

ALLEN DATAGRAPH

Technical Support Bulletin Origin - Scale Method for Contour Cutting

Last Update 12-29-4

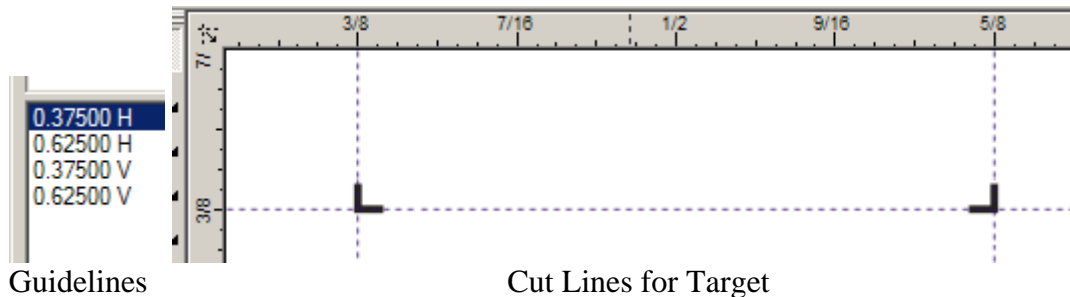
Abstract: This document describes a way of creating labels and cut lines that has only one target between frames but corrects for skew, scale in media movement direction. It assumes that the machine has been calibrated across the web.

I want to cut as many 1-inch (2.5 cm) rounded rectangle labels as will fit across the 16-inch (40 cm) wide media. I will assume we need at least ¼ inch (0.7 cm) weed gap between rows and slightly less 0.2 inch (0.5 cm) between columns. We want to have more than one row of labels cut in the frame to minimize the scanning time. We also want the frame long enough to detect the skew angle. The frame size for this example will be 8.75 inches (22 cm).

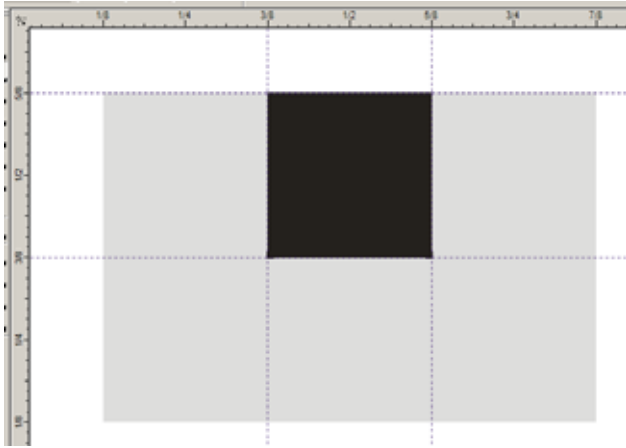
We start with the target design. The following are the design goals for the target.

- It should be as small as reasonable.
- It should work on various media without change.
- It should be able to be scanned as an origin and a scale target.
- It should not be cut out so the web is weakened.
- The same cut lines can be used to locate the scale mark.
- Ability to print continuous equally spaced labels.

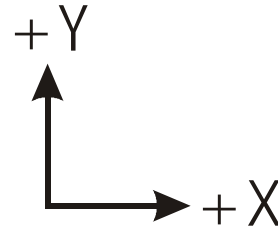
The target between the frame will be a ¼ inch (0.7 cm) solid square with partial cut lines. The scan length will be set to ¼ inch (0.35 cm) of an inch and the scan offsets will be set to 1/8 inch (0.15 cm). Each target will be scanned twice. I will use CorelDraw for setting up the target as it has absolute placements of guidelines and Illustrator does not.



I drew the two cut lines for the target above. The left cut line locates the origin target and the right cut line locates the scale target. I then add the printed target and a scanning background. The scanning background should be white (shown as gray in figure below). Printing of the background may be required depending on the media.



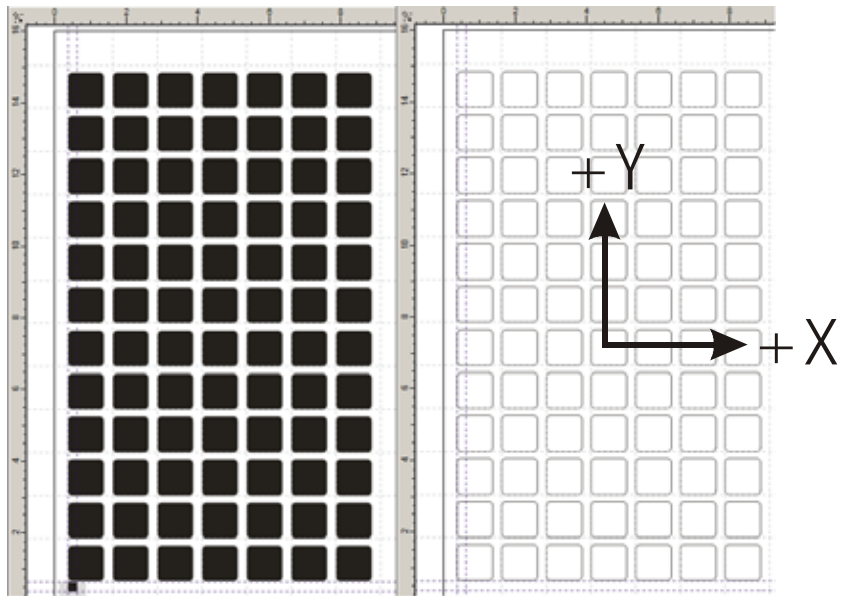
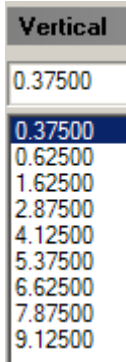
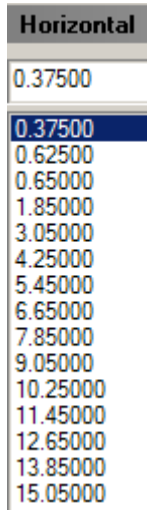
Printed target with guidelines.



I then saved this new target as BetweenTarget.cdr and BetweenTarget.ai. ([Web Site Copy](#) / [CD Copy](#)) I duplicate the target pattern down the x-axis so that the printed target appears at the end of the frame.

Now for the labels:

I add more grid lines to place the labels 1.2 inch apart in the y-axis and 1.25 inch apart in the x-axis. I copy the first label across and then up for column.



Since the printing of the second target will overlap and align with the first target of the next frame we will delete the printing on the second target leaving the cut lines. I then split the artwork into two layers one layer is the cutlines and the other is the artwork. The artwork is sent to the printer and the cutlines are sent to the DFS. You should remove from the artwork layer the cut lines in the two targets. And you should remove from the cut lines layer the white background and the prints

I saved this file as “12x7 one inch labels.cdr” and “12x7 one inch labels.ai” ([Web Site Copy](#) / [CD Copy](#))

When we setup the printer driver the space between jobs will always be (-0.25 inch) so it backs up to the target we just used as the scale target. This allows us to use each target twice (once as the origin target and once as the scale target). We set the Find Origin parameter to Origin, Skew, and Scale. We set the scan offsets to ½ the size of the target and the scan lengths to the size of the target. On the Skew page of the line sensor menu we turn off the scan skew point.

