# 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.
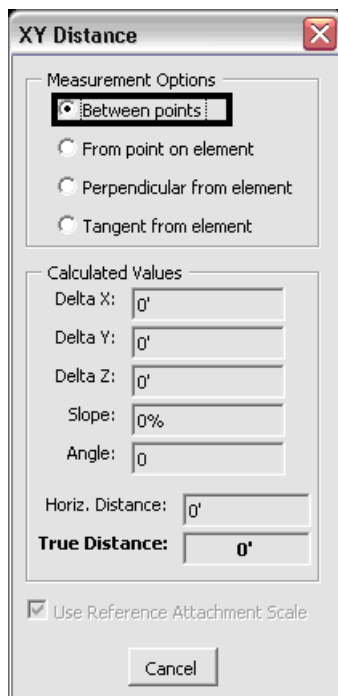
## Measure XY Distance

### 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**.
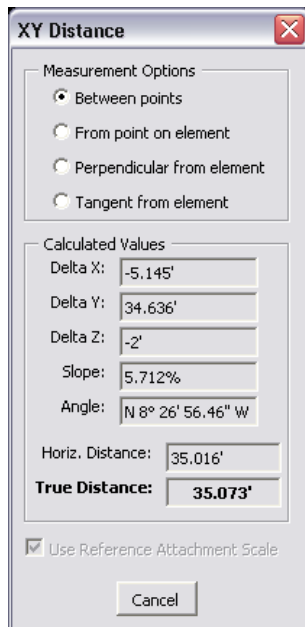
### Measuring Between Points

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.

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



**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

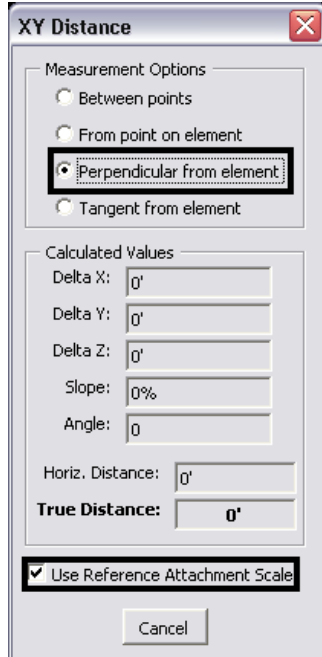1. In the *XY Distance* dialog under *Measurement Options* select *From point on element.*
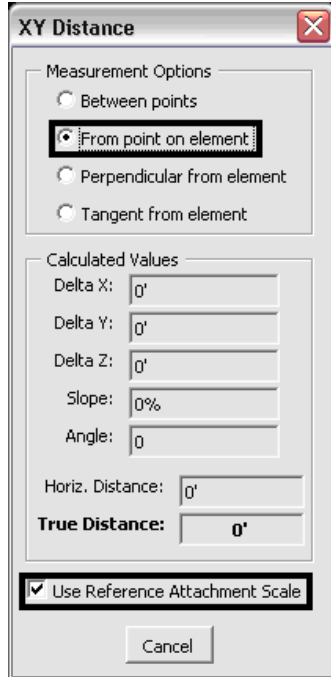


2. Choose either reference scale or design values by toggling the *Use Reference Attachment Scale* checkbox on/off. When the *Use Reference Attachment Scale* checkbox is on, the *Calculated Values* will be scaled by the reference attachment scale if the selected element is in a reference attachment.

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.

   <u>**Note:**</u> 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.
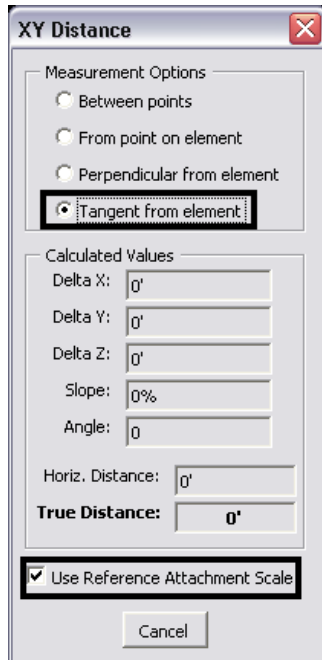
## Measuring Perpendicular from Element

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.