Point on Element

1. In the *XY Distance* dialog under *Measurement Options* select *From point on element*.

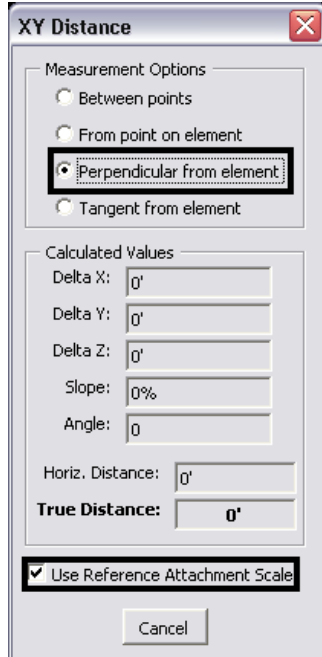


2. Choose either reference scale or design values by toggling the *Use Reference Attachment Scale* checkbox on/off. When the *Use Reference Attachment Scale* checkbox is on, the *Calculated Values* will be scaled by the reference attachment scale if the selected element is in a reference attachment.
3. <D> a point on the element to be measured from.
4. <D> the second point to be measured to. The second point can, but does not have to be, on an element. The measured distance will display in the *Calculated Values* fields.

Note: Measurements with this method require selecting at least one element. If the measurement will not start on an element choose *Between Points* under *Measurement Options*. If selecting an element in a reference attachment the *Locate* setting must be turned on for that attachment.

Measuring Perpendicular from Element

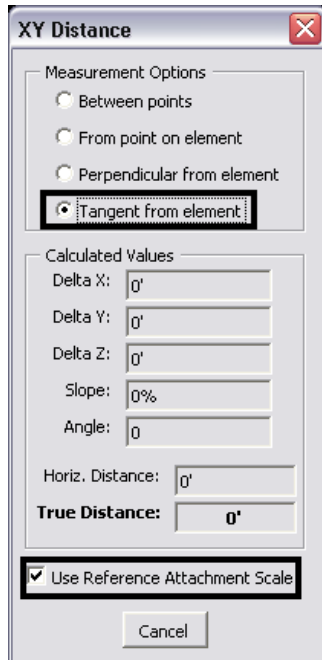
1. In the *XY Distance* dialog under *Measurement Options* select *Perpendicular from element*.



2. Choose either reference scale or design values by toggling the *Use Reference Attachment Scale* checkbox on/off.
3. <D> a point on the first element to begin measuring from.
4. <D> the second point to be measured to. The second point can, but does not have to be on an element. The measured distance will display in the *Calculated Values* fields.

Measuring Tangent from Element

1. In the *XY Distance* dialog under *Measurement Options* select *Tangent from element*.



2. Choose either reference scale or design values by toggling the *Use Reference Attachment Scale* checkbox on/off.
3. <D> a point on the first element to begin measuring from.
4. <D> the second point to be measured to. The second point can, but does not have to be on an element. The measured distance will display in the *Calculated Values* fields.