LASER MACHINE MANUFACTURER
MICROSTEP DISTRIBUTOR

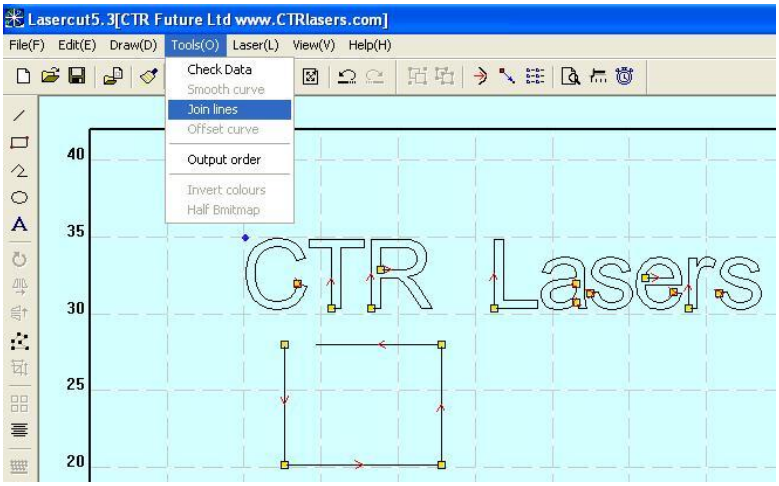
Software Data Checks

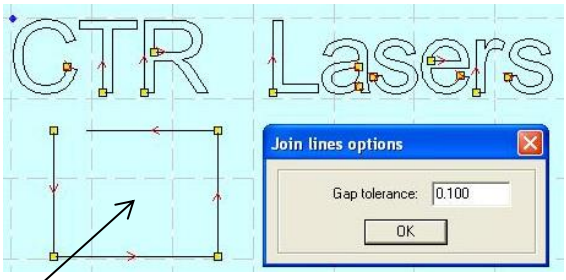
There are a range of checks that the laser software can carry out, which include checking that the lines are closed and joining the lines together if needed, checking for overlapping lines, checking for duplicate lines on top of each other.

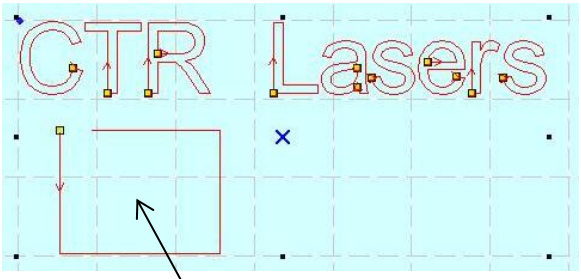
These are particularly applicable for files which have been imported into the laser software.

To access these features, go to the **Tools** menu in the laser software. Firstly, select **Tools** > **Join lines**. This feature will "chain link" separated lines (make them continuous) within the tolerance that you specify. This is typically 0.1 but can be changed depending on your specific needs.

This is beneficial for cutting and engraving, as engraving vectors requires the shape to be closed (all start/end points joined together) and cutting vectors will have an increased processing speed if they are joined together (one continuous cut rather than lots of fragmented lines).







Yellow squares indicate the start point of each line. This shape is currently made of four separate lines.

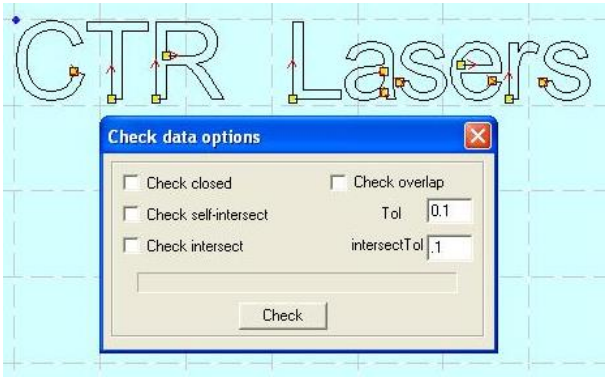
You can specify the **gap tolerance** – this will specify which lines the software will join. If the start/end points are 0.15mm apart, with a gap tolerance of 0.1mm the software will NOT join them. Anything within the gap tolerance would be joined to the nearest line start/end point.

Now the lines have been joined, the shape is one continuous line, with the yellow box indicating the start point.

CTR Future Ltd.
Unit 5-6 Sterling Business Park, Salthouse Road,
Brackmills Industrial Estate, Northampton, NN4 7EX
Tel UK: 0844 800 4727
Tel EU: +44 (0)1604 675 417
Email: info@ctrfuture.co.uk
Web: www.ctrlasers.co.uk
Company Reg. No. 5158353
Registered Office: 47 Park Road, Hartwell
Northamptonshire, NN7 2HP (UK)
VAT No. 844 6899 68

Software Data Checks (continued)

The **Tools** > **Check data** menu option allows you to run a series of checks on your design file. Selecting this menu option will open the below "Check data options" window.



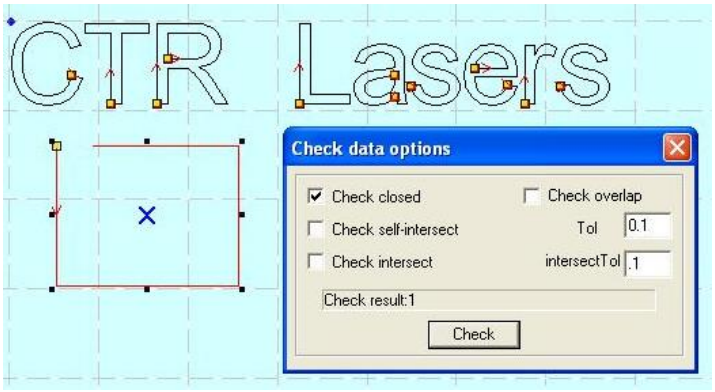
You can run a specific check by ticking the box beside that option, or select more than one of the checks in one go by ticking all of the required check boxes.

Check closed
Are there any vectors which are not closed?

This option will check whether there are any vector shapes which are not fully closed shapes.

This option is particularly relevant for engraving, where a vector shape needs to be fully closed before the laser can successfully process the file.

In the below example, the red "box" shape is highlighted, as the shape is NOT fully closed and has a gap between the start and end points.

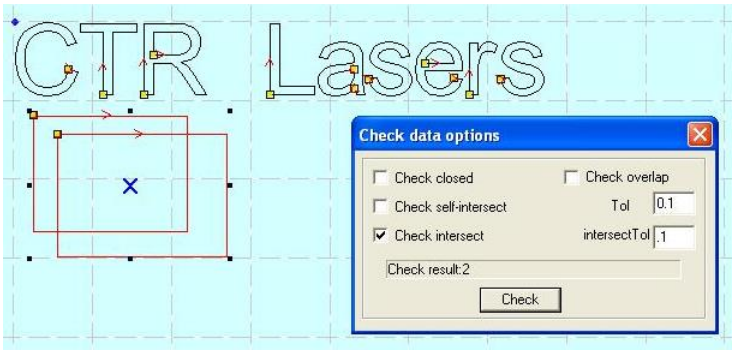


Software Data Checks (continued)

Check intersect
Are there any vectors which are intersecting (the lines cross over each other)?

In the example below, the two squares are overlapping and as a result have been indicated in red as they are being flagged up by this check.

You can continue processing the file (download to the laser etc) if you are happy with the design, or you can close the check data options and change the design file if needed.



Check overlap
Are there any lines which are on top of each other (overlapping)?

In the example below, there are two squares of equal size which are directly on top of each other (in other words, there is a duplicate square).

These have been indicated in red as they failed this check. You can close the check data options window and press “delete” on your keyboard to remove the highlighted duplicates.