

Work Example — Simultaneous Cutting and Engraving of Multiple Data Sets

RSD-SUNMAX Series
SUNMAX LASER

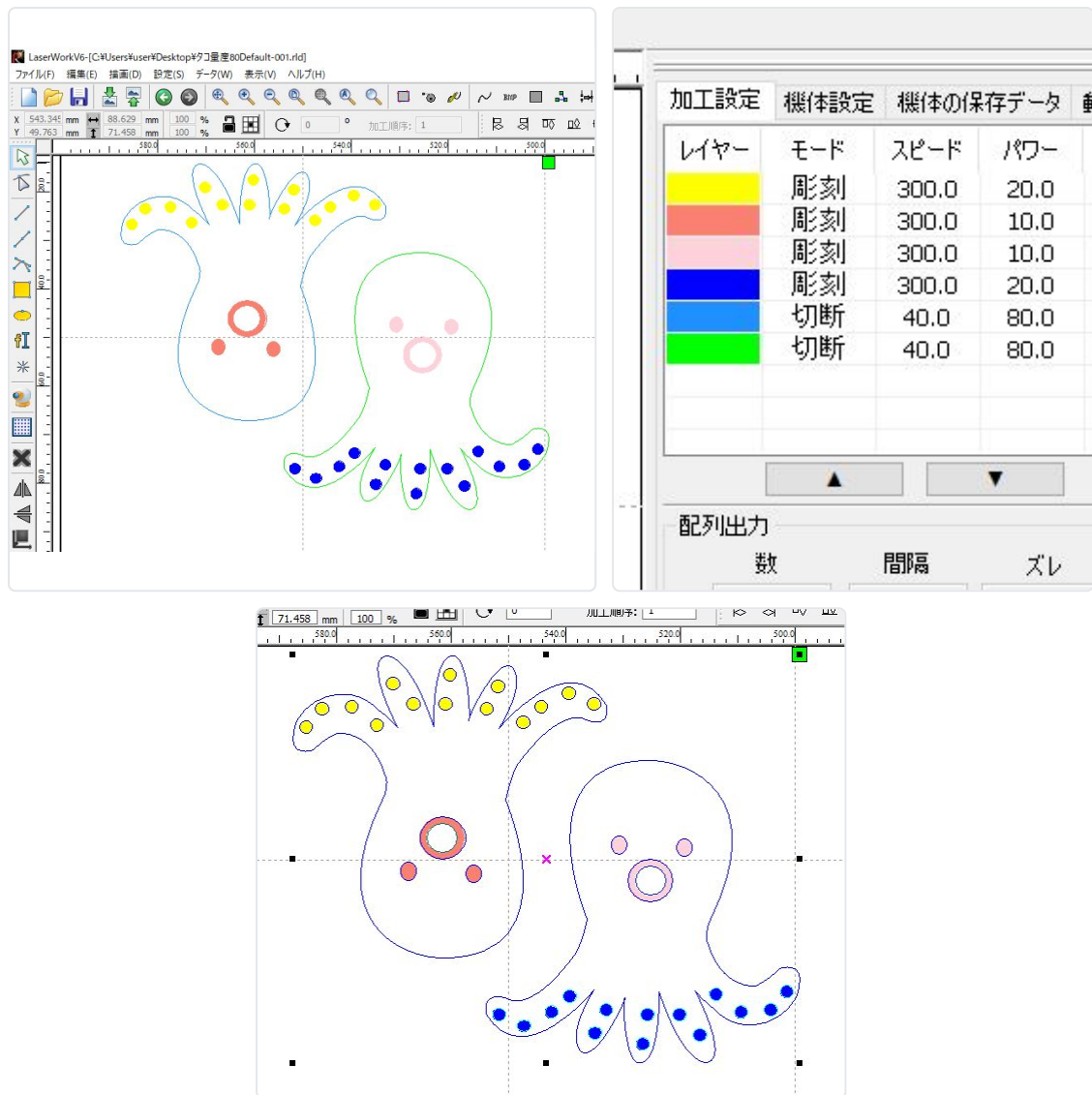
About this document: This is an English translation of the Japanese original prepared by SUNMAX LASER for reference purposes. In case of any discrepancy, the Japanese original shall prevail. Specifications are subject to change without notice.

Work Example — Simultaneous Cutting and Engraving of Multiple Data Sets

- This document assumes that the laser machine has been set up correctly.
- This document assumes that RDWorks6, the control software for the LT6040ST908, has been installed correctly.
- The setting values in this document are reference values only. Adjust them according to the material you are processing.

1. Configure Processing Settings for the Source Data by Layer

Layer settings are required depending on the processing method. In addition, if you want to specify the processing order for each data set, you must separate the data into further layers. Arrange the layers in the processing settings panel on the right side of the screen in the order you want them processed. To reorder them, select the layer you want to move and click the arrow buttons to swap its position. You can also reorder layers by dragging the layer color area.



2. Duplicate the Data

You can duplicate data with copy and paste, but a continuous series of copies can be created using the array output function. First, select all of the source data you want to duplicate.

In the array output settings on the right side of the screen, enter the desired values and click the Array button.

A continuous series of data is created as shown in the figure below.

▲ ▼

配列出力

	数	間隔	ズレ
X:	1	0.000	0.000
Y:	1	0.000	0.000

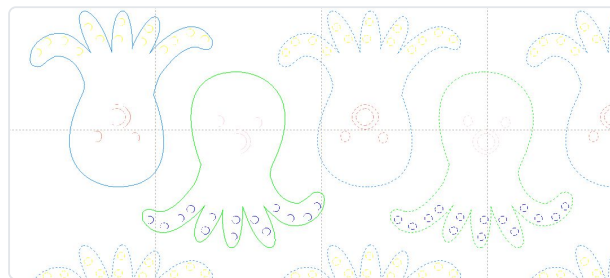
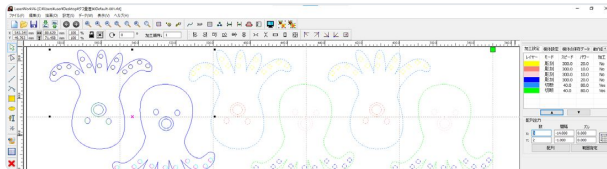
配列 範囲指定

▲ ▼

配列出力

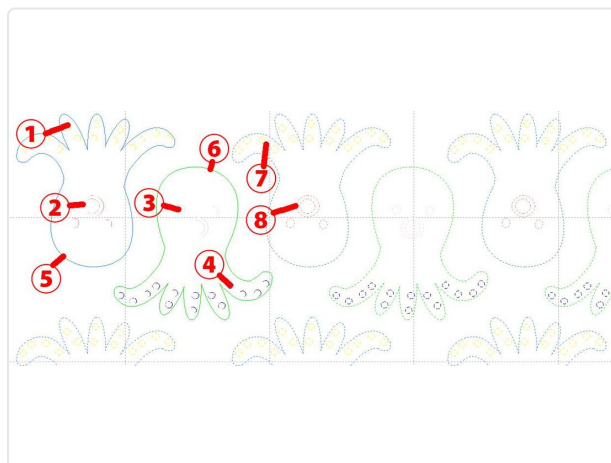
	数	間隔	ズレ
X:	3	-14.000	0.000
Y:	2	-1.000	0.000

配列 範囲指定



When you deselect the objects, you can confirm that the original data is displayed with solid lines and the duplicated data with dashed lines.

If you click Download in the laser processing panel while in this state and then run the job, processing is carried out part by part, following the route configured for each part.



加工設定	機体設定	機体の保存データ		動作
レイヤー	モード	スピード	パワー	加工
1	彫刻	300.0	20.0	No
2	彫刻	300.0	10.0	No
3	彫刻	300.0	10.0	No
4	彫刻	300.0	20.0	No
5	切断	40.0	80.0	Yes
6	切断	40.0	80.0	Yes

With the layer order shown in the figure above:

The machine processes in layer-color order, then repeats the same processing for each set of duplicated data.

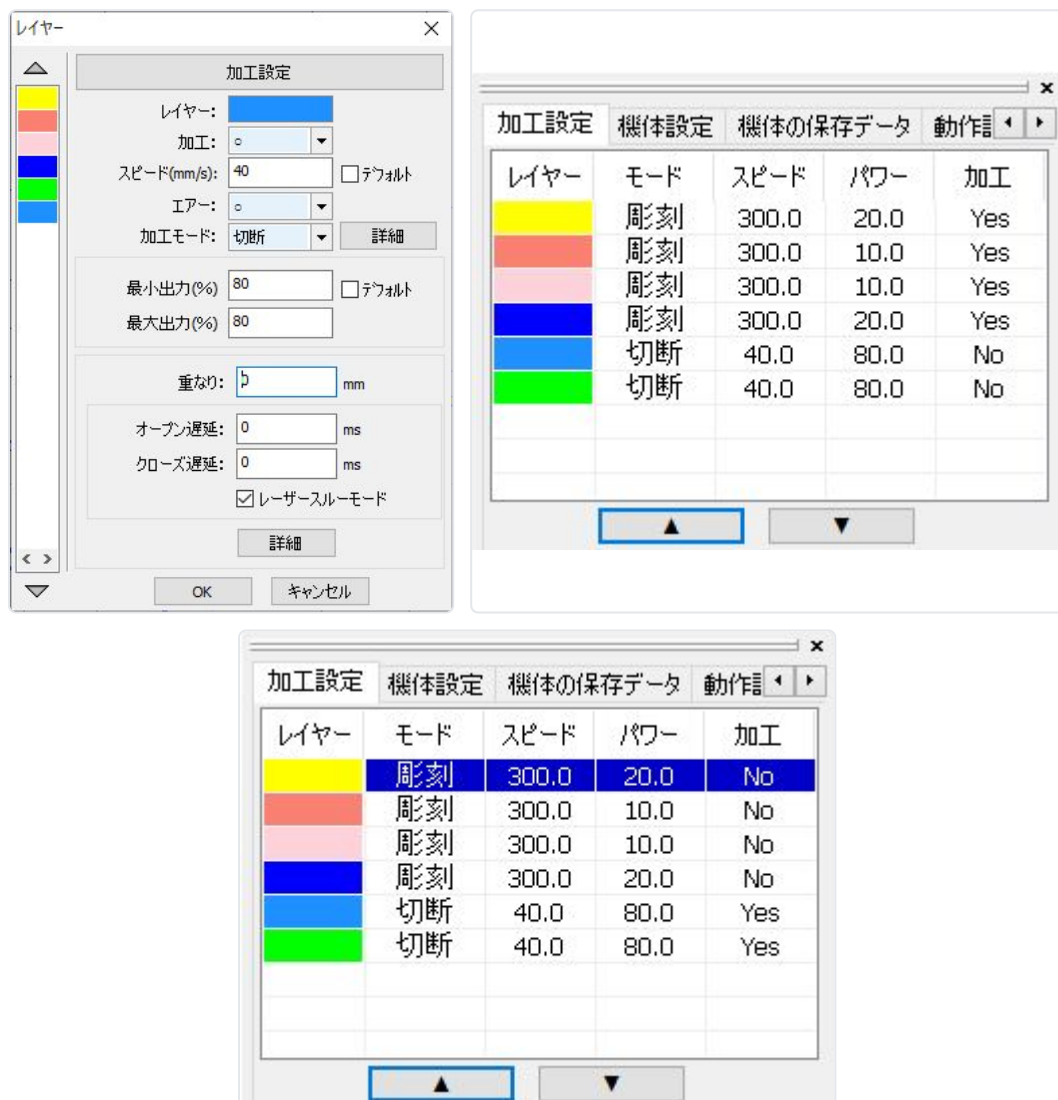
3. Settings for Cutting After Engraving Is Complete

If you process the job part by part but want to perform cutting only after all engraving is finished, first set Output in the processing settings to ○ (enabled) for the engraving layer only and to × (disabled) for the cutting layer, then download the job to the machine.

After the engraving is complete, set the engraving layer's Output to × (disabled) and change the cutting layer to ○ (enabled), then download the job to the machine again and perform the cutting.

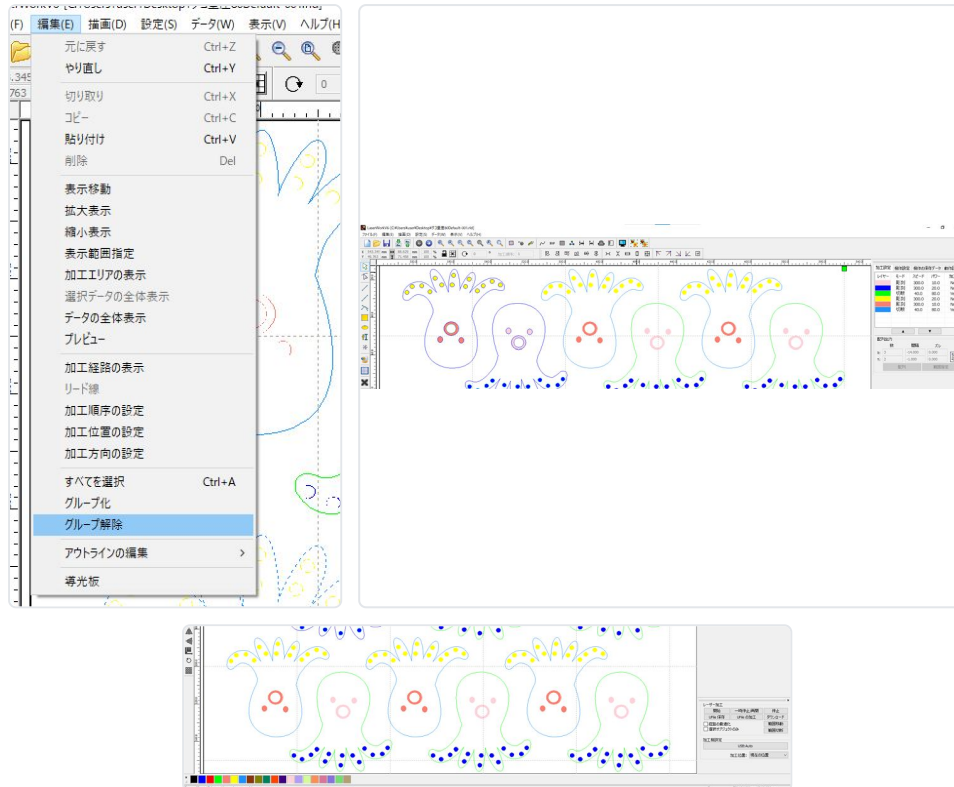
Settings for engraving

Settings for cutting



4. Engraving the Entire Surface

To engrave the entire surface layer by layer instead of engraving part by part, select the source data and ungroup it. The array setting is removed, and each data set is converted into an independent object.



Depending on the engraving area, engraving part by part may sometimes be faster; however, which setting is quicker depends on how the data is arrayed. Choose the processing route best suited to your job.

The data used in the settings above can be downloaded from:

https://www.laser-machine.com/LT-ST908/manual2/octopus_cut_and_engraving_data.rld