



Task List Format for the CINCINNATI MMHS

A tasklist is an XML file with a '.task' extension that the CINCINNATI MMHS (Modular Material Handling System) recognizes. It is used to add one or more tasks to the active queue of the MMHS at one time. The tasklist is automatically generated by Cincinnati's Laser Nesting software when a nest is created and Interface with Cincinnati's MMHS option is enabled. The structure of the tasklist is as follows:

```
<Tasklist>
  <Task>
    <Type>Type</Type>
    <Priority>Priority</Priority>
    <From>From</From>
    <Laser>Laser</Laser>
    <To>To</To>
    <CNCFile>CNCFile</CNCFile>
    <Description>Description</Description>
    <Repeat>Repeat</Repeat>
    <MaterialType>MaterialType</MaterialType>
    <MaterialLength>MaterialLength</MaterialLength>
    <MaterialWidth>MaterialWidth</MaterialWidth>
  </Task>
  <Task>
    ...
  </Task>
</Tasklist>
```

Parameter Description:

Type

ProcessCNC - This task is a CNC file that needs to be cut. The raw material is specified in the From field, and the destination of the cut sheet is specified in the To field.

MoveDrawer – This task commands a drawer to be moved from one shelf [From] to another [To]. Not typically used in a task file.

Priority

High, Normal, or Low - This field defines the priority of the task.

From

Drawer ID - Integer ID number of the raw material drawer.

Auto – The MMHS control will determine the proper drawer ID when the task list is added to the queue.

Laser

Laser1, Laser2 - Specifies which laser will cut the requested CNC file.

Auto – The MMHS control will determine which laser to use based on availability, capacity, etc.

To

Drawer ID - Integer ID number of the destination drawer.

Auto – The MMHS control will determine the proper drawer ID when the task list is added to the queue.

CNCFile

CNC Filename - The filename can be either the full UNC name of the CNC file (ex: [\\Server1\ShareName\test123.cnc](#)) or a relative name (ex: dir1\test123.cnc). If a relative path is used, the path is assumed to be relative to the directory that the tasklist file is stored in.

Description

Optional text description of the task.

Repeat

1 through n - Integer specifying how many copies of the CNC file need to be cut.

MaterialType

Optional - Name of the material used for the CNC file. If not present, the MMHS control will attempt to read the CNC file and determine the material as described in the following section. Material name and size is only necessary if Auto To or Auto From is used.

Length

Optional - Length of the material used for the CNC file in inches. If not present, the MMHS control will attempt to read the CNC file and determine the length as described in the following section. Material name and size is only necessary if Auto To or Auto From is used.

Width

Optional - Width of the material used for the CNC file in inches. If not present, the MMHS control will attempt to read the CNC file and determine the width as described in the following section. Material name and size is only necessary if Auto To or Auto From is used.

Example:

```
<TaskList>
<Task>
<Type>ProcessCNC</Type>
<Priority>High</Priority>
<From>Auto</From>
<Laser>Auto</Laser>
<To>Auto</To>
<CNCFile>1sheet_s01-05.cnc</CNCFile>
<Repeat>5</Repeat>
<MaterialType>Mild Steel .105</MaterialType>
<MaterialLength>96</MaterialLength>
<MaterialWidth>48</MaterialWidth>
</Task>
<Task>
<Type>ProcessCNC</Type>
<Priority>Normal</Priority>
<From>2</From>
<Laser>Laser1</Laser>
<To>3</To>
<CNCFile>0001234_s08.cnc</CNCFile>
<Repeat>1</Repeat>
<MaterialType>Mild Steel .105</MaterialType>
<MaterialLength>96</MaterialLength>
<MaterialWidth>48</MaterialWidth>
</Task>
</TaskList>
```

CNC File Structure for the CINCINNATI MMHS

Required

To work properly with the CINCINNATI MMHS, CNC files must follow these rules:

1. A CNC file that is added to the MMHS queue must contain one and only one sheet. Multiple sheet nests must be saved as multiple CNC files and added as multiple tasks to the MMHS queue.
2. A CNC file that is added to the MMHS queue must not contain any M50 pallet exchange commands. The MMHS control will exchange pallets on the laser when it is required.
3. Any CNC file that is added to the MMHS queue must end with a M30.

Optional

Additional comment lines can be placed at the beginning of the CNC file that, when structured properly, can give the MMHS information about the material used, parts contained on the sheet and estimated run time. For example, the following lines tell the MMHS control which material and size of sheet is needed for this CNC file.

(Material = MMMMM)
(*material used for this sheet is MMMMM*)
(Sheet name = XXXX in. x YYYY in.)
(*sheet size is XXXX length and YYYY width*)

example:

(Material = Mild Steel .105)
(Sheet name = 96.000 in. x 40.000 in.)

The following lines tell the MMHS control which parts are being cut on this sheet. This can be used later to locate cut parts in the MMHS system.

(Total parts on sheet = XX)
[total number of parts on this sheet is XX]
(Part - NNNN = XX)
[XX copies of part NNNN are on this sheet]

example:

(Total parts on sheet = 27)
(Part - 133229.prt = 2)
(Part - TestPart.prt = 1)
(Part - 508aa1 fix.prt = 24)

The following line informs the MMHS control approximately how long it will take to cut this sheet. This can be useful when scheduling work on the MMHS. This information can be found in the Report file which is automatically generated by Cincinnati's Laser Nesting software when a nest is created.

(Est. Run Time = MMm. SSs.)
[estimated run time is MM minutes and SS seconds]

example:

(Est. Run Time = 23m. 05s.)