Script Descriptions and Theory

# Description of C3DM format

The C3DM GCode Format will have the following specification:

* The first few lines will contain information about the stripper used to produce the GCode as well as time the stripper was used.
* GCode description is follow by a count of the total number of layer in the GCode
* Each layer will start with the layer number follow by the appropriate Z level to be printing this layer.
  + Directly between each layer is a Layer Change Transition Move made out of a single G0
  + Each Layer:x is also ended with a corresponding layer end: x
  + Although the Z values are recorded, they are only there to indicate the original layer height and will be place soon.
* Within each layer is a series of curve which are all numbered to indicate what layer is this curve on and its order. Curve will also have a Z level to indicate what Z they are printing at. The current definition of a curve is a series of G1 code with no interrupting G0, also change in type of curve. In addition these curve will end with a ENDCURVE comment that indicate what Z it is at.
  + In between each curve are ;Move To made out of a single G0.
* Right after the final layer and curve there will be a single G0 movement to indicate the movement out of the print.

An example of the C3DM format can be find bellow:

;2018-03-08 14:16

;G1 Strip Version 1.0

;Layer count: 10

;Layer: 1 @ Z0

G0 X95.061 Y76.845 ;Initial Move Into Print

;TYPE:SKIRT

;Curve: 1-1 @ Z1.0

G1 X95.46 Y76.386

G1 X98.022 Y73.599

……..

G1 X94.503 Y77.588

G1 X95.061 Y76.845

;Curve end: 1-1 @ Z1.0

G0 X98.408 Y108.918 ;Move To

;TYPE:WALL-OUTER

;Curve: 1-2 @ Z1.0

G1 X97.756 Y104.59

G1 X97.756 Y100.211

……

G1 X126.583 Y102.551

G1 X126.56 Y102.474

;Layer end: 1

G0 X98.408 Y108.918 ;Layer Change Transition Move

;Layer: 2 @ Z1.0

;TYPE:WALL-OUTER

;Curve: 2-1 @ Z1.0

G1 X97.756 Y104.59

G1 X97.756 Y100.211

….

G1 X126.822 Y102.022

;Curves end: 10-19 @ Z1.0

G0 Z6.0 ;move Z