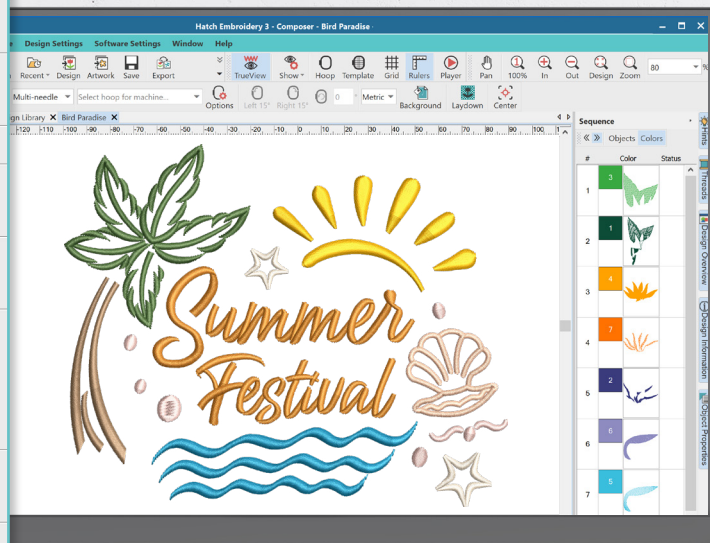


How to Digitize

A Beginner Workshop



- Digitize
 - Rectangle / Square
 - Circle / Oval
 - Standard Shapes...
 - Freehand Open Shape
 - Freehand Closed Shape
 - Digitize Open Shape
 - Digitize Closed Shape
 - Digitize Blocks
 - Carving Stamp >>
 - Motif Stamp...
 - Add Stitch Angles
 - Remove Stitch Angles
 - Digitize Holes
 - Fill Holes
 - Remove Holes
 - Weld
 - Backtrack
 - Repeat
 - Branching
 - Redwork



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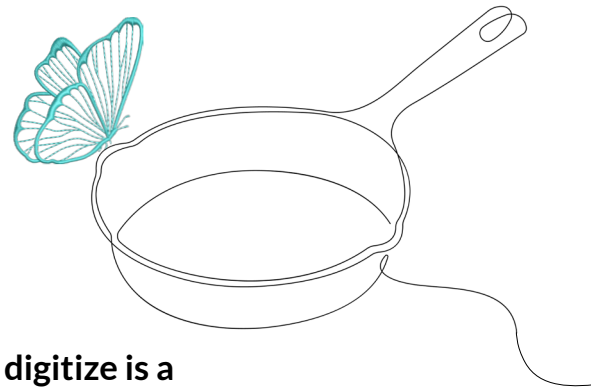


Welcome

Hello fellow Hatcher,

I'm Kim Goodwin, Vice President of Wilcom Products. Welcome to this course! I'm excited you've joined us. This isn't your typical how-to-digitize class. With my experience teaching sewing and embroidery since the 70s, I know what beginners struggle with and the questions they ask. This course is designed to tackle those questions head-on.

Take some time to read through this workbook before you begin—it's your guide to starting strong and having an exciting time learning to digitize. Keep it handy and refer to it often as you master the art of manual digitizing.



Learning to digitize is a lot like learning to cook

You have a recipe, ingredients, tools, and a process to follow. Just as you wouldn't dump everything into a bowl and expect a gourmet meal, you must first understand the basics.

- ✓ What size pan do you need? (embroidery hoop)
- ✓ How do you prep it? (stabilizer)
- ✓ What comes first? (planning)
- ✓ What settings should you use? (design properties)
- ✓ How do you measure your ingredients? (spacing, density)
- ✓ Do you level off the measuring spoon or heap it? (pull compensation)

Just as many people never had someone to teach them how to cook, many of you are new to embroidery and software. You might be familiar with basics like hooping and stabilizers but feel uncertain about digitizing, or you might be starting from scratch. Remember, everyone needs to learn to walk before they can run!

So...now you want to learn digitizing?

You're ready to dive into digitizing! Grasping the basics or theory is key. It's what helps you troubleshoot when things go wrong.

I can give you a stunning flower design and walk you through it step-by-step. It looks amazing, but that doesn't mean you understand digitizing. The reality check comes when you try to digitize something different, like a teddy bear. Without the basics, you'll struggle.

Mastering editing is even more crucial than digitizing. Once you've got editing down, digitizing becomes easy.

About this course

We're not just teaching you how to digitize; we're covering essential editing basics too. For deeper dives, your Hatch Academy lessons are available free with your Hatch Embroidery software license.

This class is designed for absolute beginners. If you already have some knowledge, parts of this course might seem basic, but stick with it—you'll still learn something new.

You also need to know how to use your software. Hatch Academy has a section called "Hatch Embroidery Training" with lessons and videos on all the tools and features in the software. It also offers lessons on fabrics, threads, stabilizers, hooping, etc., in the "What you need to know to get started" course.

Who is this class for?

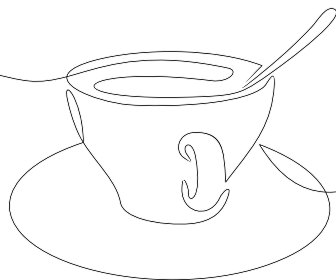
This class is designed for **beginner digitizers**, regardless of your previous experience or knowledge of embroidery. Whether you're new to digitizing or have dabbled and felt lost, this class is perfect for you.

You're in the right place if you:

- ✓ Are confused about digitizing
- ✓ Don't understand the process
- ✓ Feel lost
- ✓ Think digitizing is too hard
- ✓ Have some experience but want to learn more
- ✓ Can digitize a design but don't know how to edit it

Skill level

This course is **all about the basics**. We'll start from square one, so don't worry if you're a complete newbie. We've got you covered!



Who are your instructors?

This course is developed by **Lindee Goodall**, owner of Lindee G Embroidery and me, **Kim Goodwin**, VP of Wilcom Products. Together, we have over 67 years of digitizing experience and over 85 years of embroidery experience!



We've created more videos than usual for this course to help you quickly find specific topics when you review. Follow the text lessons along with the videos. We included artwork for practice—from simple to more challenging designs. Download the artwork and practice.

Hearing, watching, and doing is the best way to learn!

This workbook – your guide:

This workbook will guide you through the entire course. **Before starting this course, be sure to first read "Before You Start" and "Quick References for Manual Digitizing".** Together, they will provide a clear overview of the course and provide the basics before starting.

Print the checklist and tick off completed lessons. Then, jump in with the hands-on lessons in video and text and practice examples. We'll end with a **do-it-yourself hands-on challenge** design at the end of each section.

I hope this class is fun and educational and provides a great learning experience for the Hatch Embroidery software. I'm here to answer your questions and help you along the way.

Kim Goodwin

★ Exec. VP of Wilcom Products

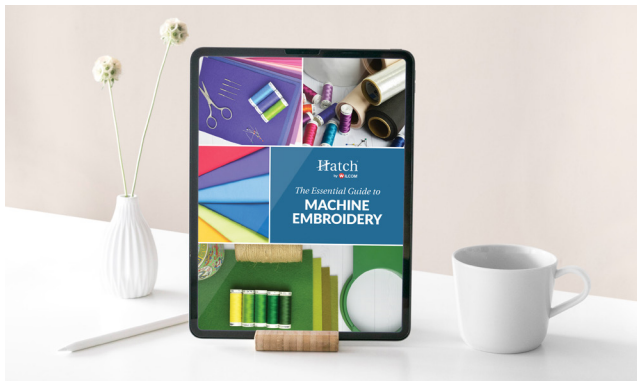
Before You Start

Before beginning this journey, familiarize yourself with some basic embroidery topics and terms. This will ensure you're well-prepared and confident as we dive into manual digitizing. Don't worry if some of these terms are new to you! We'll go over everything together in our hands-on lessons.

Embroidery basic terms:

Let's start with the fundamental embroidery topics and terms. Our Embroidery Basics section covers many of these essentials, such as **stabilizers**, **fabric types**, **threads**, **hoops**, and different **machine types**. By having a solid understanding of these basics, you will be well-prepared and confident as we dive into manual digitizing.

For additional insights and guidance, we recommend referring to “**The Essential Guide to Machine Embroidery**” **eBook**. It's a valuable resource that can enhance your understanding of the embroidery essentials. You can **download this FREE eBook [here](#)**.



Get to know the Hatch Embroidery software - A crucial step in your digitizing journey

I know it's tempting to dive right into creating your own designs with new software. However, your digitizing experience will be much smoother and faster if you first take some time to learn the basics of how Hatch Embroidery works.

If you are new to Hatch Embroidery software, take a moment to watch the video tour. It's a great way to get acquainted with the tools you'll be using. You will find this located in the **Welcome and Introduction** of the course.

I don't expect you to know all of this right from the start. However, it's helpful to watch the overview to familiarize yourself with the layout of Hatch Embroidery. You'll get plenty of hands-on experience in the course lessons.

9 Fundamentals often overlooked by new digitizers:

I included this section as many new digitizers often jump in without considering some crucial fundamentals that are within their control. Mistakes are a natural part of the learning process, but being aware of these overlooked basics can help you avoid common pitfalls. Here are nine key fundamentals to keep in mind as you begin your digitizing journey.



System requirements:

It is important to ensure that your computer system is capable of running the software smoothly. **Check the requirements [here](#).**



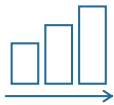
Take the time to plan:

“Plan your work, and work your plan!” There’s nothing worse than starting a design, getting stuck, and then feeling like giving up. Take the time to plan your design thoroughly before you begin.



Watch and learn:

Watching your design stitch out is a valuable learning experience. It helps you see if everything looks correct and allows you to pick up useful tips by observing other designs.



Learn the basics and don’t skip around:

It’s tempting to dive straight in, but taking the time to learn the basics first will save you a lot of frustration. This course is designed to be followed in sequence, with each lesson building on the previous one. Once you’ve mastered the material, you can always revisit specific sections as needed.



Tablet, laptop, desktop?

Ensure your computer meets the software’s requirements before getting started. Tablets often struggle with graphic software; small screens can be challenging, and not all tablets have compatible operating systems. Be sure to double-check on the Hatch website or reach out to our support team for assistance.



Mouse vs Pen:

When you’re just starting out, it’s best to stick to what you know! If you’re comfortable using a mouse, continue with it. There’s no need to rush out and buy a pen or tablet right away. Focus on mastering digitizing first. In this course, we’ll be using a mouse because it’s easier for beginners. You can explore other tools later on.

Pro Tip: Set your mouse so one of the buttons or the wheel acts as the enter key. This makes digitizing a lot smoother. You can do this in your computer’s mouse settings.



Ask questions:

We’re here to support you! Each lesson includes a “**discussion**” section where you can ask specific questions related to that lesson. Don’t hesitate to use it as often as you need—it’s a great resource to help you through the learning process.



Practice makes perfect:

Be sure to download and use the practice materials provided. They’re the most effective way to solidify your learning and gain confidence in your skills. Consistent practice will help you master the techniques faster.



Learn how to edit designs:

Editing is the most crucial aspect of digitizing, as it can make or break the final result. Mastering editing skills allows you to refine your designs, ensuring they look polished and professional. Invest time in learning this step thoroughly.

Quick References for Manual Digitizing

If you're new to embroidery, refer to this section often. These everyday terms are used frequently in embroidery and understanding them will help you as you progress through the lessons. **Print it out and keep it by your workstation!**

What is an embroidery design file?

A digital stitch file that contains commands or instructions for your embroidery machine. It directs the machine to stitch onto fabric or other substances using X/Y axis movements. This file is created (digitized) using software that specializes in digitizing stitch files. This is the Hatch Embroidery software.

What is digitizing?

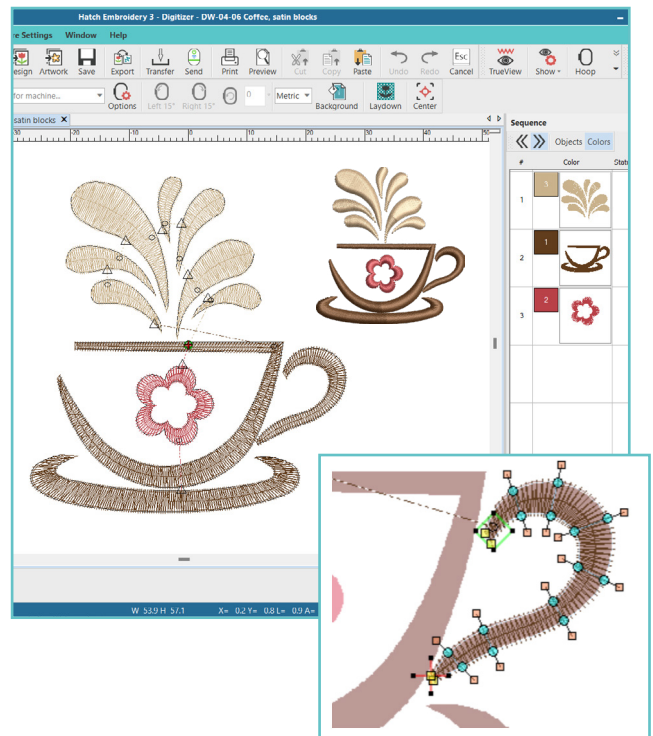
Digitizing is the process of creating a stitch file that an embroidery machine can read. There are two methods to achieve this:

- **Auto-digitizing:** The software automatically converts an image into stitches.
- **Manual digitizing:** You create shapes in the software, which are then converted into stitches.

In this course, we will be **focusing on manual digitizing**.

What is a stitch?

A stitch is a needle penetration into the fabric. The machine moves in straight lines (right, left, up, down) from the current point to create stitches. We'll cover more in the lessons.



Embroidery files:

There are two types of embroidery files you will create when digitizing:

Working file (EMB):

This is your original embroidery file created in the software. It contains all the details such as colors, size, stitch type, and density. In Wilcom/Hatch, this is known as the **EMB file format**, or sometimes the “working file” or “master file.” **Always save this file, as it allows you to make any necessary edits.**

Stitch file (EXP, DST, PES, etc.):

This file is what your embroidery machine reads. It's saved in a format your machine can understand, such as EXP, DST, or PES. These files contain all the commands the machine needs, including needle penetrations, X/Y movements, stops for color changes, trims, and jumps.

Some formats, like EXP and DST, don't retain color information, so it's crucial to save your Worksheet in the EMB file format and save it along with your stitch file.

We cover stitch files in detail in Hatch Academy.

Export to 22 different machine formats in Hatch Embroidery. **Find out more [here](#).**

Steps to manually digitize a design:

Manually digitizing an image is easier than you might think! Follow this easy guide which we'll use throughout all our lessons:

- 1 **Open your image:** Load the image into your design window. If you don't have an image, no worries—you can freestyle it.
- 2 **Pick your tool:** Select the appropriate tool for digitizing.
- 3 **Trace the shape:** Click around the shape to trace it on the screen.
- 4 **Finish up:** Once you have finished tracing, press "Enter" on the keyboard to stop and complete the object. Repeat for each shape.

Questions to ask yourself before digitizing any object:

- 1 **Open or closed?** Determine if the object you are digitizing is closed or open.
- 2 **Outline or fill?** Decide if you want an outline or fill.
- 3 **Color and stitch-type?** Pick a color and stitch-type.

NOTE: Yes, you can change these afterward, but it can affect certain properties.

And that's it! The actual digitizing steps are straightforward.

Test-sewing:

An embroidery design isn't finished until it's test-sewn. **Use proper techniques for hooping, stabilizing, and stitching.** Remember to **save your design as an EMB file for future editing** before exporting it to your machine stitch file.

Edit your design and test-sew again:

If your test sample isn't right, open the EMB file, edit it, save it, export to your machine file, and test-sew again. Once you are satisfied, you can stitch it on your actual project.



Looking for more help?



Using the F1 Key

Pressing **F1** to access the online Help system (internet required)



Hints Docker

Checking the **Hints Docker** (Window Menu > Dockers > Hints)



Find **over 400 lessons** covering a wide range of topics in the Hatch Academy. **Free with your Hatch Embroidery software license.**

Overview of digitizing components and tools:

This section provides an overview of the key digitizing components and tools and serves as a quick reference of their purpose, location, and appearance. It is followed with more detailed information, a variety of hands-on tutorials with practice designs, and an opportunity to create designs.

Key points:

Three main stitch types:

- Run
- Satin
- Fill

Two object types:

- Open
- Closed

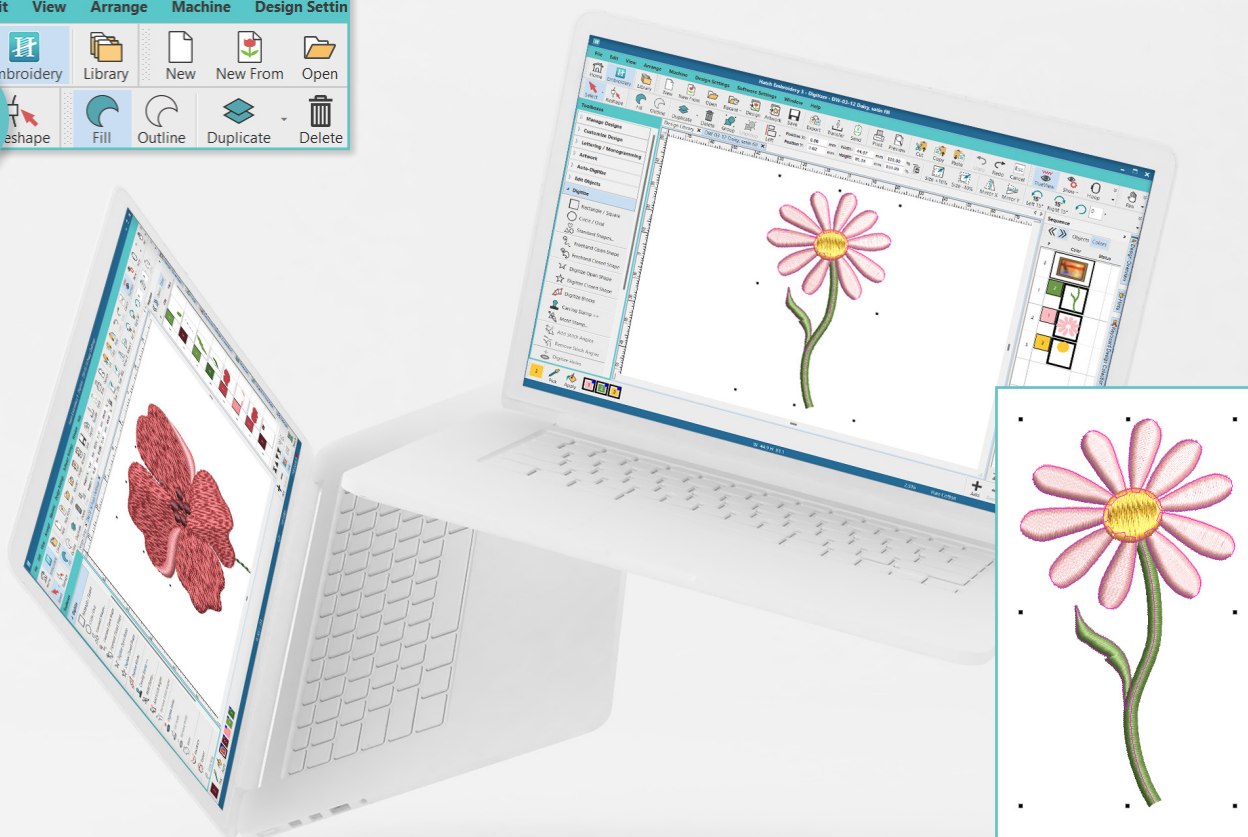
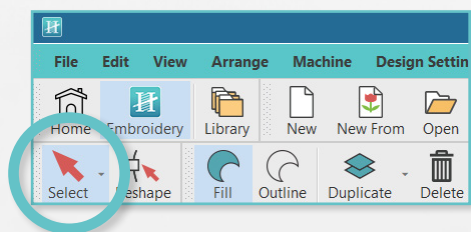
Three main digitizing tools:

- Open
- Closed
- Block

Selecting objects: (You must remember this!)

To change an object, you must first select it. Selecting an object indicates to the software that you wish to change it. The next click or action will apply the necessary changes to the selected object.

TIP: If nothing is happening, check to see if you have something selected!



Object types:

In digitizing, objects are the building blocks of your designs. They have properties like stitch type, color, density, length, underlay, pull compensation, tie-ins and tie-offs, jumps, and color changes. Objects are created with outlines that can be reshaped. When exported to your machine file, these outlines become individual stitches.

Save the original file as EMB (grade A). This will be your “working file” that you can continue to edit in the future or continue where you left off.

Let’s break down the two main types of objects, **Open and Closed**.

Open objects:

- Made with straight lines, curved lines, or both.
- Separate start and end points.
- Includes open run and open satin objects.
- Open shapes are always “outlines” and can only use that stitch type.



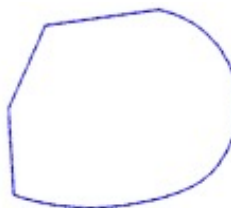
Open run object



Open Satin object

Closed objects:

- Made with straight lines, curved lines, or both.
- Start and end points are the same for run stitches but can differ for filled objects.
- Includes closed run, satin run, and filled objects.
- Closed shapes can be filled or outlined around their border.



Closed run object




Satin run object




Filled object

Digitizing tools:


You'll use **three main digitizing tools** to create these objects. While more advanced tools are available, we'll focus on the core ones for this beginner class.


 Freehand Open Shape

 Digitize Open Shape

Open digitizing tools:


- **Purpose:** Used to create open objects.
- **Location:** Found in the Digitize toolbox on the left side of your Hatch screen.
- **Uses:** Can be applied to run stitch types, satin stitch types, and their variations.

 Freehand Closed Shape

 Digitize Closed Shape

Closed digitizing tools:

- **Purpose:** Used to create closed objects.
- **Location:** Found in the Digitize toolbox on the left side of your Hatch screen.
- **Uses:** Can create outline or filled objects using tatami or satin stitch types or their variations.

 Digitize Blocks

Block digitizing tools:

The block digitizing tool is the oldest tool used in digitizing embroidery designs

- **Purpose:** Used to create column-like object shapes.
- **Location:** Found in the Digitize toolbox on the left side of your Hatch screen.
- **To digitize:** Click a point and a counterpoint, which also creates the stitch angle.
- **Uses:** Primarily used for closed shapes, but can also be applied to outline tools.

With these basics in mind, you're ready to jump into digitizing with hands-on lessons! Remember, practice makes perfect, so keep experimenting with the tools.



Satin Stitches



Fill Stitches

Satin Column/Letters

Checklist - How to Digitize - A Beginner Workshop

Print this checklist and check off the lessons as you complete them, or place a star beside the ones you need to return to later.

Chapter	Lesson	Lesson ID	Finishe
Introduction: Before Starting This Course			
	<i>Beginner Digitizing Workshop Overview</i>	DW-00-00	<input type="checkbox"/>
	<i>Welcome</i>	DW-00-01	<input type="checkbox"/>
The Run Stitch			
	<i>Download Run Stitch Resources</i>	DW-01-00	<input type="checkbox"/>
	<i>Run Stitch Introduction</i>	DW-01-01	<input type="checkbox"/>
	<i>Closed Shapes with Run Stitches</i>	DW-01-02	<input type="checkbox"/>
	<i>Editing Run Stitches</i>	DW-01-03	<input type="checkbox"/>
	<i>Recommended Settings for Run Stitches</i>	DW-01-04	<input type="checkbox"/>
	<i>Simple Exercise: 3 Run Stitch Designs</i>	DW-01-05	<input type="checkbox"/>
	<i>Easy Exercise: Run Stitch Closed Shape: Cat</i>	DW-01-06	<input type="checkbox"/>
	<i>Project: Run Stitch Challenge Design: Quilt Block</i>	DW-01-07	<input type="checkbox"/>
	<i>Simple Exercise: Redwork Design: Leaf</i>	DW-01-08	<input type="checkbox"/>
	<i>Easy Exercise Redwork: Lemon & Branch</i>	DW-01-09	<input type="checkbox"/>
	<i>Project: Redwork Challenge Design: Lemon Tree</i>	DW-01-10	<input type="checkbox"/>
	<i>Download Exercise and Project Run Stitch Design Files</i>	DW-01-11	<input type="checkbox"/>
	<i>Reflections: Quiz on Run Stitch</i>	DW-01-12	<input type="checkbox"/>
Satin Outlines			
	<i>Download Satin Outline Stitch Artwork Resources</i>	DW-02-00	<input type="checkbox"/>
	<i>Satin Outline</i>	DW-02-01	<input type="checkbox"/>
	<i>How Satin Outline Differs from Single Run</i>	DW-02-02	<input type="checkbox"/>
	<i>Underlay for Satin Outlines</i>	DW-02-03	<input type="checkbox"/>
	<i>Compensation for Satin Outlines</i>	DW-02-04	<input type="checkbox"/>
	<i>Corners & Shortening for Satin Outlines</i>	DW-02-05	<input type="checkbox"/>
	<i>Recommended Settings for Satin Outlines</i>	DW-02-06	<input type="checkbox"/>
	<i>Simple Exercise: Satin Borders</i>	DW-02-07	<input type="checkbox"/>
	<i>Easy Exercise: Sailboat</i>	DW-02-08	<input type="checkbox"/>
	<i>Project: Satin Outlines Challenge: Cupcake</i>	DW-02-09	<input type="checkbox"/>
	<i>Download Exercise and Project Satin Outline Design Files</i>	DW-02-10	<input type="checkbox"/>
	<i>Reflections: Quiz on the Satin Outline</i>	DW-02-11	<input type="checkbox"/>

Fill Stitch			
	<i>Download Fill Stitch Resources</i>	DW-03-00	<input type="checkbox"/>
	<i>Introduction to Fills</i>	DW-03-01	<input type="checkbox"/>
	<i>Tatami Fills</i>	DW-03-02	<input type="checkbox"/>
	<i>Stitch Angles</i>	DW-03-03	<input type="checkbox"/>
	<i>Editing Tatami Fills: Stitch Angle & Entry/Exit Nodes</i>	DW-03-04	<input type="checkbox"/>
	<i>Tatami Compensation</i>	DW-03-05	<input type="checkbox"/>
	<i>Tatami Underlay</i>	DW-03-06	<input type="checkbox"/>
	<i>Editing Tatami Fills</i>	DW-03-07	<input type="checkbox"/>
	<i>Simple Exercise: Tatami Fills: Blobs</i>	DW-03-08	<input type="checkbox"/>
	<i>Easy Exercise: Tatami Moon & Clouds</i>	DW-03-09	<input type="checkbox"/>
	<i>Project: Fills Challenge Design: Poppy</i>	DW-03-10	<input type="checkbox"/>
	<i>Satin Fills: Properties</i>	DW-03-11	<input type="checkbox"/>
	<i>Simple Exercise: Satin Fills: Daisy</i>	DW-03-12	<input type="checkbox"/>
	<i>Easy Exercise: Satin Fills: Fireworks</i>	DW-03-13	<input type="checkbox"/>
	<i>Project: Satin Fills Challenge Design: Angelfish</i>	DW-03-14	<input type="checkbox"/>
	<i>Download Exercise and Project Fill Stitch Design Files</i>	DW-03-15	<input type="checkbox"/>
	<i>Reflections: Quiz on the Fill Stitch</i>	DW-03-16	<input type="checkbox"/>
Block/Column Tool			
	<i>Download Block/Column Stitch Artwork Resources</i>	DW-04-00	<input type="checkbox"/>
	<i>Digitizing with the Block/Column Tool</i>	DW-04-01	<input type="checkbox"/>
	<i>Editing Blocks Objects - Reshaping</i>	DW-04-02	<input type="checkbox"/>
	<i>Stitch Properties for Satin Block</i>	DW-04-03	<input type="checkbox"/>
	<i>Stitch Angles & the Blocks Tool</i>	DW-04-04	<input type="checkbox"/>
	<i>Simple Exercise: Satin Blocks Design: Coffee</i>	DW-04-05	<input type="checkbox"/>
	<i>Easy Exercise: Satin Blocks Project: Butterfly</i>	DW-04-06	<input type="checkbox"/>
	<i>Project: Satin Blocks Challenge Design: Ornament</i>	DW-04-07	<input type="checkbox"/>
	<i>Download Exercise and Project Block Design Files</i>	DW-04-08	<input type="checkbox"/>
	<i>Reflections: Quiz on the Block/Column Tool</i>	DW-04-09	<input type="checkbox"/>
Course Project: Challenge Design			
	<i>Download Course Challenge Project Artwork Resources</i>	DW-05-00	<input type="checkbox"/>
	<i>Course Project: Challenge Design</i>	DW-05-01	<input type="checkbox"/>
	<i>Digitizer's Planning Checklist</i>	DW-05-02	<input type="checkbox"/>
Congratulations			
	<i>Congratulations!</i>	DW-06-01	<input type="checkbox"/>

Overview of Lessons

Let's start digitizing!

You've made it to the next section! Here's an overview of each chapter in the course. Use it as a quick reference.

In Hatch Academy, you'll find video lessons, text guides, downloads, and practice artwork. You need to sign in to access the class.

Follow them in order, as each build on the previous one.

Key points:



Watch the video:
Watch the entire video before attempting anything.



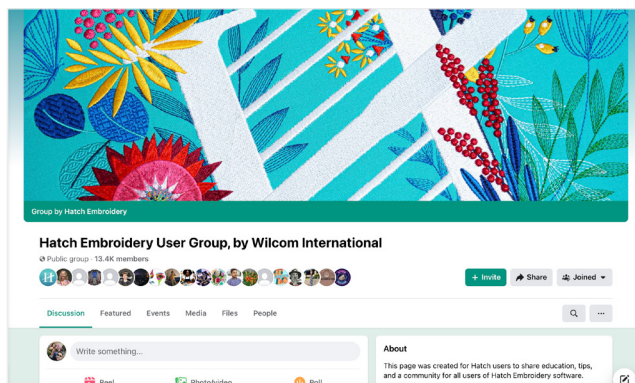
Pause and practice:
Pause the video and practice what you've learned.



Text lessons:
These can also include helpful videos.

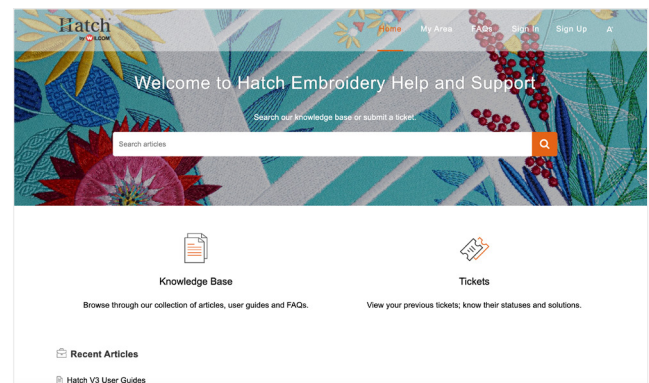


Ask questions:
Click the "Discussions" button if you have questions.



Share your work:

Share your finished work in "Discussions" and post images in our [Hatch Embroidery Users Group](#) in Facebook.



Technical help:

For technical questions, visit Hatch Help. Find answer in the [FAQs](#) or [submit a ticket](#).

Chapter 1: Run Stitch

This section is all about the Run Stitch. It's the most versatile tool and can be used in several ways.

This chapter has 10 lessons, all dedicated to using the Run Stitch. In this chapter, we will explore the many ways of digitizing using this type of run outline stitch.

Be sure to **download your resources first**. You'll find these in lesson **DW-01-00**.

What you will learn in this chapter:

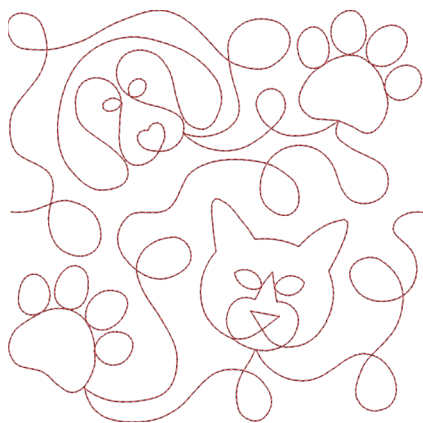
- How to identify a Run Stitch
- Creating simple Run Stitch objects
- How to identify the node types
- How to edit nodes
- How to digitize a closed and open shape with the Run Stitch
- Recommended settings
- You will digitize a simple open shape design as you follow along with us
- Then, you'll digitize an easy design that uses the closed run tool
- Learn how to use the run stitch to create quilt blocks
- How to digitize Redwork designs
- You'll have two levels of Redwork designs to follow along while you digitize
- You'll end up digitizing a design that you can use in your own projects



We will end this course with our “**Reflections**” section. This is a short quiz to self-test what you have learned.

You'll receive **10 image files to digitize during these lessons**.

At the end of this chapter, you'll receive all 10 designs we have digitized for reference as you learn how to digitize your own.



Chapter 2: Satin Outlines

Now that you have learned all about using the run tool with a single outline stitch type, we are going to continue with this stitch type and how it relates to the Satin Outline stitch.

There are 6 images that will help you to learn the dos, and don'ts of using satin stitch.

This chapter offers 9 lessons to practice and learn when using a Satin Outline in your digitizing process.

Be sure to **download your resources first**. You'll find these in lesson **DW-02-00**.

What you will learn in this chapter:

- Identifying designs using the Satin Outline stitch
- Using a worksheet to practice different ways to use this stitch
- How a Satin Outline differs from a Single Run Stitch
- How stitch length is measured
- Understanding spacing and density
- Using the Auto Split feature
- Then we move to underlay with the Satin Outline
- What is the underlay?
- Purposes of underlay?
- How to control the underlay?
- Compensation of the Satin Outline
- How to offset sewing distortions with the Satin Outline
- Types of corners with the Satin Outline
- Using Automatic Corners
- Recommended settings for the Satin Outline
- Practice digitizing first with simple shapes using the Satin Outline to create borders
- Staying with an easy design to digitize, we focus on planning tips and artwork considerations
- Your challenge for the Satin Outline stitch is to take an image normally done with single run stitches and adapt it to work with satin stitches.



Again, we will end this course with our “**Reflections**” section, a short quiz to self-test what you have learned.

You'll receive **6 image files to digitize during these lessons**.

At the end of this chapter, you'll receive all 3 designs we have digitized for reference as you learn how to digitize your own.

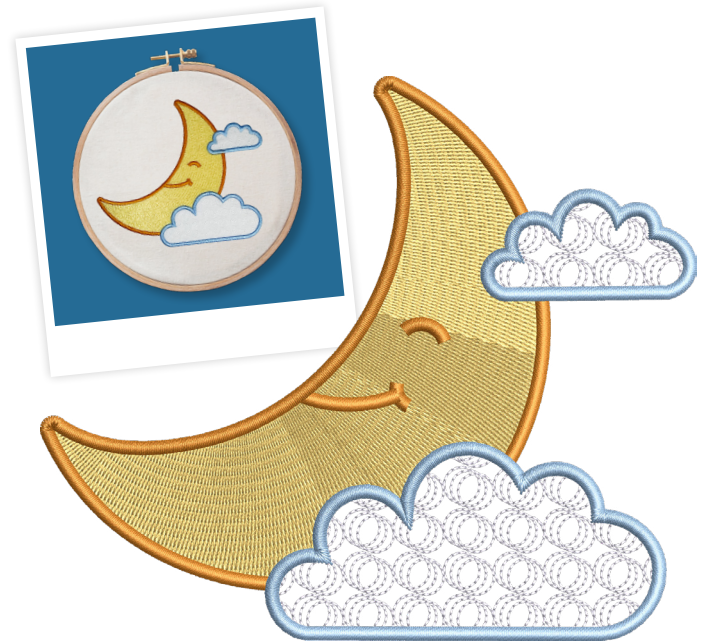
Chapter 3: Fill Stitch

While you can use the Run Stitch to totally create your design, it is much easier to digitize some parts with the Fill Stitch type available in the Hatch Embroidery software.

This chapter has 14 lessons and digitizing practice sessions, all dedicated to using Fill Stitch.

What you will learn in this chapter:

- Identify the difference between Satin and Tatami Fills
- Overview of Fill Stitch properties
- Learning to use the Tatami Stitch:
 - When to use
 - How to manage the stitch spacing (density)
 - What stitch length should you use
 - How to use stitch patterns with tatami fill
- Adjusting Stitch Angles
- How to edit Tatami Fills:
 - Stitch angles
 - Entry and Exit nodes
- Tatami Compensation
 - Why is it needed?
 - Factors that affect compensation
- Using Underlay and setting the properties for Tatami Fills
- Editing Tatami Fills
- Changing an Open Shape to a Closed Shape
- In a simple project, we will learn:
 - Creating a “blob” behind your design to give that “artsy” look
 - How to use the feathering technique on light fills
 - Using Ripple Fills
- In our next easy design, we will learn several techniques:
 - Knife tool
 - Sequence by Selection
 - Adding Stitch Angles
 - Discard unused color
- Our challenge design for using the Fill Stitch includes learning:
 - How to adapt your artwork
 - Digitizing with overlaps to avoid gaps
 - Using Pattern Fills



What you will learn in this chapter:

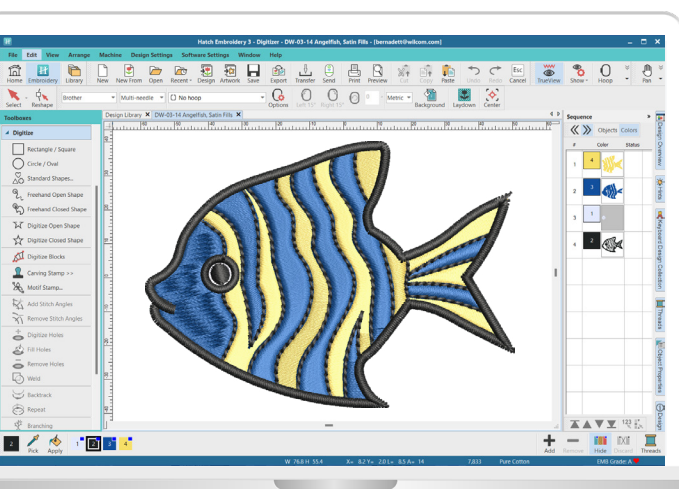
- **Using a Satin Stitch as a fill:**
 - Satin Stitch properties:
 - Stitch spacing for satin fills
 - Managing stitch length with auto split
 - Underlay with satin fills
- **Digitize a simple Daisy while you learn:**
 - Measuring objects to determine the appropriate stitch types to use
 - When to use satin outline and when to use satin fills
 - Adding extra stitch angles
- **Digitize an easy Fireworks design and learn:**
 - Using the Circle Layout tool
 - Digitizing stars
 - Sequence by object
- **Your challenge project using Satin Fills is a cute Angelfish with even more techniques to learn:**
 - Measuring to determine appropriate stitch types with satin fills
 - Adding extra stitch angles
 - Digitizing stripes
 - Outlining designs



We will once again end this course with our “Reflections” section.

You'll receive 7 image files to digitize during these lessons.

At the end of this chapter, you'll receive all 7 designs we have digitized for reference as you learn how to digitize your own.



Chapter 4:

Block/Column Tool

This chapter has 7 lessons and digitizing practice sessions, all dedicated to using the Block/Column Tool, our final tool for digitizing designs. Everyone likes this tool, but it is easy to overuse it or use it incorrectly.

First, we will look at several designs and identify what are satin block objects.

During this chapter you will learn:

- **The basics of using the Block Tool**
- **Learn how to create angles in block objects**
- **Editing block objects is different from editing typical objects. You will learn how to use reshaping to edit block objects.**
- **How to edit block object nodes and how they are different.**
- **Learn which stitch properties relate to block objects and settings.**
 - Stitch spacing (density)
 - Auto Split
 - Underlay
 - Compensation
- **Stitch Angles**
 - This is one of the tools in embroidery that can either make or break the block objects because they can have several stitch angles.
- **Learn how to control stitch angles on curved objects.**
 - How to and where to place angles and nodes
- **Digitize a simple but cute coffee cup while you learn to use the Block Tool**
 - Using the Digitize Blocks tool with varying widths
 - Managing tapered ends
 - Controlling entry/exit nodes
- **While some designs look simple, there is still a lot to think about. We will digitize a beautiful butterfly as we learn the following**
 - Planning a design for maximum sewing efficiency
 - Manually controlling entry/exit nodes
 - When to break a solid area of color into multiple objects
 - Using the Backtrack tool
 - Advanced tip for improving efficiency: using the Spacebar toggle between tools
- **Digitize your challenge design using the Block Tool**
 - Learn when you might want to use the Redwork tool rather than the Block Tool
 - Learn when you should manually path the objects rather than closest join



We will end this course with our “**Reflections**” section. This is a short quiz to self-test what you have learned.

You’ll receive **4 image files to digitize during these lessons.**

At the end of this chapter, you’ll receive all 3 designs we have digitized for reference as you learn how to digitize your own.

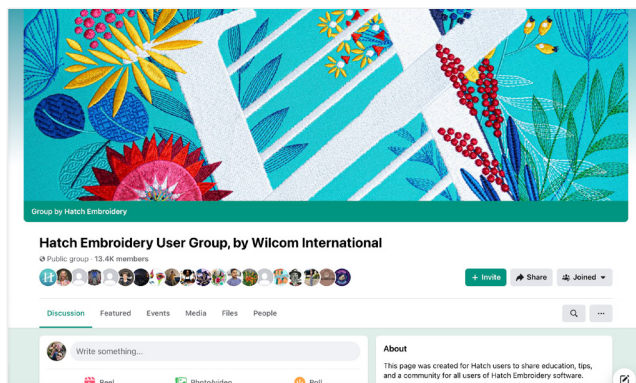
Chapter 5: Hands-on Final Challenge

You have arrived!

Having just finished learning the main basic digitizing tools, it is now time for us to let you try it on your own.

Remember I said in the first section that it's easy to follow along and digitize a design? Unless you understand the underlying basic fundamentals, you will struggle when trying to digitize a design on your own.

Well, this is your test. We will give you some pointers and then it is time to try on your own. You do not have to digitize the design as we did, and that's okay. For this reason, we do not provide you our version of the design. We want you to think on your own. There is no wrong way! If you struggle with remembering "how to," refer to the lessons.

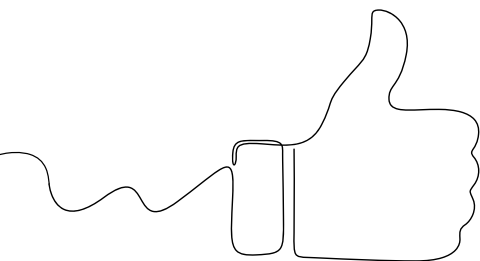


Share your work:

When finished, share a capture of your design in our discussions and on our [Hatch Embroidery Users Group](#) on Facebook.

Questions:

If you have questions, click on the [Discussions](#) button related to the lesson you are working on.



Good luck and have fun!
Kim, Lindee & the Hatch team