

Welcome to our Embroidery Essentials Webinar. Today's webinar will use a combination of written instructions as well as visual demonstrations. This document contains all the information that will be covered in detail.

It takes more than a great machine to produce great embroidery. There are several factors that go into the process, including proper thread tensions, the right needle, appropriate backing, hooping techniques, quality design creation setup, proper software settings, etc. We will learn all of these variables, what they are and how they interact. We categorize these variables into what we affectionately call the 3 P's of Embroidery Perfection.

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## **P**reparation of the Garment

You will learn how to compensate for the negative characteristics of the garment using Backing, Topping and Needles.

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## **P**lanning the Design

You will be introduced into the Tajima DG/ML by Pulse software and cover basic design creation as well as elemental editing files.

# Preparation of Garment

## Fabric Characteristics

Understanding Different Materials is perhaps one of the greatest challenges an embroiderer must learn.

The reasons for this are simple:

- 1 - There will be a variety of fabric types that your customers will ask you to embroider on.
- 2 – With all the different hooping aids available on the market today, you can embroider on virtually any object!

So, to get you started thinking in the right direction, I've split fabrics into separate categories based off of certain characteristics: Stretch and Give, Bulk and Thickness and Surface Texture.

### Stretch and Give

#### Garments that Stretch

- Knit Garments
  - Tee Shirts
  - Fleece
  - Sweaters
  - Pique Polo Shirts

#### Garments that won't stretch

- Woven Garments
  - Twill
  - Denim
- Non-Woven Garments
  - Felt
  - Terry Cloth
  - Leather
  - Suede

Any type of knit garment will stretch and give even when the garment is hooped. This is because of the fibers used and also how those fibers were woven together.

*After the training today, pick up a tee shirt that you have and gently tug the garment by pulling your hands apart. Notice how easy it is to stretch.*

Woven Fabrics and Non – woven fabrics are very stable because they do not stretch and give.

*Again, pick up a denim shirt or a leather jacket and gently tug the garment by pulling your hands apart. Notice that the fabric doesn't stretch and resists the pull.*

## Bulk and Thickness:

### Thick/Bulky Garments

- Fleece
- Towels
- Blankets
- Sweaters
- Wool
- Faux Fur

### Thin Garments

- Tee Shirts
- Linen
- Cotton
- Silk
- Satin

Thick / bulky fabrics are generally soft and allow the stitches to sink into the material. The result will affect the overall coverage of your stitches and in some cases, cause the stitching to shift on the pile of the fabric.

With thin garments, great care is taken to ensure that there aren't too many stitches to eat the fabric up causing puckering around the design, birdnests or runs in the fabric.

## Surface Texture:

### Smooth Fabrics

- Tee Shirts
- Linen
- Cotton
- Silk
- Satin
- Leather
- Suede
- Denim
- Twill

### Textured Fabrics

- Fleece
- Towels
- Sweaters
- Pique
- Faux Fur
- Wool
- Felt
- Terry Cloth

A smooth unbroken surface provides a stable platform for the stitches to sew on.

A fabric that has a rough surface texture will cause the stitches to lie somewhat haphazardly on the fabric, causing the edges of letters to look uneven and jagged.

Some of the fabrics are included in multiple groups. Careful attention should be paid to ensure good quality embroidery.



# Backing

Now, that we've explored the negative characteristics of fabrics, let's discuss how we can compensate the fabric.

One of the most important items to consider is Backing. Backing or stabilizer is a fabric material that is placed behind the garment and hooped with it. Backing material is very stable and won't shift or stretch during the hooping process or even the sewing process. During the sewing process, the backing material is attached by the stitches thus transferring the stable characteristics to the garment and anchoring the fabric in place.

Backings also improve detail stitching.

There are basically 2 groups of backing to choose from – cutaway and tearaway. Both styles come in different weights, colors and sizes. The difference comes from its function.

## Cutaway Backing

### Sample Fabrics to use Cutaway Backing

- Tee Shirts
- Sweatshirts
- Sweaters
- Pique Polo Shirts
- Spandex - including fabrics with cotton/spandex blend
  - Underarmour / Moisture wicking shirts

Cutaway Backing is typically a non woven material and cannot be torn. Therefore, it is permanently attached to the garment during the sewing process. This provides the best stability to your garment and thus should be used on unstable garments. Once the garment is laundered, the cutaway backing will soften considerably, much like a dryer sheet.

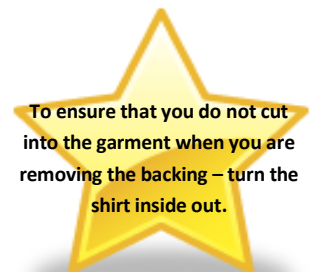
#### How to use it

When using Cutaway backing, you will choose a piece larger than the hoop you will use. Place it under the garment and hoop it with the garment.

#### How to remove it

Once the sewing process is completed, you will cut away any excess backing, leaving approximately .25" around the design.

You will need to take care that you do not cut into the actual garment while cutting the excess backing and you can round any sharp corners to give a smooth corner.



## Tearaway

### Sample Fabrics to use Tearaway Backing

- Blankets
- Towels
- Leather
- Suede
- Caps
- Bags
- Denim
- Twill


Tearaway is typically a paper type material and can be “torn” away from the garment, so the stable characteristics of this backing is only temporarily applied. Therefore, the fabrics that you apply tearaway backing should be stable enough to hold the stitching after the backing is torn away. It is most commonly used for fabrics where the back of the embroidery design will be seen.

#### How to use it

When using Tearaway backing, you will choose a piece larger than the hoop you will use. Place it under the garment and hoop it with the garment.

#### How to remove it

Once the sewing process is completed, you will simply tearaway it away from the item.



Tear in the opposite direction of the stitches of a design that contains long satin stitches. This will keep the stitching from pulling with the backing.

## Specialty Backings

### No Show Polymesh

- Light Colored Garments
- Spandex
- Underarmour
- Moisture Wicking Garments

### Peel 'n Stick

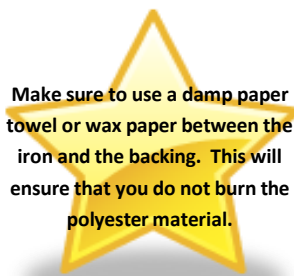
- Caps
- Bags

We also have specialty backings available for those really specific applications: No – Show Polymesh and Adhesive Backing.

## No Show Polymesh

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Use the No Show for garments that need a Cutaway backing, but you don't want to see the outline through the garment. One of the rapidly growing uses of the no show backing is on the 100 % polyester or moisture wicking garments. These garments are very much like spandex and that they will stretch whichever way and no matter what type of backing you use. But, with the No Show Polymesh, you can iron the backing from the inside of the shirt and it will smooth the wrinkling around the embroidery design.



Make sure to use a damp paper towel or wax paper between the iron and the backing. This will ensure that you do not burn the polyester material.

### How to use it

When using No Show Polymesh backing, you will choose a piece larger than the hoop you will use. Place it under the garment and hoop it with the garment.

### How to remove it

Once the sewing process is completed, you will cut away any excess backing, leaving approximately .25 " around the design.

You will need to take care that you do not cut into the actual garment while cutting the excess backing and you can round any sharp corners to give a smooth corner.

## Peel 'n Stick

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The Peel N Stick backing is a form of tearaway backing and is especially popular for bags. It is used primarily on the clamping systems or the quick change frames. Just remember that it does have an adhesive side and therefore it is not recommended for garments with nap. It may accidentally leave a bare spot.

### How to use it

When using Peel 'n Stick backing, you will choose a piece larger than the hoop and place it under the garment and hoop; or if you are using it with your clamping system, you will choose a piece larger than the window you want to use. Place the sticky side face up and then press the garment into the sticky backing.

### How to remove it

Tear away any excess backing just as you would for regular tearaway backing.



Because it has an adhesive side, it is not recommended on fabrics with nap or loose fibers. It may accidentally leave a bare spot on the fabric.

## Backing Guidelines

### Choosing A Weight

- Thick/bulky garments require heavier weight backing
- High stitch count designs require heavier backing
- Thin fabrics require light weight backing
- Low stitch count designs require lighter weight backing

### Choosing Sizes

- Backing can be purchased precut or by the yard.
- If you find that you embroider mostly left chest size designs, go with the precut backing to save you time cutting.
- If you do many different size embroidery designs and different applications, you will benefit from cutting your own backing to fit your design size. Stay away from trying to piece together backings. This truly defeats the purpose of using a backing at all.

# Toppings

## Sample Fabrics to use Toppings

- Cordoroy
- Pique Polo Shirts
- Sculptured Knits
- Large Twills
- Terry Cloth
- Towels
- Fleece
- Velvet
- Faux Fur
- Fluffy Materials

Topping is a special material – usually water soluble that is placed on top of your garment before being hooped. It looks very much like plastic kitchen wrap but is not clingy and will melt when it is wet. You use toppings to prevent the edges of your design from sinking into the material by offering a flat surface for your stitches to sew on.

After the sewing process, un-hoop the garment and tearaway as much as you can of the topping. You can use a steamer or a misting bottle to get the remaining topping damp, then use the topping that you ripped off earlier and blot at the garment. The remaining topping will lift right off the garment. Take care that you don't rub. The topping becomes very gluey and will smear across the garment if you rub.

### How to use it

Place the topping on top of the garment and then hoop it. Embroider your design as usual.

### How to remove water soluble topping

After you un – hoop your garment, tear off as much of the topping as you can. Then use a spray bottle with water and mist it lightly or steam for a couple of seconds. Take what you've ripped off and blot at the remaining pieces. It will lift right off the garment.

### How to remove melt away topping

After you un – hoop your garment, lay a paper towel on top of the melt away. Iron on medium setting with no steam or water until the melt away becomes little flakes. Then simply brush them off the garment.



# Needles

Needle Size	Needle Point	System Number
<ul style="list-style-type: none"><li>• Needle Size denotes the diameter of the blade or shaft.</li></ul>	<ul style="list-style-type: none"><li>• Sharp</li><li>• Ball</li><li>• Wedge</li></ul>	<ul style="list-style-type: none"><li>• Denotes size of needle and size of the eye</li></ul>

Another important item to consider when compensating for these fabric characteristics are needles. There are several different variables to consider when selecting a needle: application, current needle size in use, thread type and weight and needle eye size. A needle has 3 defining characteristics: needle size, needle point, and system number.

## Needle Size

Needles size denotes the diameter of the blade or shaft. The size that you would select to use is dependent upon the thick/stiffness of the fabric as well as the thread weight. In general, the larger the needle the larger the eye.

The larger the needle size, the larger the blade and hole made in your fabric. The result is a stronger needle.

For heavy, stiff fabrics, a larger size needle should be selected.

For lightweight fabrics, a smaller needle can be used.

## Needle Point

SHARP: Typically used for tightly woven fabrics, such as denim, twill, towels or corduroy. As the needle passes through the fabric, it may actually cut fibers. However, since these garments are tightly woven, this is generally not a problem.

BALL: Typically used for knit goods, fleece and delicate fabrics. The tip of this needle is smoothed so that when it passes through the garment it will push the fibers aside, allowing the fibers to close back around the thread.

WEDGE: Typically used for tough non – woven fabrics, such as leather. It cuts as it passes through the fabric and reduces friction.



## Needle System Point

Another descriptive term for needles, it is a combination of numbers and/or letters referring to the total length of the blade and size of the needle eye.

DBxK5 – Standard for commercial embroidery machines.

DBx7ST – Has a larger eye that is elongated and rectangular in shape. Most common use is with metallic threads.

DBx9ST – Needle eye is twice the size of the DBxK5 and is useful for heavy embroidery threads.


Below is a recommendation chart for choosing the most appropriate needle for the fabric that you will be embroidering.


Needle Recommendation Chart		
FABRIC/GARMENT	NEEDLE SIZE	NEEDLE POINT
Canvas	80/12	Sharp point
Coated or Waterproof Fabrics	80/12	Sharp or light ball point
Corduroy	75/11	Sharp or ball point
Cotton Sheeting	70/10 to 80/12	Sharp point
Denim	75/11	Sharp point
Dress Shirt (woven)	70/10 to 80/12	Ball point
Golf Shirt (Knit)	70/10 to 80/12	Ball point
Lace	75/11	Sharp point
Leather	80/12	Sharp or wedge point
Lingerie and Silk	60/8 to 75/11	Sharp or light ball point
Lycra or Spandex	70/10 to 80/12	Medium ball point
Nylon Windbreaker	70/10 to 80/12	Light ball point
Organza	65/9	Ball point
Rayon	75/11	Ball point
Satin Jacket	75/11	Sharp point
Sweater	75/11	Sharp point
Sweatshirt	70/10 to 80/12	Light ball point
Taffeta	65/9	Ball point
Terry Cloth Towels	75/11	Sharp or ball point
Velvet	65/9	Ball point
Vinyl	75/11	Sharp point


Now, that we've explored all the variables that contribute to garments, let' put it all together.


Here are some samples of what you would use for different garments.

{Garment Name}	CAP	
{Placement}	FRONT	
{Needle Information}	75/11 DBxK5 Sharp Point	
{Backing}	Tearaway 3.0 oz	
{Topping}	N/A	
		<p>{Design Max Size}</p> <p>WIDTH: 12.50 inches</p> <p>HEIGHT: 2.25 inches</p>

{Garment Name}	Shirt: Tee Shirt, Polo, Sweatshirt, Placket, etc.	
{Placement}	Left Chest	
{Needle Information}	75/11 DBxK5 Ball Point	{Design Max Size}  WIDTH: 4.00 inches  HEIGHT: 4.00 inches
{Backing}	Cutaway 2.5 oz (can substitute with 2 ply 1.0 oz No Show Polymesh)	
{Topping}	N/A (unless loosely woven)	

{Garment Name}	Towel: Hand, Finger, Bath	
{Placement}	Front Bottomed Centered <or> Caddy Cornered	
{Needle Information}	75/11 DBxK5 Sharp Point	{Design Max Size}  WIDTH and HEIGHT: choose most appropriate for size and location of design
{Backing}	Tearaway 2.0 oz	
{Topping}	Melt Away	

{Garment Name}	Sweatshirt <or> Jacket	
{Placement}	Back Centered	
{Needle Information}	75/11 DBxK5 Ball Point	{Design Max Size}  WIDTH and HEIGHT: choose most appropriate for size and location of design
{Backing}	Cutaway 2.0 – 2.5 oz	
{Topping}	N/A	

{Garment Name}	Sweatshirt <or> Jacket	
{Placement}	Front Centered	
{Needle Information}	75/11 DBxK5 Ball Point	{Design Max Size}  WIDTH or HEIGHT: choose most appropriate for size and location of design
{Backing}	Cutaway 2.0 – 2.5 oz	
{Topping}	N/A	

# Introduction

Thank you for purchasing the Tajima DG17 embroidery software solution. This is the latest in embroidery creation technology brought to you by Tajima Software solutions.

This document outlines the major differences between Tajima DG17 and the previous version. It is intended to be used in combination with the program user's guide or the online help. You can also access documentation under the Help menu or by pressing F1 key from within the program.

Tajima DG17 has many new features; note that some features may only be available in specific levels of the software.

## **Recommended Systems Requirements:**

Below is a list of the recommended computer specifications if you plan to purchase a computer for Tajima DG17.

- PC with 64-bit 3.0 GHz Quad Core Genuine Intel Processor
- Microsoft Windows® 10 or Windows® 11 operating system (64-bit)
- 16 GB RAM
- 4 GB hard disk drive space available
- Mouse
- At least one Universal Serial Bus (USB) port (for attaching the security device)
- A LAN (Local Area Network) connection

## **Minimum system requirements:**

- PC with a 64-bit 2.5 GHz (or faster) Quad Core Genuine Intel processor
- Microsoft® Windows® 10 or Windows® 11 operating system (64-bit)
- 4 GB RAM
- 1 GB hard disk drive space
- Mouse
- At least one Universal Serial Bus (USB) port (for attaching the security device)
- A LAN (Local Area Network) connection

Additionally, an internet connection required for access to PulseCloud services.

**Important note for Windows 11 "Home" edition users:** As installed, Windows 11 Home edition will be in "S" mode by default. In this mode, you are only allowed to install software that comes from the Microsoft store, so you will not be able to install Tajima DG17. To switch out of "S" mode, do the following:

- Open the Microsoft Store and navigate to the "Switch out of S mode" page.
- On this page, select "Get". Once you see a confirmation notification from the Microsoft store, you will be able to install DG17.

## 1.3 New Installation Options -Units, Fonts, and Density Setting

A new page has been added to the Tajima DG17 installation procedure. On this new installation page, you can decide which of the following will be the default behavior in the software:

- **Units:** Select either metric (mm) or Imperial (inches)
- **Fonts:** Hide old fonts (so that only new-style fonts will appear) or use both old and new style fonts.
- **Density:** Choose how the stitch density will be displayed – either absolute density or relative density (with relative density, the density is expressed relative to a set default density value).

## Planning the Design

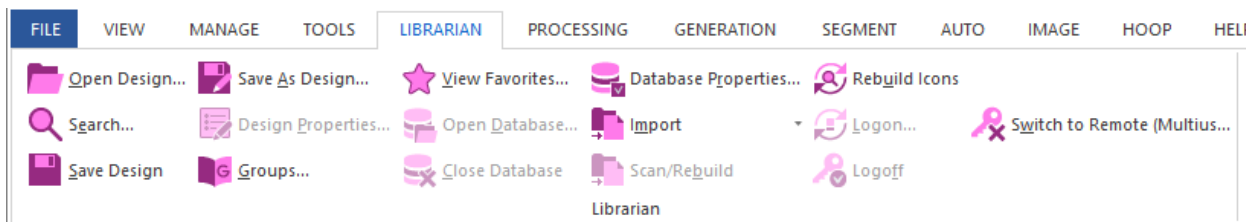
This section will focus on how to plan and create basic embroidery designs. We will start with an introduction into the software and then cover the essential tools you will use regularly to create such designs as namedrop, monogram, name – stacking and templates.

### User Interface Changes

#### *New Ribbon Interface*

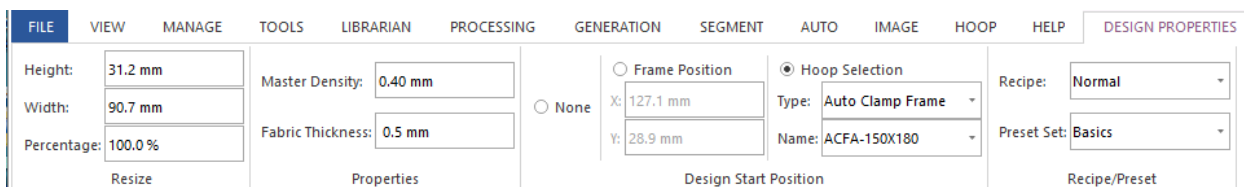
The ribbon is a new innovation of the Tajima DG17 workspace. The Ribbon appears along the top of the workspace. This area includes a number of different tabs, which take the place of the menus in former versions of DG by Pulse. The Ribbon is turned on by default; to turn it off and use the conventional menus and properties panel, go to Tools—User Settings—Environment—Display, and uncheck “Use ribbon interface.”

For example, there is a tab listing all the File functions, one for Manage functions, and another for Librarian tools.

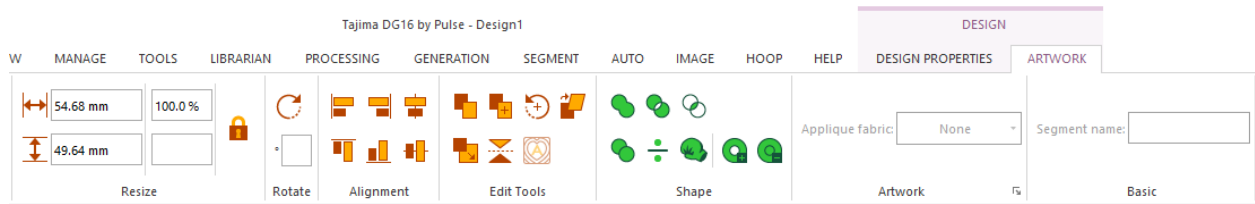


There also tabs for Tools, Processing, Generation, Segment, Auto, Image, and Hoop.

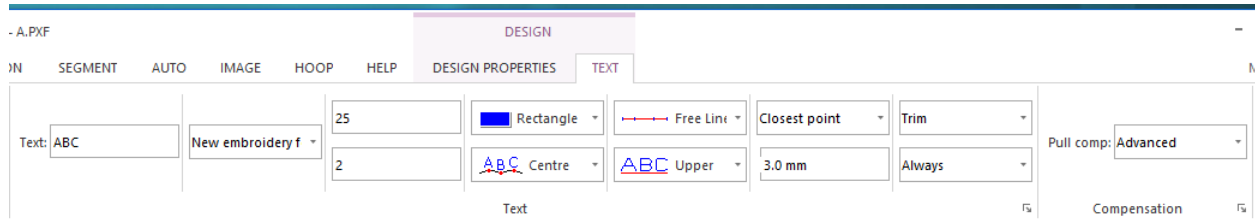
The Ribbon is also context-sensitive, which is to say, the tabs that appear there will change depending on what kind of segment is selected. For example, whenever a new file is opened, the Design Properties tab will appear on the ribbon.



Then, when a segment is added and selected, the Properties tab will open, and show the properties particular for that segment. So, if an artwork shape is selected (for example) the Ribbon shows only those properties that apply to artwork segments.



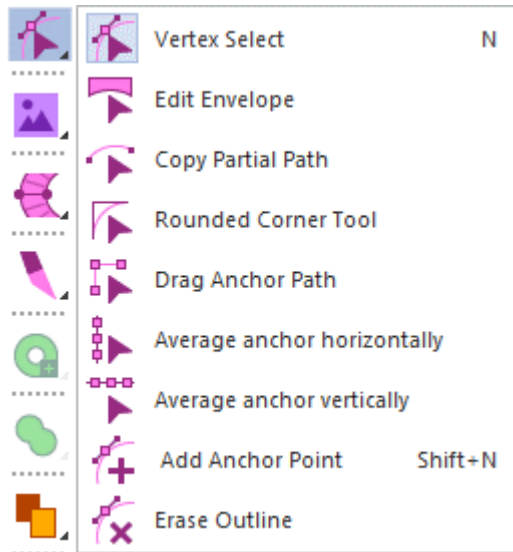
Then, if Text is selected, you will see a different set of settings.



Similarly, the contents of the ribbon will change for all segment type – whether it be a fill, cross-stitch, or any other.

## Toolbar Reorganization

The Tajima DG17 by Pulse toolbars have been re-organized to improve clarity. Many of them have been changed to work as “fly-out” toolbars – that is, you click on the toolbar to open all the tools that it contains (see example below). This change has been made to simplify the workspace view when many toolbars are open.



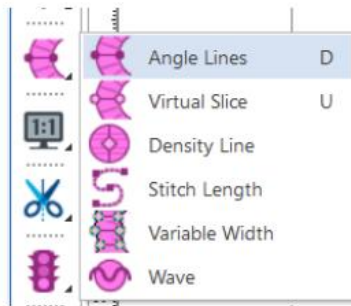
Example of a “fly-out” toolbar – in this case, the Node Edit tools.

As well, the artwork for most of the tool icons has been updated.



## 1.1 Toolbar “Expand Mode”

New functionality has been added to the fly-out toolbars, which will improve your ability to view and select tools easily. Clicking on any one of these toolbars (e.g., Text, Path Edit, Standard Digitizing, etc.) for an extended time (anything over one second) will turn on the “expand on hover” mode. In this mode, you only have to move the mouse over any other toolbar to expand it, so that all the tools it contains become visible. You can then click to select any tool on the expanded toolbar in the usual way.



*Product level availability: All*

## User Settings

### **Customize & Restore Recommended Settings**

The Tools menu now has a “Restore Recommended Settings” option. This allows the user to restore the settings in the “User Settings” dialog to the defaults, if they have been altered. To personalize the user settings, go to Tools—Configuration—User Settings—Customize...

*Product level availability: All*

### **Highlight color overrides**

There are two new options for how tools will be highlighted when digitizing – “Override Tool Color” and “Override Tool Highlight Color.”

- The Override Tool Color setting allows you to choose the color that will be used for the anchors and lines of a segment as it is digitized with any digitizing tools.
- The Override tool highlight Color setting allows you to choose the color that will be used to highlight control points (e.g., the “handles” that are used to control the shape of Bezier curves) when you select them with the vertex select tool.

These color overrides may be implemented in the User Settings. Go to Tools—Configuration—User Settings—Customize—Environment—Display colors; these overrides are found in Tools area of the Display Colors page.



# Start Page

When you start up the Tajima DG17 by Pulse software, you can immediately begin creating your design. As with any software program, you can start a new file and create it from scratch or you can open an existing design – one that you purchased from an internet stock design distributor or from a digitizer.

The screenshot shows the 'Start Page' of the Pulse software. On the left is a dark sidebar with the 'Tajima DG17' logo, 'New File...' and 'Open File...' buttons, and a 'Recent Files' list containing '27.DST', 'ID-Numbers.PXF', '16.DST', and '13.DST'. The main content area has a white background with a red heading 'Reporting With Enterprise Networking'. Below this heading are four paragraphs of text describing enterprise networking solutions, operator summary reports, machine production insights, and reporting statistics. At the bottom of the main area is a promotional banner for 'pulse ID Shopify Plugin' with icons for 'EMBROIDERY', 'DTG PRINT', and 'ENGRAVING'. On the right side, there is a 'Latest posts' section listing several articles with their titles, authors, and dates.

## Reporting With Enterprise Networking

Enterprise networking solutions are equipped with operator login and logout functions that will track operator machine usage using barcode technology. Operators can login to their embroidery machines by scanning their operator ID, directly into the control panel of the embroidery machine and their production is monitored throughout their shift.

An Operator Summary Report is produced that includes number of stitches, number of runs, operator login and logout times, number of resews, a list of jobs processed by the operator, and other production statistics. This ensures that your operators are motivated to hit their numbers and you can be sure that you are getting the best productivity possible.

In addition to operator efficiency, you can gain great insight into the functionality of your machines. Reports can be generated on machine production including running time, down time, pieces produced per hour and total production. The Machine Summary Report contains information such as total running time, total down time, total stitches produced, number of runs, number of pieces produced, stitches per hour, a list of completed jobs, and other production statistics. Monitor each and every detail of your machines and your production floor.

Make informed decisions for machine and operator planning with data sent directly from the embroidery machines. There is no need to rely on manually created production reports that are time consuming and prone to error. This information enables production managers to better plan their production schedule and quickly respond to production issues.

Reporting statistics for operators and machines can be saved as XLS reports or monitored through an administrative dashboard remotely over the internet with up to the minute information. Since reporting is available online, it is accessible from any PC or tablet on your corporate intranet using a modern web browser.

If you operate a large organization, an effective enterprise networking solution is essential in maximizing productivity and increasing profitability. It is important to choose an enterprise networking solution with a reputation for quality and consistency.

If you are ready to automate your apparel decoration business or are curious to learn more, please contact your local Pulse Microsystems distributor or visit [www.pulsemicro.com/Home/PulseID](http://www.pulsemicro.com/Home/PulseID).

### Latest posts

- User manual for PULSE DG 16 Illustrator Extreme**  
91 days - from [roman@gaiax.sk](#)
- Pulse fonts and true type fonts**  
95 days - from [lynx29](#)
- Update 16.5.2.7640**  
111 days - from [BroderingSpecialistenSabais](#)
- Script Errors for PulseCloud on New Computer**  
117 days - from [CrazyFrog](#)
- Does anyone know about this feature?**  
129 days - from [KIYONBAEK](#)

### Training video of the day

Complex Satin Segment



**pulse ID Shopify Plugin**  
Increase your orders and profitability.  
Offer personalized products to a global market.  
CONTACT YOUR PULSE DISTRIBUTOR TO FIND OUT HOW!

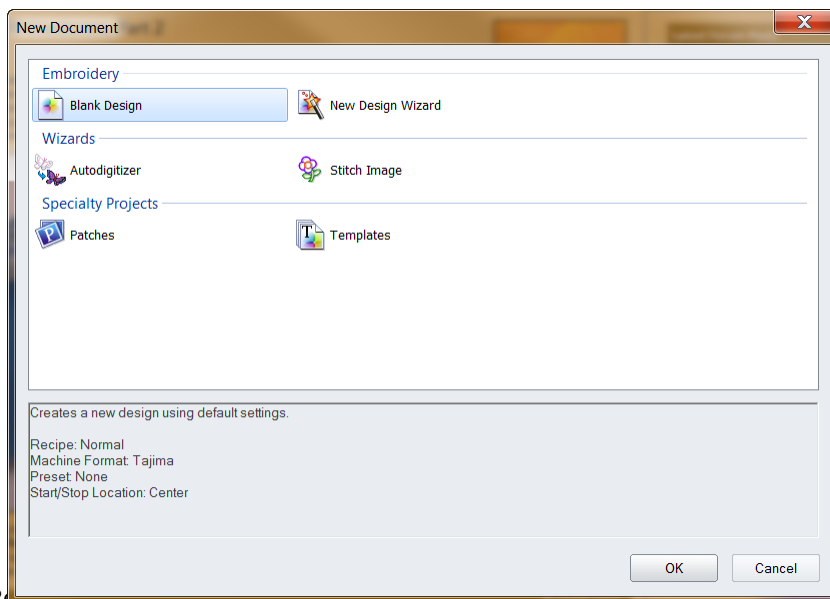
**EMBROIDERY** **DTG PRINT** **ENGRAVING**

# Creating a New File

If you choose to start a new file and create from scratch, you have the option of choosing a Blank Design or using the New Design Wizard.

## To create a new file:

1. Do one of the following:
  - a. From the Start Page, choose New file...  

  - b. Choose File – New.
  - c. In the File toolbar, click the New Page tool .
  - d. Press Ctrl + N.



2. If you choose Blank Design, the Normal Recipe will be applied to the new design.
3. If you choose New Design Wizard, you will be guided through choosing a recipe and settings for the design.
  - a. First you will choose a Recipe.

Recipes are a collection of fabric types that contain preprogrammed settings based on the size of the design. These settings include density, pull compensation and underlay. These 3 settings are called Stitch Control Factors and will need to be adjusted for every different type of fabric.

**DENSITY:** refers to the amount of stitch coverage over a given area.

**PULL COMPENSATION:** an adjustment of the stitch length to compensate for the pull of the stitches on the fabric

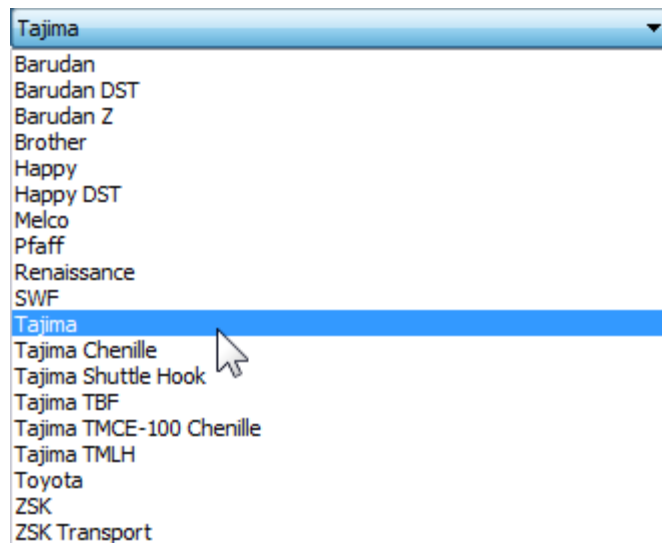
**UNDERLAY:** the preliminary stitches that sew prior to and underneath your design creating a foundation for the top stitches to lay on

The complete list of recipes includes:

- |                 |                    |                 |
|-----------------|--------------------|-----------------|
| - Baby Blankets | - Lycra            | - Towel         |
| - Canvas        | - Normal (default) | - Velvet        |
| - Cap           | - Pique            | - Vinyl         |
| - Dog Collar    | - Pullover         | - Woven Fabrics |
| - Fake Fur      | - Satin            |                 |
| - Fleece        | - Shirtcuff        |                 |
| - Global        | - Silk             |                 |
| - Jeans         | - Sweatshirt       |                 |
| - Leather       | - T-Shirt          |                 |

When in doubt of  
which Recipe to use,  
try the Woven  
Fabrics.

- b. Then you will choose a Machine Format.

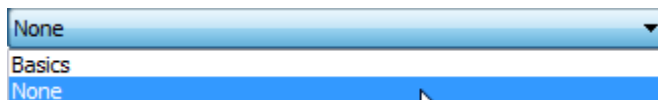


A screenshot of a software interface showing a dropdown menu for selecting a machine format. The menu is open, displaying a list of options. The first option, 'Tajima', is highlighted in blue. A mouse cursor is pointing at 'Tajima Chenille'.

- Tajima
- Barudan
- Barudan DST
- Barudan Z
- Brother
- Happy
- Happy DST
- Melco
- Pfaff
- Renaissance
- SWF
- Tajima
- Tajima Chenille
- Tajima Shuttle Hook
- Tajima TBF
- Tajima TMCE-100 Chenille
- Tajima TMLH
- Toyota
- ZSK
- ZSK Transport



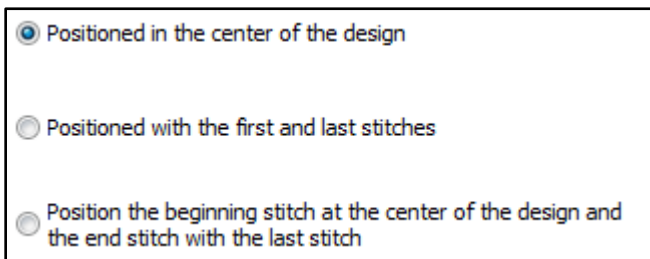
- c. Next, you will choose if you want a preset on the punching tools. This is only applicable in Creator, Illustrator Extreme and Maestro Multimedia levels of Tajima DG/ML by Pulse.



A screenshot of a software interface showing a dropdown menu for selecting a preset. The menu is open, displaying a list of options. The first option, 'None', is highlighted in blue. A mouse cursor is pointing at 'None'.

- None
- Basics
- None

- d. Then, you will choose the design's start and stop location. This should always be set to "positioned in the center of the design" unless you are digitizing the design differently.



A screenshot of a software interface showing three radio button options for selecting the design's start and stop location. The first option, 'Positioned in the center of the design', is selected.

- ☒ Positioned in the center of the design
- ☐ Positioned with the first and last stitches
- ☐ Position the beginning stitch at the center of the design and the end stitch with the last stitch

- e. Lastly, you will have the option of saving your set as a favorite or a default that you can select quickly for reuse later.

### Finish the design

This set of design settings can be saved as a favorite and reused at a later time.

☐ Save as a favorite



A text input field for entering a name for the saved favorite settings.

This set of design settings can be used as the defaults for blank designs or default values in this wizard.

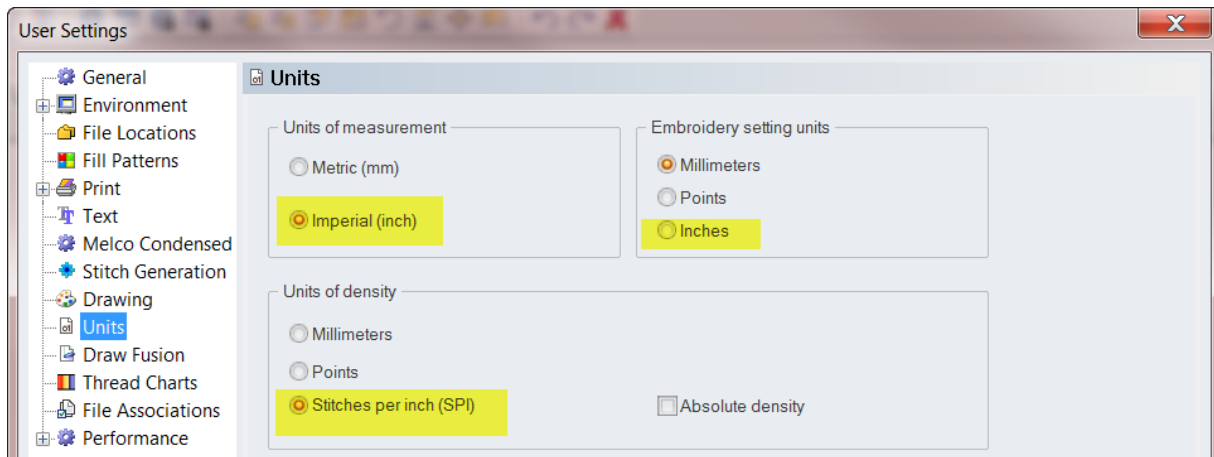
☐ Save as default

Click the Finish button to create your new design.

# Changing the Units from Metric to Inches

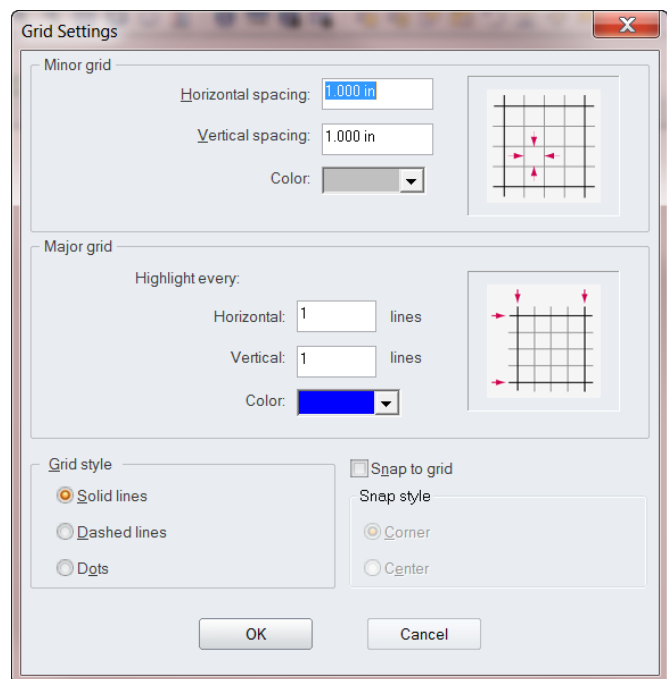
By default when you install the Tajima DG/ML by Pulse software onto your computer, it sets the measurements as metric.

1. To change this to inches, go to Tools > Configuration > User Settings > Units.
2. Click OK.



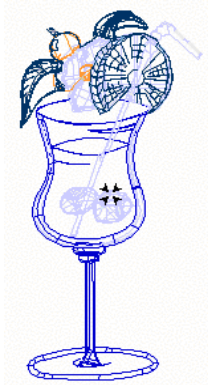
3. For the changes to take effect, you must close the window and open a new one

4. When the new window opens, it will look large. You have to reset the grid to inches as well.
5. Right click on the ruler at the TOP or the LEFT side of the WORKSPACE. You will see the Grid Settings box pop up.
6. Change the Horizontal and Vertical Spacing to 1.00 in and you can choose the color you want it to show up on the screen as.
7. Click OK.
8. These changes will immediately be applied and do not require opening a new window.



# Files of Type – Data Files

In embroidery, we work with two groups of files – outline and stitch.



## OUTLINE



## STITCH

### *Outline Files*

The outline file contains the framework – outline – of your design. If we take the outline file and resize it, our stitch count increases and vice versa. The stitches we see on our screen are a simulation of the actual stitches.

There are 4 different outline format files that Tajima DG/ML by Pulse will read:

.PED

.KWK

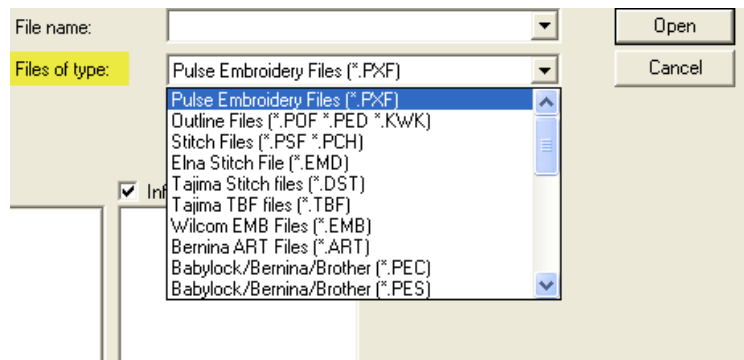
.CND

.PXF

### *Stitch Files*

The stitch file contains fixed in placed stitches. If we resize this file, it will take the same number of stitches and stretch them over a larger area or compress the same number of stitches into a smaller area thus resulting in poor sewing quality.

This is the command file that the machine must have in order to sew your design. Every stitch is placed on a (X, Y) graph and has a coordinate number. We take this file to the machine and line up our needle to the middle of the hoop setting our (0, 0). The machine will then read and move your frame to begin sewing your design at the (X, Y) number per stitch in the correct location.



For every embroidery machine on the market today, there is a specific stitch file. There are over 20 different stitch format files that Tajima DG/ML by Pulse will read.

.PSH

.PCH

.DST

.ART

.JEF

.EXP

# Stitch Types

A segment is a single section of an outline or stitch file – much like a puzzle piece to the overall design.

In an outline, the segment is composed of one type of stitch. A complete design will have many segments in an outline file.

In a stitch file, the segment is a group of stitches, broken up only by machine commands, color change, trim or origin.

There are 4 basic types of segments that are used for embroidery – run, satin path, complex fill and stitch segment. The run, satin path and complex fill segments are found in outline files only, as they are really an area with stitch information. They are easily modified by changing the assigned properties.

Stitch Segments are found in both outline and stitch files. They are fixed – in – place stitches; therefore, the edits made are limited.

**Run Stitches:** walking stitch that travels along the outline; defined by stitch length – distance between 1<sup>st</sup> needle penetration and next

- Min. Stitch Length 0.03in
- Max. Stitch Length 0.20in

Used For:

- Fine detail
- Underlay
- Traveling Route



**Satin Path Stitches:** zigzag stitch that travels from one side of the column to the next; defined by density – number of stitches filling in – and column width – the length of the stitch, and angle lines – direction of the stitches

- Min. Column Width 0.04 in
- Max. Column Width 0.50in

Used For:

- Lettering
- Small Areas
- Thick Borders (Steil)



**Complex Fill Stitches:** run stitch that travels from one side of the column to the other, offsetting the stitch lengths to give you a pattern

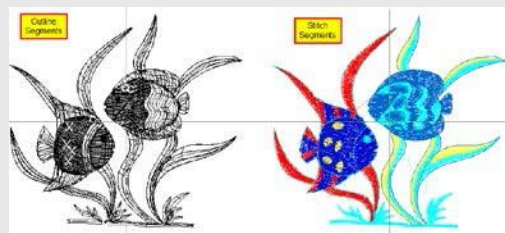
No min/max because stitch length is preprogrammed

Used For:

- Large Areas
- Complex Shapes



**Stitch Segments:** contains fixed – in – placed stitches. For this segment, you will have to edit one stitch or a group of stitches



## Shortcut Keys

Below is a quick reference to the most commonly used keyboard shortcuts. The character in parentheses denotes the actual keystroke.

### *Viewing Tools*

<ul style="list-style-type: none"><li>• (Z) = Zoom</li></ul> Left Click = Zoom In Right Click = Zoom Out	<ul style="list-style-type: none"><li>• (2) = Fit to Window</li></ul>
<ul style="list-style-type: none"><li>• (V) = View by Color</li></ul>	<ul style="list-style-type: none"><li>• (Ctrl) + (M) = Measure Tool</li></ul>
<ul style="list-style-type: none"><li>• (1) = Back to 1:1</li></ul>	<ul style="list-style-type: none"><li>• (4) = Fit Selection to Window</li></ul>
<ul style="list-style-type: none"><li>• Display Hoop</li></ul>	<ul style="list-style-type: none"><li>• Draw Ribbon</li></ul>
<ul style="list-style-type: none"><li>• (3) = 3D</li></ul>	

### *General Tools*

<ul style="list-style-type: none"><li>• (G) = Generate Stitches</li></ul>	<ul style="list-style-type: none"><li>• (SHIFT) + (G) = Generate All</li></ul>
<ul style="list-style-type: none"><li>• (S) = Select Tool</li></ul>	<ul style="list-style-type: none"><li>• (CTRL) + (G) = Group Segments</li></ul>
<ul style="list-style-type: none"><li>• (CTRL) + (Y) = Redo</li></ul>	<ul style="list-style-type: none"><li>• (CTRL) + (U) = Ungroup Segments</li></ul>
<ul style="list-style-type: none"><li>• (CTRL) + (Z) = Undo</li></ul>	<ul style="list-style-type: none"><li>• (CTRL) + (R) = Resize</li></ul>
<ul style="list-style-type: none"><li>• (CTRL) + (C) = Copy to Clipboard</li></ul>	<ul style="list-style-type: none"><li>• (CTRL) + (T) = Rotate</li></ul>
<ul style="list-style-type: none"><li>• (CTRL) + (X) = Cut to Clipboard</li></ul>	<ul style="list-style-type: none"><li>• (CTRL) + (F) = Reflect</li></ul>
<ul style="list-style-type: none"><li>• (CTRL) + (P) = Paste from Clipboard</li></ul>	

## Text – Creation

Creating lettering and text is perhaps the most common function that you will perform. You can create a variety of lettering “looks” and layouts by using the various lettering tools in your software. Each lettering tool creates a unique platform or baseline that the text will sit on.

There are six different lettering tools in the Tajima DG/ML by Pulse software as follows:

1. Line Angle
2. Line Vertical
3. Arc
4. Circle
5. Three Letter Monogram
6. Text

The Line Angle, Line Vertical, Arc, Circle and 3 Letter Monogram Tools all use a box type baseline which creates single or multiple lines of text horizontally or vertically. The Text Tool creates a free style baseline for the lettering.

### Line Angle

**LINE ANGLE**  
**LINE ANGLE**  
**LINE ANGLE**

#### To Create Text Using the Line Angle Tool:

- Left click once on the workspace to start the baseline
- Move the mouse across to set the length of the baseline (you will see the length and angle that you are drawing next to your line); drag down if you wish the lettering to be at an angle
- Left click to confirm the length angle
- Move the mouse up to set the height of the lettering (you will see the height next to the line that you are drawing)
- Left click to confirm the height
- The Text Box appears – type in the desired text.
- Click OK.



## Line Vertical

---



### To Create Text Using the Line Vertical Tool:

- Left click once on the workspace to start the baseline
- Move the mouse across to set the length of the baseline (you will see the length and angle that you are drawing next to your line); drag down if you wish the lettering to be at an angle
- Left click to confirm the length and angle
- Move the mouse up to set the height of the lettering (you will see the height next to the line that you are drawing)
- Left click to confirm the height
- The Text Box appears – type in the desired text.
- Click OK.

## Arc

---

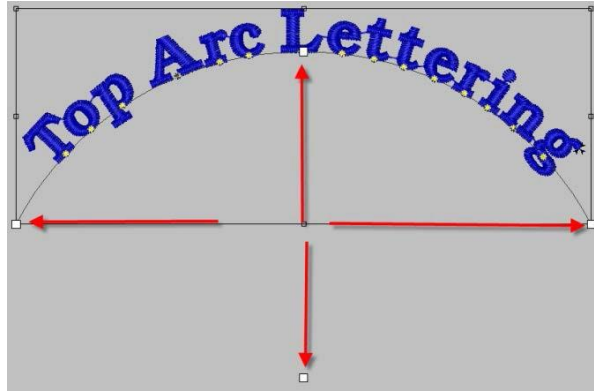


### To Create Text Using the Arc Tool:

- Left click once on the workspace to start the baseline
- Move the mouse across to set the length of the baseline (you will see the length and angle that you are drawing next to your line); drag down if you wish the lettering to be at an angle
- Left click to confirm the length and angle
- Move the mouse up to set the radius (curvature) of the baseline ( you will see the radius next to the line you are drawing)
- Left click to confirm radius
- Move the mouse up to set the height of the lettering (you will see the height next to the line that you are drawing)
- Left click to confirm the height
- The Text Box appears – type in the desired text.
- Click OK.

### To Edit the Arc Baseline:

- Left and drag one of the four square boxes to edit the shape of the baseline



## Circle

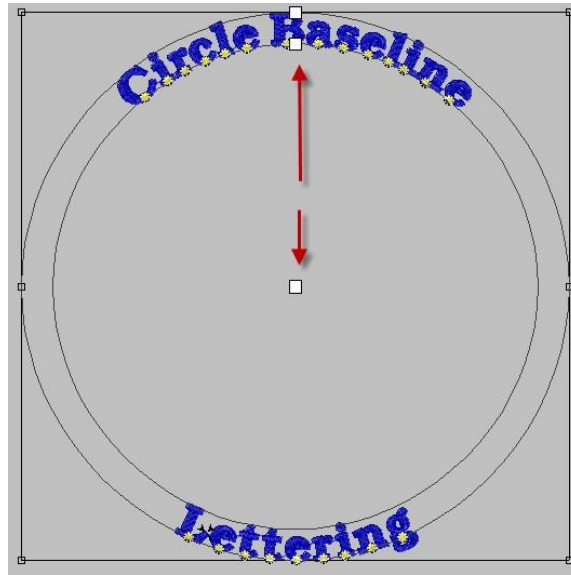


### To Create Text Using the Circle Tool:

- Left click and drag straight up to set the size of the first circle. As soon as you let go of the mouse, the baseline size is confirmed.
- Move the mouse up to set the height of the lettering. Again, as soon as you let go of the mouse the height is confirmed.
- The Text Box appears – type in the desired text to appear on the top of the circle in the upper text and the desired text to appear on the bottom of the circle in the bottom text.
- Click OK.

### To Edit the Circle Baseline:

- Left and drag one of the four square boxes to edit the shape of the baseline



### Three Letter Monogram



#### To Create a 3 Letter Monogram:

- Left click once on the workspace to start the baseline
- Move the mouse across to set the length of the baseline (you will see the length and angle that you are drawing next to your line); drag down if you wish the lettering to be at an angle
- Left click to confirm the length and angle
- Move the mouse up to set the height of the lettering (the height that you are setting is for the Last initial – the middle letter)
- Left click to confirm the height
- The Text Box appears – type in the desired text: First initial – Last initial – Middle initial.
- Click OK.



#### To Add a Decoration to a Monogram:

- Choose a Font that has a decoration included (refer to the Font Help Section)
- Type in the keystroke for that particular decoration in the box on the Property Bar
- Hit the (ENTER) key on the keyboard



#### To Create a 3 Letter Monogram using a Regular Embroidery Font with a Decoration:

- Choose the Three Letter Monogram Tool
- Left click once on the workspace to start the baseline
- Move the mouse across to set the length of the baseline (refer to the Status Bar for exact length); drag down if you wish the lettering to be at an angle
- Left click to confirm the length and angle
- Move the mouse up to set the height of the lettering
- Left click to confirm the height
- The Text Box appears – type in the desired text.
- Click OK.
- Change the font to the desired font.
- Choose the Line Angle Tool
- Left click and Right click on the workspace.
- Type in the keystroke for the desired decoration
- Left click on OK.
- Change the font of the decoration to the corresponding Monogram Font.
- Move it to the desired position in relation to the 3 Letter Monogram

# TEXT BASELINE

WAVED LETTERING MADE WITH TEXT BASELINE

### To Create a Straight Baseline:

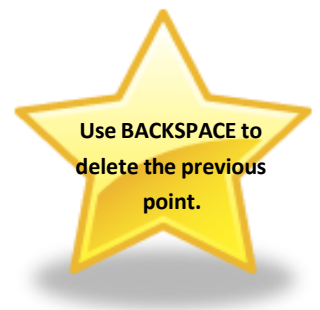
- Left click once on the workspace to start the baseline
- Move the mouse across to set the length of the baseline and hold (SHIFT) to keep it straight
- (ENTER) to complete the baseline
- Type in your desired text
- Click OK

### Another way to create a Straight Baseline:

- Left click once on the workspace to start the baseline
- Press (ENTER) to complete the baseline
- Type in your desired text
- Click OK


### To Create a Curved Baseline:

- Left click once on the workspace to start the baseline
- Move the mouse across to and up
- Left click and drag – you will see handles stretch from the point – the further you drag the more curved the baseline becomes
- Continue until you have the desired baseline
- (ENTER) to complete the baseline
- Type in your desired text
- Click OK



## TEXT – VERTICAL TEXT TOOL

A Vertical Text Tool has been added.

Tool icon of vertical text tool in text toolbar looks like this 

This tool includes vertical spacing between characters. The default value is 25% of the reference height of the font.

Spacing type has the following two options

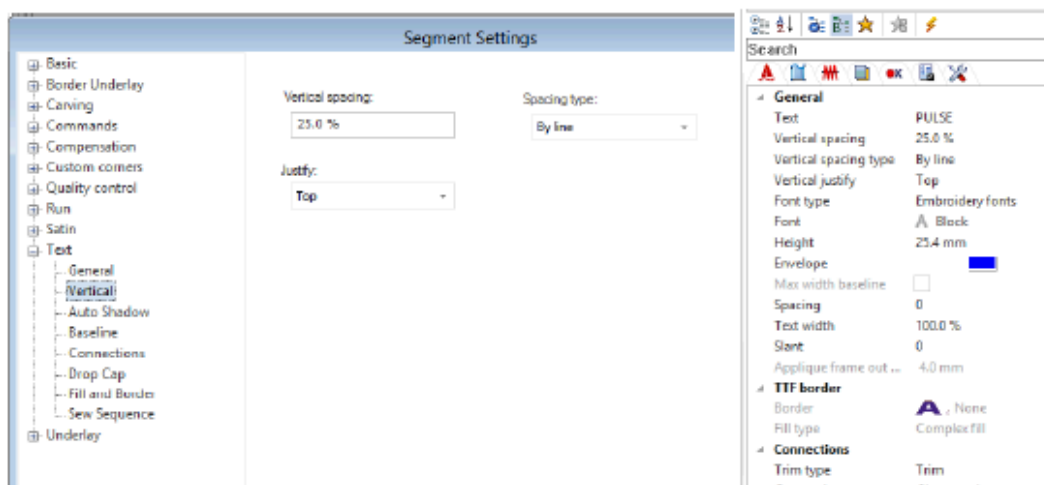
- By line = Using reference height to place the characters on to the base line evenly.
- Fixed = Takes consideration of the height of each character to place the characters on to baseline so that the space between every two characters is the same

Vertical text can be adjusted using vertical justify, which has four options.

- Top
- Bottom
- Middle
- Fit to line

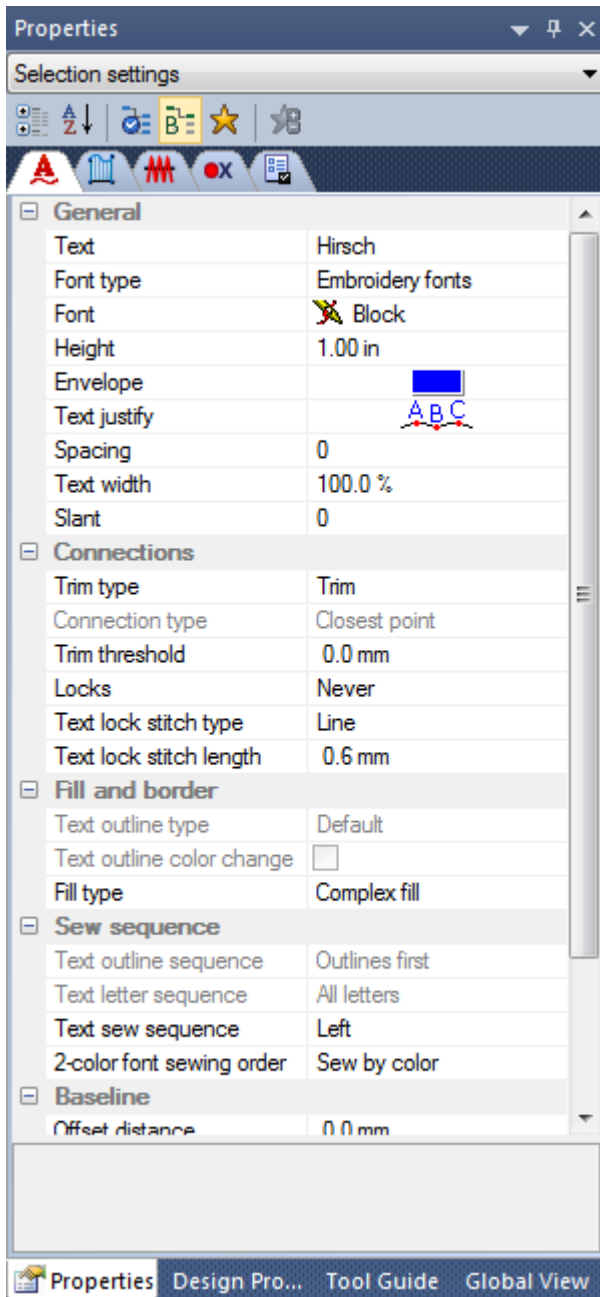
These options compare to left, right, center and fit to curve in the existing text tools.

When selecting vertical text tool, the vertical justify settings will appear on the UI tab and existing justify options will not be displayed.



# Text – Manipulation

Once you've created your text on your screen, you will want to make slight adjustments to it. This next section will cover how to edit including spacing, color changes, justification.



minimum/maximum height of the font, any special characters the font may have included and suggestions on pull compensation, sewing etc.

## Changing Text

Click in the Text box on the Property Docking Window and type in new text. Hit (Enter) to confirm.

## Changing Font

You can change a font by left clicking on the drop down arrow next to the font name. You have many fonts to choose from including Blocks, Scripts, Two Color, etc.

A preview of the font style will show on the right when the cursor is over the font name.



There are also some special categories of fonts: symbol fonts, stitch fonts and regular fonts that have additional special characters.

**Image Fonts:** will show a design element instead of the keystroke typed.

**Stitch Fonts:** are manually created fonts that are to be used at a specific height.

**3D Fonts:** are digitized to embroider on top of foam for the puffy look.

**2 Color Fonts:** will have two color changes per letter.

**Language Fonts:** contain foreign characters – Greek, Hebrew, etc.

## Changing Height

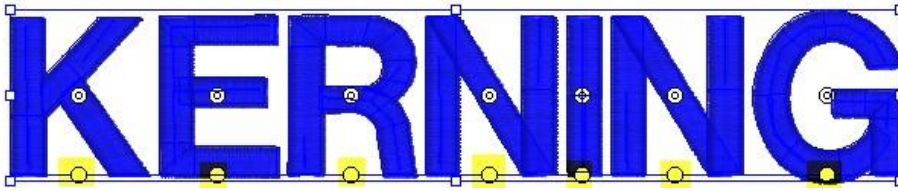
Adjust the height proportionally by clicking in the height box on the Property Bar and typing in the desired height. Hit (Enter) key to confirm new height.

## Font Help

Refer to the Font Help files for vital information on the selected font. It will show a preview image, available keystrokes, recommended

To view the Font Help, click on Help – Fonts. Double click on the Category and choose the desired font style.

## Kerning Beads

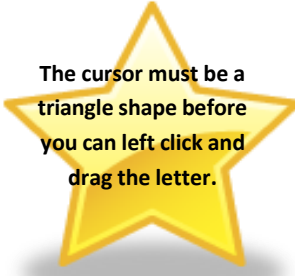


Kerning beads are the little dots on the bottom of each letter. They allow you to manually move one letter to a specified spot along the baseline.

You can also **Group Space** with the Kerning Beads.


Hold the (SHIFT) key to move a particular letter and all the letters to the right of it as a group anywhere along the baseline.

Hold the (CTRL) key to move a particular letter and all the letters to the left of it as a group anywhere along the baseline.



The cursor must be a triangle shape before you can left click and drag the letter.

## Equal Spacing



The entered spacing values will be added/subtracted to any manually adjusted characters.

Spacing

0

(Located on the Properties Docking Window, refer to Picture on Previous Page)

This setting is considered equal spacing because of the way it is applied to each character in the font. Spacing is determined by units named Em. An Em is equal to 1/20<sup>th</sup> of the widest letter of the font.

- Input a positive number and the spacing increases between all characters.
- Input a negative number and the spacing decreases between all characters.

## Kerning Arrows

Text

K<<<E>>>RNING

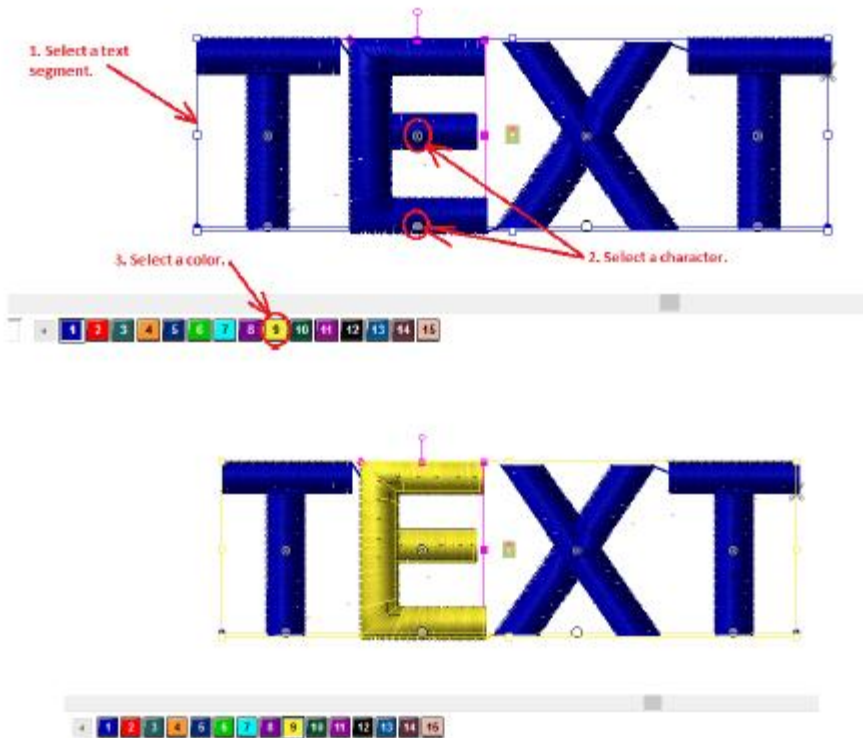
(Located on the Properties Docking Window, refer to Picture on Previous Page)

Another way to space between individual letters is using the keyboard greater than (>) or less than (<) in the text box.

Greater Than will increase the spacing, Less Than will decrease the spacing.



## Changing Color








### *New Thread Palette/Chart Manager Features*

A number of tools and new features have been added to the Thread Palette/Thread Chart manager. These new features will make it quicker and easier to perform common editing tasks on charts and palettes, such as inserting threads, deleting threads, changing thread properties, and so on.

- The thread data in each column may now be sorted in ascending or descending order. Click the column heading once for ascending order; click the column heading a second time for descending order.
- An index column has been added to the thread data, so that the threads can be sorted in chart order.
- Columns for thread thickness and thread type have been added to the data table.
- Multiple threads can be selected simultaneously (using the Ctrl+click or Shift+click shortcuts) and then edited.

In addition, buttons and shortcuts for the following common functions have been added to the Thread Palette Manager:

- New Thread  (Ctrl+N)
- Insert Thread  (Ctrl+I)
- Delete Thread  (Ctrl+D)
- Import Thread  (Ctrl+R)
- Edit thread  (Ctrl+E)

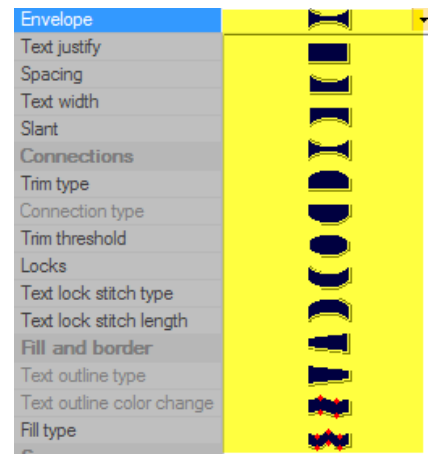
## Envelop Text

# NORMAL ENVELOPE

You can change the overall shape of the text using envelopes. The envelopes are a set of predetermined shapes for the 'bounding box' of the text segment.

To apply an envelope shape:

1. Create the text on your screen.
2. Click on the Envelope in the Properties Docking Window.
3. Then click on the Dropdown Arrow next to the box and choose the desired shape.

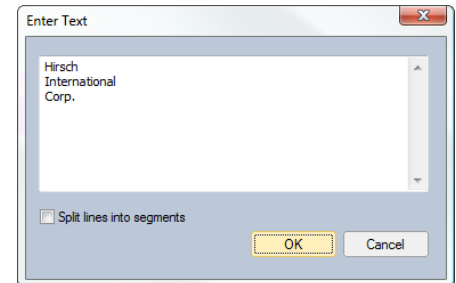
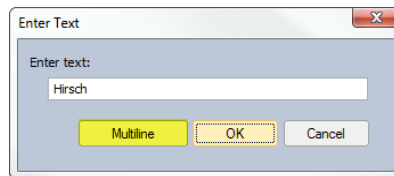


## Multi – Line Text

Rather than set up each line of text at the same time, Tajima DG/ML by Pulse has a built – in Multi – Line Text option that you choose from the Text Box. Type in as many lines of text needed.

To create multiple lines of text:

1. Choose a lettering tool and create the baseline and the height for the text.
2. When the text box appears, left click on the Multiline option.
3. Type in the first line
4. Hit (Enter) to go to the next line
5. Repeat as needed until you have all the lines you need.
6. Check the Split lines into segments if desired.
7. Left click ok.



### Split lines into segments

When you create multiple lines of text, they are automatically grouped together. Whatever changes that you make to one line will be made to all the others, unless you check the box to Split lines into segments.

### Editing Multiple Lines of Text

If you didn't choose the Split lines into segments, the only way that you can edit your lettering is if you right click and choose Modify Text.

### Text Justify

With multiple lines of text, you may want to justify or center them.

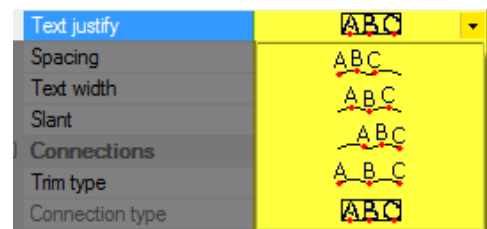
Left Justify: will center the text flush on the left side

Center Justify: will center the text down the middle

Right Justify: will center the text flush on the right side

Fill Baseline: will resize the height of the text to fill the baseline

Fill Box: will stretch or compress the height and width of the text so that each line is the same dimension



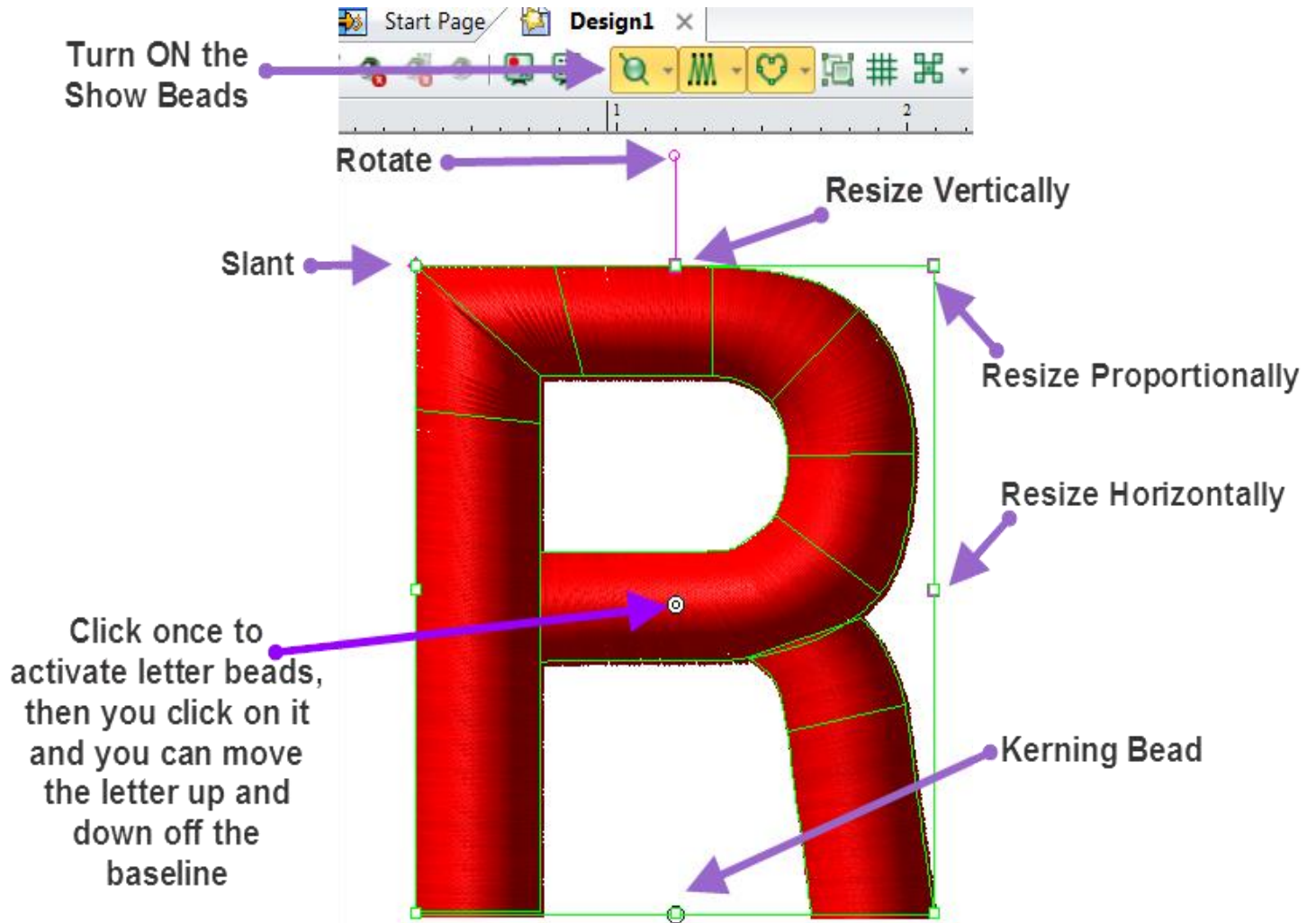
## Letter Beads

The Letter Bead will allow isolated manipulation to one letter in your text segment.

You will want to make sure that the Show Beads is turned on.

Click once on the Letter Bead (donut shape) to activate the editing box.

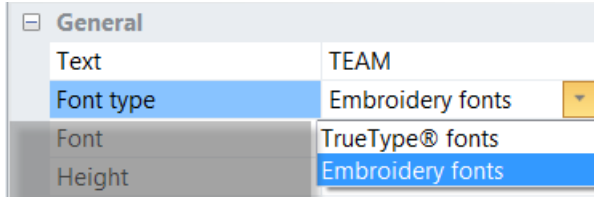
Then, simply left click and drag on the corresponding bead to edit as desired.



## True Type Fonts

True Type Fonts are computer generated and are installed on the hard drive of your computer. You can use these fonts in any software program that uses true type fonts on your computer. Up until this point, we have been working with Embroidery Fonts.

Embroidery Fonts may look exactly like a true type font but they are manually digitized to embroider. They have been push/pull compensated and guaranteed will sew well. True type fonts may need a little tweaking to get them to sew well.

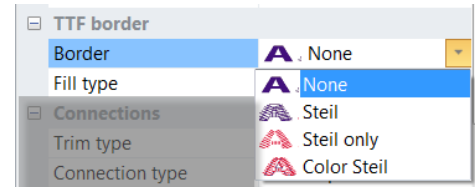


To change from the Embroidery Fonts to the True Type font list: Left click on the drop down arrow next Font Type in the Properties Panel.

True Type fonts automatically use a complex fill stitch. Therefore it is very easy to create a two color font or an outline only font.

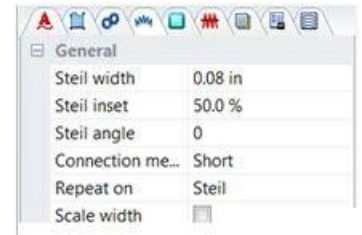
To change the border on the True Type Font:

Click on the drop down arrow next to Border and choose one of the following:



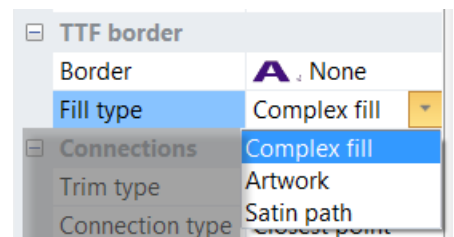
Steil Border is a satin type segment that outlines the path. You can adjust the width of the steil to keep the steil border proportional to the lettering.

Check Scale width if you want the steil width to increase or decrease when you resize the text segment.



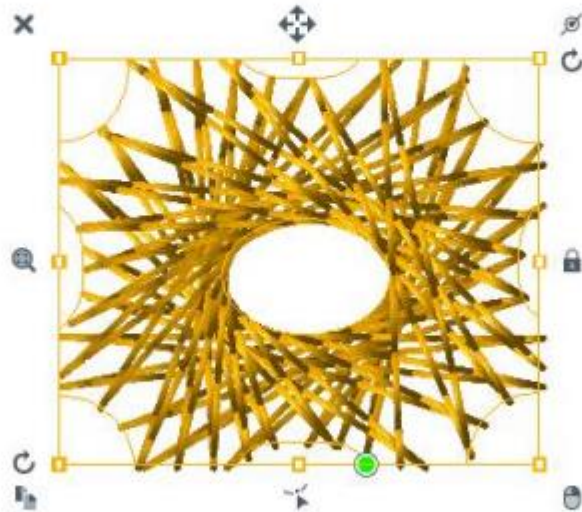
You can also change the True Type font to appear as an Embroidery font. This will convert the complex fill to a satin path – allowing the stitches to sew in many different angles, contouring to the shape of the column. The software automatically places slice lines and angle lines. However, most times, these will need to be edited manually.

To change from Complex Fill to the Satin path, click on the drop down arrow next to Fill Type in the Properties Panel and choose satin Path.



## 4.2 Action Symbols on the Selection Frame

A new editing feature in Tajima DG17 are the "Action Symbols", which appear around the selection frame. Clicking on these symbols gives you instant access to some of the more commonly-used editing functions, including Delete, Vertex Select, Rotate, Group/ungroup, and several others. There are also Action Symbols that Lock the selected item(s) from further editing and to open the right-click menu. (For a complete guide to the function of the Action Symbols, see the User's Guide under "Design Editing in Outline Mode—Editing Segments—Selection Action Tools.")



Note that "Action Symbols" are enabled by default; if you want to disable them, open the User Settings dialog, go the Environment—Display page, and uncheck the "Show action selection symbols" box.



# Name Stacking With A Spread Sheet



This may look wrong, but can save you a lot of time when having to sew out a long list of names. It is a technique called NAME STACKING. Name stacking allows you to sew out single lines of text in the same placement but on different garments. Now, instead of having each name as a single file, you have all names combined into one file. Each name is separated by a color change but is listed directly on top of each other. The technique is all in how the design is set up.

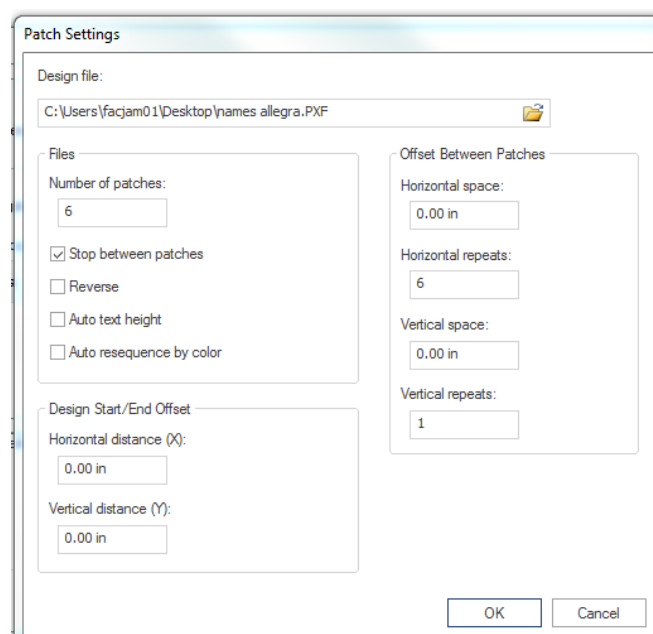
*To create the name stacking:*

First you will need to create an excel spreadsheet. Each Column will represent a line. For example, for one line name designs only have names typed under column A. For 2 line names only have names in Column A and Column B might be number of title. Save it as xls or xlxs

You will also need to create a PXF file in Pulse with one name or name/number(2 lines)

Once you have those saved:

- 1) File New
- 2) Click on Patches
- 3) Choose the PXF file you wish to work with
- 4) Number of Patches will be Number of Names to be stacked
- 5) Click Box for Stop Between Patches
- 6) For Offset Between Patches, Horizontal Spacing Will Be 0.00 IN, Horizontal Repeats will be number of Names to be Stacked. Vertical Spacing will be 0.00 IN and Vertical Repeats will be 1



7) Click Next

8) Click the Import Button and select you spreadsheet. It will populate the list

Design file:  

C:\Users\facjam01\Desktop\names allegra.PXF

Number of patches:  

6

☒ Stop between patches

☐ Reverse

☐ Auto text height

☐ Auto resequence by color

Offset Between Patches

Horizontal space:  

0.00 in

Vertical space:  

0.00 in

Horizontal repeats:  

6

Vertical repeats:  

1

Design Start/End Offset

Horizontal distance (X):  

0.00 in

Vertical distance (Y):  

0.00 in

Import...

Text	Text	Font
Jamie	17	Allegra Script New
Jamie	17	Allegra Script New
Jamie	17	Allegra Script New
Jamie	17	Allegra Script New
Jamie	17	Allegra Script New
Jamie	17	Allegra Script New

Generate now

9) Click on Generate now to create the file.

*TIP: Make sure that the longest name fits inside the hoop that you want to use as well as the location on the garment.*

## Embroidery Machine Operations - TFMX & TEMX Neo Plus Models

The embroidery machine must be programmed to stop after each name for you to exchange garments.

1. On the control panel of the embroidery machine, press the B key.
2. Choose Needle Bar Selection.
3. Enter the first color, press the RIGHT Frame Arrow Key. This will insert a red triangle to the bottom right of the needle color.
4. Press SET.
5. Repeat until all colors are programmed for the design with a stop afterwards. Or, if all names are the same color, change the 2nd needle color to a (-). This will force the machine to start over at needle #1.

Sewing Process:

1. Place the first garment on the machine. Be sure that you are on needle #1 and that the needle is in the center of the hoop.
2. Trace the design to be sure that all names will fit into the hoop you have chosen.
3. Start sewing the design. The first name in the list will sew and when it is completed a 1B2 code will come up on the control panel.
4. Remove the first garment from the machine, place the second garment on the machine and press start.

***Don't re-position the hoop or you may hit it with the needle!***

## Embroidery Machine Operations - TEJT NEOii Model

The embroidery machine must be programmed to stop after each name for you to exchange garments.

1. On the control panel of the embroidery machine, choose NDL Bar Selection.
2. Choose Needle Bar Selection.
3. Enter the first color, press the STOP key. This will insert a dash in the color sequence.
5. Repeat until all colors are programmed for the design with a stop afterwards. Then, press SET.
6. Or, if all names are the same color, press SET after step 3. This will force the machine to start over at needle #1.

Sewing Process:

1. Place the first garment on the machine. Be sure that you are on needle #1 and that the needle is in the center of the hoop.
2. Trace the design to be sure that all names will fit into the hoop you have chosen.
3. Start sewing the design. The first name in the list will sew and when it is completed a 1B2 code will come up on the control panel.
4. Remove the first garment from the machine, place the second garment on the machine and press start.

***Don't re-position the hoop or you may hit it with the needle!***



## Opening / Merging Designs

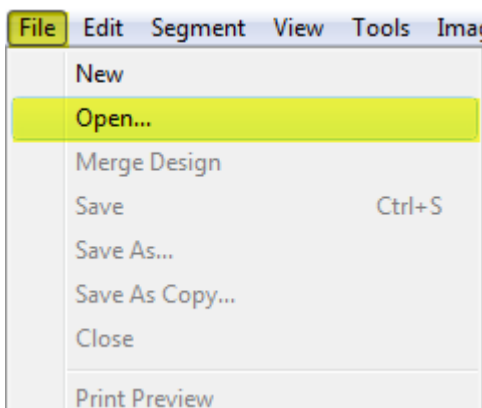
The Open command opens an existing (saved) file. You can open several different types of files with this feature. Each time that you choose Open, another window is opened on your workspace.

The Merge Design command will make a copy of the selected design (existing saved design) and allow you to place the copy on your current window. This is the most popular when working with existing designs because you can take many different files and place them all in the same window thus creating one new file.

Both Open and Merge Design commands work with outline and stitch files.

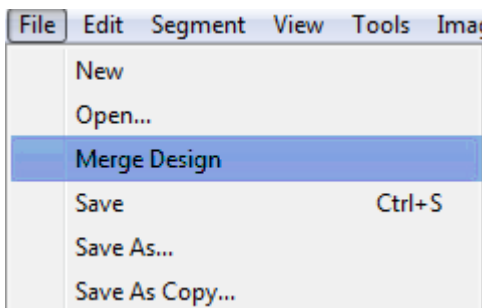
*To open an existing design:*

1. *click on File – Open.*
2. *Choose the desired file and left click on Open.*



*To merge an existing design:*

1. *Click on File > Merge Design.*
2. *Choose the desired file and left click on Open.*
3. *Then, left click once on your workspace to place the design.*

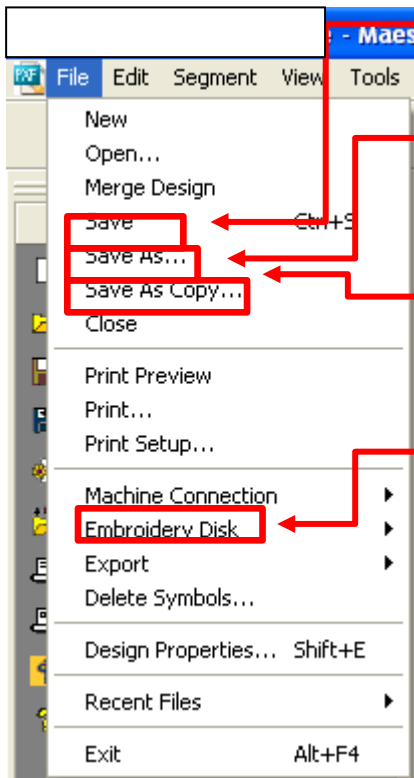


# Saving

Saving your design allows you to access the design in the future to use again or make changes.

You will want to save the design file twice – first in an outline format .PXF and second in a stitch format .DST.

There are many different ways to save a file:



**SAVE:** You can use this command if this is the first time that you are saving the design or if you have edited the opened design and want to save the update.

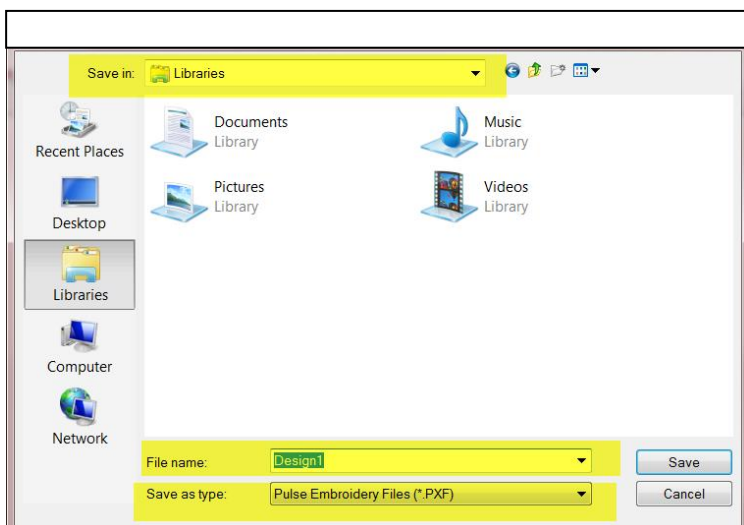
**SAVE AS:** You can use this command if you wish to save the open file as a different name or as a different format. The new saved file is now current on your workspace. Any changes made thereafter will not be saved in the original file.

**SAVE AS COPY:** You can use this command if you wish to save the open file as a different name or as a different format. However it differs from the SAVE AS function in that it does not open the new saved file on your screen.

**EMBROIDERY DISK:** You can use this function to start up a wizard that will walk you through the steps to saving or importing a .DST file that is on an external device such as a floppy disk or flash drive.

You can READ from an embroidery disk which will open a design file from an external device onto your workspace; you can WRITE to an embroidery disk which will save a design file to an external device.

Then you will have to choose the location to save the file, name and type of file.

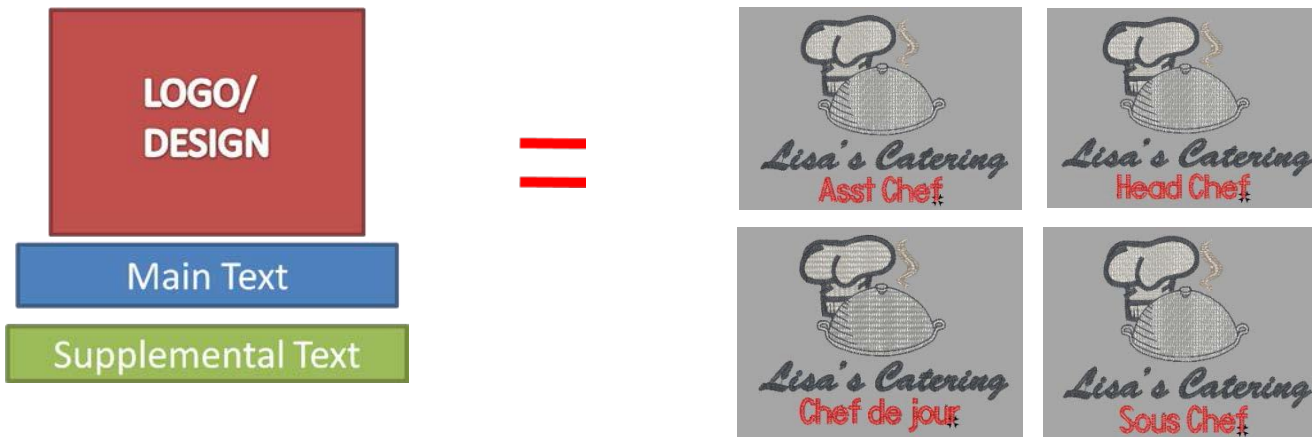


# Templates

Templates are a great way to speed up repetitive design creation. Any outline file can be used as a template file. Start with a regular design, and then send it through the template function and...wala!

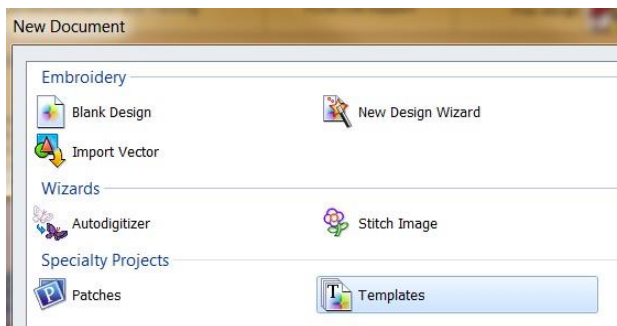
Take this layout...

...to this!

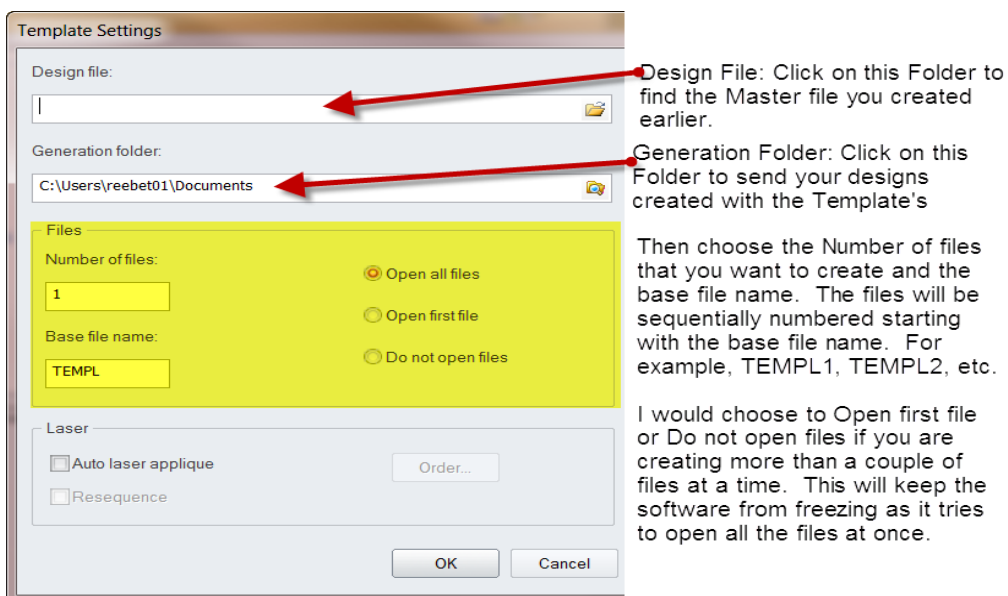


First, you must select or create the master file of which you will use for the template files. Save the master file as an outline .PXF. Then you can go through the template function (steps below).

1. Close all open files.
2. Go to New File > Templates.



3. Click OK.



Design File: Click on this Folder to find the Master file you created earlier.

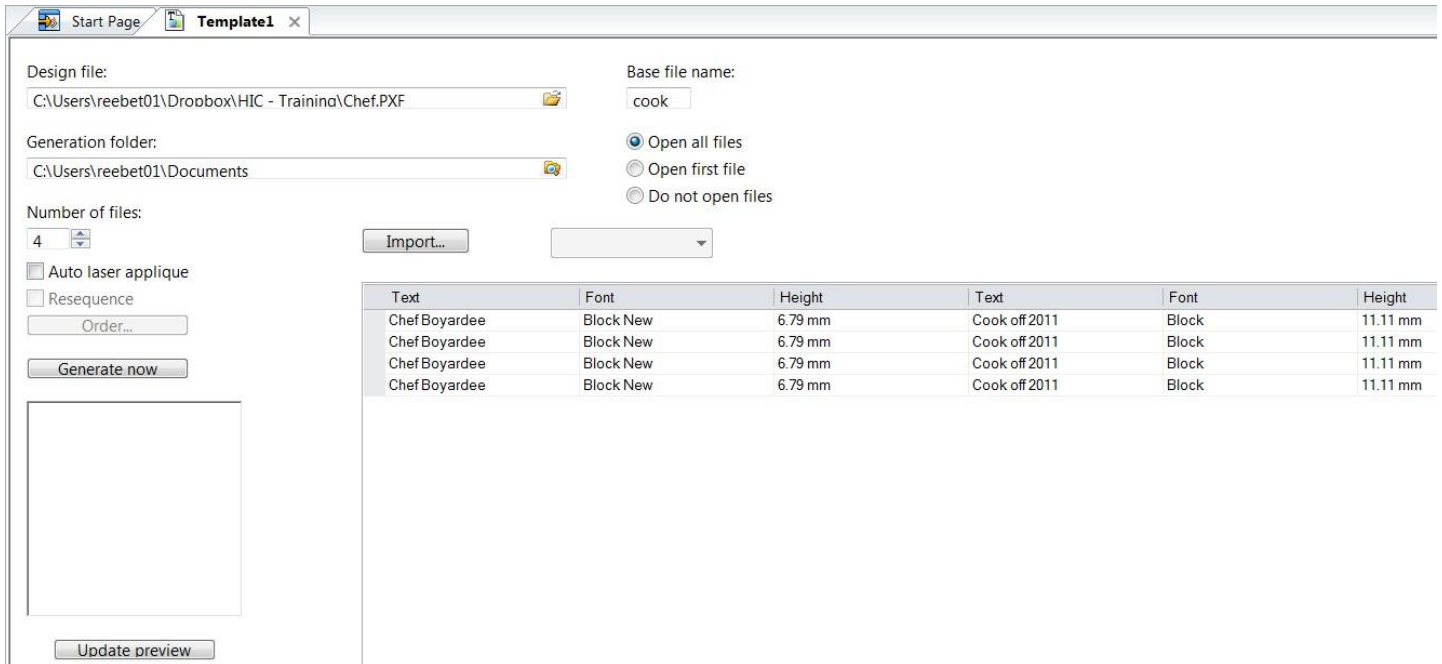
Generation Folder: Click on this Folder to send your designs created with the Template's

Then choose the Number of files that you want to create and the base file name. The files will be sequentially numbered starting with the base file name. For example, TEMPL1, TEMPL2, etc.

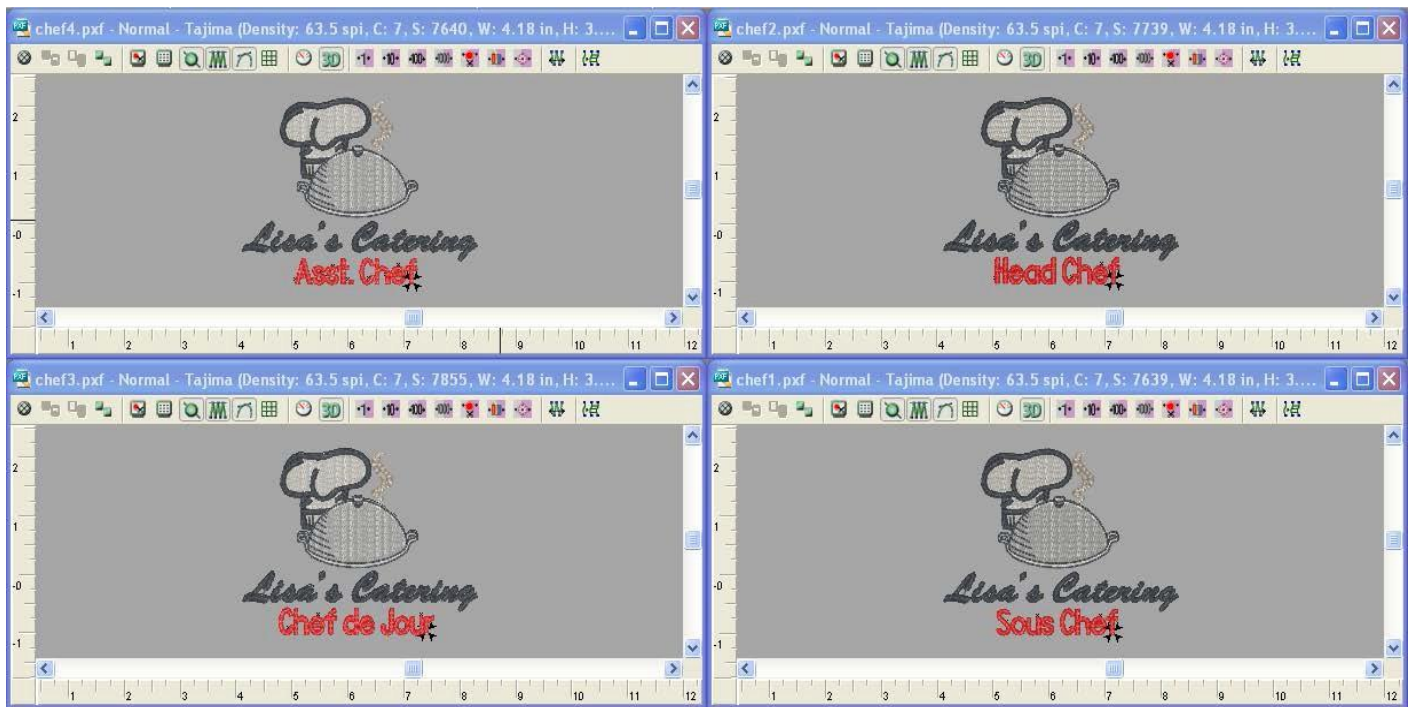
I would choose to Open first file or Do not open files if you are creating more than a couple of files at a time. This will keep the software from freezing as it tries to open all the files at once.

4. Click OK.

5. You should now have a window tab that reads Template1 with settings to adjust. As you can see all of the previous information is still completely changeable here.
6. Under the Text boxes is where you can change the actual text that goes with each of the files that you are creating.
7. After you have made the changes you want, simply click on Generate Now.



Here is a screen shot of the files together just created.



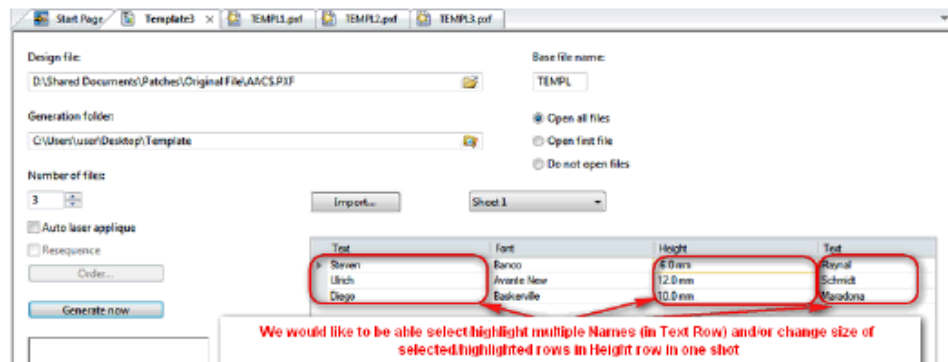
Make any necessary changes to spacing of the letters, etc. Be sure to resave that file afterwards as a .PXF.

You will have to save each file independently as a .DST.

## TEMPLATES – CHANGE NAMES AND SIZES FOR ALL TEMPLATES AT ONCE

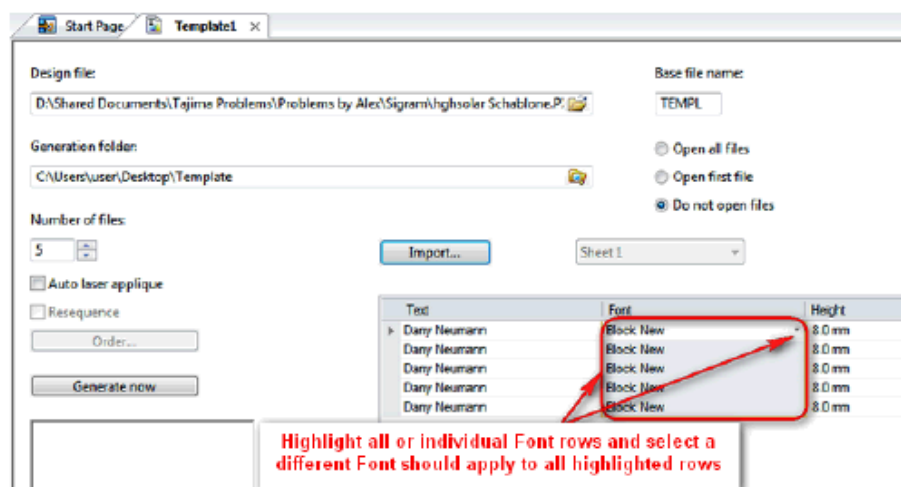
All highlighted rows can be changed at once.

## TEMPLATES – CHANGE NAMES AND SIZES FOR ALL TEMPLATES AT ONCE



## TEMPLATES – CHANGE FONT FOR ALL TEMPLATES AT ONCE

All highlighted rows can be changed at once.



# Production Worksheet


The Print Preview function in Tajima DG/ML by Pulse products a production worksheet. Here you will have important information about your design documented for future reference.

On the Production Worksheet, you can input valuable information like the design dimensions, color changes for the machine operator and cost of the design.










Below is a sample Production Worksheet:

Hirsch International Corp					
Design: NewYear2009		Dimension: W 3.83 in x H 3.00 in			
Stitches: 6631		Color changes: 9			



Page 1 of 1

 <b>Needle 1</b> Soft Peach 1019 Made Ira 40 62.91" * 280 stb. (285)	 <b>Needle 2</b> Light Gray 1085 Made Ira 40 106.14" * 711 stb. (996)	 <b>Needle 3</b> Flame Red 1146 Made Ira 40 128.07" * 544 stb. (1540)	 <b>Needle 4</b> Goldenrod 1025 Made Ira 40 106.42" * 405 stb. (1945)	
 <b>Needle 5</b> Midnight Blue 1242 Made Ira 40 86.22" * 498 stb. (2443)	 <b>Needle 6</b> Jungle Green 1249 Made Ira 40 152.01" * 1034 stb. (3477)	 <b>Needle 7</b> Robin Egg Blue 1093 Made Ira 40 21.46" * 144 stb. (3621)	 <b>Needle 8</b> Midnight Blue 1242 Made Ira 40 584.96" * 3005 stb. (6627)	
 <b>Needle 9</b> Soft Peach 1019 Made Ira 40 6.25" * 9 stb. (6636)				

To View: Menu Ribbon File > Print Preview

To Change what prints: Settings in Print Preview

To change your company name and estimate cost: Menu Ribbon Tools > Configuration > User Settings > User Preferences Tab

To change design notes & your customer's name: Menu Ribbon File > Design Properties

# Quotation Estimator Wizard

The Quotation Estimator is a software feature that guides you through the creation a customized Quote Sheet to give to your customer for approval of the image on a garment along with pricing and promised date. To start the Wizard, click on Tools > Quotation Estimator Wizard.

1. The first step is choosing the design for the customer. Click on the Folder to select the embroidery file to use. The software will automatically generate a jpg thumbnail for the design and place it on your Quote. Click Next.
2. The view/edit design statistics will be shown for the design. This will include the stitch count, trims and colors. You can change this if you want or you can leave it. Click Next to continue.
3. You can set the machine speed, as well as the number of heads that you run in your shop. This will affect the time per item to create on the Quote. Click Next.
4. You can set the pricing either by a number of stitches or by a fixed amount. You can even set the cost for material and digitizing as well. Click Next.
5. Set customer details is where you input all your customer contact information for record keeping. Click Next.
6. Set print settings will let you show your company logo and choose what information is shown on the printed quote. This is also where you choose the delivery date of your product. Click Next.
7. Simulation Background: choose the garment or similar style garment to that which the customer is ordering for a more realistic view of the embroidery design. Click Next.
8. Simulation placement: click and drag the logo to the desired place on the garment.
9. Quotation preview lets you see the quote before you print it. Click finish to print.

## QUOTATION ESTIMATOR – ROTATE DESIGN IN QUOTATION ESTIMATOR

Users can rotate the 3D design image within the Quotation Estimator.

This helps with garments like towels where the design is intended to be in a corner or at an angle.

## QUOTATION ESTIMATOR – STORE INFORMATION IN QUOTATION ESTIMATOR

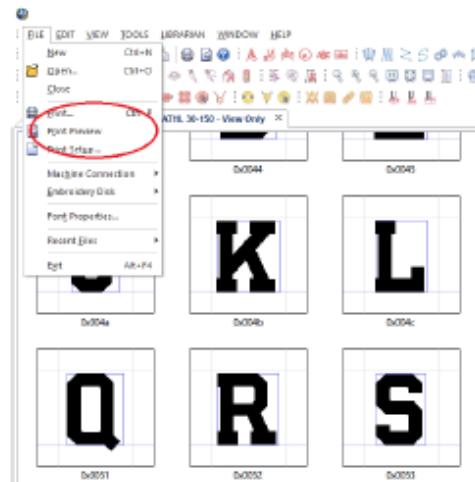
This feature allows the user to pre-populate information from previously entered/stored customer data.

## PRINTING – PRINT INDIVIDUAL FONT CHARACTERS

DG15 has implemented the ability to print the individual letters included in fonts.

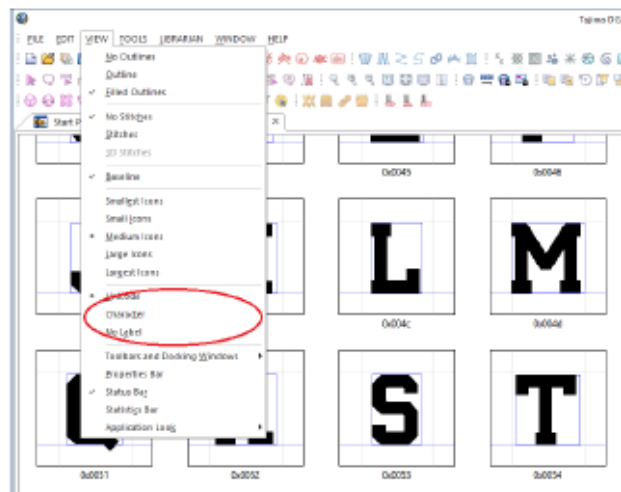
This is for use in printed books that users can show their customers to demonstrate font selection.

File > Print > Print Preview > Print Setup



View > Unicode > Character > No Label





## PRINTING – PRINT DESIGN ONLY

An option has been added to print a design only, meaning that no additional information will appear on the printed page.

Users can select what information appears via a checkbox

Settings > Print > Worksheets

## PRINTING – ADD INFORMATION TO PRINT OUT

When the setting is enabled, information is displayed in the print out showing the distance between the start and end location in a design.

This is an easy way for users to check location for AFC machine.

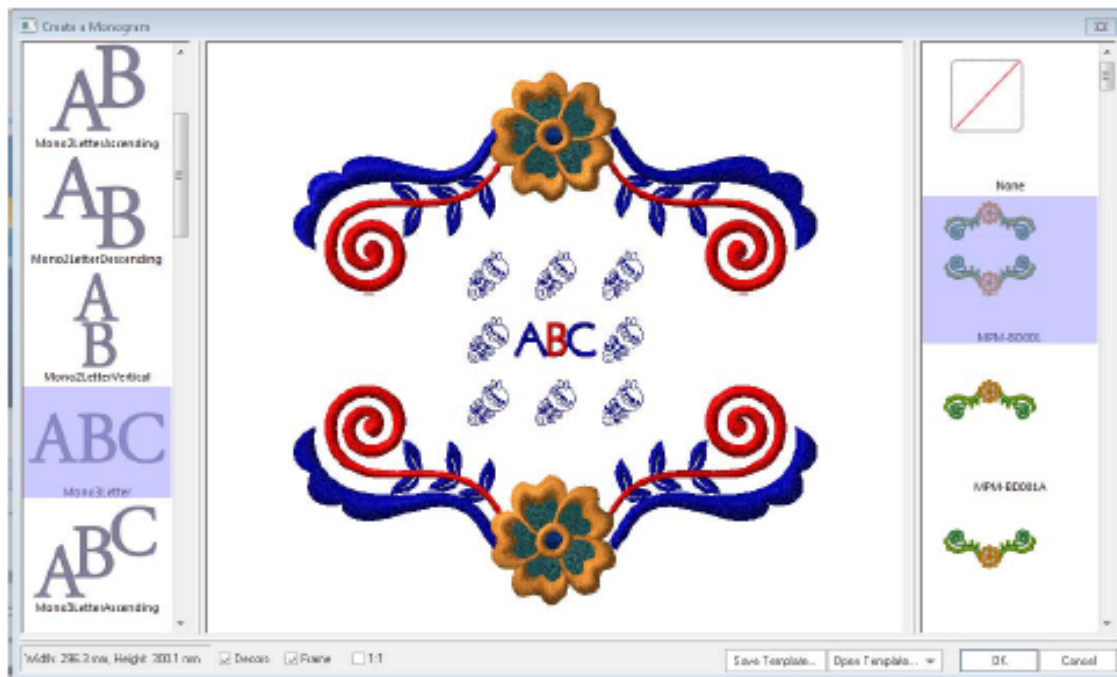
**Origin x (mm): -0 +84**

**Origin y (mm): -184 +0**

**Start/End distance (mm): 184 mm**

### 4.7.2 Create a Monogram

Create a Monogram is a new feature that allows you to very easily create simple or elaborate monogram designs. To use the Create a Monogram feature, open the New Document dialog (Ctrl + N, or File—New), and select the Monogram specialty project. The Monogram dialog will then open in a separate window.



The Create a Monogram dialog presents the user with a list of monogram layouts, from one to three letters, in the column on the left. When you select the monogram in the preview window the monogram properties panel appears on the right. Enter the letters, select the font, color, and lettering height and click the Apply to see a preview. Click OK to generate the design in the workspace.

#### Create a Monogram Options:

**Frames:** There are a large number of embroidery frame available in the Create a Monogram dialog. A "default" décor will appear in the Create a Monogram window. When you select a different frame, the new selection appears in the Create a Monogram preview

**Decors:** You can also adds small embellishments to the monogram in the Create a Monogram dialog. There are a set of placeholders that appear around the monogram letters (top/bottom, left and right sides, and at the corners); select any of these, and then select an embellishment from the list on the right.

**Save Template/Open Template:** This is a way to speed up the creation of a number very similar monograms, by creating a reusable pattern, or template. For example, if you are going to make some designs that have exactly the same frame, or pattern of decors, but with different initials in the middle. Select the monogram style, font, decors and/or frame, and then click the Save Template button. This will open a Save as dialog, which allows you save the monogram as a generic Template. Then, when you want to make a new monogram, click the Open Template button and change only the letters.

*Product level availability: Composer*

## 8 Cloud Storage

Tajima DG15 by Pulse now offers the ability to save designs to cloud storage directly from within the software. You can send to and retrieve files from Dropbox and/or Pulse Cloud from the File menu. Additionally, Pulse Cloud has many other features, such as design tagging, access to web apps, and the ability to view the design queue remotely.

### 8.1 Pulse Cloud

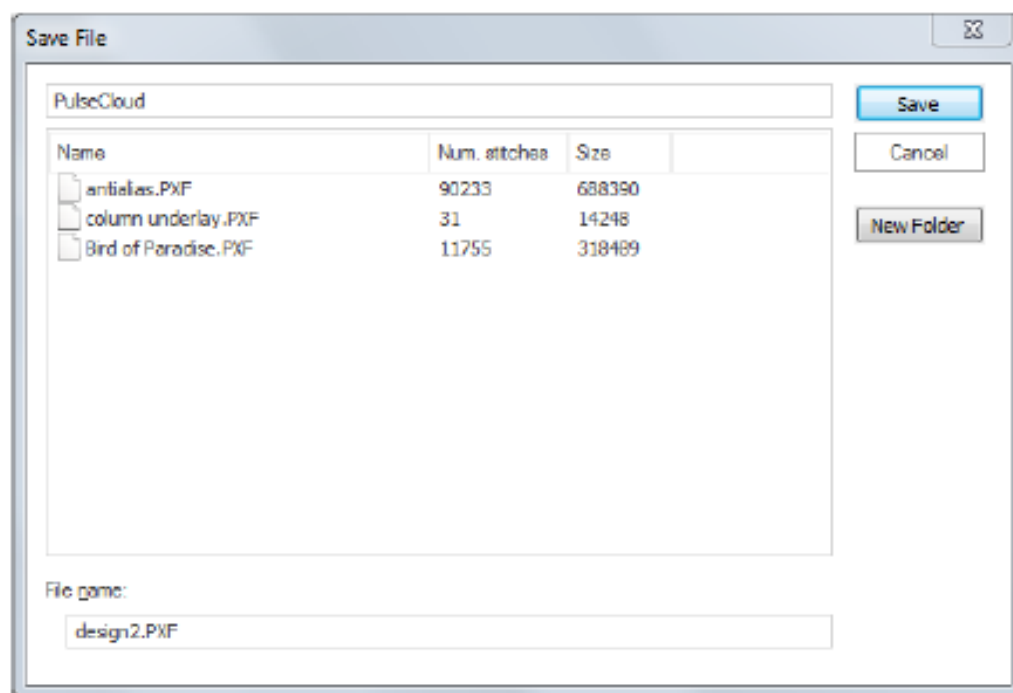
Pulse Cloud is a new service that enables you to manage your designs and machines remotely, through either a computer or mobile device. This web-based service allows easy storage and sharing of designs from your Tajima DG15 computer, and downloading of shared designs onto your computer.



Registration is required to use Pulse Cloud; while registering, you will create your own user ID and password.

When you Share with or Open from Pulse Cloud from within DG15 by Pulse, you will initially be linked out to a sign-in page, which will require this username and password before you can open or save designs; however, you can opt to remain signed in for subsequent writing to/reading from Pulse Cloud.

**Sharing designs:** In DG15 by Pulse, select File—Share with—Pulse Cloud. (The first time, you will be prompted by a dialog for permission to write to the Pulse Cloud disk – click “Allow”). You will then see a Save as dialog, which will show the names, number of stitches, and file size of any files already in storage.



If required, enter a new name into the File name field and click Save. The new file will now be uploaded onto Pulse Cloud storage.

**Opening designs:** In DG15 by Pulse, select File—Open from—Pulse Cloud. You see an Open dialog. Click on the name of the design from this list to select it. (If “show thumbnail” is selected, a thumbnail preview of the image will appear in the dialog.)

Click Open, and the design will appear in the workspace. Notice that in the name tab (along the top of the workspace) the design’s name has “Pulse Cloud” appended to it. This signifies that it is not a local copy; you can create a local copy, by using the “Save as” command.

#### Functions available on the Pulse Cloud web site:

**Tagging:** This is another advantage to using Pulse Cloud for design storage. On cloud.pulsemicro.com, designs can have tags assigned to them in, which allows you to do filtered searches. When design is tagged with keywords, you can click on the tag in the “Designs” page of your PulseCloud page, and it will show only the designs that are tagged with that keyword.

- To create a tag: On the “Files” page, click on the Create New tag link, and input the tag text into the field.
- To assign a tag: Double-click on a design name in the list, which will open the information page for that individual design. Click the Tag tab, and check the boxes of the tags you want to assign to the design.

Name	Statistics	File Status	Size	Date Created
Bird of Paradise.PXF	11,755 stitches, 213.4 mm x 235.2mm	Ready	311.0 KB	October-14-14
border1.PXF	10,973 stitches, 690.9 mm x 551.2mm	Ready	71.9 KB	October-15-14
column underlay.PXF	31 stitches, 15.2 mm x 5.1mm	Ready	13.9 KB	October-14-14
complex fill modifier.PXF	9,466 stitches, 561.3 mm x 505.5mm	Ready	48.6 KB	October-15-14
design2.PXF	1,689 stitches, 854.8 mm x 884.9mm	Ready	34.7 KB	October-15-14

**Design statistics:** On Pulse Cloud, information about the design is readily viewable from your device – the number of stitches, overall dimensions, file size, and creation date.

**Machine status:** On your Pulse Cloud account, if it is configured so that your design spoolers are synched with it, you can see machine status live on line – for example, see what is currently sewing, what designs are in the queue, and track machine events, such as thread breaks.

**Send to machine:** If you have a design spooler linked to your Pulse Cloud account, you will be able to send uploaded designs to the machines on the spooler from any device on the web.


**Applications:** A Pulse Cloud account allows you to work with web applications, such as variable data.



## 8 PulseCloud Features

### 8.1 Mass Upload Wizard

The “Mass Upload to PulseCloud” wizard has been added to make uploading of design files to the PulseCloud server go more quickly. This feature manages the uploading of as many files as you want to your PulseCloud storage, all in a single operation. The wizard allows you to select and upload multiple files, either from your hard drive (or other connected storage device) or from your own Librarian database.

**Important note:** Since the PulseCloud environment only accepts \*.PXF (Pulse outline) files, any non-\*.PXF files that you want to import will be automatically converted to \*.PXF during the upload process. The “Mass Upload to PulseCloud” wizard  tool may be found on the Ribbon—Processing tab.

*Product level availability: All*

### 8.2 Save to or Open files from Dropbox

Tajima DG15 by Pulse allows you to read or save files to your existing Dropbox Account.

**Saving Designs:** In Tajima DG15 by Pulse select File–Share–Dropbox; a Dropbox sign-in dialog will open in a new window. After you sign in to your account you can save the file to your Dropbox account.


**Opening Designs:** In Tajima DG15 by Pulse Select File–Open From–Dropbox to open a Dropbox sign-in dialog. You can then download any design file saved on you Dropbox.

*Product level availability: Composer*

## 8 PulseCloud Features

### 8.1 Mass Upload Wizard

The “Mass Upload to PulseCloud” wizard has been added to make uploading of design files to the PulseCloud server go more quickly. This feature manages the uploading of as many files as you want to your PulseCloud storage, all in a single operation. The wizard allows you to select and upload multiple files, either from your hard drive (or other connected storage device) or from your own Librarian database.

**Important note:** Since the PulseCloud environment only accepts \*.PXF (Pulse outline) files, any non-\*.PXF files that you want to import will be automatically converted to \*.PXF during the upload process. The “Mass Upload to PulseCloud” wizard  tool may be found on the Ribbon—Processing tab.

*Product level availability: All*

## *Hide fonts*

The complete list of fonts available in Tajima DG17 by Pulse is very long so it can take a while to look through them all. To save time while scrolling through the list when selecting a font, it is now possible to choose to display only the list of new-style fonts.

To change this setting, go to Tools—Configuration— User Settings – Customize—Text; select “Display all fonts” to show both old and new styles, or select “Hide old fonts” to display only the new-style fonts.

The following table displays the new fonts that have been added to Tajima DG17; note that these are now included as standard fonts.

**Block Black**

**Block Black**

**EDGY**

**Edgy**

**Madison New**

**Madison New**

**Meteoroid**

**Meteoroid**

**Portfolio**

**Portfolio**

In addition to the new fonts listed above, these previously optional fonts have now been added to the list of Standard fonts in Tajima DG17.

- Global
- Keep Calm
- Snow New

*Product level availability: All*

# Homework Assignment #1

Let's review how to create the first homework assignment.

On the Production Worksheet, it told us some very important information; like the design colors, location and the fabric type. These are all key elements of any order and once we know this information, we can begin creating the design.





## **Objectives: Create a design for the front of a cap.**

- Start a new file.
- Choose a recipe.
- Merge an outline file.
- Add lettering.
- Save the file in an outline format (PXF).
- Re – Save the file in a stitch format (DST).

## **Instructions:**

1. Start with a new file.
2. Choose the appropriate recipe - CAP.
3. Click OK.
4. Go to File and choose Merge Design.
5. Remember that you can click on Icons to preview the designs in the folder.
6. Choose the design that looks like the balls & bats one in this design.
7. Click on Open.
8. Left click once to place the design on your workspace.
9. You will have to resize the design smaller in order to add text to the design and have it still fit onto the cap.
10. You should still be selected on the design, if not, left click and drag a box completely around the design.
11. Left click and drag one of the 4 corners – look at the bottom of the screen as you drag to see the new dimensions.
12. Let go when you are at 1.75 inches.
13. Now, choose the Arc lettering tool.
14. Left click to get started, move the mouse over and left click again to set the length.
15. Now move the mouse up to set the radius or curvature of the baseline. Remember this is the line that the text will sit on.  
It's ok if it's not exactly lined up over the design, because we will adjust it later.
16. Left click to set the radius.
17. Move the mouse up again for the height of the lettering.
18. Left click to set the height – 0.25 inches.
19. Type in the text – Little League.
20. Left click OK.
21. Change the font to Brantford New.
22. Now you can drag to move the text centered over the design.
23. Save the file as a PXF and DST.
24. Your design size should be the same as on the Production Worksheet. At this time, don't compare the stitch count because we've not covered how to adjust the Embroidery Principals for designs.



1		Needle 1 Chestnut 1057 Madeira 40 303.15 " 1486 stc. (14...	2		Needle 3 Coral Pink 1107 Madeira 40 61.61 " 313 stc. (1800)	3		Needle 5 Black Ice 1244 Madeira 40 48.62 " 417 stc. (2217)	4		Needle 6 Flame Red 1146 Madeira 40 133.70 " 1081 stc. (32...
---	---	--	---	---	--	---	---	---	---	--	---

Origin x ("): -1.30 +1.30

Origin y ("): -1.02 +1.02

CAP DESIGN BRANTFORD FONT  
.25 IN TALL WILL NEED TO RESIZE  
DESIGN





# Homework Assignment #2





## **Objectives: Create a design for the front of a T – Shirt.**

- Start a new file.
- Choose a recipe.
- Merge an outline file.
- Add lettering.
- Save the file in an outline format (PXF).
- Re – Save the file in a stitch format (DST).

## **Instructions:**

1. First we start off with a new file.
2. Choose a recipe – T-Shirt.
3. Left click OK.
4. Next, let's import our design.
5. Left click on File – choose Merge Design.
6. This design will be located in the Animals folder. Remember you can left click on the Icons button.
7. Open the design.
8. Left click to place it on your workspace.
9. You won't have to resize this design because the sewable area is large enough to fit the design with the text.
10. Choose the Line Angle Lettering tool.
11. Left click to get started creating the baseline.
12. Move the mouse across and left click to set the length.
13. Now, move the mouse up to set the height - .50inches.
14. Left click to confirm height.
15. Choose the multiline button.
16. Type 'You Belong'.
17. Hit (Enter) to move to the next line.
18. Type 'in the'.
19. Hit (Enter) to move to the next line.
20. Type 'Atlanta Zoo'.
21. Left click on OK.
22. Change the font to Hobo New.
23. Change the Text Justify to Left.
24. Now just drag the text under the neck of the giraffe.



	<b>Needle 1</b> ■ Autumn Gold 1173 Madeira 40 308.66 " 1539 stc. (15...		<b>Needle 5</b> ■ Espresso 1059 Madeira 40 194.80 " 1424 stc. (29...		<b>Needle 8</b> ■ Black Ice 1244 Madeira 40 6.42 " 43 stc. (3012)		<b>Needle 1</b> ■ Autumn Gold 1173 Madeira 40 584.13 " 3259 stc. (62...
<b>Origin x ("): -2.01 +2.01</b>		<b>Origin y ("): -1.14 +1.14</b>		<b>TEXT JUSTIFY FULL FRONT CHILD'S TEE SHIRT</b>			