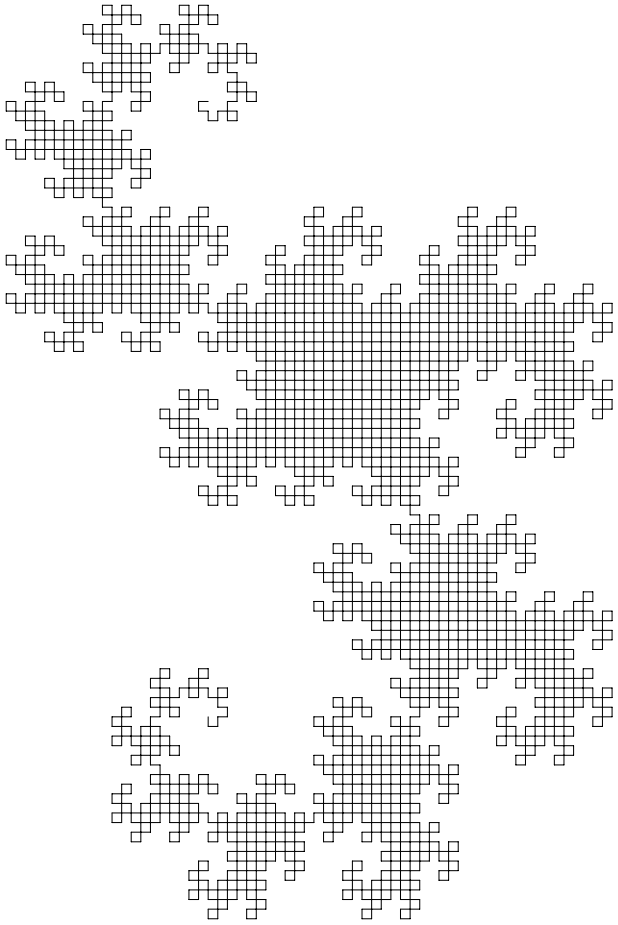
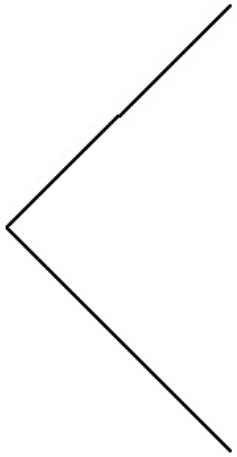
4096 Geraden And No Loop



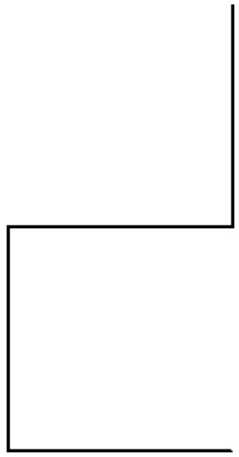
The dragonCurve VectorScript

```
PROCEDURE second;

VAR
        startPoint,endPoint:VECTOR;

{start procedure}
        PROCEDURE dragonCurve(pa,pb:VECTOR;depth:INTEGER);

        VAR
                vab,p1:VECTOR;
                abLength:REAL;

        BEGIN
                vab:=pb-pa;
                abLength:=Norm(vab);
                p1:=pa+(vab/2.0);
                p1:=p1+(Perp(vab/2.0));

                IF(depth=1) THEN BEGIN
                        MoveTo(pa.x,pa.y);
                        LineTo(p1.x,p1.y);
                        LineTo(pb.x,pb.y);
                END ELSE BEGIN
                        dragonCurve(pa,p1,depth-1);
                        dragonCurve(pb,p1,depth-1);
                END;
        END;
{end procedure}

BEGIN
        startPoint.x:=0;
        startPoint.y:=0;
        endPoint.x:=0;
        endPoint.y:=10;
        dragonCurve(startPoint,endPoint,16);
END;
run(second);
```

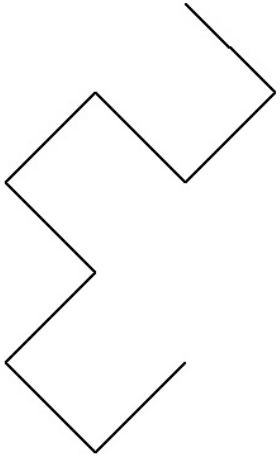
depth = 1



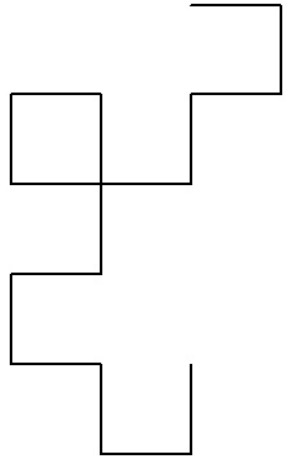
depth = 2



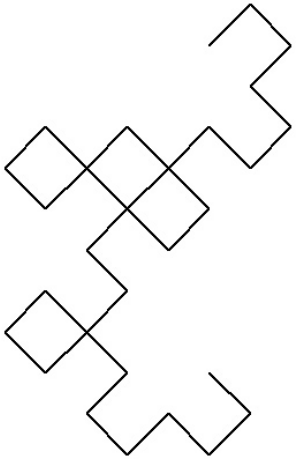
depth = 3



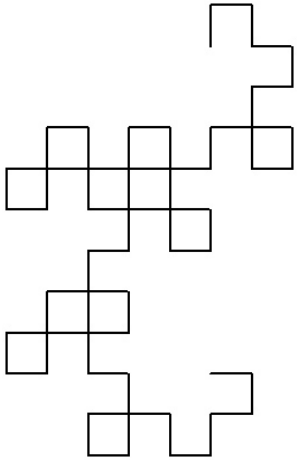
depth = 4



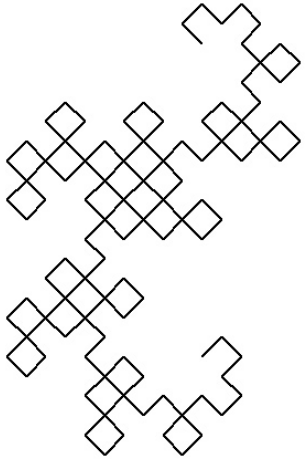
depth = 5



depth = 6



depth = 7



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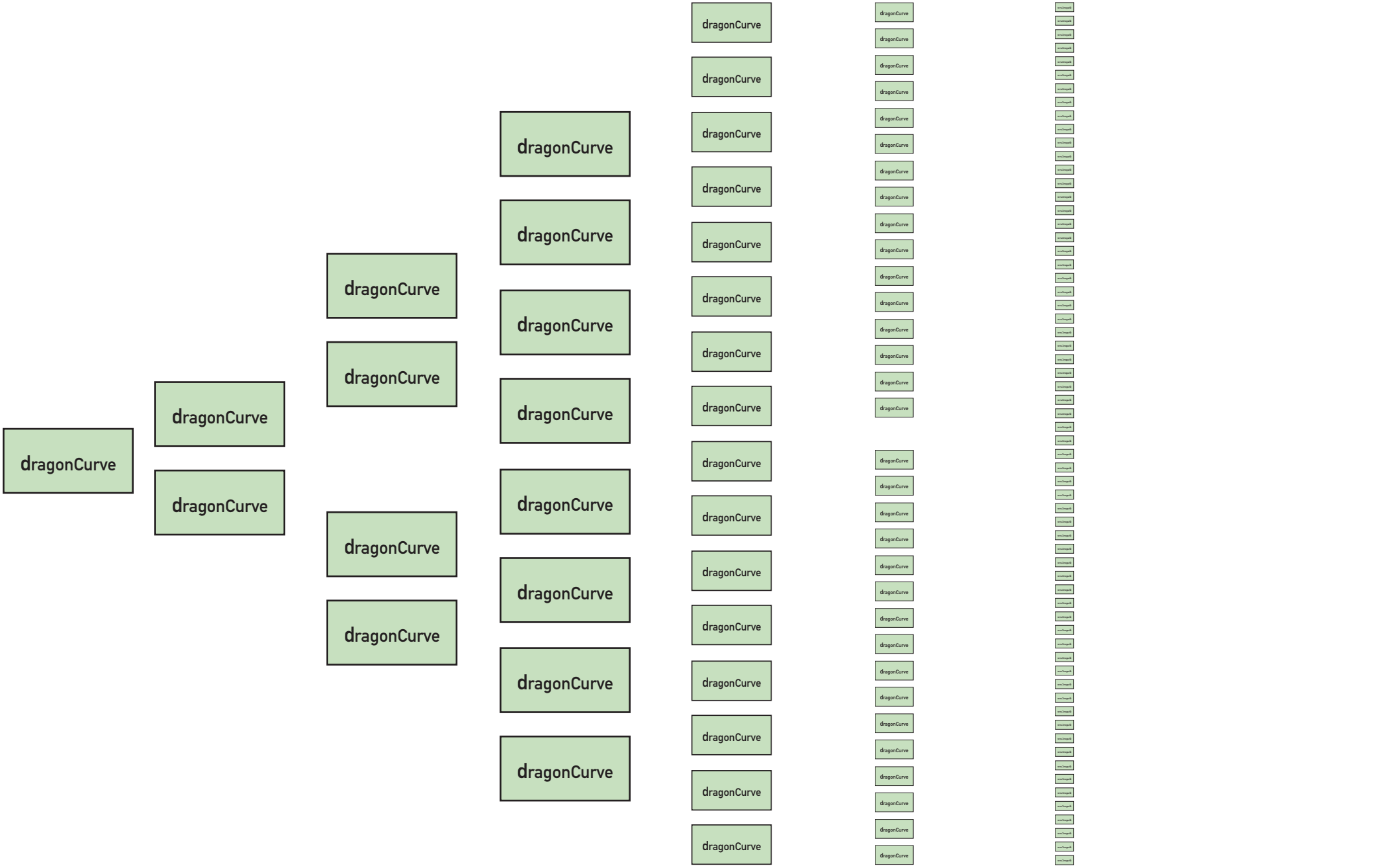
dragonCurve
dragonCurve
dragonCurve
dragonCurve
dragonCurve
dragonCurve
dragonCurve
dragonCurve
depth = 1
depth = 2
depth = 3
depth = 4
depth = 5
depth = 6
depth = 7 (253) ... depth = 16 (65533)

How does it works?

```
PROCEDURE second;

VAR
        startPoint,endPoint:VECTOR;

{start procedure}
        PROCEDURE dragonCurve(pa,pb:VECTOR;depth:INTEGER);

        VAR
                vab,p1:VECTOR;
                abLength:REAL;

        BEGIN
                vab:=pb-pa;
                abLength:=Norm(vab);
                p1:=pa+(vab/2.0);
                p1:=p1+(Perp(vab/2.0));

                IF(depth=1) THEN BEGIN
                        MoveTo(pa.x,pa.y);
                        LineTo(p1.x,p1.y);
                        LineTo(pb.x,pb.y);
                END ELSE BEGIN
                        dragonCurve(pa,p1,depth-1);
                        dragonCurve(pb,p1,depth-1);
                END;
        END;
{end procedure}

BEGIN
        startPoint.x:=0;
        startPoint.y:=0;
        endPoint.x:=0;
        endPoint.y:=10;
        dragonCurve(startPoint,endPoint,16);
END;
run(second);
```

Wann wird etwas gezeichnet?
Nur wenn die depth = 1 ist !!

Der Endpunkt bleibt immer gleich!