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Labels

4th Dimension's Label editor provides a convenient way to print a wide variety of labels.

With the Label editor, you can do the following:

- Design labels for mailings, file folders and file cards, and for many other needs
- Specify the font, font size, and style to be used for the labels
- Specify the number of labels across and down on each page
- Specify the label page margins
- Load and save label designs
- Print labels

Labels can also be created using the Form editor in the Design environment. Use the Form editor to design specialized labels that include variables or take advantage of the drawing tools available in the Form editor. For more information about using the Form editor to create labels, refer to the *4th Dimension Design Reference* manual.

The Label Wizard

You use the Label Wizard to create, format, and print labels in the User environment. The Label Wizard contains settings for designing labels and positioning the labels on label paper. For example, when producing mailing labels, you might want a label design that includes the person's first and last name on the first line, the street address on the second line, and so on.

As part of the design, the Label Wizard enables you to specify the number of labels on the page and the margins of the label paper so that the label text is centered within the labels.

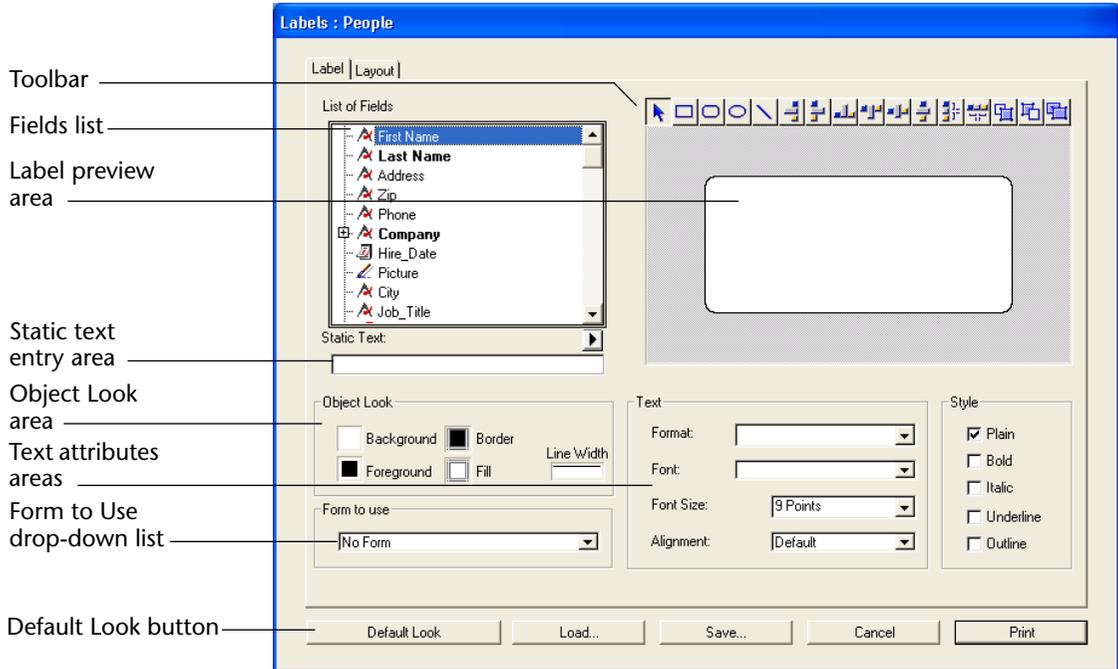
The Label Wizard consists of two pages, the Label page and the Layout page, each identified by a tab at the top of the dialog box. You use the Label page to specify the content of the label and the Layout page to define the size and position of the labels on the page. When you create a satisfactory label design, you can save it to disk so that you can reuse it.

Opening the Label Wizard

To open the Label Wizard:

Choose **Labels** from the **Report** menu.

4th Dimension displays the Label page of the Label Wizard.



Label Page

The Label page contains settings for designing and formatting labels.

The Label page contains the following elements:

- Fields list** This area displays the names of the fields in the current table in a hierarchical list. If this table is related to other tables, the foreign key fields have a plus sign (on Windows) or an arrow (on Macintosh). You can display fields from the related table by expanding the relating fields. The fields in the related table are indented.

Note Only tables and fields which are visible appear in the Label Wizard. For information about making tables and fields invisible, refer to the *4th Dimension Design Reference* manual.

- **Label preview area** You use this area to design your label.
- **Toolbar** The Label Wizard toolbar contains tools for drawing, selecting, aligning, distributing, layering, and duplicating objects. For complete information on the toolbar, see the section [“The Label Wizard Toolbar”](#) on page 192.
- **Object Look area** These controls let you specify foreground and background colors, fill patterns, and borders for individual objects on the label.
- **Default Look button** This button applies the default set of Object Look attributes to the selected object.
- **Static Text entry area** This area allows you to add static text objects to the label.
- **Text attributes areas** These controls allow you to specify the font, font size, display format, and style of the text.
- **Form to Use drop-down list** This drop-down list lets you bypass the Label Wizard and use a form to print the labels. If you are using the Label Wizard to create the label, choose No Form (the default) from this list. If you want to use a form, choose it from this list. 4th Dimension will then ignore any other label specifications in the Label Wizard and print the labels according to the design or the specified form. As with any print job, it executes any form or object methods associated with the form. See the *4th Dimension Design Reference* manual for more information about designing forms for labels.

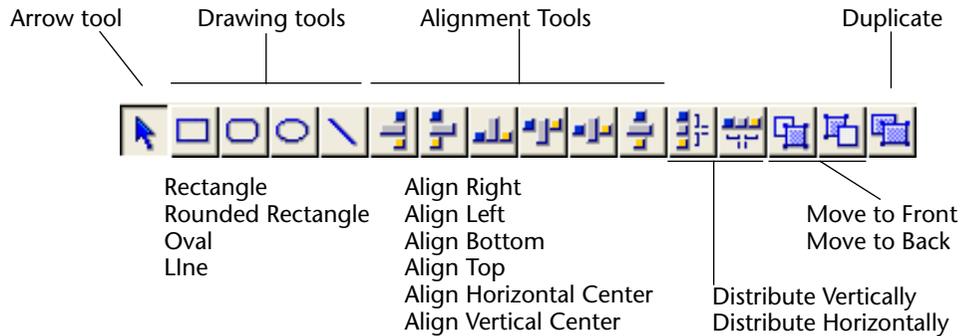
Layout Page

The Layout page contains controls for printing labels based on the requirements of the printer you selected in the Print Manager (Chooser on Macintosh), so that it can format the page accurately.

For complete information on the Layout page, see the section [“Specifying the Label Layout”](#) on page 203.

The Label Wizard Toolbar

The Label Wizard toolbar contains the following tools.



Creating a Label Design

You create a label by dragging field names to the Label Preview area, adding static text, drawing graphic objects using the graphics tools in the toolbar, and pasting graphics from the Clipboard. You can edit the label by distributing, moving, resizing, layering, and aligning objects. With the Object Look and Text attribute areas, you can control the font attributes, foreground and background colors, fill patterns, and borders of individual objects.

The Label Preview area shows the approximate size and shape of the selected label. Before adding elements to the label, you may want to specify your label paper and label dimensions using the Layout page. For information, see the section [“Specifying the Label Layout” on page 203](#).

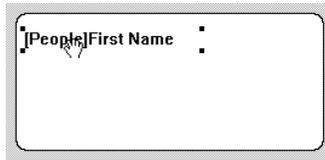
Note You cannot add a formula (a variable) to a label with the Label Wizard. If you need to use a variable on a label, use the Form editor.

► To create a label:

- 1 Drag the first field you want to display in the label from the Fields list to the Label Preview area.**

If the field is in a related table, expand the relating field to display the fields in the related table.

Your field is added to the Label Preview area. Selection handles indicate that it is selected.



2 If you want to concatenate a field to this field, drag the new field from the Field list to the existing field.

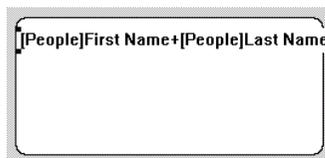
OR

If you want to concatenate two fields using the Carriage return as the separator, drag the new field by holding down the Shift key.

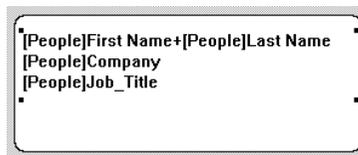
OR

Otherwise, continue dragging fields to the Label Preview area.

- When you concatenate two fields by simply dragging and dropping them, the separator used is the one defined in 4th Dimension's resources. By default, the Space character is used. A "+" between field names in a field object indicates that the fields are concatenated on a single line. When 4th Dimension prints the label, it will insert a space between the fields on the same line. The following illustration shows the concatenation of the First Name and Last Name fields.



- If you concatenate two fields by dragging and dropping the second field while holding down the Shift key, the Carriage return is used as the separator. When the labels are being printed, if the second field is empty, its position is deleted and is replaced by the next field. If a field contains some text with Carriage returns, they are taken into account.



For example, this feature allows you to create address labels by using many concatenated fields ([Clients]Address1, [Clients]Address2, etc.) without generating an empty line when a field is blank.

You can automatically resize a group of concatenated fields so that it corresponds to the number of lines that it contains. To do so, **Ctrl+click** (Windows) or **Command+click** (MacOS) on the lower right handle of the group.

As you add fields, you can reposition them by dragging or using the alignment tools in the toolbar.

3 To add a text element to the label, enter the text in the Static Text area and click the arrow .

The static text object is added to the Label Preview area. The following illustration shows a static text element being added to the label.



After you add the element to the label, you can reposition it by dragging and aligning it with other objects.

4 (Optional) Using a drawing tool, draw any graphic objects that you want to add to the label.

For example, you could add different backgrounds to the “TO:” and “FROM:” sections of the label.

5 (Optional) Paste a graphic from the Clipboard into the Label Preview area.

For information on adding a graphic to the label, see the section [“Adding a Graphic to the Label” on page 202](#).

After you add all required elements to the Label Preview area, you can use any of the editing tools to modify the label design. For complete information, see the section [“Working with Label Wizard Objects” on page 195](#).

How the Label Wizard Handles Blank Fields

Some records in your database may not contain entries for every field. When printing labels, the Label Wizard handles blank fields intelligently. Instead of leaving gaps where the data should be, the Label Wizard concatenates the data.

If a field in a line contains no data for a particular record, 4th Dimension concatenates the remaining fields in the line without leaving a blank space for the missing data.

If an entire line contains no data for a particular record, 4th Dimension vertically concatenates the remaining lines in the label without leaving a blank line.

4th Dimension automatically centers the text of the label inside the label area.

Clearing Fields

If you make a mistake, you can remove one or more fields from the label.

- ▶ To remove an object:

1 Select the object and press Backspace (Delete on Macintosh).

The selected object is removed. If the object is a row of concatenated fields, pressing Backspace removes only the last field in the row. Continue pressing Backspace to remove more fields from the row.

Working with Label Wizard Objects

This section discusses the techniques for editing objects placed on the label. It includes:

- Creating graphic objects,
- Aligning objects,
- Distributing objects,
- Layering objects,
- Duplicating objects,
- Moving objects,
- Resizing objects,
- Adding a border to an object,
- Adding foreground or background fill colors, patterns, and borders,
- Pasting a graphic into the label,
- Deleting objects.

Creating Graphic Objects

You can create a graphic object by drawing.

► To create an object:

1 Select the type of object you want to draw by clicking its tool in the toolbar.

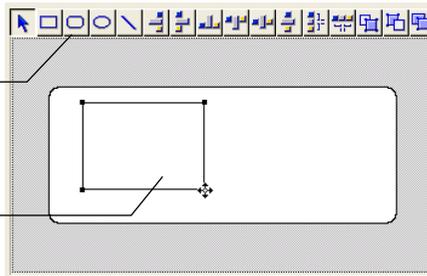
The pointer becomes a crosshair when it is over the Label Preview area.

2 Drag to create an area for the object.

For two-dimensional objects (ovals, rectangles, and rounded rectangles), drag diagonally.

1) Select that drawing tool you want to use

2) Drag to draw the objects



Note Hold down the **Shift** key as you draw to constrain the object to a regular shape. Lines are constrained to horizontal or vertical, rectangles are constrained to squares, and ovals are constrained to circles.

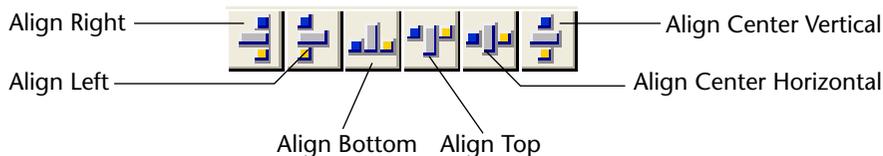
3 When you have finished drawing the object, release the mouse button.

4th Dimension creates the object and makes it the currently selected object. The Arrow tool is automatically selected and the pointer becomes an arrow.

Aligning Objects

The alignment tools let you align objects to each other. When you align one object to another, you can align it to the top, bottom, side, or horizontal or vertical center of the other object.

The following illustration shows the Label Wizard's alignment tools.



The arrangement of lines represents the function of each tool. For example, the Align Right icon shows the lines aligned vertically on the right side of the box. The Align Center Vertical icon shows the lines aligned vertically in the middle.

► To align a set of objects:

1 Select the objects that you want to align.

Shift-click to select several objects.

2 Click the alignment tool that corresponds to the alignment you want.

4th Dimension aligns the selected objects according to the alignment you selected.

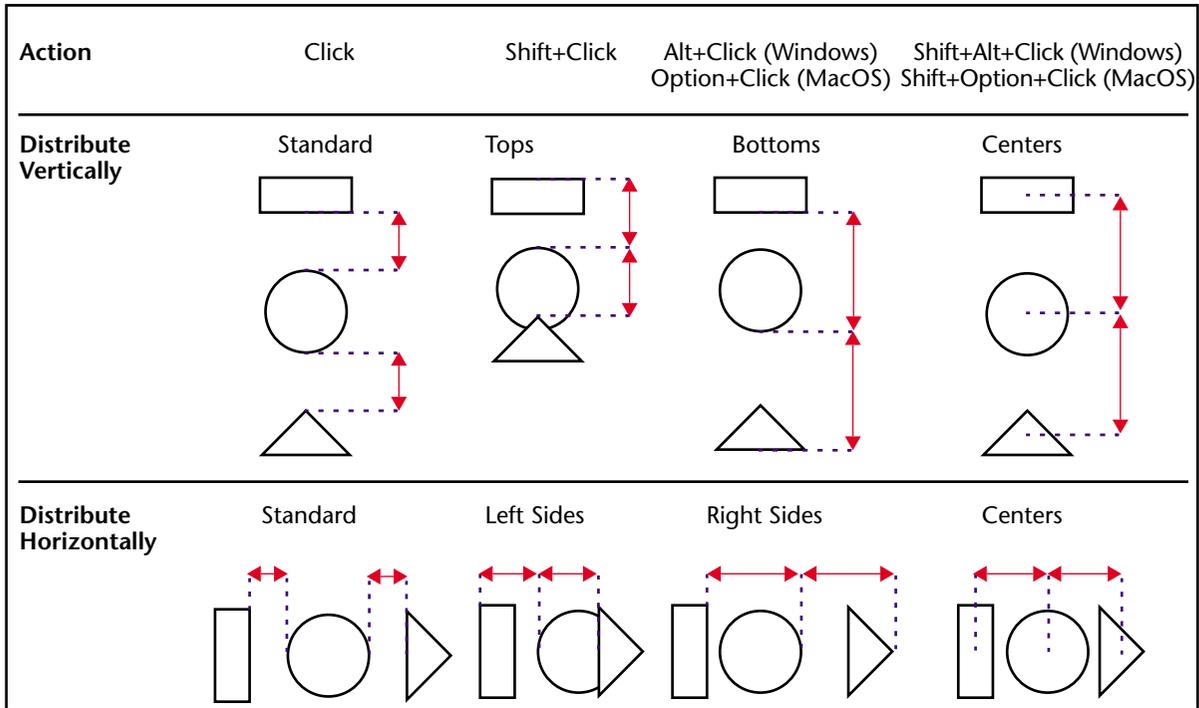
Distributing Objects The toolbar includes two tools that let you distribute three or more objects evenly.

Distribute vertically —  — Distribute horizontally

When you use either tool, you can modify its action by holding down the **Shift** or **Alt** keys when you click either tool.

- **Clicking** Distributes the objects from their adjacent sides,
- **Shift+Clicking** Distributes the objects from their left sides (horizontal) or tops (vertical),
- **Alt+Clicking** Distributes the objects from their right sides (horizontal) or bottoms (vertical),
- **Shift+Alt Clicking** Distributes the objects from their centers.

These rules are illustrated in the following diagram.



► To distribute a set of objects:

1 Select the objects that you want to distribute.

You must select at least three objects. Hold down **Shift** and click to select several objects.

2 If desired, hold down a modification key or key combination and click the Distribute Horizontally or Distribute Vertically tool.

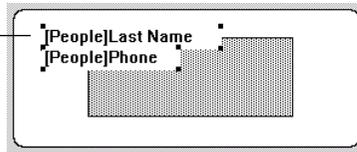
4th Dimension distributes the selected objects according to the rules you selected.

Layering Objects

You may want to create a design that uses objects in different layers. For example, you may want to place a shaded rectangle behind the fields on a label. The Label Wizard provides the **Move to Back** and **Move to Front**, tools that let you layer objects on the label.

The following illustration shows objects in front of other objects.

Fields in front of shaded rectangle



Clicking the **Move to Front** or **Move to Back** tools moves the selected objects to the top or bottom layer. If you want to move the object only one layer toward the front or back, hold down the **Shift** key when you click **Move to Front** or **Move to Back**.

- ▶ To move an object to the front or back:

1 Select the object or objects that you want to move to the back.

Hold down **Shift** and click to select several objects.

2 Click the Move to Front or Move to Back tool in the toolbar.

^{4th} Dimension moves the selected object or objects to the front of or behind all the other objects.

Note When you move an object to the back, it may be hidden by objects in front of it. To see the object, select the object in front and send it to the back.

Duplicating Objects You can duplicate any object in the label. Copies of active objects retain all the properties of the original, including foreground and background colors and fill patterns, text attributes, and display format.

- ▶ To duplicate an object:

1 Select one or more objects.

Hold down **Shift** and click to select several objects.

2 Click the Duplicate tool in the toolbar.

^{4th} Dimension duplicates the selected object or objects.

Moving Objects You can move objects by selecting them and dragging with the mouse. You can also use the arrow keys to move the object one or ten pixels at a time.

- To move an object one pixel at a time, select the object and press an arrow key.

- To move an object ten pixels at a time, select the object, hold down the **Ctrl** key (on Windows) or **Command** key (on Macintosh), and press an arrow key.

Resizing Objects

You can resize any object on the label by selecting it and dragging a selection handle.

- ▶ To resize an object by dragging:

1 Select the object you want to resize.

2 Move the pointer over one of the four handles that appear on the selected object.

The pointer changes into a multi-directional arrow  and the handles disappear.

3 Drag the handle toward the center of the object to shrink it.

OR

Drag the handle away from the object's center to enlarge it.

4th Dimension resizes the object.

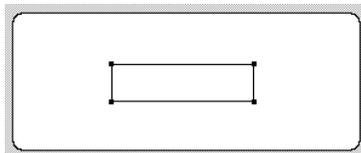
Adding a Border to an Object

You can add a one-pixel border to an object. The border can be from one to nine pixels from the object.

- ▶ To add a border:

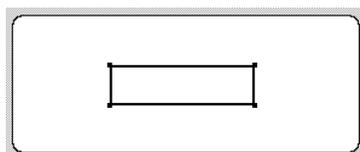
1 Select the object.

The selected object is indicated by selection handles.



2 Hold down the Ctrl key (Command key on Macintosh) and press a number from 1 to 9 on the numeric keypad.

A border is added to the object. The distance from the object (in pixels) is controlled by the number you pressed. The following illustration shows the results of pressing **Ctrl+1**.



Adding Foreground or Background Colors

4th Dimension lets you add colors to objects for display on a color monitor or (if your printer supports color) for color printing. By combining selected colors with fill patterns, you can display thousands of different color shadings.

Note Colors appear black and white on a black and white monitor. They appear as shades of gray on a gray-scale monitor. The color palettes display shades on a gray scale monitor.

You can specify different colors for foreground pixels (pixels that appear black on a black-and-white monitor) and background pixels (pixels that appear white on a black-and-white monitor). If the object is a field or static text, the foreground color controls the color of the text and the background color controls the color of the object's rectangle.

You set foreground and background colors using the **Background** and **Foreground** picture menus in the Object Look area of the Label Wizard.

If your monitor supports 16 colors, choose the colors from the first 16 colors on each palette. If your monitor supports 256 colors (or more), any colors you choose will display properly.

Setting Fill Patterns

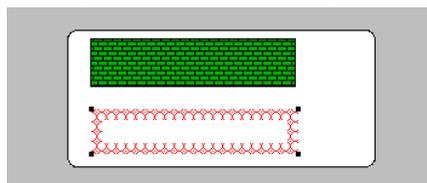
You can apply a fill pattern to any two-dimensional graphic object in the form such as an oval, a rectangle, a line, the enclosed area of a field or static text object, and a two-dimensional object's border.

The **Fill** picture menu controls the fill pattern for the selected object. The **Border** picture menu controls the fill pattern for the border.

Setting Border Patterns

You can set patterns for the borders of any object in the form that has a border such as an oval, a rectangle, and a grid object. The border patterns available are the same as the fill patterns. The appearance of the border also depends on the line width you have specified for the border.

The following illustration shows a fill pattern applied to the upper rectangle and a border fill pattern applied to the bottom rectangle.



Setting Line Width

The **Line Width** pop-up menu controls the width of a line or the width of the border of a two-dimensional object.



To set a line width, select the object and choose a line width from the **Line Width** pop-up menu.

Restoring the Default Look

When you add an object to the label, it takes on the Object Look attributes of the most recently created object. If you want to assign the default Object Look attributes to this object (or any object), select the object and click **Default Look**. The foreground and background colors, fill patterns, and border width are reset to the default settings.

Adding a Graphic to the Label

In addition to the drawing tools in the toolbar, you can paste a graphic from the Clipboard into the label.

- ▶ To paste a graphic into the label:
 - 1 **Place the graphic on the Clipboard.**
 - 2 **Choose Paste from the 4th Dimension Edit menu or press Ctrl+V (Command-V on Macintosh).**

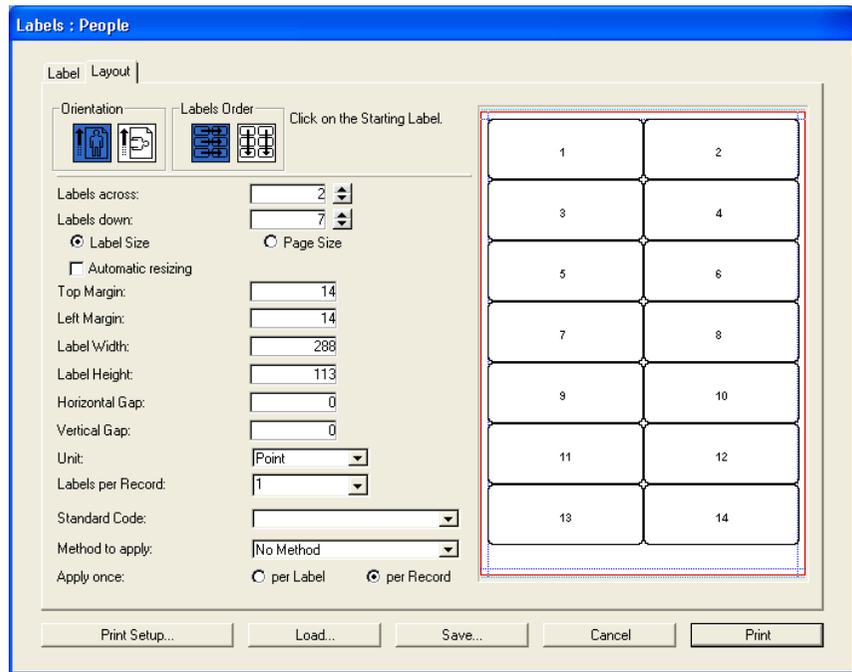
The graphic appears in the Label Preview area with selection handles. You can then move, align, distribute, or resize the object like any other object.

Deleting Objects

You can delete the selected object by pressing the **Backspace** key (**Delete** key on Macintosh). If the selected object contains concatenated fields, the last field is removed from the object. If you want to delete the entire object, continue pressing the **Backspace** or **Delete** key.

Specifying the Label Layout

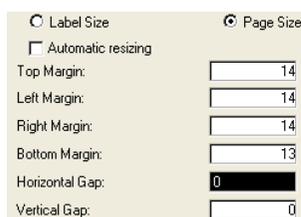
You specify the label layout with the Layout page of the Label Wizard. You can display the Layout page at any time by clicking its tab.



The Layout page contains the following elements:

- **Orientation and Labels Order buttons** These buttons enable you to specify the page orientation and the order in which information is assigned to labels. Keep in mind that the orientation of the *sheet* is independent from that of the *page*. If you modify this parameter, be sure to change the configuration of the page accordingly in the standard print setup dialog box.
- **Labels across and down boxes** These boxes are used to control the size of labels by specifying the number of labels that appear on your label paper.

- **Layout preview area** This area provides a reduced view of how an entire page of labels will look, based on the dimensions you enter in the Label Wizard. The page preview also reflects the paper size selected in the Print Setup dialog box. You can also select the first label on the page to be printed. The red border indicates the size of the physical page and the blue border indicates the size of the printable area.
- **Label Size and Page Size radio buttons** These buttons are used to select the label or the page for setting label and page dimensions. If you click Label Size, you can enter the label width and label height in the appropriate areas. If you click Page Size, you can enter values for right margin and bottom margin, as shown below.



The screenshot shows a dialog box with two radio buttons at the top: "Label Size" (unselected) and "Page Size" (selected). Below the radio buttons is a checkbox for "Automatic resizing" which is unchecked. Underneath are six input fields for margin and gap settings:

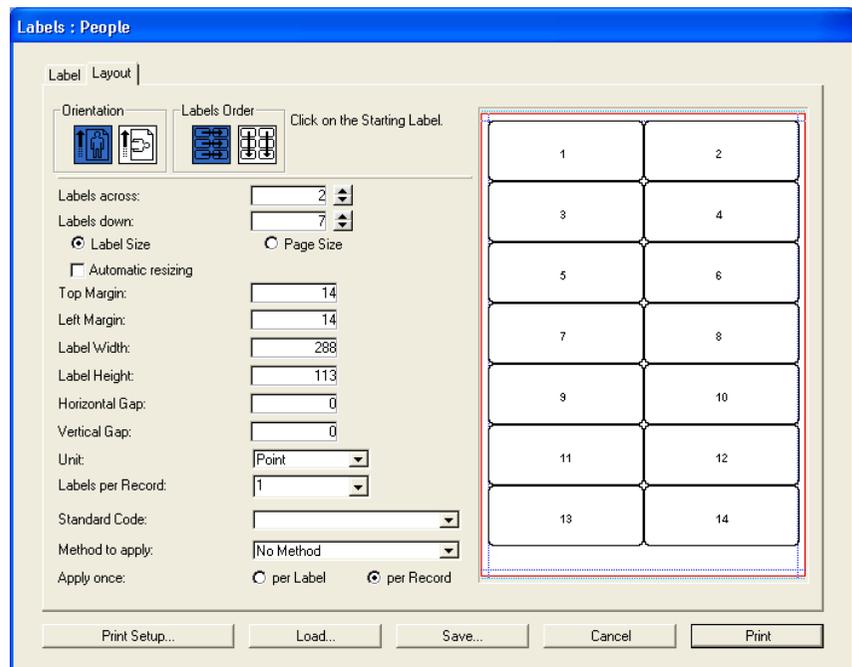
Top Margin:	14
Left Margin:	14
Right Margin:	14
Bottom Margin:	13
Horizontal Gap:	0
Vertical Gap:	0

- **Margin boxes** These boxes are used to specify the dimensions of the label and the page size, depending on the radio button you select. After you have entered the margins of your label paper, you may need to make some additional adjustments so that the label text is centered in the labels. You can use both positive and negative numbers in the Margin boxes to increase and decrease the margins.
- **Automatic Resizing** If **Automatic Resizing** is checked, the values in the Label Width and Label Height entry areas are set automatically.
- **Horizontal Gap** This area controls the amount of space between label columns.
- **Vertical Gap** This area controls the amount of space between label rows.
- **Unit drop-down list** This drop-down list allows you to change the units in which you specify your label and label page measurements. You can use pixels, millimeters, centimeters, or inches.

- **Labels per record drop-down list** This control lets you print more than one copy of each label. If you print more than one copy, 4th Dimension prints the copies consecutively rather than making copies of the label pages.
 - **Standard Code drop-down list** This control lets you specify the label, page dimensions, and margins by choosing a standard commercial label paper from the drop-down list.
 - **Method to apply** This control lets you choose a method that will be run at print time. For example, you can execute a method that posts the date and time that each label was printed.
 - **Apply Once radio buttons** These radio buttons are used to specify whether to run the method once per label or once per record. this control has meaning only if you are printing more than one copy of each label and you are also executing a method at print time.
 - **File buttons** These buttons provide options for page setup, printing, saving, and loading label designs.
- To specify the layout of the label sheet you are using:

1 Click the Layout page tab.

The Layout page of the Label Wizard appears.



You can specify the design of the label sheet using the entry areas on the Layout page or choose a standard design from the Standard Code drop-down list. This drop-down list contains specifications for a wide variety of standard commercial label sheets.

2 Click the Print Setup button.

The Print Setup dialog box for your operating system appears.

3 Choose the desired printer and click OK.

If necessary, the Label Preview area changes to reflect your selection.

4 If appropriate, choose the type of label paper you are using from the Standard Code drop-down list.

The remaining entry areas on the page change to reflect the selected label paper's characteristics. If necessary, you can modify these specifications.

5 Click the appropriate Orientation and Labels Order radio pictures.

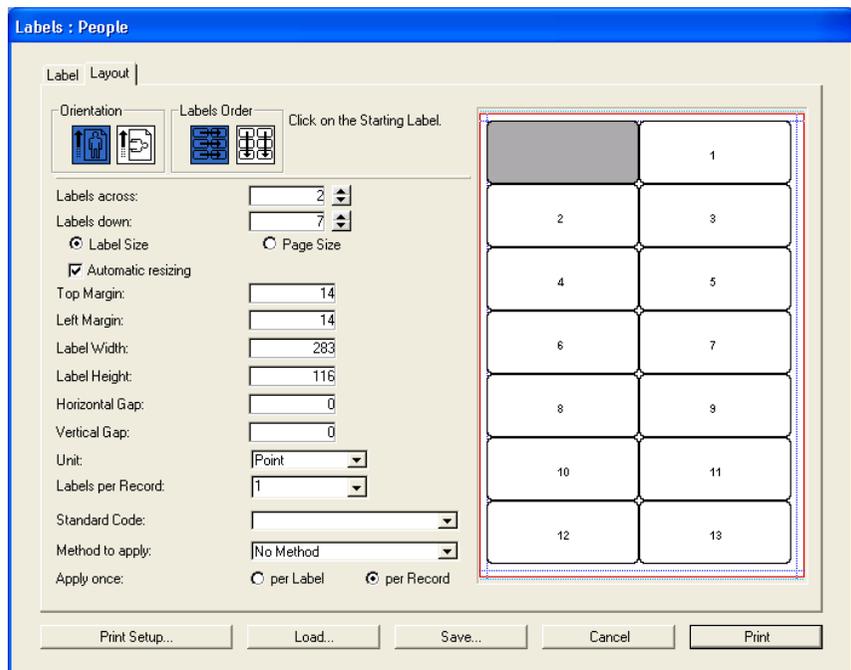
You can choose between portrait and landscape orientation and horizontal or vertical order. Remember that the orientation of the *sheet* is independent from that of the *page*. If you modify this parameter, be sure to change the configuration of the page in the standard print setup dialog box.

6 Enter the number of labels in each row of your label sheet in the Labels Across box and the number of labels in each column in the Labels Down box.

The Label Preview area adjusts to display the appearance of the labels on a printed page.

7 If the first sheet of label paper is partially used, click on the first blank label in the Label Preview area.

4th Dimension will begin printing labels on the label you indicated. The following illustration shows the Preview area after clicking on the second label area.



- 8 If desired, choose a unit of measurement from the Unit drop-down list to use for entering margin sizes.
- 9 Enter values to reflect the margins on your label paper.

Use the **Label Size** and **Page Size** radio buttons to control whether you use the entry area for the size of the label or the size of the page.

The size of the individual labels in the label page preview will adjust to accommodate the margins. For example, if you increase the size of your margins to two inches, top and bottom, the size of the individual labels will shrink to maintain the same number of labels that you specified earlier.

Because some printers use portions of the margin to hold the label sheet in place, the printer may not take the full margins into account when printing your labels. In this case, you may need to adjust the margin settings so the label text is properly centered in each label.

Since the printer uses part of the margins, the printer begins measuring the margins from a point that is not precisely at the edge of the label paper. When the labels are printed, the label text may appear skewed to the right or to the bottom of the label paper.

To compensate for this lost margin space, you can use negative numbers in some of the margin boxes. When placed in the Right margin box, negative numbers pull the label text to the right. When entered in the Top margin box, negative numbers pull the label text toward the top of the page.

Note As a rule, using a negative number in a margin box moves the label text toward the margin you are setting.

- 10 (Optional)** If you want to print more than one copy of each label, use the **Labels per Record** drop-down list to choose the number of copies to print.

The copies are printed consecutively on the label paper. 4th Dimension does not duplicate the entire label page.

- 11 (Optional)** If you want to run a method when the labels are printed, choose the method from the **Method to Apply** drop-down list.
- 12 (Optional)** If you are running a method and printing more than one copy of each label, click either the **Once Per Record** or **Once Per Label** radio button in the **Apply Once** area.

This control has no meaning unless you are using both the multiple copies and method features.

Saving and Loading Label Designs

4th Dimension lets you save each label design as a file that you can open from the Label Wizard. By saving label designs, you can maintain a library of labels that you can use according to your needs. Label designs store the parameters set on the Label and Layout pages.

Saving a Label Design To save a label design:

- 1 Click the Save button.**

4th Dimension displays a dialog box where you can enter a file name for the label design.

Note Label files on Windows are denoted by the file extension **.4LB**.

2 Enter a filename for the label design and click the **Save** button.

Loading a Label Design You can load the label design whenever the Label Wizard is active.

- ▶ To load a label design:

1 Click the **Load** button.

4th Dimension displays an open-file dialog box where you can select the filename of a label design. Double-click the filename or select the filename and click **Open**.

4th Dimension replaces the current label design with the design you selected.

Printing Labels

After you have completed your label design, you can preview or print the labels. You may want to print first on regular paper so that you can check the placement of text before you use the more expensive label paper.

- ▶ To print your labels:

1 Click the **Print** button.

The Print dialog box appears for the printer you selected in the Print Manager. If you check the **Print Preview** check box before clicking **OK**, the labels are previewed to screen.

If you are printing using a form, 4th Dimension will use the selected form to print the labels. 4th Dimension assumes that the form was designed to print labels.

After the labels are printed, 4th Dimension closes the Label Wizard and returns you to the form you were using when you opened the Label Wizard.