# About The Dragon Curve

see also: Koch Snowflake, Hilbert SquareFillCurve
To speed up demos, press DELETE

The Dragon is constructed as a limit of polygonal approximations $D_n$. These are emphasized in the 3DXM default demo and can be described as follows:
1) $D_1$ is just a horizontal line segment.
2) $D_{n+1}$ is obtained from $D_n$ as follows:

a) Translate $D_n$, moving its end point to the origin.

b) Multiply the translated copy by $\sqrt{1/2}$.

c) Rotate the result of b) by $-45°$ degrees and call the result $C_n$.

d) Rotate $C_n$ by $-90°$ degrees and join this rotated copy to the end of $C_n$ to get $D_{n+1}$.

The fact that the **limit points** of a sequence of longer and longer polygons can form a two-dimensional set is not really very surprising. What makes the Dragon spectacular is that it is in fact a **continuous curve** whose image has positive area—properties that it shares with Hilbert's square filling curve.