View Transitions and Resolution

When you use zoom or pan options other than realtime zooming and panning, the operation performs a smooth transition from the current display to the new display. Use the VTOPTIONS command to display the View Transitions dialog box, which has options for controlling the smooth transition feature. See Figure 6A-1.

Deselect the Enable animation for pan and zoom check box to turn off smooth transitions when zooming and panning. Check boxes are also available to toggle the smooth transitions for view angle changes and for scripts. Use the Transition Speed slider to adjust smooth transition speed. Use the Performance slider or enter the frames per minute in the text box to define the minimum smooth transition speed.

You can save time during zooming and panning functions at the expense of display accuracy, or you can display high accuracy at the expense of zoom and pan speed. The main factor is the view resolution. High-resolution values display smooth circles and arcs. Low-resolution values display segmented approximations of circles and arcs. You can use the Display resolution area of the Display tab in the Options dialog box to set view resolution. See Figure 6A-2. Enter a value between 1 and 20000 in the Arc and circle smoothness text box. The default setting is 1000, which produces relatively smooth circles. A number smaller than 1000 causes circles and arcs to be

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**Figure 6A-1.**
Use the View Transitions dialog box to change smooth transitions for zooming and panning operations, view angle changes, and scripts.
Figure 6A-2.
Set the view resolution in the **Options** dialog box.

![Options dialog box](image)

Set the view resolution

drawn with fewer vectors (straight lines). See Figure 6A-3. A number larger than 1000 includes more vectors in circles.

Remember that view resolution is a display function only and has no effect on the plotted drawing. Drawings are plotted using an optimum number of vectors for circles and arcs. In other words, even if a circle looks like a polygon on-screen before you regenerate the drawing, the object is still a circle, and it looks like a circle on a plot.

You can also change the view resolution setting by typing **VIEWRES**. A Do you want fast zooms? prompt appears. This prompt is no longer useful, but it remains in AutoCAD so programs written for earlier versions still function properly.

Figure 6A-2.
Set the view resolution in the **Options** dialog box.

**Figure 6A-3.**
The higher the view resolution value, the smoother a circle will appear.
Activity 6A-1

To become familiar with the effects of changing view resolution, perform the following steps.

1. Open a previously created drawing that contains circles or arcs.
2. Adjust the display using each of the following options.
   A. Access the Display tab of the Options dialog box and change the Arc and circle smoothness value to 10. Pick the OK button and observe the change in the on-screen display.
   B. Draw some circles and arcs.
   C. Set the Arc and circle smoothness value to 10000 and observe the change in display.
3. Close the drawing without saving changes.