



The Itemizer Cutting Optimizer Software CNC Supplement

A. Introduction

This supplement explains how The Itemizer's cutting plans can be used for the generation of g-code for CNC machines. The pieces to be cut can be entered into The Itemizer by a data file, copy and paste, a CSV file or directly typing the information into the Itemizer program. A user's Part number will be maintained in the optimization process. This will provide for linking required machining operations for each part on the layouts upon export from The Itemizer.

Although, any of the above mentioned methods could be used to import a list of parts into The Itemizer, we have simplified the import and operation of the program with a new comma separated data file that would be made by the user. This data file streamlines the import process eliminating necessary edits and sorting required for layout generation.

B. Typical data import file (user part list) follows:

Number of line items, Unit of measure

Qty, Width, Length, Thickness, Part no, Description, Material, Description 4, Description 5, Description 6

9, Inch (9 is the number of line items and Inch is the unit of measure, which could also be mm or cm)

3, 20, 30, .75, 1 Top, Plywood, Desc 4, Desc 5, Desc 6

2, 10, 18, .75, 2, Front, Plywood, Desc 4, Desc 5, Desc 6 (spacing added for clarity)

4, 14, 44, .50, 3, Side, MDF , Desc 4, Desc 5, Desc 6

6, 11, 22, .25.....

This client file must have ".dat" extension such as, ABC.dat, so The Itemizer recognizes the file type.

The first three Description fields must be Part Number, Description and Material. Three additional Descriptions (4,5 and 6) can be used if needed. When a part list is imported into The Itemizer, Thickness and Material automatically sort the list into groups that would naturally be separated for cutting. Dimensional data must be in decimal format.

Upon import of the data file into The Itemizer (File/Open/Files of type/CNC export file) the layouts would be generated after setting the Cutting and Turning options and specifying the Sheet stock. Refer to the manual for operation of the program.

C. Typical Itemizer export file follows:

After the cutting layouts are made the user can export a single Layout, a Group of layouts or the entire Job layouts (File/Export CNC). The Export will be saved as Filename/Group number/Layout number. This file would be used to make the G-code for cutting the individual pieces and adding any required machining.

Filename_1_1.TXT

Filename_1_2.TXT

Filename_2_1.TXT

Filename...

An individual layout file, such as Filename_1_1.TXT would look as follows:

Number of line items, Unit of measure

Part No, Description, Material, Desc 4, Desc 5, Desc 6, Y location, X location, Size Y/X, Turned Y/N

8, Inch (8 is the number of line items and Inch is the unit of measure, which could also be mm or cm)

PN1	,Top	,Plywood	,Desc 4	,Desc 5	,Desc 6	,0	,0	,20.25	,30.25	,N,
PN1	,Top	,Plywood	,Desc 4	,Desc 5	,Desc 6	,0	,30.25	,20.25	,30.25	,N,
PN1	,Top	,Plywood	,Desc 4	,Desc 5	,Desc 6	,0	,60.5	,20.25	,30.25	,N,
PN3	,Side	,Plywood	,Desc 4	,Desc 5	,Desc 6	,20.25	,0	,25.25	,15.25	,Y,
PN7	,Back...									

The original client Part number is used to link machining operations to the parts, while the coordinate and size data are used for cutting of the layout. Some parts may be Turned in the layout process depending on the specified options. Turned parts are indicated by a “Y” (yes) in the last column in the file. Otherwise, an “N” (no) will show to indicate the part is not turned. The client’s processing of The Itemizer’s export file to generate the g-code must account for the turned pieces to insure correct machining locations for holes, grooves, etc.

All Itemizer’s features are viable including the rearranging of pieces via the Part bin. **Previously saved files must be opened, generated and saved at least once to insure Export file data includes the new CNC information.**