EAGLE IDF Exporter Instructions

1. Open .brd file in the EAGLE application. Run EagleIDFExporter.ulp.

EAGLE IDF Export	
Instructions	
 Click "Generate IDF File 	s" button
 Select output directory. Load board (.emn) and automation tool such as 	efault Is board location. omponent libary (.emp) files to CAD software or use a 3D Simplified Solutions Inc. IDF-to-3D
 Select output directory. Load board (.emn) and automation tool such as <u>CADSoft</u> I <u>Help</u> 	efault Is board location. omponent libary (.emp) files to CAD software or use a 3D <u>Simplified Solutions Inc. IDF-to-3D</u> (ULP Version: 0.10 , OS: Mac/Linu

Update "Layer for wires" and "Board Thickness" options if you do not want to use the default values.

2. Click "Generate IDF Files." You will prompted to select the directory to write the .emn and .emp IDF files. IDF files are all written out in MM units. EAGLE will handle the conversion from other units to MM if the .brd file is not in MM units.

Once the files are written you will receive a confirmation messages for the files written.

000	
Writing IDF Files: /Users/i	/Desktop/Arduino_MEGA2560_ref.emn
OK	

Component outlines in the IDF file will be generated by establishing a bounding box. The bounding box considers <u>all</u> layers of the package which can result in a worst case keep out box. The box considers all contacts, wires, circles, polygons, and rectangle outlines in the package. Text elements are not considered.



In the case of non-rectangular components a bounding box will be fit to the maximum horizontal and vertical values.



3. After writing files the ULP will also show you a table with the packages written out to the files. A default height value is given for the output heights of the packages and colored in yellow. If you set a custom height the value will be shown in white. All heights are in MM.

	Exporter			
DF Files written	successfully to /Users/	r b/Deskt	top	
The table below s ndicates an extru- value is set if a va attribute values a can vary by place component in the	shows the components usion height used in ge alue is not set and is in nd can be updated in t ement. This may cause file.	s placed in the emn/e enerating the compon adicated in yellow. The the board file. Heights a unexpected behavio	mp files. ents on t e values s are set or if you o	The height field in the table he 3D model. A default are defined as HEIGHT at the element level and only update a single
Ref. ID	Alt. Name	Package Name	Height	
ADCH	1X08	1X08	1.0	
ADCL	1X08	1X08	1.0	
C1	C0603-ROUND	C0603-ROUND	1.0	
C2	C0603-ROUND	C0603-ROUND	1.0	
C3	C0603-ROUND	C0603-ROUND	1.0	
C4	C0603-ROUND	C0603-ROUND	1.0	
C5	C0603-ROUND	C0603-ROUND	1.0	
C6	C0603-ROUND	C0603-ROUND	1.0	
C7	C0603-ROUND	C0603-ROUND	1.0	
C8	C0603	C0603	1.0	
C9	C0603-ROUND	C0603-ROUND	1.0	
C10	C0603-ROUND	C0603-ROUND	1.0	
C11	C0603	C0603	1.0	
	DOGGO DOLIND	DOGGO DOLIND	4.0	<u> </u>
040				

To set custom heights select the Attribute Tool and then click on a package. Create a new attributed named HEIGHT and set the value the height you would like to extrude the package to.

	Name	Value	Display	
	HEIGHT	10	off	
Arduino I Beference Designs AF BEGARDING PRCOUCTS, Arduino may make the rely on the absence these for future defi				

Heights are set at the individual package instance and will not be shared across multiple instances of the package on the board. For example in the below board the package U\$3 has a user set height of 10 while other instances of the FIDUCIAL-MOUNT package are using the default value of 1.0.

12	FDIN340F	301-23	1.0
ТХ	CHIP-LED0805	CHIP-LED0805	1.0
U\$2	FIDUCIA-MOUNT	FIDUCIA-MOUNT	1.0
U\$3	FIDUCIA-MOUNT	FIDUCIA-MOUNT	10
U\$4	FIDUCIA-MOUNT	FIDUCIA-MOUNT	1.0
U\$5	FIDUCIA-MOUNT	FIDUCIA-MOUNT	1.0
UBOOT	UBOOT_SJ	SJ	1.0
X1	DC21MMX	DC-21MM	1.0

When one of the components has a distinct height value it will be written to the .emn/emp files with a unique naming convention that includes the package name "_" height value. For example "FIDUCIA-MOUNT_10" in the above board. This may result in unexpected values if you are using local 3D model names to load in detailed components as the name will not match the model files due to the unique height value being set.