COLORWORK CHARTS

In one sense, colorwork charts can be the simplest kind, because we don't actually have to use any of the knitting font's symbols at all. But colorwork can be, or appear to be, amazingly complex to the point that people ask, "How did you knit that?"

## Two Ways in a Word Processor

Since color charts often only need to show us the relative positions of stitches of different colors, we have more options than we do for charts that must show different kinds of stitches. Essentially, we just need a grid with colored squares.

As I mentioned in chapter 120, I use a word processor to make knitting charts, deferring the details of why to chapter 310. The same reasoning applies here to colorwork charts as well. I simply don't use a spreadsheet often enough to be able to manipulate it quickly.

A Blank Table

If we just need a grid, we can make one with a table that contains no knitting symbols at all. Instead, we use lots of narrow columns, whose widths are based on our stitch gauge. So if our gauge is twenty stitches per four inches, we need each column to be 0.2 inches wide, because four inches divided by twenty stitches is one-fifth of an inch per stitch. The row height in the table has to be based on our row gauge. If our row gauge is seven rows per inch, then each row needs to one-seventh (0.14) of an inch tall.

Here's the heart motif from the introduction, drawn in an empty table that matches our gauge of five stitches and seven rows per inch. There are no stitch symbols anywhere in the chart.
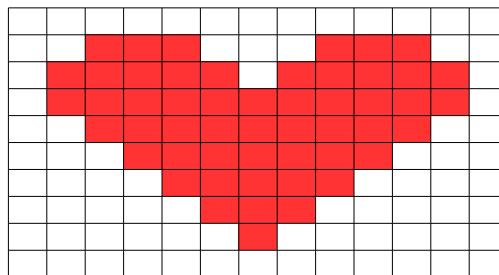
In my word processor, the **background** color of the table cells forming the heart has been set to red. Your word processor might require you to set the **shading** or **fill** color of your table cells.

Note that the heart is more squashed here than in the introduction. Using a plain grid without any knitting symbols will give us a much better representation of what the finished

item will look like. (Our gauge in colorwork may be different from what it is in single-color knitting though, so—*cough*—we still ought to swatch. Sorry.)

If we're designing a motif or allover fabric, we can print a blank grid, then use colored pencils or magic markers to fill in the appropriate cells. There's a nifty tool at

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www.tata-tatao.to/knit/matrix/e-index.html
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that will create a PDF file with a full-page grid using our stitch and row gauges. It has the ability to scale the grid as well, in case we need a lot of stitches. So if our gauge is twenty stitches and twenty-eight rows per four inches, then at the scale "1/1," we'll get a PDF with about forty columns. If we select the "1/4" scale, we'll get four times that number.
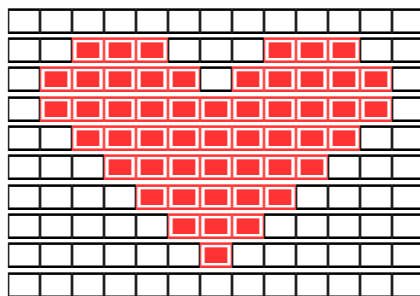
Redefined Knitting Symbols

The other option is to re-purpose some of the knitting symbols.

Here the No Stitch symbol is representing the motif color, while the knit stitches represent the background color.
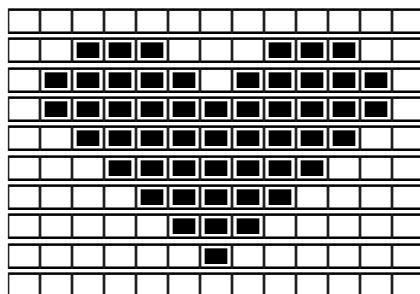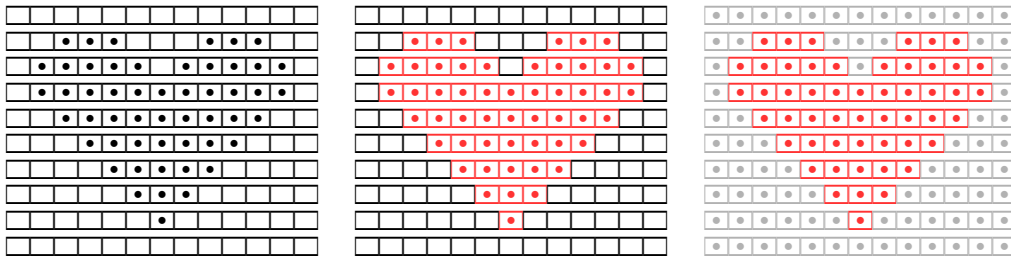
We could change the font color of the No Stitch symbol, just as an extra emphasis.

We could also use the No Stitch symbol throughout the chart. The background color's stitch symbols have been made gray, because white symbols would not show up on white paper.
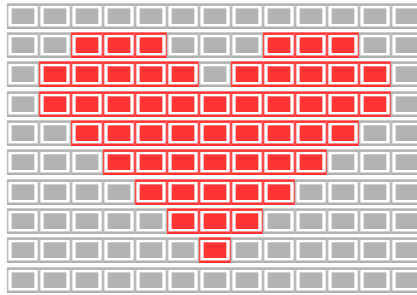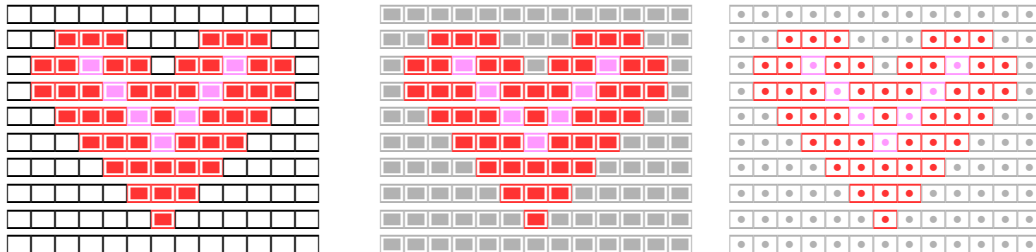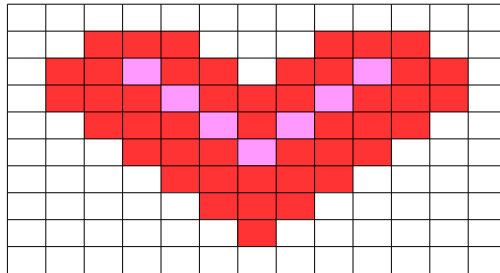
Typing exclamation points can be awkward, so purl symbols could be used instead.

Multiple Foreground Colors

If we need more than one color for the design, we can use any of the techniques.

One Other Alternative

When I originally created the knitting font, I didn't have a color printer. So I added a large variety of geometric symbols that could be used to represent different colors. They still can —if your eyes are better than mine! They would be impractical for me, especially a large chart which required a very small font size, but they might work quite nicely for you.

See the section "Geometric Shapes" in chapter 390 for a complete listing of available symbols.

Combine Colors and Symbols

There are several types of knitting that would require us to do more than simply work knit stitches in different colors. That means the knitting symbols would have to represent themselves instead of simply indicating the various colors needed in stockinette.

Bohus

This technique combines color with purl stitches in such a way that public-side purl stitches in the current color pull up the color used to work public-side knit stitches in the previous row. In this case, TECHknitter's "icky dots" become a design feature.[1]

You can see swatch photos with extensive possibilities at

    www.knitty.com/ISSUEwinter08/FEATtexturize.php

Traveling Stitches

Elizabeth Zimmermann's *Knitter's Almanac* has a sweater that combines traveling stitches with colorwork in the "Difficult Sweater" in the chapter for March. It's the sweater at the top of the circle on the cover of both the 1981 paperback edition and the 2010 expanded hardback edition.

The foreground stitches travel not only as true two-stitch cables but also by directional decreases in the dark color and corresponding increases in the light color. Can the same effect be achieved by working only true traveling stitches in two colors???

Shaped Intarsia

This technique eliminates the "jaggies" of geometric shapes done in stockinette. Argyle diamonds are one traditional colorwork pattern. We can use a chart to show both color and knitting symbols.[2]

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[1] See her blog post at http://techknitting.blogspot.com/2008/02/color-texture-and-ribbing-without-icky.html.
[2] Argyle diamonds are often only one stitch wide at the top and bottom, but I wanted to use K2togs and SSKs, not double decreases, at the top of each one, so I made the top and bottom points two stitches wide.

Technique Issues

Fortunately, this book is about charts, not knitting techniques. The swatch shown is actually my third attempt!

In the first one, I had three pairs of diamonds placed horizontally. I tried to merely strand the two colors (instead of having separate balls for each section) while also experimenting with both backward-loop and Cat Bordhi's LLinc/LRinc increases. It's hard to say whether it was the stranding or the choice of increases that made the abandoned swatch a complete disaster.

My second attempt still had the diamonds placed horizontally but with only three diamonds total. I used separate balls for each of the seven sections, but I didn't pull the yarn firmly enough when switching colors. I still tried to use some LLincs/LRincs, but they didn't seem to work well when done in the last stitch of the old color. It was clear from the first swatch that twisting the backward loop in opposite directions depending on which way the color line was slanting would make a difference.

For the third attempt, I decided to run the diamonds vertically, which required just three balls of yarn, two background and one motif. I pulled even more firmly than on the second swatch when switching colors, but it's obvious that my intarsia technique still needs some work. I also used backward-loop increases exclusively. It's easier for me to think of, and work, oppositely twisted backward-loop increases as yarnovers and reverse yarnovers. On the private-side rows, I worked them so that they wound up twisted, and because the yarnovers were wrapped in opposite directions, the new stitches wound up twisting in opposite directions as well. Other types of increases might have given better results when switching colors at the increase points.

Evaluation

The bottom diamond has the traditional, expected look with sawtooth edges. Because it's the way color patterns have mainly been worked throughout the history of knitting, it looks normal to us. It's what we expect.

In the center diamond, the K2togs and SSKs are positioned such that they **point at** the diamonds' edges, which minimizes their appearance in the same way they did in the paired decreases in chapter 160 and in the lace swatches in chapter 180.

The top diamond has the decreases **parallel to** the diamond's edges, which makes them prominent in the same way we saw in those same two chapters.

The other thing that seems obvious from the swatch is that the shaped diamonds look smaller than the one worked in the traditional way. That fact would probably need to come into play when we design our own motifs and adapt existing patterns to use shaped intarsia.

Chart row numbers (right side, odd rows): 37, 35, 33, 31, 29, 27, 25, 23, 21, 19, 17, 15, 13, 11, 9, 7, 5, 3, 1

Symbol Key

☐	BG color
🟥	Motif color
⊙	Yarnover
+	Reverse yarnover
⧸	K2tog
⧹	SSK