



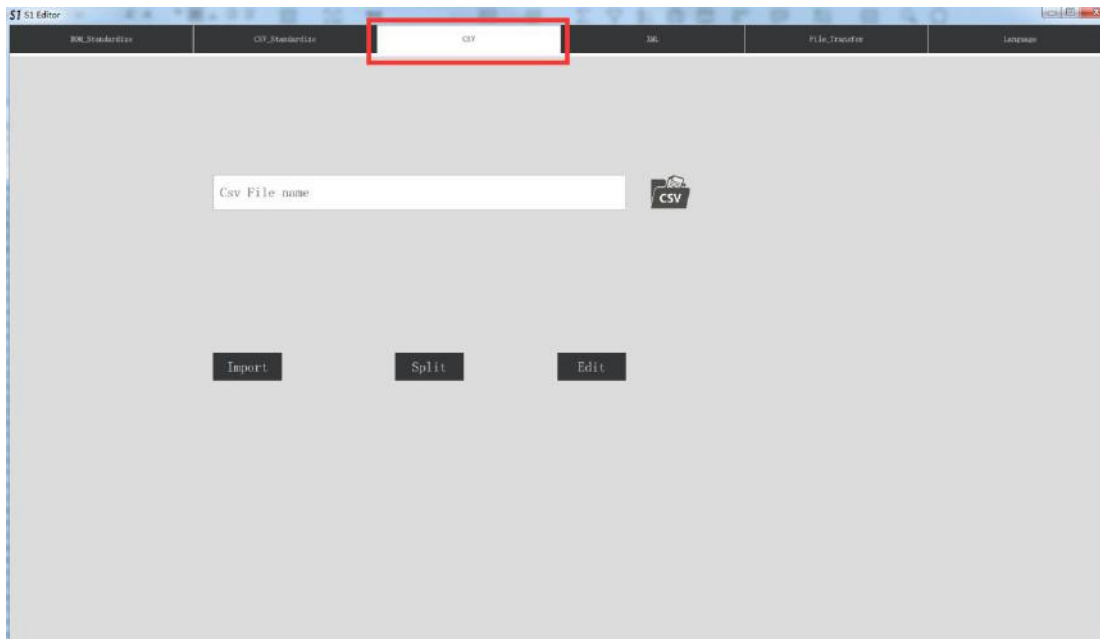
The user manual of CSV change to XML

Step 1: Please arrange a standard format of CSV which is required as shown below:

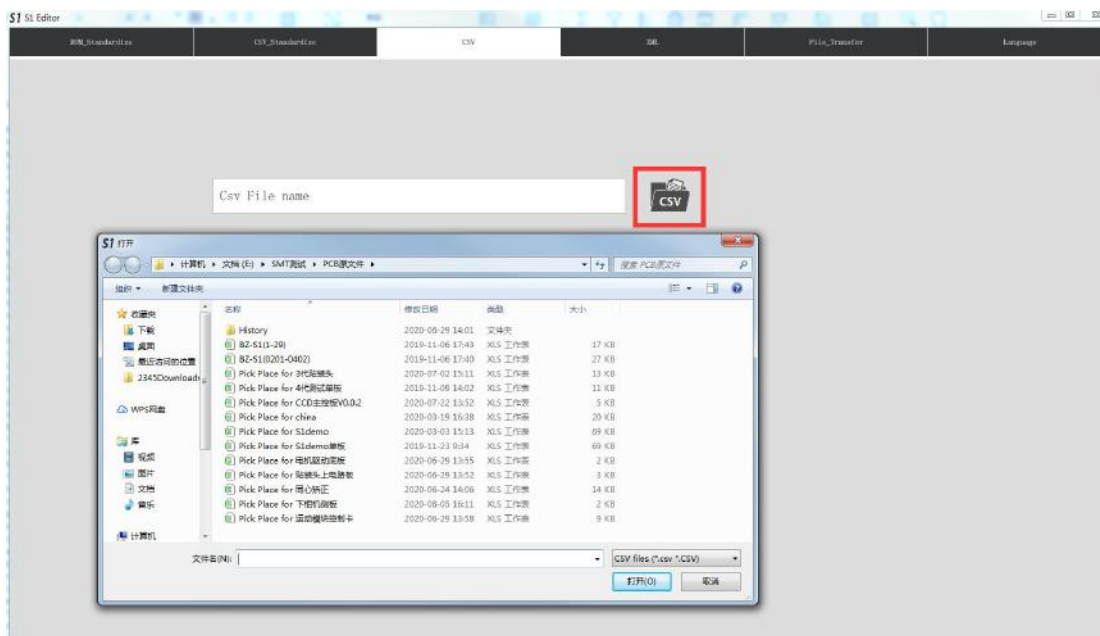
A	B	C	D	E	F	G	H	I	J	K	L
Designate	Footprint	Mid X	Mid Y	Ref X	Ref Y	Pad X	Pad Y	Layer	Rotation	Comment	
U4	S08	86.36mm	10.16mm	86.36mm	10.16mm	83.76mm	12.065mm	T	270	183	
U3	S08	76.2mm	10.16mm	76.2mm	10.16mm	73.6mm	12.065mm	T	270	183	
U2	S08	86.36mm	17.78mm	86.36mm	17.78mm	83.76mm	19.685mm	T	270	183	
U1	S08	76.2mm	17.78mm	76.2mm	17.78mm	73.6mm	19.685mm	T	270	183	
Q2	SOT23A	77.0307mm	34.8882mm	76.6949mm	35.2241mm	76.854mm	33.7215mm	T	45	9018	
Q1	SOT23A	74.835mm	30.734mm	74.835mm	30.734mm	76.01mm	29.784mm	T	90	9018	
Q8	SOT23A	77.0307mm	26.5797mm	76.6949mm	26.2439mm	78.1975mm	26.403mm	T	135	9018	
Q7	SOT23A	81.185mm	24.384mm	81.185mm	24.384mm	82.135mm	25.559mm	T	180	9018	
Q6	SOT23A	85.3393mm	26.5797mm	85.6751mm	26.2439mm	85.516mm	27.7465mm	T	225	9018	
Q5	SOT23A	87.535mm	30.734mm	87.535mm	30.734mm	86.36mm	31.684mm	T	270	9018	
Q4	SOT23A	85.3393mm	34.8882mm	85.6751mm	35.2241mm	84.1725mm	35.065mm	T	315	9018	
Q3	SOT23A	81.185mm	37.084mm	81.185mm	37.084mm	80.235mm	35.909mm	T	0	9018	
E2	TQFP48	53.34mm	14.732mm	53.34mm	14.732mm	49.265mm	17.482mm	T	0	IC	
E3	TQFP100	53.34mm	14.732mm	53.34mm	14.732mm	45.79mm	20.732mm	T	0	IC	
A1		201 20.32mm	18.631mm	20.32mm	18.631mm	20.32mm	18.9104mm	T	270	R	
B1		402 20.32mm	15.583mm	20.32mm	15.583mm	20.32mm	16.091mm	T	270	R	
C1		603 20.32mm	12.281mm	20.32mm	12.281mm	20.32mm	12.9922mm	T	270	R	
D1		805 20.32mm	8.471mm	20.32mm	8.471mm	20.32mm	9.36mm	T	270	R	
A2		201 21.3061mm	18.7608mm	21.3061mm	18.7608mm	21.2338mm	19.0307mm	T	285	R	
B2		402 22.095mm	15.8167mm	22.095mm	15.8167mm	21.9635mm	16.3074mm	T	285	R	
C2		603 22.9496mm	12.6272mm	22.9496mm	12.6272mm	22.7655mm	13.3142mm	T	285	R	
D2		805 23.9357mm	8.947mm	23.9357mm	8.947mm	23.7056mm	9.8057mm	T	285	R	
A3		201 22.225mm	19.1414mm	22.225mm	19.1414mm	22.0853mm	19.3834mm	T	300	R	
B3		402 23.749mm	16.5018mm	23.749mm	16.5018mm	23.495mm	16.9417mm	T	300	R	
C3		603 25.4mm	13.6422mm	25.4mm	13.6422mm	25.0444mm	14.2581mm	T	300	R	
D3		805 27.305mm	10.3426mm	27.305mm	10.3426mm	26.8605mm	11.1125mm	T	300	R	
A4		201 23.0141mm	19.7469mm	23.0141mm	19.7469mm	22.8165mm	19.9445mm	T	315	R	
B4		402 25.1693mm	17.5917mm	25.1693mm	17.5917mm	24.8101mm	17.9509mm	T	315	R	
C4		603 27.5042mm	15.2568mm	27.5042mm	15.2568mm	27.0013mm	15.7597mm	T	315	R	
D4		805 30.1983mm	12.5627mm	30.1983mm	12.5627mm	29.5697mm	13.1913mm	T	315	R	
A5		201 23.6196mm	20.536mm	23.6196mm	20.536mm	23.3776mm	20.6757mm	T	330	R	
B5		402 26.2592mm	19.012mm	26.2592mm	19.012mm	25.8193mm	19.266mm	T	330	R	
C5		603 29.1188mm	17.361mm	29.1188mm	17.361mm	28.5029mm	17.7166mm	T	330	R	
D5		805 32.4184mm	15.456mm	32.4184mm	15.456mm	31.6485mm	15.9005mm	T	330	R	
A6		201 24.0002mm	21.4549mm	24.0002mm	21.4549mm	23.7303mm	21.5272mm	T	345	R	
B6		402 26.9443mm	20.666mm	26.9443mm	20.666mm	26.4536mm	20.7975mm	T	345	R	
C6		603 30.1338mm	19.8114mm	30.1338mm	19.8114mm	29.4468mm	19.9955mm	T	345	R	
D6		805 33.814mm	18.8253mm	33.814mm	18.8253mm	32.9553mm	19.0554mm	T	345	R	
A7		201 24.13mm	22.441mm	24.13mm	22.441mm	23.8506mm	22.441mm	T	0	R	
B7		402 27.178mm	22.441mm	27.178mm	22.441mm	26.67mm	22.441mm	T	0	R	
C7		603 30.48mm	22.441mm	30.48mm	22.441mm	29.7688mm	22.441mm	T	0	R	
D7		805 34.29mm	22.441mm	34.29mm	22.441mm	33.401mm	22.441mm	T	0	R	



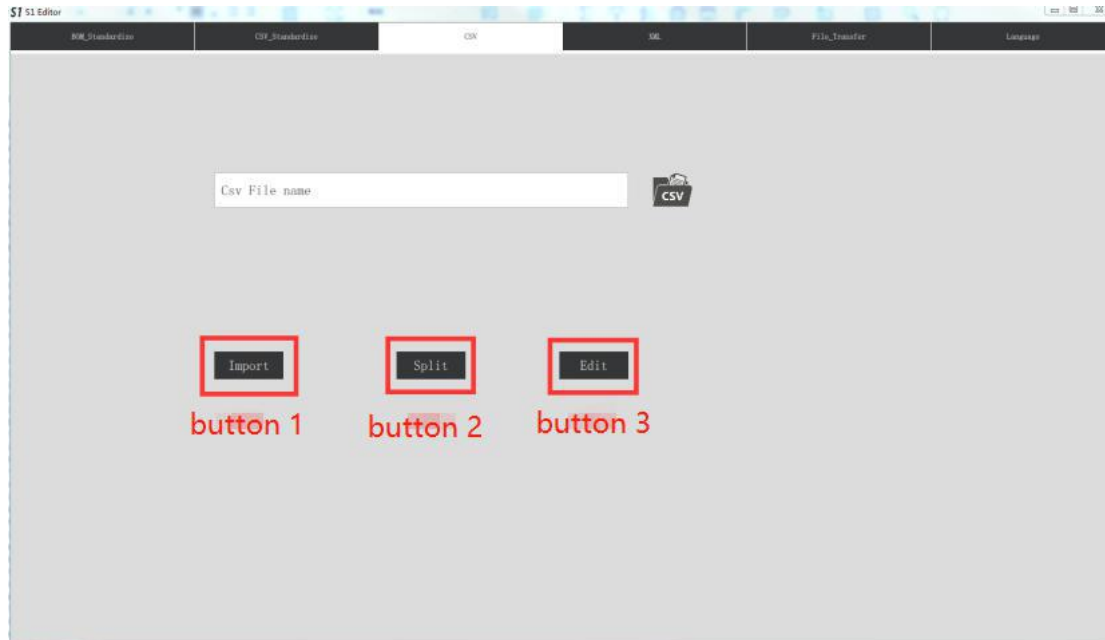
Step 2: Open the offline programming software and select the CSV option. As shown below:



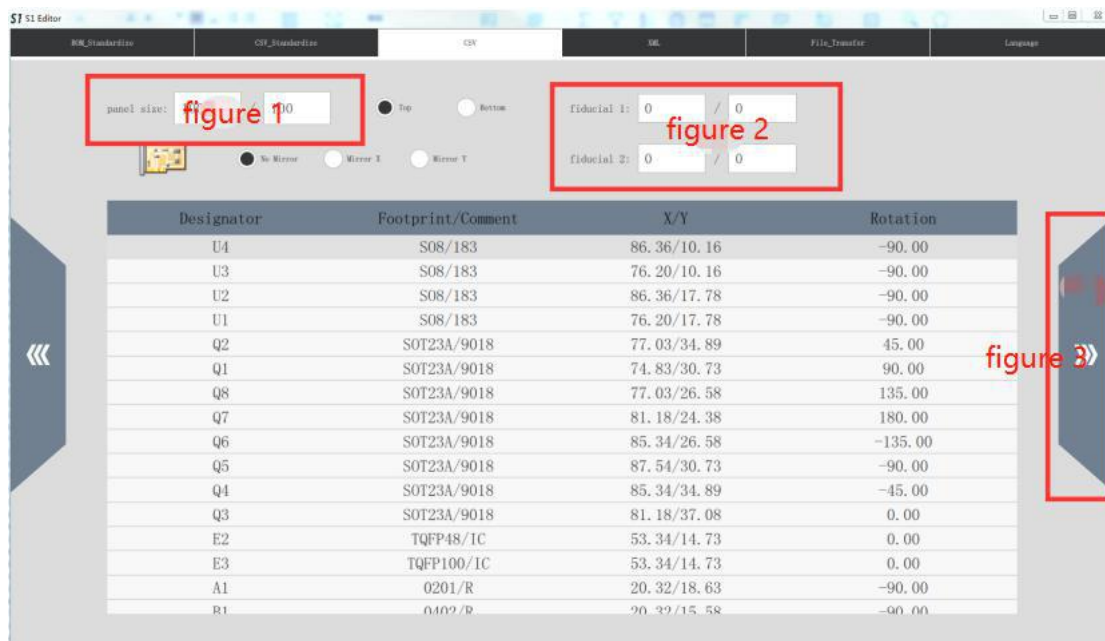
Step 3: Click on the CSV file to select the target file



Step 4: Click button 1 to import. Button 2 is used to divide the file into multiple parts when there are more than 58 types of components, and button 3 is used in the case of secondary editing of CSV files.



Step 5: After clicking Import CSV file, the following dialog box pops up. Enter the size of the splicing board in Figure 1 (If it is a single-board PCB, enter the size of the single board). Enter the fiducial point coordinates of the PCB in Figure 2. Click the button in Figure 3 to enter the next step.



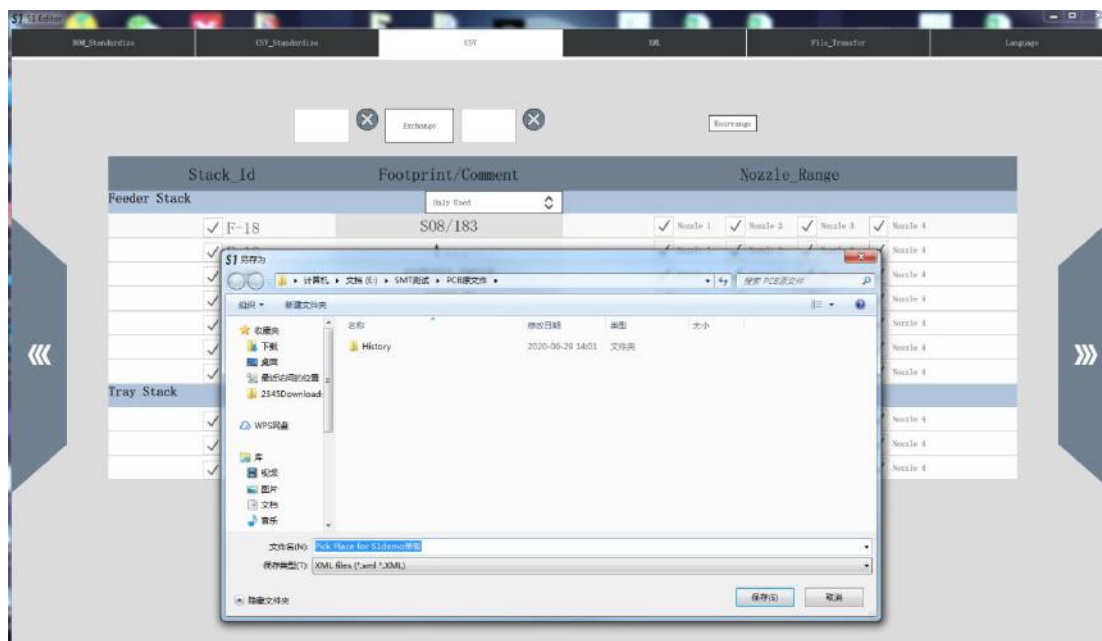
Step 6: Edit and confirm the feeder size, feed rate, component size (Length, Width, Thickness) and nozzle range

Footprint	Feeder Size	Feed Rate	Length	Width	Thickness	Nozzle Range
0201	8	2	0.6	0.3	0.23	✓ 1 ✓ 2 ✓ 3 ✓ 4
0402	8	2	1.0	0.5	0.3	✓ 1 ✓ 2 ✓ 3 ✓ 4
0603	8	4	1.6	0.8	0.4	✓ 1 ✓ 2 ✓ 3 ✓ 4
0805	8	4	2.0	1.25	0.5	✓ 1 ✓ 2 ✓ 3 ✓ 4
BGA90	0	0	0	0	0	✓ 1 ✓ 2 ✓ 3 ✓ 4
S08	12	8	5	4	2	✓ 1 ✓ 2 ✓ 3 ✓ 4
SOT23A	8	4	1.3	2.9	1	✓ 1 ✓ 2 ✓ 3 ✓ 4
TQFP100	0	0	0	0	0	✓ 1 ✓ 2 ✓ 3 ✓ 4
TQFP48	0	0	0	0	0	✓ 1 ✓ 2 ✓ 3 ✓ 4

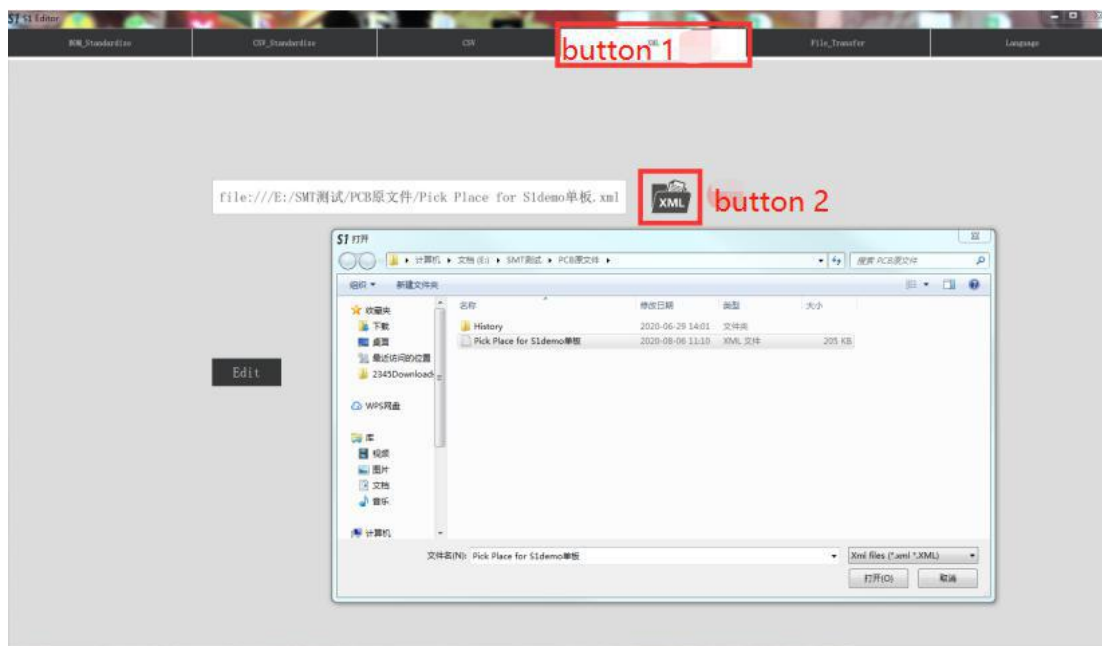
Step 7: Edit and confirm the order of the stack and the range of the nozzle

Stack Id	Footprint/Comment	Nozzle Range
Feeder Stack		
✓ F-18	S08/183	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
✓ F-19	↑ ...	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
✓ F-20	SOT23A/9018	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
✓ F-21	0201/R	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
✓ F-22	0402/R	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
✓ F-23	0603/R	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
✓ F-24	0805/R	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
Tray Stack		
✓ T-159	TQFP48/IC	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
✓ T-160	TQFP100/IC	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4
✓ T-161	BGA90/U	✓ Nozzle 1 ✓ Nozzle 2 ✓ Nozzle 3 ✓ Nozzle 4

Step 8: Click "Next" to save as an XML file



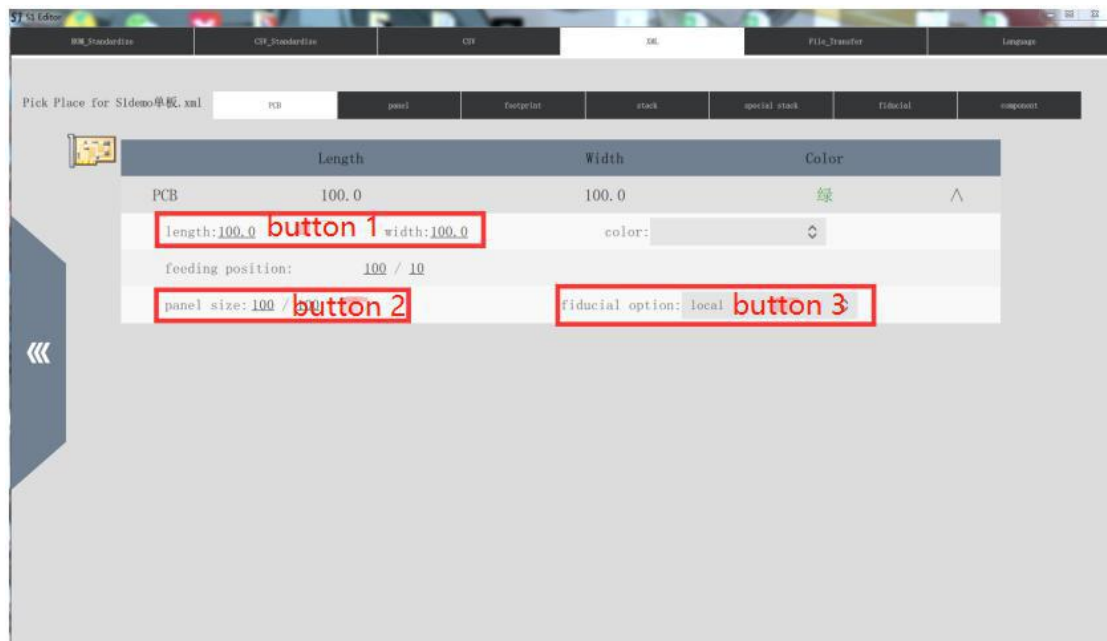
Step 9: Click button 1, then click button 2 to select the target file.



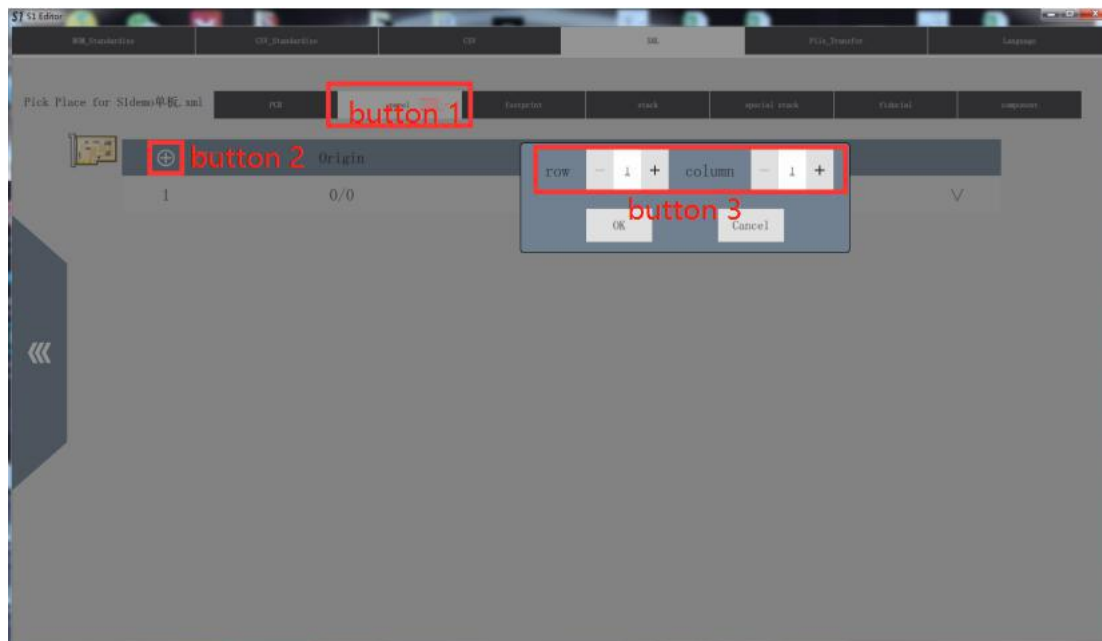
Step 10: Click the "edit" button



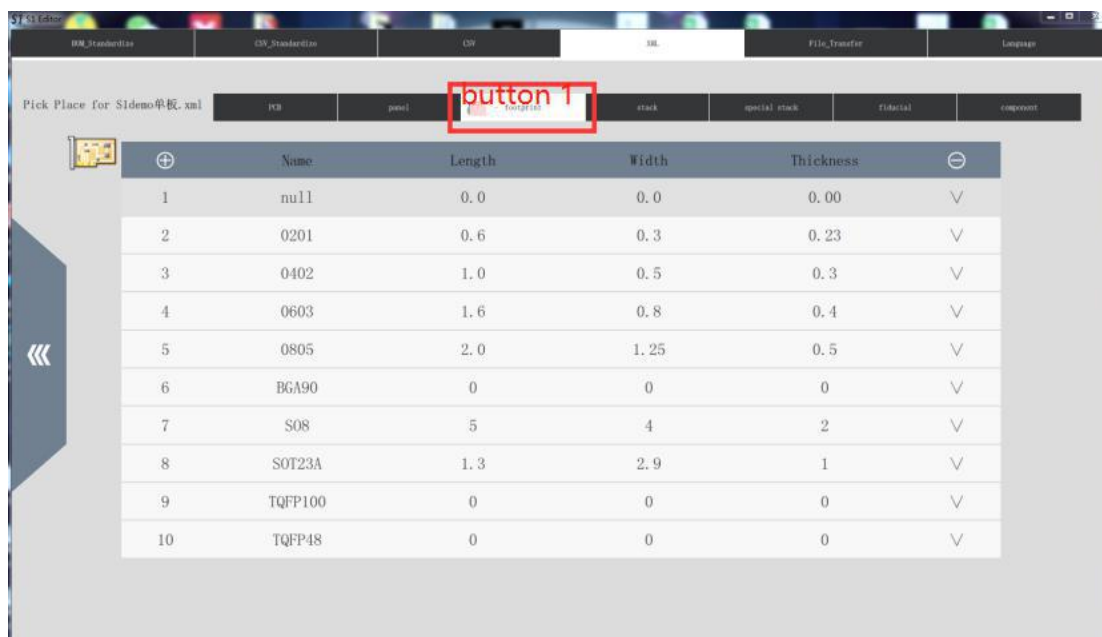
Step 11: Enter the total length and width of the splicing PCB in Figure 1, and the length and width of the single board PCB in Figure 2. If it is a single board PCB, please enter the same length and width as the splicing board PCB. Figure 3 selects the fiducial option "local".



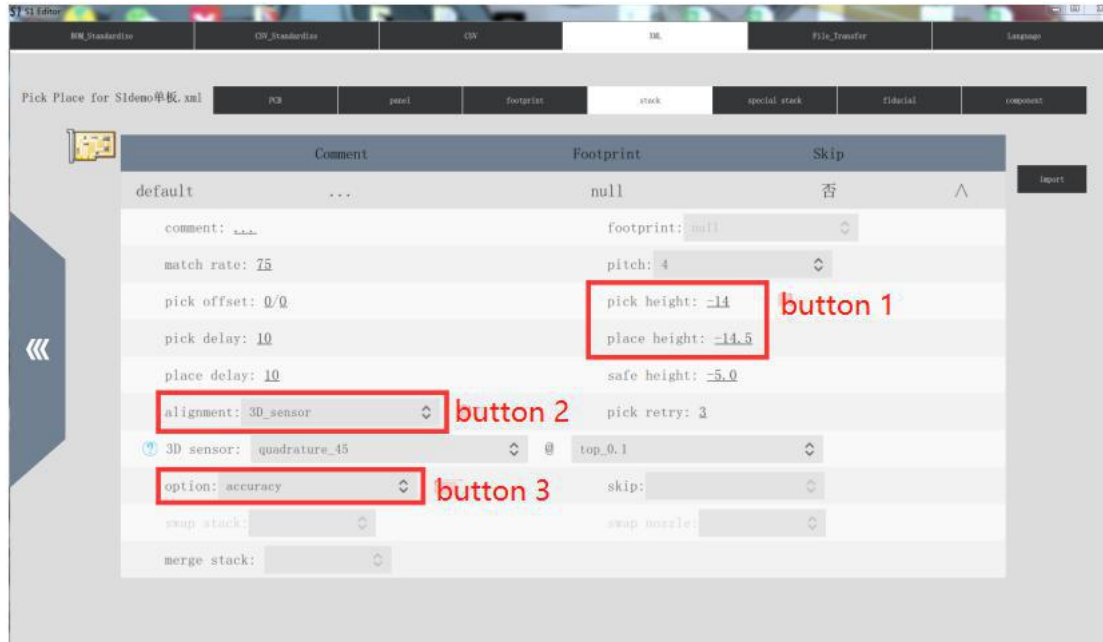
Step 12: If it is a single board PCB, please ignore this step. If it is a splicing PCB, please click the figure 1 option, then click the plus button in figure 2 and enter the number of rows and columns of the splicing PCB, and finally click OK.



Step 13: Click to confirm the footprint information



Step 14: Click Stack, in Figure 1, enter the picking height -14 and the place height -14.5. Select "alignment:3D-sensor" as the calibration method, and select "option:accuracy" mode as the strategy.



Step 15: Click to exit and save



Step 16: Copy the file to the Tronstol A1 machine. The first step is to enter the file list and select Stack to adjust the "pick height", and the second step is to enter the Fiducial screenshot datum point.