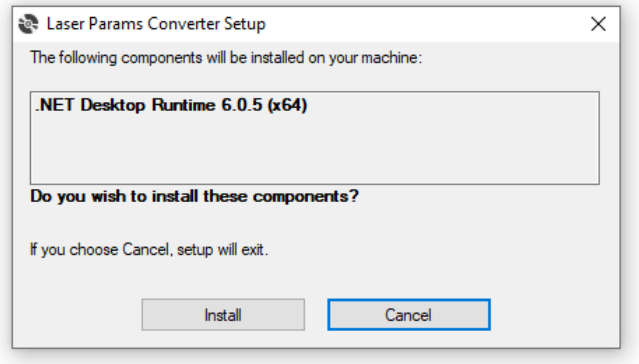
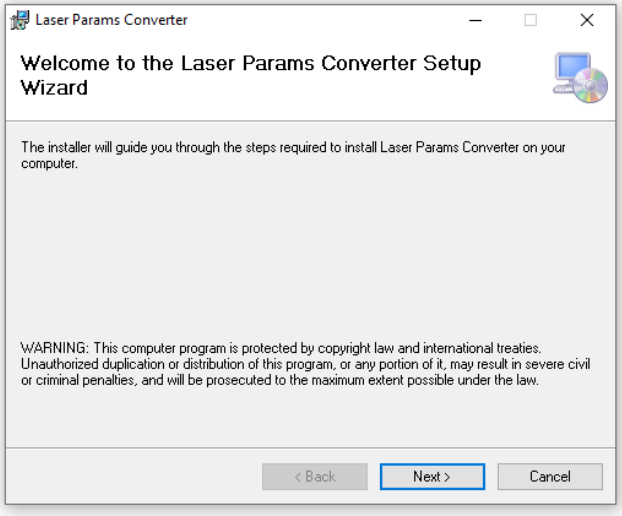
Laser Params Converter
Getting Started

Installation

Copy the installation files into a folder and run **setup.exe.** The software requires the Microsoft .NET 6.0 runtime to be installed. If your computer does not have the required runtime installed, you will be presented with a screen to install the prerequisite. Just click **Install** to continue. Follow the steps to complete the installation.

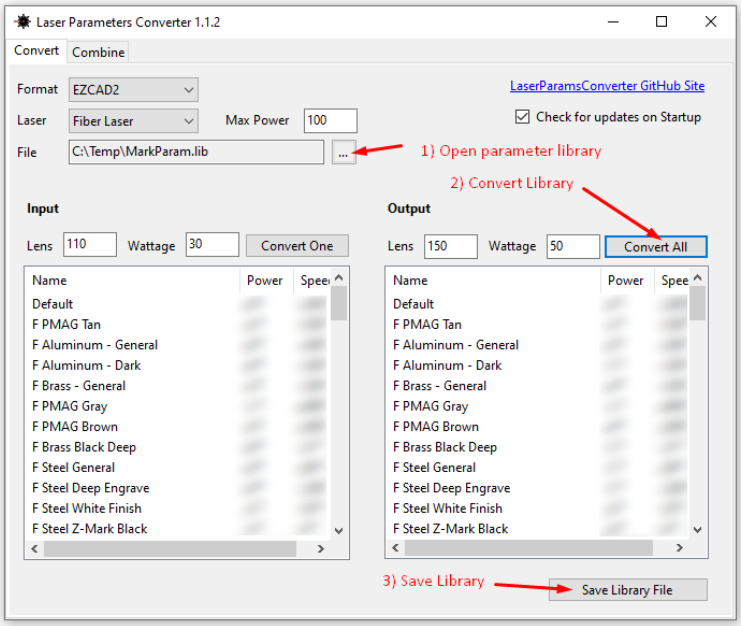




Using Laser Params Converter

The basic operation of Laser Params Converter (LPC) consists of three steps:

1. Open a library file
2. Convert the library
3. Save the converted library



Note: The power and speed values in the screenshot above have been obscured to protect the proprietary status of the library.

Library Format
Select either **EZCAD2** or **LightBurn**. LPC has only been tested with EZCAD2. It *may* work with EZCAD3 parameter libraries, but that is untested.

Laser Type
Select either **Fiber Laser** or **CO2 Gantry** laser type. The laser type selection will set default **Max Power** values. Selecting CO2 laser will disable **Lens** size parameters.

Conversion Parameters

LPC will convert the library using the following parameters. Make sure these values are correct before you convert:

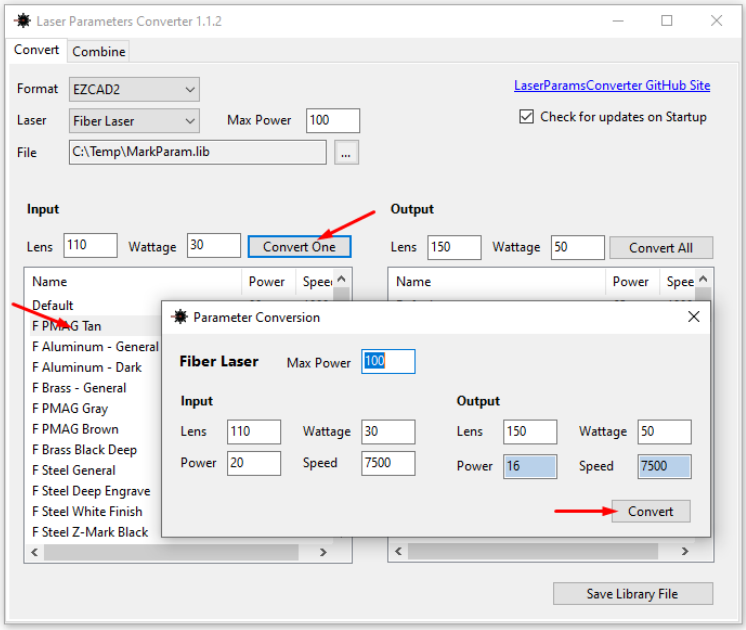
Max Power
Maximum power percentage for the laser. For CO2 lasers you should leave this at 90% as it is not recommended to run a CO2 at full power for an extended time. It is safe to run Fiber lasers at 100% power.

Input Lens and Wattage
The lens size (for fiber) and wattage of the library being converted. This should match the laser used for the library being converted.

Output Lens and Wattage
The lens size and wattage of the laser the library is being converted to. Set this to match the laser the library is being converted for.

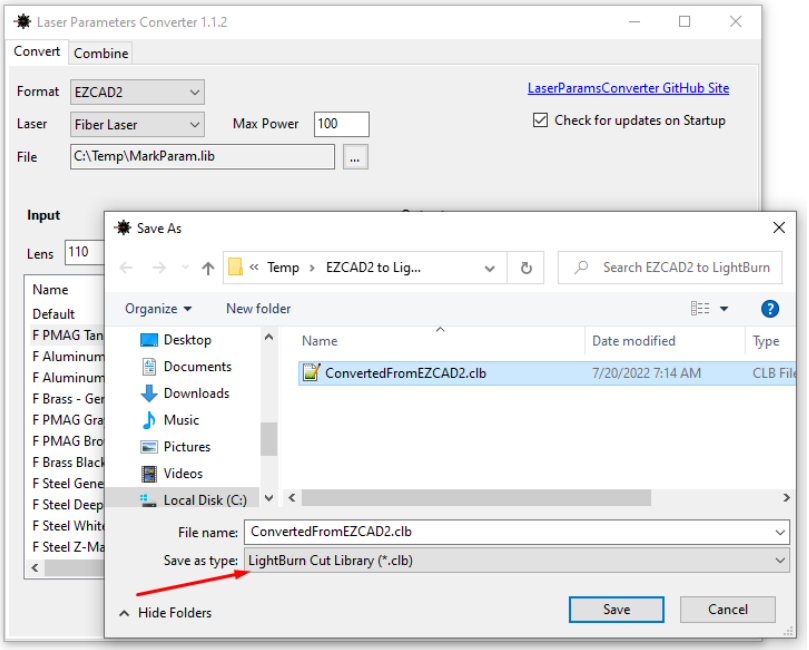
Conversion Calculator

Click **Convert One** to use the conversion calculator to perform a manual conversion for a single parameter. If you have an input parameter selected on the left, the calculator will default to those values for Power and Speed. You can enter any parameter values you like into this calculator and click **Convert** to see the output Power and Speed.



Converting an EZCAD2 library to LightBurn

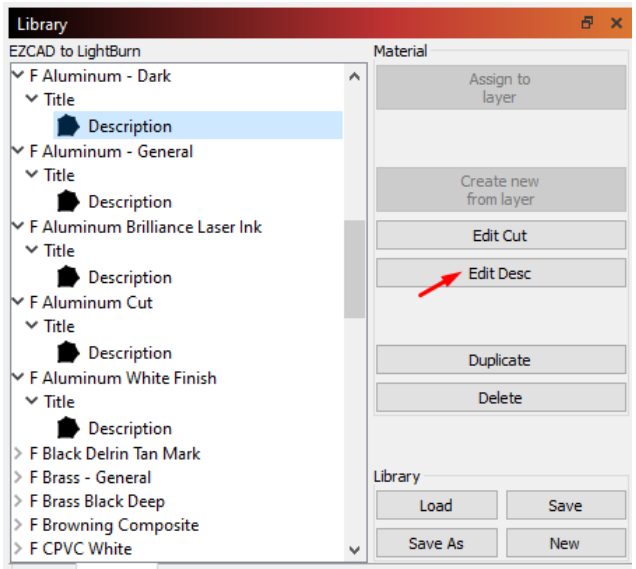
LPC can convert a library in EZCAD2 format into LightBurn format. Just select the Save as type to **LightBurn Cut Library (*.clb)** and then save. The converted library can then be opened in LightBurn. The converted library has been tested in LightBurn version 1.2, which has full support for Gantry lasers that use the EZCAD2 control board.

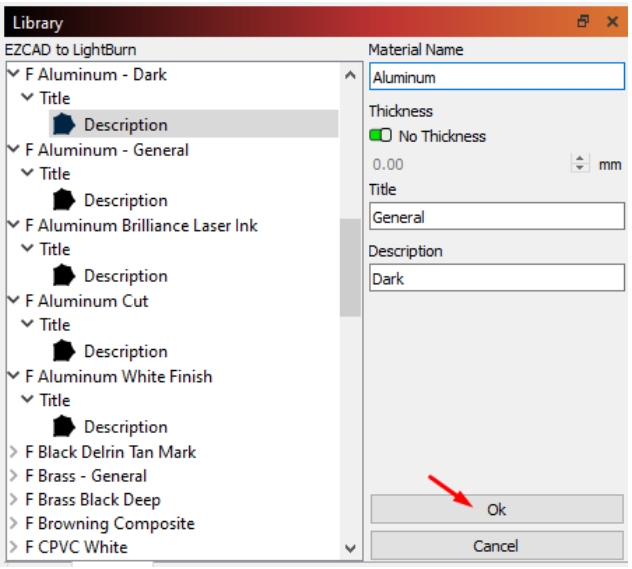


Organizing a converted EZCAD2 library in LightBurn

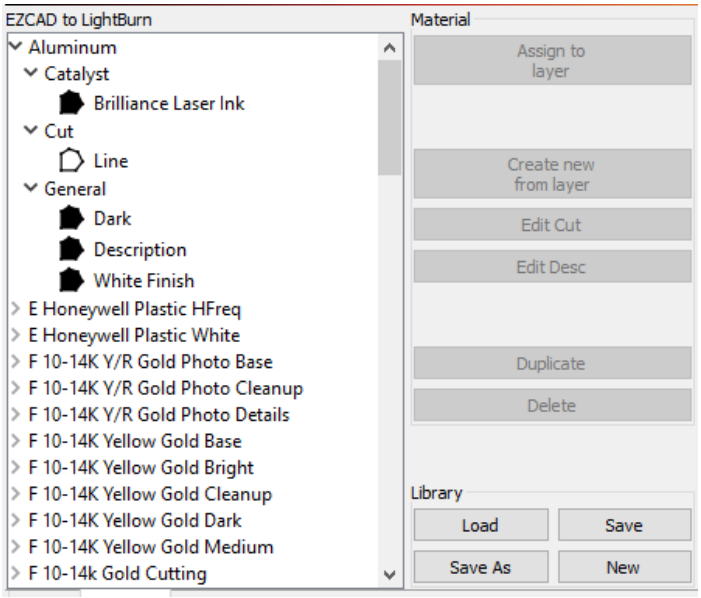
EZCAD2 has a **flat** parameter library, which is displayed as a simple list. Different parameters for the same material are usually named in a similar manner so that the parameters are grouped and sorted together. LightBurn uses a more advanced **hierarchical** layout that is represented by a tree structure. To take advantage of the LightBurn organizational structure, you will need to edit your converted EZCAD2 library.

The LightBurn library is organized into three levels. The first level is the **Material** name, the second level is the **Title** (or Thickness for cutting material with CO2 lasers), and the third level is the **Description** of your parameter settings. The EZCAD2 library only has a single name for each parameter, so once imported into LightBurn those levels will have default values of **Title** and **Description**.



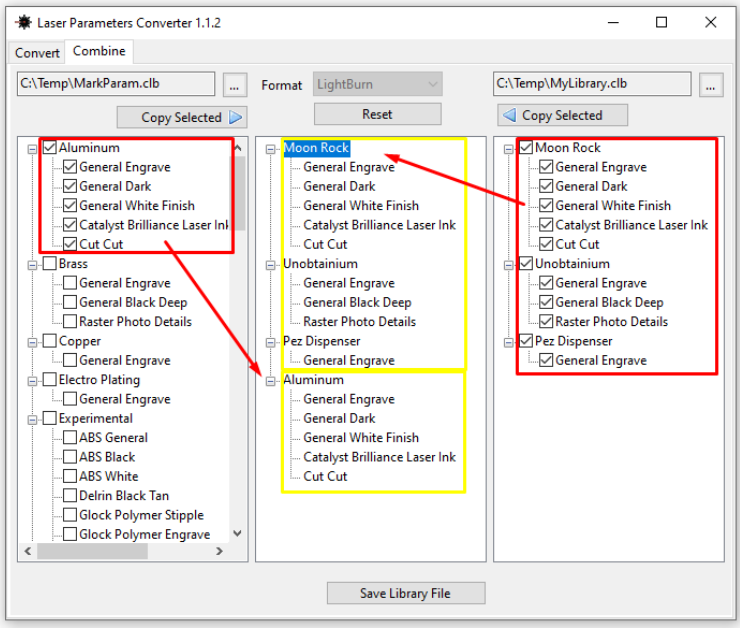


To organize and group your parameters for LightBurn, click on each parameter at the third level and click the **Edit Desc** button. Now enter meaningful values for **Material Name** (1st Level), **Title** (2nd Level), and **Description** (3rd Level). LightBurn will automatically group items with the same Material and Title values. Just play around with the names here and you will get the hang of it. In the screenshot below you can see the results or organizing all **Aluminum** parameters into a logical organization.



Combine / Extract Libraries

The Combine feature provides for advanced library management features that are not available in the EZCAD or LightBurn products. This feature allows you to combine parameters from multiple libraries into a single, new library. You can also use this feature to extract one or more parameters and save them to their own library, which could be shared with others.

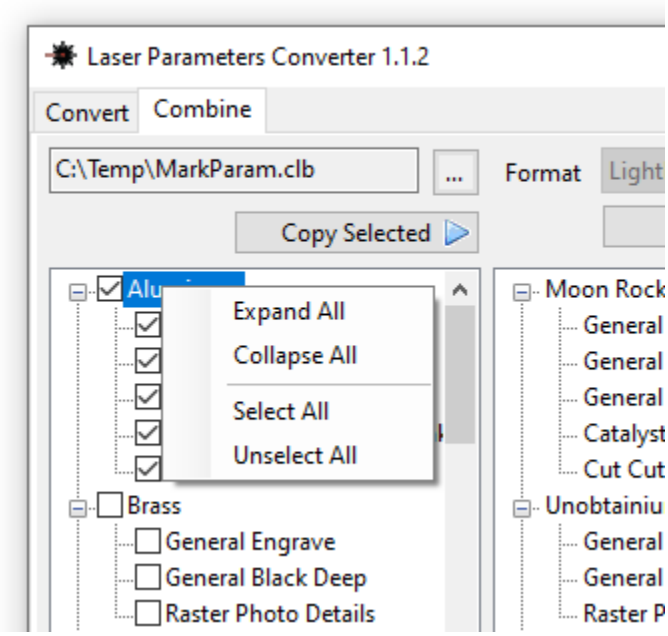


Note: You cannot mix parameters of different formats (EZCAD or LightBurn) and you should take care that any libraries that you combine are already converted for the same Wattage laser and Lens size.

You may open one or more libraries, check off the parameters you want to include, and then click the **Copy Selected** button to copy them to the output list. You may open as many libraries as you wish to select parameters. When satisfied with your new library. Click **Save Library File** to save the new file.

At any time, press **Reset** to start over.

There is a **right-click** context menu on each list which will allow you to quickly **Expand/Collapse** the tree or to **Select/Unselect** all parameters. Clicking a parent material in a LightBurn library will Select/Unselect all child parameters under it.



Other Features

Save as CSV
Laser Parameters Converter also has the ability to save a converted library in Excel CSV (*.csv) format. This is useful if you would like to view your library in Excel.

Check for Updates
If you check the **Check for updates on Startup** option on the main screen, the program will check the LaserParamsConverter GitHub site on startup for new releases. If a new release is available, you will be notified with a link to go to the download page on the web. If upgrading, please be sure to close your current version prior to running the install.