1003-26-361 **David J Anderson*** (`dave@tekcad.com`), 5216 E 131st Ave, Tampa, FL 33617. *Blending Functions.*

A blending function B is a function such that

$$\forall x \in (-\infty, \infty) \exists B(x), B(0) = 0.$$

Although seemingly pedestrian, Blending functions can be straightforwardly applied in analytic transformations to modify the profile of other functions, and have several interesting properties useful to design applications. After further definition, the properties of Blending functions are explored and general techniques for their construction are described. Finally, their evolution and application in the transformation of tesselated surface patches is discussed. (Received September 13, 2004)