

VMD Tutorial #3: Running a Job

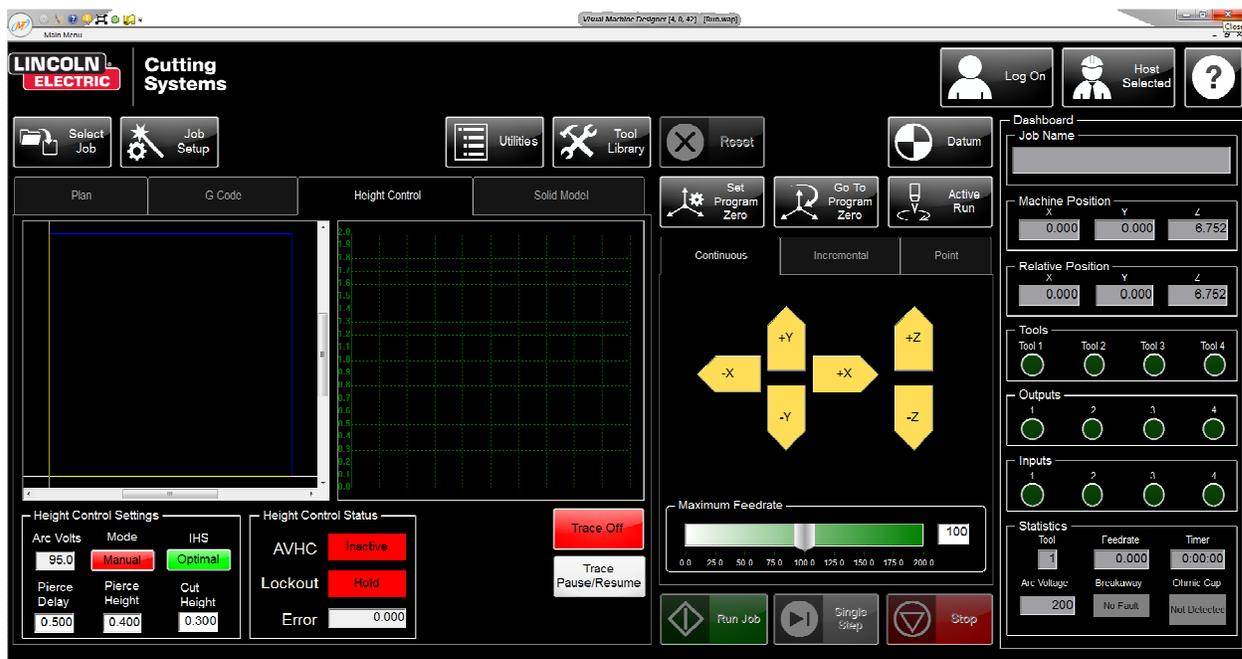
VMD controls Torchmate machines by interpreting G code files. A G code file can be created using CAM software (like Torchmate CAD, or many others) or directly in VMD by using the shape library. Once you've created a G code file, VMD can run your job. In this tutorial we will cover how to load a job, get some job parameters set up, and run the job.

Before You Start:

Before you begin running a job, you must have a job to cut. A job is a gm file. A gm file can be generated from CAM software, Torchmate CAD, or directly from VMD by using the shape library. If you don't have a job yet, read tutorial #2 to learn how to use the shape library to create a gm file.

Power up the controller and launch 'Torchmate Visual Machine Designer.' Make sure the controller is connected and the Run screen is displayed before starting the tutorial.

Exploring the Run Screen:



Prepare the Job:

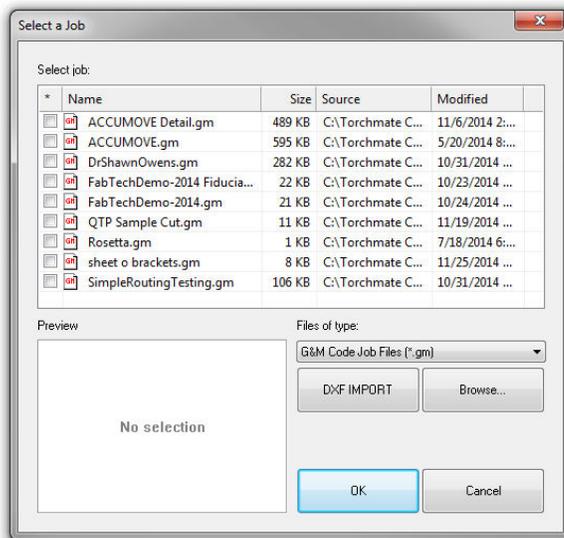
- 1.) The machine must be Dated before any of the motors will move. Generally this is the first action that should be performed when the machine powers up. A datum only needs to be performed when powering the machine on. Once the datum is set, it only needs to be reset if the machine loses position or it is powered off.

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The machine should be Datumed when it is at the origin. The origin is when the tool is in the lower left corner of the machine, and the Z axis is all the way up. Press the 'Datum' button in the upper right side of the Run screen to datum the machine.

I datumed the machine when it wasn't at the origin, what do I do now? See the FAQ document for help on this issue.

- 2.) A job can be selected after the machine has been datumed. Press the 'Select Job' button in the upper left side of the Run Screen. You will be prompted to open a file: press the 'Browse' button to open up a windows browser. Navigate to the folder where your job files are located. Usually the job files are stored in the 'Jobs' folder inside the Torchmate Controller Data folder.



HINT: You may need to change the 'Files of type' selection from 'Hpgl Files' to 'G&M Code Job Files.' Your jobs won't show up unless 'G&M Code Job Files' is selected.

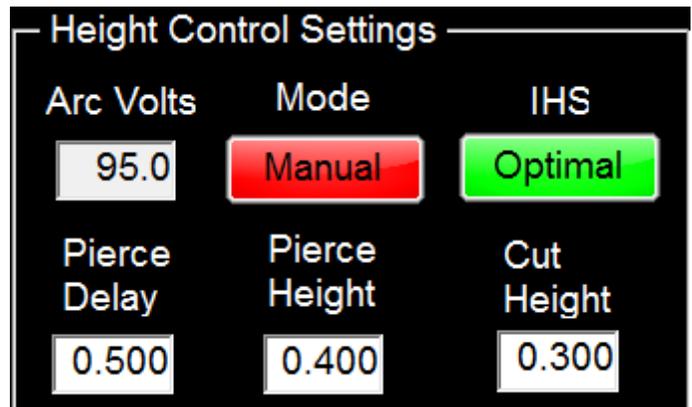
- 3.) Once a job is selected you will see a job preview displayed in the plan window. The program zero and height control settings must be configured before starting the job.
 - a. Program Zero should be set where you want the job to start. Use the jog keys, or right click on the plan and press 'Move to here' to position the tool where you'd like the job to start. Once you've placed the tool in the right spot press the 'Set Program Zero' button to set program zero.

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Program Zero can be reset as often as you'd like, so don't worry if you don't get it exactly right. You can also return the tool to program zero at any time by pressing 'Go To Program Zero.'

- b. The final step before running the job is to verify the height control settings are appropriate for your material. These settings are located at the bottom left corner of the 'Height Control' view of the Run screen.

By default, VMD puts the height control into manual mode. Just click the 'Mode' button to change into Auto mode, which enables height control. Then, configure the Arc Volts, Pierce Delay, Pierce Height and Cut Height parameters based on your plasma cutter's cut chart.



Run the Job

- 1.) You are now ready to run the job. It's recommended to always press the 'Go To Program Zero' button before running the job. Also, make sure your tool is ready to go before continuing: check that power is applied to the tool, and that the consumables are still good. Once you're ready, press the 'Run Job' button.

HINT: If you want to do a test run, put VMD into 'Dry Run' mode. This will allow the machine to go through the motions without turning the tool on. Just press the 'Active Run' button to change to a 'Dry Run' mode. Press it again to put the machine back into 'Active Run' mode.

If the Torch crashes into the material during touch off, or is diving into the material during the cut, see the troubleshooting guide for tips on how to correct the issue.

That's it!

You've completed the VMD Introductory Tutorials. By now, you've learned how to configure your Torchmate machine, create a job using the shape library, and run a job. Read more of our tutorials to learn how more about your machine.