Great Knit Designs

Knitware

Version 2.50.2

USER MANUAL

SWEATERS
SKIRTS AND SHAWLS
BASICS

January 2007

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NOTE

The ***Knitware User Manual*** covers all topics for all the Knitware 2.50.2 programs (Sweaters, Skirts & Shawls, and Basics).

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INTRODUCTION

IN THE BEGINNING….

The KNITWARE Design programs have been written by a knitter for knitters. I knit both by hand and using a BOND CLASSIC knitting frame. I was frustrated by the continual need to convert patterns for different yarns or sizes, for changing a neckline or lengthening a sleeve. The KNITWARE Design programs were the eventual outcome of this frustration.

These programs will print pattern instructions for you to use in knitting or crocheting a customized sweater, using the data that you give it and tables of standard body measurements. The program uses your measurements, your style selections, your gauge and your yarn information to create a unique pattern. This pattern also gives you a permanent record of what you have knitted, and when.

Pattern instructions can be generated for both hand and machine knitters. The machine knitting instructions are very simplified, assuming you are using a basic knitting frame, with or without a ribber. There are no specific instructions for punchcard or electronic machines.

There are many things the program doesn't do. If there is something particular you would like to see, let me know about it. The program is continually under revision, and I am happy to incorporate new ideas.

KNITWARE DESIGN FEATURES

KNITWARE Design Programs have the following features:

- Body of garment can be hand knit, machine knit or crochet.
- Ribbings hand knit, machine knit (single bed or ribber) or crochet.
- All default finished dimensions (e.g. length of body, ribbing, chest, etc.) can be changed.
- Measurements in imperial (inches) or metric (cm) units.
- Calculate amount of yarn required.
- Standard or Custom Sizes.

Standard Sizes (by chest measurement) for all programs are:

- Imperial (ins)
    - Babies' sizes newborn, 6 month, 12 month
    - Children's sizes 20 - 32
    - Women's sizes 30 - 56
    - Men's sizes 32 - 52
- Metric (cms)
    - Babies' sizes newborn, 6 month, 12 month
    - Children's sizes 51 - 81
    - Women's sizes 76 - 142
    - Men's sizes 81 – 132

Ease for all programs:

- Very tight
- Tight
- Moderate
- Comfortable
- Oversized

BASICS – INTRODUCTION

KNITWARE Basics Design (previously called Critter Clothes) will handle most combinations of the style components shown for each of the garments below.

For People, Dolls and Stuffed Animals (Seated or Standing):

- Pullovers (Sweaters):
    - Round neck, drop shoulder pullover (no cardigans).
    - Ribbing at bottom of body and sleeves, and at neckline.
    - Pullover length options: waist, regular, hip or coat.
    - Sleeve length options: long sleeve, cap sleeve or sleeveless (inset).

- Skirts:
    - Worked in two pieces, front and back the same (except crochet skirts are worked in one piece in the round)
    - Ribbing at waist with garter stitch hem.
    - Skirt style options: straight, flared (A-line), ruffled (at bottom).
    - Skirt length options: mini, knee, ankle.

- Dresses:
    - Worked from waist to neck for the top, then pick up sts and work from waist to hem for skirt.
    - Lace holes at waist.
    - Combination of skirt and pullover styles.

- Pants (Trousers, Slacks):
    - Worked in two side pieces, sewn together at center front/back.
    - Ribbing at waist, with garter stitch or folded hem.
    - Pant leg style options: legging (tight fit), slim (boot cut), straight, flare, wide flare (bell-bottom).
    - Pant length options: pantie, shorts, knee, Capri, ankle.
    - Optional suspenders.

For Pets (Live animals) or stuffed animals that stand on four legs:

- Dog Sweaters:
    - Three basic styles: simple (no sleeves), pullover (square at back end) or tuxedo (shaped back end). Also pullover with back opening option.
    - Worked in one piece with center front seam (or back opening option for pullover).
    - Ribbing at neck, at end of sleeves and to finish around the back end.
    - Sleeve length options: short, medium, long.
    - Front length options: short, medium, long.
    - Collar options: single band ribbing, double band ribbing, rolled edge.

SWEATERS – INTRODUCTION

KNITWARE Sweater Design will handle most combinations of the following style components:

- Construction Method:
  - Flat (Bottom-Up)
  - Circular Bottom-Up
  - Circular Top-Down
- Body Style:
  - Pullover
  - Cardigan
- Body Shape
  - Straight
  - Fitted Waist
  - A-line
- Shoulder Style:
  - Drop (T-square)
  - Modified Drop
  - Raglan
  - Set-in (fitted), with Classic, Gathered or Pleated Cap
  - Saddle
  - Round Yoke
- Body length:
  - Crop (just below the bust)
  - Waist
  - Regular (between waist and hips)
  - Hip
  - Thigh
  - Above Knee
  - Knee
  - Calf
  - Ankle
- Body or Sleeve Hem:
  - Ribbing
  - Moss stitch band
  - Garter stitch band
  - Frill (ruffle)
  - Folded band
  - Crochet edge
  - No hem
- Neckline (front or back):
  - Round (crew)
  - High Round
  - V
  - Scoop
  - Ballet
  - Square
  - Boat (butted or overlapped)
  - Keyhole (front only)
  - Flat
  - Shallow
  - Backless (back only)

- Collar:
    - Single band
    - Double band
    - Shirt (Split)
    - Rolled edge
    - Funnel
    - Cowl
    - Turtleneck
    - Shawl
    - Hood (simple or shaped)
    - None
    - Crochet Edge
- Cardigan/Keyhole Button Bands:
    - Vertical Rib
    - Horizontal Rib
    - Picot (folded band)
    - Moss Stitch
    - Garter Stitch
    - None
- Sleeve length:
    - Full
    - Three-quarter
    - Half
    - Short
    - Cap
    - Sleeveless (inset)
- Sleeve Style:
    - Narrow Taper
    - Moderate Taper
    - Lantern / Straight
    - Modified Lantern
    - Bishop
    - Bell
    - Dolman

SKIRTS AND SHAWLS – INTRODUCTION

Skirts and Shawls is the newest Knitware program, first offered in March 2003. It includes Skirts, Shawls, Ponchos and Afghans for hand knitters, machine knitters and crocheters.

Skirts can be knit or crocheted for different wear and usage. Generally a smooth yarn is used, worked to a firm fabric, which will minimize stretch and bagging. Cotton is not recommended, as it has no 'memory' and will quickly become shapeless. Wool and wool blends, along with good quality acrylics are best. The skirt can also be lined with fabric to prevent sag. However, a looser fabric should be used to improve draping, especially for the swing style. Although a solid knit or crochet fabric is usually worked for a skirt, a light lacy knit over a cloth fabric lining can be very effective for fancy or evening wear.

Most Knitware skirt styles are worked in a number of panels from the Top Down or Bottom Up, or are worked in one piece Sideways. As with Knitware Sweaters, texture patterns can be used, and the program will adjust the required number of starting stitches to allow you to work with whole pattern repeats.

Shawls are a wonderful vehicle for lace. Even a very simple lace pattern can be stunning when worked into a delicate shawl. Shawls are usually worked with to a very loose gauge and blocked to define their shape. REMEMBER TO BLOCK YOUR TEST SWATCH, in the same way that you will block the finished shawl.

Knitware Shawls are worked as a main panel surrounded with an optional border or fringe. The Faroese has an inset gusset and the Shetland style has an additional edging. Usually shawls are worked with a fairly simple stitch in the main panel and a more intricate pattern in the border. Each can be worked to a separate gauge, even with different needles or yarn. Texture patterns can be used, though the program will not be able to adjust the starting number of sts in all cases (e.g. when starting small as in circular shape worked from the center out).

Ponchos are loose fitting pullover tops, popularized in the 1970s; retro-wear that came back in the early 2000s. A poncho is narrow at the neck, flaring out to the bottom. They are generally pointed at the bottom front and back because of the way they are constructed. They are simple to make (the Two Rectangles method for machine knitters is especially easy to knit) and sometimes ingenious in construction. They are usually finished with a band around the neck, sometimes with an enclosed drawstring. The bottom can be finished with a simple border, or have a fringe added for an authentic '70s look. The Circular ponchos can made either closed or open at the front.

Afghans are similar to shawls, but are generally worked to a firmer hand, in a variety of different shapes and sizes. The program includes such standard sizes as double bed, throw, baby blanket and dish towel, but consider these as starting points only – you really can design the 'afghan' to any size you want, be it a cover for your canoe or doilies for your miniature dolls.

Standard afghan shapes are: square, rectangle, circle and half-circle. As for shawls, there is a main panel, surrounded by an optional border or fringe. The circle shape worked sideways with short rows is a favourite of machine knitters, allowing them to work dish cloths, round baby blankets and Christmas tree skirts to name but a few. Knitware allows you to chose the number of wedges; a child's play blanket in 17 differently coloured wedges is vibrant, fun and easy.

KNITWARE Skirts and Shawls Design will handle most combinations of the following style components:

Garment Style:
- Skirt
- Shawl
- Poncho
- Afghan

Skirt Style:
- Straight
- A-line
- Flared
- Swing (Godet)

Skirt Length:
- Mini
- Above Knee
- Knee
- Calf (Midi)
- Ankle
- Floor

Skirt Waistband:
- Ribbing
- Elastic Casing
- Drawstring
- Herringbone
- Crochet
- None

Skirt Hem:
- Ribbing
- Moss stitch band
- Garter stitch band
- Frill (ruffle)
- Folded band
- Crochet edge
- No hem

Skirt Construction:
- Top Down
- Bottom Up
- Sideways

Skirt Waist-to-Hip Shaping:
- Gathered
- Shaped at Sides
- Tiered (Shaped across Rows)

Shawl/Afghan Shape:
- Circle
- Half circle
- Rectangle
- Square
- Shetland
- Triangle
- Faroese

Shawl Size:

- Small
- Medium
- Large

Afghan Size:

- Queen Bed
- Double Bed
- Single Bed
- Throw
- Lap
- Crib
- Baby
- Dish Towel
- Pot Holder

Shawl/Afghan Border:

- Marathon
- Sprint
- Fringe
- Crochet
- None

Shawl/Afghan Construction:

- Top Down
- Bottom Up
- Sideways
- Diagonal
- Center Out: Wedges
- Center Out: Rings

Poncho Construction:

- Two Rectangles
- Four Triangles
- Closed Circle: Sideways
- Open Circle: Sideways
- Closed Circle: Top-Down
- Open Circle: Top-Down

Poncho Size

- Chest
- Waist
- Hip
- Thigh
- Knee
- Calf
- Ankle

DESIGNING A KNITWARE GARMENT

WELCOME TO KNITWARE DESIGN

Welcome to KNITWARE Design. I hope that you will enjoy the program and have many hours of fun designing and knitting (or crocheting) garments of all shapes and sizes.

KNITWARE allows several different knitters or crocheters (or one person in several different guises) to use the program. Since we all have different preferences and ways of doing things, KNITWARE stores these preferences on a "Designer Defaults" file, keyed by designer name. For example, Mary may knit by hand and work in metric measurements, while Elaine knits with a Singer machine and uses imperial measurements and Harry crochets with US hooks. Every time that you use the program you will select your designer name, and these defaults will be used for all subsequent calculations (note, however, that all these fields can be changed individually for each pattern that you design).

The first time that you use the program, you must enter initial values for the Designer Defaults. However, as you use the program more, or as your needs change, you may want to change some of these default values. To change the designer defaults select Add/Change from the Designer Defaults option on the Main Menu.

To start now on this Designer Defaults Form:

- Type your name in the DESIGNER NAME field.
- Then select values from drop down lists for:
    - MEASUREMENT UNITS (ins/cms)
    - WORKING METHOD (Body: hand knit/machine knit/ crochet, Hem: as for body plus ribber)
    - MACHINE: RIB FIRST OR LAST (for machine knitters only)
    - HAND: NEEDLE/HOOK TYPE (Metric/American/Canadian)
    - MACHINE TYPE
- If you wish: change the text in the PLAIN WORK field (default is Stocking Stitch).
- For now, it is recommended that you do not click the CHANGE CURRENT COLOR button.
- Move from one field to the next with the [Tab] key. A one-line Hint for each field is displayed in the lower left corner of the main screen. Press [F1] for more detailed information.
- When you have completed your selections, press [Save] to permanently store this data on the file.
- Next press [Close] to exit the Designer Defaults Form.
- You will be returned to the Designer Name Form, where your name will be highlighted in the DESIGNER NAME box. Click on [OK] to accept this name and close the form.

Next, and before creating your first pattern, I would suggest that you read the following section on Designing a New Pattern.

To **close** this page, click on the **[X]** in the upper right corner.

DESIGNING A NEW PATTERN

Before you start running the program, you need to know a few things. You should have:

- An idea of the garment design that you want to make.
- The recipient's size, and approximate finished dimensions required (or at least an idea as to how your recipient varies from the "average").
- The yarn information (from the manufacturer's ball-band or from the spinner, if it is homespun).
- A test swatch of the yarn worked on the needles (or hook or machine) using the stitch pattern that is to be used for the body of the garment. The test swatch should be laundered before measuring. From this, the gauge over 4

inches (10 cm) for rows and stitches should be calculated. **AN ACCURATE TEST GAUGE IS CRUCIAL** to designing and knitting or crocheting a garment that will fit well.

The program is run from the main menu. In a typical session you would design a pattern and then print it. After checking the printed dimensions, you may decide to change the pattern, then print it again.

* * * * *

This is where it all starts. You have some yarn, a test swatch, some ideas as to the size and style of garment you want. Here, all your information is entered, and the program calculates the number of stitches, rows, decreases and cast-offs to make this one-and-only custom garment.

KNITWARE MAIN MENU

The KNITWARE Main Menu is the control center for your KNITWARE program. It will offer you the following selections:

- Designer Defaults
    - Select
    - Add/Change
- Size Data
    - View/Print Size Data
    - Custom Sizes
- Pattern Design
- Calculator
    - Gauge Equivalents
    - Inc/Dec Sts evenly
    - Magic Formula
    - Round Yoke Calculator
    - Hat Calculator
- Utilities
    - Graph Paper
    - Colour / Font Settings
    - Convert Pattern Data
    - Backup and Restore Data
- Help
    - Contents
    - Topics
    - Register
    - About
    - Windows Version

Click on an option to select it, or from the keyboard use **[Alt]** and the underlined letter (e.g. to select Pattern Design, press [Alt] and the letter P together).

At the bottom of the main window is the Status Bar, which is where Hints (one line help) will be displayed.

To exit from the program, either:
- click the **X** in the upper right corner, or
- click the sweater/dress icon in the top left corner, and select Close, or
- press **[Alt] [F4]**

DESIGN NOTES

The program gives you a pattern for a plain garment tailored to your selected size and specifications. You can easily add stripes, intarsia, lace holes, cables, etc.. If you are adding cables (or anything else that will change the stitch gauge), remember to either knit a test swatch with the cables (if there is a lot of it), or to adjust the ease a bit (for a small amount).

If you are using two or more different yarns (e.g. body in a multi-coloured nubbly yarn, ribbing in a plain yarn) it is a good idea to make a test swatch with each yarn, and run the program twice, once with each stitch gauge. You will have to manually combine the two patterns, or decide which bits to use, but it will give you a better-looking finished garment.

CAUTION

The patterns created by the KNITWARE programs will produce wearable, well-fitting garments in most cases. However, just as for off-the-shelf patterns, knitting with the wrong needles, or to a different gauge will give unpredictable results.

With the KNITWARE programs, you have an even greater possibility of error, since you can also change any of the dimension data. There are far too many possibilities for the program to check them all, I assume that you will use common sense. Also, if you do change any dimension data, re-check the finished dimensions and the pattern instructions for reasonableness BEFORE starting to knit.

DATA ENTRY

All data entry for this program follows a few simple rules:

- Default (displayed) values will be used unless you type over them.
- Use the mouse to click on a field that you want to change, or use the **[Tab]** key to move through the fields in order. The **[Enter]** key can be used interchangeably with the **[Tab]** key.
- The **[Backspace]** and **[Delete]** keys can be used to change data as it is being entered in a field.
- 'Insert' is always on. To change data (type over, rather than insert), highlight the old data with the mouse, then type in the new data.
- A **HELP HINT** will appear in the Status Bar (lower left of the screen) when you place the mouse cursor over a field. (If you cannot see the help hint, you may need to resize the data form.)
- Press the **[F1]** key on a form or field for more detailed HELP.
- Numeric fields will not accept non-numeric characters.

Many data values are entered by a drop-down list selection: e.g. UNITS, SLEEVE STYLE, EASE STYLE.

- Click on the ▼ button to display the selection list, use the mouse to highlight a line, then click the left mouse button to select.
- Optionally, you can use the cursor keys to change the selection without displaying the entire list.

File data records are manipulated using the Navigator Bar, which allows you to scan through the file, add new records or delete selected records.

There are two major types of data to be entered: **mandatory** and **optional**.

- Mandatory data fields are those that will be used to calculate the pattern data. Some examples are: stitch and row gauge, size, sleeve length. If the required data values are not accurate, the garment will not fit properly.
- Optional data is for information purposes only. It is printed on the pattern to help you remember when, or with what, the garment was knitted. Some examples of optional data are: the date finished, for whom the garment is knitted, the yarn colour.

The program checks all data as it is entered.

- If it is found to be incorrect or questionable, the beep is sounded and an error message box is displayed in the center of the screen.
- The message must be acknowledged (press any key) before you can correct the entry.
- Most messages are self-explanatory, but if you have trouble, check the Problems and Messages section. It contains a list of most messages and their explanations.

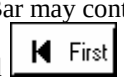
However, not all possibilities can be checked by the program.

- Before you **[SAVE]** your data you should verify that what you have entered on the screen is what you want.
- **You should also check the printed pattern thoroughly (especially the Finished Dimensions section) BEFORE starting to knit the garment.**

DATABASE NAVIGATOR BAR

KNITWARE uses several data files (Designer Defaults, Size and Pattern) that are stored as Paradox Database Tables in your current KNITWARE directory.

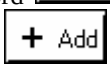
Access to each Database (from a data form) is primarily through its Navigator Bar. This bar is displayed in the upper left section of the Designer Defaults Form, View/Print Size Data Form, Customize Size Data Form, and the Pattern Data Form. Each Navigator Bar may contain some or all of the following buttons:

First Record 

Prior Record

Next Record

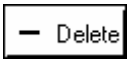
Last Record

Insert 

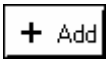
Delete

If a button text is dark you can use it, but if it is grayed you cannot.

To scan through the file without changing anything, use the left four buttons. As each record is selected, its data will be displayed on the form.

To delete a record from the file, use the 

button. When you try to delete a record, a delete confirmation message box will be displayed before the record is actually removed from the file. This helps reduce accidental deletions.

To add a new record to the file, use the 

button. A new record with default field values is displayed on the form. Make the changes you want, then SAVE the data before moving on to another record or leaving the form.

Any record that is displayed on the form (except for View/Print Size Data) can be changed simply by typing over the data displayed or selecting new values from the drop-down selection lists. After making changes, remember to SAVE the data before moving on to another record or leaving the form. On the Customize Size Data and Pattern Data forms, you also have the option to CANCEL the changes that you have made and revert to the original form of the record.

DESIGNER DATA

DESIGNER NAME

Each time that you run KNITWARE, you must select a **DESIGNER NAME**. The selected name is used to find the designer defaults (units, working method, needle and machine type) that will be used by the program.

If you are the only person ever using the program, you simply click OK and proceed from the Main Menu.

However, if more than one person uses the program, or if you sometimes knit by hand and sometimes knit by machine, or have several machines, you may want to save separate defaults for each case. See Designer Defaults for more information.

To select a designer name different from the one displayed in the center box, click on the ▼ button to display the list of current designer names, highlight the one you want, and click the **OK** button.

If you would like to add a designer name, click on the **NEW** button.

DESIGNER DEFAULTS

Designer Default data is stored on a file, identified by **DESIGNER NAME**. You use the Navigator Bar buttons to view the records on the file, add a new record or delete an old one. When a record has been added or changed, it must be saved (click the [SAVE] button) to be added to the file. When you delete a record, a delete confirmation message box will be displayed.

- Enter a unique description for **DESIGNER NAME** that will enable you to recognize it without difficulty when it is displayed in the start-up Designer Name window. For example, if I sometimes knit by hand, sometimes with my Bond and sometimes crochet, I might have three sets of defaults stored with names such as *Janet hand*, *Janet Bond*, *Janet crochet*. Of course, if I only ever knit by hand, then *Janet* alone would be good enough.

- Values for **WORKING METHOD** for the body are selected from *Hand Knit*, *Machine Knit* and *Crochet*, and for the hem/ribbing are selected from *Hand Knit*, *Machine Knit*, *Crochet* and *Ribber*. If *Ribber* is selected, the ribber instructions will be used for all ribbing on the garment, including body welt, sleeve cuff, some collars (single band, double band, turtleneck), button and buttonhole bands. As an option for *Ribber*, the ribbing stitch and row gauge may be entered.

- Knitware allows the option to knit both the body and the hems/ribbing by machine, or both by hand. It also allows the option to knit the body by machine and the hems by hand. However, the program does not allow the reverse (body by hand, and hems/ribbing by machine), nor does it allow knitting to be combined with crochet.

- The **MACHINE: RIB FIRST OR LAST** field is used if you are knitting both the body and hems/ribbing by machine. If you have a ribber, or prefer to knit the ribbing first select *First*. If you like to knit the body, then re-hang the stitches to do the hems, select *Last*. This option applies to the back, front, and sleeve ribbings for Sweaters only. If hand knit or crochet, select *First.*

- Select **MEASUREMENT UNITS** from the options of *ins* (if you work with imperial measurements) or *cms* (if you work with metric measurements).

- The fields **HAND: NEEDLE/HOOK TYPE** and **MACHINE TYPE** are optional, but entering them will improve the clarity of the printed patterns. If you are knitting by machine only, select *None* for NEEDLE/HOOK TYPE; likewise if you are crocheting or knitting by hand only, select *None* for MACHINE TYPE.

- The **PLAIN WORK** field allows you to specify your name for the standard plain knitting stitch (knit 1 row, purl 1 row; repeat). Common names are *Stocking Stitch* and *Stockinette*. This name will be used as the default stitch on all your patterns. For crocheting, plain work could be *Single Crochet, Double Crochet*, etc.

- Click the **[Change Current Color and Font Settings]** button if you want to change the current color settings on the schematics or the current font settings on the pattern instructions.

The Designer data fields are also shown for each pattern, and can be changed individually at that time. The values shown on the screen for that pattern will depend on what your designer defaults have been set to. Review the data on the screen, and determine which fields need changing for the current pattern. Changing the values on the Pattern Data Form will not change the values on the Designer Defaults file. Likewise, changing values on the Designer Defaults file will not change existing values on the Pattern Data File.

Click the **CLOSE** button exit the form. If you click CLOSE, and you have not saved a new or revised record, a confirmation message box will be displayed.

SIZE DATA

SIZE DATA - GENERAL

Every pattern created by KNITWARE requires three numeric components: gauge, size data and style selections. Size data, the physical measurements of the person (or Critter) the garment is being knit for, is stored in the Size Data File. The file always contains standard size data and may also contain custom size data that you have added. Size Data is not used for Afghans.

Standard sizes for all programs (by chest measurement) available are:

- Imperial (every 2 ins)
  - Babies' sizes newborn, 6 month, 12 month
  - Children's sizes 20 - 32
  - Women's sizes 30 - 56
  - Men's sizes 32 - 52
- Metric (every 5 cms)
  - Babies' sizes newborn, 6 month, 12 month
  - Children's sizes 51 - 81
  - Women's sizes 76 - 142
  - Men's sizes 81 – 132

Basics

Standard sizes are available for a few dolls and stuffed animals, as well as a fair number of pure-breed dogs along with a token representation of cats, rats and hamsters ☺

Trademarks of Barbie, Cabbage Patch, American Girl, Wrinkles, Care Bears and others used in the Standard Sizes File are hereby acknowledged.

VIEW SIZE DATA

This form allows you to check the measurements of existing size records (just Standard sizes for Basics). Each record is displayed singly on the form, or a complete list can be viewed (and printed) by clicking the [LIST] button (in Basics, click [LIST PEOPLE] for standard sized people, [LIST DOLLS] for standard sized dolls and bears or [LIST PETS] for standard sized pets). Click the [PRINT] button to print the current size exactly as displayed on the screen. When finished, click the [CLOSE] button.

The order of data on the Sweaters or Skirts & Shawls file is all custom size records first, then standard sizes: children, men then women. Order of custom size records may appear somewhat jumbled, as each inserted record is placed before the record that was being displayed when the Insert was done.

Basics:

The order of data on the standard size table is:

- Units (imperial sizes first, then metric)
- People: babies (0, 6, 12 mo), children (age 2 – 14), women (chest 30” – 56”), then men (chest 32”- 52”).
- Dolls and Bears: people then standing stuffed animals, seated stuffed animals, then dolls
- Pets: dogs, cats, then other pets.
- finally, alphabetically by Size Name

We have attempted to include measurements for many breeds of dog on the standard size table. However, the data on the table is limited in many ways, and we advise you to exercise caution and apply common-sense when using this data. As with people, dogs vary greatly in their sizes, even within a breed. The data on this table is averaged within a breed and sex, for the data that we were able to collect. Some comments:

- Although we were able to collect data for many popular dog breeds, many others are missing.
- Many of these ‘averages’ are from one measured dog only, and may be large or small for the breed.
- Ideally, there are two entries for each dog breed, one for the male (M) and one for the female (F) size, as the male is typically larger than the female. If we only had data for one sex, then that is all that is on the table.
- Data is for pure-breed dogs only; no cross-breeds.
- These standard measurements are for full-grown dogs only; pups vary so much in their growth that it would be impossible to include them.

Dog data is listed alphabetically by name. We have used the naming conventions of our reference the *EyeWitness Handbooks: Dogs*. You will usually find a dog listed under its common name, but common names do sometimes vary geographically. For example:

- Toy Fox Terrier and Toy American Eskimo are listed together in the Ts.
- Miniature Schnauzer and Miniature Poodle are listed together in the Ms.
- Terriers are spread throughout: Jack Russell Terrier under J, Cairn Terrier under C, etc.
- Black Lab and Yellow Lab are both under L for Labrador Retriever.
- Sheltie is listed under Shetland Sheep Dog
- Daschund is listed under Miniature Daschund.

LIST SIZE DATA

The [LIST] button ([LIST PEOPLE], [LIST DOLLS] or [LIST PETS] on Basics) on the upper section of the Customize Size Data Form or the View/Print Size Data Form can be used to list the size data currently on file. If called from Customize Size Data, only the custom sizes will be listed.

The Quick Report form displays the formatted data on screen, and has a control panel at the top which allows you to size the report, page through it, print it, save it or load an old report. The Save and Load functions are not really required, but if any one wants them, there they are.

CUSTOM SIZE DATA

I doubt that any one of us is a perfect standard size. One nearly always wants the sleeves or back waist a little longer or shorter, or the hips a bit bigger or smaller, etc. Then there are growing children and those larger than size 56 (which is as big as the 'standard' measurement tables go). Custom Sizes also allows you to enter doll measurements and preemie size babies.

Customizing the Size Data allows you to enter, store and retrieve CUSTOM, or individual, physical measurements for a particular size. The closest standard size is used as a base for you to build your custom size, but it (the standard size) remains unchanged on the file.

Each custom size is stored on the Size File with a unique ID number. This number is used to retrieve the custom size data during pattern creation. However, you access the custom sizes by name, so it is a good idea to keep your custom size names unique as well. (If there are two custom sizes on the file with the same name, the most recent one will be retrieved during pattern creation.)

When you first run the KNITWARE program, the custom size file is empty. When you first select Size Data/Custom Sizes from the Main Menu, the Customize Size Data Form will be displayed with default or zeroed data. Once you change these fields as detailed below and [SAVE] the record, subsequent accesses of this form will show this initial record.

You use the Navigator Bar to add a new custom size, change or delete an old one. See the following section for more information on adding and changing custom size data.

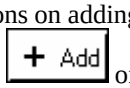
Click the [PRINT] button to print the current size exactly as displayed on the screen. Use the [LIST] button to produce a listing of all custom records on the size data file and optionally print them.

Other function buttons on this form include [SAVE] to accept the data as shown and store it on the file, [CANCEL] to delete the changes that were made, [COPY] to make a new copy of an existing record, and [CLOSE] to close the form and return to the Main Window.

Basics:

Measurements for a few standard dolls and bears, along with a number of pure-breed dogs are stored on the Size File. However, many of the critters that you knit or crochet for will probably not be one of those standard sizes. The Customize Size Data option allows you to permanently store custom measurements for ALL of your special dolls, bears and pets.

ADD/CHANGE CUSTOM SIZE DATA

The following sections contain instructions on adding or modifying custom size data. If data is showing, it can be changed. To add a new record, click the 

on the Navigator Bar (top section of the form).

When all data has been entered and verified, click the [SAVE] button to accept the new data and store the record on the custom sizes file. If you do not want to keep the changes, click [CANCEL] instead.

When you are finished with the Customize Size Data form, click the [CLOSE] button. If there is active data that has not been saved, a warning message box will be displayed.

BASICS CUSTOM SIZE DATA

The first panel contains size identifying data. SIZE NAME should be unique. Try and make it meaningful; for a doll or stuffed animal be descriptive, e.g. "Melly's crying doll", "Paul's purple dragon"; for a pet use the name, e.g. "Sylvester", "Horton Haswoth Haygood III".

Select MEASUREMENT UNITS and TYPE from the drop-down selection lists.

Current TYPE options are: *People, Doll, Stuffed Animal (Seated), Stuffed Animal (Standing), Stuffed Animal (Natural), Dog (Pet), Cat (Pet)* and *Other Pet(Live Animal)*. The three types of stuffed animals are:

- Seated: two legs, two 'arms'; legs cannot be adjusted to allow it to stand. Usually has a proportionally large bottom (makes a big difference when making pants).

- Standing: two legs, two 'arms'; can stand or sit.
- Natural: four legs on the level; looks more like a real animal shape; cannot be made to sit or stand.

Pullovers, skirts, pants and dresses can be designed for people, dolls and stuffed animals that are seated or standing. Dog Sweater styles can be designed for pets and 'natural' stuffed animals.

DATE ADDED/UPDATED defaults to current date, but you can change it. SEX (for pets only) should be chosen from the drop-down selection list.

For **people only**, enter a value in the CHEST field for the measurement of the chest around the body. The program will then search the standard size table for the closest standard size data and will retrieve this information and display it as default values for all the other measurements on the panel below.

The lower section of the form is for the Custom Measurements. These fields are to contain the actual physical measurements of the critter's body. They are NOT the finished dimensions of the garment, and do NOT include any ease. These body measurements are used to calculate the finished dimensions of any garment you design, depending on the design parameters and ease selected at that time.

Use the NOTES field to enter any extra information that you want to save. This could be hand or foot measurements, weight or more details about the doll, pet or person.

The custom body should be measured accurately with a tape measure before any of these fields are changed. See the Worksheets: How To Measure section for more details.

Note: This program has been tested for a variety of doll, bear and stuffed animal shapes, from 5" tall bears to 28" chest bears, from Barbie™ fashion dolls to squat Cabbage Patches ™ and tall Raggedy Anns. We've made garments for trolls, lions, raccoons and stuffed dogs. Most of your dolls, bears and stuffed animals should work as well, as long as you measure them accurately. However, for very large stuffed animals (over two feet tall), you may be better off using the Sweaters Design program.

SWEATERS CUSTOM SIZE DATA

The first panel contains size identifying data.

- SIZE NAME should be unique; if it is not unique, the program may not be able to retrieve it during pattern creation. Try and make the name meaningful, e.g. *Johnny age 7, Ranger Rogers, Mary 6 mo pregnant*.
- DATE: The date that the custom size was added or updated. For a new size it defaults to the current date. Change it if you wish.
- UNITS: select measurement units of *ins* (for imperial) or *cms* (for metric) from the drop-down selection list.
- SEX: select *Man*, *Woman* or *Child* from the drop-down selection list. Use *Child* for doll , baby and preemie sizes.
- AGE is optional; it is not used in any calculations.
- CHEST: enter the actual physical chest size (no ease added).

The lower section of the form is for the Actual Physical Measurements, and Calculation/Ease Factors. UNITS/SEX/CHEST values are used to retrieve base information from the Standard Size Data File, and create default values for the rest of the fields on the form. For example (if UNITS were *ins*), Woman 35 would display Woman size 36 data, Child 23 would display Child size 24 data, Man 67 would display Man Size 52 data.

The fields WAIST through HEAD CIRCUMFERENCE (and CHEST) **contain actual physical measurements** of the body. They are NOT the finished dimensions of the garment, and do NOT include any ease. These body measurements are used to calculate the finished dimensions of any garment you design, depending on the design parameters and ease selected **at that time**.

The custom body should be measured accurately with a tape measure before any of these fields are changed. See the Worksheets: How To Measure section for more details.

CALCULATION FACTORS are for various defaults used by the program to calculate finished dimensions. In most cases, you would not change the default values.

- TOP NECK OPENING: change if the custom body has a wider or narrower neck than average (used for round or V necklines only).
- NECK DEPTH: change if the custom person consistently likes their necklines shorter or deeper than the standard provided by Knitware (this factor is used only for round necklines).
- BODY HEM: change if the custom person consistently likes more or less length on the body ribbing/hem. (Knitware calculates default sleeve hem length as a fraction of body hem length.)
- NECK RIBBING: change if the custom person consistently likes more or less length on the neckline ribbing/collar. Neck ribbing is also used to set default values for cardigan front band width and hood front trim width.

Use the NOTES field to enter any extra information that you want to save. This could be hand or foot measurements, weight or more details about the person.

EASE FACTOR, combined with Ease Style, is used extensively in calculating the finished dimensions of a garment. CHANGE WITH CARE!!!! **This is an advanced feature and you should not change it unless you have extensive experience using Knitware**. (For very small sizes (dolls and babies with chest less than 18") this value is calculated internally, so whatever you enter here has no effect.)

SKIRTS & SHAWLS CUSTOM SIZE DATA

The first panel contains size identifying data.

- **SIZE NAME** should be unique; if it is not unique, the program may not be able to retrieve it during pattern creation. Try and make the name meaningful, e.g. *Johnny age 7*, *Ranger Rogers*, *Mary 6 mo pregnant*.
- **DATE:** The date that the custom size was added or updated. For a new size it defaults to the current date. Change it if you wish.
- **UNITS:** select measurement units of *ins* (for imperial) or *cms* (for metric) from the drop-down selection list.
- **SEX:** select *Man, Woman* or *Child* from the drop-down selection list. Use *Child* for doll , baby and preemie sizes.
- **AGE** is optional; it is not used in any calculations.
- **CHEST**: enter the actual physical chest size (no ease added).

The lower section of the form is for the Actual Physical Measurements, and Calculation/Ease Factors. UNITS/SEX/CHEST values are used to retrieve base information from the Standard Size Data File, and create default values for the rest of the fields on the form. For example (if UNITS were *ins*), Woman 35 would display Woman size 36 data, Child 23 would display Child size 24 data, Man 67 would display Man Size 52 data.

The fields WAIST through HEAD CIRCUMFERENCE (and CHEST) **contain actual physical measurements** of the body. They are NOT the finished dimensions of the garment, and do NOT include any ease. These body measurements are used to calculate the finished dimensions of any garment you design, depending on the design parameters and ease selected **at that time**.

The custom body should be measured accurately with a tape measure before any of these fields are changed. See the Worksheets: How To Measure section for more details.

Use the NOTES field to enter any extra information that you want to save. This could be hand or foot measurements, weight or more details about the person.

CALCULATION FACTORS are for various defaults used by the program to calculate finished dimensions. In most cases, you would not change the default values.

- SKIRT HEM: change if the custom person consistently likes more or less length on the skirt ribbing/hem.

EASE FACTOR, combined with Ease Style, is used extensively in calculating the finished dimensions of a garment. CHANGE WITH CARE!!!! **This is an advanced feature and you should not change it unless you have extensive experience using Knitware**. (For very small sizes (dolls and babies with chest less than 18") this value is calculated internally, so whatever you enter here has no effect.)

COPY CUSTOM SIZE DATA

Once you have several custom size records on the file, you may want to change one of them slightly but keep both the old version and the new one. In this case you would use the Copy function.

When the original custom record is displayed on the Customize Size Data Form, click the COPY button. A new record will be displayed containing exactly the same data, but with * in the SIZE NAME field. Change the SIZE NAME and any other fields you want as for a new record (see Add/Change Custom Size Data), and click SAVE when finished.

DELETE CUSTOM SIZE DATA

As the number of custom sizes on your Size Data File increases, accessing (loading and/or saving) the data takes longer. The program has no restriction on maximum number of custom sizes on file, but you may decide that the file access is taking too long or you need more disk space.

You may also have custom sizes on file that were trials, never used, or unwanted. The delete function can be used to tidy up the file.

WARNING. Once deleted, the custom size data can no longer be retrieved or used again. The program does NOT make a backup of your Size Data File before the deletions are done. If you want to make a backup first, use Windows Explorer or a File Utility program.

To delete a record, select the

button on the Navigator Bar. A Delete Confirmation Message box will appear; click [OK] to proceed with the delete or [CANCEL] to return to the data form without deleting.

PATTERNS

DESIGNING A NEW PATTERN

You're ready to design your pattern. You know the size you want, and if it is a custom size, you have already entered it. You have knit or crocheted a test swatch and measured the gauge. Here, in **Pattern Design**, is where you create the pattern, check and revise the finished dimensions, view the schematics and pattern instructions, SAVE the pattern to file, and finally print the working versions of the schematics and pattern instructions.

Use the Navigator Bar and the buttons at the top of the form to select and manipulate records on the Pattern file. For more information about inserting, copying, deleting, canceling and saving data records, see Pattern Data Utilities.

Each new pattern should be identified by (and saved with) a unique PATTERN NAME. Try to choose a name that is significant; that will mean something to you when you come across it six months later. Some suggestions are the name of the person the garment is knitted for, followed by a description or number (e.g. *Peter dinosaur, Mary #7, Judith-cables*). Multiple instances of the same pattern name are allowed, but can be confusing to you.

DESIGNER NAME is shown on the form for your convenience, but cannot be edited. If you want to change designer name for a new pattern, click Designer Defaults/Select on the main menu bar, change the designer name, then return to Pattern Design and add a new pattern. The Designer Name cannot be changed on a pattern that has already been added or saved.

When you create a new pattern record and select a size, default style and dimension data is displayed. As you change style components, the default dimension data is modified accordingly (e.g. the default neck depth for a V-neck is much more than for a round neck). You can then modify the dimension data to suit your preferences.

However, when you subsequently change ANY of the size or style data, the program will recalculate default values for ALL the dimension data. This may occasionally be a nuisance. For example, if you change the size, if affects every dimension field, so recalculating them is important. However, changing from a round to a V neck affects only the neck shaping, and if you have previously customized sleeve length, back width, etc., these custom changes to the dimension data will have to be re-entered. Another way to handle this is using the Reset to Defaults option.

Basics:
To start the pattern creation, you must chose a GARMENT STYLE from the selection list of *Pullover, Skirt, Dress, Pants* or *Dog Sweater*. The first four can be designed for people, dolls and stuffed animals, while *Dog Sweater* is the style that should be chosen for dogs, cats, other pets (live) animals.

PATTERN DATA

PATTERN: SIZE DATA

All data fields on this panel are mandatory. Your choices for UNITS, CUSTOM/STANDARD, and SEX will determine which sizes are offered in the SIZE NAME box for you to select from.

For UNITS, select *ins* to work with Imperial measurements, *cms* to work with Metric measurements.

Select *STANDARD* to use measurement data from the standard size table; use *CUSTOM* to use a custom size that you have previously entered (see Size Data/Custom Sizes on the Main Menu). To check the measurements used for the standard sizes select Size Data/View Size Data from the Main Menu.

The **SIZE NAME** selection is used to look up the specific standard or custom data in the size table, and to calculate the default finished dimensions of your sweater.

PATTERN: BASICS SIZE DATA

From the TYPE selection list, chose *People, Doll, Stuffed Animal (Seated), Stuffed Animal (Standing), Stuffed Animal (Natural), Dog (Pet), Cat (Pet)* or *Other Pet (Live Animal)*. If you want to make a 'Dog Sweater' you must chose *Dog, Cat, Other or Stuffed Animal (Natural).* Likewise, if you want to make one of the other styles, you must chose *People, Doll, Stuffed Animal(Seated)* or *Stuffed Animal(Standing).*

If the size name selection list is empty (even after you have clicked on the selection list arrow) it means that there are no sizes currently available for the combination of units, custom/standard and type selections that you made. All Standard sizes should be available in both ins and cms. However, when you enter a custom size, it will probably be in only one or the other, not both. Remember that any sizes that you enter will be in the Custom list, not the Standard one. A size name must be selected before the design can be completed.

PATTERN: BASICS, SWEATERS, SKIRTS & SHAWLS SIZE DATA

Chose *Man*, *Woman* or *Child* from the SEX selection. The SEX field is important, as the measurements for a child's 32 are different from a woman's 32, which are in turn different from a man's 32.

CHILDREN's chest sizes relate to approximate ages (and weights, for babies) as follows:

Age	Size(in)	Size(cm)	Weight
newborn	18	46	10lb / 4.5 kg
6 month	20	51	18 lb / 8.2 kg
12 month	22	56	24 lb / 11 kg
2 years	20	51	
4	22	56	
6	24	61	
8	26	66	
10	28	71	
12	30	76	
14	32	81	

As we are all well aware, children vary greatly in their growth. The chest size, body length and arm length should be used primarily in selecting a size, not the age. Alternatively, you may wish to enter custom size data for the child (select "Size Data/Custom Sizes" from Main Menu).

Skirts:
Although size data is stored according to chest size, the waist, hip and height measurements are the most important ones in ensuring a good fit for a skirt. If using standard size data, check these measurements and compare to the person for whom you will be knitting the skirt (or enter a custom size for them) before starting to knit.

PATTERN: YARN AND DATE DATA

All fields in these two panels are optional, and are entered by typing over the * displayed in the field.

FOR WHOM should identify the recipient (who you are making the sweater for), e.g. *Petey age 6* or *Marla Birthday gift.*

Although optional, the Date fields may help you later to identify patterns, or choose between similar ones. The default value for **START DATE** is the current date. **FINISH DATE** has no default. The dates can be entered in any format that you wish, e.g. *May 2, 1998* or *98/07/13* or *My 29th Bday*

If yarn description fields are entered, they are printed on the pattern. Sometimes it is handy to have this information available. At other times, you may feel it is a waste of time to enter the yarn description data, and decide instead to tape a ball-band and a few strands of yarn to the back or the bottom of the pattern. If there is not enough room in the yarn data fields, abbreviate some part of it and try again. Some examples of yarn descriptions are:

YARN NAME: *Patons Astra*
YARN COLOUR: *purple and orange marl*
YARN COMPOSITION:*100% acrylic*
WASHING INSTRUCTIONS:*machine wash, dry*

PATTERN: DESIGNER DATA

Designer data details the working methods (body and hem/ribbing), needle and machine types, and whether the ribbing will be knit first or last. The fields that are displayed depend on which working methods are used. For example, the **MACHINE TYPE** is not displayed if both body and hem/ribbing are to be knit by hand.

Default values will be used from the Designer Defaults file, but you can change any of them for this pattern. All values are selected from drop-down lists. For more information about these fields, see **Designer Defaults**.

For Machine Knit garments, the field **MODEL** is shown on this form (but not on the Designer Defaults). It allows you to enter the model number or particular description of your knitting machine. For example, *LK150* for Studio, or *KX350* for Brother, or *SuperBond* for Bond/ISM/USM. This field cannot be blank, so if you do not want to enter a model name/number, enter a single asterisk * to indicate this.

PATTERN: GAUGE DATA

The gauge data is crucial. Check the dimensions of and calculations for your test swatch carefully.

REMEMBER THAT THIS GAUGE IS MEASURED OVER 4 INCHES OR 10 CM (NOT ONE INCH).

To convert from your swatch dimensions to 4 inches, use the Calculator/Gauge Equivalents menu selection. For more information about test swatches see Glossary: All Knitters and Crocheters: Tension Swatch.

- **TENSION DIAL/KEYPLATE/NEEDLE/HOOK SIZE** is not used in any calculations, but it is useful for clarity of the printed pattern instructions.

- The **TENSION DIAL/KEYPLATE SIZE** messages are displayed if knitting by machine. For Bond and KnitSmart machines enter the keyplate size, e.g. *3, 2., 10.* For other knitting machines, use the common convention for the Tension Dial or Stitch Size Regulator; e.g. *6, 6., 6.., 6.5, 6…, 6.75* etc.

- **NEEDLE/HOOK SIZE** messages are displayed if hand knitting or crocheting. The needle/hhok size should be of the needle/hook type entered on the Designer Data. For example *"4.25"* is valid for metric, but not for American. The needle size entered will be checked against a table, and a message displayed if the value is not valid. Since the field size is limited to 5 characters, for very small needles sizes (below 00000) enter *6/0, 7/0, 8/0,* etc..

- You must enter values for **STITCHES** and **ROWS** for the **BODY**. Enter the appropriate gauges over 4 inches to the closest one decimal place (e.g. *28.4* stitches by *33.6* rows).

- If you are knitting the ribbing with a ribber, you may optionally knit a ribbing test swatch and enter this gauge into the STITCHES and ROWS fields for the **RIBBING**. However, if you do not have a ribbing test swatch, leave both of these fields set at *0* (zero) to use the default ribbing calculations. Optionally, if you have an accurate gauge for one (usually rows) but not the other, then enter the one you have and leave the other at zero. The program will use the one you have in the calculations and the default for the other one.

- For more information about measuring the ribbing test swatch see Glossary: All Knitters and Crocheters: Tension Swatch. For more information about machine knit ribbing, see Glossary: Machine Knit: Ribbing.

PATTERN: STITCH PATTERN

The stitch pattern information allows you to enter, display and save overall stitch (texture) pattern details, such as cable, knit/purl or lace stitch patterns. Knitware saves the text instructions and adjusts the pattern pieces to fit the required stitch repeat. (For plain work the default values for knitting is *Stocking Stitch*, for crocheting is *Single Crochet*, both with a multiple of *1* plus *0*.)

The usage of Stitch Patterns is best explained with an example, so I have extracted the following verbatim from one of my favourite reference books.

Single Lace Rib
Multiple of 4 + 1
1st row (right side): K1, *yf, k2tog, p1, k1; rep from * to end.
2nd row: P1, *yrn, p2tog, k1, p1; rep from * to end.
Repeat these two rows.

When you click the **[Stitch pattern]** button on the Pattern Data form, the **Stitch Pattern Selection** form is displayed. The field names are fairly self-explanatory, given the example above. The **STITCH PATTERN NAME** would be *Single Lace Rib Stitch*, the **MULTIPLE OF** would be *4* and the PLUS would be *1*. The **STITCH PATTERN INSTRUCTIONS** would be the three lines following (which can be typed in, or copied and pasted from another document). Once entered, all of this information is displayed on the Pattern Instructions, and saved on the Pattern Data file.

Most overall texture stitch patterns are expressed as a "multiple of x plus y sts"; for Single Lace Rib this is a multiple of four, plus one extra. The repeating part of the pattern is over 4 sts, the one extra is to complete the row. This restricts the number of stitches that you can cast on and have the stitch pattern work out easily. (Partial repeats are possible, but unless you are an advanced knitter, you probably don't want to try it.) For the Single Lace Rib, you could cast on with 41 (10x4+1) or 45 (11x4+1), but not 43.

If the dimensions that you entered in Knitware come out to a number that the pattern repeat will not fit, Knitware will adjust the number of beginning stitches (for back, front, sleeve and hood). However, it does not adjust the previously calculated dimensions, and tries to adjust as few other stitch counts as possible. For example (with the Single Lace Rib):

- The original pattern has: cast on 39 sts, rib, increase to 43 sts (11.5"), work to armhole, cast off and decrease until 23 sts remaining, work neckline and shoulders.
- The revised pattern would have: cast on 39 sts, rib, increase to 45 sts (dimension still shows 11.5"), work to armhole, cast off and decrease until 23 sts remaining (will be one more decrease row than original), work neckline and shoulders as for original.

Knitware adjusts the number of stitches so that you **start the stitch pattern complete**. Once you have the pattern established, it is easier to contend with partial pattern repeats as you work increases or decreases for the shaping. For back and front pieces the bottom number of stitches (after ribbing) are adjusted. For a sleeve the adjustment is the bottom number if working from the wrist up to the armhole, or the top number if working a grafted drop shoulder (from the armhole down to the wrist). For a hood, it is the cast-on number of stitches that is adjusted (the stitch pattern can be started either before or after the folded band).

When Knitware detects that the number of stitches has to be adjusted, it will display an **Adjustment Message Box**, giving you options. You can select a number of stitches either above or below the original number (e.g. 41 or 45 in our example), or you can opt to keep the original number of stitches and figure out the partial pattern repeats yourself. It will also print a warning for each adjustment on the pattern instructions.

You may also want to compensate for **side seams**. If you want your patterns to match exactly at the side seams, and you use invisible seams (or other methods that use one stitch from each side for the seam), you may want to add two to the number of *plus* stitches for your stitch pattern. In the Single Lace Rib example above, you would specify a multiple of 4 plus 3 (instead of 1) to allow for the extra one stitch each side for the seam.

However, you should be aware that if this is a **large adjustment** your garment may not fit properly. Although Knitware does it's best to adjust all corresponding fields, in extreme cases you may get strange program errors, such as *SQRT Domain* or *Invalid Variant;* the fix for this is to close the program and start again (and select a smaller adjustment).

Once you have selected an adjustment (if required) for each garment piece, this **selection is saved** along with the rest of the pattern data, so that when you call up this pattern again, Knitware will remember what adjustment you last requested. However, since this information is not displayed on the Pattern Data screen, you need a little trick if you want to **change this adjustment**, but not any of the style or dimension data. The trick is to simply click on the Stitch Gauge and re-enter the number shown there (fooling the program into thinking that the gauge has changed), and it will immediately display all the Adjustment Messages again.

PATTERN: RESET DEFAULTS

HANDLE WITH CARE!! The **Reset to Defaults** option can be very convenient, and a major time-saver - it can also be a real problem-maker. (The button is located at the bottom center of the Finished Dimensions panel on the Sweaters Pattern Data Form; it is not used for Basics).

The default value is *Reset to Defaults* with the button up, and this is how it should stay for 99% of the time that you are designing patterns. However, there may be the odd time that you want to use it - then click the button down (it will read *Do not reset*). Even if you have the Reset off (*Do not reset*) the program will revert back to *Reset to Defaults* for any change to size data (units, sex, custom/standard, size name) or when a new record is inserted.

Background: All the finished dimensions are recalculated each time you add a new pattern, or change the units or size or gauge or style. For a new record or a change in size this is obviously needed, but for some style options the reasons are not so clear. In an ideal world, you would be able to change the type of body hem and the program would only change the hem width and hem length finished dimensions. However, many of the style options affect the values of a large number of dimensions, e.g. ease style affects seventeen dimensions, shoulder style affects eight. Some are obvious, some are indirect, many are conditional. It would be very difficult for the program logic to keep track of all these possibilities (what if you change two style options?), so we do it the easy way, which is recalculate all the finished dimensions whenever <u>any</u> style data is changed.

The **Reset to Defaults** option allows you to bypass this. If you have manually changed a number of finished dimensions, and then want to change one of the style components without having your dimensions reset to the default values, click the **[Reset to Defaults]** Button down (reads *Do not Reset*), then make the change. The style data will be changed, but the finished dimensions will not be recalculated. However, you must be aware that you may get unexpected or error results if there is incompatible data.

To check which fields might have been affected, you might want to make a **COPY** of the pattern first, and make the style changes to one with Reset on and one with Reset off. Compare the finished dimensions of the two patterns to see where the differences are.

Once again, handle with care!

PATTERN: NOTES

Before, during or after the actual knitting or crocheting, you can use the pattern notes field to record any extra information about the pattern. You may want to record comments about how the pattern fit, problems with the yarn or pattern, ideas for changes you might want to make, the pattern stitch such as cable or lace that you used, references to intarsia patterns and so on.

The NOTES field size is not limited by the program. The pattern data form shows four lines of text at a time, but you can scroll down for as many lines as you want. Long lines will be wrapped, both on the form and on the pattern instructions. If you want a new line, press [Enter].

PATTERN: BASICS STYLE COMPONENTS

EASE STYLE determines the amount of ease in the garment. It varies from very tight, with no ease, to oversized, which is very roomy. Ease is applied mainly to the chest and other circumference or width dimensions.

GARMENT STYLE:
- PULLOVER for a sweater or jumper for a person, doll or bear
- SKIRT for a skirt for a person, doll or bear.
- DRESS is a combination of pullover and skirt styles
- PANTS for slacks or trousers for a person, doll or bear
- DOG SWEATER for dogs, cats, other pets or standing-on-all-fours stuffed animals.

PATTERN: PEOPLE, DOLL AND BEAR STYLES

The **GARMENT LENGTH** style is used to calculate the finished garment length dimension. For pullovers, it is also used to determine where the ribbing welt will fit.

PULLOVER LENGTH can be:
- WAIST to have the ribbing welt snug around the waist,
- HIP or COAT to have the ribbing fit around the hips
- REGULAR to have the ribbing fit between the waist and hips (exactly where depends on the finished garment length dimension).

SKIRT LENGTH for skirts and dresses are:
- ANKLE is full length to the ankle
- KNEE is mid length to the knee
- MINI is between hips and knee.

PANTS LENGTH options are:
- ANKLE is full length to the ankle
- CAPRI is below the knee, at the top of the calf
- KNEE is mid length to the knee
- SHORTS is about the same length as Mini for Skirts.
- PANTIE length has just enough leg length to allow the pants to be sewn together at the crotch (use an ease style of TIGHT for panties).

The **SLEEVE LENGTH** style (Dresses and Pullovers) is used to calculate the finished sleeve length, and to determine where the sleeve ribbing will fit.
- LONG SLEEVES are worked separately, and come down to the wrist, where the ribbing should be fairly snug.
- CAP SLEEVES are worked as a continuation of the front and back. They have no armhole shaping. The ribbing should be fairly loose.
- SKEEVELESS garments are inset and shaped at the armhole, with the ribbing fitting comfortably.

SKIRT STYLE (Dresses and Skirts) options are:
- STRAIGHT for a skirt that is shaped from waist to hip, then with no further shaping to the hem.
- FLARED (A-line) for a skirt that has a continuous gradual increase from waist to hem.
- RUFFLED for a skirt that has the same shaping as a straight skirt, with the addition of a ruffle at the bottom.

PANT STYLE (Pants only) options are for leg styling only, there are no differences in the shaping of the pants from crotch to waist.

- WIDE FLARE (Bell-bottom) pants are very wide at the hem
- FLARE are wider at the hem than the top.
- STRAIGHT legs have no shaping from hem to crotch.
- SLIM (BOOT CUT) are slightly narrower at the hem than the top.
- LEGGING (fitted) pants are narrower at the hem than the top, and should use an ease style of TIGHT.

PATTERN: DOG SWEATER STYLES

There are three basic **DOG SWEATER STYLES**: simple, pullover and tuxedo. All are worked from neck to bottom in one piece, with ribbing around the neck, a center front seam and ribbing all around the back opening.

- The TUXEDO and PULLOVER styles include 'sleeves' at the armholes for the pet's front legs. Although more difficult to work, the armholes serve not only to keep the pet's legs warm, but also to keep the sweater from sliding around.
- The SIMPLE style does not have any sleeves or armhole shaping, and is much quicker to make.
- The PULLOVER style is worked square around the back end of the body; i.e. the front and back length are the same.
- The PULLOVER: BACK OPENING is the same shape as the regular Pullover, but opens along the back (for those hard-to-dress dogs and pot-bellied pigs). Back closure can be with buttons or Velcro fastening.
- The TUXEDO and SIMPLE styles are worked with shaping at the back, gradually decreasing from the full chest width to the back width at the tail; i.e. the front length is less than the back length. These styles allow full length at the back to the tail, without the sweater bunching up under the tummy. Also, for a male dog, one of these styles will probably be better if full back length is wanted.

FRONT LENGTH determines the length of the sweater on the front, or underside, of the pet's body.

- SHORT is just past the armholes (front legs).
- MEDIUM is halfway between short and long.
- LONG is to the end of the rib cage.

COLLAR STYLE determines the length of the neck band ribbing.

- SINGLE BAND is for a single rib
- DOUBLE BAND is for a doubled rib, which would be folded in half.
- ROLLED EDGE is for a loose stocking stitch section that rolls naturally, with the purl side showing.

SLEEVE LENGTH determines the length of the sleeve.

- SHORT is for minimum length sleeves, ribbing only.
- MEDIUM is halfway between short and long.
- LONG is for sleeves that reach to the 'elbow' (leg length on the size data). For small pets (with correspondingly short legs), short, medium and long sleeve style lengths will all give the same finished sleeve length.

PATTERN: SWEATER STYLE COMPONENTS

EASE STYLE determines the amount of ease in the garment. Ease is applied to the chest, back width, armhole and upper arm measurements. The amount of ease applied varies with Ease Style and chest size.

- Example 1: for a *Moderate* Fit, there is 1.8" ease applied to a Child 22" chest, 2.3" ease applied to a Woman 36" chest, and 3.5" ease applied to a Man's 52" chest.
- Example 2: for the Women's sizes 36-46" chest, there is negative 1-1.3" ease applied for *Skintight* Ease Style, 1-1.3" applied for *Tight*, 2.3-2.9" for *Moderate*, 4-5" for *Comfortable* and 6-7.5" for *OverSized*. Note the negative ease for *Skintight;* this means that the garment dimensions are actually less than the body measurements.

BODY CONSTRUCTION METHOD determines how the sweater will be constructed.

- FLAT (BOTTOM-UP) is the default. Each piece (back, front, sleeves) is worked separately, as a 'flat' piece, then seamed together along sides, sleeves, armholes and shoulders to finish. (In some cases, such as Drop Shoulder Grafted, sleeves may be worked top-down and some armhole seams eliminated.)
- CIRCULAR BOTTOM-UP. The body (back and front combined) is worked circularly ("in the round") as a single piece from the bottom hem to the underarms, eliminating the side seams.
    - If a **Raglan** or **Round Yoke** shoulder (except sleeveless) is chosen: the sleeves are worked circularly as well, then the sleeves are joined to the body at the underarms and the top portion (yoke) of the sweater is worked in the round. This eliminates sleeve, armhole and shoulder seams and leaves very little finishing required to complete the sweater.
    - **Otherwise** (for other shoulder styles), the sleeves and back/front above the armholes are worked 'flat'.
    - **Restrictions**: hand knit or crochet only (not machine knit), front neck cannot extend below armhole, no back neck shaping (flat back neck only) if raglan or yoke shoulder.
    - **Notes:** cardigans are worked back and forth on circular needles, not in the round (no steeks). Raglan Shoulder has neckline shaping as for flat (not cut-and-sew). Round Yoke Shoulder allows no neckline shaping (cut-and-sew is required if other neckline shaping is wanted.)
- CIRCULAR TOP-DOWN. The body (back and front combined) is worked circularly ("in the round") as a single piece from the collar to the bottom hem, eliminating the side, sleeve, shoulder and armhole seams.
    - **Restrictions**: hand knit or crochet only (not machine knit), raglan or round yoke shoulder only, flat front neckline and flat back neckline only, cannot have cap sleeve or sleeveless.
    - **Notes:** cardigans are worked back and forth on circular needles, not in the round (no steeks).
- for more information about Knitting in the Round, see the Glossary.

PATTERN: SWEATERS BODY STYLES

The **PULLOVER** style is a non-opening sweater or jumper that is pulled over the head. For small children's sizes in particular, you must ensure that the opening is large enough that the head will fit through. The CARDIGAN style has a buttoned front on overlapping front bands.

The **BODY SHAPE** STYLES define the sweater shaping between the bust and the hips. All shaping takes place at the side seam edges; there are no internal darts.

- STRAIGHT is for a sweater with a rectangular shaped body; there is no shaping between the waist and hips.
- FITTED WAIST (also known as double-tapered or hourglass), tapers in along the side edges from the hips to the waist, and then tapering out again from the waist to the bustline. It provides a fitted look, enhancing slim figures. If designed at *Waist length*, there will be only a single taper, from waist to bust.
- A-LINE (also known as reverse taper) is wide at the bottom, and tapers in along the side edges to the bustline. This shape can be very flattering to large-hipped body shapes, and eliminates the extra bulk at the top that a *Straight* body shape would give. The bottom width of an A-line garment is always greater than the top (chest) width.

The **BODY LENGTH** code is used to calculate the finished body length dimension. It is also used to determine where the ribbing/hem will fit. Use:

- CROP for a sweater a few inches below the bustline (if Fitted Waist shape, the hem will be snug around the body between the bust and waist, but if straight or A-line, the hem will be loose),

- WAIST to have the hem snug around the waist,
- REGULAR to have it fit between the waist and hips (exactly where depends on the finished body length dimension).
- HIP, THIGH, ABOVE KNEE, KNEE, CALF and ANKLE will have the sweater fitting around the larger of the hips or chest. For A-line on these lengths, the garment will fit at chest and hips, then continue flaring outwards below the hips.
- For longer lengths (below hips), you may want to decrease the hem width if you want the ribbing to fit more snugly below the hips.

The **BODY HEM** style determines the finish at the bottom of the garment.

- Use RIBBING to work in a K1P1 rib. This is the default value. Ribbing is usually worked on smaller needles than the body of the garment, to a tighter gauge, so the garment will pull in and fit snugly at the bottom. You can easily work this in K2P2 rib or any other rib stitch.
- MOSS STITCH BAND is for a full width textured band, that will be the same width as the bottom of the garment - it will not pull in. It is worked on the same size needles or hook (same machine tension dial) as the body of the sweater. A variety of other texture stitches can be substituted for the moss stitch.
- GARTER STITCH BAND is applied in the same way as moss stitch band, but is worked on the larger needles or hook (or machine tension dial), as for the body of the sweater.
- FRILLED HEM / RUFFLE is for a stocking stitch band that is increased rapidly to create a ruffled or frilly effect. The hem is generally quite short. It is finished with a couple of rows of garter stitch to prevent curling. For more information, see the Glossary.
- FOLDED BAND is for a stocking stitch band that is doubled, with the cast on edge grafted onto the top of the band before continuing with the body of the sweater. It should be the same width as the bottom of the sweater, and not pull in. (Because of the double thickness, it is advisable to work the folded band in a smaller needle, so that the finished band is not wider than the bottom of the sweater.) For a machine knit, this provides a quick and easy 'tunic' type hem. To define the fold line better, you can, at the halfway point, work a turn row, or a row of lace holes for a picot edge.
- CROCHET EDGE allows you to specify a hem length to crochet.
- NO HEM is just that - no hem. You cast on, and start working the body of the sweater immediately. If you are working a stocking stitch body and no hem, the bottom of the garment will roll up, and the garment will be shorter than the given dimensions. This may be desired, but if not, there are many textured stitches that do not roll that the body could be worked in.

PATTERN: SWEATERS SLEEVE STYLES

SHOULDER STYLE options are Drop, Modified Drop, Set-in, and Raglan.

- DROP has no armhole or shoulder shaping, and the sleeve is blunt at the top. Also known as T-Square.
- DROP (GRAFTED). The sleeve is grafted onto the shoulder and worked down to the cuff.
- MODIFIED DROP is a slightly inset drop shoulder; it has a small bindoff at the underarm, and the blunt top sleeve is lengthened by this amount.
- MODIFIED DROP (GRAFTED). As for modified drop, but the sleeve is grafted onto the shoulder and worked down to the cuff.
- SET-IN shoulder has shaping at the armhole and along the shoulder, and the sleeve has a fitted cap.
- SET-IN CLASSIC has a standard fitted sleeve cap, designed to fit exactly into the armhole.
- SET-IN GATHERED is for a fuller, gathered-look sleeve top; the cap is "gathered" in the last two rows (the number of sts decreased by half on one row, then by half again on the following row) so that it will fit into the armhole. For an even fuller cap, increase the Sleeve Top dimension.
- SET-IN PLEATED is also for a fuller cap, with the top pleated to size. See General Finishing Instructions for pleating options. For an even fuller cap, increase the Sleeve Top dimension.
- SADDLE shoulder has an extended band at the top of the sleeve cap that fits over the shoulders between the front and back pieces. The armhole and shoulder shaping is otherwise identical to the Set-in shoulder style.
- RAGLAN shoulder has continuous shaping along the armhole seam and the sleeve cap.
- ROUND YOKE shoulder allows a series of shaping rows, evenly spaced over the entire yoke, allowing you to work the entire garment circularly with no seams and very little finishing required; this shaping is like a Norwegian style. The round yoke shaping defaults to four shaping rounds, even row spacing, equal stitch

spacing and no fixed repeats. More yoke shaping options are available using the Round Yoke Calculator, a stand-alone option available on the Main Menu. Restrictions on the Round Yoke shoulder: Circular construction, hand knit or crochet (no machine knit), back and front neckline are flat (suggest cut-and-sew if you want other neckline shaping), no cap sleeve or sleeveless.

SLEEVE STYLE is used to define the shape of the sleeve from wrist (or bottom of sleeve) to the armhole. The shaping is accomplished in a smooth line increasing or decreasing one stitch at a time on both sides at regular intervals along the entire length. Sleeve style does not apply to Sleeveless or Cap Sleeve styles. The Sleeve Style shaping options (other than Tapers) work best with Set-in, Saddle or Raglan shoulders, as the sleeve top for drop shoulders is comparatively large and thus the Lantern, Bishop and Bell shapes do not show to good advantage with drop shoulder styles.

- NARROW TAPER is fitted closely to the arm, increasing from bottom to armhole (this was the default shaping for version 2.20)
- MODERATE TAPER is also a smooth increase taper from bottom to armhole, but with slightly more ease in the sleeve top (this is now the default for version 2.30 and was for version 2.00 and previous).
- LANTERN (also known as STRAIGHT or KIMONO) has no shaping at all, as the sleeve bottom is equal to the sleeve top; all the additional stitches required for the sleeve top are added in the first row after the cuff.
- MODIFIED LANTERN is a shape somewhat halfway between the Lantern and the Taper; squarish, but with a bit of shaping.
- BISHOP is a full bottomed sleeve, where the cuff stitches are doubled in the first row of the sleeve, then tapered (decreased) up to the sleeve top.
- BELL is very wide, with a loose cuff equal to the sleeve bottom, and with the sleeve tapering (decreasing) up to the sleeve top.
- DOLMAN (also known as batwing) sleeve (on drop shoulders only) is a tapered sleeve at the bottom that curves at the top into a large armhole that blends with the side of the body. The dolman sleeve style is flattering to many body shapes, is comfortable to wear and easy to knit. Although commonly knit in one piece top to bottom (or sideways) Knitware provides instructions for flat-knit separate dolman sleeves, as for our other sleeve styles. See the Glossary for suggestions on how to knit this style sideways or in one piece.

The **SLEEVE LENGTH** style is used to calculate the finished sleeve length, and to determine where the sleeve hem will fit. Most sleeve lengths are measured from the bottom of the cuff to the side seam at the underarm. However, for Modified Drop shoulders, the sleeve is measured to the armhole, after the underarm cast-off section.

- A FULL length sleeve will come down to the hand; the hem/ribbing will fit around the wrist.
- A THREE-QUARTER length sleeve will end midway between the wrist and elbow; the hem/ribbing should fit around the forearm at that point.
- A HALF length sleeve will come to the elbow; the hem/ribbing should allow enough flex to fit over the bent elbow.
- A SHORT SLEEVE should be above the elbow; the hem/ribbing should fit at some point around the upper arm.
- A CAP SLEEVE is knitted as a continuation of the back and front; the hem/ribbing should be fairly loose.
- A SLEEVELSS STYLE is for a top or vest without sleeves. It uses the same armhole shaping as for a set-in or raglan sleeve, inset the width of the ribbing/hem. The ribbing/hem should fit comfortably around the armhole.

The **SLEEVE HEM** style determines the finish at the bottom of the sleeve, or armhole (for sleeveless styles).

- Sleeve hem options are: RIBBING, MOSS STITCH BAND, GARTER STITCH BAND, FRILL, FOLDED BAND, CROCHET EDGE and NO HEM. For more information about these options, see BODY HEM.
- For FOLDED BAND worked on a cap sleeve or sleeveless style, the stitches for the band are picked up around the armhole edge and worked for the desired length and then cast off (as for the ribbing or moss stitch option). The cast-off edge is then sewn to the picked up sts at the armhole.

PATTERN: SWEATERS NECKLINE STYLES

NECKLINE styles include Round, High Round, Scoop, Ballet, Square, Boat, V, Keyhole (front only), Flat, Shallow or Backless (for back only). Default neckline dimensions (front and top neck width, front neck depth) are set differently for each neckline style. These can be changed to suit your individual preference. The default Back Neckline style is FLAT (no back neckline shaping).

- FLAT is for a neckline with no shaping at all. This is the default for the Back Neckline. It is also the required neckline both back and front for a Round Yoke shoulder or for Top-Down Construction (due to the circular shaping of the yoke, the neckline actually ends up gently rounded in shape).
- SHALLOW is for a very shallow (about ½" for most women's sizes), but not quite flat neckline. It gives a minimal amount of shaping to allow a collar to sit more comfortably at the back.
- BACKLESS (back neckline only) is for a back that stops at the armhole. Backless styles must be sleeveless as well, with either a raglan or set-in shoulder. The Backless Raglan will be finished with a tie behind the neck (halter style) for a Single Band Collar, otherwise it will have a full collar treatment (as for a flat back neck style). The Backless Set-in will have straps at the back from shoulder to center back. Backless styles have to fit snugly across the back, so should have a *Tight* or *Skintight* ease style. More information about the Backless style can be found in the Glossary.
- ROUND (or crew) is for a standard round, moderately shallow neckline. This is the default front neckline.
- HIGH ROUND is for a narrower and shallower round neckline. It is fairly snug around the neck.
- SCOOP is wider and deeper, with more gradual shaping at the front bottom.
- BALLET is very wide and shallow.
- SQUARE is the same width at front and back. It is as deep as a scoop neck, but not as wide.
- V is by default set at armhole depth, with the front bottom width depending on the collar style (or zero for a cardigan).
- KEYHOLE (also known as Tab, Placket, Polo, Rugby and Golf Necks in association with various collar styles) is a vertical opening below a High Round neckline. The defaults (for a medium Woman) are 1" wide, depth 1" above the armhole, 3 buttons, and an overlapping horizontal band. For a zipper closure, specify None for the Front Band Style and 0 for the Keyhole Width.
- BOAT necklines are worked differently than the others. Both the back and front of the garment are worked the same way, with no neckline shaping. The neckline is a continuation of the body, simply changing from stocking stitch to ribbing stitch. The default boat ribbing length is the same as the body welt ribbing.
    - For a BUTTED BOAT the front and back are sewn together along the shoulder seams, leaving an opening for the head.
    - An OVERLAPPED BOATis joined only at the ends, at the top of the armhole seams. This gives a nice neckline for set-in sleeves, but may gap too much for drop shoulders or cap sleeves.

The selections for **COLLAR STYLE** are: single band, double band, shirt, rolled edge, cowl, turtleneck, shawl collar, simple hood, shaped hood, none and crochet edge.

- Both the SINGLE BAND and DOUBLE BAND defaults are ribbing. The instructions call for K1P1 by hand, a 2x1 rib by machine (without ribber) or a 1x1 rib by ribber. However, for a V-neck cardigan, the collar band will default to the same stitch pattern as the front button band.
- The SHIRT collar (also known as split, polo, rectangular, tennis, golf, rugby or standard) is for a rectangular collar with a small standup section which will hug the neck, then the collar will fold over and spread flat against the top of the sweater. It splits (pullover) or opens (cardigan) at the center front. The shirt collar can be worked in any stitch pattern that is reversible and also loose enough to lay flat on the shoulders, such as: ribbing, tuck stitch or moss/seed stitch. The shape of the collar can be manually modified in several ways: for a fuller collar, increase the number of sts 10-20% after the standup section, for a flatter collar increase the number of sts immediately after pick-up (and perhaps a second time as well), for points on the front corners cast on an extra sts at the end of every row. Check a good design book for other options.
- The ROLLED EDGE collar is worked in reverse stocking stitch. It takes advantage of the natural tendency of stocking stitch to curl. The collar is knit in one piece on the garment, with a seam on the left side.
- The FUNNEL COLLAR (also known as Funnel Neck) is a stand-up collar, similar to a mock turtleneck, worked with no neck shaping at the front or back. (If you want neck shaping, use the Rolled Edge or Single band collar instead.) The Funnel Collar is usually worked with a Raglan Shoulder (hence the 'funnel' shape and name), but can be worked with any shoulder style. The Funnel Collar can be worked in stocking stitch, ribbing or any pattern stitch. Stocking stitch will be fairly loose and will roll, so you may want to increase the collar depth. Ribbing and some pattern stitches will pull in tight to make a close fitting collar. Since the neckline is flat for both front and back, when working a pullover cast off very loosely (work last row loosely if crocheting) to ensure that the collar will stretch to fit over the head. (For Top-Down construction, it is the cast-on, or first row, that must be loose to ensure proper fit.)

- The TURTLENECK COLLAR (or Polo) is a tight fitting high collar, worked in ribbing from a round neckline. Adjust the length for your personal preference.
- The COWL COLLAR is for a fairly loose collar knitted in stocking stitch, that will roll naturally. Working to a tighter gauge (smaller needles/keyplate/tension dial setting) will give a collar with a closer fit. Likewise, a looser gauge will give a looser fit. The cowl collar is knit in one piece on the sweater, with a seam on the left side. When finished, and rolled down, the right (knit) side will be showing.
- The SHAWL COLLAR is a wide tapered overlapped band, worked in moss stitch from a V or square neckline. On a pullover, by hand it is best worked on a circular needle, by machine a center back seam is unavoidable. On a cardigan, it may be worked in garter stitch, if the front button band is in garter stitch.
- NONE is for no collar. You may want to finish the neckline with a row or two of crochet to stabilize it so that it does not stretch out of shape, or attach a pre-made collar.
- The CROCHET EDGE COLLAR default is for a few rows of simple crochet around the neckline. Depending on the length of the collar and the stitch pattern used, this could have simply a stabilizing function or be a feature collar of some complexity.

As noted, each collar has a default stitch recommended in the instructions. Of course, any of them can be worked in any stitch that you choose. For cardigans, the default stitch pattern is usually taken from the front button band style.

HOODS can only be worked on round neck garments, with flat back necks. The hood is knitted separately, and then sewn on to the garment neckline. The hood instructions include a folded front band (to insert a drawstring later), but can as well be done with a ribbed or moss stitch band.

- A SIMPLE HOOD, suitable for children's sweaters, has a center back seam, and will have a slight point at the top.
- The SHAPED HOOD, with a double back seam, will fit the contours of the head better with a more rounded shape.

The selections for **FRONT BANDS** (cardigan or keyhole, button and buttonhole bands) are: vertical rib, horizontal rib, picot (folded), moss stitch, garter stitch and none. The Vertical Rib is worked as a separate piece and then sewn on to the garment. All the others are worked by picking up stitches from the cardigan front (or keyhole edge) first and then working a few rows in the specified pattern. If appropriate, the pattern stitch selected for the front bands is also applied to the collar. Also, if the collar is a doubled band, the cardigan front band will be worked double as well.

- The VERTICAL RIB band is worked as a separate piece, a few stitches wide in a K1P1 pattern and long enough to fit from the bottom of the garment to the neckline (or center back in the case of V neck). Detailed instructions are provided for the buttonholes.
- HORIZONTAL RIB is worked in K1P1 pattern.
- PICOT is worked in stocking stitch for half the width, then a picot row (lace holes every 2 sts, *yf, K2tog*), followed by more stocking stitch. When the band is folded and sewn down, the picot edge provides a nice finish.
- MOSS STITCH (also known as seed stitch) provides a stable finish.
- GARTER STITCH (knit every row) also provides a stable finish, but is a little softer than moss stitch. Because of the change in row gauge with garter stitch, you may need to knit more rows to get the required band width.

PATTERN: SKIRT & SHAWL STYLE COMPONENTS

EASE STYLE determines the amount of ease in the garment (for skirts only). Ease is applied to the waist and hip dimensions, with a small amount applied to the skirt length. The amount of ease applied varies with Ease Style and chest size.

- Example 1: for a *Moderate* Fit: Child 20” chest has added 0.9” ease to the waist, 2.3” to the hips and 0.5” to the length; Woman 36” chest has added 1.2” ease to the waist, 3.0” to the hips and 0.7” to the length; Woman 56” chest has added 1.6” to the waist, 4.0” to the hips and 0.9” to the length.
- Example 2: for the Women’s sizes 36” chest, there is negative 1.3” ease applied to the Hip dimension for *Skintight* Ease Style, 1.3” applied for *Tight*, 3.0” for *Moderate*, 5.1” for *Comfortable* and 7.8” for *OverSized*. Note the negative ease for *Skintight;* this means that the garment dimensions are actually less than the body measurements.

GARMENT:
- SKIRT for a variety of styles of skirts.
- SHAWL for a variety of styles of shawls
- AFGHAN/BLANKET for blankets and afghans
- PONCHO for a variety of styles of ponchos

PATTERN: SKIRT STYLES

The **NUMBER OF PANELS** determines the number of equal pieces that the skirt is composed of. Two panels is the default for Straight and A-line styles, four panels for Flared and six for Swing. Increasing the number of panels generally improves the fit of the skirt, but gives more seams to sew up (except for sideways knit construction). The minimum number of panels is 2, the maximum is 20.

The **SKIRT SHAPE STYLES** define the skirt shaping from the hip (or waist for flared) to the hem. All shaping takes place at the side seam edges; there are no internal darts.
- STRAIGHT is for a skirt with no shaping from hip to hem.
- A-LINE is for a simple slightly flared shape with a continuous slope outwards from hip to hem.
- FLARED is for a moderate flare continuous from waist to hem.
- SWING (GODET) is a combination shape, with A-line shaping from hip downwards with added godet sections of greater flare at the bottom for added fullness at the hem.

CONSTRUCTION METHOD is how the skirt will be worked and put together.
- TOP DOWN (default) starts with casting on the waistband, working down the body of the skirt, increasing to the hem, which is then worked and cast-off. Panels are sewn together at the side seams.
- BOTTOM UP starts with casting on the hem, working up the body of the skirt, decreasing to the waistband, which is then worked and cast-off. Panels are sewn together at the side seams.
- SIDEWAYS is worked in one piece from side to side, working short rows for the shaping. Hem and waistband are worked separately, then the single side seam is sewn or grafted together. Texture patterns can be applied to Sideways knit skirts, but large patterns may be difficult to complete if there is a lot of short-row shaping.

The **WAISTBAND** style determines the finish at the top of the skirt.
- Use RIBBING to work in a K1P1 rib. This is the default value. Ribbing is usually worked on smaller needles than the body of the garment, to a tighter gauge, so the garment will pull in and fit snugly at the waist. You can easily work this in K2P2 rib or any other rib stitch.
- HERRINGBONE is for a ribbing band combined with an elastic casing. The back of the ribbing is worked in herringbone stitch to enclose the elastic, reducing the bulk that can sometimes be found with the doubled fabric thickness of the folded band for an elastic casing.
- ELASTIC CASING is for a stocking stitch band that is doubled, with the cast on edge grafted onto the top of the band before continuing with the rest of the skirt. The folded band will form a casing that will be threaded with elastic to pull in at the waist. To define the fold line better, you can work a turn row, or a row of lace holes for a picot edge at the halfway point.
- DRAWSTRING is a folded band constructed as for an Elastic Casing (but not as deep) that can be threaded with a purchased or knitted drawstring.
- CROCHET EDGE allows you to specify a waistband length to crochet. As a crochet edge will not have any stretch, you will need a zipper or other type of closure to ensure proper fit.
- NONE is just that – no waistband. You cast on, and start working the body of the skirt immediately. If you are working a stocking stitch body and no waistband, the top of the skirt will roll up, and the skirt will be shorter than the given dimensions. This may be desired, but if not, there are many textured stitches that do not roll that the body could be worked in.

WAIST-TO-HIP SHAPING (not used for *Flared* skirt shape) is how the skirt is shaped from waist to hip (or abdomen, whichever is larger).

- GATHERED is where the skirt panel is knit without shaping between waist and hips, with all stitches (if any - for the difference between hip and waistband) increased (for Top Down) or decreased (for Bottom Up) where the waistband joins the body of the skirt. *Gathered* is the default for Elastic Casing and Drawstring Waistbands.
- SHAPED AT SIDES is where the waist to hip shaping is at the panel edges only. For an A-line skirt in two panels this tends to create extra length at the side seams. *Shaped at Sides* is the default for Ribbing and Herringbone Waistbands.
- TIERED is where the shaping is spread over 3 sections several rows apart; the increases for each section are spread evenly across a row. This makes a smoother fit between the waist and hips, with a nice curve to the bottom of a straight skirt, but is more fuss to do on a knitting machine.

The **SKIRT LENGTH** code is used to calculate the finished skirt length dimensions. It is also used to determine where the ribbing/hem will fit. Use:

- MINI for a skirt midway between the hips and knees.
- ABOVE KNEE for just above the knee (2-3" above for medium women's sizes)
- KNEE for centered on the kneecap
- CALF (MIDI) for midway between knee and ankle
- ANKLE for full length to the ankle
- FLOOR for floor-sweeping length

The **SKIRT HEM** style determines the finish at the bottom of the skirt.

- Use RIBBING to work in a K1P1 rib. This is the default value. Since you do not usually want the bottom of the skirt pulling in too much, the ribbing should be worked on the same size or larger needles than the body of the skirt. You can easily work this in K2P2 rib or any other rib stitch.
- MOSS STITCH BAND is for a full width textured band, that will be the same width as the bottom of the garment - it will not pull in. It is usually worked on the smaller needles (tighter machine tension dial) than the body of the sweater so it does not spread out. A variety of other texture stitches can be substituted for the moss stitch.
- GARTER STITCH BAND is applied in the same way as moss stitch band.
- FRILLED HEM / RUFFLE is for a stocking stitch band that is increased rapidly to create a ruffled or frilly effect. The hem is generally quite short. It is finished with a couple of rows of garter stitch to prevent curling. For more information, see the Glossary.
- FOLDED BAND is for a stocking stitch band that is doubled, with the cast on edge grafted onto the top of the band before continuing with the body of the skirt. It should be the same width as the bottom of the skirt, and not pull in. (Because of the double thickness, it is advisable to work the folded band in a smaller needle, so that the finished band is not wider than the bottom of the skirt.) For a machine knit, this provides a quick and easy 'tunic' type hem. To define the fold line better, you can work a turn row, or a row of lace holes for a picot edge at the halfway point.
- CROCHET EDGE allows you to specify a hem length to crochet.
- NONE is just that - no hem. You cast on, and start working the body of the skirt immediately. If you are working a stocking stitch body and no hem, the bottom of the garment will roll up, and the skirt will be shorter than the given dimensions. This may be desired, but if not, there are many textured stitches that do not roll that the body could be worked in.

PATTERN: SHAWL/AFGHAN STYLES

The **SHAPE STYLES** define the basic shape of the shawl or afghan.

- CIRCLE is for a full circular shape. This could be a delicate lace weight shawl worn folded in half, or a round blanket in worsted weight yarn in a rainbow of colours.
- HALF CIRCLE is for half a circular shape – for a shawl this would be lighter to wear than a full circle folded in half (and half the work too).
- RECTANGLE has four sides: top and bottom are equal, as are the two sides. This could be a long, narrow fluffy scarf or bed-size afghan.
- SQUARE has four equal sides. This could be a small head scarf, a patterned shawl or a baby blanket.

- **The following shapes are for shawls only, not afghans**
- SHETLAND is a square shawl with two borders, one set within the other. The term Shetland can also be used to describe a particular method of working the shawl, but Knitware does not restrict its Shetland shape this way.
- TRIANGLE has two equal sides with a flat top and comes to a point at the bottom. Triangles can be worked as head scarves or lace shoulder shawls.
- FAROESE is a triangular shawl with an inset center panel (gusset). This creates a wider spread across the back and removes the long point from the bottom of the regular Triangle shape. A true Faroese shawl may also have shoulder shaping, but Knitware does not incorporate this. When the Faroese shawl is worked Top Down or Bottom Up, there will be more stretch to the pattern on the gusset area than on the sides. The row gauge is applied to the gusset length, not to the side lengths, so the side stitch patterns will not be as distinct as the gusset ones.

The **SIZE** defines a general size as a starting point – you can easily change the panel widths and lengths to obtain the actual size you need.

SHAWL SIZE options are:

- SMALL for headscarves
- MEDIUM for a shawl fitting wrist to wrist
- LARGE for an oversized shawl

AFGHAN SIZE options are:

- QUEEN BED to fit the top of a queen bed (if *rectangular* shape selected), no overlap on the sides
- DOUBLE BED to fit the top of a double bed (if *rectangular* shape selected), no overlap on the sides
- SINGLE BED to fit the top of a single bed (if *rectangular* shape selected), no overlap on the sides
- THROW blanket or afghan, medium size
- LAP blanket, to keep the legs warm
- CRIB blanket, to fit a standard baby crib
- BABY blanket; usually square or round
- DISH TOWEL or placemat, make it longer for a table runner
- POT HOLDER or dishcloth

NOTE that the afghan size **includes** the border width; especially with a fringe border you may want to increase the main panel size to have a 'bed' size afghan fit the bed surface.

The **BORDER** describes the type of border to work around the main panel of the shawl or afghan

- MARATHON is a border worked with sts picked up from the main panel and worked out – you pick up a lot of sts and work a few rows.
- SPRINT is a narrow section of a few sts worked for many rows, grafted to the main panel sides as it is worked.
- FRINGE is for a quick and easy loose stranded edge generally added to the main panel after is been blocked. It is not recommended for small children as the strands can come loose. For more information, see the Glossary.
- CROCHET is a border that is crocheted onto and around the main panel.
- NONE is when no border panel is worked around the main panel.

CONSTRUCTION METHOD describes how the main panel of the shawl/afghan is made:

- TOP DOWN is when the main panel is worked from the top to the bottom.
  - For a Triangle shape this starts with the wide section at the top and tapers to a single stitch at the bottom.
  - For a Faroese shape it starts with the gusset (plus two) sts and increases on the outside edges of the gusset and the inside edges of the top until the total required sts are in work around the entire base of the shawl.
  - Cannot be used for Circle or Half Circle.
- BOTTOM UP is simply the reverse of TOP DOWN.
- SIDEWAYS is when the shawl is worked from side to side.
  - This would be the preferred method for making a Rectangle scarf end to end.
  - For a Square or Shetland, there is really no difference between Sideways, Top Down and Bottom Up.
  - For a Triangle, it would start with two sts at the left side, increase along the bottom edge to the total number of sts at the center back, work two rows even, then decrease along the bottom edge to the last two sts at the other side.
  - For a Faroese, this would be similar to a Triangle, but with the Gusset rows worked even in the center.
  - For a Circle or Half-Circle, the main panel is worked in short row wedges, tapering to a single st at the center; ideal for machine knitting circular blankets.
- DIAGONAL applies only to Square and Shetland shapes. It works the main panel from lower left corner to upper right, starting with 2 sts, increasing equally on both sides until the diagonal width is reached, then decreasing equally down to 2 sts again. It is well suited to garter stitch.
- CENTER OUT: WEDGES applies only to Circle and Half-Circle shapes that are hand-knit or crocheted. The shawl is started with a few sts at the center, then increased along equi-spaced rays around the shawl. This method is very effective with a textured yarn worked in a plain stitch, using 'yarn-over's to create a lace pattern along the rays, separating each wedge.
- CENTER OUT: RINGS applies only to Circle and Half-Circle shapes that are hand-knit or crocheted. The shawl is started with a few sts at the center, then doubled in a series of spaced rounds or rings. Since the increases are dramatic (doubling stitches in a single row), the fabric needs to be fairly loose so that it will stretch and lay flat when blocked. This method may not be appropriate for tight plain crochet or knit stitches.

The **NUMBER OF WEDGES** applies only to Circle or Half-Circle shapes with Sideways or Center out:Wedge construction. It determines the number of equal pieces that make up a circular shawl or blanket. Sixteen wedges is the default for circular, eight wedges for a half-circle. The minimum number of wedges is 2, the maximum is 50. Wedges are worked in short rows, with a single stitch of each wedge remaining unworked in the center.

PATTERN: PONCHO STYLES

The **CONSTRUCTION METHOD** describes how the main poncho is made and put together:

- TWO RECTANGLES is a poncho made of two equal rectangles that sewn together in such a way as to form the poncho shape. These ponchos are generally somewhat square in shape. They are quick and easy for machine knitters especially to knit, but putting them together requires careful measuring and attention to detail
- FOUR TRIANGLES is a poncho made of four equal trapezoids (triangles with the top chopped off). These ponchos are generally wider than they are long. Each panel is worked from the top to the bottom, increasing evenly on both sides, then the four panels are sewn together at the side seams. An experienced knitter or crocheter could work this in the round, eliminating the side seams.
- CIRCLE: SIDEWAYS is for a poncho that is worked in one piece sideways using short rows. It can be closed or open at the centre front.
- CIRCLE: TOP-DOWN is for a poncho that is worked in one piece increasing from the neck down. It can be closed or open at the centre front.

The **SIZE** defines a general size as a starting point – you can easily change the panel widths and lengths to obtain the actual size you need.

PONCHO SIZE options are:

- CHEST, WAIST, HIP, THIGH, KNEE, CALF, ANKLE – this describes the maximum length of the poncho at the front for the given body size. For example, for WAIST length, the front bottom point of the poncho will be at the waist level. The default length is THIGH.

NUMBER OF WEDGES:

- This option is only available for Sideways Circular ponchos. It is the number of wedge-shaped sections in which to work the circular poncho. Fewer wedges are less work; more wedges give a more truly circular shape. Default number of wedges is 8, minimum allowed is 3, maximum is 30.
- The schematic shows the front view of the poncho, so will show half the number of wedges. Due to rounding errors, the schematic wedge representation may not be exact, but the printed instructions will always be for the selected number of wedges. For open ponchos, the schematic drawing may not show the half wedges either side of center properly.

PATTERN: BASICS FINISHED DIMENSIONS

Not all of the finished dimension fields will be displayed for every style. For example: sleeve length is shown only for pullovers or dresses with cap or long sleeves; hips and led width are shown only for Pants.

The data shown here is that which the program calculated using the size and style data that you entered above and the size table. The size table contains standard or "average" measurements for given sizes, plus any custom sizes that you may have added. If using standard sizes for pets, how close to average your pet is will determine how many of these fields you will want to change. Minimal or no changes should be required for either Custom sizes or Standard sizes for specific commercial dolls and bears.

To help you to keep track of which dimensions you have changed in the current session, the default dimension data is shown on the screen in black, while dimensions that you have changed are shown in red. All data is printed in black, and once you leave a pattern design (by moving to another pattern on the file, or inserting a new pattern, etc.) all dimension data will be shown in black again.

At any time during entry of dimension data, you can press [Schematic] to view a schematic drawing of your design. This will enable you to immediately see the effects of changing the finished dimensions.

Since it is difficult to check all these numbers on the screen, it is a good idea to print the pattern using this "first-pass" data, check the data from the printed pattern, then return to the program to change those fields that need changing, and finally print the revised pattern to work from.

Not every dimension needs to be checked. Check those that are crucial to the fit of the garment, and the way you want it to look.

All data shown on this panel are finished dimensions of the garment. They are calculated with ease included, as determined by the EASE STYLE.

LENGTHS are also calculated with a certain amount of ease, for comfort and style. Remember this ease when measuring your body and sleeve lengths.

PATTERN: FINISHED DIMENSIONS – PEOPLE, DOLL AND BEAR CLOTHES

GARMENT LENGTH varies for each style. For pullovers it is measured from the back of the neck (below the neck ribbing) to the bottom of the ribbing, and includes the RIBBING LENGTH dimension shown below it. For dresses, it is from the back of the neck to the hem of the skirt. Skirts and pants are measured from the top of the waistband to the hem. For pants, it should be measured at the side, and follow the curve of the leg.

CHEST dimension is shown for pullovers and dresses, WAIST for pants and skirts, and HIPS for pants only.

NECK dimensions (pullovers and dresses only) do not include the neckband ribbing. Neck depth is measured from the bottom of the neckline to the top. The default style is for a round (crew) front neckline with a flat back neckline. You can change the neck widths and depths to vary the shape of the neckline.

ARMHOLE is the measurement around the sleeve at the armhole. It has to be big enough to allow fat bear wrists through. SLEEVE LENGTH for long sleeves includes the ribbing at the cuff.

The default for CAP SLEEVE is for a rectangular body with the cap sleeve ribbing added at the armhole. If you want a longer cap sleeve (worked as an extension to the back and front), increase the sleeve length. The ribbing should be fairly loose, unless the cap is quite long.

The default for SLEEVELESS is a garment with an inset armhole and 2 rows of ribbing.

SKIRT BOTTOM (for Skirts and Dresses) is the measurement around the hem. For a ruffled hem, it is the measurement around the bottom of the skirt before the ruffle is added. The skirt bottom dimension should not be less than the waist or hips.

HEM LENGTH (for Skirts, Dresses and Pants) is the finished depth of the hem at the bottom. WAISTBAND LENGTH (for Skirts and Pants) is the finished depth of the waistband.

LEG WIDTH (Pants only) is the measurement around the hem of one pants leg. For straight leg pants or pantie length, this may be increased (as shown on the schematic) to accommodate the larger hips and crotch. For straight, Flare and Wide Flare, the leg hem width must always be equal to or greater than the calculated width at the crotch.

LEG LENGTH is the inside measurement along the pants leg from the crotch to the hem, following the curve of the leg. FRONT CROTCH is the measurement from the bottom of the waistband at the front to the inside leg seam. BACK CROTCH is the measurement from the bottom of the waistband at the back to the inside leg seam.

PATTERN: FINISHED DIMENSIONS - DOG SWEATERS

All finished dimensions include applied ease.

BODY dimensions:
- CHEST is the circumference around the fullest part of the body (in the chest area).
- BOTTOM WIDTH is the width across the back of the sweater at the tail end.
- BACK LENGTH is the length of the sweater along the back, not including the neck or body ribbing.
- FRONT LENGTH is the length along the center of the underside (belly), not including the neck or body ribbing.
- RIB LENGTH is the length of the finishing rib around the back opening (the back and bottom of the sweater).

NECK dimensions:
- NECK WIDTH is the circumference around the sweater neck.
- COLLAR LENGTH is the length of the collar at the neck. If double rib, the finished (worn) length would be half of this. For rolled edge, the finished length will be approximately one-third

SLEEVE dimensions:
- ARMHOLE is the circumference around the front leg hole.
- LENGTH is the length of the ‘sleeve’ for the front leg, and includes the rib length.
- RIB LENGTH is the length of the ribbing on the ‘sleeve’ for the front leg.

For Dog Sweaters, the RIB LENGTH program minimums are 0.5” for neck ribbing and 0.0” for sleeve and body ribbing, since you may want to crochet (instead of rib knit) an edging around the sleeves and/or body.

PATTERN: SWEATERS FINISHED DIMENSIONS

The data shown on this panel is that which the program **calculated** using the size table and the size and style data that you entered above. The size table contains standard or "average" measurements for given sizes, plus any custom sizes that you may have added. If using standard sizes, how close to average you are will determine how many of these fields you will want to change.

To help you to keep track of which dimensions you have **changed** in the current session, the default dimension data is shown on the screen in black, while dimensions that you have changed are shown in red. All data is printed in black, and once you leave a pattern design (by moving to another pattern on the file, or inserting a new pattern, etc.) all dimension data will be shown in black again.

Since it is difficult to check all these numbers on the screen, it is a good idea to print the pattern using this "first-pass" data, **check the data** from the printed pattern, then return to the program to change those fields that need changing, and finally print the revised pattern to knit from. Not every dimension needs to be checked, but you should check those that are crucial to the fit of the garment, and the way you want it to look.

All data shown on this panel are the **finished dimensions** of the garment. They are calculated with ease included, as determined by the EASE STYLE. Not all of the dimension fields (finished or calculated garment measurements) will be displayed for every style. For example: back width is used only for set-in or modified drop shoulder styles, and sleeve top (upper arm) dimension is not needed for a drop shoulder style.

PATTERN: FINISHED DIMENSIONS - BODY

BODY dimensions:

- CHEST is the circumference around the body (largest of chest or hips for straight body shapes), including ease.
- WAIST is the circumference around the waist, including ease. Shown only for Fitted Waist body shape, or for a waist length A-line shape.
- BOTTOM WIDTH is the circumference around the body at the bottom of a cropped length sweater for a Fitted Waist or A-line shape.
- HIP is the circumference around the hips, or lowest point of the sweater, including ease. Shown only for Fitted Waist or A-line body shapes. For the A-line shape, if the hips are less than the chest, then the default hip dimension is increased to greater than the chest to accommodate the A-line shaping.
- HEM WIDTH is the finished dimension around the body, so that the hem will fit comfortably at the length specified. Ribbing is usually slightly stretched to achieve this fit. For moss stitch, garter stitch, frilled hem and folded band, the hem width is the same width as the sweater at the point where the hem joins it. Therefore, for non-ribbing hems, if you change the sweater bottom width (chest for straight garments, hips for A-line or Fitted Waist regular length or longer, waist for waist length, bottom width for cropped length), you will have to change the hem width as well (enter hem width equal to sweater bottom width).
- BACK WIDTH is the dimension across the back between the sleeve seams, including ease. For set-in or modified drop shoulder styles only. For sleeved styles, it is measured across the back between armhole seams. For sleeveless styles, the back width dimension includes the sleeve hem length, i.e. the back width dimension is the finished width of the garment including the armhole hems.
- BODY LENGTH is measured from the back of the neck (at shoulder height) to the bottom of the hem. It includes the hem length shown below it. When adjusting the body length remember that it is calculated with a certain amount of ease for comfort and style. For waist length sweaters, be sure to include enough ease for arm movement.
- BACK WAIST LENGTH is measured from the back of the neck (at shoulder height) to the waist. Shown only for Fitted Waist body shapes, regular length or longer.
- HEM LENGTH measures the length or depth of the hem at the bottom of garment (body welt). For a *Moss St Band, Garter St Band, Frill, Crochet Edge* or *Ribbing* the finished length is as shown; for a *Folded Band* the dimension shown is the full length as knitted, which is twice the finished length on the garment (since it will be folded in half). The default hem lengths vary with the type of hem. The default for *Ribbing* is taken from the Size Data file, for *Moss St* and *Garter St* it is half that, for *Crochet* it is 0.5”.

PATTERN: FINISHED DIMENSIONS - SLEEVE

SLEEVE dimensions:

- ARMHOLE is the circumference around the armhole (measured vertically), including ease.
- HEM WIDTH is the finished dimensions around the arm (sleeve cuff), so that the hem will fit comfortably at the length specified. Ribbing is usually slightly stretched to achieve this fit. For *Moss Stitch*, *Garter Stitch*, *Frill* and *Folded Band*, or for *Bell Sleeves*, the hem width is the same width as the sleeve at the point where the hem joins it, so will not show on the panel. For *Sleeveless* styles this is measured around the armhole opening, and therefore may be larger than the vertical armhole dimension.
- SLEEVE TOP is the measurement around the top of the sleeve (over biceps), including ease. Not used for drop shoulders, except for Dolman Sleeves where *Sleeve Top* is the sleeve width at the start of the dolman underarm gusset.
- SLEEVE BOTTOM is the finished dimension around the sleeve at the wrist (for full length), forearm (for 3/4 length), elbow (for half length) or upper arm (for short sleeves). To allow for blousing, it is a separate dimension from the sleeve hem width, which is measured at the same length.
- SLEEVE LENGTH is measured from the armhole seam along the underarm to the bottom of the hem. It includes the hem length shown below it. When adjusting the sleeve length remember that it is calculated with a certain amount of ease for comfort and style.
- HEM LENGTH measures the length or depth of the hem at the bottom of sleeve (cuff) or along the armhole edge for cap sleeve or sleeveless. For a *Moss St Band*, *Garter St Band*, *Frill*, *Crochet Edge* or *Ribbing* the finished length is as shown; for a *Folded Band* the dimension shown is the full length as knitted, which is twice the finished length on the sleeve (since it will be folded in half). The default hem lengths vary with the type of hem. The default for *Ribbing* is taken from the Size Data file, for *Moss St* and *Garter St* it is half that, for *Crochet* it is 0.5”.
- SHOULDER BAND measures the width of the saddle shoulder band which is knit as an extension of the sleeve cap. It cannot be wider than the top of the sleeve cap. (The length of the saddle shoulder band is calculated to equal the front/back finished shoulder width.)
- CUFF TO CUFF is a calculated field (user cannot change it) that shows the finished length from bottom of cuff to bottom of cuff (wrist to wrist for full length sleeves) across the back at the underarm, with the arms straight out horizontally to the sides. When measuring for cuff-to-cuff remember that it includes ease; a fair amount is needed for elbows to bend. Changing the *Sleeve Length* or the *Chest* will change the value of *Cuff To Cuff*.

NOTES ON SLEEVE DESIGN STYLES:

- The default for CAP SLEEVES is for a rectangular body with the cap sleeve hem added at the armhole. If you want a longer cap sleeve (knit as an extension to the back and front), increase the sleeve length. The ribbing should be fairly loose, unless the cap is quite long.
- The default for SLEEVELESS is a garment without sleeves, but with a small hem. The finished width of the garment, including the hems, is the back width dimension.

PATTERN: FINISHED DIMENSIONS - NECKLINES

NECK dimensions do not include the collar.

- TOP NECK OPENING is the finished width of the back neck opening at the top, excluding ribbing or collar.
- FRONT NECK WIDTH is the dimension of the front neck opening at the bottom of the neckline. For a cardigan it is both sides combined.
- FRONT NECK DEPTH is the depth from the shoulders to the bottom of the front neck opening at the center (measured vertically, not on a slope).
- BACK NECK WIDTH is the dimension of the back neck opening at the bottom of the neckline. Not used for flat back neck.
- BACK NECK DEPTH is the depth from the shoulders to the bottom of the back neck opening at the center (measured vertically, not on a slope). Not used for flat back neck.
- COLLAR LENGTH is the full measurement of the collar before rolling or doubling. For a shawl collar, it is the measurement at the center back. For a boat neck, it cannot extend below the armhole.

- HOOD DEPTH is the finished dimension of the hood from the outer edge of the front band to the center back seam (for a simple hood), or to the beginning of the back flap (for a shaped hood). HOOD LENGTH is the measurement from the top of the hood to the collar, at the center back.
- FRONT BAND/KEYHOLE WIDTH is the working width of the keyhole opening or of each front cardigan button band. The default value for this is usually 1" for single band collars. For cardigan double band collars or picot front bands the width is shown before folding, i.e. the default value of 2" gives a 1" finished band width. The maximum value for front band width is just less than Top Neck Width for V necks; just less than Front Neck Width for all other necklines.
- KEYHOLE DEPTH is the depth from the bottom of the front neckline to the bottom of the keyhole opening. The default depth is just above the armhole.
- NUMBER OF BUTTONS is the number of buttons to place on the front button band for cardigans or keyhole openings. For no buttons, enter '0'.
- BUTTON POSITION will show if you enter '1' for Number of Buttons (Cardigans only). Select from *Top*, *Center* or *Bottom* position for button placement on cardigan button band.

PATTERN: SKIRTS & SHAWLS FINISHED DIMENSIONS

The data shown on this panel is that which the program **calculated** using the size table and the size and style data that you entered above. The size table contains standard or "average" measurements for given sizes, plus any custom sizes that you may have added. If using standard sizes, how close to average you are will determine how many of these fields you will want to change.

To help you to keep track of which dimensions you have **changed** in the current session, the default dimension data is shown on the screen in black, while dimensions that you have changed are shown in red. All data is printed in black, and once you leave a pattern design (by moving to another pattern on the file, or inserting a new pattern, etc.) all dimension data will be shown in black again.

Since it is difficult to check all these numbers on the screen, it is a good idea to print the pattern using this "first-pass" data, **check the data** from the printed pattern, then return to the program to change those fields that need changing, and finally print the revised pattern to knit from. Not every dimension needs to be checked, but you should check those that are crucial to the fit of the garment, and the way you want it to look.

All data shown on this panel are the **finished dimensions** of the garment. They are calculated with ease included, as determined by the EASE STYLE. Not all of the dimension fields (finished or calculated garment measurements) will be displayed for every style. For example: godet width is shown only for the Godet style.

PATTERN: FINISHED DIMENSIONS - SKIRT

SKIRT WIDTHS:
- WAIST is the circumference around the waist, including ease.
- HIPS is the circumference around the hips (or abdomen/tummy, whichever is larger), including ease.
- GODET (for *Swing* style only) is the circumference at the top of the godet sections.
- HEM WIDTH is the finished dimension around the bottom of the skirt.

SKIRT LENGTHS:
- EASE: The calculated skirt length has a small amount of ease incorporated to accommodate the change in length that results from wear (from fitting a flat piece of fabric over a rounded body). A factor of 3% (1" of ease for each 33" of skirt length) is applied equally to all lengths except hem and waistband.
- WAISTBAND LENGTH is the finished depth of the waistband as it would be worn. The default for *Ribbing* or *Herringbone* or *Elastic Casing* is the SkirtHem Calculation Factor from the Size Data file, for *Drawstring* it is three-quarters of that, for *Crochet* it is half.
- WAIST TO HIP is the vertical depth from the bottom of the waistband to the widest measurement around the hips/abdomen.
- HIPS TO HEM is a calculated measurement, depending on the other lengths entered. It cannot be changed by the user.

- GODET LENGTH (for *Swing* style only) is the length of the godet (extra fullness) sections.
- HEM LENGTH measures the finished length or depth of the hem at the bottom of skirt, as it would be worn. For an *Elastic Casing* or *Drawstring* the knitted length will be twice the dimension shown (since it will be folded in half). The default hem lengths vary with the type of hem: for most hem types is the SkirtHem Calculation Factor from the Size Data file, for *Crochet* it is half that, for *Frill* it is 8 rows.
- TOTAL LENGTH measures the total finished length of the skirt, from the top of the waistband to the bottom of the hem.
- Skirt lengths **may not add up completely** or correspond exactly to the schematics since the schematic shows rows counts, which are then converted back to dimensions. The dimensions shown on the Pattern Data Form (and in table format on the pattern instructions) are the 'requested' dimensions, those shown on the schematic (and in the body of the pattern instructions) are those that will actually be knit (assuming that the gauge is accurate).

PATTERN: FINISHED DIMENSIONS - SHAWLS/AFGHANS

MAIN PANEL WIDTH is the finished width of the main panel, side to side. The main panel is the center one, worked first, and usually the largest and plainest panel. It is defined by the Shape, Size and Construction Method.

MAIN PANEL LENGTH is the finished length of the main panel, top to bottom. Main Panel length is predefined and cannot be user-changed for Square, Shetland, Circle and Half-Circle shapes.

BORDER PANEL WIDTH is the width of the border panel or fringe. The length of the border panel is the circumference around the main panel (not including the top edge of Triangle, Faroese or Half-Circle shapes). Border panels are frequently more patterned and intricate. For a Shetland shape, this is the panel between the main panel and the outer one.

GUSSET/EDGING WIDTH applies to Faroese and Shetland styles only.
- Faroese: the width of the center gusset; this width is included in the main panel width.
- Shetland: the width of the outer edging panel, in addition to the main panel and the border panel.

TOTAL WIDTH is the finished width of the entire shawl or afghan, from side to side. For a Triangle or Faroese, this is measured to the outer side points. For information only, cannot be user-changed.

TOTAL LENGTH is the finished length of the entire shawl or afghan, including borders, but does not include the optional top edging for Triangle, Faroese, or Half-Circle shapes. For information only, cannot be user-changed.

PATTERN: FINISHED DIMENSIONS - PONCHOS

PONCHO LENGTH is the finished length of the poncho at the front, from the bottom of the neckline to the front bottom point of the poncho (including the border, but not including the neckband or the fringe).

PONCHO WIDTH is the finished maximum width of the poncho side to side across the front. It includes the border, but not the fringe. For the Two Rectangles method this value is calculated and cannot be changed.

NECK WIDTH is the width of the neck opening before any neck band is added. Make sure that is large enough for the head to fit through the opening, but not so big that the poncho falls off the shoulders.

NECK BAND DEPTH is the finished depth of the neck band. The band can be worked in ribbing, single crochet or any pattern stitch. If the neck is loose, the band can be worked double with a cord threaded through to tighten it up. For no neck band, enter 0.

BORDER DEPTH is the depth of the band worked around the bottom of the poncho. The border is usually worked in crochet or a non-curling knit stitch to stabilize the outside edges of the poncho. For no border, enter 0.

FRINGE LENGTH is the finished length of the fringe worked around the bottom of the poncho. For no fringe, enter 0.

PATTERN INSTRUCTIONS

DISPLAY PATTERN INSTRUCTIONS

When your pattern data selections are complete, and the schematic diagrams look good, you can display the Pattern Instructions by clicking the [Pattern] button.

Before the Pattern Instructions are displayed, the Calculate Yarn Amount window will pop up. If you want the yarn amount calculated, select one of the *Yes* options (see Calculate Yarn Amount for more information), otherwise click *No* then [Continue].

The schematic diagrams will be overlaid with the Pattern Instructions window. For easier reading, click the ❒ in the upper right corner to maximize the window. Use the scroll bars to scroll through the instructions.

The Pattern Instructions window offers basic file access and text editing options. Under File, there are standard Windows file options for New, Open, Save, Save As, Print, Print Setup, and Exit. See Print Pattern Instructions for more information about printing.

The file access options (New, Open, Save, Save As) apply ONLY to the pattern text instructions, NOT to the pattern design data. They are provided as a convenience for text manipulation, but are not necessary to run the Knitware programs. See File Access Options for more information.

Standard editing functions are available under the Edit menu, and the on-screen Ruler allows you to adjust the margins. See Editing Options for more information.

When you are finished with the pattern instructions, click the **X** in the upper right or select File/Exit to exit the form.

CALCULATE YARN AMOUNT

To calculate the amount of yarn required to knit your garment, you must first have knit a sample swatch and know EXACTLY how much yarn is in that piece, either by weight or length. Lengths must be pre-measured, but weight can be checked either before or after the sample swatch is knitted. Remember that the larger the sample, the more accurate the calculations will be.

A simple way to measure when using commercial balls of yarn is to knit the sample piece (e.g. the gauge test swatch) out of a full ball of yarn. Or dig out the old diet scale to weigh a smaller swatch.

Optionally, you can print the pattern instructions without calculating the amount of yarn, and start making your sweater. When one ball is finished in working the back, return to the pattern record in Pattern Design, click [Pattern] and calculate the yarn amount to check whether you have purchased enough yarn to finish the garment. If at that point you find that you have extra yarn, you may be able to design a bigger collar or fuller or longer sleeves - so many possibilities!

Calculate with Sample:

- If you have a sample piece measured, use the **Yes:Sample** option, enter the AMOUNT (number and type) and the number of STITCHES and ROWS that the sample makes. For example: *2 ounces knits 56 stitches by 15.6 rows* or *50 grams crochets 90 sts by 50 rows.*

Calculate with Estimate:

- If you do not have a sample swatch or do not know the amount of yarn in it, you can use the **Yes: Estimate** option which will calculate a rough estimate by weight. It uses the stitch and row gauge along with the

garment dimensions and four yarn factors that you select. The options for each factor are listed in order of increasing yarn amounts required (except for Stitch Type which is in order separately for Knit and Crochet stitches). For example, Sweater X will need more cotton by weight than acrylic, more Polar than DK, more for garter stitch than stocking stitch, more for tightly knit than loosely knit

- AMOUNT: select *Ounces* or *Grams*
- YARN CONTENT: select the option that most closely approximates your yarn. Select *Acrylic Blend* for fancy blends of many different fibers.
- YARN WEIGHT: select the option that most closely approximates your yarn. Generally, use the ball band information if it is available. DK is double knitting, KW is knitting worsted. The "st" number refers to the stitch gauge over 4" (10 cm). "wpi" refers to wraps per inch. For fluffy type yarns such as mohair, measure the wpi on the core of the yarn, not the fluffy bits.
- STITCH TYPE: select the option that is closest to the stitch that you are using on the garment. Crochet stitches are shown first, then Knit stitches. With pattern stitches not listed, chose the option that is closest to the density of your pattern stitch.
- DRAPE: select the option that best describes your fabric (even on the test swatch). If your fabric is looser than 'normal' (or if your stitch gauge is less than the ball band) select a *Loose* option; likewise if your fabric is tight or dense or stiff (or your stitch gauge is more than the ball band), select a *Tight* option. If you do not have a swatch, then decide if you are a loose knitter, a tight one or normal.
- Each of these four factors can increase or decrease the base estimate by up to 25%, while the YARN WEIGHT factor varies from 60% to 200%.
- For most yarns, if the factors are selected accurately, this estimated YARN AMOUNT will be within 20%.
- However, there may be cases where the estimate could be out by over 50%.
- **If at all possible, measure the yardage or weigh a swatch to get a more accurate estimate using the "Calculate with Sample" option.**

The yarn amount calculations are shown at the end of the **pattern instructions**.

- For Basics they are divided into [1] body and [2] ribbing sections. For Dog Sweaters the 'ribbing' amount includes the collar, sleeve ribs, bottom rib and (if a Back Opening) the back closure bands.
- For Skirts they are divided into [1] body and [2] waistband/hem sections.
- For Shawls, Afghans and Ponchos they are divided into [1] main panel(s) and [2] borders.
- For Sweaters, they are divided into [1] body (including sleeves and folded band hems), [2] ribbing and other types of hems for body and sleeves (except folded bands) and [3] collar (includes neckband ribbing, collars, hood and cardigan front bands).

PATTERN TEXT

PATTERN TEXT: FILE ACCESS OPTIONS

When the pattern instructions (pattern text) are displayed, basic file access options are available from the File menu and as icons on the SpeedBar. They are provided as a convenience for text manipulation, but are not necessary to run the Knitware programs. You might wish to save files to a floppy to work with on another computer, or to print on a different printer, or save to revise as a word processing document.

The file access options (New, Open, Save, Save As) apply ONLY to the pattern instructions, NOT to the pattern design data. This cannot be stressed enough!! Opening an old pattern text file opens just that - the TEXT. It does NOT open the corresponding pattern design data. All your design data is stored as separate records on the pattern database (a single file in the Knitware folder), but each pattern text can be saved as a separate file wherever you want it.

SAVE FILE is the first option you would likely use. A File Save Dialog box is displayed, asking for a location to save the file. You can save the file wherever you want, but I would suggest that you use a standard location (your Knitware folder is the default). The default name for the SAVE is the pattern name with a .doc extension. The data is saved as a formatted document, and can be read by Word Processors such as WordPad, Word, Works or WordPerfect. Due to the formatting options, it is not saved as plain text, so cannot be read by NotePad or other plain text editors (use Copy/Paste instead to copy the pattern instructions to a text file).

Use **SAVE AS** when you want to save multiple different copies of the same pattern text.

Use **OPEN** to open an existing pattern text file. Remember that this **does not** open the corresponding pattern design data. Be careful, because the pattern text will no longer be matched with the pattern design data. Changing the pattern design data and clicking the [Pattern] button will write over the existing pattern text on the screen.

Use **NEW** when you want to write a quick message while you are using Knitware, and cannot be bothered to open up WordPad.

PATTERN TEXT: EDITING OPTIONS

When the pattern instructions (pattern text) are displayed, standard editing functions are available under the Edit menu and the Ruler allows you to manipulate margins.

Under Edit, there are standard Windows options for Undo, Cut, Copy, Paste, Delete, Select All, Word Wrap, and Font. These all work as you would expect, allowing you to edit, extract, manipulate and maneuver the pattern instructions. Beware of the Select All/Font combination, however, as this will remove all the existing font variation (i.e. bold, italic, different font sizes) within the pattern instructions.

Edit speed buttons are available for Undo, Cut, Copy and Paste, and work exactly as the Edit menu options do. Speed buttons are also available for Font, Bold, Italic and Underline. All the editing functions are applied to currently selected text.

Default indents are set to allow a half inch margin on either side for printing, and multiple lines are indented further. These defaults may or may not work properly for your printer, or you may have a personal preference for larger or smaller margins.

The Ruler at the top of the document allows you to manipulate the margins. To change the margins for the entire pattern text, select (Edit/Select All), then use the mouse to move the left margin (top left arrow on the Ruler), the left indent (bottom left arrow) and the right margin (right arrow). Note that the right margin works only if Word Wrap is ON. Your revised margin settings are effective only for the current pattern text, and will be reset to the defaults any time you click the [Pattern] button on the Pattern Data Form.

PATTERN TEXT: PRINT INSTRUCTIONS

When you have just finished designing a new pattern, or changing an old one, you should print the pattern instructions to verify the details. You can then use it to knit (or crochet) the garment.

When the pattern instructions are displayed, select the File/Print option from the Pattern Instructions Menu or from the printer icon. Instructions will be printed as displayed; with the font sizes, styles and spacing as shown.

If you have problems with the printing, or do not like the results given (for example, margins or paging), you can copy the file to the clipboard (Edit/Select All then Edit/Copy) or save it (File/Save), then access it from your favourite word processor to format it to your specifications.

PATTERN INSTRUCTIONS - DOG SWEATERS

Styles

- Knitware allows you to design a simple, pullover or tuxedo style dog sweater. The body is worked in one piece with a center front seam. There is ribbing at the neck, at the end of the sleeves and to finish around the back end. Sleeve length options are: short, medium, long. Front length options are: short, medium, long. There can be a single or doubled band rib or rolled collar.

Finishing: bands

The completed dog sweater may not stay in place when worn, depending on the shape and activity level of the pet, and the front length of the sweater.

- If the sweater is sleeveless, it will probably need a band or two over the tummy to hold the sweater in place.
    - To keep the top of the sweater from sliding around, make a band or two (approximately 1" wide by the width of the exposed tummy between the sweater sides).. Garter stitch or any other non-curling stitch will work well here. For a really firm fit, use a solid non-stretching stitch or crochet. Fit the sweater on the pet, then sew the band(s) in place between the front and back legs.

- Even with sleeves, if the front length is short and/or the pet is long or active, the sweater may need bands or ties to hold it in place around the back legs.
    - To keep the back end of the sweater in place, attach a cord (piece of elastic, stretchy knitted cord or a thin knitted band) on each side, from the back corner to just in front of the back leg. Adjust as necessary. One way to do this is as follows. Sew one of the cord to the underside of the back left corner. Fit the sweater on the pet, and adjust the other end of the cord to fit comfortably just forward of the back leg. Tack in place (on the underside). Remove the sweater, then sew the cord in place firmly. Repeat for the right side.

Finishing: ribbing

The dog sweater pattern instructions specify ribbing around the neck, sleeves and body. The ribbing around the neck is essential, to provide the required give and stretch as well as firmness and a non-rolling edge. However, the sleeves and body do not require the same degree of stretch, and could as easily be finished with other non-curling knitted stitches or with a crocheted edge.

Finishing: Back closure

The Pullover: Back Opening style instructions have bands on either side for closure. These bands can be worked in ribbing, garter stitch, moss (seed) stitch or single crochet. You want a stitch that is fairly solid and does not curl. You may have to adjust the number of stitches or the needle or hook size to get the right gauge so that the band lies flat and does not pull up on the side of the sweater.

Closure can be with buttons and buttonholes or Velcro fasteners. A zipper is possible if the animal is smooth or bristle-haired. Velcro might be a nuisance if the animal is long-haired. For buttons, work the buttonhole side first, then determine button placement (use the Magic Formula calculator for this). More buttons are better than fewer, especially if the animal is active. For a zipper, work a narrower band (half the suggested number of rows, or less).

SCHEMATIC DIAGRAMS

DISPLAY SCHEMATICS

Each new pattern accessed on the Pattern Data Form will display the schematic diagrams. Each time you change any Style Component or Finished Measurement Data the schematics will be automatically redrawn. You can also click on the [Schematic] button at any time to redraw the diagrams.

The Schematic Drawing for **Sweaters**:

- Draws the front, back, sleeve and collar (or hood), each piece on a separate form. For a cardigan front, only one side is shown.

The Schematic Drawing for **Basics**:

- For Pullover and Dresses -draws the front, back, and sleeve, each piece on a separate form.
- For a Skirt - draws the skirt front (same as back) view.
- For Pants - draws the pants side view.
- For Dog Sweater - draws the whole sweater, , with a center back view. For a Back Opening style, it is shown with at center front view.

The Schematic Drawing for **Skirts and Shawls:**

- Skirt – draws single skirt panel; all panels are equal.
- Poncho – draws the front view.
- Shawl/Afghan – draws the entire garment.

Each pattern piece is shown as large as possible in the available area, **drawn to scale** (i.e. a long thin pullover will look long and thin, a waist length top will look more square). All pieces of the design for pullovers and dresses are drawn to the same scale.

Ribbing is shown as vertical (body welt, sleeve cuff), horizontal (cap sleeve) or diagonal (armhole) lines. **Moss stitch** and **frilled hems** are shown diagonally crosshatched, **crochet edges** are shown square crosshatched and **folded hems** are shown full length with a dashed line marking the fold. **Garter stitch** (for hems, collars and front bands) is shown as wavy. **Lace borders** for shawls are shown as small circular, oval or diamond designs.

Collars: Collars for Sweaters are shown in their own window (for Basics they are shown on the back and front drawings). If a collar is knit in two pieces, only one is shown, but it is labeled with the text “Two pieces”. If a collar is too long to show in the space provided (as for a very deep V neck), the drawn length is shortened to fit in the window, and it is labeled with the text “Not to Scale”. Collars that are usually folded (double band, turtleneck, shawl) are shown with a dashed ‘fold’ line and those that are usually rolled (rolled edge, cowl) are shown with two dashed lines.

For Sweaters and Basics (sweaters and dresses only), the default (one-eighth screen size) view of the schematics shows only the diagram outlines. A maximized (full screen size) view of a selected diagram (click the ❒ in the top right corner of the diagram form) will be labeled using the current labeling selection. To change this current selection and activate the **Labels and Grid Lines** Form, click the graph button to the right of the [Schematic] button.

Maximized or printed schematics will be labeled with **sts & rows** and/or **finished dimensions**. These schematics show the garment pieces exactly as they will be worked. The finished dimensions shown are calculated from the number of sts and rows (including the extra seam stitches) and your gauge - therefore they may not exactly match the dimensions shown on the pattern data form or the pattern instructions. For example:

- chest (finished dimension) of 38.4” and gauge of 4 st/1”
- this gives the total back width of 19.2” (half of 38.4) which is 77 sts (38.4x4)
- plus two sts for seams gives 79 sts
- which gives a worked width of 19.8” (79/4) which is the dimension that will be shown on the schematic.

You may find some **distortion** of your graphic drawing on the screen. This is unavoidable, and is a function of the physical size of your monitor screen. I tested a square shape on four different VGA screens, resulting in four slightly different shapes. Only one was perfectly square.

Skirt schematics are labeled with various dimensions, most of which are self-explanatory. The topmost dimension is for the Hips, below that is the Waist, and below that (if a ribber is used) is the ribbing number of stitches.

Although not necessary, each diagram can also be printed, saved or copied to clipboard.

PRINT SCHEMATICS

Any schematic can be printed by clicking on the Printer Icon in the upper right corner of the diagram form. The Print Schematic Options form will be displayed.

Select the **size** of the printed diagram. This option is displayed for all styles in the Sweaters program or Pullover and Dress styles in Basics. If the option is not displayed, the default is to print the current diagram full size. Chose either:

- print the current diagram full size (to fit on a single standard sheet of paper), or
- print all the schematic diagrams together on one sheet (each would be one quarter of the page)

Select the **colouring** of the printed diagram. Chose from these options:

- Leave the interior of all the pieces blank; no shading or colouring.
- Print with colour. Colours will be as close as possible to those shown on the screen (depending on what is available on your printer).
- Lightly shade the pieces. This gives some definition to the interior of the pieces, but is light enough that you can still write or sketch over it later.

Once you click [Continue], the Labels and Grid Lines selection form is displayed.

SAVE SCHEMATICS

Any schematic can be saved to file or copied to the clipboard by clicking on the Save icon in the upper right corner of the schematic form. The Schematic Save Options form will be displayed.

The Schematic Save option is provided as a convenience for graphics manipulation, but is not necessary to run the Knitware programs. You might wish to save the schematics to print on a different printer, to insert into a document, to manipulate in a graphics program, or save on a floppy to work with at another computer.

The Save option applies ONLY to the schematics, NOT to the pattern design data. This cannot be stressed enough!! Even though you may have saved the schematic, you still have to save the pattern design data. All your design data is stored as separate records on the pattern database (a single file in the Knitware folder), but each schematic diagram can be saved as a separate file - wherever you want it.

The Schematic Save Options are as follows:

- Choose **which schematics** to save. This option is displayed for all styles in the Sweaters program and for Pullover and Dress styles in Basics. If the option is not displayed, the default is to save the current diagram. Chose either:
  - save the current diagram in a single file
  - save (side by side in one file) all the schematic diagrams currently shown.

- Select **maximum size** description for the saved diagrams. The saved file measurements will be less than the maximums given. Choose:
  - Thumbnail: minimize file size to save space. Default size is 80x80 pixels.
  - Normal: currently displayed diagram size (approximately ¼ of screen width and ½ screen height).

- Full screen size: depends on your screen size - usually 640x480, 800x600 or 1024x784

Maximum Size in pixels: Default values are shown for the size description currently selected. You can change these to any values you wish, but they cannot be less than 20 or greater than 1500.

- Choose whether or not you want **labels and/or grid lines** on the saved diagrams. If Yes is selected, the Labels and Grid Lines selection form is displayed. There will be no text (such as date or file name) titles.

- Select the **colouring** of the saved diagram. Choose from these options:
  - Leave the interior of all the pieces blank, with no shading or colouring.
  - Save with colour as shown on the screen.
  - Lightly shade the pieces. This gives some definition to the interior of the pieces, but is light enough that you can still write or sketch over it later. For shawls and afghans this will also include the default patterning that is shown on the screen.

- **Where** to save the diagrams? They can be either saved to a file or copied to the clipboard. Copy to the clipboard if you are inserting (pasting) the diagram directly into a document, or to a graphics program (such as PC-Stitch, Paint or Adobe PhotoShop) . Save to file if you are copying it to a floppy, or want to work with it later.

- **Save to file**: A File Save Dialog is displayed, asking for a location to save the file. You can save the file wherever you want, but I would suggest that you use a standard location (your Knitware folder is the default) and name. The default name for the SAVE is the pattern name plus the diagram piece (e.g. Mary's sweater back). The diagrams are saved as **bitmaps** (file extension .bmp) which are space hogs. An estimate of maximum file size is 3 x width x height (in pixels). e.g. a thumbnail of 80x80 would be 19.2KB. The actual size of the saved diagram is usually about half of this.

- **Copy to clipboard.** The diagram is copied to the Windows clipboard, erasing whatever was there before. The diagram can then be inserted, with the Paste command (or Ctrl+V), to any word processing document or graphics program.

- **Saving schematics with grid lines** – added for vs 2.40.
  - You can now save the schematics to bigger files (were previously limited to screen size), but still not to printed scale (e.g. cannot get printed at 20 sts to 4").
  - Saving with grid lines is not useful with cross stitch programs such as PC-Stitch or Pattern-Maker; if you want to use this type of program save the schematic without the grid lines and follow the procedures as outlined for PC-Stitch.
  - However, saving with grid lines can be very useful if you don't have the stitching software, or want to design on the graph by hand, or just like to work the knitting/crocheting from a grid.
  - Try printing the schematic directly from Knitware first; if it is too small, then use the Schematic Save option. Try pixel width and height of 1500 to start (you will end up with about half of this). Copy to Clipboard and paste into Paint to have a quick look at it; play around with it to see what works best for you. Paint doesn't print very nicely; Photoshop or most DeskTop publishers or even word processors have better printing options.

Notes:

- The Save Icon is displayed only for 'normal' sized schematics, not when the schematics are maximized.
- The schematics do not show the shaping exactly as laid out in the pattern instructions as they use straight line approximations of the row by row shaping. For example: a sleeve pattern may say cast off 1 st each end of every 7th row; the schematic will show a straight sloped line from cuff to underarm (instead of a series of vertical lines with one stitch horizontal jogs every 7th row).

LABELS AND GRID LINES

There are two options on the Labels and Grid Lines Form:
- text labeling of dimensions, sts and rows
- stitch and row gridlines

These options apply when the schematic diagrams are maximized, printed or saved. For maximized screen display of schematics, the current or default labeling and grid line selections are used. To change these defaults, activate the Labels and Grid Lines Form by clicking the graph button next to the [Schematic] button on the Pattern Data Form.

Text labeling options are:
- STITCHES AND ROWS
- DIMENSIONS
- BOTH OF THESE
- NONE

All schematics (except those 'saved' or if NONE is selected above) will be labeled with text information including pattern file name, piece name, designer, size, and date.

If BOTH is selected, the dimension is shown first followed by the stitches or rows. Numbers are identified with " for inches, cm for centimeters, R for rows and S for stitches. With BOTH, there may be some overlapping of labeling. Usually a printed schematic will be more readable and tidy than one displayed on the screen or saved.

Sweaters worked in the round will show the total number of sts in the round. The number of sts for the top of the yoke is shown at the top of the Front Schematic, for the bottom of the yoke is shown at the top of the Back Schematic. The number of sts for the body is shown at the bottom of the Back Schematic; the Chest first, with the Waist and Hips below that for Fitted Waist and A-line shapes.

If there is not enough room to display/print the full label in the given space (e.g. set-in shoulders and 'Both' selected) the space will be blank. The neck edge of collars will show stitches only (not the dimension) even if 'Both' is selected, because an accurate number for that dimension is not available (as there will be some pulling in along the neck edge).

If NONE is selected, the schematic has no labeling, not even the pattern name or date.

Grid Lines are drawn for the main panel of the garment for each stitch and row. Every 10 units is a darker line. Grid lines are not drawn for collars, hems, waistbands or border panels. Grid lines cannot be drawn for the following shawl styles: diagonal method, circle or half circle shape, Faroese (top down or bottom up method).

Grid line options are:
- NO GRID LINES
- GRID - STS START AT LEFT
- GRID - STS START AT RIGHT
- GRID - CENTER STS

These options specify where the stitch counting is to begin.
- For example, with a sweater back, if you hand knit and like to read the schematic from the right, select *Grid – Sts start at right.*
- Many machine knitters like to have 0 at the center and count even number of sts to each side, so would select *Grid – Center sts* to make the schematic easier to read.
- A Skirt with a Sideways method should use *Grid –Sts start at right* (though it will really be rows, not sts).
- On Shawls, if selected, the grid lines will replace the default lace or garter stitch fill.

Grid line row counting starts at the top for top down construction (e.g. grafted sleeves, top-down skirts and shawls, dog sweaters) and at the bottom for bottom up construction (e.g. sweater back and front, set-n sleeves, pants, bottom-up skirts and shawls).

USING PC-STITCH

There are many graphics programs that you can use to manipulate your Knitware graphics; PC-Stitch is one that I have found works well and easily. It is intended for cross-stitch, but allows a rectangular knitter's grid. You can import and convert any graphic file and superimpose it on the Knitware schematic. A demo version of PC-Stitch can be downloaded from http://www.pcstitch.com.

The instructions below are to save one Knitware schematic piece, such as the Front, into PC-Stitch.

In **Knitware**, Pattern Data, Schematic. Click the Schematic Save (disk icon in upper right corner of schematic). In the Schematic Save box, check the following options:

- Save Which: current schematic in its own file
- Labels/Grid Lines: No
- Size: Normal
- Colour: leave blank
- Maximum size: do not change
- Copy to Clipboard

Once the schematic is saved, click the maximize button for the schematic. On paper, record the maximum number of rows (to the left) and number of stitches (along the bottom). For reference below we will call these MaxR and MaxS. Close the schematic. From the Test Swatch Gauge on the Pattern Data Form, record the stitch and row gauge and convert to closest whole numbers for 1" (e.g. 20 st by 27 rows over 4" converts to 5 st and 7 rows over 1"); call these GaugeS and GaugeR.

Open **PC-Stitch**. Select **File/New**. Under Pattern Info check the following options:

- Stitches (not inches)
- Width = MaxS, Height = MaxR
- Grid square are square: OFF
- Horizontal Cloth Count = GaugeS
- Vertical Cloth Count = GaugeR
- Click [OK] to close Pattern Information.

Select **File/Import**. Chose to open from clipboard. Do not change anything on the next screen (want entire image).
PC-Stitch 6: On the next screen, check the following options:

- Use Entire pattern

PC-Stitch 7: No change on the next screen (Erase option), then on the next screen:

- Chose Stitches (not Inches)

For both PCStitch-6 and 7 continue on the same screen:

- Maintain aspect ratio: OFF
- Pattern Size: Width = MaxS, Height = MaxR
- Cloth count should be = GaugeS

On the final screen, set MaxColors = 2 (for black and white), and leave the other fields unchanged.

Check the pattern displayed. Looks pretty good, doesn't it? However, it is probably not exact yet, as Knitware provides a border of a couple of pixels, which depending on the scale may have been converted to anywhere from zero to four stitches. You should be able to see a plain border of a couple of stitches to the sides and top and bottom. If you want the graphic sized exactly, count up these sts (XS is the two sides combined, XR is top and bottom combined) , then rerun the two steps above (do not save <New Pattern>) with Width=MaxS+XS and Height=MaxR+XR. For example: MaxS=108, MaxR=180, the first PC-Stitch drawing shows a border of 2 st to the left, 1 st to the right, 2 rows to the top and 3 rows at the bottom; this gives XS=3, XR=5 and the new Width=111 and Height=185. Now when you re-import the file, the schematic should be sized exactly to the correct number of stitches and rows.

From here, it is up to you. Work with PC-Stitch and find out what you can do with it. I suggest that you save the file first, then start to play. You can print it, colour it, draw on it or import graphics. If importing or adding other

files, you may find the Edit Box handy to contain your patterning. I have not had time to work with it much, so cannot say how restrictive or wonderful the package is for knitters. Is there a way to duplicate patterns for fairisle, a way to overlay one pattern on another, or an easy way to show lace? Please let me know.

A couple of things that I have found helpful:

- Change the border colour to black
- Change the border colour print symbol to the large square
- Printing: Fit on one page can be very small; you can actually modify the grid square per inch and get a larger drawing and still have it fit on one printed page.

Warning. Remember that your Knitware schematic has been converted and resized as it is imported into PC-Stitch. Although it has the required overall dimensions (stitches and rows), the shaping details may not be completely accurate. For example, it may fewer rows of ribbing than the pattern calls for, or the armhole or neckline shaping may be off by a stitch or two. Probably none of this is enough to change the finished garment significantly, but it would be wise to check for discrepancies before working solely from the PC-Stitch graphic.

The Next Step - Overlaying a graphic on your Knitware schematic

First, decide on the size of graphic that you will want. If your garment is 100 sts wide, you may want a 70 st wide graphic for a large central piece, or only 10 sts if you are doing a small pattern repeat.

In PC-Stitch, start again, with New (if importing a bitmap file) or Open (if using an existing PC-Stitch pattern file).

- For New, follow the Import from file steps as above (or you could import a graphic from the clipboard or a scanner), select and size as you want. The best results are with number of stitches equal to number of pixels in the imported graphic. Reduce number of colours to what is shown in your graphic or what you will be able to use - 30 colours for an intarsia project is a headache!
- To use an existing PC-Stitch pattern file or bit, just Open. Remember that if the original is scaled for a square grid that the results with your knitting grid will be distorted - for some designs this will not matter, but for others it will. Adjust colours and size if you wish.

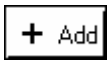
When you have the graphic to the right size, colours and shape, save it (File/Save As) in the Patterns folder (just in case something goes wrong later on), then copy it to the clipboard (Edit/Select All, then Edit/Copy).

Now open your Knitware schematic pattern again. Change the view pattern to Fit. Paste in the modified graphic from the clipboard (Edit/Paste) - do not worry if there is a bunch of extra black stuff around the edges - it will go away later. Move the graphic to where you want it on the Knitware schematic, careful not to overlap any schematic border pixels if you can. Release the move icon and your graphic is in place on the schematic. If you want to move it further, or put multiple copies on, draw an edit box around it first, then move.

Now you can adjust colours, colour fill the schematic, reduce number of colours and so forth. When satisfied with it, don't forget to save (Save As with a new name - I recommend keeping the schematic and graphic separate from the finished design). Now it can be printed, and you can knit! Have fun!!

PATTERN DATA UTILITIES

INSERT A NEW PATTERN RECORD

To add a new pattern record to the file, use the 

button on the Navigator Bar. A new pattern record with default values inserted in the fields is displayed on the form. Make the changes you want, then SAVE the data before moving on to another record or leaving the form.

If you want to add a new pattern record that is very similar to an existing one, you may want to use the COPY function instead of INSERT.

If you decide that you do not want this new record after all, click the **[CANCEL]** button to delete the new record.

COPY A PATTERN RECORD

Once you have several pattern records on the file, you may want to change one of them slightly, but keep both the old version and the new one. In this case you would use the Copy function.

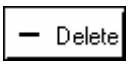
When the original pattern record is displayed on the Pattern Data Form, click the **[COPY]** button. A new record will be displayed containing exactly the same data, but with *Copy* in the PATTERN NAME field. Change the PATTERN NAME and any other fields you want as for a new record, and click **[SAVE]** when finished.

DELETE A PATTERN RECORD

As the number of patterns on your Pattern Data File increases, accessing (loading and/or saving) the data takes longer. The program has no maximum number of patterns on the file, but you may decide that the file access is taking too long or you need more disk space.

You may also have patterns on the file that were trials, never used, or unwanted. The delete function can be used to tidy up the file.

WARNING. Once deleted, that particular pattern record can no longer be retrieved or used again. The program does NOT make a backup of your Pattern Data File before the deletions are done. If you want a backup, use Windows Explorer or a File Utility program.

To delete a record, select the 

button on the Navigator Bar. A Delete Confirmation Message box will appear; click [OK] to proceed with the delete, [CANCEL] to return to the Pattern Data Form without deleting.

CANCEL PATTERN CHANGES

When you are inserting a new record, or making changes to an existing one, you may decide that you do not want to keep (save) the changes that you have made. Use the CANCEL function to revert back to the original form of the pattern record (in the case of an INSERT, the new record is deleted).

To cancel the displayed changes, click the **[CANCEL]** button. A warning message will appear, requesting you to confirm the cancel. Click *Yes* to complete the Cancel, *No* to return to the form without canceling the changes. In the case of a cancel of a newly inserted record, a Confirmation message for the delete will appear as well.

The CANCEL affects only the record that is currently displayed; it does not affect changes you may have made to other records previously. It also affects only the changes made since you last SAVED this particular record. For example, if you made *changes a*, then SAVED, then *changes b*, then CANCELED, after the cancel the record would contain the *changes a* but not the *changes b*.

SAVE A PATTERN RECORD

When you have inserted a new record, or made changes to an existing one, you must SAVE it to permanently store the changes on the Pattern Data File. If you try to exit the form without Saving, a warning message will be displayed.

Normally, during pattern creation, you would insert a new record, enter the pattern data, try various style combinations until the shape shown by the schematic diagrams looked good, then modify the dimension data until you have exactly what you want. You would then check the pattern instructions, maybe make a few more minor revisions to the dimension or style data, and finally, SAVE the record to store this working version. If you don't

SAVE it, you won't be able to retrieve it later to work on it further, print the instructions, print the schematics, or calculate amount of yarn required.

FIND A PATTERN

It can become difficult to find a particular pattern when you have a large number of patterns on your Pattern File. Click the [Find] button on the Pattern Data Form to search the pattern file more quickly.

SORTING: Initially the Find Pattern Form will display all your Pattern File records in the default order. You can search the file by any of the fields listed in the FIELD parameter. Each time you select a FIELD the pattern data shown on the bottom of the form is sorted in order of that field.

SEARCHING: If the record that you are searching for is not immediately visible, you can maximize the form and/or type something in the VALUE field. This field has limitations (as you will find when you work with it), but can still be useful. This field is case sensitive, so typing *Big* will not find *big*. Also, it only searches the beginning of a field, e.g. typing *orange* for Yarn Color will find *orange and red* but will not find *red and orange*.

If you have two or more records that are similar, you can scroll across to check the other fields on the record as well.

SELECTING: When you have selected a pattern, the current field is highlighted and the indicator arrow (left hand column) is on. If you want to use this selected pattern on the Pattern Data Form, click the [OK] button. Alternatively, if you want to return without changing the pattern shown on the Pattern Data Form, click the [CANCEL] button.

You are not able to change any of the pattern file data on this form. It is read only. You have to use the Pattern Data Form to change any of the data.

Although most of the field names and the data values are self-explanatory, you might find some obscure. For an explanation of the one letter codes, see General Knitware Codes, Sweater Style Codes, Skirt and Shawl Style Codes or Basics Style Codes.

NOT FOUND? If you still cannot find the data that you are looking for, try a LIST on the entire file, or the subset you know your pattern is in, and manually scan it.

LIST PATTERNS

The [LIST] button on the upper section of the Pattern Data Form can be used to list the pattern data currently on file. It lists all the data in file order. A 'List Pattern' window will be displayed, which will allow you to select particular groupings:

- Basics: All Patterns, Tops / Sweaters, Skirts, Dresses, Pants, Dog Sweaters or None
- Skirts & Shawls: All Patterns, Skirts, Shawls, Afghans, Ponchos or None
- Sweaters: All Patterns, Pullovers, Cardigans, Hand Knit, Machine Knit, Crochet or None

The Quick Report (List) form displays the formatted data on screen, and has a control panel at the top which allows you to size the report, page through it, print it, save it or load an old report. You are not able to change any of the pattern file data on this report.

Although most of the field names and the data values are self-explanatory, you might find some obscure. For an explanation of the one letter codes, see General Knitware Codes, Sweater Style Codes, Basics Style Codes or Skirt/Shawl Style Codes.

MISCELLANEOUS CALCULATIONS

GAUGE EQUIVALENTS

This option provides a calculator to convert from any number of stitches or rows per x ins/cms to a different dimension, usually a standard 4 in or 10 cm. For example, a test swatch is measured over 20 sts to be 2.3", the calculator will find the gauge over 4".

First you must have knit a test swatch or piece. Mark off an area in the centre (edge stitches will not be as consistent), and measure the width and depth, and count the number of stitches and rows within this area (fractions of stitches or rows are okay). Enter the test swatch stitch measurement and count, and the row measurement and count in the appropriate boxes. Measurement units can be selected as either “ins” or “cms” from the drop-down selection list.

Decide on the required measurement (usually 4in or 10 cm) and enter it. The calculated value will automatically appear in the CALCULATED box, and will change as you change any of the input data.

Click the printer icon to print the results. Click the [RESET] button to clear your entries and start again. Click the [Close] button to close the form and return to the Main KNITWARE window.

INCREASE/DECREASE STS EVENLY

This option calculates how to increase or decrease a given number of stitches evenly across a row, used most often when going to or from a ribbing welt.
e.g. to decrease 10 stitches from 89 to 79 : K7 K2tog *(K6 K2tog)* 9 times, K8.
Another option for increasing or decreasing stitches evenly across a row is to use the Magic Formula.

Enter the beginning number of stitches in the FROM box, and the desired number of stitches in the TO box, then click the [CALCULATE] button. Click the printer icon to print the results. Click the [RESET] button to clear your entries and start again. Click the [Close] button to close the form and return to the Main KNITWARE screen.

Standard abbreviations are used as follows: **K** (knit), **P** (purl), **M1** (make one), **K2tog** (knit two together). Repetition is indicated by ***(…)* x times**, which means perform the instructions inside the starred brackets x times.

There are limits to the ranges that the program can handle. Specifically, the program will not calculate decreases of greater than 3 to 1 (e.g. 90 to 30) or increases of greater than 2 to 1 (e.g. 40 to 80). In these unusual cases a message will be displayed, and you can try the Magic Formula.

The instructions given are for hand knitters. Convert to machine knit instructions as follows: Remove work to waste yarn. Then hang work on new number of needles. For decrease, put 2 sts (for K2 tog) or 3 sts (for K3 tog) onto (n+1)th needle (Kn K2 tog), then every (m+1)th needle (Km K2tog) after that. For increase, make (add) one stitch on the (n+1)th needle (Kn M1), then every (m+1)th needle (Km M1) after that.

Decrease example:
Hand: Dec to 21 by: K2 K2tog *(K3 K2tog)* 4 times K2
Machine: Hang work on 21 needles, putting 2 sts on 3rd needle (K2 K2tog), then every 4th needle (K3 K2 tog) after that.

Increase example:
Hand: Inc to 48 by: K3 M1 *(K5 M1)* 7 times K2
Machine: Hang work on 48 needles, making (adding) a stitch on the 4th needle (K3 M1), then every 6th needle (K5 M1) after that

MAGIC FORMULA

The Magic Formula is a tool used to calculate straight line increases or decreases without having to deal with decimals or fractions; it will provide the most even division on one number into another. It is based on the Diophantine Equation developed by the Greek mathematician Diophantus of Alexandria around 250 AD. It appears that the equation was first used Japanese knitters in the late 1960s for Japanese knitting machines, and that the term 'magic formula' was coined by Alles Hutchinson in her book 'Charting by the Magic Formula'.

The Knitware Design programs use the magic formula for calculating sleeve shaping and V-neck shaping.

The Knitware Magic Formula calculator can be used to calculate increases and decreases along sleeve seams, bust darts, waist shaping, short rows, from band to body, buttonholes, etc.. These types of shaping have been divided into four options:

- Increase/Decrease x stitches over y rows
- Increase/Decrease x stitches across one row
- Short row every 2 rows
- Buttonholes

Inc/Dec x sts over y rows. This option can be used for sleeve shaping, skirts, waist shaping, vertical darts, etc. An important factor in the Magic Formula calculation is whether there is space before and/or after the shaping. In some cases (such as vertical darts) the shaping should start and end at a specific point. In other cases, there should be some space either before or after (such as sleeve shaping where you would want a number of even rows after the last increase, before decreasing at the underarm), and in others still there should be space both before and after (such as skirts, or sleeves where there was already a large increase from cuff to bottom of sleeve). Decide what kind of spacing your shaping needs and select the appropriate option from the **Spacing** selection box. Another option for **Inc/dec x sts over y rows** is whether the shaping is on one side (such as a skirt side panel) or both sides (as on a tapered sleeve).

- For example: Sleeve shaping, bottom of sleeve is 30 sts, top of sleeve is 40 sts, length of sleeve is 50 rows. Select **Inc/Dec x sts over y rows, Space either before or after shaping, Two sides,** and enter the numbers 30, 40 and 50 in that order for **Begin number of sts, End number of sts,** and **Number of rows**, then click the **[Calculate]** button. The answer displayed should read: *Inc 1 st every 10 rows 5 times.* If the even space should be at the beginning of the sleeve, increase on rows 10, 20, 30, 40 and 50. However, if the even space should be at the end, increase on rows 1, 11, 21, 31 and 41.
- For **spacing at both ends**, the answer will be: *Inc 1 st every 9 rows twice, then every 8 rows 3 times,* which would be at rows 9, 18, 26, 34 and 42, giving 9 rows even at the beginning and 8 rows even at the end.
- For **no spacing**, the answer will be: *Inc 1 st in next row, then every 13 rows once, then 1 st every 12 rows 3 times,* which would be at rows 1, 14, 26, 38 and 50.

Inc/Dec x sts across one row. Select this one to spread a given number of sts evenly across a row. This option is similar to the other **Calculator** option of Inc/Dec sts evenly**,** but gives a more even distribution of the shaping. However, the language on the other calculator may be easier to read. For example: to increase from 76 to 88 sts, the magic formula gives: *Inc 1 st in every 6th st 11 times, then 1 st in every 5th st once* while the other calculator gives: *K5 M1 *(K6 M1)* 11 times, K5.* Your choice.

Short row every 2 rows. This option calculates the short row shaping required for shoulder slants or miters. It assumes that the shaping will take place every 2 rows. For example: to miter 16 sts over 24 rows would be: *Short row 2 sts every 2 rows 4 times, then 1 st every 2 rows 8 times*; to shape a shoulder of 31 sts over 6 rows would be: *Short row 11 sts every 2 rows once, then 10 sts every 2 rows twice.*

Buttonholes. This option will calculate buttonhole spacing over a number of rows for a vertical buttonband. Use the **Spacing** option to indicate if you want spacing before and/or after the buttonholes at the top and bottom of the band, and in the **Space Rows** field enter the minimum number of rows that you would like at these begin and end points. (This start row number may be adjusted by the program on the buttonhole instructions to enable equal spacing between all the buttonholes.) For example: to work 5 buttons with a minimum of 6 rows at beginning and end (as on a round neck vertical button band) over 95 rows, the magic formula gives: *Make buttonholes at row 7*

then every 20th row 4 times (which would be at rows 7, 27, 47, 67 and 87, leaving another 7 rows for space at the top).

The Buttonholes option could be used as well for a **horizontal band** over a number of stitches, but is a bit more complicated as you have to take into account the number of stitches in each buttonhole (and read *stitches* instead of *rows*).

Blending. Sometimes the shaping instructions will have only one part (e.g. *inc 1 st every4 rows 16 times*), but most often will have two (e.g. *inc 1 st in every 4 rows 16 times, then 1 st every 3 rows 8 times*). With the two-part instructions, you can do the shaping as written, or you can blend them for a smoother look, as in the example above, **(inc every 4 rows twice, then every 3 rows once)* 8 times.*

Click the printer icon to print the magic formula screen. Click the [RESET] button to clear the answer box and start again. Click the [Close] button to close the form and return to the Main KNITWARE window.

ROUND YOKE CALCULATOR

The Round Yoke Calculator is a tool used to calculate shaping for a round yoke. There are many options for how to do the round yoke shaping, including variable number of shaping rounds, placement of the rounds, how many stitches to decrease or increase per round, and placement of the shaping stitches within the round. The Sweaters program uses certain defaults within the pattern instructions, but this Round Yoke Calculator allows the user to select different options. The Calculator is also a stand-alone feature that allows the user to design a round yoke by itself.

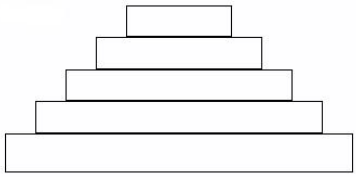
There are a variety of options within the calculator with default values set for each one. The drawing and instructions are revised each time one of the options is changed.

Many of these options may not make much sense to you the first time you use this calculator, but if you play with the options and change the default values, you will see how these changes affect the drawing and the instructions.

The **DRAWING** is representative only, showing a circular object as rectangles. It shows a 'front view' of the shape, as though the finished yoke was folded in half. (It would be very difficult to draw the entire yoke accurately, since the finished yoke is very much 3-dimensional.)

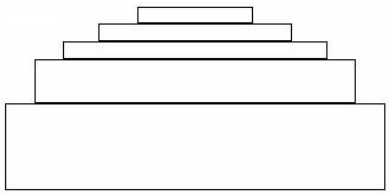
Example1: Even Row Spacing, Equal St Spacing

Drawing Knit Yoke



Example 2: Funnel Row Spacing, Ratio St Spacing

Drawing Knit Yoke



The **INSTRUCTIONS** are full instructions on how to work the yoke. They contain abbreviations, the direction of work and a set of detailed instructions for each section of the yoke. Each section is composed of a number of rounds

worked even, then a shaping round. A brief description is given for each shaping round (e.g. inc 75 sts evenly across the row to total 225 sts), followed by a detailed line (e.g. [K2, m1] 75 times).

METHOD – Click the radio button to select knit or crochet (this affects the instructions only; not the calculations).

NUMBER OF STS AT TOP – the number of stitches at the top of the yoke, usually around the neckline. If it is a shaped neckline, do not enter all the stitches around the front neckline; instead use twice the number of stitches at the back neck, since the calculator is not including any neck shaping.

NUMBER OF STS AT BOTTOM – the number of stitches at the bottom of the yoke, usually the total of front, back and sleeves after the underarm stitches are removed.

NUMBER OF ROUNDS – the number of total rounds in the yoke (from Top to Bottom).

NUMBER OF SHAPING ROUNDS – the number of shaping rounds in the yoke. There will always be one more even-work section than shaping rounds. The default is 3, minimum is 2, maximum is 6.

DIRECTION OF WORK – select *Top-Down* to work from the top of the yoke to the bottom (increasing at the Shaping Rounds) or *Bottom-Up* to work from the bottom of the yoke to the top (decreasing at the Shaping Rounds).

SPACING AT SHAPING ROUNDS – select *Even* to have an equal number of rounds between each shaping round or *Funnel* to have wider spacing between shaping rounds at the bottom and narrower at the top.

SHAPING ROUNDS – the program sets and displays default shaping rounds depending on the *Spacing* selection. These can be adjusted, but must be in increasing order and there must be at least one even round between each shaping round, at the top and at the bottom.

NUMBER OF DEC/INC STS PER ROUND – the number of stitches to increase or decrease for each shaping round. *Equal* gives the same number of shaping stitches for each round, *Ratio* gives more shaping stitches towards the top of the yoke, less towards the bottom, *Fixed Repeats* allows you to adjust certain shaping rounds to fit specified stitch pattern repeats.

Using *Even* spacing with *Equal* stitches per round will give a ray effect on the finished yoke, with all the shaping stitches lining up.

RATIO – if you selected *Ratio* or *Ratio with Fixed Repeats* above, *Ratio (percent)* will be displayed. This is the maximum percentage that ratio can range from equal number of sts. The default is 20% and the maximum is 95%. Entering 0 cancels the effect of ratio entirely.

NUMBER OF FIXED REPEATS – this field and the three following are only displayed if you selected a *Fixed Repeats* option from *Number of dec/inc sts per round.* This is the number of sections (1or 2) to which fixed repeats are to be applied. Rounds with Fixed Repeats applied are shown with a cross-hatched fill on the Drawing.

ABOVE ROUND – this indicates that the fixed repeats should be applied above this shaping round.

STITCH REPEAT – this is the number of stitches in repeating part of the stitch pattern. (e.g. for a stitch pattern worked over a repeat of 7 sts plus 3, enter 7 here.)

PLUS – this is the extra number of stitches required to complete the stitch pattern. . (e.g. for a stitch pattern worked over a repeat of 7 sts plus 3, enter 3 here.)

PRINT – clicking the Printer icon will print the entire page, exactly as shown. If the text is too long to fit in the instructions panel, you can use the copy/paste options (with mouse over the instructions panel, click the right mouse button) to copy the entire instructions to Notepad or a word processing document and print it from there.

HAT CALCULATOR

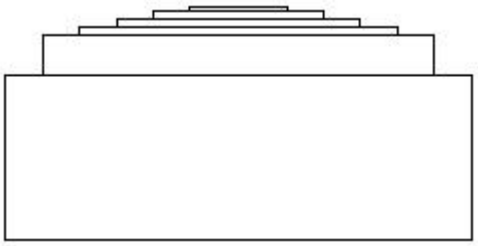
The Hat Calculator is a tool used to calculate shaping for a fitted hat. This is a hat style that fits snugly over the top of the head, usually part-way over the ears. It can have a brim or not. It can be a preemie hat, a toque, a summer hat, a chemo hat, a winter wooly. The calculator does not have instructions for pointed tops, earflaps or stand-out brims.

There are many options in the Calculator for how to do the hat shaping, including variable number of shaping rounds, placement of the rounds, how many stitches to decrease or increase per round, and placement of the shaping stitches within the round. There are a variety of options within the calculator with default values set for each one.

The drawing and instructions are revised each time one of the options is changed. Many of these options may not make much sense to you the first time you use this calculator, but if you play with the options and change the default values, you will see how these changes affect the drawing and the instructions.

The **DRAWING** is representative only, showing a circular object as a series of rectangles. It shows a 'front view' of the shape, as though the finished hat was folded in half.

Example 1: Drawing Crochet Hat



The **INSTRUCTIONS** are full instructions on how to work the hat. They contain abbreviations, cast-on, brim, the direction of work, a set of detailed instructions for each section of the hat and finishing. Each section is composed of a number of rounds worked even, then a shaping round. A brief description is given for each shaping round (e.g. inc 75 sts evenly across the row to total 225 sts), followed by a detailed line (e.g. [K2, m1] 75 times). **NOTES** – You can type in notes and comments (for example, type and colour of yarn, who the hat is for) in the Notes section at the bottom of the Instructions.

KNITTING INSTRUCTIONS: The instructions are for hand knit only as the hat is worked in the round on circular needles. You will need to use dps (double pointed needles) for several rows at the top of the hat since there are few sts to work with there. Of course, if you are able to work in the round on your knitting machine, you can adapt the hand knit instructions for your machine.

CROCHET INSTRUCTIONS: The crochet instructions are to "Chain nn+1" sts to start the hat. This works for single crochet, but if you are working taller stitches (e.g. dc, hdc, tr) you will need to chain extra sts appropriately.

METHOD – Click the radio button to select *knit* or *crochet* (this affects the instructions only; not the calculations). For machine knit in the round, use the Hand knit instructions.

UNITS – Select *ins* for imperial measurements, *cms* for metric.

STRETCH – This indicates the amount of stretch in your fabric. Most hats want a snug fit so will actually end up smaller than the actual head size. The program will apply a stretch factor to reduce the number of stitches depending on the amount of stretch you select.
Select *Some* if your fabric (test swatch) has a moderate amount of stretch (for example, stocking stitch) or *None* if it has little or none (for example, single crochet). Still not sure? Hold one layer of the swatch between the thumb and

finger of both hands, about 2 inches apart. Gently pull your hands apart. If the fabric easily stretches to double the width, then select *Some;* if it hardly stretches at all, select *None;* in-between, it is your call.

STITCH and ROW GAUGE – Enter your gauge over 4" or 10 cm. Knit or crochet a circular test swatch in the yarn, needles and stitch pattern that you will be using for the hat. Knit or crochet it circularly, not flat, as your gauge will be different. Measure the swatch at rest, not stretched.

HEAD CIRCUMFERENCE – The measurement around the head, over the forehead and the tops of the ears.

CROWN – the measurement over the top of the head, from ear to ear, where you want the bottom of the hat to fit (does not include the brim). This is usually measured from the bottom of the ear for a totally covering hat, but if you want a shorter hat, then measure up the ear, or even at the top of the ear.

A QUICK SIZE TABLE: (approximate only, measure to be certain of a good fit)

Size	Head Circ. ins	Crown ins	Head Circ. cms	Crown cms
Baby (preemie)	14	11	35	28
Baby (newborn)	15	12	38	30
Baby (6 mo)	16	12	41	31
Baby (12 mo)	17	13	43	33
Child (2 yr)	19	14	48	35
Child (4 yr)	20	15	51	38
Child (8 yr)	21	16	53	41
Woman	22	17	55	43
Man	23	18	58	46

BRIM DEPTH – the depth of the folded over part of the hat. The default value is 0 (no brim). Common depths are 1-2", but can be more. The top of the brim is shown as a dashed line on the Drawing. Once completed, the brim can be worn folded in place, or rolled down further over the ears and forehead for additional warmth. The brim is usually worked in a non-rolling stitch, such as ribbing, garter or moss stitch. If no brim is chosen, and the hat is worked in knitted stocking stitch, you should work the bottom few rows of the hat in a pattern stitch of some kind to stabilize the edge and prevent the hat bottom from rolling.

NUMBER OF SHAPING ROUNDS – the number of shaping rounds (the number of times that increasing or decreasing takes place) in the hat. There will always be one more even-work section than shaping rounds. The default is 5, minimum is 2, maximum is 6.

DIRECTION OF WORK – select *Top-Down* to work from the top of the hat to the bottom (increasing at the Shaping Rounds) or *Bottom-Up* to work from the bottom of the hat to the top (decreasing at the Shaping Rounds).

SHAPING ROUNDS – the rows where the increasing or decreasing will take place. The program sets and displays default Shaping Rounds. These can be adjusted but must always be in increasing order.

NUMBER OF DEC/INC STS PER ROUND – the number of stitches to increase or decrease for each shaping round. *Equal* gives the same number of shaping stitches for each round, *Ratio* gives more shaping stitches towards the top of the hat and less towards the bottom, *Fixed Repeats* allows you to adjust the number of stitches in certain shaping rounds to fit specified stitch pattern repeats.

RATIO – if you selected *Ratio* or *Ratio with Fixed Repeats* above, *Ratio (percent)* will be displayed. This is the maximum percentage that ratio can range from equal number of sts. The default is 25% and the maximum is 95%. Entering 0 cancels the effect of ratio entirely.

NUMBER OF FIXED REPEATS – this field and the three following are only displayed if you selected a *Fixed Repeats* option from *Number of dec/inc sts per round.* This is the number of sections (1or 2) to which fixed stitch

pattern repeats are to be applied. Rounds with Fixed Repeats applied are shown with a cross-hatched fill on the Drawing.

ABOVE ROUND – this indicates that the fixed repeats should be applied above this shaping round. This number must match one of the Shaping Rounds shown.

STITCH REPEAT – this is the number of stitches in repeating part of the stitch pattern. (e.g. for a stitch pattern worked over a repeat of 7 sts plus 3, enter 7 here.)

PLUS – this is the extra number of stitches required to complete the stitch pattern. . (e.g. for a stitch pattern worked over a repeat of 7 sts plus 3, enter 3 here.)

PRINT – clicking the Printer icon will print the entire page, exactly as shown. If the text is too long to fit in the instructions panel, you can use the copy/paste options (with mouse over the instructions panel, click the right mouse button) to copy the entire instructions to Notepad or a word processing document and print it from there.

UTILITIES

GRAPH PAPER

This utility allows you to create single sheet graph paper to any grid size. IT DOES NOT INTERFACE TO YOUR KNITWARE PATTERN IN ANY WAY. It is simply a stand-alone function to print gridded paper.

It allows:
- any stitch and row gauge
- adjustable margin widths
- and any number of stitches across the paper width, or a scaled grid

It provides:
- a single printed sheet of paper
- an optional preview of the printed sheet
- an optional 'copy to clipboard' function
- grid lines for every stitch and row, with heavy grid lines for every 10 stitches and 10 rows
- a border around the entire drawing area
- the number of stitches drawn are always a multiple of 10, equal to or greater than the number you entered (or to fit the requested scale)
- the number of rows shown (along the height of the paper) will depend on the number of stitches and the gauge - the available space will be filled with as many rows as possible. For example on standard letter size paper, if the row gauge was twice the stitch gauge and you specified 40 stitches across, then the number of rows shown would be = 40 (number of stitches) x 2 (for the gauge ratio) x 11/8.5 (paper size height/width ratio) = 103 rows at least (if all the margins are equal).

The data fields:
- **STITCH GAUGE**: the measured stitch gauge for your knitting over 1 in or 2.5 cm.
- **ROW GAUGE**: the measured row gauge for the same piece of knitting over 1 in or 2.5 cm.
- **MARGINS**: enter the required margins (blank space around the grid lines) in inches for the left/right side margins and the top/bottom margins. (If a scaled grid, these margins are used as starting points, but will be adjusted to fit a multiple of 10 sts to the requested scale.) If the margin requested is outside the printer's printable area, the program will automatically increase it to the minimum usable margin.
- **GRAPH SIZE**: If you want an exact number of stitches across the page, select "Fixed number of sts". Otherwise, if you want a scaled graph (where you can measure your gauge from the graph directly with a ruler) select one of the other options. For example, if your stitch gauge is 5 and you select "Full size", the printed graph paper will measure exactly 5 sts to the inch on the horizontal axis; if you select "Half size", the graph paper will measure 10 sts to the inch. For both types of graphs, the ratio of stitches to rows will always be

proportional. For example, if the row gauge is twice the stitch gauge, then each stitch grid on the graph will be twice the size of a row grid.

- **NUMBER OF STITCHES**: If you do not select a scaled graph, you must enter the number of stitches to print across the width of the paper. The program will round this number up to the nearest 10 before printing (e.g. your 33 will print 40 stitches).

Preview:

- The preview is a scaled down representation of the printed paper.
- Since it is usually working with far less resolution on the screen than on the printer, there may be big gaps at every 10 boundary on the preview that will not be present on the printed graph. Also, the preview may show one 10-block more or less than the printed paper.
- The preview is scaling to 8.5”x11” paper, but the printed version will use whatever paper size you direct it to.

Copy to Clipboard:

- This function copies the current graph paper image to the Clipboard. From there it can be pasted into Paint or other graphics programs.
- The Clipboard function works only with a fixed number of stitches (not the full/half or quarter size options).
- The default sizing for the clipboard graph paper image is your current screen size (e.g. 800x600, 1024x768). This can be adjusted by changing the values in the Resolution Width and Height fields. It should be noted that the screen size is wider than high, while printed paper is higher than wide, so you will get a different shaped graph using the clipboard screen size defaults than is shown on the preview (which is set up for the default paper size). However, this does not affect the scale or accuracy of the clipboard graph.

Hints:

- work with a size that is comfortable to use - for a large number of stitches, print multiple pages and tape them together, rather than trying to work from a grid that is too small to see easily. For example, 120 stitches could be printed as two pages of 60 stitches or 3 pages of 40 stitches.
- increase the margin to give you room to write in stitch and row numbers and title information.
- for cross-stitch (square grid) use stitch and row gauge equal.
- square grid is also useful for math graph paper when the kids run out.
- half size scaled graph paper is very useful for charting out clothing designs and modifying them by hand.

The graph paper utility **does not**:

- interface to your Knitware pattern design in any way
- spread the print over a number of pages
- allow you to enter the number of rows

CHANGE COLOUR AND FONT SETTINGS

This utility allows you to change the current settings for the schematics colours and the pattern instructions fonts.

- If accessed from the Main Menu Utilities it will change the current settings and these new settings will be retained until you change them again, select a new Designer or exit the program.
- If accessed from Main Menu Designer/Add-Change it will change the settings as stored on the Designer file, and these settings will be the new defaults whenever this Designer Name is used.

This utility has two sections: Schematics and Pattern Instructions, which can be accessed individually. The current values are shown in the sample boxes in each section. Click [OK] to accept the colours and fonts as shown and close the form.

SCHEMATICS:

The colors for the schematics Drawing Lines, Background, Inside Fill and Labels can be changed. These colours will be used for the screen display. They will be used on the printed schematics as well if the *Colour* option is chosen at print time on the Print Schematics Options (no colour will be used if the *Leave blank* or *Lightly Shade* options are chosen at print time).

- DRAWING LINES: the outlines of the pieces, ribbing or other stitch lines on hems, buttonholes, etc.; default is Black.
- BACKGROUND: the background area on to which the schematic is drawn; default is White.
- INSIDE FILL: used to fill the schematic pieces; default is Aqua
- LABELS: labels, text, titles and numbering; default is Red.

Click each button to select a different colour from the Colour dialog displayed.

PATTERN INSTRUCTIONS:

Certain font characteristics can be changed for selected sections on the pattern instructions as follows:

- BASE TEXT: can change font name, size and colour. The font colour will be applied to all text, the font name to all except the dimension data, the size to all text that is not headings. Defaults are: name = "Times New Roman", size = 10, colour = black.
- MAIN HEADING: can change font size, bold and underline. Applies only to the main heading (e.g. Knitware Sweater Design) at the top of the pattern. Defaults are: size=16, bold and underline.
- STYLE HEADINGS: can change font size, bold and underline. Applies to pattern description and headings in the top information section of the pattern. Defaults are: size=10, bold, no underline.
- DIMENSION DATA: can change font name and size. Applies to the table of dimension data. I use a fixed size font here (non-proportional) so that the table entries will line up neatly in columns. Defaults are: name = "Courier New", size = 10.
- NOTES AND WARNINGS: can change font size and italic. Applies to a variety of notes and warnings that are printed at the beginning and throughout the pattern text. Defaults are: size = 10, italic.
- Section Headings: can change size, bold and underline. Applies to all headings in the body of the pattern instructions (e.g. Back, Front, ButtonBand). Defaults are: size = 10, bold and underline.

Click on each line shown on the sample to change the default font options. **Note that the whole range of font options are shown and accessible in the font dialog, but only those particular ones specified above for each section will be applied to the pattern instructions.**

CONVERT PATTERN DATA

The pattern data file format was changed for Sweaters and Skirts & Shawls version 2.50 (March 2005) to accommodate the extra fields required for new style options. Old pattern data from previous versions (2.xx) must be converted before it can be used with the new version of the programs. The Pattern Design form checks for the correct format, and will display an error message if you attempt to use the old format pattern data. There has been no change in format for Basics (Critter Clothes) from vs 2.30 or 2.40 to 2.50, but older versions of Critter Clothes (2.10 or 2.20) will need to be converted.

This utility will not convert older versions of pattern data (1.50 or earlier) or any custom size data. Instead, these must be converted manually (see following section). To find out what version you have, run the program and check the title bar (upper left corner), or click Help/About from the main menu.

If you have old pattern data that you would like to use with the new program, and do not want to manually re-enter it all, use the Convert Pattern Data Utility. This utility will copy and convert the old pattern data into the new folder, while leaving the old data in the old folder unchanged. The Convert Pattern Data function is accessed from the Utilities menu on the Knitware program Main Menu.

Most likely the new pattern data file is in the current directory and the old pattern file is with the old program files. When prompted by the Convert Utility, you will need to find and open this old folder and pattern file. If you installed both versions of Knitware to the default folders (in c:/Program Files/Knitware), then the old pattern file should be up one and over one level from the current folder. By default, the data will be in the following folders:

- Sweaters: new vs 2.50 in …/Sweaters 2.50, old vs 2.40 in …/Sweaters 2.40, old vs 2.30 in …/Sweaters 2.30, old vs 2.00 in …/Sweaters, old vs 2.20 in …/Sweaters 2.20.
- Basics (was Critter Clothes): new vs 2.50 in …/Basics 2.50, old vs 2.40 in …/Critters 2.40, old vs 2.30 in …/Critter Clothes 2.30, old vs 2.10 in …/Critter Clothes, old vs 2.20 in …/Critter Clothes 2.20.
- Skirts & Shawls: new vs 2.50 in …/Skirts 2.50, old vs 2.40 in …/Skirts 2.40.

To start the conversion process, click the appropriate old version in the "Convert to version 2.40" box. When prompted, change to the required old folder as noted in the previous paragraph, then double-click the appropriate old file name as shown below:

- pattern.db for Sweaters or Critter Clothes, version 2.00 or 2.10
- patts220.db for Sweaters vs 2.20
- pattd220.db for Critter Clothes vs 2.20
- patts230.db for Sweaters vs 2.30
- pattd230.db for Critter Clothes vs 2.30 and vs 2.40
- patts240.db for Sweaters vs 2.40
- pattk240.db for Skirts & Shawls vs 2.40

The Pattern File Convert Utility passes through a series of checks before the conversion is complete.
The utility checks that:

- the new pattern file is present in the current folder. If not, an error message is displayed, and the utility quits. The new pattern data file MUST be in the same folder with the Knitware program before continuing.
- the old pattern file is not empty. If it is empty, a warning message is displayed and the utility quits, as there is no need to convert an empty file.
- the new pattern file is empty. If it is not empty, a warning message is displayed, giving you the option of continuing or not. See Warning Messages for the full explanation.
- the version number for the old pattern file matches the version of data you selected.

If there are no problems, the data is converted. Each pattern record from the old pattern file becomes a new record on the new pattern file, with default values in the extra fields. When the conversion is complete, a message is displayed giving the number of records converted.

MANUALLY CONVERT OLD KNITWARE DATA

All custom sizes as well as pattern data from versions 1.50 and previous must be converted manually. The manual procedure can also be followed if you run into problems with the conversion utility. Look at it as an opportunity to clean up your files. Which of those custom sizes do you really use any more, and which patterns are current? KNITWARE 2.50 will install in a separate directory and use different files than the older versions, so the old version (and its data files) will still be accessible after the new one is installed.

If your old version of Knitware is a DOS program (version 1.50 or previous), skip to the next section, otherwise follow the instructions below.

To manually convert custom size data:

Step1: Run the old program (Sweaters or Critter Clothes 2.00, 2.10, 2.20, 2.30 or 2.40, or Skirts & Shawls 2.40) to list the old size data

- From the Main Menu, select Size Data then Custom Sizes
- Click on [Report], then click the printer icon to print from the list.

Step 2: Run the new program (Basics, Sweaters or Skirts & Shawls 2.50) to enter the old size data

- From the Main Menu, select Size Data then Custom Sizes

- Click [+ Add] button to insert a new record, if there is existing custom size data.
- Using your old data printout, enter values for the top section. After the chest is entered, default values for the remaining size data will be generated.
- Check and revise the remaining size data; be careful, as some of the data is ordered differently.
- Click [Save] to save the new custom size.

To manually convert pattern data:

Step1: Run the old program (Sweaters or Critter Clothes 2.00, 2.10, 2.20, 2.30 or 2.40, or Skirts & Shawls 2.40) to list the old patterns

- From the Main Menu, select Pattern Design.
- For each pattern that you want to transfer, click [Pattern] to display the pattern instructions, then select File/Print to print them.

Step 2: Run the new program (Basics, Sweaters or Skirts & Shawls 2.50) to enter the old patterns

- From the Main Menu, select Pattern Design.
- Click [+ Add] button to insert a new record.
- Using the top half of the first page of the old pattern printout, enter values for the new pattern data fields. Once the style components have been selected, default finished measurement data will be generated.
- Check and revise the finished measurement data; be careful, as some of the data is ordered differently.
- Click [Save] to save the new pattern record.

MANUALLY CONVERT OLD KNITWARE DATA (DOS programs)

Follow the instructions below to manually convert old Knitware data from DOS versions of the Knitware programs (version 1.50 and previous, prior to November 1998) to the new version 2.40 (March 2003).

To manually convert custom size data:

Step1: Run the old program (KWS, KWT, or KWD version 1.x) to list the old size data

- From the Main Menu, select Utilities, then SIZE DATA: Customize.
- On the Customize Size Data Screen, select *Revision*, press [PgDn], then select the required size name.
- When the custom size data is displayed on the Customize Size Measurement Data screen, press the following to print the screen data:
    - [PrintScrn] (if running from DOS) - or -
    - [Shift] and [PrintScrn] together (if running from Windows 3.x) - or -
    - [Alt] and [PrintScrn] together (if running from Windows 95/98/NT).

Step 2: Run the new program (Basics or Sweaters 2.50) to enter the old size data

- From the Main Menu, select Size Data then Custom Sizes
- Click [+ Add] button to insert a new record, if there is existing custom size data.
- Using your old data printout, enter values for the top section. After the chest is entered, default values for the remaining size data will be generated.
- Check and revise the remaining size data; be careful, as some of the data is ordered differently.
- Click [Save] to save the new custom size.

To manually convert pattern data:

Step1: Run the old program (KWS, KWT or KWD version 1.x) to list the old patterns

- From the Main Menu, select Print Pattern Instructions, then select the required pattern name.
- Print the pattern to the printer.

Step 2: Run the new program (Basics or Sweaters 2.50) to enter the old patterns

- From the Main Menu, select Pattern Design.
- Click [+ Add] button to insert a new record.

- Using the top half of the first page of the old pattern printout, enter values for the new pattern data fields. Once the style components have been selected, default finished measurement data will be generated.
- Check and revise the finished measurement data; be careful, as some of the data is ordered differently.
- Click [Save] to save the new pattern record.

TECHNICAL NOTES

KNITWARE INSTALL

Knitware programs must be installed to your hard drive before they can be run. Once you have installed the program, keep the original media in a safe place as a backup.

1. Ensure that you have Windows (95/98/NT/2000/XP) running.
2. Insert the KNITWARE CD in the CD-ROM drive.
3. Click [Start] on the Windows Taskbar (lower left corner of screen).
4. Click [Run].
5. Type d*:\setup* where d is the letter of your CD-ROM drive. If more than one program is on the CD, type d*:\Sweaters\setup* for Sweaters install, d*:\Basics\setup* for Basics install, or *d:\Skirts\setup* for Skirts & Shawls install, or use the [Browse] option to find the right folder.
6. Click [OK]. Follow the instructions on the screen.

Notes:

- KNITWARE files will install by default to the c:\Program Files\Knitware\ Sweaters 2.50 (for Sweaters, ...\Basics 2.50 for Basics or ...\Skirts 2.50 for Skirts and Shawls) folder, which it will create if it does not already exist. You may change the default folder (just follow the instructions on the screen). If you copy or move files manually (e.g. using Windows Explorer) ensure that all the KNITWARE files remain together in the same folder.

INSTALLING KNITWARE UPDATES

Knitware updates are full versions of the current program release, not add-ons to previous versions. Therefore, they are installed exactly as for new programs as described above. They will install to a different folder from your current version of Knitware, so that your old data and program files will still be available after the new version is installed. There is no need to uninstall the old version, except if you do not have enough disk space.

KNITWARE UNINSTALL

If you wish to remove KNITWARE from your computer, use the unInstallShield as follows.

For Windows 95/ 98/2000/XP:

- launch Add/Remove Programs out of the Control Panel
- highlight the application name
- click on the [Add/Remove] button ([Change/Remove for WinXP)
- Windows will launch unInstallShield

For Windows NT:

- launch unInstallShield by double-clicking on its icon in the KNITWARE program group.

SCREEN SIZE RESOLUTION

- The KNITWARE programs were designed on a 800x600 resolution screen, and this is where they work best. However, they will also work for other screen sizes as well.
- The higher the resolution, the more detailed the schematics will be, and the more pattern information can be shown on one page at a time. A 800x600 resolution (and higher) will usually be working with small fonts; a 640x480 with large fonts.
- You may wish to keep the existing lower resolution if: your eyesight is poor, you need it for other programs, or your monitor does not offer it.
- To check your screen size and resolution:
  - From the Desktop, click [Start] then [Settings] then [Control Panel].
  - Select the [Display] icon, then the [Settings] tab. Under [Desktop Area] the pointer will indicate desktop resolution (usually 640x480, 800x600 or 1024x768).
- To then change your screen size resolution:
  - Move the [Desktop Area] pointer to the desired resolution, and click the [Apply] button.
  - Windows may ask you to specify a Monitor type (select 'No' if you're not sure), and will ask for confirmation.
- Another option to change the appearance of your screen is to modify the selection for Scheme under [Display], [Appearance]. If you have trouble seeing the colors or size of font, you can try using High Contrast Black.
- Once changed, the settings will remain in effect until you change them again. You may find that the higher resolution will affect other programs unfavourably, and you will have to revert to the original desktop resolution. Alternatively, you may love the changes and wonder why you didn't do it before.

FONTS AND COLOURS

Knitware will use your Windows defaults for screen display colours as much as possible. Whatever your selections are for your desktop (under Settings / Control Panel / Display / Appearance), Knitware will use these colours and contrasts for the forms, scroll bars, message boxes, captions and so forth within the program.

Your Windows default font sizes, styles and colours will also be used within the Knitware program whenever possible. This includes form headers, message boxes and menu lists. However, the data entry screens/forms use a fixed font size to ensure that all the data fields and labels will be visible on the form.

At this time, it is possible for you to change only the font size (and type) for the help file and for the pattern instructions.

To change the font in the help file, select Help / Contents / Options / Font. The selection is for Small, Normal, or Large. This change affects the Knitware help file only, but will remain in effect (every time you run the program) until you change it again.

To change the font in the pattern instructions, with the instructions showing, select Edit / Select All, then Edit / Font. The font colour, style and size can be changed. However, it will change for the entire pattern and all previous text definition (such as bold face and underlining) will be lost. This font change is in effect for the current instructions only, and will have to be re-selected for each new or revised pattern instructions.

To change the schematic colours and default fonts on pattern instructions see Utilities / Change Color and Font Settings.

SPLASH SCREENS

A colourful image Knitware garments is centered on the main window form. It remains there, beneath all other forms for the duration of the program usage. Some of you may like it, some may hate it, some may have extremely limited hard disk space available, and some may just want to look at their own favourite image instead. An optimum replacement image size is approximately 660 pixels wide by 430 pixels high.

If disk space is a problem, there is not a procedure to remove the image, but you can replace it with something very small. The current image size is approximately 550KB. Under the c:\Windows directory there are many bitmaps that require only 1KB, which you could use to replace the KNITWARE bitmap. They won't look great, but they will save you space.

For whatever the reason, if you would like to replace the image, follow the procedure below. Note that *kwxd.bmp* is the bitmap file name; for Sweaters this kwsd.bmp, for Basics kwdd.bmp, for Skirts & Shawls kwkd.bmp; also that *xxxxx* is the program folder name – e.g. Sweaters, Basics or Skirts and Shawls.

1. Open Windows Explorer.
2. Locate your replacement bitmap. Click on it to highlight, then copy it (use **[Ctrl]+C** or Edit/Copy).
3. Locate the Knitware image (file name *kwxd.bmp*). If you used the default install directory, the file will be under *c:\program files\knitware\xxxxx 2.50*. If not, use Find to locate it.
4. Click on *kwxd.bmp* to highlight it.
    - To delete: If space is a concern, or you don't want to keep the Knitware image, select File/Delete and click [Yes] to confirm delete.
    - To rename: Rename the existing Knitware image if you want to keep it. Select File/Rename and type in *kwwxd0.bmp* (or whatever your choice) for the file name. Press [Enter].
5. Copy your bitmap to the Knitware directory (**[Ctrl]+V**, or Edit/Paste), then rename it (highlight, then use File/Rename, and type in *kwxd.bmp*).

Re-run the KNITWARE program and your image should now be displayed instead of the Knitware image.

BACKUP AND RESTORE DATA FILES

It is customary to back up your data files occasionally in case of system failure. We have not had the time to develop an in-program backup utility, so you must do it manually.

If you only have a few patterns or custom sizes on file you really do not need to bother with this, but if you have a large number of patterns or custom sizes that you would like to preserve, doing a backup as required is a good idea.

To Backup Knitware Data files:

- Use My Computer from your PC Desktop
- Go to c:\Program Files\Knitware\Sweaters 2.50 folder (or Basics 2.50 or Skirts 2.50, depending which program data files you want to back up)
- For ease of navigation, select View/Details, then click on the Name header to sort the file names alphabetically.
- Select all the files in the folder (Edit/Select All or Ctrl + A)
- De-select all files that begin with 'kw'. (Use Ctrl + left mouse click to de-select individual file names). This will reduce the size of the backup space required to 1 MB or less. (The important data files are those beginning with 'patt', 'design' and 'size'.)
- Click Edit/Copy (or Ctrl + C) from the menu.
- Use My Computer to select your backup location (could be a:\ for a floppy (recommended) or a new folder 'backup' in the Knitware folder).
- Click Edit/Paste(or Ctrl + V) to copy the files to the backup location.
- Note: If using floppies, use a separate floppy for each program.

To Restore Knitware Data Files:

- You may want to restore data files after a system overhaul, when loading the programs to a new computer or if a particular data file has become corrupted.
- Using My Computer, locate your backed up files.
- Highlight the required file names, click Edit/Copy
- Use My Computer to go to c:\Program Files\Knitware\Sweaters 2.50 folder (or Basics 2.50 or Skirts 2.50, depending which program data files you want to restore)
- Click Edit/Paste to restore the files; click 'yes' to replace existing files.

PATTERN FILE CODES

Knitware pattern file data that is displayed for a FIND or LIST will show many data fields as one letter codes, rather than the full description. An index of general pattern file codes and descriptions follows. For style codes, see the following sections.

SizeID: this code identifies a unique record on the Size Data File. The SizeID for each size record is shown on the Size Data List(s).

MethodB / MethodR: working method for body (B) and ribbing (R)

H hand
M machine
R ribber
C crochet

NdlType: Type of knitting needle or hook (for hand knits or crochet)

M Metric
A American
C Canadian (old UK)
N none

Machine: Type of knitting machine (for machine knits)

NO None
AR Artisan
BO Bond
BR Brother
EL Elna
KK KnitKing
KM Knitmaster
KS KnitSmarT
PA Passap
PFPfaff
PH Phildar
SV Silver
SI Singer
ST Studio
TA Tacony
TO Toyota
WI White
OT Other

RibFirst: For machine knits, indicator if ribbing is knit first (beginning of piece) or last (end of piece).

F first
L last

EaseStyle: Amount of ease in the garment
S Skintight
T Tight
M Moderate
C Comfortable
O Oversized

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BASICS STYLE CODES

GarmentStyle: the type of garment
- T Pullover (top)
- S Skirt
- D Dress
- P Pants
- G Dog sweater

SkirtStyle: The style of skirt
- S Straight
- R Ruffled
- F Flared

PantStyle: The style of pants
- L Leggings
- B Slim (boot cut)
- S Straight leg
- N Normal Flare
- F Wide Flare

SkirtLCode: Length of skirt
- M Mini
- K Knee
- A Ankle

PantLCode: Length of pants
- P Pantie
- S Shorts
- K Knee
- C Capri
- A Ankle

DogFrontLCode / DogSlvLCode: Dog sweaters - front and sleeve length
- N None
- S Short
- M Medium
- L Long

DogBackLCode: Dog sweater style
- S Simple
- P Pullover
- B Pullover: Back Opening
- T Tuxedo

Most other style codes shown on the file are set only to default values, a subset of those available in the Sweaters program.

SWEATERS STYLE CODES

MethodC: Body construction method
- F Flat (bottom-up)
- B Circular Bottom-Up
- T Circular Top-Down

BodyType: The sweater body shape
S Straight
W Fitted Waist
A A-line

BodyStyle: The sweater style
P Pullover
C Cardigan

BodyLCode: The sweater length
S Crop (short)
W Waist
R Regular
H Hip
I Thigh
J Above Knee
K Knee
L Calf
A Ankle

BodyFinish / SleeveFinish: The hem type
B Ribbing
M Moss stitch
F Folded band
R Frill / ruffle
N No hem

Shoulder: The shoulder style
D Drop shoulder
G Drop shoulder (grafted sleeve)
M Modified Drop shoulder
N Mod Drop shoulder (grafted slv)
S Set-in shoulder (Classic Cap)
T Set-in shoulder (Gathered Cap)
U Set-in shoulder (Pleated Cap)
L Saddle
R Raglan
Y Round Yoke

SleeveStyle: The sleeve style
N Narrow Taper
T Moderate Taper
L Lantern
M Modified Lantern
P Bishop
B Bell
D Dolman

SleeveLCode: The sleeve length
F Full
T ¾
H Half
S Short
C Cap
I Sleeveless

FrontNeckline / BackNeckline: The neckline style
- R Round (crew)
- H High Round
- V V
- Q Square
- S Scoop
- L Ballet
- B Butted Boat
- A Overlapped boat
- K Keyhole
- F Flat
- W Shallow
- X Backless

Collar: B Single Band
- D Double Band
- P Shirt
- R Rolled Edge
- F Funnel
- C Cowl
- T Turtleneck
- S Shawl
- H Simple Hood
- I Shaped Hood
- N None
- O Crochet Edge

FBand: Cardigan front button band style
- V Vertical rib
- H Horizontal rib
- F Picot (folded band)
- M Moss Stitch
- G Garter Stitch
- N None

SKIRTS & SHAWLS STYLE CODES

GarmentStyle: The type of garment
- K Skirt
- S Shawl
- A Afghan/Blanket
- P Poncho

SkirtStyle: The skirt shape
- S Straight
- A A-line
- F Flared
- G Swing/Godet

SkirtLen: The skirt length style
- M Mini
- J Above Knee
- K Knee
- C Calf/Midi

A Ankle
F Floor

SkirtHem: The skirt hem style
B Ribbing
M Moss stitch
G Garter stitch
F Folded band
R Frill / ruffle
N No hem

SkirtWB: The skirt waistband style
B Ribbing
H Herringbone
F Elastic Casing
D Drawstring
C Crochet
N No hem

SkirtMethodC: The skirt construction method
T Top down
B Bottom up
S Sideways

SkirtMethodW: The skirt waist to hip shaping method
G Gathered
S At the sides only
T Tiered

ShawlShape: The shawl shape
C Circle
H Half-Circle
R Rectangle
Q Square
S Shetland
T Triangle
F Faroese

ShawlSize: The shawl size
S Small
M Medium
L Large

ShawlSize: The afghan size
Q Queen Bed
B Double Bed
S Single Bed
M Throw
L Lap
C Crib
Y Baby
D Dish Towel
P Pot Holder

ShawlBorder: The shawl border type
K Marathon

P Sprint
F Fringe
C Crochet
N None

ShawlMethodC: The shawl construction method
T Top down
B Bottom up
S Sideways
D Diagonal
R Center Out: Wedges
C Center Out: Rings

PonchoMethodC: The poncho construction method
R Two Rectangles
T Four Triangles
C Closed Circle: Sideways
O Open Circle: Sideways
D Closed Circle: Top-Down
P Open Circle: Top-Down

PonchoSize: The size of the poncho
C Chest
W Waist
H Hip
T Thigh
K Knee
F Calf
A Ankle

PROBLEMS, ERRORS AND WARNINGS

PROBLEMS

If you have a problem, first note (on paper), the exact nature of the problem, including error message numbers and message text. If it's a message on the screen try to print it, using [Alt][Print Scrn]. Next, read the help file or User Manual thoroughly. If you are still confused, then get help. For the install, Windows commands, file recovery, or start-up, you need someone who knows a bit of Windows and how computers work.

If it is something that has always worked fine before, try resetting your system, and starting again.

If it is a problem with the way the program works, the results it gives you, or the data it uses, describe it fully (a copy of your pattern diagrams and instructions is usually helpful) and e-mail, mail, phone or fax it to us. Be sure to include an e-mail address or phone number where we can reach you.

FATAL ERROR MESSAGES

Despite the best intentions, sometimes a combination of data and/or external conditions will cause the Knitware program to crash, usually with an indecipherable (to the average user) error message. Fatal errors will exit from the program, and may require a change to the system environment before the program can be re-run. The usual remedy is to 'try again', re-start the Knitware program and see if the problem recurs. If you do duplicate the error, and cannot find a way around it, contact us. Some known messages are:

INVALID VARIANT

This one has supposedly been eradicated from the Knitware programs, but if it happens to you, please let me know. It is caused by a blank alone in a numeric data field.

XXX IS NOT A VALID FLOATING POINT VALUE.

The full message is "Exception class EDatabaseError with message xxxx is not a valid floating point value for field XXXX." This occurs when an invalid combination of numeric characters is entered in a numeric field. During data entry Knitware will not allow you to enter non-numeric characters in a numeric field (e.g. you cannot enter "big" in the "chest" field), but it will allow digits, decimals and the exponent character of 'e', '+' and '-'. So if you enter '6..' or '17+5' they will be accepted as individual characters, but the program will crash when it tries to interpret them as a number after you press Tab or Enter**. The solution to this problem is simply re-run the program, and re-enter the data correctly.**

ERROR MESSAGES

With an error message the beep will sound and the message will appear in a message box in the center of the screen. Most of the messages require acknowledgment (press any key), and a change in the input data. Most messages are self-explanatory, but most are listed with descriptions in the following sections.

These messages indicate that an error in the data entered has been found. The value entered will not be accepted, and MUST be revised. Immediately below generic KNITWARE error messages are listed. Program specific messages will be listed in the following sections.

AAAA CANNOT BE BLANK

All fields must be non-blank. Enter a valid value for mandatory fields; for optional fields a * is suggested.

AGENCY TEXT FILE AGENCY.TXT NOT FOUND.

The agency.txt file is a small text file that contains information about the agency that is distributing your version of the Knitware program. The program will run, with default agency information, but you should make an effort to find the missing agency.txt file.

CODE XX FOR AAA NOT KNOWN.
This is a system error and should not occur. Close the program and try re-running it. If the error recurs, contact Great Knit Designs for program support (e-mail: support@greatknitdesigns.com)

FATAL ERROR.
An unexpected error has occurred in the program and it will close down. Try re-running the program but if the error recurs, you may have to re-install. It would be advisable to back up data files before re-installing.

IF BODY IS KNIT BY HAND, RIBBING MUST BE BY HAND ALSO.
There is no option to allow hand ribbing on a machine knit body. If you really need this, print the pattern for all hand, then change it to all machine, and print it again.

NAME CANNOT BE BLANK OR *.
Custom size name is used to identify the size and must have a non-blank value. Enter a descriptive name.

NAME CONTAINS INVALID CHARACTERS.
The pattern name is used as a base for the file name (when the pattern instructions or the schematic are saved). Therefore, the pattern name cannot contain any of the characters '/', '\', ':', '*', '?', '"', '<', '>' or '|'.

NEW PATTERN FILE WAS NOT FOUND IN CURRENT FOLDER.
During pattern file conversion, the new pattern file (Patt*230.db) should be present in the current folder, as this is where it should have been placed during the install, and the other components of the Knitware program require the pattern data file to be here as well. Close the program, then run and try the convert again. If the error message recurs, you may need to re-install the program.

PATTERN NAME IS BLANK OR X.
The pattern name is used to identify the pattern record, so needs a unique name. Enter a descriptive name.

SIZE DATA NOT FOUND. SELECT ANOTHER ONE.
The size data cannot be found for the size name selected. Use View/Print Size Data to check if the data is really there.

SIZE ID XXX NOT FOUND.
With an existing pattern, the size reference cannot be found. It may be that you have deleted a custom size, but an old pattern is still referencing it. You will have to select new size components: units, custom/standard, sex and size name. As well, you may need to re-create an old custom size.

SIZE NAME IS BLANK. SELECT ONE FROM THE LIST.
You must select a specific size to calculate the default measurements. Use the Size Name drop down list to view the name options.

SQRT DOMAIN ERROR.
Some data fields are not set properly (probably due to changing lots of style data) and the program has run into an invalid calculation error. Try CANCEL or re-selecting the Size Name (e.g. Woman's 36) from the selection list. If these don't work, you will have to close the program and start again.

VERSION NUMBER ON FILE DOES NOT MATCH INPUT REQUEST
During Pattern File Conversion the version number of the file did not match that requested. Check the file location (see the Convert Pattern data section for details about which folders to use for which version).

xxxxx HAS EMBEDDED BLANKS
xxxxx MUST BE NUMERIC.
xxxxx OUT OF RANGE.

The finished measurement data must be all numeric; it cannot have embedded blanks or characters. For each field the program has a predefined 'range of reasonableness'; e.g. you can have 2 inches of ribbing, but not 20 inches. This message is displayed when the program detects that the data you just entered is outside this range.

BASICS ERROR MESSAGES

BACK SHAPING TOO STEEP.

When designing a dog sweater, the decrease from the front tummy area to the specified back width is too great for a maximum 2 sts/row decrease. Either increase the BOTTOM WIDTH or increase the BACK LENGTH. Also, check chest dimension is correct.

CANNOT DO INSET SLEEVE.

Inset (sleeveless) styles need a certain amount of back width greater than the neck width. On many bears and stuffed animals this is lacking because of their large necks. Check the dimensions, but it may be best to change to a cap or long sleeve style.

DOG SWEATER CAN ONLY BE DESIGNED FOR DOGS, CATS, …

Only certain combinations of Garment Style and Size Type are allowed. The Dog Sweater style cannot be used for Dolls, Seated Stuffed Animals or Standing Stuffed Animals. Either the Garment Style or the Size Type must be changed before continuing.

FRONT LENGTH IS TOO SHORT TO INCLUDE SLEEVES.

When designing a regular style dog sweater, the FRONT LENGTH dimension is too short; it must be able to at least cover the armholes. Increase the front length or chose the simple (no sleeves) style.

LEGS TOO WIDE TO DO LEGGING OR SLIM STYLE.

The legging or slim Pants style is not going to work with the shape of these legs. Use the straight leg style instead.

PANT SHAPING WILL NOT WORK. PANTS TOP IS TOO SHORT TO SHAPE CROTCH.

The pants top shaping cannot be completed using the current dimensions. Try increasing the garment length, or decreasing the leg length, or increasing the Ease Style.

SKIRT BOTTOM IS NOT WIDE ENOUGH FOR FLARE.

You have requested a flared skirt style, but the dimension for the skirt bottom is not big enough. Either select a straight style, or increase the skirt bottom dimension.

SKIRT BOTTOM IS TOO BIG TO SHAPE FLARE.

The pattern instructions will handle a maximum of 2 sts per row increase for a flared skirt. The dimensions currently shown give a flare bigger than this. You should probably decrease the skirt bottom dimension, but check that the waist is correct also.

SKIRT IS NOT LONG ENOUGH TO SHAPE FLARE.

Using the current dimensions, the program cannot accurately shape the flare requested. Probably the skirt length should be increased, but you might want to decrease the skirt bottom as well or instead.

SKIRT IS TOO SHORT TO INCLUDE RUFFLE.

The length of the skirt is too short to include the waistband, increase rows from waist to hip, ruffle and hem. This will most often affect short little bears and dolls. Either lengthen the skirt, or remove the ruffle.

THIS GARMENT STYLE CAN ONLY BE DESIGNED FOR PEOPLE, DOLLS AND ….

Only certain combinations of Garment Style and Size Type are allowed. The Pullover, Skirt, Pants and Dress styles cannot be used for Dogs, Cats, Other Pets or Natural Stuffed Animals. Either the Garment Style or the Size Type must be changed before continuing.

SWEATERS ERROR MESSAGES

BACK NECK SHAPING MUST BE *FLAT, SHALLOW* OR *BACKLESS* FOR *HOODS*.
BACK NECK SHAPING MUST BE *FLAT, SHALLOW* OR *BACKLESS* FOR *TURTLENECK* AND *SHAWL* COLLARS.
***BACKLESS* STYLE MUST BE *SLEEVELESS* ALSO.**
***BOAT* NECK CAN ONLY HAVE *SINGLE BAND* COLLAR.**
***BOAT* NECK SHAPING MUST MATCH ON FRONT AND BACK.**

CANNOT HAVE BACK NECK SHAPING WITH *CIRCULAR RAGLAN* OR *YOKE*
CANNOT HAVE *BOAT* OR *KEYHOLE* NECKLINE ON A CARDIGAN.
CANNOT HAVE *CAP SLEEVE* WITH *RAGLAN* SHAPING.
CANNOT HAVE *CIRCULAR* CONSTRUCTION METHOD WITH *MACHINE KNIT*
CANNOT HAVE *COWL* OR *TURTLENECK* ON A CARDIGAN.
CANNOT HAVE *COWL COLLAR* WITH *KEYHOLE NECKLINE.*
CANNOT HAVE *FITTED WAIST* BODY STYLE WITH *DOLMAN* SLEEVE.
CANNOT HAVE *HOOD, TURTLENECK, COWL* OR *SHAWL* COLLAR WITH SET-IN BACKLESS STYLE.
CANNOT HAVE *KEYHOLE* STYLE ON BACK NECKLINE.
CANNOT HAVE *SHIRT* COLLAR WITH *SQUARE* NECK OR *V* BACK NECK SHAPING
CANNOT HAVE *SHIRT* COLLAR WITH *BACKLESS* STYLE ON A *SET-IN* SHOULDER
CANNOT HAVE *SLEEVELESS* STYLE WITH *TOP-DOWN* CONSTRUCTION.

***DOLMAN* SLEEVE MUST HAVE *DROP* SHOULDER.**
***DOLMAN* SLEEVE MUST HAVE *FULL, 3/4 OR HALF* LENGTH SLEEVE STYLE.**
DROP SHOULDER GRAFTED* CANNOT BE *SLEEVELESS.
DROP SHOULDER* CANNOT BE *BACKLESS.
***HOOD* MUST HAVE *ROUND* FRONT NECK SHAPING.**
***MODIFIED DROP* SHOULDER CANNOT HAVE *CAP* SLEEVE OR *SLEEVELESS*.**

***RAGLAN* SHOULDER CANNOT HAVE *BOAT* NECKLINE.**
SADDLE* SHOULDER CANNOT HAVE *BOAT* NECKLINE OR *SHALLOW* BACK NECKLINE OR *BACKLESS.
SADDLE* SHOULDER CANNOT HAVE *CAP* SLEEVE OR *SLEEVELESS.
***SHAWL* COLLAR MUST HAVE *V* OR *SQUARE* FRONT NECK SHAPING.**
***TOP-DOWN* CONSTRUCTION MUST HAVE *RAGLAN* OR *ROUND YOKE* SHOULDER.**
***TURTLENECK* COLLAR MUST HAVE *ROUND* FRONT NECK SHAPING.**

These are various style combinations that the program will not handle. You will have to change at least one of the style parameters to make it work.

ARMHOLE DECREASES TOO FLAT FOR RAGLAN SHAPING.

This is probably an error in your finished dimensions. A too flat condition may be caused by a comparatively very large chest dimension, small top neck opening, or small armhole dimension. In particular, a raglan sleeve is not suitable for a wide top neck.

Check your dimensions. If an error is found, change the data, and try printing the pattern again. If you think your data is reasonable and see no reason why it should be changed, send me a note with screen prints of all the input and dimension data. Otherwise, try a set-in sleeve or drop shoulder style.

BACK NECKLINE IS TOO SHALLOW FOR THE SHAPING REQUESTED.

The neck depth is too small to fit all the neck shaping required. Change one of the following: increase neck depth or width, or decrease top neck opening width.

BODY HEM WIDTH OUT OF RANGE.

The body hem width must be less than or equal to the sweater bottom width. The sweater bottom width is the width of the sweater at the bottom of the body (chest for straight garments, hips for A-line or Fitted Waist regular length or longer, waist for waist length, bottom width for cropped length). For ribbing hems, the minimum width is half the sweater bottom width. For other hem types, the hem width must equal the sweater bottom width.

DIFFERENCE IN BODY WIDTHS NOT ENOUGH FOR SHAPING.

For A-line or Fitted Waist body shaping, there must be enough difference between the appropriate body widths (hips, waist, chest) to accommodate the shaping. If this error message is shown, you need to increase/decrease the body widths, or chose the *Straight* body shape.

FRONT/BACK NECK DEPTH OUT OF RANGE

For Circular Bottom-Up construction, the neckline depth must be equal to or less than the armhole depth (i.e. the neckline cannot extend below the armhole).

FRONT BAND IS TOO WIDE FOR THIS FRONT NECK WIDTH.

With a cardigan, the front band must fit within the available neckline opening between the shoulders. For a round or scoop neckline, the front band must be less than the Front Neck Width. To correct, decrease the Front Band Width or increase the Front Neck Width. For a shawl collar, you may need to increase the collar length.

For cardigans with texture pattern adjustments, this message is displayed if the cardigan front adjustment is so large that the remaining front neck width is less than the front band width. (See warning message "Adjustment of nn sts applied to front neckline" for further explanation). In this case, you will need to change the front neck style or width, or chose a different adjustment for the texture pattern. You may decide that you would rather work with partial pattern repeats on the cardigan front sections. To change the texture pattern adjustment, simply retype the chest dimension on the Pattern Data Form, and the Adjustment Selection messages will be re-displayed.

FRONT NECKLINE IS TOO SHALLOW FOR THE SHAPING REQUESTED.

The neck depth is too small to fit all the neck shaping required. Change one of the following: increase neck depth or width, or decrease top neck opening width.

LENGTH OF BODY IS TOO SHORT TO COMPLETE A-LINE SHAPING.

The A-line body shape is tapered from the bust line to the bottom of the garment. If the garment is too short, there is not enough length to complete the shaping. Either increase the body length or chose the *Straight* body shape.

NECKLINE IS TOO SHALLOW FOR SADDLE SHOULDER.

The requested front/back neckline is too shallow to accommodate the requested saddle shoulder band width. The saddle shoulder width must fall into the straight section of the neckline (work nn rows even) after all the shaping is completed (otherwise everything gets way too complicated). Reduce the Shoulder Band width, increase the neckline depth, change the Neckline Style or the Shoulder Style.

NOT ENOUGH DIFFERENCE .... TO SHAPE SCOOP.

The front/back neck width dimension is too close to the top neck opening width dimension to do the scoop neck shaping that is required. Either select another neckline style or change the neck width dimensions.

PROGRAM ERROR. TOO MANY ROWS FOR DOLMAN SHAPING.

This should not happen. If you get this error, notify Knitware maintenance (support@greatknitdesigns.com) and include a copy of the pattern instructions.

SADDLE SHOULDER BAND WIDER THAN SLEEVE CAP.

The Saddle Shoulder Band must be less than the top of the sleeve cap. Reduce the shoulder band width, or change the Shoulder Style.

SLEEVE CAP DECREASES TOO FLAT FOR RAGLAN SHAPING.

As for 'armhole decreases too flat'. In this case, it is probably that the sleeve top is too wide, or the armhole too small, or the stitch gauge (compared to the row gauge) is too big.

SLEEVE HEM WIDTH OUT OF RANGE.

The sleeve hem width must be less than or equal to the sleeve bottom width. For full length, ¾ length or short sleeves: for ribbing hems, the minimum width is very small, while for other hem types, the hem width must equal

the sleeve bottom width. This message may appear if you change hem width without changing the sleeve bottom. In this case, it may be the sleeve bottom that needs correcting, not the hem width.

For cap sleeve and sleeveless, the sleeve hem width range is quite large, and should accommodate any reasonable styling.

SKIRTS & SHAWLS ERROR MESSAGES

CANNOT HAVE *CENTER OUT* CONSTRUCTION UNLESS HAND WORKED *CIRCULAR* SHAPE.
CANNOT HAVE *DIAGONAL* CONSTRUCTION UNLESS *SQUARE* OR *SHETLAND* SHAPE.
CANNOT HAVE MACHINE-KNIT *MARATHON* BORDER WITH *CIRCLE* OR *HALF-CIRCLE* SHAPE.
CANNOT HAVE *MINI* LENGTH WITH *A-LINE* STYLE.
CANNOT HAVE *TIERED* WITH *SIDEWAYS* KNIT.
CANNOT HAVE *TOP DOWN* OR *BOTTOM UP* CONSTRUCTION WITH *CIRCLE* OR *HALF-CIRCLE* SHAPE.
***SHETLAND* SHAWL SHAPE MUST *MARATHON* OR *SPRINT* BORDER.**
***TOP-DOWN* PONCHO MUST BE HAND KNIT OR CROCHETED.**

These are various style combinations that the program will not handle. You will have to change at least one of the style parameters to make it work.

CALCULATED SKIRT LENGTH IS NEGATIVE.
The skirt length from hips to hem calculated by the program is negative. Either increase the total skirt length, or decrease one of the partial lengths (waistband, hem or waist-to-hip).

HIPS/ABDOMEN TOO BIG FOR THIS ANGLE OF SKIRT FLARE.
The *Flared* skirt style is shaped as one continuous angle from waist to hem. With proportionally large or high hips (or abdomen) for this size, the Flared angle cannot be calculated properly. Either change to *A-line* style (which shapes to the hips first, then flares) or increase the skirt hem width.

NEED MORE WEDGES TO CALCULATE WEDGES SHAPING.
The *Center Out: Wedges* method of shaping shawls can add a maximum of one stitch of shaping per wedge per row. In this case, there are too few wedges to make this shaping calculation, and you must increase the number of wedges or chose a different method of shaping.

NOT ENOUGH ROWS TO CALCULATE PONCHO SHAPING.
Using your current row gauge and poncho size there are not enough rows to calculate the increase rows required to shape the poncho. Try making the poncho longer, use the Sideways method, or use the Round Yoke calculator to work with fewer shaping rounds.

NOT ENOUGH ROWS TO SHAPE PONCHO WEDGES.
The poncho wedges cannot be shaped properly given the current data. Try reducing the number of wedges, or perhaps increasing the neck width or poncho width.

SKIRT HEM IS TOO LARGE TO SHAPE GODET SECTIONS.
Maximum shaping on the godet sections is one stitch per row each side. Either increase the *Godet Width*, decrease the *Hem Width*, increase *Godet Length* or increase *Number of Panels.*

SKIRT SHAPE CANNOT BE CALCULATED; SOME WIDTHS INCORRECT.
Knitware requires an increasing (or equal) skirt shape from top to bottom. It may be that during texture pattern adjustment that you have increased the waist number of stitches to greater than that for the hips, or decreased the hem number of stitches to less that that for the hips. Click on Skirt Style or waist measurement to change the number of stitches or dimension.

WARNING MESSAGES

These messages indicate that the data entered MIGHT be incorrect. The program will accept your entry, and move on to the next field. However, you should check the value you entered carefully, and if it is incorrect, return to the field and revise it. Immediately below generic KNITWARE warning messages are listed. Program specific messages are listed in the following sections.

A PATTERN RECORD HAS BEEN CHANGED.

This is basically a confirmation message of your CANCEL. If you select *Yes*, all the changes that you have made to this record (since it was last saved) will be lost. If you select *No* you will be returned to the form with the changes intact.

NEW PATTERN FILE IS NOT EMPTY.

You may have already converted the old pattern data file, or you may have started working with the new version of the Knitware program before converting the old pattern data.

- If you decide to continue, the old pattern records will be added to the new pattern file; the existing records on the new pattern file will be unchanged.
- If you decide not to continue, there will be no change to either pattern file.
- If you are uncertain as to whether to continue or not: quit for now, go to Pattern Design and [List] the file to see what is on it, then return to the Convert Utility if you do want to add the old pattern records.
- If, by mistake, you convert the file twice, you can simply delete all the duplicate records using the Pattern Design Form.

NUMBER OF STITCHES FOR XXX HAVE BEEN ADJUSTED.

To make the specified stitch pattern fit completely on this pattern piece, Knitware has adjusted the number of starting stitches. This will not equal the given dimensions exactly.

NUMBER OF STITCHES FOR XXX WERE NOT BEEN ADJUSTED.

You have selected a stitch pattern, but opted to not have Knitware adjust the number of stitches to fit the pattern. When you work the stitch pattern, you will have a partial repeat to contend with at the end.

THIS CUSTOM SIZE HAS NOT BEEN SAVED … SAVE RECORD OR CANCEL CHANGES
THIS DESIGNER HAS NOT BEEN SAVED …
THIS PATTERN HAS NOT BEEN SAVED ….

The data has been changed but not been saved. You must either SAVE the record or CANCEL the changes before exiting from the form (no Cancel options for Designer). If you want to keep the changes, click the SAVE button. If not, click on CANCEL (if this is a newly added pattern, the program may ask for confirmation of the Delete as well).

THIS GAUGE WILL MAKE TOO MANY RIBBING WELT STS.
THIS GAUGE WILL MAKE TOO MANY RIBBING CUFF STS .

The ribbing gauge that has been entered will make the number of body welt or sleeve cuff stitches greater than the bottom of the body/sleeve. The program cannot handle this condition (besides, most machine knitters do not work with more rib stitches than main stitches). The program leaves your gauge alone, but resets the number of ribbing stitches equal to the main (body or sleeve bottom) stitches that the ribbing will be joining onto. You may wish to increase the ribbing widths for the body and sleeve (to equal the body and sleeve bottom widths and look tidier on the schematic), but it will have no effect of the number of sts (since they are already that large).

YOU HAVE CHANGED THE PATTERN INSTRUCTIONS.

You had the pattern pattern instructions (text) displayed and then used editing functions to change it. You are now asking the program to display the instructions again. If you have, meanwhile, changed any pattern data (e.g. style or dimension), **the old instructions will not represent this revised pattern data**. However, you do have the option to display the old instructions at this point.

This feature allows you to retrieve modified pattern text for the current pattern; it is most useful if you have made changes to the pattern text (but not the pattern data) and perhaps clicked on another item on the main menu or minimized the screen or accessed another program.

BASICS WARNING MESSAGES

DEFAULT BODY LENGTH INCREASED TO COVER LARGE ARMHOLE.

(Pullover style). With little trolls and overstuffed bears, we frequently find the armhole and the waist at the same place. We need at least two rows above the waist before the armhole shaping, so the program will lengthen the body to do this.

DEFAULT FRONT NECKLINE IS TOO WIDE; RESET.

The front neckline value entered is too big. It must be less than or equal to the top neck width, and has been reset to that.

DEFAULT PANTS LEG BOTTOM HAS BEEN INCREASED TO MATCH LARGER HIPS.

The top of the pant legs must be big enough to cast off stitches for the crotch and still have the finished pants fit around the hips. If the pants leg bottom is not big enough, it will be increased.

DRESS WAISTLINE HAS BEEN DROPPED TO COVER LARGE ARMHOLE.

(Dress Style). With little trolls and overstuffed bears, we frequently find the armhole and the waist at the same place. We need at least two rows above the waist before the armhole shaping, so the program will drop the dress waistline to do this.

SHALLOW NECKLINE: DEFAULT FRONT WIDTH HAS BEEN INCREASED.

The neckline is not deep enough to shape the round neckline properly. The program has increased the front width. You may wish to make the neckline deeper or decrease the top width as well.

THIS GAUGE MAY GIVE TOO FEW STS/ROWS TO SHAPE GARMENT PROPERLY.

Probably you are using a thick yarn for a small critter. Check your gauge and pattern carefully, because the pattern as designed will lack detail and shaping. You may want to consider a finer yarn that will give you a smaller gauge.

SWEATERS WARNING MESSAGES

ADJUST SLEEVE LENGTH ACCORDINGLY.

If you change the Back Width for a Modified Drop shoulder, then you should also adjust the Sleeve Length, as this sleeve fits into the armhole, not up to the side seam. To maintain the same fit, the sleeve length should be increased by one-half of the amount that the back width was decreased by. For example: decreasing back width from 18” to 16” would mean increasing sleeve length from 15.8” to 16.8”.

ADJUSTMENT OF nn STS APPLIED TO FRONT NECKLINE FOR TEXTURE PATTERN.

For cardigans only. When a texture pattern is selected that requires adjustment of the number of back stitches, the same adjustment is made at the side seams on the back and the front. On a cardigan, however, there will likely be a different number of sts to adjust for the front than for half the back, because of the front band width. These additional stitches are applied at the front neckline, either increasing or decreasing the front neck width. If there is a large adjustment (the program checks for greater than 5% of the total front # sts) this message is displayed. Have a look at the schematic and decide if you really want to have this big an adjustment at the front neckline. You may decide that you would rather work with partial pattern repeats on the cardigan front sections. To change the texture pattern adjustment, simply retype the chest dimension on the Pattern Data Form, and the Adjustment Selection messages will be re-displayed.

COLLAR SHAPING IS VERY ABRUPT.

The shawl collar specified does not fit well on the existing neckline. You may want to decrease collar length, or increase front neck depth or width.

FRONT BAND AND COLLAR STYLES DO NOT MATCH.

A V-neck cardigan will usually look best if both the button band and collar styles match, in which case they can be knit as a continuous unit. A single band collar can be matched with any band style except the picot, a double band with any band except the vertical rib and the shawl collar with either a moss or garter stitch band. However,

unmatched styles are allowed, and would be knit as three separate pieces, 2 bands and the collar, in which case care should be taken to ensure a tidy join between the pieces.

HOOD MAY NOT FIT NECKLINE.

The bottom edge of the hood will be considerably larger or smaller than the neckline, and it may be difficult to ease it sufficiently to fit well. You may want to adjust the hood depth, or the neckline width or depth to compensate.

NECK OPENING MAY BE TOO SMALL. CHECK MEASUREMENTS.

This message will appear for all children's and small adult sizes with a high round neckline, and for very small children's sizes with a regular round neckline. The program measures the size of the closed neckline, adjusts it by a factor of 1.5 for stretch, and compares it to the circumference of the head. This is a warning only and quite arbitrary (your stretch factor for example may be 1.2 or 2.5), and you should use your own judgment as to whether it is necessary to adjust the pattern.

To adjust the pattern you can: use a different neckline style, increase the top neck opening, front neck width, and/or front neck depth. You can instead use set-in or raglan sleeves, or do not graft both shoulders, or knit a shoulder placket. The pattern will print the warning message too. If you have remedied the situation as suggested above, then ignore the warning. The pattern will also print instructions for a shoulder button placket closure.

OVERLAP BOAT NECK MAY NOT BE SUITABLE FOR DROP OR CAP.

An overlapped boat neck joins front to back only at the ends of the overlapped ribbing. This may produce a very gapping neckline if the shoulder seam is too far down the arm.

SKIRTS & SHAWLS WARNING MESSAGES

NOT ENOUGH STS/ROWS FOR ACROSS THE ROW SHAPING

There are not enough stitches and/or rows difference between waist and hip panel dimensions to do the across the row shaping. Side shaping instructions are given instead.

GLOSSARY

INTRODUCTION

The instructions printed on the KNITWARE patterns should be sufficient for most knitters or crocheters. However, inexperienced knitters or those trying a new technique may need more detailed instructions. For these reasons, step-by-step instructions for some of the repetitive or more complex procedures are included below.

These instructions cover only a few procedures. A good knitting or crochet reference book is essential, and the owner's guide for a knitting machine. Many knitting machines provide a step-by-step guide including diagrams. Knitting videos are a good resource as well; check your local library.

There are many ways of doing each procedure. For the KNITWARE patterns, I have selected only one way, usually the most common method (in my neck of the woods), or the one that I am most familiar with. In some cases, I have instead used one that I feel works especially well, or provides a better result.

You, of course, can choose the method that you are most comfortable with. Just because the pattern says to sew side seams with an invisible seam, does not mean you cannot use an overlock stitch, a backstitch, or your sewing machine. Choose what works best for you.

This chapter is divided into four main sections. The first is for all knitters and crocheters, describing those procedures common to hand knitting, machine knitting and crocheting, mostly finishing details. There are also separate sections for hand knitters, machine knitters and crocheters.

ALL KNITTERS AND CROCHETERS

ABBREVIATIONS:

alt	alternate
beg	beginning
cm(s)	centimetre(s)
cont	continue(ing)
dec	decrease
foll	following
inc	increase
in(s)	inch(es)
K	knit
LH	left hand
meas	measures or measurement
M1	Make 1 st (increase 1 st)
MY	main yarn
ndl	Needle
P	purl
rem	remaining
RH	right hand
st(s)	stitch(es)

EQUIVALENT NEEDLE AND HOOK SIZES:

If you have, as I do, a great variety of needles and crochet hooks from many different sources, a conversion chart is invaluable. Following is a chart of equivalent needle sizes for those most commonly used. Metric needles are in mm. Canadian needles are the same as Old UK.

	Metric	American	Canadian	American Hooks
very small	0.50	8/0	24	
	0.75	6/0	22	
	1.00	5/0	19	
	1.25	4/0	18	
	1.50	000	17	
	1.75	00	15	
	2.00	0	14	
small	2.25	1	13	B
	2.50	1	13	
	2.75	2	12	C
	3.00	2	11	
	3.25	3	10	D
	3.50	4	10	E
	3.75	5	9	F
	4.00	6	8	G
medium	4.25	6	8	
	4.50	7	7	
	5.00	8	6	H
	5.50	9	5	I
	6.00	10	4	J
	6.50	10	3	K
	7.00	10.5	2	
	7.50	10.5	1	
large	8.00	11	0	L
	9.00	13	00	M
	10.00	15	000	N
	12.50	17		P
	14.00	18		
	15.50	19		
	19.00	35		
very large	25.00	50		

BODY SIZES:

Knitware uses chest size as the key for all its 'standard' size data. Body sizes vary greatly in shape and it is always best to use custom sizes if you can. However, when you cannot, or are knitting for someone far away, the following tables may help you determine what Knitware size to use.

CHILDREN's chest sizes relate to approximate ages (and weights, for babies) as follows:

Age	Size(in)	Size(cm)	Weight
newborn	18	46	10lb / 4.5 kg
6 month	20	51	18 lb / 8.2 kg
12 month	22	56	24 lb / 11 kg
2 years	20	51	
4	22	56	
6	24	61	
8	26	66	
10	28	71	
12	30	76	
14	32	81	

As we are all well aware, children vary greatly in their growth. The chest size, body length and arm length should be used primarily in selecting a size, not the age.

USA women's standard clothing sizes commonly fall into the following categories:

	Clothing Size	Chest (in)
S	6- 8	33-34
M	10-12	35-37
L	14-16	38-40
XL	18-20	42-44
2X	22-24	46-48
3X	26-28	50-52
4X	30-32	54-56

TENSION SWATCH:

A tension or gauge swatch is one of the most important parts of your knitted garment. Without it, your garment will not fit. **Always work a tension swatch** BEFORE knitting (or crocheting) your garment. The gauge can change, not only between makes of yarn, but between different dye lots of the same yarn. Your gauge can vary between different needle materials (e.g. bamboo or aluminum), and between straight and circular knitting. Make your tension swatch and BE SURE!! It is also a good idea to check your gauge on the garment itself part way through your project. The sooner these mistakes are caught, the better.

Remember, also, to **treat your swatch** as you would your garment, e.g. wash, dry, steam or block, BEFORE measuring. Lay it flat, pin it gently at ease (do not stretch), and measure off either a fixed number of rows and stitches, or count the rows and stitches over a fixed measurement. You can then convert it to a standard 4 inch (10 cm) gauge, using the Calculator/Gauge Equivalents option on the Main Menu

There are many different ways to **make your tension swatch**. Personally, I like to do a fairly large piece (at least 40 sts by 40 rows) to get a more accurate sample. You can measure out 4 inches in each direction, and count the rows and stitches. With nubbly, mohair, or very fine yarns this is sometimes quite difficult. In these cases, and especially easy on a knitting machine, you can mark off a fixed number of rows and stitches as you are knitting (e.g. 20 by 20).

If you are knitting the ribbing by machine, you may optionally knit a **ribbing swatch** as well. Knit as for the body swatch, but using your ribber and ribbing gauge. Measuring the rows is exactly as for the body, but measuring the stitch gauge is a little trickier. If you want the ribbing to just touch, and to lie at ease on the worn garment, then measure it at ease. However, if you would like it to have a little tension on the worn garment (for example, to fit snugly around the sleeve cuffs), then measure the ribbing gauge with this amount of stretch in the swatch. Very subjective, I'm afraid.

In the same way, measuring the gauge on a **stretchy rib or cable pattern** is tricky, because it is so variable. Many textured or ribbed tops are worn with a slight or moderate stretch, and are meant to be tight-fitting. Therefore, decide how much stretch you want in your garment and measure the gauge from your swatch with that amount of stretch.

INVISIBLE SEAM (MATTRESS STITCH):

This method of sewing side seams and underarm seams provides the cleanest finish. It takes a little longer, but the result is well worth it.

1. Place both pieces right side up, seams abutting each other, on a table or your lap. Using a tapestry needle, secure the yarn at the beginning of the seam.
2. Pick up the cross thread one stitch in from the edge, one side, then the other, for each row up the seam. Keep the pieces right side up as you work on them.
3. Pull the seam from top to bottom every few inches, to keep it elastic.

BACKSTITCH:

This stitch is most commonly used for ribbed seams and set-in armhole seams.

1. Place both pieces right sides together, on a table or your lap. Pin the seam to keep it from shifting.
2. Using a tapestry needle, secure the yarn at the beginning with a couple of overlapping running stitches, then move one stitch ahead.
3. Put the needle into the left end of the last stitch and bring it out one stitch ahead. Pull the yarn through to the front. Repeat until seam is finished.

SHORT ROWS:

The short rowing technique is an invaluable addition to your knitting repertoire. Many people think it is too difficult, but with the aid of a good knitting technique reference, it is easy to learn and perfect. And once you feel comfortable with it, you will find many uses for it. For example, short rowing set-in shoulder slopes makes a much smoother finish than casting off stitches in steps.

Knitware uses short rowing for shaping the corners on Sprint shawl borders and for Sideways worked skirts and circular shawls. There are detailed instructions printed at the beginning of each pattern, but if you are unfamiliar with the method it is advisable to work on a swatch first. The Knitware instructions are just one method, and if you prefer another by all means use it. There are different ways of wrapping (or not) both by hand and machine. Knitware uses the two-row short row shaping, but it is possible to short row every row.

BACKLESS SYTLES:

The BACKLESS Style is for a back that stops at the armhole. There is no option for a partial depth or width on the backless. It is simply worked as usual from bottom hem to armhole and then cast off (or stitches placed on a holder).

Knitware Backless styles must be sleeveless, with either a raglan or set-in shoulder. The armhole hem is extended around the back of the garment.

- The Backless Raglan with a Single Band Collar will be finished with a tie behind the neck (halter style). Other collars on the Backless Raglan will have the full collar encircling the neck as for a flat back neck style, with the back neck sts being cast on as the collar is started.
- The Backless Set-in will have straps at the back from shoulder to center back, finished as part of the armhole hem on one side and as part of the collar on the other.

These are the Knitware default instructions, but of course you can finish the garment as you please. A few notes:

- Because the back should fit flush on the body and not gap, you should select a *Tight* or *Skintight* ease style. The garment should be tight-fitting, and you may find that a rib pattern will work best to ensure this fit. If you are not working with a stretchy rib, you may even want to decrease the number of sts in the back by 20% or more to ensure that that piece will fit snugly to the back, and not gap.

- Measuring the gauge on a stretchy rib pattern is tricky, because it is so variable. Usually a ribbed patterned top is worn with a slight stretch. Therefore, decide how much stretch you want and measure the gauge from your swatch with that amount of stretch.
- Collars and armhole ribbings (default instructions) may be too long to do on your machine. You may need to work in two or more pieces, by hand on circular needles, or crochet.
- Set-in Back Straps default to knit bands edged as part of collar and armhole, but could be knit separately in I-Cord or moss stitch or garter stitch. They need to have strength, not stretch too much and lay flat. Two seam joins (strap to collar and armhole hem) may be uncomfortable to wear.
- The Halter top style (Raglan with Single Band Collar) includes instructions for the ribbed collar and ties at the shoulders. You may wish to work the collar in crochet or I-cord and continue it at the shoulders to make the ties.
- If you are using a *Tight* or *Skintight* ease style, you may also want to increase the default armhole dimension, as it may be a bit tight as well.

SET-IN SHOULDERS – SHORT ROWS:

The default instructions for Knitware Sweaters are to cast off set-in shoulders in sections over a number of rows (e.g. *cast off 9 sts at the beginning of the next 6 rows*). However, many knitters find that short-rowing provides a smoother slope on the shoulders. When the short-rowing is completed, the sts can be either cast off or placed on holders or waste yarn. Cast off stitches would be sewn together following the standard Knitware instructions. Live stitches are more likely to be grafted together for a flatter shoulder seam.

SIDEWAYS DOLMAN SLEEVE:

The Dolman (also known as batwing) sleeve is a tapered sleeve at the bottom that curves at the top into a large armhole that blends with the side of the body. The dolman sleeve style is flattering to many body shapes, is comfortable to wear and easy to knit. Although commonly knit in one piece top to bottom (or sideways) Knitware only provides instructions for flat-knit separate dolman sleeves, as for our other sleeve styles.

However, the dolman sleeve could be knit sideways in one piece, with a bit of manual fiddling on the pattern.

- Use the Knitware pattern as designed (drop shoulder, <u>not</u> grafted) and start at the cuff of one sleeve, working to the top of the sleeve.
- In Knitware Pattern Design make a [COPY] of the pattern, and switch the stitch and row gauge on the copy. Print the schematics. With a pen, change the vertical dimensions from 'R' to 'S' and vice-versa for the horizontal ones.
- Continue knitting the sweater, casting on sts at both ends of the sleeve for the bottom of the body at front and back.
- Using the 'changed' schematic, knit the rest of the body, shaping the neckline as appropriate (the 'changed' neckline shaping may not be accurate, and it may be better to manually convert the st and row shaping from the original).
- Continue across the body, cast off at the sides (except for the sleeve sts) when you get to edge.
- Work the second sleeve down to the cuff. Cast off.
- Work the body hem and collar. Sew side and sleeve seams, and you're done!

CIRCULAR – WORKING IN THE ROUND

Version 2.50 offers the option to work Sweaters in the round with the Circular Bottom-Up and Circular Top-Down construction methods. Working in the round, for both crochet and hand knitting, eliminates seams and thereby reduces the amount of finishing required. The Top-Down method is for a raglan or round yoke shoulder with the sweater worked entirely in the round. The Bottom-Up will be worked entirely in the round for a raglan or round yoke, or in the round at the bottom (up to armholes) and flat at the top for other shoulder styles. Adjustments for Pattern Stitches will be applied to the entire round, starting at either the sweater bottom for Bottom-Up or the chest at the underarms for Top-Down (as it would be difficult to apply the pattern stitch evenly to a constantly changing yoke width).

Side seams. If working a fitted waist or A-line shape in the round, it is best to leave two or more sts unworked at the center of each side 'seam', before the shaping is done. For example, work across the back until 3 sts from seam marker,

k2tog, k2, skpo, repeat for other side. This makes a nicer looking finish and provides a smoother fit than doing the shaping for both sides immediately one after the other.

Cardigans worked Top-Down or Bottom-Up will be worked back and forth, not in rounds (there is no option for steeks) but with the seams eliminated as for pullovers. For raglan or round yoke shoulders, the top of the cardigan will also be worked in one piece.

Cardigans and Pattern Stitches. Because you are working in rounds and wish to main symmetry between the two sides of the front, there is a requirement that for Bottom-Up non-flat necklines, the chest number of sts must be divisible by four. However, when adjusting for even repeats of Pattern Stitches the resultant number of sts for the chest may not be divisible by four. In this case, when you have finished knitting or crocheting the yoke, there may be up to four more sts on your finished yoke top than is shown on the pattern. You can either do an extra decrease row to get rid of these extra sts, or just keep these sts and incorporate them into the collar.

FRINGE:

Shawls and Afghans can have an optional fringe worked around the outside. This is a simple and quick finish to a shawl, afghan, blanket. Fringes are not recommended for small children (for example, baby blankets) as the threads may work loose and could choke a child.

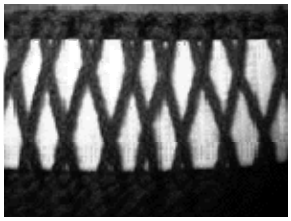
A fringe is usually worked as cut threads, but can also be worked as loops, which may be simply stranded threads, knitted-in loops or a long crocheted chain. Check your favourite knitting/crochet reference book for other methods.

The simplest way to work a cut fringe is as follows:

- Cut many pieces of yarn just over twice the desired length of the fringe.
- Pick up as many strands at one time as you want to have in one tassel (usually 1, 2 or 3 strands). Hold them even, at the center.
- Work a crochet hook through the outer stitch (two threads) of the shawl (right side facing), place the center of the strands in the hook, pull the strands through that stitch and out a bit to form a loop, then collect the doubled strands in the hook and pull them through the loop just formed. Pull snug, and you have one tassel of the fringe.
- Repeat all around the perimeter (try every st for one strand, every one or two sts for two strands, and every two or three sts for two or more strands).
- Trim fringe to an even length all around.

The quantity of yarn estimate for fringes can vary dramatically. The estimate given is based on two strands worked on every stitch. For example, if you are making the fringe on every other stitch, you would only need half of this.

HERRINGBONE STITCH CASING:

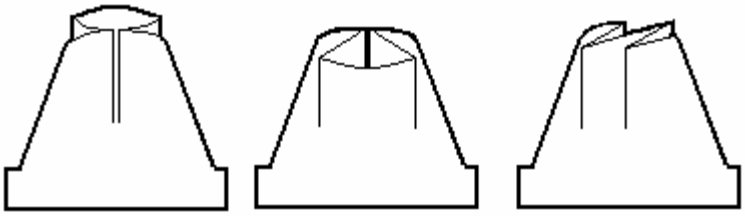


The Herringbone Stitch Casing can be used for skirt waistbands to provide the ease of elastic without the bulk of a folded band casing. It is a ribbed band with elastic on the back enclosed with a herringbone stitch.

1. Knit the waistband in 1x1 ribbing (or other ribbing of your choice) as for a normal ribbed band, to a depth of your elastic width plus 1 cm (0.5”) at least. For example, if you want to use 1” elastic, the waistband ribbing should be at least 1.5”.
2. Cut the elastic the length of your waist measurement. (It is to comfortably fit the waist size, with a bit of stretch and a one inch overlap. The final fitted length will probably be several inches less.)
3. Lay the elastic in position inside the waistband. Thread a blunt sewing needle with the skirt yarn or a matching finer yarn and work herringbone stitch over the elastic, working into every alternate rib stitch. Be careful not to work the stitches too tightly and not to catch the elastic in the sewing. Test for fit. a) If there is a side opening (e.g. for a zipper), stitch the ends of the elastic to the ends of the waistband. b) If no side opening, overlap the elastic ends and pin, being careful not to twist the elastic and easing to fit through the casing. Adjust, then sew the ends together.

PLEATED SLEEVE CAP

The Set-in Shoulder style with a pleated sleeve cap option allows for a fuller sleeve cap and an interesting styling detail. The sleeve cap is cast off with three times the width that is required to fit into the armhole. This section must, therefore, be reduced by two-thirds by folding into pleats and basting into place before sewing the sleeve cap into the armhole. There are many ways to fold the fabric; in front, to the back, to the side; one, two or more folds, symmetric or not; some options are shown below. The thicker the fabric, the fewer the number of folds you will be able to manage. Remember, if folds are directional (not symmetric), that the second sleeve cap must be a mirror-image of the first.



HAND KNITTERS

ABBREVIATIONS:

K2tog	Knit 2 sts together
P2tog	Purl 2 sts together
SKPO	Slip 1 st, knit 1 st, pass slipped st over.
SSK	Slip 1 st, slip 1 st, knit the two slipped sts together.

KNITTING IN THE ROUND:

The KNITWARE pattern instructions are all written for "flat" knitting, with straight needles knitting stocking stitch as knit 1 row, purl 1 row. You may prefer to knit in the "round", using circular or double pointed needles. They are particularly useful for collars and welt ribbing, giving an even unseamed finish. When using circular needles, you should decrease 2 stitches for each seam that you are eliminating.

OPEN CASTON:

Also called looped cast-on. It is used in Knitware for the hood, to create a neatly finished front folded band, and for the frilled hems. This really needs a diagram, check your knitting reference book.

You can instead use a regular cast-on with contrast yarn, work a couple of rows before starting up with main yarn, then when the first part is finished, pick up the cast-on stitches and remove the contrast yarn. However, the removal is a very picky job, as virtually every single stitch has to be cut out and unraveled.

Another option for the frilled hem is to use a regular cast-on, then (for the frill) pick up and knit the cast on stitches, then purl one row.

RIBBING:

The pattern instructions call for K1P1 ribbing for back, front, and sleeve welt ribbing. Experiment: try K2P2 ribbing, braided ribbing, cables, picot or garter stitch edging: please do not be limited by the pattern instructions. Think about what would look and work best for your garment.

FOLDED BANDS:

Knitware has folded band options for hoods, sweater body and sleeve hems plus skirt waistbands and hems. Folded bands are usually used to encase drawstrings or elastic. These folded bands are created by using an open (looped) cast on, working the number of rows required (double the band depth) to a tighter gauge, then grafting the cast on stitches to the last row of the band. The Knitware pattern instructions suggest the ribbing needle size for the bands, but you may need to use even smaller needles because of the doubled thickness, so that the completed band does not flare out at the sides and bottom. You may want to work the inside of the band to a tighter gauge than the outside. Some experimentation may be required to find the ideal needle size.

An extra purl row or a picot row in the middle may help define the fold line better and make for a flatter band.

To graft the bands, pick up the cast on stitches onto a separate needle. Holding both needles parallel in the left hand, use a larger needle to knit the working row and the cast on loop row together. Continue with the body of the hood.

RUFFLE / FRILLED HEM:

Default instructions are given for working a ruffle or a frilled hem. If there are less than 6 rows on the hem, only one increase is given; more than that there are two increase rows. Each increase row doubles the number of stitches. The hem is finished with two rows of garter stitch. If the garment is a cardigan, the button band does not extend into the frilled hem (as it would with other types of hems).

You can vary these instructions as you wish, by increasing or decreasing the number of increase rows, and/or increasing or decreasing the number of stitches created on each increase row and/or changing the number of e
even rows between the increase rows.

GRAFTING SHOULDER SEAMS:

Drop and Modified Drop shoulder stitches can be placed on holders rather than cast-off, then the seam grafted together instead of sewing the cast-off edges. This produces a more exact and tidier finish. In hand-knitting the term grafting is used both for the invisible joining of two open rows of stitches as well as the for the knitted seam. For joining the shoulder seams, we suggest the knitted seam, as it gives a neat, flat finish that will provide more strength than a grafted join. Check your reference books for more details.

MACHINE KNITTERS

ABBREVIATIONS:

COL	Carriage on the left
COR	Carriage on the right
FWP	Forward working position (also called HKP).
	Needles halfway between WP and HP, latches should be open to knit.
HKP	Half-knit position (also called FWP)
HP	Holding position (needles all the way out)
LH	Left hand
Ndl/s	needle(s)
NWP	Non-working position (needles all the way in)
RC000	Reset row counter to zero
RH	Right hand
SS	Stitch size (for Swiss/French machines)
TD	Tension Dial (for Japanese type machines)
WP	Working position (needles against the bed front)
WY	Waste yarn

WASTE YARN

The greatest thing since sliced bread!! A few rows of waste yarn will hold stitches to pick up later, work in progress, stitches to be decreased by many evenly across the row, amongst others. In many instances, waste yarn can also be used to instead of a stitch holder, i.e. read "transfer sts to a holder" as "work 6 rows of waste yarn".

OPEN EDGE CAST ON:

For an open edge cast on (ribbing to be done later), hang the weights or cast-on comb (for Bond/ISM use the weighted hem), thread up the carriage with waste yarn, and start knitting. Knit 6 rows with waste yarn, then change to MY, and reset row counter to 0. Check your machine manual for specific instructions.

CLOSED EDGE CAST ON:

Also known as e-wrap, amongst many other names. This cast on method is used for a finished edge that will not unravel, such as ribbing.

One e-wrap method, for single bed machines is as follows: COR, thread the carriage with MY, push the needles to HP, and tie yarn to left-most needle. Wind thread anticlockwise around the needles behind the latches, one at a time. Hang the weights or cast-on comb (for Bond/ISM use the weighted hem), put needles to FWP, and knit.

For a closed edge cast-on for a rib, do as above, leaving every third needle in NWP. When ribbing, remember to twist the bottom ladder around the latchet tool to form the bottom stitch. Check your machine manual for specific instructions.

RIBBING:

For machines without ribbers, the pattern instructions call for 2x1 ribbing. This could as easily be 1x1 or 2x2. Different styles of ribbing will give differently, and some styles may be unsuitable for certain types or weights of yarn.

For those of us with a single bed machine the ribbing may be done in several ways. The instructions mention two ways, but you should use the method that is most comfortable for you, and will work best for your garment.

With version 2.00, simple 1x1 ribber instructions have also been added to the pattern instructions. For detailed instructions, see your ribber manual. Ribber instructions will be printed for body welt, sleeve cuff (or cap sleeve or armhole), various necklines (single or double band, turtleneck and boat neck) as well as button and buttonhole bands. You may only enter one ribbing stitch and row gauge, although you may want to knit these different pieces at different tensions. In general, you will knit the body welt and sleeve cuff at the main ribbing gauge, while the neck band and cap sleeve would be looser and the buttonhole band tighter. It is up to you to make these adjustments if you want them.

The default ribbing stitch gauges are factored for the various tasks. (Default values are used for non-ribber method, or for ribber method with stitch gauge entered as zero). These factors will make default adjustments for the stretch needed for armhole, cap sleeve, button band, etc. Ribber gauges are not factored. This explains why, for example, a body stitch gauge of 20 with default ribber gauges (=0) compared to a ribber stitch gauge of 20 will give different numbers of stitches for the various ribbing sections.

FOLDED BANDS:

Knitware has folded band options for hoods, sweater body and sleeve hems plus skirt waistbands and hems. Folded bands are usually used to encase drawstrings or elastic. These folded bands are created by using an open edge cast on, working the number of rows required (double the band depth) to a tighter gauge, then grafting the cast on stitches to the last row of the band. The Knitware pattern instructions suggest the ribbing keyplate (dial gauge / tension dial) for the bands, but you may need to use an even smaller setting because of the doubled thickness, so that the completed band does not flare out at the sides and bottom. You may want to work the inside of the band to a tighter gauge than the outside. Some experimentation may be required to find the ideal combination.

A picot row (working lace holes every so often) in the middle may help define the fold line better and make for a flatter band.

To graft, hook each of the cast on sts into the latch above it, across the entire row. There should be two stitches in each latch. Change to the larger keyplate/tension dial setting and knit the next row carefully. Remove WY. Continue with the body of the hood.

SKIRT RUFFLE / FRILLED HEM

The ruffle cannot be knit by machine in the same way as we knit it by hand because the machine needles are a fixed distance apart, and trying to stretch the fabric twice that distance is not possible. Therefore, the instructions are to knit the ruffle from the bottom, decreasing once or twice, then to graft it to the skirt.

However, for large skirts or sweaters, there is a limitation on the number of needles. If you do not have enough needles, and do not hand knit, you can work the ruffle in two or more pieces and seam them together later. If you do have enough needles, there is also the option to start with the ruffle and then continue on with the body of the garment, rather than knitting the body first then grafting the ruffle on afterwards. However, explicit instructions are not given for this option.

To knit the ruffle (or frilled hem).

1. Do a closed edge cast on with the largest number of stitches.
2. Knit 4 rows for a skirt ruffle, or (for a sweater) one greater than the second number of rows shown in the hand knit instructions. Remove these stitches to WY.
3. Push out the middle number of needles, and, with the WRONG side of work facing, re-hang two stitches in each needle (if your hem bar will not allow this, remove it, and use small weights instead).
4. Knit one greater than the first number of rows shown in the hand knit instructions. Remove these stitches to WY.
5. Push out the smallest number of needles, and with the RIGHT side of the work facing, re-hang two stitches in each needle. Push these stitches behind the latches.
6. With the wrong side of the garment facing, re-hang the skirt/sweater stitches in the open latches. Graft together by pulling the back (ruffle) stitches over the front (garment) stitches.
7. Follow instructions as in steps 4, 5 and 6 for Grafting Shoulder Seams above.

SLEEVE GRAFTING:

A drop shoulder design is ideal for grafting the sleeve on. The sleeve is worked on the garment from the armhole edge down to the wrist. Follow the instructions as detailed on the pattern.

You may find that the armhole between the markers will not stretch as far as the required number of needles (you are knitting to a very tight gauge with a non-stretchy yarn). Your options are to either use fewer needles and adjust the sleeve decreases, or to pick up a few more sts from the front and back to fit the required number of needles.

GRAFTING A SHOULDER SEAM.

The shoulder seams for a drop shoulder sweater lend themselves to grafting on the machine. This gives a very clean join, and no seam to sew by hand later. A set-in sleeve shoulder can also be grafted, if the stitches are put into HP instead of cast off as the decreases are done, and then knit with waste yarn to hold them.

1. Bring out the given number of needles to HP.
2. Re-hang stitches from left back shoulder, with knit side facing, and waste yarn folded down towards you. Push these stitches behind the needles and remove the waste yarn.
3. Re-hang stitches from left front shoulder, purl side facing, and waste yarn folded to the back, in the open latches of the same needles. The right sides of the knitting will be together. Remove the waste yarn.
4. Pull the sides of the back piece forward so that the latches close and the back stitches are pulled over the front stitches and the needles. One row of stitches remains. Push needles to WP, latches can be open or closed.
5. Use a keyplate or tension dial setting 2 - 3 sizes larger than you used to knit the body. Place carriage on side of knitting that has the long strand. Thread carriage with the long strand.
6. Knit the row. Cast off using the latch tool method.

LATCH TOOL CAST-OFF.

Provides a firm, non-elastic edge.
1. Start at end opposite the carriage. Remove the first stitch with the latch tool, and place behind the latch. Remove the second stitch into the hook of the latch tool.
2. Pull this stitch through the first stitch. Continue in the way across the row.
3. Pull the end of the yarn through the last stitch.

BACK STITCH CAST-OFF.

Provides an elastic edge.
1. Thread a tapestry needle with the yarn tail. Insert it into the first stitch in the row, pull the yarn through.
2. Insert the needle into the second stitch and pull it out through the first stitch.
3. Continue, going into the third and out the second, into the fourth, etc. until you reach the last stitch.
4. Fasten off the yarn, and remove the knitting from the machine.

DECREASING/INCREASING MULTIPLE STITCHES

For certain garments and styles (such as Tiered Shaping on a Skirt and some Sweater ribbings) you may need to increase or decrease multiple stitches across a row. Although cumbersome on a knitting machine, it is not difficult. Simply remove all sts to WY (or garter bar). Pull out the new number of needles to WP. Rehang the sts from WY (or garter bar), skipping needles if increasing, or putting two sts in certain needles if decreasing. To determine the spacing required, use the *Inc/Dec Sts Evenly* function from the *Calculator* option on the Knitware Main Menu.

CROCHETERS

ABBREVIATIONS:

ch	chain stitch
C	crochet (whatever stitch is in use)
sc	single crochet
ss	slip stitch
sk	skip a stitch
dc	double crochet
tr	treble crochet
yoh	yarn over hook
W	work a stitch
M	make a stitch (for M1 work 2 sts in next st, for M2 work 3 sts in next st, etc.)

GENERAL NOTES:

Knitware does not give specific crochet stitch instructions, so you are saved the confusion of different names for the same stitches (for example the UK 'double crochet' is called 'single crochet' in the US and Canada – and that is just the beginning!). You decide what stitch pattern you are going to use and what it means to you, whether it is a simple overall single crochet or an intricate filet crochet pattern. When specific stitch names are used in Knitware, we are using the US terminology.

When working rows, not rounds:. One or more chains must be worked at the beginning of each row to account for the increase in stitch height in the next row. The Knitware cast-on instructions assume that you are working in single crochet, so give instructions to chain one more than the number of stitches you will be working with. However, if you are working a different stitch, you need to adjust the initial chain size as follows: add 1 ch for single crochet, 2 ch for half double crochet, 3 ch for double crochet and 4 ch for treble.

STITCH PATTERNS:

You may want to work a garment in a simple pattern stitch such as *single crochet* or *treble crochet*, or you may decide to use a stitch pattern from an existing pattern, book, leaflet or other reference work. Counting stitches and rows in crochet

patterns can be tricky, and more complex than many knitting patterns. Usually, you should count rows (or rounds) as *rows*, and each ch or sc or dc, etc. (usually counting on the base row and after the pattern repeat is complete) as a *stitch*. Consistency is the key – however you count your stitches and rows, be consistent with the usage between the gauge swatch you measure and the garment you make.

Exceptions: with Filet Crochet, it is probably easier to count each worked 'square' as a stitch and a row.

INCREASING AND DECREASING:

To increase one stitch at a time, make two stitches in a single stitch from the previous row. For example, if working in single crochet, make 2 sc in the sc from the row below.

To decrease one stitch at a time, work two stitches together into one. For example: to work 2 single crochet stitches together: insert the hook into the next st, wrap the yarn around the hook, draw a loop through, repeat for the next st (3 loops on hook), wrap the yarn and draw through all the loops on the hook. Check your crochet reference book for decreasing with other stitches (may be under 'clusters').

RIBBING:

Many different crochet options exist to simulate knitted ribbing. The 'ribbing' can be worked up and down as for knitting, or side to side after the rest of the garment is completed. The easiest simulated ribbing is with a sc or dc stitch, where you hook into the top loop only, or try the following for 'Embossed Long Doubles':

- Make foundation chain.
- Row 1: 1 dc in 4th chain from hook. 1 dc in each ch to end of chain. Ch 1. Turn
- Row 2: Skip 1st st. 1 sc in each st to end of row. Ch 2. Turn.
- Row 3: *yoh. Insert hook under 1st dc in 1st row horizontally from right to left. Yoh and draw through a long loop. Yoh and draw through 3 loops on hook. 1 dc in next st. Repeat from * to end of row. Ch 2. Turn.
- Repeat rows 2 and 3 for required length.

MOSS STITCH:

The knitted Moss (or Seed Stitch) can be simulated by several different crochet stitches. Check your reference book for Berry or Cluster Stitch, or try the following 'Moss Stitch':

- (Multiple of 2 sts plus 1) plus 1 ch
- Row 1: (1 sc, 1 dc) in 2nd ch from hook. *Skip 1 ch. (1 sc, 1 dc) in next ch. Repeat from * to end of ch. Ch 1. Turn.
- Row 2: Miss first 2 sts. (1 sc, 1 dc) in each dc to end of row. Ch 1. Turn.
- Repeat Row 2 to required length.

GARTER STITCH

Knitted garter stitch can also be simulated by a variety of crochet stitches. A couple of options are:

- Alternating rows of single and double crochet
- Back Loop Single Crochet (work as for single crochet, except from row 2 onwards insert hook into back loop only of each st).

WORKSHEETS AND FORMS

BASICS

BASICS (PEOPLE, DOLLS & BEARS): SIZE DATA WORKSHEET

Size Name: _____ Units: ins / cm

Description: _____ Name:_____

Stuffed Animal: Seated only / Standing (see below) Date: _____

ACTUAL PHYSICAL MEASUREMENTS

1. Height:	_____	8. Neck:	_____
2. Chest:	_____	9. Neck to Waist:	_____
3. Waist:	_____	10. Neck to Heel:	_____
4. Hips:	_____	11. Crotch:	_____
5. Armhole:	_____	12. Thigh:	_____
6. Arm length:	_____	13. Leg length:	_____
7. Wrist:	_____	14. Head:	_____

Comments:

The above contains ACTUAL PHYSICAL MEASUREMENTS of the body. They are NOT the finished dimensions of the garment, and do NOT include any ease. These measurements are used to calculate the finished dimensions of any garment that you design, depending on the design parameters and ease selected at that time. For measuring instructions, see How To Measure

For a visual representation of these measurements, see the doll diagram or the bear diagram

Seated only: Select 'seated only' if the stuffed animal is permanently seated, i.e. the legs are extended in front of the body, and cannot be fully aligned with the rest of the body. This parameter is used in calculating the back seat shaping for pants; usually permanently seated bears have much bigger bottoms.
Select 'standing' if the legs can pivot at the hips or are permanently in line with the upper half of the body.

BASICS (PEOPLE, DOLLS & BEARS): HOW TO MEASURE

The custom body should be measured accurately with a flexible tape measure. The following instructions are for dolls and stuffed animals. You may wish to print and use the doll worksheet to record your data. For pets and other live animals, the measuring instructions are on the pet worksheet . For a visual representation of these measurements, see the doll diagram, the bear diagram or the dog diagram

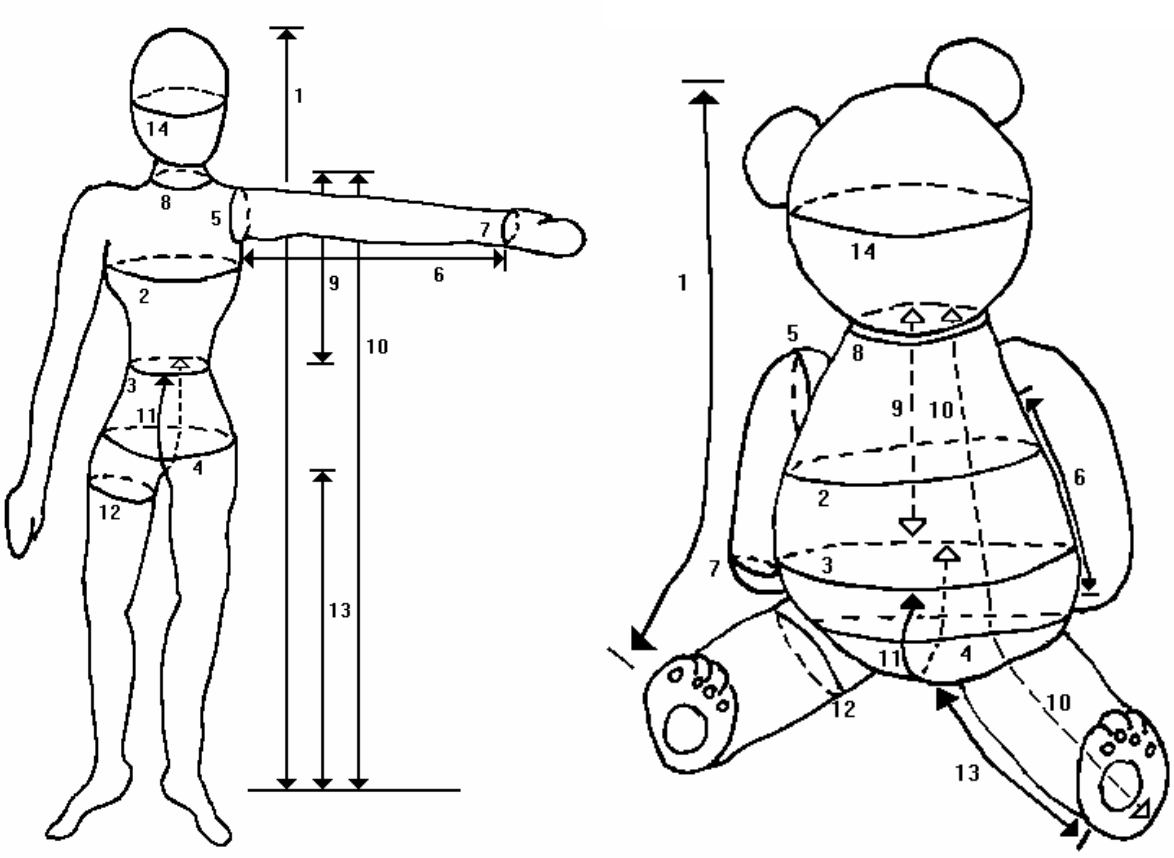
All measurements are actual physical sizes. Ease is added at design time. Numbers below refer to the diagrams.

Measuring tips:

- Measure snugly, but not tight (except waist, see below). Do not dig deeply into the fur of bears, remember their clothes must go over their fur.
- Tie a string around the waist, to measure the neck-waist and crotch. For small dolls and bears, where the tape measure is not flexible enough for accurate measurement, use a string. Tie a knot at one end to mark the beginning of a measurement and then mark the other end, with a felt pen or your nail. Then measure the length of the string.

1	**Height**	With the person or doll standing upright, from the top of the head (not the top of the hairdo) to the floor. For pudgy bears you may need to lie them down on the table over a tape. (Measurement is not used in any calculations, just used to identify different generic types of dolls and bears).
2	**Chest**	Around the body, under the arms. On a lot of bears, this is at the same place as the waist.
3	**Waist**	Around the body, at the waistline. This is a fairly arbitrary position on most bears. Position it where the waistband of pants or skirts would be. Measure waist tightly for soft bodied dolls/bears, so that the pants and skirts will stay up.
4	**Hips**	Around the body, at the widest part below the waist and above the knees. It may be over a stubby tail (if said tail would be inside a skirt or pants), or over the thighs (especially on bears with sectional legs).
5	**Armhole**	Follow around the shape of the arm where it joins the body, over the shoulder.
6	**Arm Length**	Measure from the underarm (bottom of the armhole) to the wrist. Follow the curve of the arm if the arm is fixed in a bent position.
7	**Wrist**	Around the arm at the wrist, where the end of a sweater sleeve would go.
8	**Neck**	Around the neck.
9	**Neck-Waist**	At the back, measure from neck to waist string. Neck point is where the top of a sweater would go, where the neck joins the shoulder, rather than where the neck joins the head. For people, this is from the top of the vertebrae.
10	**Neck-Heel**	Measure at the center back, from neck to heel, standing with legs straight. This may be a bit difficult to measure for permanently seated bears, try lying them face down and squashing them slightly. This measurement is used for dress, skirt and pant lengths.
11	**Crotch**	Measure from back waist string, under the crotch, to the front waist string. Used for pants. For babies and toddlers, measure with diaper on, since the pants will be worn over a diaper.
12	**Thigh**	Measure around the leg at the fattest part. On some bears this may be at the ankle.
13	**Leg Length**	Measure on the inside of the leg from the center of the crotch to the floor. If the legs are in a fixed bent position, measure along the curve from crotch to knee, then knee to ankle. This measurement is used for pants length.
14	**Head**	Horizontally around the widest part of the head, usually over the nose (but not if it is a long extended nose like a dog). It may also go over the ears. Compare with a position where a hat brim would sit. You can be a bit arbitrary with this one. This measurement is used to ensure that a sweater or dress will pull over the head, and is also used to determine hat size.

BASICS (PEOPLE, DOLLS & BEARS): MEASURING DIAGRAMS



BASICS (DOGS): SIZE DATA WORKSHEET

Size Name: _____ Units: ins / cm

Animal Type: Cat / Dog / Other _____

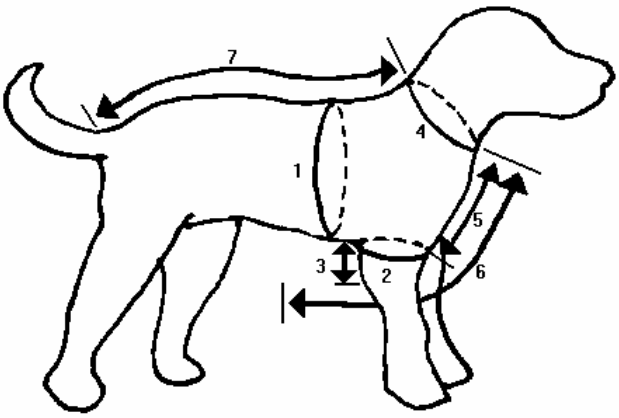
Breed: _____ Name: _____

Sex:Male / Female Age: _____ Date: _____

ACTUAL PHYSICAL MEASUREMENTS

1. Chest: _____
2. Leg (Armhole): _____
3. Leg to Elbow: _____
4. Neck: _____
5. Neck to Leg: _____
6. Neck to Chest: _____
7. Neck to Tail: _____

Comments:



To measure your pet:

- Ask your pet to stand so you can take the first six measurements.
- Ask him/her to sit so you can measure 'neck to tail'.
- Give your pet lots of praise and a big treat for being so cooperative ☺.

1. Chest: around the largest part of the chest.

2. Leg (Armhole): around the front leg at the top ('underarm').

3. Leg to Elbow: along the back of the front leg, from the top ('underarm') to the elbow.

4. Neck: midway along the neck, at collar position.

5. Neck to Leg: along the front, from collar position to top of front leg.

6. Neck to Chest: along the front and underside, from collar position to end of rib cage (or midway between back and front legs).

7. Neck to Tail: along the back, from collar position to base of tail.

The above contains ACTUAL PHYSICAL MEASUREMENTS of the body. They are NOT the finished dimensions of the garment, and do NOT include any ease. These measurements are used to calculate the finished dimensions of any garment that you design, depending on the design parameters and ease selected at that time.

BASICS: PATTERN DATA WORKSHEET #1

DESIGNER DATA

Measurement units: ins / cms Type of needles/Hook: Metric / American / Canadian

Work body of garment:machine / hand / crochet Type of knitting machine: _____

Ribbing: machine / hand / ribber / crochet (Machine) ribbing: first / last

YARN AND GAUGE DATA

For whom: _____ TEST SWATCH GAUGE (over 10cm = 4")

Start date: _____ BODY RIBBING

Finish date: _____ Stitches: _____ Stitches: _____

Yarn name: _____ Rows: _____ Rows: _____

Yarn colour(s): _____ NEEDLE / TENSION DIAL / KEYPLATE SIZE:

Yarn composition: _____ Body of garment: _____

Washing instructions: _____ Ribbing: _____

SIZE DATA

Size: Custom / Standard Type: People / Doll / Bear Standing / Bear Seated / Dog / Cat / Other Pet

Size Name: _____

For Style and Dimension Data Worksheets for People, Dolls and Stuffed animals, see People & Doll Worksheet and for Pets, see Dog Sweater Worksheet.

BASICS (PEOPLE, DOLLS & BEARS): PATTERN DATA WORKSHEET #2

STYLE DATA

ALL EASE STYLE	ALL GARMENT STYLE	PULLOVER GARMENT LENGTH	SKIRT/DRESS GARMENT LENGTH
Skintight	Pullover	Waist	Mini
Tight	Skirt	Regular	Knee
Moderate	Dress	Hip	Ankle
Comfortable	Pants	Coat/Tunic	
Coat	(Dog Sweater)		

PULLOVER/DRESS SLEEVE LENGTH	SKIRT/DRESS SKIRT STYLE	PANTS PANT LENGTH	PANTS PANT LEG STYLE
Long	Straight	Pantie	Legging
Cap	Flared	Shorts	Slim
Inset (sleeveless)	Ruffled	Knee / Capri	Straight
		Ankle	Flare / Wide Flare

FINISHED DIMENSIONS

TOP	NECKLINE	SKIRT/PANTS
Chest: _____	Top Neck Opening: _____	Length: _____
Length: _____	Front Width: _____	Skirt Bottom: _____
Ribbing Length: _____	Front Depth: _____	Waist: _____
Armhole: _____		Hips: _____
Sleeve Length: _____		Leg Width: _____
.		Leg Length: _____

Note: Not all dimensions shown for all styles. Top and Neckline dimensions are for pullovers and dresses only. No skirt/pants dimensions for pullovers. No sleeve length for sleeveless pullovers or dresses; and so forth.

BASICS (DOG SWEATERS): PATTERN DATA WORKSHEET #2

STYLE DATA

Garment Style = Dog Sweater

DOG SWEATER STYLE: Simple, Pullover, Pullover Back Opening, Tuxedo

ALL EASE STYLE	DOG SWEATER COLLAR	DOG SWEATER FRONT LENGTH	DOG SWEATER SLEEVE LENGTH
Skintight	Single Band	Short	Short
Tight	Double Band	Medium	Medium
Moderate	Rolled Edge	Long	Long
Comfortable			
Oversized			

FINISHED DIMENSIONS

BODY	NECK	SLEEVES
Chest: _____	Width: _____	Armhole: _____
Bottom Width: _____	Length: _____	Sleeve Length: _____
Back Length: _____		Ribbing Length: _____
Front Length: _____		
Ribbing length: _____		

Note:
- Sleeve dimensions are not used for the Simple (sleeveless) style.
- Bottom Width and Front Length are not used for the Pullover style.

SWEATERS

SWEATERS: SIZE DATA WORKSHEET

Size Name: _____ Units: ins / cm

Sex:Woman / Man / Child Age: _____ Date: _____

ACTUAL PHYSICAL MEASUREMENTS

Chest:	_____	Arm length:	_____	Neck to Waist:	_____
Waist:	_____	Arm depth:	_____	Waist to Hip:	_____
Hips:	_____	Upper arm:	_____	Waist to Knee:	_____
Back width:	_____	Wrist:	_____	Waist to Ankle:	_____
				Head circ.:	_____

CALCULATION FACTORS

Top neck opening at back: default or _____

Front neck depth: default or _____

Body ribbing length: default or _____

Neck-band ribbing length: default or _____

EASE FACTORS

Ease factor: default or _____

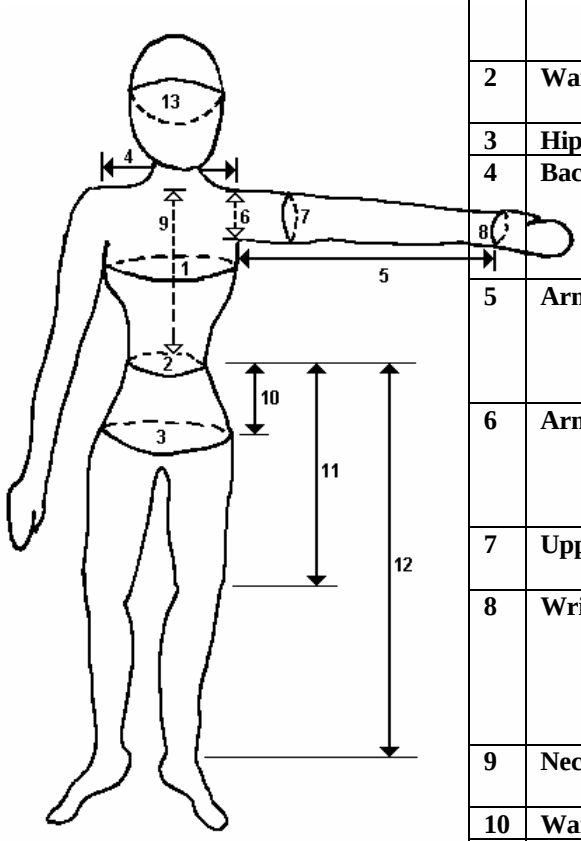
The first section contains ACTUAL PHYSICAL MEASUREMENTS of the body. They are NOT the finished dimensions of the garment, and do NOT include any ease. These measurements are used to calculate the finished dimensions of any garment that you design, depending on the design parameters and ease selected at that time. For measuring instructions, see How To Measure and the body measurement diagram. For notes on measuring dolls and calculation factors, see How To Measure.

EASE FACTOR, combined with Ease Style, is used extensively in the program to calculate the finished dimensions of the garment. CHANGE WITH CARE!!

SWEATERS: HOW TO MEASURE

The custom body should be measured accurately with a tape measure as follows. You may wish to print and use a worksheet to record your data.

Do not try to measure yourself, the numbers just will not be accurate. Wear normal foundation garments, at most a light close-fitting garment over that. Have the person being measured raise both arms, tie a string snugly around the upper body at the underarms. Tie a second string around the waist.



1	**Chest**	Around the fullest part of the bust or chest, with the tape measure straight across the back. The chest should be fully expanded; breathe deeply.
2	**Waist**	At the natural indentation, fitting comfortably (room to breathe).
3	**Hips**	Around the widest or fullest part.
4	**Back width**	Straight across the back, between the shoulder bone tips. Alternatively, measure between the shoulder seams on a tight fitting shirt.
5	**Arm length**	Along the inside of the arm, from the body at the underarm string to the wrist, with the elbow slightly bent and the arm away from the body.
6	**Armhole depth**	At the back, from the top of the shoulder bone to the bottom of the armhole (at the string). Alternatively, use half of the measurement around the armhole.
7	**Upper arm**	Around the fullest part of the upper arm, muscles flexed (if it makes a difference).
8	**Wrist**	Around the wrist bone. If the wrist is small and the knuckles large, measure also around the knuckles of the palm with the hand held flat, subtract 1" from this. Use the larger of the two numbers.
9	**Neck to waist**	At the back, from the top vertebra (knob) to the waist string.
10	**Waist to Hip**	At the side, from waist string to hips.
11	**Waist to Knee**	At the side, from waist string to center of knee cap.
12	**Waist to Ankle**	At the side or front, from waist string to ankle bone.
13	**Head circumference**	Circumference around the head; over the forehead and behind the ears.

Notes:

- For very small sizes (dolls, or babies with a 18” chest or less) extra data precision is shown (two decimal places for ins, one for cms) so your measurements can be more accurate.
- For Dolls, take care in setting the Calculation Factors. As a general guideline (or to give you some numbers to start with): the Top Neck Opening could be half the Back Width, the Neck Depth is one quarter the Back Waist, the Body Hem is half the Neck Depth, and the Neck Ribbing is half the Body Hem.

SWEATERS: PATTERN DATA WORKSHEET

SIZE DATA

Size: Custom / Standard Sex: Woman / Man / Child Size: _____
or Custom Size Name: _____

Women's		Men's		Children's
				18 in (46 cm) - Newborn
				20 in (51 cm) - 6 month
				22 in (56 cm) - 12 month
30 in (76 cm)	44 in (111 cm)	32 in (81 cm)	42 in (106 cm)	20 in (51 cm) - age 2
32 in (81 cm)	46 in (116 cm)	34 in (86 cm)	44 in (111 cm)	22 in (56 cm) - age 4
34 in (86 cm)	48 in (121 cm)	36 in (91 cm)	46 in (116 cm)	24 in (61 cm) - age 6
36 in (91 cm)	50 in (127 cm)	38 in (96 cm)	48 in (121 cm)	26 in (66 cm) - age 8
38 in (96 cm)	52 in (132 cm)	40 in (101cm)	50 in (127 cm)	28 in (71 cm) - age 10
40 in (101 cm)	54 in (138 cm)	.	52 in (132 cm)	30 in (76 cm) - age 12
42 in (106 cm)	56 in (142 cm)	.	.	32 in (81 cm) - age 14

Note: Children's sizes ages are only approximate. Measure to be accurate.

DESIGNER DATA

Measurement units:ins / cms Type of knitting needles/hook: Metric / American / Canadian

Work body of garment: machine / hand / crochet Type of knitting machine: _____

Work ribbing: machine / hand / ribber /crochet (Machine) ribbing: first / last

YARN AND GAUGE DATA

For whom: _____ TEST SWATCH GAUGE (over 10cm = 4")

Start date: _____ BODY RIBBING

Finish date: _____ Stitches: _____ Stitches: _____

Yarn name: _____ Rows: _____ Rows: _____

Yarn colour(s): _____ NEEDLE / HOOK / DIAL / KEYPLATE:

Yarn composition: _____ Body of garment: _____

Washing instructions: _____ Ribbing: _____

CONSTRUCTION METHOD: Flat, Circular Bottom-Up, Circular Top-Down

STYLE DATA

EASE STYLE	GARMENT STYLE	BODY LENGTH	BODY HEM
Skintight	Pullover / Cardigan	Crop / Waist	Ribbing
Tight		Regular / Hip	Moss St Band
Moderate	**BODY SHAPE**	Thigh	Garter St Band
Comfortable	Straight	Above Knee	Folded Edge
Oversized	Fitted Waist	Knee	Frill
.	A-Line	Calf / Ankle	Crochet / No Hem

SHOULDER STYLE	SLEEVE STYLE	SLEEVE LENGTH	SLEEVE HEM
Drop / Modified Drop	Narrow / Moderate Taper	Full	Ribbing
(Grafted / Not Grafted)	Lantern (Straight)	Three-Quarters	Moss St Band
Set-in:	Modified Lantern	Half / Short	Garter St Band
Classic / Gathered / Pleated	Bishop / Bell	Cap	Folded / Frill
Saddle / Raglan / Round Yoke	Dolman	Sleeveless (Inset)	Crochet / No Hem

FRONT NECK	BACK NECK	COLLAR STYLE	FRONT BAND
Round / High Round	Round / High Round	Single / Double Band	Vertical Rib
V	V	Shirt (Split)	Horizontal Rib
Square	Square	Rolled Edge	Picot (folded)
Scoop / Ballet	Scoop / Ballet	Funnel / Cowl	Moss Stitch
Butted Boat	Butted Boat	Turtleneck	Garter Stitch
Overlapped Boat	Overlapped Boat	Shawl Collar	None
Keyhole	Flat / Shallow	Simple / Shaped Hood	
Flat / Shallow	Backless	None / Crochet Edge	

FINISHED DIMENSIONS

BODY	SLEEVES	NECKLINE
Chest: _____	Armhole: _____	Top neck opening: _____
Hem Width: _____	Hem Width: _____	Front width: _____
Waist: _____	Sleeve top: _____	Front depth: _____
Hips: _____	Sleeve bottom: _____	Back width: _____
Back Width: _____	Sleeve length: _____	Back depth: _____
Body length: _____	Hem length: _____	Collar length: _____
Back Waist Len: _____	Shoulder Band: _____	Hood depth: _____
Hem length: _____	Cuff to Cuff: _____	Number of buttons: _____
Front Band Width: _____	.	Keyhole depth: _____

Note: Sleeve top and back width are not needed for drop shoulder.
Hood depth and hood length (use collar length) only for Hood collar style.
Front band width and number of buttons are only for cardigans or keyhole necks.
Shoulder Band width is only for Saddle shoulder style.

SKIRTS & SHAWLS

SKIRTS. SHAWLS and PONCHOS: SIZE DATA WORKSHEET

Size Name: _____ Units: ins / cm

Sex:Woman / Man / Child Age: _____ Date: _____

ACTUAL PHYSICAL MEASUREMENTS

Chest:	_____	Neck to Waist:	_____
Waist:	_____	Waist to Hips:	_____
Hips/Abdomen:	_____	Waist to Knee:	_____
Wrist to Wrist:	_____	Waist to Ankle:	_____
Height:	_____	Head circ.:	_____

CALCULATION FACTORS

Skirt Hem length: default or _____

EASE FACTORS

Ease factor: default or _____

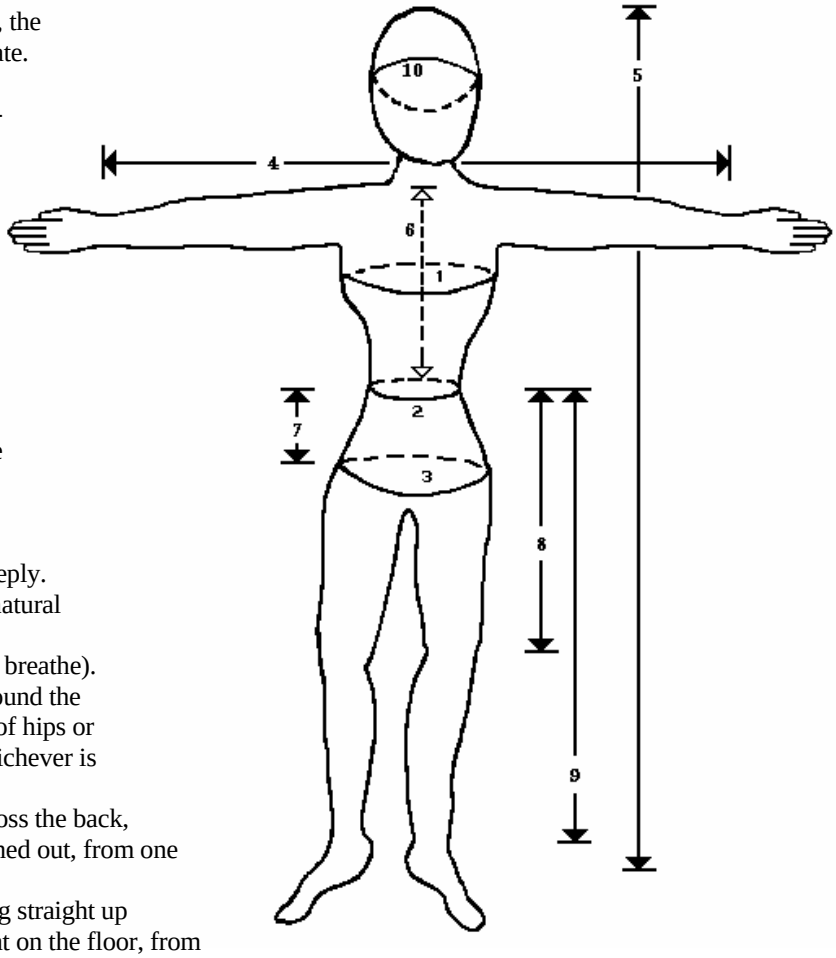
The first section contains ACTUAL PHYSICAL MEASUREMENTS of the body. They are NOT the finished dimensions of the garment, and do NOT include any ease. These measurements are used to calculate the finished dimensions of any garment that you design, depending on the design parameters and ease selected at that time. For measuring instructions, see How To Measure and the body measurement diagram.

EASE FACTOR, combined with Ease Style, is used extensively in the program to calculate the finished dimensions of the garment. CHANGE WITH CARE!!

SKIRTS & SHAWLS: HOW TO MEASURE

The custom body should be measured accurately with a tape measure as follows. You may wish to print and use a worksheet to record your data.

Do not try to measure yourself, the numbers just will not be accurate. Wear normal foundation garments, at most a light close-fitting garment over that. Have the person being measured raise both arms, tie a string snugly around the upper body at the underarms. Tie a second string around the waist.



1. **Chest:** Around the fullest part of the bust or chest, with the tape measure straight across the back. The chest should be fully expanded; breathe deeply.
2. **Waist**: At the natural indentation, fitting comfortably (room to breathe).
3. **Hips/Abdomen**: Around the widest or fullest part of hips or abdomen/tummy, whichever is bigger.
4. **Wrist to Wrist**: Across the back, with both arms stretched out, from one wrist to the other.
5. **Height**: Standing straight up against a wall, feet flat on the floor, from the floor to the top of the head.
6. **Neck to Waist**: At the back, from the top vertebra (knob) to the waist string.
7. **Waist to Hip:** Standing, vertical distance from waist to hips or abdomen, whichever is larger.
8. **Waist to Knee**: Standing straight, best measured at the side, from the waist string to the center of the knee.
9. **Waist to Ankle:** Standing straight, measured at the side, from the waist string to the ankle, or the level at which you would comfortably wear full length skirts.
10. **Head circ:** Circumference around the head; over the forehead and behind the ears.

Notes:

- For very small sizes (dolls, or babies with a 18” chest or less) extra data precision is shown (two decimal places for ins, one for cms) so your measurements can be more accurate.

SKIRTS & SHAWLS: PATTERN DATA WORKSHEET #1

SIZE DATA

Size: Custom / Standard Sex: Woman / Man / Child : _____
or Custom Size Name: _____

Women's		Men's		Children's
				18 in (46 cm) - Newborn
				20 in (51 cm) - 6 month
				22 in (56 cm) - 12 month
30 in (76 cm)	44 in (111 cm)	32 in (81 cm)	42 in (106 cm)	20 in (51 cm) - age 2
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40 in (101 cm)	54 in (138 cm)	.	52 in (132 cm)	30 in (76 cm) - age 12
42 in (106 cm)	56 in (142 cm)	.	.	32 in (81 cm) - age 14

Note: Children's sizes ages are only approximate. Measure to be accurate.

DESIGNER DATA

Measurement units: ins / cms Type of needles/hooks: Metric / American / Canadian

Work body of garment:machine / hand / crochet Type of knitting machine: _____

Work ribbing: machine / hand / crochet / ribber (Machine) ribbing: first / last

YARN AND GAUGE DATA

Knitting for whom: _____ TEST SWATCH GAUGE (over 10cm = 4")

Start date: _____ BODY RIBBING

Finish date: _____ Stitches: _____ Stitches: _____

Yarn name: _____ Rows: _____ Rows: _____

Yarn colour(s): _____ NEEDLE / HOOK / TENSION DIAL / KEYPLATE:

Yarn composition: _____ Body of garment: _____

Washing instructions: _____ Ribbing: _____

SKIRTS: PATTERN DATA WORKSHEET #2

SKIRT STYLE DATA

EASE STYLE	GARMENT STYLE	SKIRT SHAPE	CONSTRUCTION
Skintight	Skirt	Straight	Top down
Tight	.	A-line	Bottom Up
Moderate	.	Flared	Sideways
Comfortable	.	Swing (Godet)	Oversized/Coat

WAISTBAND	WAIST-TO-HIP	SKIRT LENGTH	SKIRT HEM
Ribbing	Gathered	Mini	Ribbing
Elastic Casing	Shaped at Sides	Above Knee	Moss St Band
Drawstring	Tiered	Knee	Garter St Band
Herringbone	.	Calf (Midi)	Frill (ruffle)
Crochet	.	Ankle	Folded Band
None	.	Floor	Crochet Edge
.	.	.	None

Number of Panels: _____

SKIRT FINISHED DIMENSIONS

WIDTHS	LENGTHS
	Waistband: _____
Waist: _____	Waist to Hip: _____
Hips/Abdomen: _____	Hip to Hem: _____
Godet: _____	Godet: _____
Hem: _____	Hem: _____
	Total: _____

Note: Godet width and length are only for Swing (godet style).

SHAWLS, AFGHANS and PONCHOS: PATTERN DATA WORKSHEET #2

GARMENT STYLE	SHAWL/AFGHAN SHAPE	SHAWL SIZE	AFGHAN SIZE
	Circle	Small	Queen Bed / Double Bed
Shawl	Half circle	Medium	Single Bed
Afghan/Blanket	Rectangle	Large	Throw / Lap
Poncho	Square / Shetland	.	Crib / Baby
	Triangle	.	Dish Towel
.	Faroese	.	Pot Holder

SHAWL/AFGHAN BORDER	SHAWL/AFGHAN CONSTRUCTION	PONCHO CONSTRUCTION	PONCHO SIZE
Marathon	Top Down		Chest
Sprint	Bottom Up	Two Rectangles	Waist
Fringe	Sideways	Four Triangles	Hip
Crochet	Diagonal	Circle:	Thigh
None	Center Out: Wedges	Sideways / Top-Down	Knee
.	Center Out: Rings	Closed / Open	Calf Ankle

Number of Wedges: _____ (applies only to Circle or Half-Circle shapes – not Rings method)

FINISHED DIMENSIONS

SHAWL/AFGHAN		PONCHO	
Main Panel Width:	_____	Poncho Length:	_____
Main Panel Length:	_____	Poncho Width:	_____
Border Width:	_____	Neck Width:	_____
Gusset Width:	_____	Neck Band Depth:	_____
Total Width:	_____	Border Depth:	_____
Total Length:	_____	Fringe Length:	_____

Note: Gusset width is only for Faroese or Shetland Shawl styles.

ABOUT KNITWARE

WHERE TO FIND KNITWARE

KNITWARE is available from Great Knit Designs, as well as from several retailers, both online and "brick-and-mortar" stores. Please see www.greatknitdesigns.com for up-to-date information, or contact:

Great Knit Designs
P.O. Box 1888
South San Francisco, CA 94083-1888
Tel.: (650) 491-3852
Fax: (650) 873-3331
E-mail: info@greatknitdesigns.com
Website: www.greatknitdesigns.com

KNITWARE DESIGN HISTORY

New Ownership June 2006

- Knitware ownership transfers to Great Knit Designs (division of Lai Associates, Inc.), run by Ada Lai
- Website: www.greatknitdesigns.com

Version 2.50.2 April 2005

- Update to correct two problems: missing files (sizes.db, size worksheet)
- **Can be downloaded from www.greatknitdesigns.com/download250.htm**

Version 2.50.1 March 2005

- All programs, update including:
  - Round Yoke Calculator and Hat Calculators
  - Improved Yarn Estimator
  - Menus on all forms
- Basics (renamed from Critter Clothes):
  - Add people sizes
  - Improved pants design
  - Dog Sweaters: back opening, rolled collar.
- Sweaters:
  - Top-Down and Bottom-Up, Flat and Circular
  - Round Yoke Shoulder
  - Set-in Gathered and Pleated Caps
  - Longer sweater body styles: Thigh to Ankle
- Skirts & Shawls: Add ponchos

Version 2.40 March 2003

- Skirts and Shawls – new program for skirts, shawls and afghans
- Sweaters and Critter Clothes: Update, including:
  - Crochet option
  - Overlay graphing grid on schematic
  - Sweaters styles: keyhole neckline, shirt collar, saddle shoulder, dolman sleeve

Version 2.30 November 2001

- Sweaters and Critter Clothes: Update, including:
  - Stitch (Texture) patterns
  - Graph paper, magic formula, change colours and fonts
  - Sweater styles: High round and ballet necklines, modified drop shoulder, backless.
  - Sweaters: new sleeve styles of taper, lantern, bishop and bell.
  - Sweaters: optional number of buttons on cardigan, deeper scoop and square necks, more raglan shoulder options.

Version 2.20 November 2000

- Sweaters and Critter Clothes: Update, including:
  - Pattern instructions: save/load, fix margins
  - Schematics: save or copy to clipboard, annotate sts and dimensions
  - Sweater styles: fitted waist and A-line body styles, shallow back neck, hem variations
  - Sweaters: add women's plus and baby sizes

Version 2.10 November 1999

- Critter Clothes: Windows 95/98 version
  - Formerly Doll & Bear clothes
  - Added Dog Sweater designs
  - Improved schematics
  - Use Windows print manager for printing
  - Add calculate yarn amount

Version 2.00 November 1998

- Sweaters: Windows 95/98 version
  - Combine with Tops/Vests program
  - Improved schematics
  - Use Windows print manager for printing

Version 1.50 June 1995

- Sweaters & Tops/Vests: Update, including:
  - Print Schematics.
  - Annotate measurements on schematics.
  - Calculator functions.
  - Hoods.
  - Option to print pattern from design screens.

Version 1.40 November 1994

- Doll & Bear Clothes: Initial release

Version 1.30 November 1993

- Sweaters & Tops/Vests: Update, including:
  - Customize Size Data
  - Schematic drawing on screen.
  - Back neck shaping for Tops/Vests.
  - Print option to screen/ASCII file.
  - Add designer name to printed pattern.

Version 1.20 December 1992

- Sweaters: Update, including:
  - New necklines: scoop, square, and boat.
  - New collars: doubled band, rolled edge, turtleneck, and shawl.

- Expanded pattern data file format.

- Tops and Vests: Initial release.
  - Includes all features of Sweaters, with different sleeve lengths and shaping.

Version 1.10 January 1992

- Sweaters: Initial release. Product created by Janet Tombu, Morningdew Consulting Services, Ltd.