



CURVE CONTINUITY

app: Rhino 3.0
date: August 2005
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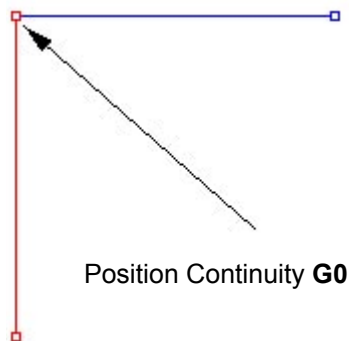
What Up

Many wise and experienced modellers first create curves, and then use them to build surfaces and solids. Thus, careful curve construction is critical. Besides making sure endpoints are ALWAYS snapped to a known position (endpoint, midpoint, etc) the next concern is continuity.

The degree of smoothness, or continuity, of a surface is entirely dependent upon the continuity of the underlying curve transitions.

A careless mistake in curve building can crop up hours later as a painful naked edge!

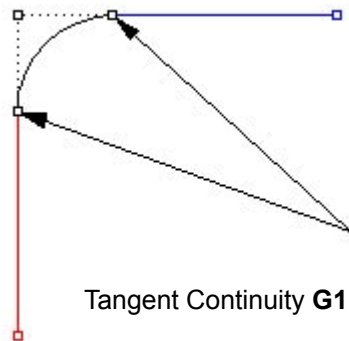
Position (G0) continuity means that the end points of a curve or the edges of two curves or surfaces touch each other. End control points are at the same location.



Tangent (G1) continuity means that the tangent direction of the two curves or surfaces is the same.

Fillet arcs form this kind of continuity with the lines or surfaces filleted. The two control points of the arc and the adjacent curve line up.

Curves and surfaces with G1 continuity are also G0 continuous.



Curvature (G2) continuity means that the tangent direction and the curvature of the two curves or surfaces is the same.

Blend, BlendSrf, Match, and MatchSrf form this kind of continuity.

Curves and surfaces with G2 continuity are also G1 and therefore G0 continuous.

