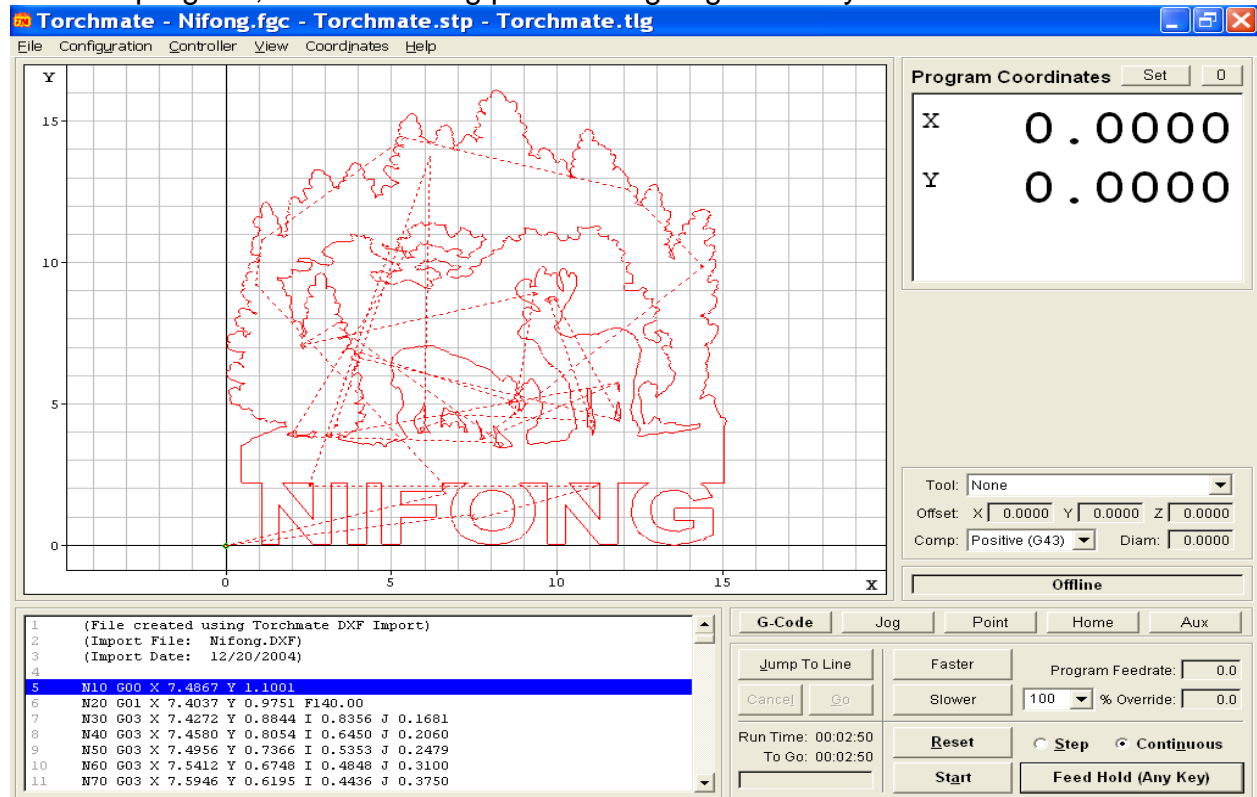


Re-Cutting with Jump to Line

You start with a fairly complex program, everything is set and you are ready to go. You start the program, and the cutting process is going smoothly.

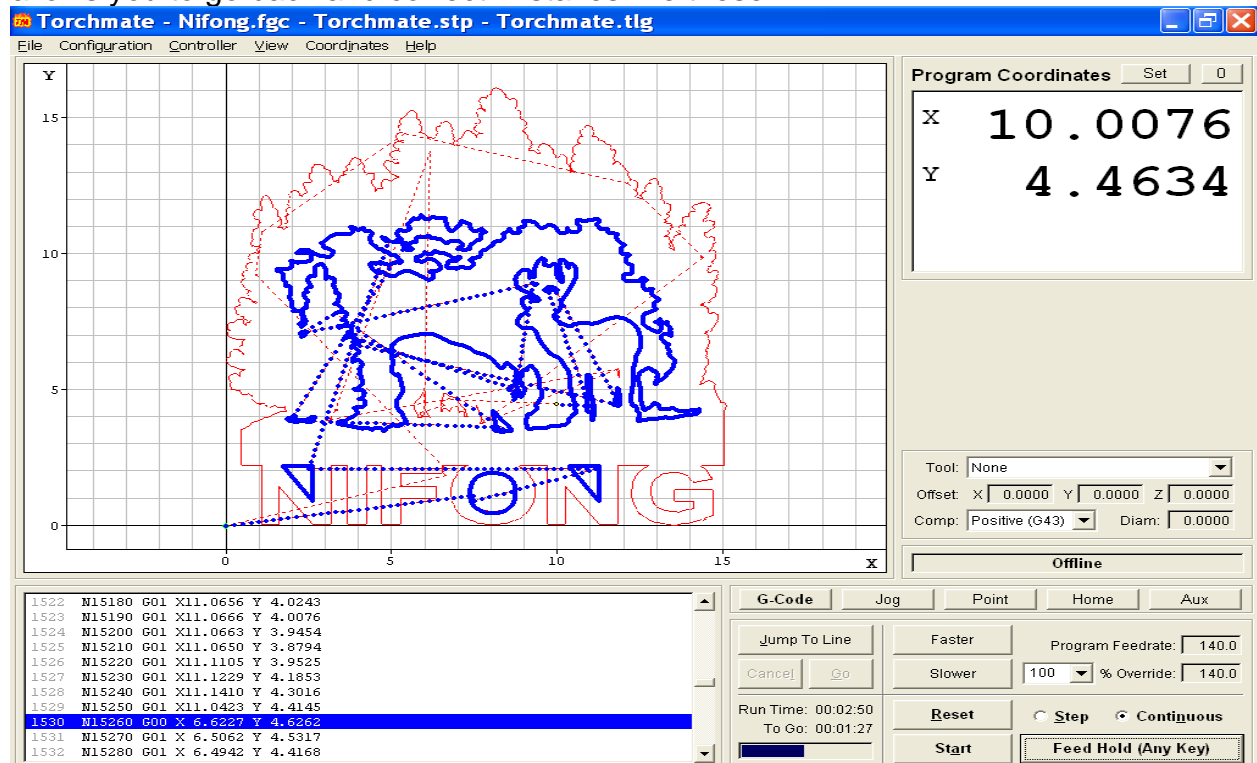


The screenshot shows the Torchmate software interface. The main window displays a 2D coordinate system with X and Y axes ranging from 0 to 15. A red outline of a logo with the word 'NIFONG' is visible. The program coordinates on the right are X: 0.0000 and Y: 0.0000. The G-Code window shows the following code:

```
1 (File created using Torchmate DXF Import)
2 (Import File: Nifong.DXF)
3 (Import Date: 12/20/2004)
4
5 N10 G00 X 7.4867 Y 1.1001
6 N20 G01 X 7.4037 Y 0.9751 F140.00
7 N30 G03 X 7.4272 Y 0.8844 I 0.8356 J 0.1681
8 N40 G03 X 7.4580 Y 0.8054 I 0.6450 J 0.2060
9 N50 G03 X 7.4956 Y 0.7366 I 0.5353 J 0.2479
10 N60 G03 X 7.5412 Y 0.6748 I 0.4848 J 0.3100
11 N70 G03 X 7.5946 Y 0.6195 I 0.4436 J 0.3750
```

The control panel on the right includes buttons for 'Jump To Line', 'Faster', 'Slower', 'Reset', 'Start', and 'Feed Hold (Any Key)'. The status bar indicates 'Offline'.

You turn your attention away from the machine for a second, and when you return to it, you notice an area where the torch did not fire, or the program moved before the ignition so that a part is not fully cut. Luckily, there is a feature built in to this program which allows you to go back and correct mistakes like these.



The screenshot shows the Torchmate software interface. The main window displays a 2D coordinate system with X and Y axes ranging from 0 to 15. A red outline of a logo with the word 'NIFONG' is visible. A blue outline of the same logo is overlaid, indicating a re-cut. The program coordinates on the right are X: 10.0076 and Y: 4.4634. The G-Code window shows the following code:

```
1522 N15180 G01 X11.0656 Y 4.0243
1523 N15190 G01 X11.0666 Y 4.0076
1524 N15200 G01 X11.0663 Y 3.9454
1525 N15210 G01 X11.0650 Y 3.8794
1526 N15220 G01 X11.1105 Y 3.9525
1527 N15230 G01 X11.1229 Y 4.1853
1528 N15240 G01 X11.1410 Y 4.3016
1529 N15250 G01 X11.0423 Y 4.4145
1530 N15260 G00 X 6.6227 Y 4.6262
1531 N15270 G01 X 6.5062 Y 4.5317
1532 N15280 G01 X 6.4942 Y 4.4168
```

The control panel on the right includes buttons for 'Jump To Line', 'Faster', 'Slower', 'Reset', 'Start', and 'Feed Hold (Any Key)'. The status bar indicates 'Offline'.

Stop the program immediately, either by using the Feed Hold button, or by pressing any key on your keyboard. Once the program has stopped, write down the position that you stopped the program, as you will need this later. In this example, the position line is #1530 (N15260 G00 X6.6227 Y4.6262). Carefully examine the area that was to be cut, and physically measure the distances from the zero X and Y axis to the point where the torch should have started, which will be used as a reference point for finding the position line of the G-code. By measuring the distances from zero X and Y, you ascertain that the approximate position to be about 12 inches from zero X and 4.5 inches from zero Y.

Torchmate - Nifong.fgc - Torchmate.stp - Torchmate.tlg

File Configuration Controller View Coordinates Help

Program Coordinates Set 0

X 10.0076
Y 4.4634

Tool: None
Offset: X 0.0000 Y 0.0000 Z 0.0000
Comp: Positive (G43) Diam: 0.0000

Offline

G-Code Jog Point Home Aux

Jump To Line Faster Program Feedrate: 140.0
Cancel Go Slower 100 % Override: 140.0

Run Time: 00:02:50
To Go: 00:01:27

Reset Step Continuous
Start Feed Hold (Any Key)

```

1522 N15180 G01 X11.0656 Y 4.0243
1523 N15190 G01 X11.0666 Y 4.0076
1524 N15200 G01 X11.0663 Y 3.9454
1525 N15210 G01 X11.0650 Y 3.9794
1526 N15220 G01 X11.1105 Y 3.9525
1527 N15230 G01 X11.1229 Y 4.1853
1528 N15240 G01 X11.1410 Y 4.3016
1529 N15250 G01 X11.0423 Y 4.4145
1530 N15260 G00 X 6.6227 Y 4.6262
1531 N15270 G01 X 6.5062 Y 4.5317
1532 N15280 G01 X 6.4942 Y 4.4168

```

Now we need to look back in the G-code for a line position that is close to these points. Click on the button Jump to Line, located just below the G-code button, in the lower right area of the main screen. When you successfully press the button, the G-code screen will change to a light blue color, as seen above and below.

Torchmate - Nifong.fgc - Torchmate.stp - Torchmate.tlg

File Configuration Controller View Coordinates Help

Program Coordinates Set 0

X 10.0076
Y 4.4634

Tool: None
Offset: X 0.0000 Y 0.0000 Z 0.0000
Comp: Positive (G43) Diam: 0.0000

Offline

G-Code Jog Point Home Aux

Jump To Line Faster Program Feedrate: 140.0
Cancel Go Slower 100 % Override: 140.0

Run Time: 00:02:50
To Go: 00:01:27

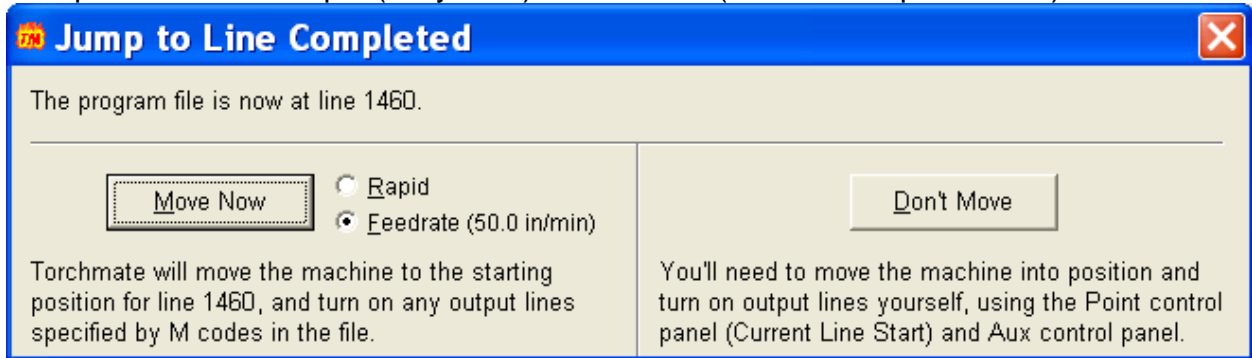
Reset Step Continuous
Start Feed Hold (Any Key)

```

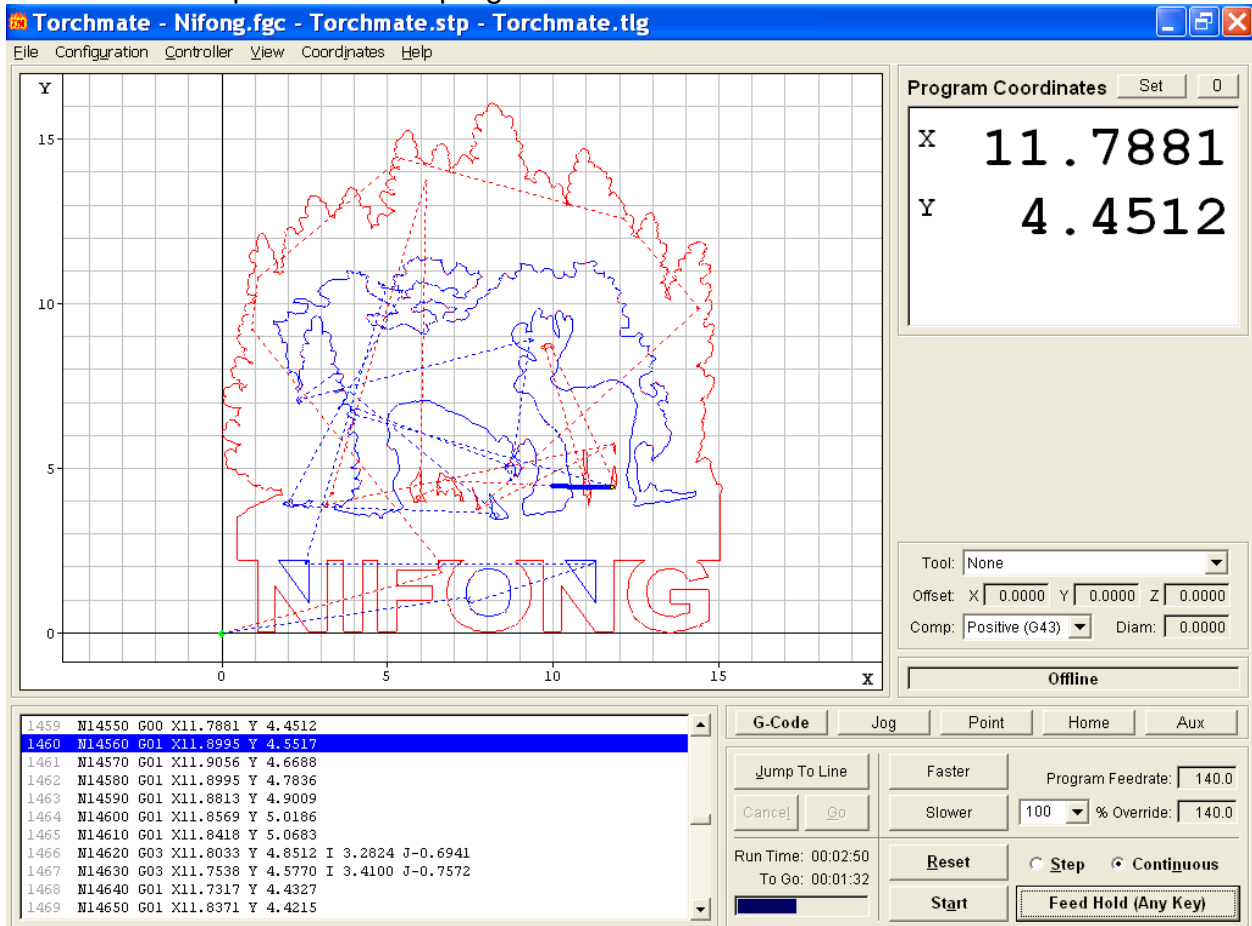
1459 N14550 G00 X11.7881 Y 4.4512
1460 N14560 G01 X11.8995 Y 4.5517
1461 N14570 G01 X11.9056 Y 4.6688
1462 N14580 G01 X11.8995 Y 4.7836
1463 N14590 G01 X11.8813 Y 4.9009
1464 N14600 G01 X11.8569 Y 5.0186
1465 N14610 G01 X11.8418 Y 5.0683
1466 N14620 G03 X11.8033 Y 4.8512 I 3.2824 J -0.6941
1467 N14630 G03 X11.7538 Y 4.5770 I 3.4100 J -0.7572
1468 N14640 G01 X11.7317 Y 4.4327

```

Scroll backwards through the line of code to find a position that is close to the distances you measured. Once you have located something similar, select it, and then press the Go button. When the window below appears, choose the speed at which to move to the new position either Rapid (Very Fast) or Feedrate (50.0 inches per minute).



Press Move Now to start the movement. You will notice a heavy blue line moving toward the new position in the program.



Once the movement has stopped, check to see if the new position is exactly where you want the torch to be. If it is not in the exact position, follow the previous procedure to locate a new set of coordinates, and then move to that location. For this exercise we will assume that we are in the proper location.

Press the Start button to begin the cutting sequence from the new position. The program will automatically remake cuts getting back to the point where we stopped, and then continuing through the rest of the program.

Torchmate - Nifong.fgc - Torchmate.stp - Torchmate.tlg

File Configuration Controller View Coordinates Help

Program Coordinates Set 0

X 11.0091
Y 6.3552

Tool: None
Offset: X 0.0000 Y 0.0000 Z 0.0000
Comp: Positive (G43) Diam: 0.0000

Offline

G-Code Jog Point Home Aux

Jump To Line Faster Program Feedrate: 140.0
Cancel Go Slower 100 % Override: 140.0

Run Time: 00:02:50
To Go: 00:01:31

Reset Step Contiguous
Start Feed Hold (Any Key)

```

1468 N14640 G01 X11.7317 Y 4.4327
1469 N14650 G01 X11.8371 Y 4.4215
1470 N14660 G02 X11.8823 Y 4.3863 I-0.0367 J-0.0938
1471 N14670 G01 X11.8995 Y 4.5517
1472 N14680 G01 X11.7952 Y 4.6595
1473 N14690 G00 X 9.8872 Y 8.7698
1474 N14700 G01 X 9.7367 Y 8.7643
1475 N14710 G01 X 9.6402 Y 8.6722
1476 N14720 G01 X 9.6380 Y 8.6609
1477 N14730 G01 X 9.6460 Y 8.6455
1478 N14740 G02 X 9.7073 Y 8.6348 I 0.0226 J-0.0515

```

If you wish to stop the program after re-making the missed cut, press the Jump to Line button, and scroll forward to the position where we originally stopped the program (#1530), press Go, and then Move now, to re-start the program from where we originally left off. Press Start, and continue to the end of the program.

Torchmate - Nifong.fgc - Torchmate.stp - Torchmate.tlg

File Configuration Controller View Coordinates Help

Program Coordinates Set 0

X 0.0000
Y 0.0000

Tool: None
Offset: X 0.0000 Y 0.0000 Z 0.0000
Comp: Positive (G43) Diam: 0.0000

Offline

G-Code Jog Point Home Aux

Jump To Line Faster Program Feedrate: 140.0
Cancel Go Slower 100 % Override: 140.0

Run Time: 00:02:50
To Go: 00:00:00

Reset Step Contiguous
Start Feed Hold (Any Key)

```

2833 N28290 G02 X 6.7816 Y 1.2165 I 1.7065 J 0.1992
2834 N28300 G02 X 6.8171 Y 1.5241 I 1.2123 J 0.0159
2835 N28310 G02 X 6.8605 Y 1.6708 I 1.3388 J-0.3163
2836 N28320 G02 X 6.9850 Y 1.9056 I 0.8707 J-0.3113
2837 N28330 G02 X 7.0754 Y 2.0148 I 0.9265 J-0.6750
2838 N28340 G02 X 7.1814 Y 2.1151 I 0.8791 J-0.8229
2839 N28350 G02 X 7.2960 Y 2.1990 I 0.7008 J-0.8370
2840 N28360 G01 X 6.5181 Y 2.2002
2841 N28370 G01 X 6.5181 Y 1.9392
2842 N28380 G01 X 6.6330 Y 1.8428

```

I hope this walkthrough has successfully shown you how to use the Jump to Line feature, please call Tech Support if you have any further questions.