

Hi Andrew,

Still working with and on CAM HPGL for the HP7580 pen plotter.

I have changed/updated the "HP Pen plotter Postprocessor" to my latest experiences en knowledge. You may add this to QCAD if you like.

Question: The HP Penplotter Postprocessor (as does the HPGL one), (ab)use the Scale-parameter to recalculate the x and y plu-values. HPGL coords should be integers without decimals. Only the ArcSweep-parameter is allowed to be (and needs to be) a 4 decimal tolerance. Whenever using `this.decimals = 0` the x,y-values are correct plu-values (and camming is faster), however, the ArcSweep also becomes non-decimal (should be four).

I was wondering, setting `decimals=4` and `scale = 1` , if the plu-factor can be added onto the returning coord-values,

```
old:    // PA = Plot Absolute
        this.linearMove = "PA[X],[Y]" + this.separator;
        this.firstLinearMove = this.linearMove;

new:    // PA = Plot Absolute
        // this.linearMove = "PA" + STRVAL([X] * 40) + "," + STRVAL([Y] * 40)
        this.linearMove = "PA" + STRVAL(ROUND([X] * 40),0) + " " +
                           STRVAL(ROUND([Y] * 40),0)
```

OR, if `decimals = 4` and `Scale = 40` , the x,y-values could be rounded to no decimals.

```
new:    //PA = Plot Absolute
        this.linearMove = "PA" + STRVAL(ROUND([X],0)) + "," + STRVAL(ROUND([Y],0))
```

My view is `this.scale` should be used for scaling purposes only. However, adding separate x-,y- and z- length multiply factors as `this.xlengthfactor = 40`
`this.ylengthfactor = 40`
`this.zlengthfactor = 0` to CamExporter might even be a more generic and better solution.

Adding these common parameters to CamExporter allows also the use of special/home build CNC-machines.