JSON File Definition

Applicable on: SVG Generator, G-Code Generator, STL Generator

MIDILLI Tools require a JSON file to operate. An example file is provided in the tool manuals, which you can modify to meet your specific needs. Below is a detailed explanation of the mandatory (indicated in bold) and optional properties and parameters. The text enclosed in square brackets [ ] can be replaced if it begins with *unique*; otherwise, you should choose from the available options (e.g., [uniquePartName]_[Side]).

To create your own JSON file, you can also use our online Visual Box Designer or textual JSON Creator.

This JSON is a simplified version of the full configuration we use internally. It allows you to quickly customize your design without diving into complex data structures, offering a streamlined approach to controlling your project.

Section	Property	Description	Parameter	Parameter description	Unit	Multiplicity
Generic		Specify generic properties			–	1
Generic	**width**	The width of the box* (on x-axis).	–		cm	1
Generic	**length**	The length of the box* (on y-axis).	–		cm	1
Generic	material_thickness	The thickness of the material.	–		mm	0-1
Generic	board_height_3d	The height of the box* (on z-axis).	–		mm	0-1

Section	Property	Description	Parameter	Parameter description	Unit	Multiplicity
Generic	outer_sizing	Whether to include material thickness in the calculations.	–		bool (true or false)	0-1
Generic	finger_joint	Whether to add finger (box) joints to the 4 wall corners so panels can be assembled without glue. Front/Back panels get protruding fingers, Left/Right panels get the matching slots.	–		bool (true or false)	0-1
Generic	finger_size	The width of a single finger. If not set, defaults to the material thickness. A warning is printed if it is smaller than the material thickness.	–		mm	0-1
Generic	finger_count	Number of fingers on each wall edge. If not set (or 0), it is calculated automatically from the edge length and finger size.	–		count	0-1

Section	Property	Description	Parameter	Parameter description	Unit	Multiplicity
Generic	finger_clearance	Extra clearance added to the slots so the fingers fit without sticking. Applied only to the slots that receive a finger (Left/Right); Front/Back notches stay at finger_size to keep the edge even. Default: 0.	–		mm	0-1
[uniquePartName]_[Side]		Initiate creation of [Side] side of the part [uniquePartName]. Side can be: Top, Bottom, Left, Right, Back, Front.			–	1-6
[uniquePartName]_[Side]	[uniqueComponentName]	A unique component name to create a hole or rectangular shape on the [uniquePartName] [Side].			–	0-*
[uniquePartName]_[Side]	[uniqueComponentName]	–	**location_x**	X position of center of the [uniqueComponentName] relative to the [uniquePartName] [Side].	cm	1

Section	Property	Description	Parameter	Parameter description	Unit	Multiplicity
[uniquePartName]_[Side]	[uniqueComponentName]	–	**location_y**	X position of center of the [uniqueComponentName] relative to the [uniquePartName] [Side].	cm	1
[uniquePartName]_[Side]	[uniqueComponentName]	–	**drill_diameter**	The diameter of the hole to open. Has priority over *drill_width* and *drill_length*. Set to 0 only to display text.	cm	1
[uniquePartName]_[Side]	[uniqueComponentName]	–	**drill_width**	The drill width of the rectangle to cut out. If *drill_diameter* is found, *drill_width* is ignored. Mandatory if *drill_diameter* is not used. Set to 0 only to display text.	cm	1
[uniquePartName]_[Side]	[uniqueComponentName]	–	**drill_length**	The drill length (y-axis) of the rectangle to cut out. If *drill_diameter* is found, *drill_length* is ignored. Mandatory if *drill_diameter* is not used. Set to 0 only to display text.	cm	1
[uniquePartName]_[Side]	[uniqueComponentName]	–	rotation	Clockwise rotation of the component (0-359). If *call_name* is set, text is also rotated around the component.	degree	0-1
[uniquePartName]_[Side]	[uniqueComponentName]	–	call_name	Text to assign to the component. Placed using *visible_length* and *visible_width* as margin. See *rotation* for more info.	text	0-1

Section	Property	Description	Parameter	Parameter description	Unit	Multiplicity
[uniquePartName]_[Side]	[uniqueComponentName]	–	silk_screen_font_size	Custom font size for the text in pixels (px).	px	0-1
[uniquePartName]_[Side]	[uniqueComponentName]	–	visible_diameter	If a recess is desired in the shape of a circle instead of a rectangle, this value must be specified. If this value is not found then *visible length* and *visible_width* values are used.	cm	0-1
[uniquePartName]_[Side]	[uniqueComponentName]	–	visible_length	If the visible area of the component is not the same as the drill size, *call_name* uses this parameter to adjust the font margins keep the text above the visible section. If not found, *drill_length* is used. This value is also used for the recess length of the component.	cm	0-1
[uniquePartName]_[Side]	[uniqueComponentName]	–	visible_width	If the visible area of the component is not the same as the drill size, *call_name* uses this parameter to keep the text horizontally centered with the component. If not found *drill_width* is used. This value is also used for the recess width of the component.	cm	0-1

** These values may change depending on outer or inner-sizing choice.* ***Bold font*** *represents a mandatory property.*

The text *[uniquePartName]* can be replaced with any name, brackets should be removed, e.g, MyPart

However, *[Side]* should be replaced with one of *Top, Bottom, Left, Right, Back, Front*. Note: each side may appear only once for a *[uniquePartName]* part, e.g., *MyPart_Top* or *MyPart_Left*. If any of the sides are missing it will not be created.

Note: Use dot (.) if working with decimal numbers to separate the integer part.

Revision #6
Created 2025-11-08 10:07:16 UTC by MIDILLI
Updated 2026-08-14 07:32:29 UTC by MIDILLI