

# LASER PRODUCTS\*

industries



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## 1.0 JOBSITE SETUP

### 1.1 LT-2D3D Setup (Purchased Pre-February, 2016)

1. When you walk into the job site, turn on the tablet and set up the tripod while the tablet is booting.
2. Place the laser on the tripod and make sure it is in plane with the countertops.
3. Plug in the USB cable into the tablet after Windows has fully started.
4. Once the USB cable is connected, press the power button on the side of the laser.
5. After the laser shows a green LED on the side next to Power, start the program by double clicking on it on the desktop. You should wait at least 5 seconds between turning on the laser and opening the program to allow the laser enough time to turn on and start the Bluetooth Service.
6. You will be prompted with a window that tells you to make sure the laser is locked before proceeding.
7. You will see in the top bar **"LT Connected"**
  - a. If the top bar shows **"LT Disconnected"**
    - i. Exit the program.
    - ii. Unplug the USB cable and plug it back in.
    - iii. Make sure the laser is on indicated by the green light on the side of the laser next to Power.
    - iv. Start the program by double clicking on program on the desktop.
    - v. If it is still not connected, check for any pending Windows Updates that need to be installed.
8. After connected, press Laser On or Start New Line and you can begin templating.

### 1.2 LT-2D3D Jobsite Setup (Purchased Post-February, 2016, marked R4.1 on the bottom label)

1. When you walk into the job site, turn on the tablet and set up the tripod while the tablet is booting.
2. Place the laser on the tripod.
3. Plug in the USB cable into the tablet after Windows has fully started.
4. Once the USB cable is connected, press the power button on the side of the laser.
5. After the laser shows a green LED on the side below Power, start the program by double clicking on it on the desktop. You should wait at least 5 seconds between turning on the laser and opening the program to allow the laser enough time to turn on and start the Bluetooth Service.
6. You will be prompted with a window that tells you to make sure the laser is locked before proceeding.
7. You will see in the top bar **"LT Connected"**
  - a. If the top bar shows **"LT Disconnected"**
    - i. Exit the program.
    - ii. Unplug the USB cable and plug it back in.
    - iii. Make sure the laser is on indicated by the green light on the side of the laser below Power.
    - iv. Start the program by double clicking on program on the desktop.
    - v. If it is still not connected, check for any pending Windows Updates that need to be installed.
8. Set the plane you are going to measure by capture three points.
  - a. You will be prompted to set a plane before capturing any points with the laser. If you are not going to template immediately, you can ignore the following steps and use other functions.
  - b. Points should be at least 12" apart and should not be in a straight line.
  - c. Clicking the **"Show Example"** button in the software will bring up an image showing where to position the three points. The points only need to generally be in a left, right, back/top orientation to one another
9. After connected, press Laser On or Start New Line and you can begin templating.

## 2.0 USING THE LASER TEMPLATOR SOFTWARE

### File Menu

The **File** menu is where you will find the most basic actions that will be performed when starting a new job, saving a job, opening previous jobs and adding information of a job.

### 2.1 Help

The **Help** menu is where you will find a comprehensive source of information on the Laser Templator software. Please use this resource if you have any questions about the software. If your question is not answered here, contact us at our main office. We are open Monday through Thursday, 7:00 am – 5 pm and Friday, 7:00 am through 4:00 pm, Central Standard Time.

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#### 2.1.1 Check for Updates

Every time you open our software, if there is an active internet connection, it will check to see if there are updates available for it. However, if none are found because you have a slower connection, you can also use this function to check as well.

#### 2.1.2 Import/Export Settings

We allow you to import and export your program settings so easily set up both your tablet and your office computer (second seat) the same way.

##### To Export:

1. Click the browse button (...)
2. Type in a file name
3. Choose the location you want to save it to and press Save
4. Press Export

##### To Import:

1. Click the browse button (...)
2. Select the file you want to import
3. Click Open
4. Click Import

#### 2.1.3 Manual

This is the **Manual** you are looking at right now. It has been compiled up to version 2.1.

#### 2.1.4 About

Located in the **About** section, you will be presented with current information about the software version you are currently running as well as copyright information on our software.

### 2.1.5 View Changes

This section of the **Help** menu simply lists what is changed from the previous version. New features, bug fixes and other general information on new releases are all shown.

### 2.1.6 Tips

This section of the **Help** menu offers tips for the user of the laser. As tips are submitted by our customers, they will be added to this menu. If you wish to submit a tip, please email [info@laserproductsus.com](mailto:info@laserproductsus.com) with the subject of Tip.

### 2.1.7 Setup Device

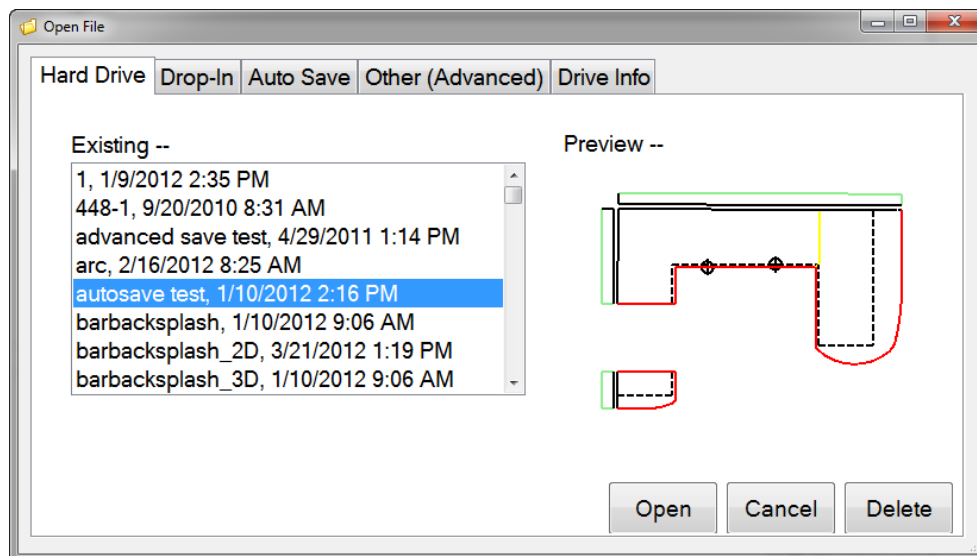
Setup Device allows you to choose what COM port both the Laser and Encoder are communicating to the tablet PC on. This will not show up on non-Bluetooth versions of the laser and will be already set up when your laser arrives. If we send you a loaner tablet PC while yours is being repaired, this will need to be set up. See Section **4.0 Bluetooth Pairing**.

## 2.2 New

Selecting **New** will give you a blank canvas to start a new job.

## 2.3 Open

In the **Open** section, you will be presented with 4 different options to opening files. You can open files from the **Hard Drive**, **Drop-Ins**, **Auto Save** files and you can use an **Advanced** open menu.



### 2.3.1 Hard Drive

Open Opening files from the **Hard Drive** will show you all of the templated jobs you have saved on the hard drive of the tablet/computer. These templates are located in the **My Documents** folder of the tablet/computer.

### 2.3.2 Drop-In

If you create a **Drop-In** like a special corner, bump out or a sink bowl and you want to save it for future use, this is where it will be located. The templates that are located here are the ones you will see when you choose the **Drop-In** feature.



2.3.3     **Auto Save**

An **Auto Save** occurs while the tablet is sitting idle and more frequently when being used. This is done as a backup if you make a mistake and need to go back to a previous version of the template or you forget to save your job. If you finish a job and forget to save the template, you can look in the **Auto Save** area and open the most recent one.

You should not rely on these files because if you close the program out before an auto save occurs, only the most recent action made before the previous auto save will be saved and be available. Anything made after the last auto save will not be recorded.

2.3.4     **Other (Advanced)**

The **Other (Advanced)** option for opening jobs should be used if you do not save your templates in the **My Documents** folder or on your SD memory card. By using this option, you can open up and job files that are located anywhere on the tablet.

2.3.5     **Drive Info**

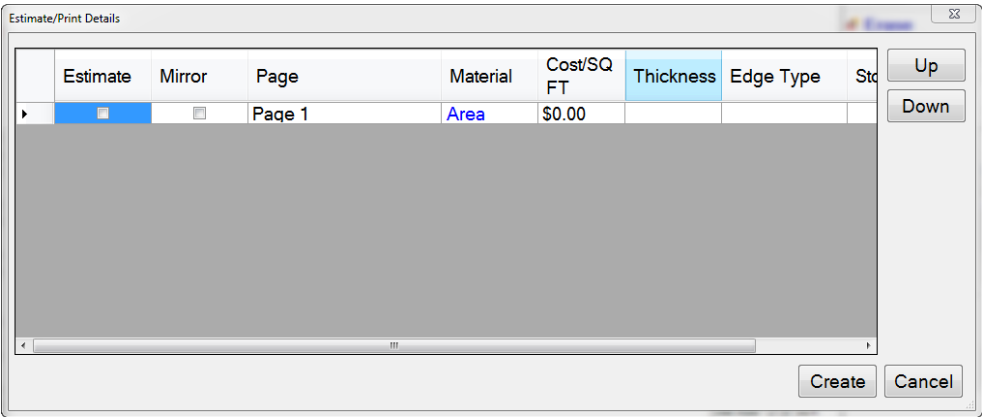
Drive Info simply shows you how much memory is currently being used and is available on your system.

2.4     **Import/Export**

We offer the ability to import and export data from our software in a multitude of formats.

2.4.1     **Estimate**

Using the **Estimate** function will open up an Excel based spreadsheet showing you common estimate values like sq. footage, perimeter, costs based on different edge treatments as well as a total cost of the job. These numbers can be used for customer quotes or just for internal estimations of cost per job.



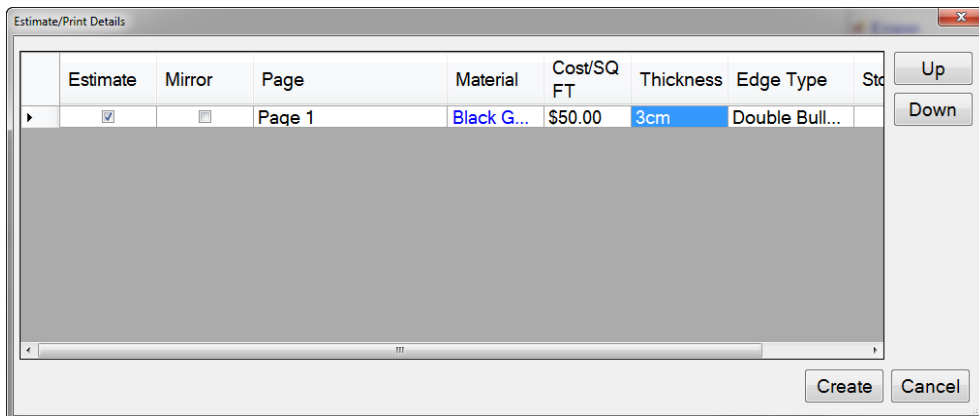
First you will see the **Estimate/Print Details** page where you can set up your **Estimate**. You can choose to print the basic **Estimate** or you can add the **Summary, Estimate** and **Pages**.

|    | A                          | B                    | C    | D       | E          |
|----|----------------------------|----------------------|------|---------|------------|
| 1  | Name:                      | John Doe             |      |         |            |
| 2  | Addr:                      | 1335 Lakeside Dr.    |      |         |            |
| 3  |                            | Romeoville, IL 60446 |      |         |            |
| 4  | -----                      |                      |      |         |            |
| 5  |                            |                      |      | Unit    | Ext'd      |
| 6  | Item                       | Quan                 | Unit | Price   | Price      |
| 7  | Area:                      | 5.89                 | sf   | \$25.00 | \$147.26   |
| 8  | Perimeter:                 | 89.71                | lf   | \$1.00  | \$89.71    |
| 9  | Double Bullnose (Red)      | 34.66                | lf   | \$35.00 | \$1,213.10 |
| 10 | Cabinet Bases/Walls (Blue) | 2.25                 | lf   | \$25.00 | \$56.25    |
| 11 | Rough Cut (Black)          | 52.8                 | lf   | \$55.00 | \$2,903.90 |
| 12 | Total                      |                      |      |         | \$4,410.22 |

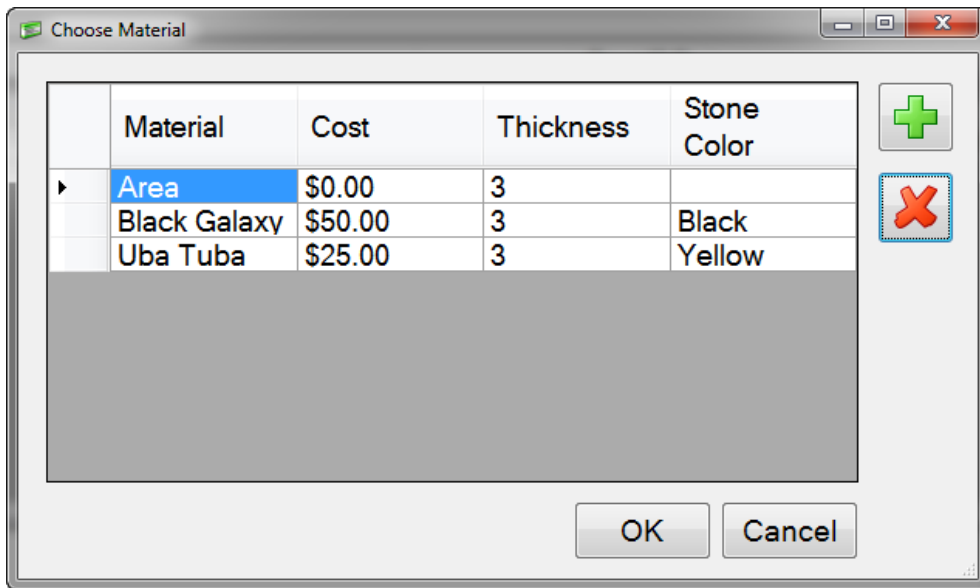
A .csv estimate file will be saved to the job folder where the templated .dxf file is as well as the photographs of the job if you choose to use them.

### 2.4.2 PDF (Print)

You will need to have a printer installed on the tablet or on your computer to print these out. If you do not have a printer, you can save the .pdf file to later transfer it to a computer that has printing capabilities if you just want to save the digital file for your records.



If you wish to store a database of material (type of stone) you have in inventory, click on Area. You will be presented with a window that will allow you to add the material of your choice.



1. To add materials, click the green plus sign.
2. Click in the Material box and type in the name of the material.
3. Click in the Cost box and type in a cost of the material.
4. Add a Thickness and Color.
5. To remove a material, click on the material and click on the red x.
6. To choose your material click on the material name and click OK.

Use the check boxes on the bottom half of the screen and check the boxes if you want this to be included in your print out. If you uncheck a box, it will not be included.

### 2.4.3 Shop Sheet

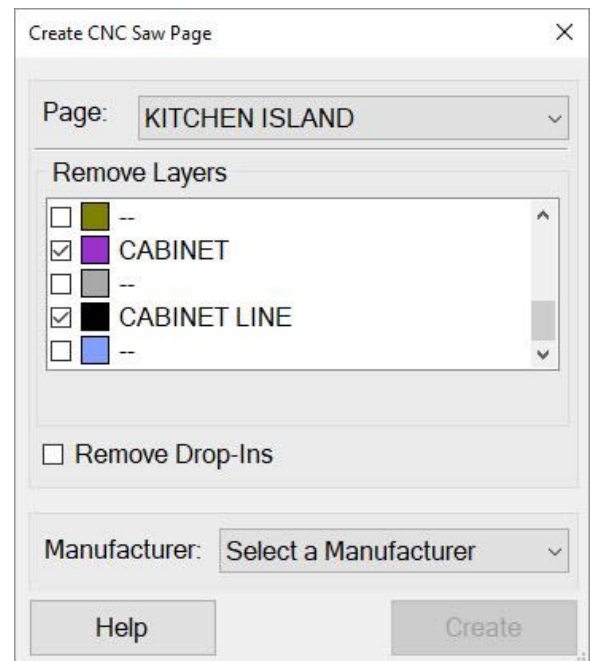
The shop sheet is a .pdf file that is created specifically for the fabrication facility in your business. Information on this form is filled out in the Job Information Center and the individual Page information. One shop sheet is automatically created for each page in your job.

### 2.4.4 Create CNC Saw Page

CNC Saw Integration will take any page within a job and convert it to a CNC Saw-ready page. The extra work of splitting seams, setting layers, or removing dimensions, texts, crosses and drop-ins will be automatically completed with a press of a button. Files created with this method have been tested by manufactures and verified they

Once a job has been templated, to complete the file and prepare them for your CNC machinery:

1. Click **New Page / Create CNC Saw Page** or **File / Import/Export / Create CNC Saw Page**
2. Select the page you want to create a CNC ready file for
3. Select the checkboxes for the colors/layers you want to remove from the template



4. Click **Remove Drop-Ins** if you want all drop-ins like edge treatments, center lines, etc. removed from the template.
5. In the Manufacturer drop-down, select the CNC manufacturer the job will be fabricated on.
  - a. Different manufacturers require the .dxf/.dwg files to be formatted in different ways. Choosing a manufacturer other than what will be used for fabrication may lead to incorrect results.
6. Click **Create**

### Custom Manufacturers

In the case that your manufacturer is not currently listed, you can create a custom profile for them.

1. In the *Manufacturer* drop-down, select **Custom**
2. Select the options and enter the values required by your machinery manufacturer

#### Custom Manufacturer Options

- *Use Polylines*: Select if your CNC machine accepts polylines.
- *Layer Name*: Assign a standard Layer name for consistency in future jobs. Uncheck if not required.
- *Layer # (Number)*: Assign a standard page position for the CNC-ready layer. Uncheck if not required.
- *Color*: Assign a color for the CNC-ready page. The color is customizable in red, green, and blue values (RGB). Uncheck if you would like to leave the original page colors.

As we work with more manufacturers, additional presets will be included for your use. These will be released with future updates of the Laser Templator software. At times, out of cycle releases might be performed. To check if you have the most up-to-date manufacturer list:

1. Click **Edit / Options / Advanced**
2. Next to *Update Integration Manufacturers*, click **Update**

### 2.4.5 Email

If you want to E-Mail your job files back to your fabrication shop, you will first need to set up your email settings. To do so, follow the instructions in section **2.9.4 - E-Mail Settings**.

To send an email, enter the address you want to send the job to, the Subject (usually the job name) and any comments in the Message field. Check the boxes on the right to include whatever files you want. Sending pictures and PDF's will slow down the process of sending because of the file sizes. We suggest only sending the L55 and DXF files when emailing. Photos can be included if needed. All the PDF files can be recreated at the office by opening the job file and saving it again.

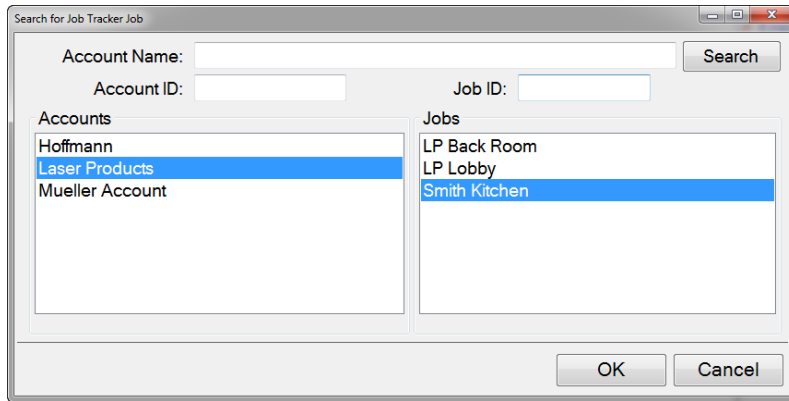
### 2.4.6 Upload to Job Tracker / Systemize

In version 2 of the software, we have added Moraware's Job Tracker integration. You can now import job information from Job Tracker's or Systemize's website as well as export/upload the job files created with the laser. To use this functionality, you will need to first set up your account in our Options menu.

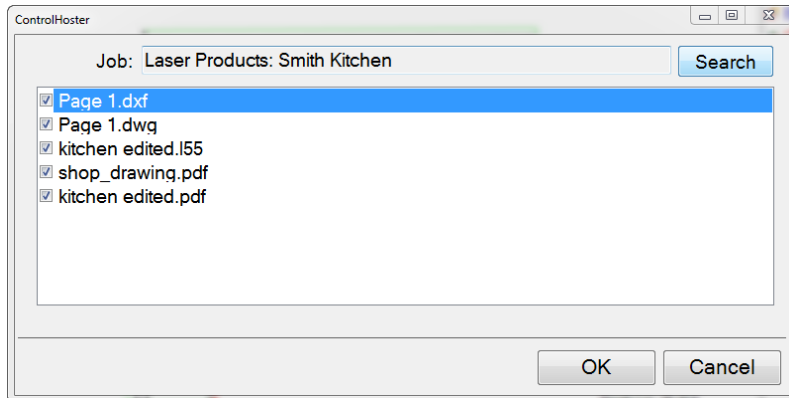
1. Click **Edit / Options**
2. Scroll to the bottom of the General Setting tab where you will see Job Tracker Settings
3. Enter the **API URL** (which is <https://<xyz>.moraware.net/<xyz>/api.aspx> where <xyz> is your own company information)
4. Enter your **User Name**
5. Enter your **Password**
6. Press **OK**

To upload data to Job Tracker / Systemize

1. Have the job you want to upload open
2. Click **File / Import/Export / Upload to Job Tracker**
3. Click **Search**
4. Click on the **Account** and **Job** you want to upload the job files to



5. Check the boxes of the files you want to upload



6. Click **Ok**.

#### 2.4.7 Import Job Tracker/Systemize Data

Now that you have your Job Tracker/Systemize account settings ready in the program, you can import the job information.

1. Click **File / Import/Export / Import Job Tracker Data**
2. Select the **Account** that the job is saved under
3. Select the **Job** that you want to import the data from
4. Click **Ok**.

The job's data will now be visible in the Job Information area of the software.

## 2.5 Save

Choosing to **Save** your project should be done frequently. The current version of the job will be saved when you press **Save**. If this is the first time the job is being saved, it will ask you to enter a name for it. Once a name is associated with the file, choosing save will just overwrite the older version with the current one.

The program saves files with .I55 extensions. This is the file that contains all measurement information and recorded date. From this file, .dxf, .dwg, .ord, .xml, .csv, .txt, and .pdf files can be recreated. The only files that are not recreated from the .I55 file are the .jpg files (images).

The .I55 file will have all points flattened to a horizontal 2D plane (if the 'Template Wall' function was used, the points will be flattened to a vertical 2D plane).

The 'INTERNAL 3D IMAGE.dxf' file located in the same job folder will have all the points saved in 3D space in a point cluster that can be opened and edited in a separate CAD program.

## 2.6 Save As

The first time you are saving a template, you should choose to **Save As**. This will bring up a box giving you the option to save the template on the **Hard Drive**, as a **Drop-In** or using the **Advanced** saving option (Other).

### 2.6.1 Hard Drive

Saving files to the **Hard Drive** will place the jobs in the **My Documents** folder of the tablet.

### 2.6.2 Drop-In

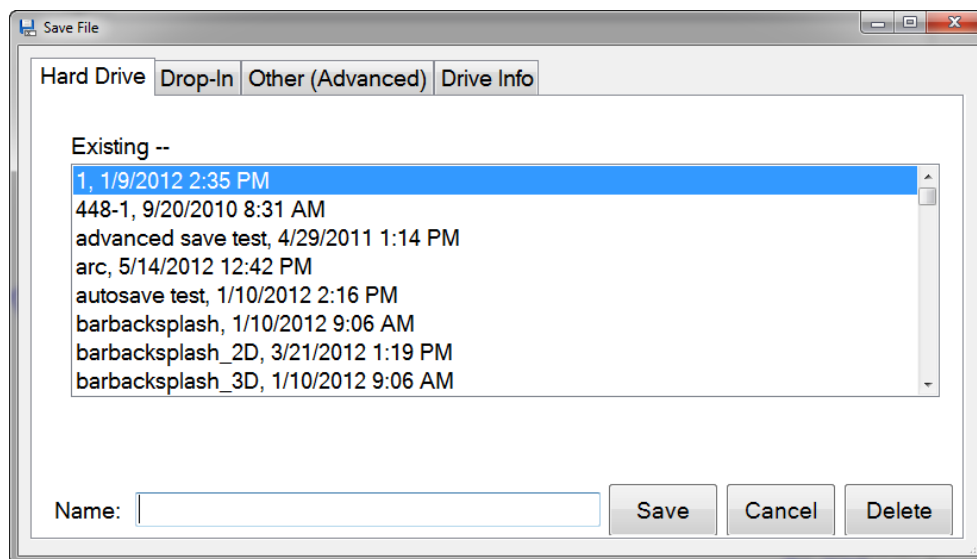
If you create a **Drop-In** like a special corner, bump out or a sink bowl and you want to save it for future use, this is where you will save it to. By saving here, the template will show up when you choose the **Drop-In** feature.

### 2.6.3 Other (Advanced)

The **Other (Advanced)** method for saving templates should be used if you do not want to save your templates in the **My Documents** folder or on your SD memory card. By using this option, you can save .dxf, .I55 (job files) or or both files anywhere on the tablet that you want to (i.e. the desktop or a projects folder you created).

### 2.6.4 Drive Info

Drive Info shows the current status of the drives/storage devices on the tablet PC. This includes the hard drive, as well as any SD cards and removable disk drives (flash drives).



## 2.7 Exit

Exiting the program will close the program and take you back to the Windows desktop. You should always make sure to save changes to any job file you were working on before you exit the program.

When Exiting the program in conjunction with using the laser, the laser will shut off on its own if it is a pre-February, 2016 model. If Purchased Post-February, 2016, marked R4.1 on the bottom label, the laser will continue to remain on for a couple more minutes. It will shut off on its own but if you wish to manually turn it off, hold the power button for 3 seconds.

## 2.8 Connect To Laser

The only time this will show up is if the tablet is not connected to the laser. If you look in the title bar of the program, you will see "LT Disconnected" and there will be no interaction between the tablet and the laser.

If the tablet is connected to the laser via the USB cable and the title bar is showing "LT Disconnected" you can select **Connect To Laser**. This will then establish a connection between the laser and the tablet. This process of connecting can take up to 10 seconds.

## Edit Menu

The **Edit** menu is where you will find the most basic editing options that will be performed when starting a new job, saving a job, opening previous jobs and adding information of a job.

## 2.9 Options

### 2.9.1 Save

**Create DXF files when saving a job** is checked when your company wishes to use DXF instead of DWG.

**Create DWG files when saving a job** is checked when your company wishes to use DWG instead of DXF.

**Create shop sheet when saving a job** is checked when you want to create shop sheet automatically.

**Create print PDF when saving a job** is checked when you want to create a PDF automatically.

**Default DXF Polylines**, if checked will default all lines to Polylines instead of Line Segments. Some CNC/CAM machinery will only work with one or the other. Check with your machinery to see if this should be checked or unchecked for your specific shop setup.

**Export PDF in black/white with edge treatments**, if checked will export the drawings to a .pdf file in black and white with the edge types labeled on them.

**Save Template Images**, if checked will save a screen shot of the drawing as a .jpg file and can be used as a reference.

**Use Color in DXF Layer**, if checked the layer name within the .dxf file will be preceded with the name of the color. Some CAD/CAM systems need to have this checked.

**All Upper Case Layer** will format layer names with all upper case letters.

**Export DXF BYLAYER**, if checked will export the BYLAYERS if your CNC machinery needs it.

**Use DXF on advanced save**, if checked will default to saving a .dxf file on the Advanced Save instead of the default .l55.

**Sync DXF files when opening LT55 file**, if checked will import any modified .dxf files back into the job file (.l55) when opening. This is done if you have an employee that modified the files in another CAD program and you want update the .l55 file.

**Export 3D File**, if checked will export a 3D point cloud of measurements with lines drawn between points.

**Flip Camera Image (y axis)**, if checked will flip the camera image along the y axis when saved.

**Flip Camera Feed along Horizontal axis**, if checked will flip the camera feed along the horizontal axis.

**Flip Camera Feed along Vertical axis**, if checked will flip the camera feed along the vertical axis.

**Use low camera frame rate**, allows lower framerates to be used if camera image lags.



**Replace periods with underscores in dxf file names**, changes file name formatting.

**Auto save interval in minutes** allows the time between auto saves to be adjusted.

**Days to keep auto save files** simply allows you to change how long auto save files are stored on the hard drive. These auto saved files are located in C:\Program Files\Laser Products\LT-55XL\auto\_save. This defaults to 10 day but can be changed to however long you wish to save them.

**The line thickness within the exported DXF file** is the default line thickness in .dxf files after exported.

**HD Save Location** is used to change the location job files will be saved on your Tablet PC or computer. Click on the browse button “...” to the right of the dialogue box and choose the folder you want to save all job files in by default. Click Clear if you wish to revert back to the default location of My Documents.

**Settings Save Location** is the default location that settings files are saved to.

### 2.9.2 Print

**Print page details**, if checked will include each individual page’s details on Estimates.

**Company Info** and the **Customer Agreement** will be presented on each printout they do. Clicking the **Edit** button next to each will open up Windows Notepad. You can either write a customer agreement into the file or you can write your own and then save it.

**Preset Notes** allows you to add notes to the general notes on every job.

**Prepend to PDF** is where you can attach a company estimate sheet (or any other pdf document) in front of the Print Sheet we create.

**Prepend to PDF Description** just describes what the file is that is being prepended.

**Print Logo** is the log that will be added to your Print sheet. This needs to be a .jpg image.

**Shop Sheet Logo** is the logo that will be added to your Shop Sheet. This needs to be a .jpg image.

### 2.9.3 Draw Display

**Auto Scale Dimensions**, if checked will automatically scale the dimensions when printed.

**Show Tips at Startup**, if checked will present you with a tip when the LT-2D3D software opens.

**Display Legend**, allows you to turn on or off the Legend in the bottom right corner of the drawing area.

**Display Area Legend**, allows you to turn on or off the area calculation in the legend in the bottom right corner of the drawing area.

**Show Squared area**, instructs the program to draw an imaginary box around the greatest extents of the template to show the total area. This can be used if performing a manual, slab layout.

**Ignore mirror when drawing text**, if checked will allow text to be read legibly (not mirrored) while you are drawing in Mirror Mode.

**Use black background on drawing**, if checked will make the default white screen black on the drawing canvas. We added this because many CAD/CAM programs use black and we wanted to allow users to have it be the same as they are used to.

**Display Shortcut Text**, if checked will show the text in the right menu. If unchecked, it will only show the icons.

**Underline Dimension**, if checked will draw an underline under the dimensions.

**Dimension Font Size** is default font size for dimensions and text.

**Display Radii Text**, allows you to specify how you want radii to be shown on the screen. The default is the number for the radius and then “R” but if you want only the number you can delete the “R” after <radius>.

#### 2.9.4 Job Details

**Use Job Name as Email Subject**, if checked will automatically fill the job name in the Subject line while selling an email.

**Set Install Days Automatically**, if checked will automatically set the install date based on the Template Date.

**Set Install Date Add** will allow you to automatically add a set number of days to the Install Date based on the Template Date.

**Import Job Mapping File**, allows you to specify how you want to import job information into the program based on what job tracking software you currently use to store customer information.

#### 2.9.5 Job Tracker / Systemize

**API URL** is the web address that is used to log in to Job Tracker/Systemize on Moraware’s website. The address is <https://xyz.moraware.net/xyz/api.aspx> where xyz is your company name.

**User Name** is your company’s Moraware Job Tracker/Systemize log in name.

**Password** is your company’s Moraware Job Tracker/Systemize password.

#### 2.9.6 ORD

**Create ORD File** creates an ORD file when a job is saved.

**Wall Height** sets the default wall height in ORD files.

**Wall Thickness** sets the default wall thickness in ORD files.

#### 2.9.6 Miscellaneous

**Remember Last Drop-in** opens the drop-in menu to the last drop-in you used.

**Round up Area** will take the total area of the drawing and round up to the nearest foot.

**Auto shutoff wired LT-55 XL** will turn off the laser to save battery after inactivity.

**Zip files for Email** when checked will zip all emailed files to compress them so sending is faster. When unchecked, all emailed files will be sent unzipped.

**Display Popup Calculator** when unchecked will not pop up the number pad. This is mostly done on desktop or laptops that have a keyboard available all the time.

**Display Edge Type instead of Color** changes Color in the right drawing menu to Edge Type for those companies that do not specifically use colors but edge codes instead.

**Display Radius Label on Drawing** will automatically display all radius measurements when drawn.

**Display Large Color Boxes** increases the color section for high resolution monitors/tablets.

**Use Beta Version** will allow you to download beta versions of our software. These are versions that include new features but have had minimal testing and may contain bugs.

**Max Edit Bar Font Size** allows you to change the size of the Edit bar.

**Drop-In Folder** is used if you want to use a specific folder as your drop in folder. This is helpful if you don't want to see the sample sinks and marks we have included. Many users of will create a Drop In folder in My Documents and save them all in there.

**Photo Editing Application** allows you to choose the application used to edit photographs. Microsoft Paint is the default.

### 2.9.7 Estimate Settings

Here you can change the values used in your estimates. Area and perimeter can be modified based on what treatment you assign to a specific color.

**Group By Page**, if checked, will allow the estimate option to group all the pages so that each page has its own estimated values.

A **Materials** field has been added if you pass these costs onto the customer. Click the "+" button to add a new line. Then click on the **Material** line and type in what you need to add. Similarly, click on the **Cost** line and modify the cost to reflect the cost you associate with the material.

### 2.9.8 Quick Actions

**Quick Actions** are commonly used actions. These include fillets, radii and offsets that are used often.

To create a new action, follow the steps below:

1. Click **Add New**
2. Select the **Action Type, Fillet Type, Unit of Measure, Amount/Font Size and Display Quick Action Text Color**

3. Choose if you want the Quick Action to be displayed in the main Quick Action menu by checking the box or just in that individual's action menu by unchecking the box.

To remove a previous created **Quick Action**, highlight the one you wish to remove and click **Remove**.

**Default Quick Action Text Color** allows you to make all the text the same color.

### 2.9.9 E-Mail Settings

If you choose to email your templated files back to your shop while you are at a jobsite, this is where you will set up your email configurations.

The email settings are standard settings so please look at your personal email account settings and copy that information over to these forms. If you are unsure of your email settings, please contact your email/internet provider to obtain them. There are many email providers out there; we cannot keep track of everyone's individual settings.

If you have a Gmail account, we made it easy for you. All you have to do is fill in your username (email address), password and a From Name (your name). Then click on the Web button in the lower left corner and follow the instructions there to allow our software to send email through your account by enabling POP in the Gmail settings. The setting in our program will look like this:

|                |                                     |
|----------------|-------------------------------------|
| SMTP Server:   | smtp.gmail.com                      |
| SMTP User:     | username@gmail.com                  |
| SMTP Password: | *****                               |
| SMTP Port:     | 587                                 |
| SMTP Secure:   | <input checked="" type="checkbox"/> |
| From Address:  | username@gmail.com                  |
| From Name:     | Your Name                           |

GMail

Below are the most common email settings.

#### Gmail

SMTP Server: smtp.gmail.com

SMTP User: your email address

SMTP Password: your password

SMTP Port: 587

SMTP Secure: checked

From Address: your email address (same as SMTP User)

From Name: Your Name

You need to Enable POP Email in your GMail account. Instructions to do so can be found here:

<https://support.google.com/mail/answer/13273?hl=en>

You need to turn on "Less Secure Apps." On the following page:

<http://www.google.com/settings/security/lesssecureapps>

**Comcast**

SMTP Server: smtp.comcast.com

SMTP User: your email address

SMTP Password: your password

SMTP Port: 587

SMTP Secure: checked

From Address: your email address (same as SMTP User)

From Name: Your Name

**Hotmail**

SMTP Server: smtp.live.com

SMTP User: your email address

SMTP Password: your password

SMTP Port: 587

SMTP Secure: checked

From Address: your email address (same as SMTP User)

From Name: Your Name

**Yahoo (Required Yahoo! Plus Account (yearly payment))**

SMTP Server: smtp.mail.yahoo.com

SMTP User: your email address

SMTP Password: your password

SMTP Port: 587

SMTP Secure: checked

From Address: your email address (same as SMTP User)

From Name: Your Name

**MSN**

SMTP Server: smtp.live.com

SMTP User: your email address

SMTP Password: your password

SMTP Port: 587

SMTP Secure: checked

From Address: your email address (same as SMTP User)

From Name: Your Name

**AOL**

SMTP Server: smtp.aol.com

SMTP User: your email address

SMTP Password: your password

SMTP Port: 587

SMTP Secure: checked

From Address: your email address (same as SMTP User)

From Name: Your Name

**Network Solutions**

SMTP Server: smtp.yourdomain.com

SMTP User: your email address

SMTP Password: your password

SMTP Port: 587

SMTP Secure: checked

From Address: your email address (same as SMTP User)

From Name: Your Name

### 2.9.10 Advanced

**Language** allows you to change the native language used in the software.

**Associate I55 files with this application** is used if when you double click on an .I55 file and it does not open up in the Precision Laser Templator software. By clicking the “Associate” button, this will fix this.

**Associate csv files with Open Office** is used if there is ever a problem with opening estimate files in Open Office.

**Reset Colors to Default** will reset all color/layer names to the default settings.

**Update Integration Manufacturers** will check for updates to the CNC manufacturer list and if available, update the list. See section 2.4.4 for more information.

**Application Data Directory** shows the location settings for the application are located.

**Template Plane Workflow** allows you to select the method for setting planes with the LT-2D3D. See section 1.1 and 1.2 for more information.

### 2.9.6 Shortcuts

Shortcuts are used to quickly perform actions in the program. This is commonly used in Windows programs like CTRL + O will bring up the open file function. CTRL + E will activate the Erase function.

## 2.10 Job Info / Pages

The **Job Info** section is where you will enter information on each specific job that you template. This includes names of customers, addresses, important dates, additional items used for the job and an agreement for your customers to sign.

### 2.10.1 General

**General** information includes the name of the job you are working on. This can be designated by internal reference numbers, bar code numbers or something as simple as the customer's last name.

### 2.10.2 Address

**Address** is the location of the job site, home or industrial location.

### 2.10.3 Dates

**Template Date** is the date which you and the customer decide to template the job (usually the current date).

**Draw Date** is used if an employee modifies the job file after it is template. If the templator is responsible for modifying it onsite (adding offsets, radii, drop-ins etc.) this is unnecessary to use. However, if there is another employee in the workflow, we believe it is important to know who has modified that file for accountability.

**Approved Date** is used to record the date in which the customer has approved the final product which is to be fabricated. This could be at the customer's house after the templator has template and modified the .dxf or it could be at a later time.

**Install Date** is when you will install the counter tops. This can be used in conjunction with your scheduling software so you can determine when the shop will be able to produce the counter tops and when your installers will be able to deliver them to the customer.

**Name** is the person that preformed the specific job functions associated with the dates.

#### 2.10.4 Additional Items

**Additional Items** is where you can list the cost of fixtures or other materials you will be charging the customer. We have also created a Catalog where you can add items that you know will be used in the future instead of having to enter them in each time.

1. Click **Add**
2. Type the description of the item
3. Enter the amount of the item
4. Click **OK**

We also allow you to create a Catalog of items that you use frequently. To use the catalog:

1. Click **Catalog**
2. Click **Add New Item**
3. Enter a **Description** and **Amount**
4. Click **OK**
5. Check the box of the items you want to add to this specific job
6. Click **OK**

#### 2.10.5 Pages

**Pages** allow you to have multiple digitized templates of the job in their own space. For example if you have templated a customer's kitchen countertops, and you need to do their bathroom as well, you can add a new page. When saved, you will have the same job folder but the 2 portions of the jobs will be in their own separate .dxf files.

General Address Dates Additional Items **Pages** Notes Agreement

Measured  
**Kitchen**  
Dimensioned  
Slab Layout

Up Down

Page Name: Kitchen Delete

Preview

☐ Use DXF Polylines  
☒ Save Invisible Colors

Notes  
Individual page notes

Sink Info  
Brand: Acme Brand  
Model: 123  
☒ Undermount ☐ Drop In ☐ None  
# of Holes: 0

Cooktop Info  
Brand:   
Model:   
Cut out Size:

Pages can be switched back and forth by clicking on the tab at the top of the drawings. Simply click on the Page you wish to see.

If you click **Edit Pages**, you will have the option to edit information about each specific page. In the column on the left, you can choose what page you want to edit.

**Page Name** allows you to name each page.

**Preview** will show you what is on each page.

**Use DXF Polylines**, if checked allows you to specify on a page by page basis if that top needs to be saved in Polylines. Line Segments are the default.

**Save Invisible Colors**, if checked will save all geometry in the file even if the color is set to be invisible.

**Notes** can be added about each page. This is to be more specific than the notes on the main screen.

**Sink Info** and **Cook top Info** can be added to each page if they are required.

### 2.10.6 Notes

In the **Notes** tab, you can enter notes about the job. These are different from the individual page notes that will appear on the Shop Sheets. See the Pages section for more information on that.

### 2.10.7 Agreement

In the **Agreement** tab, you can attach your own company policy dealing with warranties and liabilities for the customer to read. Once read and the customer checks the box saying they read and accept the terms, they can sign their name right below it. Their signature will be presented on every page of the estimate you run.

When you go to print out an estimate with all the job information, you can choose to include the customer's signature on all the pages or select specific ones (Estimate, Notes, Images [images of the actual .dxf files] and Photos)

1. To use a custom agreement, go to **My Computer**
2. Double click on **C:**
3. Double click on **Program Files**
4. Double click on **Laser Products**
5. Double click on **Laser Templator**
6. Double click on **CustomerAgreement.txt** (copy and paste it if you already have it written)
7. Write the agreement you want in this file
8. When finished, save the file

## 2.11 Move Circle

Move Circle will take any circle you click on and then move it in the direction you click, leaving behind the original one. This is used commonly for making the faucet and soap dispenser holes.

## 2.12 Split Line

Split Line is used when you need to finish an edge with two different edges. You will split the line into two based on a setback amount and then change the color/edge type accordingly.

1. Click the line you want to split
2. Enter an amount to split the line from the front edge
3. You will see the line split with a yellow line appearing to show the split and press OK



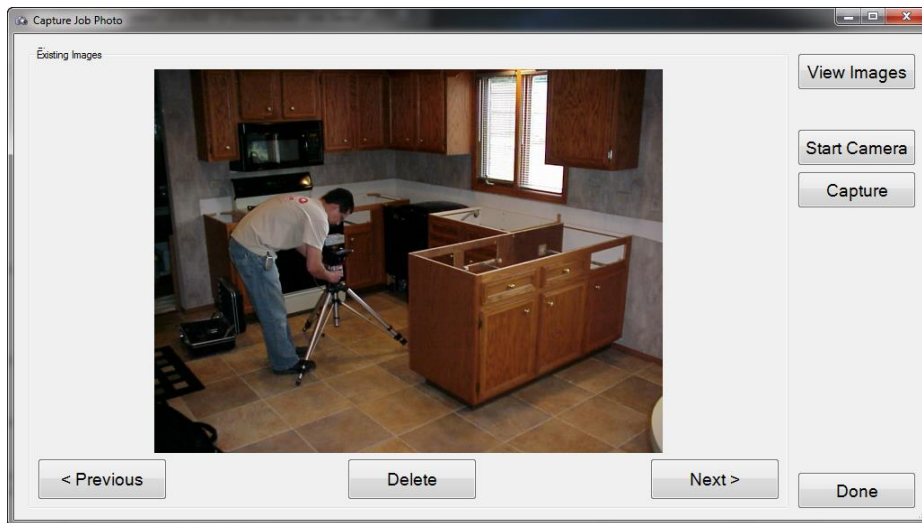
## 2.13 Flip / Scale

Flip will allow you to flip a drawing horizontally, vertically or both. This would be used for when you draw a custom corner and want to flip it to use it on the opposite edge.

Scale allows you to quickly double or half the size of a drawing. You can also enter a custom percentage to scale it.

## 2.14 Add Photo

Adding photographs to your job can be a very valuable tool; you can use the built in camera on the tablet to take job site reference pictures.



To take photographs with the tablet follow these steps:

2. Click **Add Photo** from the **Edit** menu
3. Click **Start Camera**
4. Point the back of the tablet at the area you want to photograph
5. Click **Capture**
6. To view the captured photographs, click **View Images**

These photographs will be located in the same folder as the templated .dxf and the estimate file.

## 2.15 Erase Segment

**Erase Segment** will erase one line segment. To erase a segment:

1. Click **Draw**
2. Click **Erase Segment**
3. Click on one end point of the segment
4. Click on the other end point of the segment

Remember, every line has 2 end points, as well as a midpoint. When a line intersects another line that is not at the midpoint, it will create new end points and midpoints.

## 2.16 Erase All On Page

**Erase All On Page** will erase the entire template you currently have on your screen. This is similar to creating a new file, but if you have saved it, the name will remain associated with the current file. If you **Erase All On Page** and then template again followed by a save, the original template will be lost.

## 2.17 Split Object On Point

Split Object On Point allows you to take an entity and split it into two entities at a snap point where another entity crosses it.

## 2.18 Units

Under **Units**, you can choose if you wish to measure in **Imperial** (Standard) or **Metric** and set the denominator or decimal places.

## View Menu

The **View** menu is where you will find the most basic actions that will be performed when starting a new job, saving a job, opening previous jobs and adding information of a job.

### 2.18 Rotate Drawing

This allows you to rotate the drawing to any degree.

1. Click **Rotate Drawing** from the View Menu
2. Enter in the degree you wish to rotate the drawing and click OK

### 2.19 Mirror

If you **Mirror** the template you have made, it will flip it along its vertical access. This is used if you are digitizing a template on the floor. You template it and then **Mirror** it so production is correct.

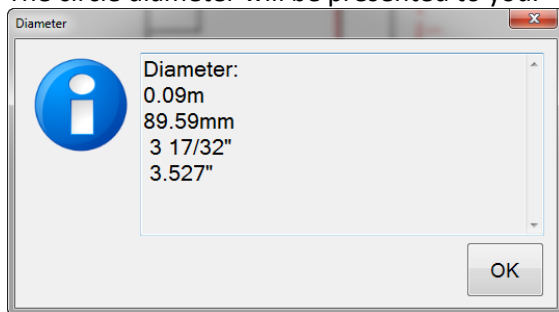
### 2.20 Object Info

**Object Info** show detailed information on objects you select.

### 2.21 Circle Diameter

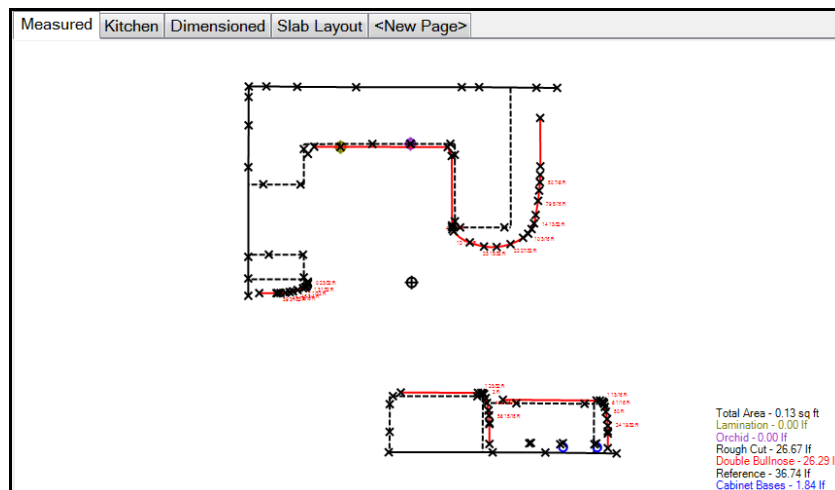
Clicking in the center of any circle will show you the diameter of that circle in millimeters, inches and fractions, an inches and decimals.

1. Click **Circle Diameter** from the **View Menu**
2. Click on a circle
3. The circle diameter will be presented to you.



### 2.22 Display Measured Points

If you select **Display Measured Points**, every point that was captured by the laser while templating will be shown on the template by a black x.



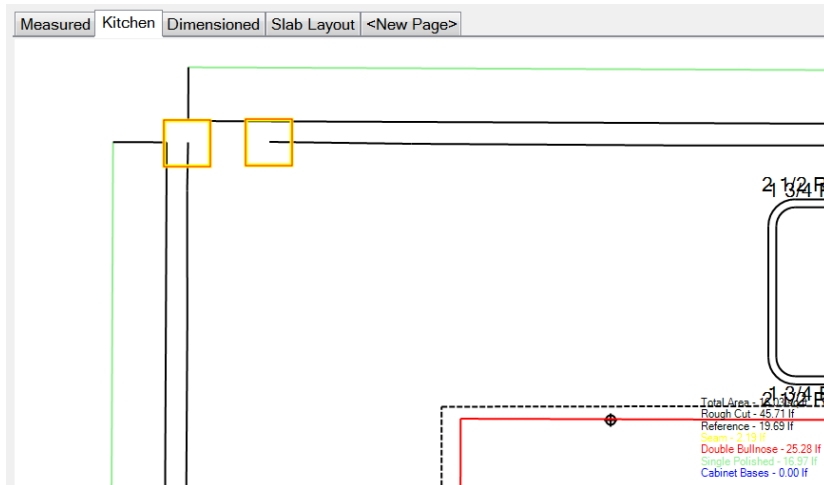
A grey crosshair will also appear if the file you are looking at was templated with the and not just drawn. This represents the location the laser was when the job was being templated.

## 2.23 Display Contiguous Breaks

By clicking on **Display Contiguous Breaks**, a box will be shown if there is gap between any 2 lines or arcs that are 1/4" (.25") or smaller.

To turn on **Display Contiguous Breaks**:

1. Click **View**.
2. Click **Display Contiguous Breaks**.

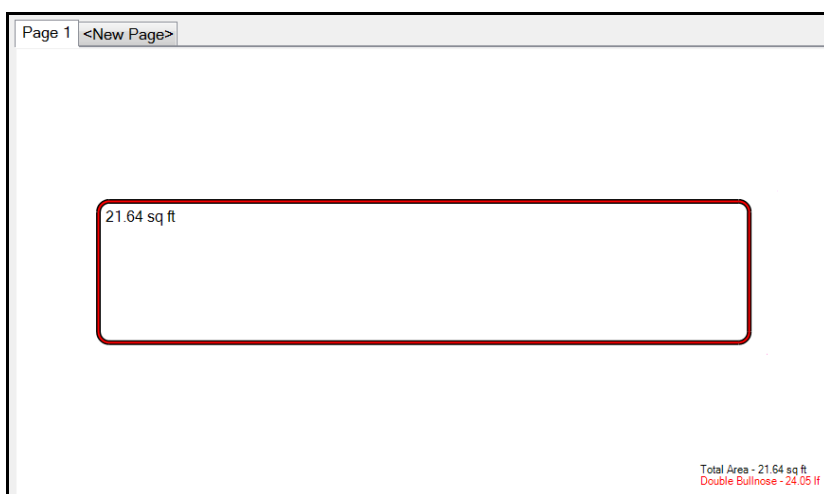


As you can see in the example above, you can see the break in the lines.

Once the break has been connected, the boxes will disappear. This can be done with the Draw Line, Fillet or Extend functions.

## 2.24 Display Polylines

**Display Polylines** show you what objects are polylines in your job file. Polylines are indicated by a double black border around line within the drawing. Also if you will notice that there is the area measurement shown in the top left corner of the polyline.



If you have an object that you believe should be a polyline but is not indicated as one, click on Display Contiguous Breaks. If there is a break in the object, it will not be defined as a polyline.

## **2.25 Display Color Names**

Allows the color names to be viewed and printed on the edges for customers that do not have color printers. This was originally added for a customer that had a color blind employee that couldn't see the different colors.

## **2.26 Display Area Legend**

Allows the user to display or hide the area legend.

## Draw Menu

**Draw** functions are used once a countertop or surface has been templated. This is primarily used for editing the templated surface.

### 2.27 Re-Position Laser

When you encounter a jobsite where you cannot see the entire surface that needs to be templated like a pillar for example, you can use the **Re-Position Laser** feature to obtain all the field measurements you need.

#### Position 1

1. Template the job from the first position as you normally would.
2. Click **Draw**.
3. Click **Re-Position Laser**.
4. Template 3 points that will be visible from the second position (position 2) after the laser has been moved. These should be marked with a target or have a physical blemish that can be distinguished from both locations and be at least 10 feet apart. As you are templating them, you will see red "x" appear with a number next to it. This will help when you move to the second position.

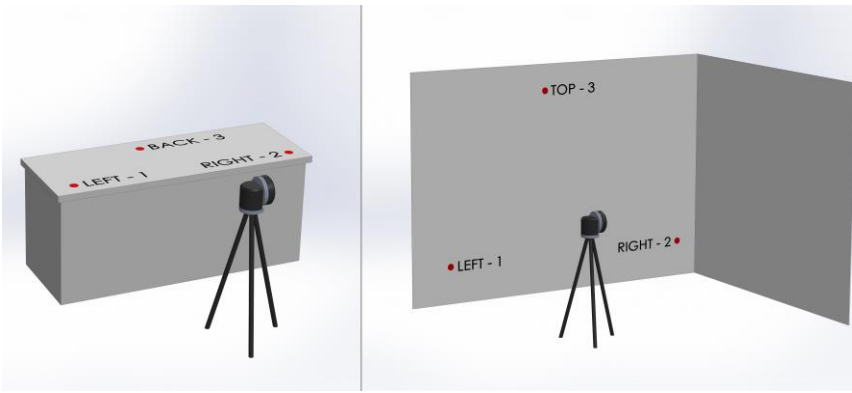
#### Position 2

5. Pick up and move the laser to the second position making sure you can still see the 3 points you just templated.
6. Align laser to first of the three points (red laser hits the target) indicated on the screen by a red "x" and the number "1"
7. Tap on the digital representation of the first cross on the screen. It will have the number "1" and a red circle around it now.
8. Pause and make sure the Tablet PC chirps signifying that the measurement was received.
9. Align laser to first of the three points (red laser hits the target) indicated on the screen by a red "x" and the number "2"
10. Tap on the digital representation of the first cross on the screen. It will have the number "2" and a red circle around it now.
11. Pause and make sure the Tablet PC chirps signifying that the measurement was received.
12. Align laser to first of the three points (red laser hits the target) indicated on the screen by a red "x" and the number "3"
13. Tap on the digital representation of the first cross on the screen. It will have the number "3" and a red circle around it now.
14. You will see a confirmation that the laser has been properly repositioned and you can continue templating. If not, it will ask you to re template the last three points again.

### 2.28 Set Plane

When starting a new job or page, LT-2D3D Laser Templator (Post-February, 2016) users will be asked to set the plane that they will be templating on. Any new pages or jobs can be created without re-engaging the 2D lock. They will be instructed to template three points on that plane. The plane would be a countertop, wall (backsplash) or any other surface.

Clicking the "Show Example" button will bring up the following image showing where to position the three points. The points only need to generally be in a left, right, back/top orientation to one another



The three points need to be at least 12" apart from each other and cannot be near to a straight line. If the three points are set like this, you will see a warning box stating that the measurement's accuracy will be affected. The user can then choose to reshoot or accept them as is. We suggest that get the three points in a triangular pattern and have them be as far apart as possible to the highest level of accuracy.

## 2.29 Offset

### 2.29.1 Offset Scribed Wall

To offset a scribed wall:

1. Key in the distance you want to offset the scribed wall and hit **OK**.
2. Select all parts of the wall you want to offset.
3. Select **Done Selecting**.
4. Click in the direction you want the wall to be offset just as if you were doing a normal offset.

### 2.29.2 Offset Polygon

**Offset Multiple** would be used if you want to offset an entire object outward or inward. This is commonly used in the situation of a sink reveal. If you are using a under mounted sink and need to reduce the size of the opening in the countertop because you are going to top mount it (different sink with same dimensions), you would drop in the sink, select it and then reduce the size of the opening.

1. Key in the distance you want to offset and hit **OK**.
2. Select all parts of the object you want to offset.
3. Select **Done Selecting**.
4. Click in the direction you want the wall to be offset just as if you were doing a normal offset.

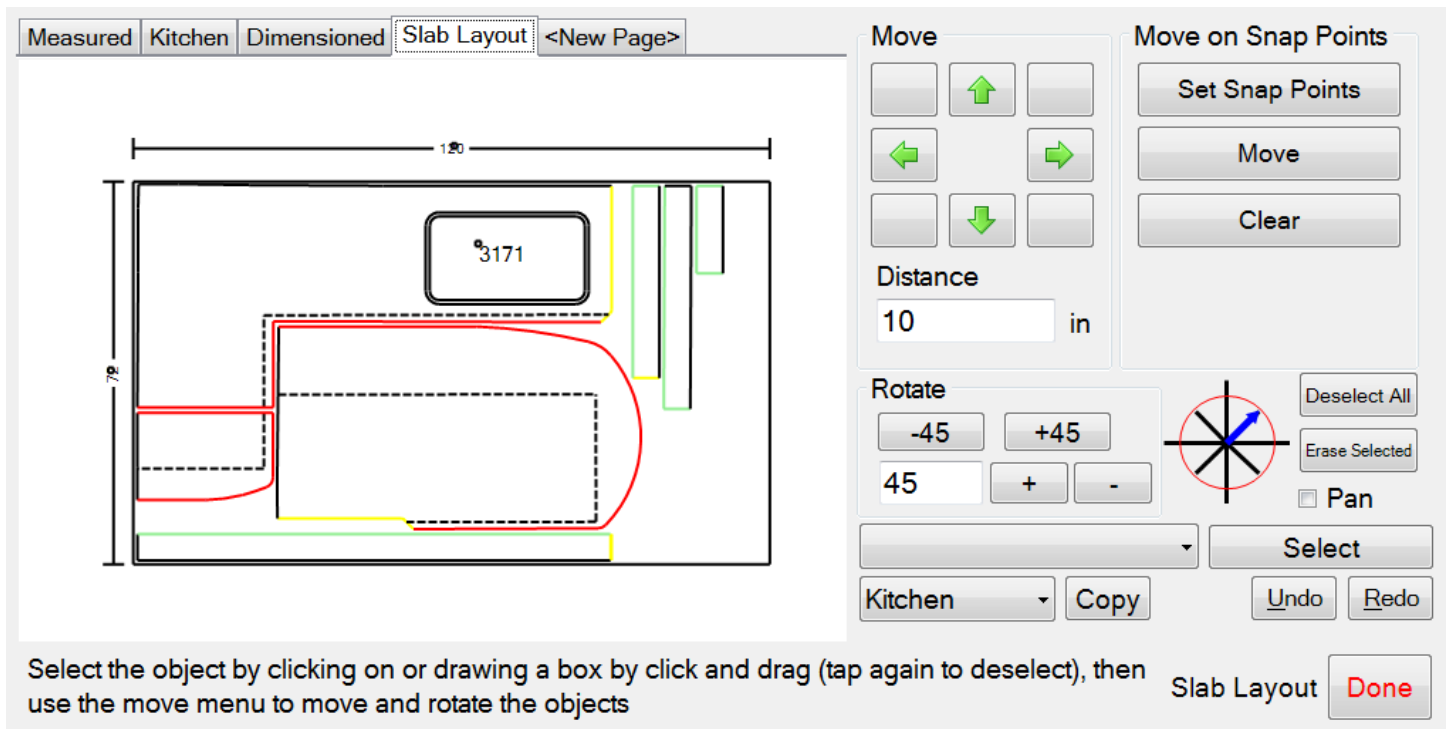
## 2.30 Define (0,0)

**Define (0,0)** is used for when you create a **Drop-In** and need to designate a point where you want it to snap to when you add it to a template. To **Define (0,0)**:

1. Click **Draw**.
2. Click **Define (0,0)**.
3. Click the point you wish to designate (points will snap to end points, midpoints and intersections).

## 2.31 Slab Layout

When **Slab Layout** is clicked, you will need to tap on all the lines you want to move or modify.



Selecting lines is done one of three ways. You can individually click on each line segment or you can click and drag to select all lines that inside the selection box. If you have used multiple colors on your job, you can click the drop down box on, choose the color you want selected and then click the **Select** button. Only the color you choose will be selected.

Once selected, the selected lines will turn yellow-dashed indicating they have been selected. If you want to deselect all the lines you have selected, instead of clicking on each line, you can press the **Deselect All** button. Below the **Deselect All** button, you can also click the **Erase Selected** button which will delete all the selected lines.

From here you can use the **Move** section to move the selected lines in any of eight directs (up, down, left, right and any directional at a 45° angle. The selected lines will be moved a set distance every time the **Arrow** buttons are pressed. This distance determined below the **Arrow** buttons. If you wish to change this distance, you can click in the box and then use the keypad to the right to determine the set distance.

If you want to rotate any selected lines you can either click the **-45** or **+45** buttons or you can change the angle in the box below and click the **+** or **-** buttons to rotate those lines to that angle. There is also a wheel to the right of the **Rotate** section that allows you to set predetermined angles in 45 increments (0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°).

If you want to view a portion of the drawing that is off the screen, you can select the Pan check box. Once checked, you can click on the screen and then drag it in any direction which will then move the drawing around on the screen.

You can move pieces using snap points.

1. Select the pieces you want to move.
2. Click Set Snap Point.
3. Click the point on the selected piece you want to snap to another point.
4. Click the point where you want to move the selected points to.
5. Click Move.

Once you are finished in Slab Layout, click the flashing **Done** button in the bottom right corner.



## 2.32 Backsplash

To add a backsplash to a countertop:

1. Click **Draw**.
2. Click **Add Backsplash**.
3. Enter the **Height** (or **Full Height**) and the **Offset** of the splash.
4. Click **Ok**.
5. Now click 2 points that will be then ends of the backsplash.
6. Finally click in the direction you want the offset to be. In this case above the line.

## 2.33 Angle

To add an angle:

1. Click 2 points that will define the ends of the lines.
2. Click the point that will be the vertex where the 2 lines will intersect.

## 2.34 Radius

**Display Radii** allows you do display the radius of an arch or circle. To display the radii:

1. Select the arc or circle you wish to have the radius displayed.
2. Click the location you would like that radius to be displayed at.

## 2.35 Dimensions

To add dimensions to a job:

1. Click **Draw**.
2. Click **Add Dimensions**.
3. Click 2 points that you want to use as end points of the dimensions.
4. Click away in the direction you want the dimension to be added to.

## 2.36 Maximum Dimensions

**Maximum Dimension** allows you to find the maximum lengths and widths of an object. To figure the maximum dimension:

1. Select the 2 outer lines that you want to use as the outermost dimensions. Red arrows will show the objects you selected.
2. Select **Done Selecting**. The arrows will turn green signifying they have been selected and are ready to be measured.

Click in the area you want the dimension to be displayed.

## 2.37 Text

To **Add Text**:

1. Click **Draw**.
2. Click **Add Text**.
3. Type in the text you want.
4. Tap on the screen where you want it to appear.

## 2.38 Center Line

To add a **Center Line**:

1. Click the line you want to add a Center Line to (this does not need to be the center of the countertops, it can be the center of a sink, stove or anything else that will be dropped in).
2. Click the direction you want the center line to be based off of.
3. Enter an Offset Distance that will be from the front or right edge.

4. Enter a Set Back Distance that will be from the line you clicked on.
5. Press Ok.
6. A cross with dimensions showing the offset dimensions will be shown (you can erase these dimensions if you want).

## 2.39 Line

While editing a template, there are 2 types of lines that can be drawn, **2 Point Line** and **1 Point Line**.

To draw a **2 Point Line**:

1. Click **Draw**.
2. Click **Draw Line**.
3. Click **2 Point Line**.
4. Finally click any 2 points. These can be end points, midpoints or intersections.

To draw a **1 Point Line**:

1. Click **Draw**.
2. Click **Draw Line**.
3. Click **1 Point Line**.
4. Choose the **Line Length** and **Angle** of the line you want to draw.
5. Finally click any point. This can be an end point, midpoint or intersection.

## 2.40 Arc

While editing a template, you can draw an arc by clicking any 3 points. To draw an Arc:

1. Click **Draw**.
2. Click **Draw Arc**.
3. Click any 3 points. The first point clicked will be the beginning of the arc. The second point will be the midpoint of the arc and the final point will be the end point of the arc.

## 2.41 Circle

While editing a template, there are 2 types of circles that can be drawn. **3-Point Circle** and **1-Point Circle**.

To draw a **1-Point Circle**:

1. Click **Draw**.
2. Click **Draw Circle**.
3. Select **1-Point** and enter a **Radius** value.
4. Click on the template and that will become the midpoint of the circle.

To draw a **3-Point Circle**:

1. Click **Draw**.
2. Click **Draw Circle**.
3. Select **3-Point**. **Radius** is not important because you will be selecting 3 points on your template to create the circle and then it will be automatically figured.
4. Click on any 3 points in the template and a circle will be created running through all 3 selected points.

## 2.42 Circle

While editing a template, there are 2 types of circles that can be drawn. **3-Point Circle** and **1-Point Circle**.

To draw a **1-Point Circle**:

## 2.43 Ellipse

To draw an ellipse:

1. Click **Draw**.
2. Click **Ellipse**.
3. Enter the Horizontal Radius (how wide it is left to right) and Vertical Radius how tall it is (top to bottom).
4. Click anywhere on the template.

## 2.44 Cross

To draw a **Manual Cross**:

1. Click **Draw**.
2. Click **Manual Cross**.
3. Click anywhere on the template and a cross will be created.

## 2.45 Custom Box

Adding a custom box is use when you want to insert a standard sized box. Most often when there is an island that you do not want to template but you have a standard sized shape that needs to be added to a drawing.

## 2.46 Menu Bar Functions

### 2.46.1 Laser On

If the tablet is connected to the laser, click **Laser On** and the laser will turn on.

### 2.46.2 Start New Line

While templating and measuring points, after you have taken 2 points (which will draw a line), click **Start New Line** if you wish to start a new surface. This would be used when you have taken 2 points on one side of a cabinet base and then you move to the front or back of the cabinet base.

If you do not hit **Start New Line**, a chamfer will be drawn connecting the 3rd and 4th points.

### 2.46.3 Laser Off

If the tablet is connected to the laser, click **Laser Off** and the laser will turn off.

### 2.46.4 Zoom

While you are editing the template, you can **Zoom** in and out to get into close areas that you need to be enlarged. This can be done 2 different ways.

**+ & -:**

1. Click the **+** button and the drawing will zoom in.
2. You can click and drag the screen around to move to the area you want to.
3. Once finished, you can click the **-** button and you will zoom out.

#### **2-Point Zoom:**

1. Click **Zoom**.
2. Click 2 points on a diagonal in which you want to be the top and bottom corners.
  1. The easiest way to do this is think about top right and bottom left or top left and bottom right corners.

### 2.46.5 Best Fit

While you are zoomed in on a specific area while editing, you can click **Best Fit** and the template will be zoomed in or out so that the entire drawing is fit within 90% of the window.

## Templating Menu (Right Sidebar)

This menu is used while you are actually doing the templating and taking measurements.

### 2.47 Laser Mode

There are 4 drawing modes to use while templating, **Line**, **Arc**, **Circle** and **Cross**.

**Line** - This is the default mode that will be set up each time you open our software. Every 2 points measured will create a line.

**Arc** - Every 3 points will create an arc.

**Circle** - There are 2 types of circles that can be drawn, **3-Point** and **1-Point**.

**3-Point** - This type of circle is used when there is a column or anything stationary that you have to template and has to be precisely on. All you need to do is measure 3 points and the software will create a circle based on those 3 measurements.

**1-Point** - This type of circle is used when you are going to be putting a grommet in. The exact position is not necessary, only the size of it. Input the radius of the circle and the next measured point will be the center of the circle. Remember a radius is 1/2 of a circle so if you do a 2-inch radius, the circle will be a 4 inches in diameter.

**Cross** - Drawing a cross will simply put a cross on the measured point. This is especially useful for drop-ins, marking center lines, as well as use with the **Re-Position Laser** (Leap) feature.

### 2.48 Erase

Clicking **Erase** will allow you to erase any line segment you have templated or drawn.

### 2.49 Distance

Using the **Distance** feature allows you to measure from any one point to any other point.

1. Click **Distance**.
2. Click 2 points on the template.

### 2.50 Auto Fillet

Using the **Auto Fillet** feature allows you to speed up your templating. You no longer need to click **Start New Line** when you are moving to a new plane. This is because every third point taken will start a new line.

For example, you will take 2 points on the side of a cabinet base creating a line. The third point will then be taken on the front of the cabinet base. Once the forth point is taken and you have to lines drawn, those are then automatically filleted to each other creating a corner.

### 2.51 Fillet

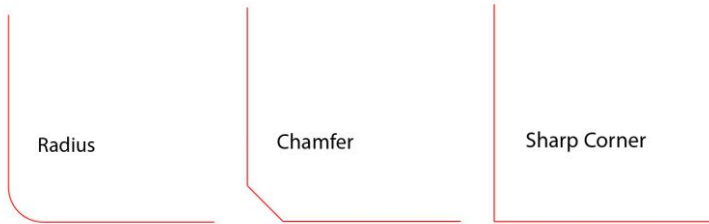
**Fillet** allows you to add in special corners to templates. This includes corners that have been drawn in already as well as corners that have been left open while templating.

There are 3 different types of fillets that you can add (**Radii**, **Chamfers** and **Sharp Corners**).

**Radius** - When you choose to fillet a radius, the software will automatically figure the intersection of the 2 lines and then back off that many inches and add the radius edge.

**Chamfer** - Like a radius, a chamfer will do the same only draw a chamfered edge connecting the 2 points with an angled line.

**Sharp Corner** - This is the simplest of the 3 fillets. A sharp corner will simply extend the 2 drawn lines until they meet forming a corner.



To add a **Fillet**:

1. Click **Fillet**.
2. Choose **Radius**, **Chamfer** or **Sharp Corner**. (If you choose **Radius** or **Chamfer** choose the size you want to use.
3. Click **OK**.
4. Click on the two lines you want to fillet. Once a line is selected it will turn gray.

When you are filleting a, any part of the lines that would normally extend past filleted intersection will be removed.

There is also a quick selection bar on the right side that offers you commonly used choices that can be edited by the user.

## 2.52 Offset

To use the **Offset** feature:

1. Click **Offset**.
2. Enter the distance you want to offset.
3. Select the line you want to offset. The line will turn gray showing it has been selected.
4. Click away in the direction you want to offset the line.

## 2.53 Rotate

Once you have finished templating your job, you can use the **Rotate** feature to rotate it to be square with the surface you are editing. This should be done before any object is dropped in like a sink or dishwasher.

1. Click **Rotate**.
2. Select the edge you want to be square. All other parts of the template will be rotated in relation to the selected line.

It is very important that when you drop in any object like a sink that you rotate the edge that it will be sitting on. If it is not, you will end up with the countertop edge and the drop-in not being parallel to each other. This is due to the fact that the majority of cabinet bases and walls are not on a perfect 90° with each other. So if you are going to add a sink and dishwasher you will need to:

1. Rotate the front edge for the sink.
2. Drop-in the sink.
3. Rotate the front edge for the dishwasher.
4. Drop-in the dishwasher.

## 2.54 Extend

When 2 lines do not connect, 1 of the lines can be extended to meet the other.

1. Click **Extend**.
2. Select the line you want to extend to. It will turn gray to show that it has been selected.
3. Select the line you want to extend.

## 2.55 Draw Segment

To draw a line from two points:

1. Click **Draw Segment**.
2. Select a point and select the second point.

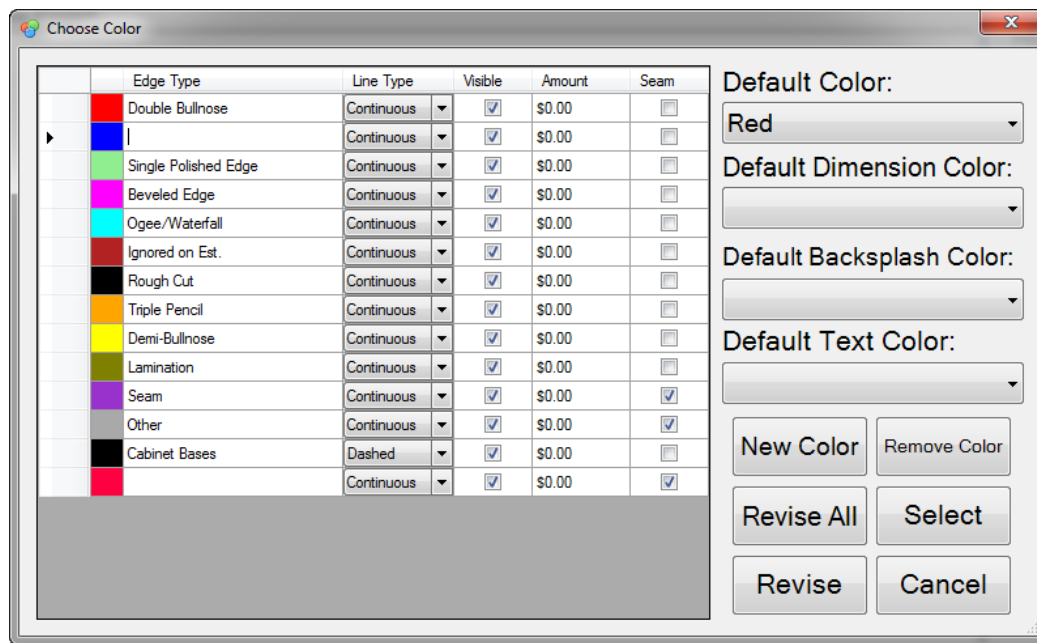
## 2.56 Dimensions

Clicking **Dimensions** will bring up the dimension of every line templated. To remove the dimensions just click on **Dimensions** button again.

You can edit the way the dimensions will appear by going into the **View** menu and changing how the software will display measurements.

## 2.57 Color

**Color** will present you with a screen where you can choose the color you want to template with. It also allows you to set the default color that will be used when taking measurements.



**Edge Type** can be changed if you double click in the field next to the color.

**Line Type** can be changed from Continuous to Dashed depending on if you want to use the color to cut off of or as a reference line.

The **Visible** check box is used if you want to hide certain colors from view. These are commonly measurements that don't need to be seen once you move to production on CNC machines.

**Amount** is used to give a value to the linear length of an edge type being used. (e.g. charging \$5 per linear foot of an ogee edge).

**Seam** allows the user to designate if a color is a seam line. This is helpful when using Slab Layout allowing you to split parts of the job along that seam line. The program knows that a seam line will need to be split and duplicated so that it keeps the line on both pieces.

**Default** colors are used so that when you initially open the program on a jobsite, you will always have the colors set the way you intend to use them. This way, you don't need to define the color for Dimensions, Backsplashes or Text on each job.

**New Color** will allow you to add a new color to your pallet while **Remove Color** will remove whatever color is highlighted when it is clicked.

**Revise** allows you to change the color of previously drawn lines by clicking on the color you want to use, then pressing Revise and taping on the entities you want to change. **Revise All** does the same only it will change every line's color to the chosen color.

## 2.58 Drop-In

Pre-saved .dxf items can be used as a **Drop-In**. Mainly sinks and edges are used with the feature but you can add anything you want. This would include marks to signify edge treatments, center lines for sinks or anything else you want to design.

1. Click **Drop-In**.
2. Select the drop-in you want to use from the list on the left.
3. Select the color you want to have the drop-in be presented in.
4. Rotate the dropping to the angle you want it and click **OK**.
5. Select the line you want the drop-in to be on. Remember that you need to first rotate that edge so that when you drop in the sink they will be parallel to each other.
6. Lastly, you can offset the sink back away from the edge you placed it on.
  1. Click **Offset**.
  2. Enter the distance you want to offset the drop-in.
  3. Select the sink you want to be offset. A message will ask "Would you like to move the entire drop-in?"
  4. Click **Yes**. The sink will turn gray to show you selected it.
  5. Click in the direction you want to offset the sink.

Drop-ins are located in the following path: C:\Users\{UserName}\AppData\Roaming\LT55-XL\v2.0\Templates

## 2.59 Quick Action

The **Quick Action** feature is used to store your most commonly used actions. To use the **Quick Action** feature:

1. Click **Quick Action**.
2. Select the action you want to use from the list.
3. Use the **Quick Action** as you normally would.

## 2.60 Undo

**Undo** simply take one step backwards to your previous action. This can go as far back as 20 times. So you can **Undo** 20 actions.

## 2.61 Redo

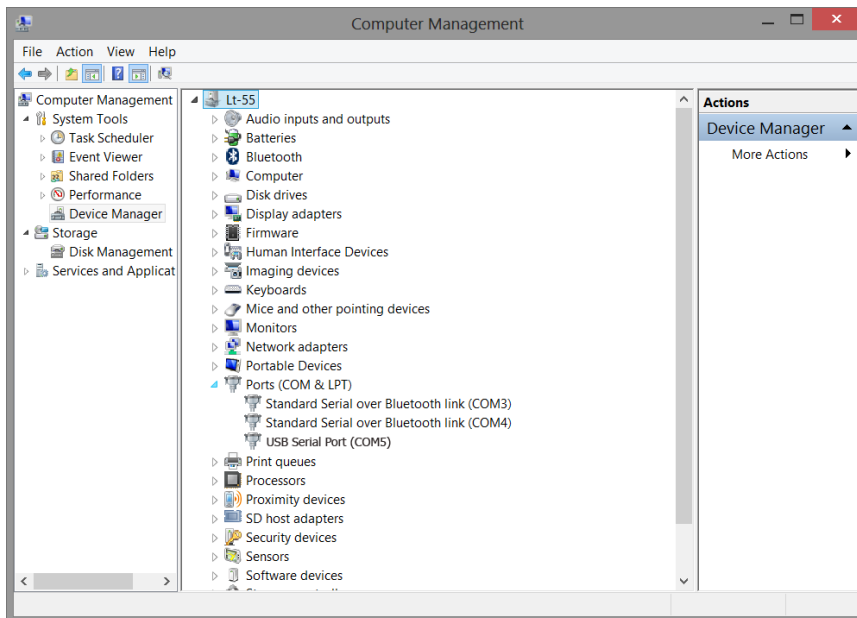
**Redo** simply takes a step forward after an Undo. So if you clicked **Undo** and went backwards too far, **Redo** will move you forward in your progression.



## 3.0 BLUETOOTH PAIRING

### 3.1 Pair Laser to the Tablet PC (Pre-February, 2016)

1. Turn on tablet PC
2. Once finished booting, plug in USB cable and wait until you hear a kerplunk sound indicating it has connected.
3. Click **Start** (Windows logo) and type *Devices and Printers*. Click **Enter**
  - a. Click **Add a device**
  - b. Turn on the Laser by pressing the power button.
  - c. A green LED will light up on the side indicating it is on.
4. You will see a device appear that is first named "Other," "Unknown," but will quickly change to "LT55-XL," "Laser," or "Disto #####."
5. Click on that device and then click **Next**.
6. Enter the device's passcode of **0000** and click **Next**.
  - a. You might see an error saying "That passcode isn't right. Try adding your device again." If that happens, click Close and try to add it a second time.
7. Right click or click and hold on the newly added device and click **Properties**.
8. Click the *Hardware* tab and look for the COM# for the laser and record it.
9. Click **Start** (Windows logo) and type *Device Manager*. Click **Enter**.
10. Click the triangle before **Ports (COM & LPT)**



11. Look for **USB Serial Port (COM#)**
  - a. Take note of what COM Port # the encoder is connected through. In this example it is COM5
12. Look for **Standard Serial over Bluetooth link (COM#)**
  - a. Take note of what COM Port #'s the laser is connected through. In this example it is COM 3 and COM4. We want to use the one that was listed above in step 8.

### 3.2 Setting Comports (Purchased Pre-February, 2016)

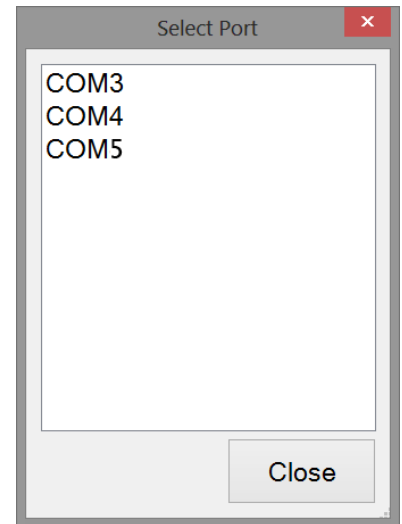
1. Open the Laser Templator program
2. Click **File / Help / Setup Device**

● LT-2D3D

Laser Connection:

Encoder Connection:

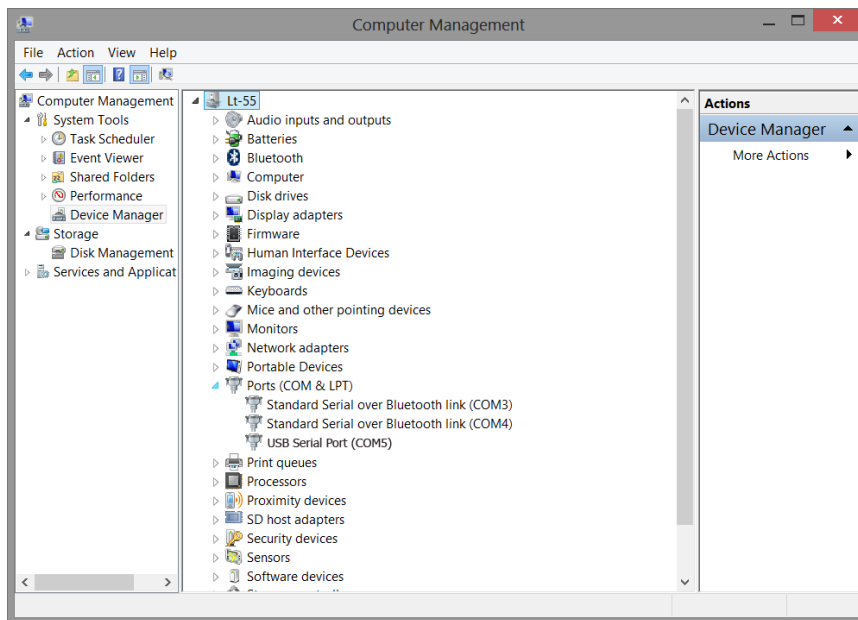
- a. Double click in the box to the right of Laser Connection.
  - b. Double click on the correct COM Port # from the steps above.
  - c. Double click on the box to the right of Encoder Connection
  - d. Double click on the correct COM Port # from the steps above.
3. Click **Connect** and wait for the laser to connect.



### 3.3 Pair Laser to the Tablet PC (Purchased Post-February, 2016, marked R4.1 on the bottom label)

1. Turn on tablet PC
2. Once finished booting, plug in USB cable and wait until you hear a kerplunk sound indicating it has connected.
3. Click **Start** (Windows logo) and type *Devices and Printers*. Click **Enter**
  - a. Click **Add a device**
  - b. Turn on the Laser by pressing the power button.
  - c. A green LED will light up on the side indicating it is on.
4. You will see a device appear that is first named "Disto #####"
5. Click on that device and then click **Next**.
6. Click **Start** (Windows logo) and type *Device Manager*. Click **Enter**.

7. Click the triangle before **Ports (COM & LPT)**



8. Look for **USB Serial Port (COM#)**

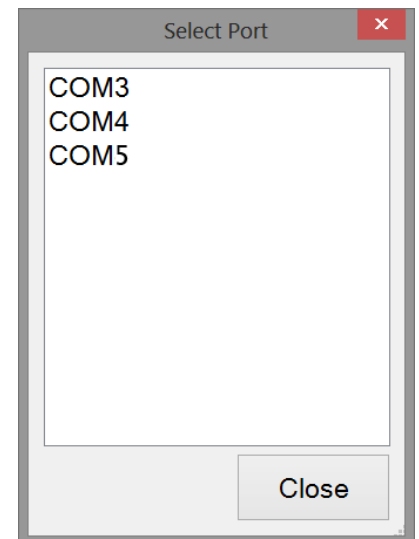
- a. Take note of what COM Port # the encoder is connected through. In this example it is COM5

### 3.4 Setting Comports (Purchased Post-February, 2016, marked R4.1 on the bottom label)

1. Open the Laser Templator program
2. Click **File / Help / Setup Device**



- a. Double click in the box to the right of Encoder Connection.
  - b. Double click on the correct COM Port # from the steps above.
3. Click **Connect** and wait for the laser to connect.



## 4.0 METHODS OF USE

### 4.1 Tripod Setup / Mounting

The laser is mounted to the level base by means of the metal stud. Once this stud is inserted in the level base, tighten the screw to hold it in place. This screw should be tight at all times while the unit is in use.

The level base also has two large adjustment knobs for leveling (pre-February 2016 models). The laser can be adjusted so that it is in the same plane as the surface you are templating (the most common scenario), or adjusted to a level plane. Level vials are located on the top of the LT-2D3D base. Remember, level is not as important as being in the same plane as the surface you are measuring.

Do not raise or lower tripod if you intend on templating in 3D. Doing so will result in inaccurate measurements.

The folding table tripod should have its legs fully unfolded and horizontal when in use. This tripod allows the laser to function in the same manner as the standard tripod however it will allow the laser to be mounted into smaller areas like on top of a countertop for measuring backsplashes.

### 4.2 Jobsite Placement

One of the most important things to do before you template a job is to place the laser in the correct location. Try to visualize a location where most if not all points that need to be measured can be seen. This will allow you to place the laser in the location with the highest probability of no needing to reposition the laser.

### 4.3 Targets

#### 4.3.1 Pin Targets

Pin Targets are used when you are trying to measure a surface that would normally have a very drastic angle (anything under 20°). Place the target where you want the measurement to be and then rotate the pin so that the front flat surface faces the laser.

#### 4.3.2 “T” Targets

“T” Targets are like the top portion of Clamp Targets only the vertical portion of it is split down the middle and bent downward. This makes it very easy to butt up against a cabinet base or countertop.

#### 4.3.3 Clamp Targets

Clamp Targets are used when you are templating the front surface of a cabinet base and you want to measure it with a predefined overhang or set back. Place the target on the cabinet base and the slide it forward or backwards to match with the overhang or setback distance you want.

#### 4.3.4 Black Shields

The Black Shields are not actually targets but are used when templating and worried about targeting. Sometimes while templating you will see reflection. Reflection is when the laser bounces off the surface you are measuring to and is visible on another surface. The laser can pick up both of these laser dots and can give you inaccurate measurements. To stop this, place a Black Shield to prevent reflection and then take the measurement.

### 4.4 Causes of Bad Measurements

#### 4.4.1 Reflection

See 5.3.4 *Black Shields*. As stated before. Reflection occurs when the laser beam bounces off one surface and is visible on another. The reason that this could cause bad measurements is that the sensor will see **two** dots at

different distances away from itself. To prevent reflection, try to place the laser beam about 3" away from a corner, directly in the corner and then again 3" away from the corner. This way you will be able to get an accurate measurement of both walls and account for any drywall mud build-up.

#### **4.4.2 Drastic Angles**

Drastic angles will cause the laser dot to become elongated. The longer this dot becomes the more of likelihood that a measurement might be incorrect. Try to keep the dot to no longer than 1" in width. Beyond 1", consider placing the laser in a different location or using a target to prevent the elongated dot.

#### **4.4.3 Dirty Lens**

Just like the lens of a camera, it is important to keep the lens of the laser clean to ensure proper measurements. It is recommended that before each job you check the lens to make sure there are no fingerprints or other smudges present. If necessary, use the included microfiber cloth to clean the lens.

### **4.5 Micro Adjust**

The Micro Adjust allows the user to make finer adjustments to the laser beam location on the surface you are measuring.

#### **4.5.1 Mounting on Tripod**

When attaching the LT-2D3D to the tripod, position the horizontal micro adjust knob so that it is in a convenient position as it will remain stationary relative to the tripod.

#### **4.5.2 Usage**

The micro adjusts for horizontal and vertical movement are engaged by pulling the black knurled knobs outward and disengaged by pushing them in towards the unit. The micro adjusts should always be disengaged when moving the laser manually.

#### **4.5.3 Adjusting Tension**

The tension for the micro adjust knobs can be adjusted with a small flathead screwdriver. The screws for these are located just next to the respective micro adjust knob, on the flat side of the plates.

When adjusting the tension on either the manual movement or the micro adjusts, small changes will have a large affect. Also, changing the manual movement tension will likely require the micro adjust tension to be adjusted as well. If you notice the micro adjust slipping, loosen the tension on the manual movement setscrew slightly.

The tension for manual movement of both the horizontal and vertical axes can be adjusted via set screws using a 0.050" hex driver. The set screw for the horizontal movement is on the bottom of the unit, between the level vial and tripod mount. The set screw for vertical movement is just below the 2D lock knob.

## 5.0 POWER INFORMATION

### 5.1 Battery Life

The battery life will vary based on usage. Typically, this can be up to 8,000 measurements between charges. When the battery is low on voltage, the 'Low Battery' LED will blink red. It is recommended that you save your current progress and begin charging the laser when possible at this point. The laser can still be used while charging.

### 5.2 Battery Indication LEDs (Pre-February, 2016)

On the side of the laser, there are 3 LEDs that have different colors to them. Each one is described below.

#### Power LED

- **Green** – Laser is on

#### Low Battery LED

- **Red Flashing** – When the battery is low

#### Charging LED

- **Red** – When the charger is first plugged in and is determining the temperature and status of the batteries it will stay red if the batteries are too cold and then turn amber once they warm up enough. Usually you cannot see it go from red to Amber when you first plug in the laser.
- **Amber** – Charging
- **Green** – Done charging

For longest life on batteries, charge the laser completely (**Green**), use until empty (**Red**) or close to empty (**Red Flashing**).

### 5.3 Battery Indication LEDs (Purchased Post-February, 2016, marked R4.1 on the bottom label)

On the side of the laser, there are 2 LEDs that have different colors to them. Each one is described below.

#### Power LED

- **Green** – Laser is on

#### Low Battery LED

- **Red Flashing** – When the battery is low (approximately 15%). The laser will also make three quick beeps once a minute when the battery is below this level.

#### Charging LED

- **Red** – When the charger is first plugged in and is determining the temperature and status of the batteries it will stay red if the batteries are too cold and then turn amber once they warm up enough. Usually you cannot see it go from red to Amber when you first plug in the laser.
- **Amber** – Charging
- **Green** – Done charging

For longest life on batteries, charge the laser completely (**Green**), use until empty (**Red**) or close to empty (**Red Flashing**).

### 5.4 Charging at Home and in a Car

The laser can be charged by plugging the supplied charger into the jack on the laser head. The 'Charging' LED on the laser head will display the current status. When the charger is first plugged in, the 'Charging' LED will briefly be red while it is determining the battery's condition (this may be so brief that you cannot see it). The LED will then change to amber while it is charging the battery. When the battery is fully charged, the LED will change to green.

The supplied tablet computer should be charged in accordance with the instructions in its documentation.

Only use the supplied chargers for both the laser and tablet computer. The use of other chargers may void the warranty and cause damage to the components.

Charging the laser, tablet computer, or both in a car should be done with an appropriate inverter. A 250-watt inverter is sufficient to charge both simultaneously. Refer to the inverter's manual as it is sometimes necessary to wire it directly to the car's electrical system rather than through a cigarette lighter plug.

## **5.5 Normal Power Off Procedure**

- Lasers produced before 2/22/16 are programmed to turn off when the user exits the software.
- If the laser is turned on and left to sit for 6 minutes without being connected to the tablet PC, it is programmed to turn off to save power.
- Lasers produced after 2/22/16 are programmed to turn off within three minutes of exiting the program automatically. The user can also hold the power button for 3 seconds and the laser will turn off.

## **6.0 GENERAL INFORMATION**

### **6.1 Warranty Information**

#### **Covered**

Laser Products Industries (LPI) guarantees the LT-2D3D/LT-55 XL to be free from defects in material and workmanship under normal use and services and will meet the following specifications while being operated under normal conditions as defined in the training material supplied and/or the training provided by the staff of LPI.

#### **Specifications**

1. Accuracy of any measurement of  $\pm 1/16''$  for measurements up to 50 feet on industry standard surfaces.
  - a. Accuracy guarantees apply to the measurements shown on the LT-2D3D/LT-55 XL and the associated output files only; LPI cannot guarantee the accuracy of any ancillary equipment used in conjunction with the LT-2D3D/LT-55 XL.
2. Capability of measuring up to 325 feet under ideal conditions.
3. Battery life of a minimum of 50 hours for the LT-2D3D/LT-55 XL.
4. Battery life of the supplied computer in accordance with the manufacturer's specifications.
5. Compatibility of the output .dxf, .dwg, .pdf, .csv, and .jpg files.
6. Software second license compatibility with supported hardware and software.
7. Tablet operability in conjunction with the LT-2D3D/LT-55 XL.

#### **Not Covered**

This warranty does not cover equipment that has been lost, stolen, damaged by natural disaster or resulting from unauthorized modification nor does it cover any malfunctions or damage deemed abuse or misuse.

#### **Duration**

This warranty is valid for one (1) year from the original date of purchase from LPI or one of its distributors.

#### **Warranty Determination**

Should the LT-2D3D/LT-55 XL or one of its components' specifications fall into question, LPI reserves the right to operate it in the presence of the customer either in person or through remote support to verify. If any component is shown to not meet the stated specifications, LPI reserves the right to repair or replace any defective component at no cost, provided the product is under warranty.

#### **Obtaining Warranty Service**

To obtain warranty service, you must first contact our Service Department so we can schedule a return on the product and if needed, send a loaner unit during the repair period. The LT-2D3D/LT-55 XL must be returned in its original packaging and include your contact information in the event that we need to contact you before we perform repairs. Include, your name, company name, return address, and phone number. Any returned equipment must be complete with all accessories and packaging and is subject to a fee based on the condition and completeness of the unit. LPI will provide a loaner LT-55 XL/LT-2D3D and/or tablet computer, if needed, should your unit need to be sent in for repair. Laser Products includes free shipping (UPS Ground) on all repairs/exchanges. Return shipping to LPI is responsibility of the customer.

#### **Transferability**

This warranty is transferrable to another company only after written approval by LPI.



## 6.2 Laser Safety Guidelines

These guidelines are for your own protection and that of others around you. Lasers have a unique set of dangers not present with other equipment common at work or at home.

- Like most laser point devices, it is important to exercise caution with operating this device.
- Never look into the beam of this or any other laser. This also includes pointing it at others around you.
- Always turn off the laser beam when it is not being used to avoid accidental eye exposure.
- When adjusting or aligning a laser, beware of reflections from all surfaces.
- Never randomly aim a laser at other people. Although this laser is low power, direct eye contact should always be avoided. This is a tool just like any other power tool on a job site and should be treated that way.
- Instruct anyone else with you as to the hazards of laser light and make sure they understand all of these guidelines. Those with you may actually be in MORE danger because you will know what to expect and what to avoid unlike them.
- This product conforms to IEC Regulations

## 6.3 Using the Computer with Other Programs

The computer that comes with this laser runs a full installation of Windows and can run most Windows compatible programs. However, installing any programs other than those that are installed at the time you receive it can alter or hinder operations and functionality. We strongly suggest you only use this tablet for templating and other related functions.

We do not support the Laser Templator software on domains for networked usage. We will try to help where needed but cannot guarantee we will be able to solve issues outside of the core functionality of the software.

## 6.4 Cleaning / General Care and Storage

The LT-2D3D are precision measurement tool and needs to be treated with care. Please follow the guidelines below.

- **Make** sure the lens of the laser is clean before starting every job. Finger prints and smudges can affect accuracy of the laser.
- Handle the tablet PC with care. This is a computer and like all computers, if they are treated roughly, the internal components or outside casing can be damaged.
  - As stated above in the warranty, misuse / abuse is not covered in the warranty which include but are not limited to:
    - Cracked / broken screens.
    - Over-rotated screens (on tablets that have them) caused by rotating in the wrong direction or going past the point in which they are supposed to be stopped.
    - Dropping any part of the device leading to cracked outside housing or damaged internal components.

## 6.5 LT-2D3D Laser Templator Specifications

The LT-2D3D software was designed to be used on any current Windows computer (Windows XP, Vista, 7, 8, and 10). We have heard of customers using it on Windows Server 2000, 2003 and 2008 however we have not tested this nor do we support it. If you choose to install the software on a server, we offer no support.

LT-2D3Ds built after 2/15/2016 are do not use a leveling base anymore. Because of this, you can use this laser on any old tripod that doesn't have a leveling base. However, you CANNOT use an older LT-55 XL/LT-2D3Ds on a new tripod that came with one of these LT-2D3Ds.

## 6.6 Training Videos

With the purchase of every LT-2D3D Laser Templator, training videos are included. Please watch those videos to learn how to use this digital templating system properly. This user manual is meant to be a quick reference and used in conjunction with the videos but is not meant to replace watching those training videos. They can be viewed on our website as well at <http://laserproductsus.com/videos/>

## **7.0 TECHNICAL INFORMATION**

### **7.1 Accuracy and Distance Specifications**

- Accuracy of +/- 1/16" up to 50 feet on industry standard surfaces
- Capable of measuring up to 200 feet to industry standard surfaces
- Capable of measuring up to 600 feet using an appropriate target under ideal conditions

### **7.2 Storage and Operating Temperatures**

- Storage: -4 °F to 113°F (-20°C to 45°C) (LT-2D3D Laser Templator)
- Operation: 32°F to 113°F (0°C to 45°C) (LT-2D3D Laser Templator)
- Storage: -4 °F to 95°F (-20°C to 45°C) (Tablet PC)
- Operation: 32°F to 95°F (0°C to 45°C) (Tablet PC)
- Minimum temperature required to charge the batteries: 32°F (0°C)

### **7.3 Laser Specifications**

- 635nm
- <1mW
- Class 2 Laser Product
- Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice no. 50, dated May 2001, with IEC 60825-1 (2001) and EN 60825-1.

## **8.0 CONTACT INFORMATION**

Laser Products Industries  
1344 Enterprise Dr.  
Romeoville, IL 60446 USA

P: 630-679-1300

F: 630-679-1356

<http://laserproductsus.com>

[info@laserproductsus.com](mailto:info@laserproductsus.com)

## 9.0 REGISTRATION

In order to service your laser, we need to make sure we have all of your company information. Please take a moment to fill out the information below so that we can better understand your company and serve your needs. This can be faxed (630-679-1356), emailed (info@laserproductus.com) or mailed to us (1344 Enterprise Dr., Romeoville, IL 60446)

### General Information

Company Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Templator's Name(s): \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Website: \_\_\_\_\_

Email: \_\_\_\_\_

LT-2D3D Serial Number: \_\_\_\_\_

### Fabrication Information (Please circle all that apply)

Production Information: Automated Plant   Fab Center   CNC Router   CNC JetSaw   CNC Saw   CNC WaterJet Bridge  
Saw   Outsource Fabrication   Training Facility

Kitchens/Jobs Per Week: \_\_\_\_\_

CAD Experience: Beginner   Intermediate   Advanced

Associations you are a member of: AWFS   ISFA   MIA   NKBA   SFA   WFCA   IFAI   MFA   PAMA

Other: \_\_\_\_\_

Other Digital Templating Products Used: \_\_\_\_\_