

TreeChart™ for Windows

by FineLine™ Software

Tutorial

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Contents

1. Overview

- 1.1 Assumed Audience
- 1.2 Notation for Keys and Key Combinations
- 1.3 Getting Help

2. A Quick Tour

- 2.1 Starting TreeChart
- 2.2 The TreeChart Window
- 2.3 Preparing your first chart
 - 2.3.1 Adding the first boxes
 - 2.3.2 Moving around the chart
 - 2.3.3 Moving boxes around
 - 2.3.4 Adding text to boxes
 - 2.3.5 Looking at different parts of your chart
 - 2.3.6 Changing how boxes look
 - 2.3.7 Creating and working with Layouts
 - 2.3.8 Speeding up adding boxes
 - 2.3.9 Adding an Assistant
 - 2.3.10 Adding a Border and printing the chart
 - 2.3.11 Saving the chart
- 2.4 Postscript: Creating a Template File

Chapter 1 Overview

TreeChart is a program to enable attractive organization (or similar hierarchical) charts to be produced with minimal fuss and effort.

All box sizing and positioning is automatic; all you need to do is to decide what boxes look like, what text to put in them, and what to do for the rest of the day, while you're waiting for your colleagues to catch up with you.

This Tutorial gives a step-by-step guide to a number of common operations. It aims to quickly get you familiar with the operation and practical use of TreeChart by preparing an example organization chart. In doing so, it gives only a taste of the options and functions available within the program.

The TreeChart User Guide is a comprehensive reference to working with TreeChart.

1.1 Assumed Audience

This Tutorial assumes its readers to be familiar with working with programs running under Microsoft Windows. The basic, common, techniques for interacting with Windows programs are not described. Only those topics where TreeChart's operation is in any way different from (say) Microsoft Write are described in detail. Chapters 1 and 2 of your Windows User's Guide provide an excellent grounding in the basic techniques required to control any Windows program.

1.2 Notation for Keys and Key Combinations

Key names appear as small capitals; for example, CTRL or SHIFT.

Simultaneous key combinations are linked by plus signs; for example, CTRL+B or CTRL+SHIFT+B. This notation indicates that the user should hold down the CTRL key while pressing the B key, or hold down the CTRL and SHIFT keys while pressing the B key.

A similar convention is used for actions with the mouse buttons; for example, SHIFT+double click. This notation means that the user should hold down the SHIFT key while double clicking the left mouse button. TreeChart does not use the right mouse button.

Sequential key combinations are linked by commas; for example ALT,F. This notation indicates that the user should press and release the ALT key, and then press and release the F key.

UP, DOWN, LEFT and RIGHT represent the DIRECTION keys, which are also available on the numeric keypad if NUM LOCK is off.

When describing dialog controls, we refer to choosing buttons; for example, "choose the Delete button". To choose a button in a dialog, either click on the button with the mouse, or press ALT+ the underlined letter in the button legend.

1.3 Getting Help

Extensive online Help is always available to you when you are working with TreeChart. Help is offered on a context-sensitive basis. This means that the help offered normally depends on what you were doing when you requested help.

Command Prompts

The first level of help offered is command prompts. Whenever you highlight a menu item or press (but don't release) a Toolbar button, a description of the command is displayed in the Status bar prompt field (if the Status bar is shown).

Online Help

TreeChart uses the standard Windows Help facility. Once the Help facility has been started, you are free to browse amongst topics, search for key words or phrases, add your own annotations to topics, or print topics. If you are unsure how to use Help, choose How to Use Help from the Help menu in either TreeChart or Help itself, or press F1 when you are in Help.

Help menu

The TreeChart Help menu enables you to start the Help facility with an overall contents presented. This can be useful if you are unsure what you need help on.

The Help menu also enables you to search the online Help for particular keywords.

Context-sensitive Help

Pressing F1 requests context-sensitive Help. The topic initially shown depends on what you were doing when you pressed F1; if you press F1 while a menu command is highlighted, rather than perform the command, help on the command is presented. If you press F1 while a dialog or message box is shown, help on that dialog or message box is presented. When you're working in a dialog box, choosing the Help button will also show help.

Once you have started the Help facility, you are free to browse among topics as normal.

Help mode

Pressing SHIFT+F1 (or clicking the Help mode button on the Toolbar) stops normal TreeChart operation, and allows you to select something you'd like help on.

In this mode the cursor changes to an arrow with a question mark; just select a menu command or click the left mouse button over a part of the TreeChart window to select the help topic. If you select a command, rather than performing the command, help on the command is presented. If you don't have a mouse, you are limited to selecting menu commands.

Pressing ESC leaves this mode without presenting help.

Chapter 2 A Quick Tour

This chapter gives a step-by-step guide to a number of common operations. It aims to quickly get you familiar with the operation and practical use of TreeChart without going into too much detail in any area. The TreeChart User Guide describes in more detail everything we cover here.

2.1 Starting TreeChart

One way to start TreeChart is to double-click on TREECHRT.EXE in the Windows File Manager. Section 2.4 of the User Guide describes further ways of starting TreeChart.

For the following description to match what you see on the screen, and what happens as you work through the tutorial, certain program options should be set to default settings. If you are running TreeChart for the first time on your computer, this will not be a problem, but if TreeChart has been run before on your computer, some settings might be different. Since this might be confusing in the tutorial, we suggest you reset two of the program options to the default settings (the other options are unimportant for this tutorial):

- 1 From the File menu, choose Preferences
- In the Preferences dialog:
 - 2 Clear the Edit After Insert checkbox
 - 3 Ensure that the Template File edit control is **empty**
 - 4 Choose the OK button to complete the Preferences dialog

One other possible problem concerns fonts. The example chart uses a few of the standard TrueType fonts included with Windows 3.1. If TrueType fonts are not enabled on your computer, or if for some reason these standard fonts have been deleted, you will have to select different fonts from the ones we suggest.

2.2 The TreeChart Window

TreeChart is a standard Windows MDI (Multiple Document Interface) program. This means that the program allows you to work with more than one chart at a time.

Each open chart is shown in its own window. The windows of all open charts are contained within the workspace of the TreeChart application window.

If you're unfamiliar with working with multiple document (chart) windows within an application window, chapters 1 and 2 of your Windows User's Guide provide an excellent grounding in the basic techniques required.

The Toolbar

The Toolbar is the row of buttons across the top of the TreeChart window. The buttons offer users with a mouse quick access to several commonly used TreeChart commands. See section 3.1.2 of the TreeChart User Guide for details.

The Status Bar

The Status Bar is the horizontal bar at the bottom of the TreeChart window that displays information such as your location in the chart, descriptions of menu commands, keys that are locked and other information specific to the active chart. See section 3.1.3 of the TreeChart User Guide for details.

Chart Windows

In a word processor, a document window allows you to manipulate text. In a drawing program, a document window allows you to manipulate picture elements (which might include lines, rectangles and text).

In a TreeChart chart window, you are manipulating boxes, *not* lines, rectangles or text. You can insert, delete and re-arrange boxes directly, but you can not directly select or change the text within boxes, the style of text or boxes, or how connecting lines are routed.

These attributes of boxes are changed by means of dialog boxes, each shown as a result of choosing a menu command or pressing a shortcut key. After making a change, TreeChart automatically:

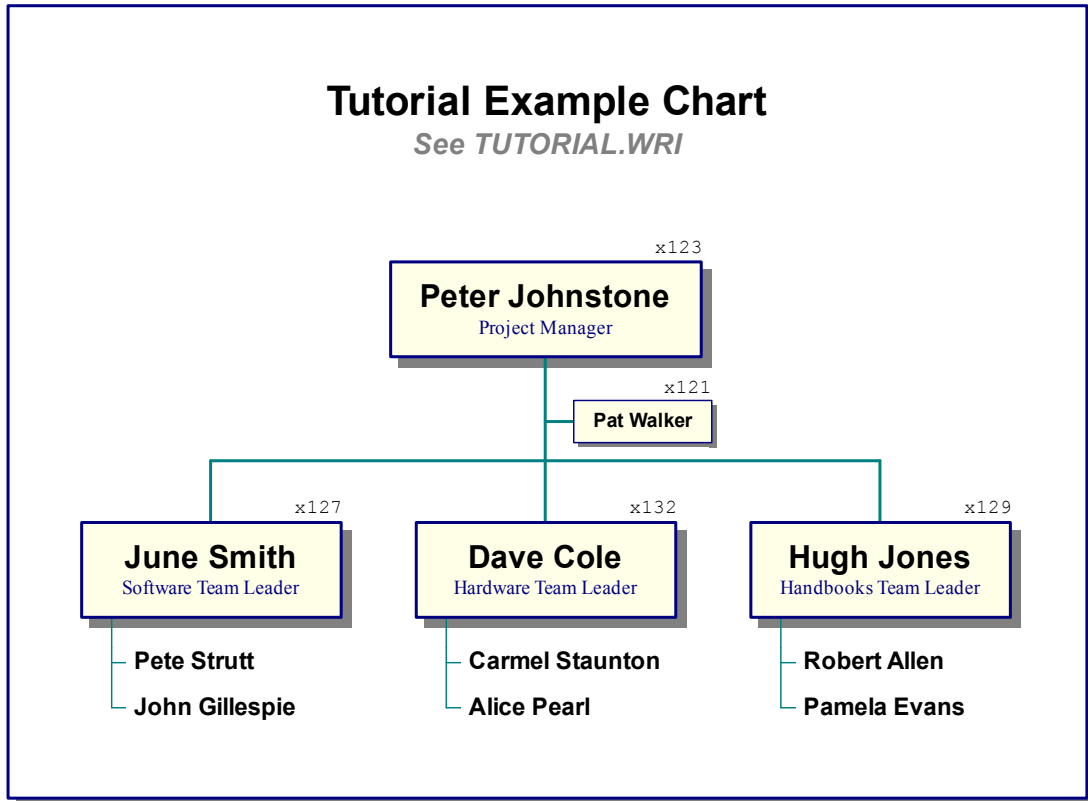
- Re-calculates how large boxes need to be to contain the text
- Re-positions boxes
- Re-routes connecting lines

While re-calculating the chart is automatic, you have a considerable degree of control over how the re-calculation is done.

2.3 Preparing your first chart

This tutorial offers a step-by-step guide to producing a simple chart like this:

TreeChart Version 1.0



15 July 1993

In case you need to refer to it, a completed version of this chart is included in the TreeChart package, as file TUTORIAL.TCF.

Along the way, we'll introduce most of the powerful facilities to allow you to produce similar charts quickly and easily.

The steps involved in preparing a chart

Preparing a chart is a five step process:

- Define a hierarchy of boxes
- Enter the text for each box
- Specify how the chart should look: individual boxes & interconnections
- Specify any titles and border
- Print & Save the chart

Naturally, TreeChart lets you jump back and forth between these steps so you can try out your ideas before committing the chart to paper.

In this tutorial, we'll perform these steps in an order which introduces you to the various commands TreeChart offers. Specifically, we'll use different techniques for inserting the boxes for the Software, Hardware and Handbooks Teams. When you've become more familiar with TreeChart, you'll probably do things in a different order.

Create a new chart:

When TreeChart started, it may have automatically created a new chart for you. Just in case you had to change the program preferences (as described in section 2.1), we'll ignore that one, and create a new one:

- either* From the File menu, choose New
- or* Press CTRL+N
- or* On the Toolbar, click the New button

The newly-created chart will be given a temporary name (ChartN), and a new chart window will be opened within the TreeChart workspace. If the chart window doesn't fill the workspace, you may prefer to maximize it, both to make full use of the TreeChart workspace, and to hide any other charts that might already be open.

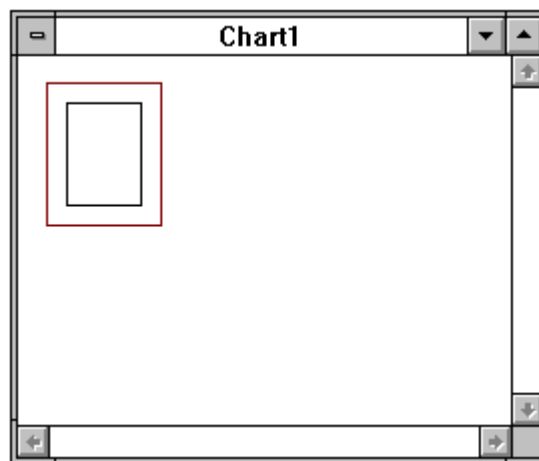
2.3.1 Adding the first boxes

Add the first box to your blank chart window:

- either* With the mouse, drag from *anywhere* on the chart window
- or* From the Edit menu, choose Insert/Below
- or* Press ALT+DOWN

If you're unfamiliar with mouse operations, drag means: press and hold down the left mouse button; drag the mouse pointer until the cursor changes, then release the mouse button.

You should now see the following within the Chart1 window:



Your chart now contains one box. The red rectangle surrounding the box is called the *caret*, and indicates that this is the *Current Box*. Many operations are performed on the Current Box. The caret serves the same purpose as a caret in a Word Processing program: it shows you where any input will be placed.

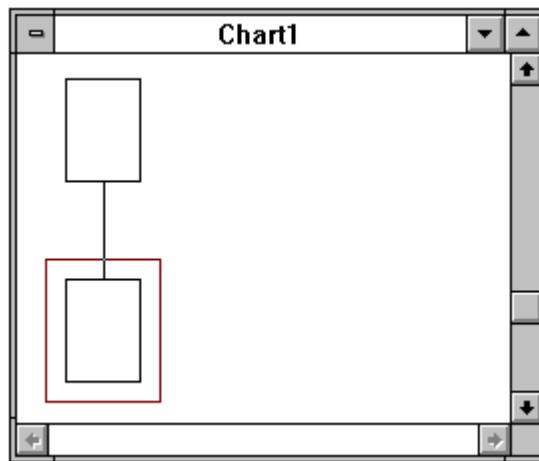
If you're working with a mouse, move the mouse cursor around the Chart1 window. As you pass over the box, you'll notice the cursor changes. Mouse operations often depend on whether you're pointing at a box or not.

Inserting a second box

Lets insert another box. We'll insert below the Current Box.

- either* With the mouse, drag Down from the existing box
- or* From the Edit menu, choose Insert/Below
- or* Press ALT+DOWN

You should now see the following within the Chart1 window:



Notice that the caret has been moved to the newly-inserted box. TreeChart automatically makes the newly added box the Current Box.

You can choose four directions when inserting a new box, and insertion is always relative to the Current Box:

<i>To</i>	<i>Mouse</i>	<i>From the Edit menu</i>	<i>Keyboard</i>
Insert Left	drag Left from a box	choose Insert/Left	press ALT+LEFT
Insert Right	drag Right from a box	choose Insert/Right	press ALT+RIGHT
Insert Above	drag Up from a box	choose Insert/Above	press ALT+UP
Insert Below	drag Down from a box	choose Insert/Below	press ALT+DOWN

If you're using a mouse, the cursor changes to indicate the direction of insertion. If you start a drag operation, you can cancel it by moving back to where you started dragging from. The cursor changes back to the 'Over Box' cursor. Releasing the mouse button here cancels the insertion.

2.3.2 Moving around the chart

Changing the Current Box

Moving the caret, and setting the Current Box, is much like setting the insertion point in a word processor:

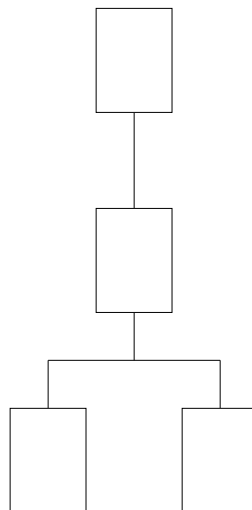
With a mouse: click on a box
(IE move the cursor over the box, press and release the left mouse button)

Keyboard: The DIRECTION keys step the caret around the chart
The HOME key moves the caret to the top-left box
The END key moves the caret to the bottom-right box

Note that while this is the normal use for the DIRECTION, HOME and END keys, TreeChart can also operate in Scroll-lock mode. If Scroll-lock mode is selected, the DIRECTION, HOME and END keys scroll the chart within the window without moving the caret. Scroll-lock mode is toggled on & off with the SCROLL LOCK key. The state of this key is indicated on the TreeChart window status bar.

2.3.3 Moving boxes around

Add a few more boxes (corresponding to one of the three teams), to form a chart like this:



TreeChart offers all the usual commands for deleting boxes, copying boxes to the Clipboard and pasting boxes from the Clipboard. As an example, we'll create the boxes for the second Team by copying the first Team's boxes rather than simply inserting new boxes.

The first thing to do is select the boxes to be copied.

Selecting boxes

Some TreeChart commands (for example, edit text) can only meaningfully operate on one box at a time. These commands always work on the Current Box.

Other commands (for example, delete boxes) can work on a set of boxes simultaneously. These commands will work on the *selected boxes*, or if no boxes are selected the Current Box.

Selected boxes are shown on the display by being drawn inverted; white boxes becoming black, for instance. There are four basic methods of selecting boxes; in this tutorial, we'll just describe two.

Selecting a group of boxes by region

This can only be done with a mouse. If you press (and hold down) the left mouse button while **not** over a box, then start to drag, a dotted rectangle will be drawn to indicate the selection region. Releasing the mouse button completes the operation. All boxes entirely within the selection region will be selected. If you move the mouse cursor outside of your chart window during this operation, the window automatically scrolls.

The caret is moved to the first box in the selection region.

If you hold down CTRL as you commence the selection, current selections are retained, and boxes within the selection region are added to the set of selected boxes. If you do not hold down CTRL, current selections are cleared before selecting the boxes within the selection region.

Selecting a group of boxes by position.

Four commands let you select a group of boxes based on their position:

<i>To Select</i>	<i>From the Edit menu</i>	<i>Keyboard</i>
All boxes	choose Select All	press CTRL+A
All boxes at the same Level as the Current Box	choose Select Level	press CTRL+H
All boxes directly below the Current Box	choose Select Subordinates	press CTRL+I
The Current Box, and all boxes below it	choose Select Sub-Tree	press CTRL+T

All of these commands are also available as buttons on the Toolbar.

These commands always add more selections. To remove any existing selections before selecting a new group, you should de-select the current selections.

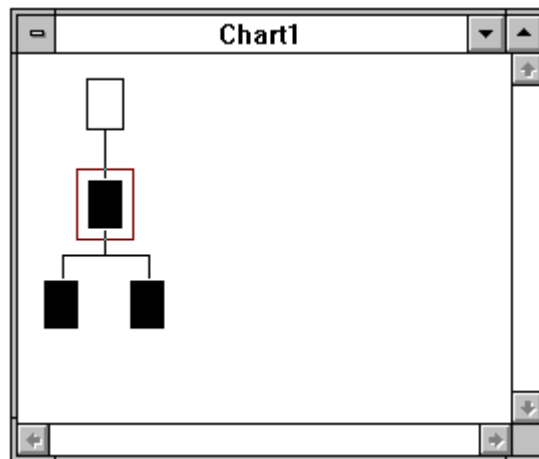
To de-select all selected boxes:

- either* With the mouse, click on the chart
- or* From the Edit menu, choose Clear Selections
- or* Press CTRL+G

If you're using the mouse, clicking on a box will move the caret, clicking on the background will leave the caret unchanged.

Copying boxes to the Clipboard

In your example chart, select the boxes shown here:



To copy these boxes to the clipboard:

- either* From the Edit menu, choose Copy
- or* Press CTRL+C
- or* On the Toolbar, click the Copy button

TreeChart also offers a Cut command, which copies the selected boxes to the Clipboard, then deletes them. When you copy or cut boxes to the Clipboard, if the boxes you selected were connected, the relative positions are remembered; if you copy a sub-tree, it can be pasted as a sub-tree.

TreeChart can also copy box text and a picture to the Clipboard, to allow you to Paste text or charts into other programs, for instance, a word processor document.

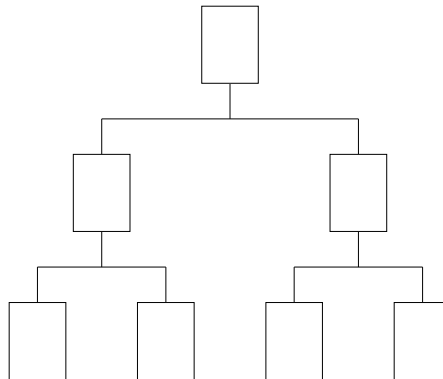
Pasting the Clipboard contents into the chart

Make the top-most copied box the Current Box (*as illustrated above*).

To paste the Clipboard contents to the right of the Current Box:

either From the Edit menu, choose Paste Right
or Press CTRL+R

The chart will automatically be redrawn as:



TreeChart also offers the options to paste below or to the left of the Current Box:

<i>To</i>	<i>From the Edit menu</i>	<i>Keyboard</i>
Paste Below	choose Paste Below	press CTRL+V
Paste Left	choose Paste Left	press CTRL+L
Paste Right	choose Paste Right	press CTRL+R

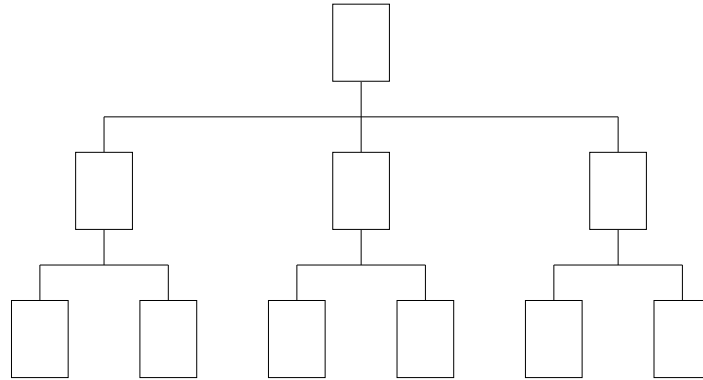
Pasting Below is regarded as the 'normal' operation; it is this command that has a Toolbar button, and has been assigned the standard Paste shortcut key. If you Paste Below the Current Box, the pasted boxes are inserted between the Current Box and any boxes that are currently below it.

Pasting boxes automatically moves the caret to the top-most pasted box.

As an example, we'll paste these boxes into the chart again. To paste the Clipboard content to the left of the Current Box:

either From the Edit menu, choose Paste Left
or Press CTRL+L

The chart will automatically be redrawn as:



TreeChart can also create boxes by Pasting text from other programs.

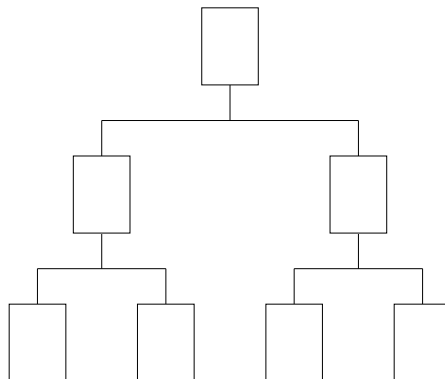
Changing your mind

If you add boxes to your chart (insert or paste) or remove boxes from your chart (cut or delete), you can change your mind. The Undo command restores your chart to how it was before you added or removed the boxes.

Undo that second Paste we've just performed:

either From the Edit menu, choose Undo Insertion
or Press CTRL+Z

The chart will again be redrawn:



2.3.4 Adding text to boxes

Text associated with a box is stored as fields. Each field has a name. All boxes within a chart have the same number of fields, though as we will see later, whether a particular field is displayed for a particular box is up to you, as is its style (font, size, color) and the relative order and position of fields.

TreeChart defaults to defining two text fields: Name and Position. You can add, delete or rename fields at any time, and you can change the defaults. For the example chart, we need to add a field for telephone numbers.

To add a text field:

- 1 *either* From the Chart menu, choose Define Fields
 or Press F3
- In the Define Text Fields dialog:
- 2 In the New Name edit control, enter Telephone
- 3 Choose the Add button
- 4 Choose the OK button to complete the Define Text Fields dialog

Adding a text field does not cause the chart to be re-drawn.

To edit the text in the top-most box:

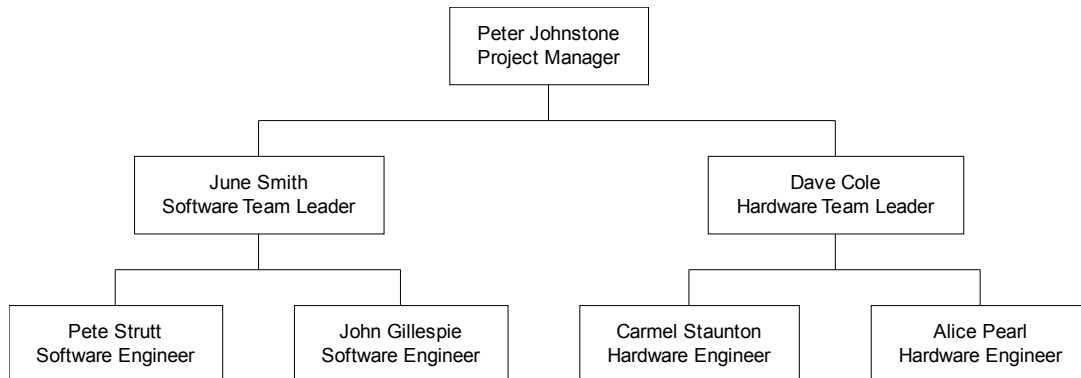
The text within a box can be entered or changed using the Edit Text dialog:

- 1 *either* double-click on the box (*this also makes it the Current Box*)
 (*IE move the cursor over the box, press and release the left mouse*
 button *TWICE, quickly*)
- or* 1 Move the caret to the box
- 2 *either* From the Edit menu, Choose Text
 or Press ENTER
- In the Edit Text Dialog:
- 2 In the Text cell for Field Name, enter Peter Johnstone
- 3 In the Text cell for Field Position, enter Project Manager
- 4 In the Text cell for Field Telephone, enter x121
- 5 Choose the OK button to complete the Edit Text dialog

Note: to move between cells, with a mouse, click on the cell; on the keyboard, press UP or DOWN.

The chart will automatically be redrawn to ensure the box is big enough to contain the text, but you'll notice that the Telephone field we added isn't shown. If you add a text field, its initially hidden. In section 2.3.6, when we start to change how boxes look, we'll see how to show and position this field.

Now add text to all the other boxes. If you want the hidden telephone numbers to *exactly* match the example chart, you'll find them in a chart in section 2.3.6. The chart should now look something like this:



2.3.5 Looking at different parts of your chart

By this point, it's probable that not all of the chart will fit in your window. Notice that moving the caret causes the chart to be scrolled so that the Current Box is visible.

As well as the standard technique of scrolling a chart window (scroll bars, PAGE UP, PAGE DOWN keys, etc), TreeChart offers two further techniques that you can use to choose which parts of your chart you can see:

- Zooming the display
- Outlining

Changing the zoom factor

If your chart doesn't fit in the window, as an alternative to scrolling you can view the chart at various preset zoom factors. The Zoom factor affects only how your chart is shown on the screen, not how it is printed (though printing does, however, offer the option of scaling your chart to fit on a page).

<i>To</i>	<i>From the View menu</i>	<i>Keyboard</i>
Zoom in (make boxes bigger)	choose Zoom In	press +
Zoom out (make boxes smaller)	choose Zoom Out	press -
Reset to normal zoom	choose Zoom Normal	press =

You can also choose a specific zoom factor, but only if the Toolbar is shown. To set a specific zoom factor, open the drop-down list on the Toolbar, and select the desired setting. Keyboard users can

access this list:

F2	Opens the zoom list
DIRECTION keys	change selection
ENTER	confirm selection (closes list)

Whichever route you take to change the zoom factor, the current zoom setting (for the currently active chart) is indicated on the Toolbar.

Outlining - viewing only parts of your chart

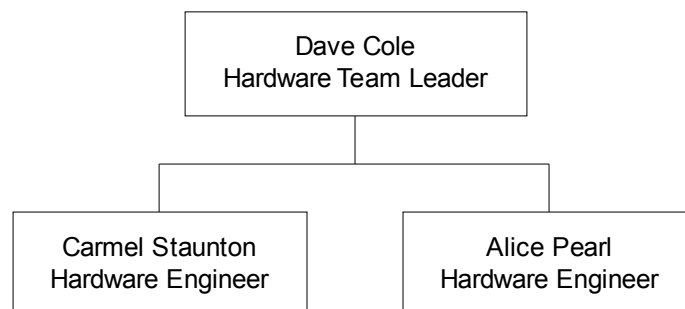
The Focus & Collapse commands allow you to select which portion of your chart is visible. Together, they act as a graphical analog of the outlining facilities found in more sophisticated word processors.

Focus can be applied to the Current Box, to make it the root of the tree. Only the Current Box and all boxes below it are then visible; all boxes above it or on different branches are hidden. Its a bit like saying "in this 10-department organization chart, I only want to look at the Sales department for now". Only one box can have the Focus at any time.

To Focus on the Hardware Team:

- 1 Move the caret to the Hardware Team Leader box
- 2 *either* From the View menu, choose Focus
or Press CTRL+F
or On the Toolbar, click the Focus button

The chart will be redrawn as shown:



Now de-select Focus to return to viewing the whole chart:

- either* From the View menu, choose Focus
- or* Press CTRL+F
- or* On the Toolbar, click the Focus button

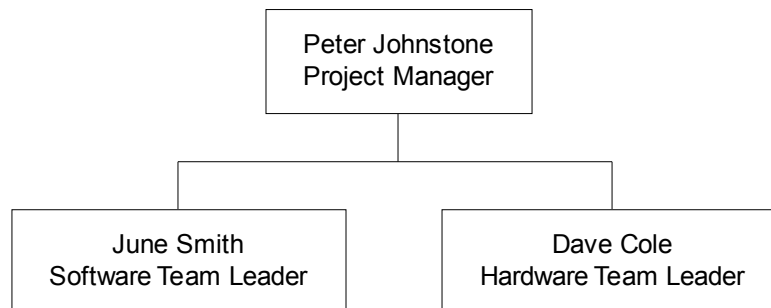
Collapse, on the other hand, hides all boxes below the box being collapsed. Its a bit like saying "in this

organization chart, I only want to look at senior management for now". Any number of boxes can be collapsed at the same time, and you can collapse multiple boxes in one operation. You can expand collapsed boxes individually, as a group, or all collapsed boxes.

To show only management, we collapse the Team Leader boxes:

- 1 Move the caret to either Team Leader box
- 2 Select all boxes at the Team Leader level:
 - either* From the Edit menu, choose Select Level
 - or* Press CTRL+H
 - or* On the Toolbar, click the Select Level button
- 3 Collapse all selected boxes:
 - either* From the View menu, choose Collapse
 - or* Press CTRL+K
 - or* On the Toolbar, click the Collapse button

The chart will be redrawn as shown:



Now expand all collapsed boxes to return to viewing the whole chart:

- either* From the View menu, choose Expand All
- or* Press CTRL+SHIFT+E
- or* On the Toolbar, click the Expand All button

Focus & Collapse can be combined to hide as much of the chart as you like.

A Summary of Outlining commands

<i>To</i>	<i>From the View menu</i>	<i>Keyboard</i>
Collapse selected boxes	choose Collapse	press CTRL+K
Expand selected boxes	choose Expand	press CTRL+E
Expand All boxes	choose Expand All	press CTRL+SHIFT+E

Focus on the Current Box	choose Focus	press CTRL+F
Remove Focus	choose Focus	press CTRL+F
View the whole chart	choose View All	press CTRL+Q

All of these commands are also available as buttons on the Toolbar.

The Collapse and Expand commands operate on the Current Box if no boxes are selected. The View All command removes focus and expands all collapsed boxes.

For a chart this small, the outlining facilities offered by Focus & Collapse probably aren't much help. For a 1000-person organization in 10 departments, it can be quite useful to concentrate on one department or one level of management at a time.

An important point to note about Focus & Collapse is that together they define the *Current View* of the chart. Wherever possible, commands operate only on the Current View. So Select All means Select All boxes in the Current View. Also, when you print your chart, or copy a picture to the Windows Clipboard, you're printing or copying the Current View. This allows you to treat a large chart as a series of smaller charts, for example to print each department of an organization on a separate page.

2.3.6 Changing how boxes look

Now that we've got text in the boxes, lets change how the boxes look. To do that, we call up the Edit Layout dialog:

To edit the Layout used by the Current Box:

- either* SHIFT+double-click on any Box (*this also makes it the Current Box*)
- or* From the Layout menu, choose Edit
- or* Press SHIFT+ENTER

The Edit Layout dialog allows you to control almost every aspect of how a box looks, and how it connects to boxes below it. There are four main parts of this dialog:

- Sample Layout* Immediate visual feedback of any change you make to the Layout
- Text* For each text field: whether or not it appears, it position, alignment, font, size, color
- Box* Shape, size, shadow, border width & color, interior color
- Connections* Define relative positioning of this box and boxes immediately below it, together with style / routing of connecting lines

Changing the text style

In our example chart, we need to change the style of all three text fields. The text controls show the settings for Text Field 'Name'.

To change the text style for Field 'Name':

- 1 Choose the Font button
- In the Font dialog:
 - 2 In the Font list, select Arial
 - 3 In the Style list, select Bold
 - 4 In the Size list, select 16
 - 5 Choose the OK button to complete the Font dialog

Notice that the sample now reflects the changes you just made.

To change the text style for Field 'Position':

- 1 In the Field list, select 'Position'
- 2 Choose the Font button
- In the Font dialog:
 - 3 Select Times New Roman, Regular, size 8
 - 4 In the Color list, select Navy
 - 5 Choose the OK button to complete the Font dialog

To change the text style for Field 'Telephone':

- 1 In the Field list, select 'Telephone'
- 2 Clear the Hide checkbox
- 3 In the Horizontal Alignment list, select Right
- 4 In the Vertical Alignment list, select Above
- 5 Choose the Font button
- In the Font dialog:
 - 6 Select Courier New, Regular, size 8
 - 7 Choose the OK button to complete the Font dialog

Changing the box style

All of the changes are to the box's appearance:

- 1 In the Border Width list, select 1½ pt
- 2 In the Shadow list, select the thickest bottom-right shadow

- 3 Choose the Border Color button
In the Box Border Color dialog:
- 4 Select the Navy color chip.
- 5 Choose the OK button to complete the Box Border Color dialog

- 6 Choose the Fill Color button
In the Box Fill Color dialog:
- 7 Select the Cream color chip.
- 8 Choose the OK button to complete the Box Fill Color dialog

- 9 Choose the Shadow Color button
In the Box Shadow Color dialog:
- 10 Select the Silver color chip.
- 11 Choose the OK button to complete the Box Shadow Color dialog

Changing the connections style

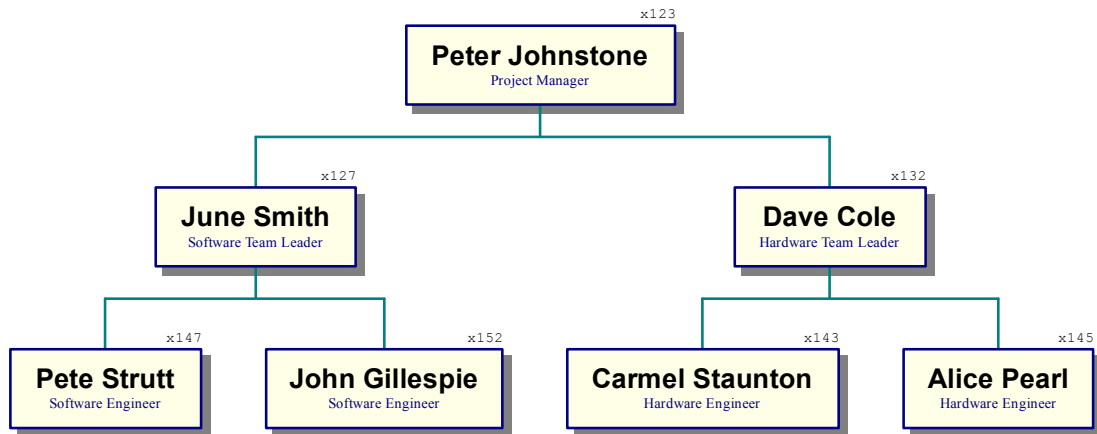
The only changes we need to make are to the width and color of the connecting lines:

- 1 In the Line Width list, select 1½ pt

- 2 Choose the Line Color button
In the Connections Line Color dialog:
- 3 Select the Teal color chip.
- 4 Choose the OK button to complete the Connections Line Color dialog

Now choose the OK button to complete the Edit Layout dialog.

The chart is again automatically redrawn to reflect the changes you have made:



But you'll notice that the appearance of **all** the boxes has been changed. This is because you changed a Layout rather than a box. Each box uses one of the Layouts defined for this chart. You can have any number of Layouts in a chart. At the moment, there's only one Layout, and all boxes are using it.

2.3.7 Creating and working with Layouts

Layouts are similar to Style Guides found in more sophisticated word processors, and can greatly assist you in achieving a consistent appearance to your charts. Once you've defined a Layout, you can use it as often as you like.

You can define any number of Layouts. Each must be assigned a unique name so that it can be referred to while preparing the chart. Give a bit of thought to naming your Layouts, since well-chosen names can make it easier for you to choose which Layout a box should use. Two possible approaches are to name Layouts *functionally* (eg Manager, Assistant, Other Staff) or *descriptively* (eg 'blue circle; connect centers', 5x3 cream box).

Every box in a chart uses one of the Layouts you have defined. When you change the settings of a Layout, it automatically affects every box using that Layout.

In the example chart, the Layout we already have is fine for the Project Manager, but we need to create and use another Layout for Team Leaders. If you look at the finished example chart shown earlier, you'll see that the all the manager boxes already look like the finished chart. Why are we creating a new Layout? The Layout used by a box specifies not only how the box appears, and how the text appears, but *also* how that box is connected to its immediate subordinates. Its here that the Layout used by the Team Leaders must differ from that used by the Project Manager; the example chart calls for staff below a Team Leader to be in a list.

General Layout management is done in the Define Layouts dialog.

To show the Define Layouts dialog:

- either* From the Layout menu, choose Define Layouts
- or* Press CTRL+D
- or* On the Toolbar, click the Define Layouts button

All existing Layouts are listed, with the Layout used by the Current Box selected automatically.

Renaming the existing Layout

Before creating a new Layout, lets change the name of the Layout TreeChart created for us:

- 1 In the New Name edit control, enter 'Project Manager'
- 2 Choose the Rename button

Creating a new Layout

To create and edit a new Layout for Team Leaders:

- 1 In the New Name edit control, enter 'Team Leaders'

- 2 Choose the New button
(this adds Team Member to the Layouts list, and automatically selects it)
- 3 *either* Choose the Edit button
or double-click on Team Leader in the Layouts list

The Edit Layout dialog is shown.

You'll notice that the initial settings of this new Layout are the same as our original Layout. When you create a new Layout, it is initially a copy of whichever Layout was selected in the Layout List in the Define Layouts dialog.

To position staff below a Team Leader in a list, and have thinner connecting lines:

- 1 From the Connections Style list, select:
- 2 From the Connections Line Width list, select 1pt

The sample should now look exactly as we want Team Leaders to connect to their subordinates.

Now choose the OK button to complete the Edit Layout dialog, then choose the Close button to complete the Define Layouts dialog.

This time, the chart is *not* redrawn; nothing we've done affects the boxes, since none of the boxes are using the newly-created Layout.

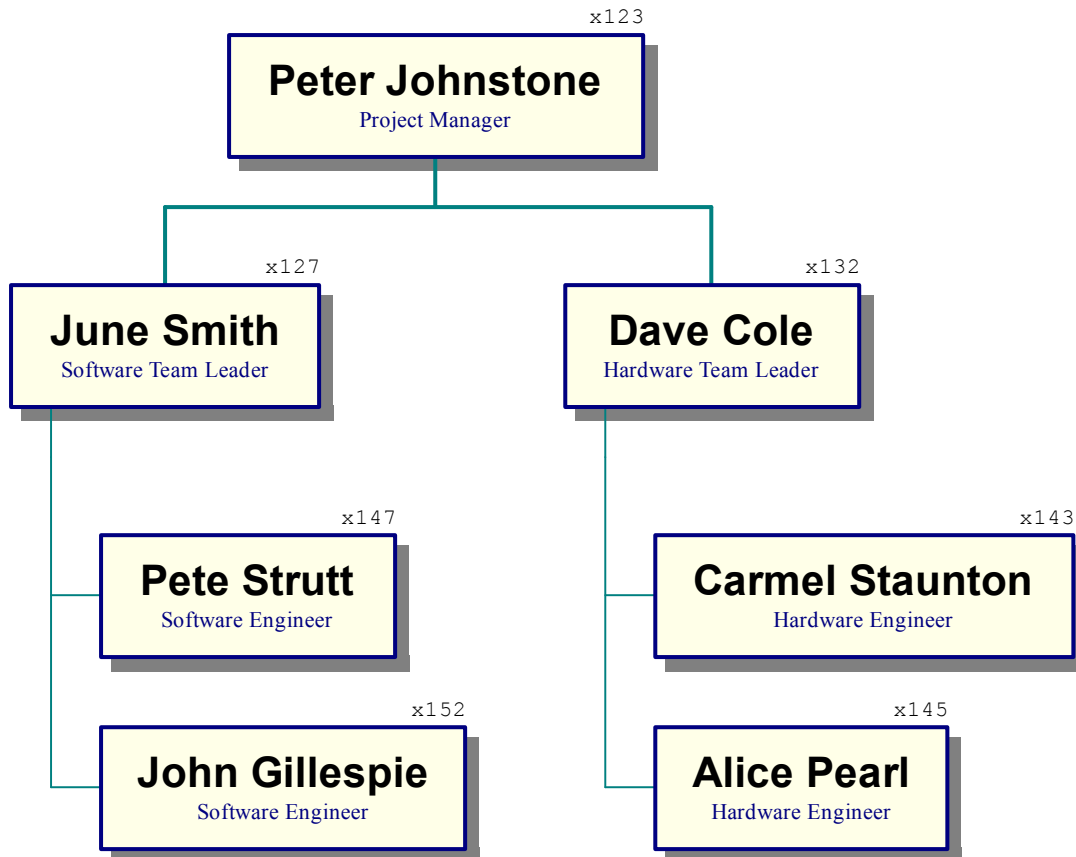
Making boxes use a different Layout

To make the Team Leader boxes use the newly-created Team Leader Layout:

- 1 Move the caret to either Team Leader box
- 2 Select all boxes at the Team Leader level:
either From the Edit menu, choose Select Level
or Press CTRL+H
or On the Toolbar, click the Select Level button
- 3 Show the Define Layouts dialog:
either From the Layout menu, choose Define Layouts
or Press CTRL+D
or On the Toolbar, click the Define Layouts button
- 4 In the Define Layouts dialog:
In the Layouts list, select Team Leader

- 5 Choose the Use button
- 6 Choose the Close button to complete the Define Layouts dialog

Now, the chart will be re-drawn with the subordinate boxes positioned, and the connections routed as you selected:



If you now use the DIRECTION keys to step the caret around the boxes, you'll discover (for example) that the "John Gillespie" box is still to the right of the "Pete Strutt" box, despite being *drawn* below it.

Stepping the caret with the DIRECTION keys *and inserting boxes* both operate in terms of the *hierarchy* rather than how boxes are drawn. For example, inserting a new box below the "John Gillespie" box will *always* insert a subordinate, no matter how boxes have been drawn.

Creating a third Layout for Team Members

In the example chart, junior staff are shown differently to the managers: only their names are shown, and there's no box or shadow.

As you might guess, a third Layout is called for. The process of defining this is identical to the new Layout we just created, but we can speed it up slightly by selecting in advance the boxes that need to use the new Layout:

- 1 Move the caret to any of the junior staff boxes
 - 2 Select all boxes at this level:
 - either* From the Edit menu, choose Select Level
 - or* Press CTRL+H
 - or* On the Toolbar, click the Select Level button
 - 3 Show the Define Layouts dialog:
 - either* From the Layout menu, choose Define Layouts
 - or* Press CTRL+D
 - or* On the Toolbar, click the Define Layouts button
- In the Define Layouts dialog:
- 4 In the New Name edit control, enter 'Team Member'
 - 5 Choose the New button
(this adds Team Member to the Layouts list, and automatically selects it)
 - 6 Choose the Use button
 - 7 *either* Choose the Edit button
or double-click on Team Member in the Layout list

The Edit Layout dialog is shown.

This time, we want to have the Name text field left-aligned, hide the Position and Telephone text fields, and remove the box border and shadow.

Changing the text styles

To change the text style for Field 'Name':

- 1 Choose the Font button
In the Font dialog:
 - 2 In the Size list, select 12
 - 3 Choose the OK button to complete the Font dialog
- 4 In the Horizontal Alignment list, select Left

To change the text style for Field 'Position':

- 1 In the Field list, select 'Position'
- 2 Select the Hide checkbox

To change the text style for Field 'Telephone':

- 1 In the Field list, select 'Telephone'
- 2 Select the Hide checkbox

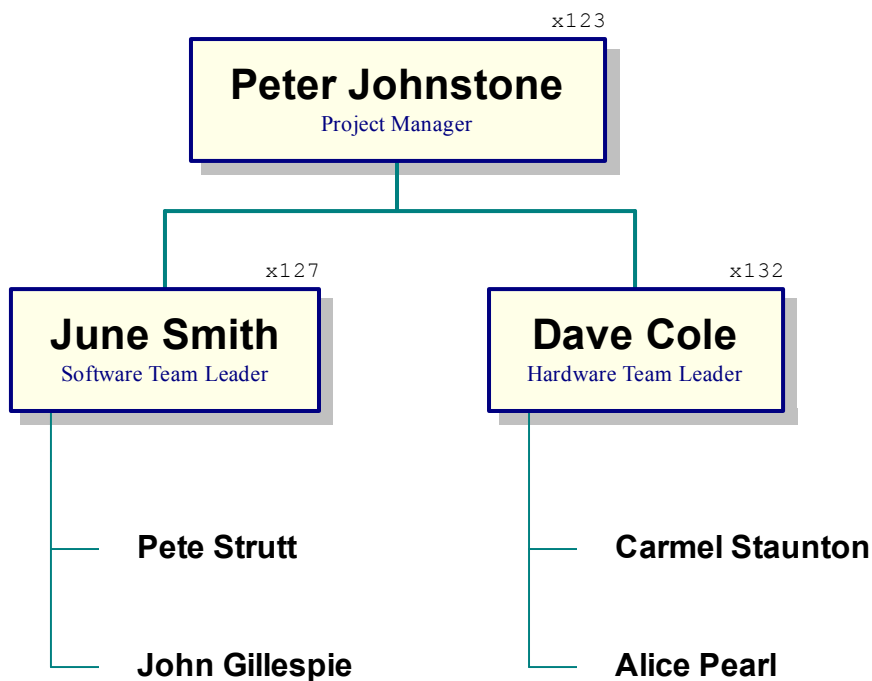
Changing the box style

- 1 In the Border Width list, select (none)
- 2 In the Shadow list, select no shadow
- 3 Select the Transparent checkbox

There's no need to change the Connections style, since Team Members will not have any subordinate boxes.

Choose the OK button to complete the Edit Layout dialog. Then choose the Close button to complete the Define Layouts dialog.

The chart will again be automatically redrawn:



Box size and spacing

You have complete control over the size of an individual box, the spacing between a box and its subordinates, and how box sizes are matched on a chart-wide basis.

You'll notice that while the default size and spacing settings look fine for the senior staff, the junior staff are positioned a bit extravagantly. We need to push them together a bit.

There are two factors determining the size and positioning of the junior staff boxes:

- The size of the (invisible) box for the Team Member Layout
- The spacing settings of the Team Leader Layout

Both of these require you to specify distances or margins. We won't go into the details of what each of the margins mean in this tutorial, we'll just change them.

Adjusting the box size of Team Members

- 1 Move the caret to any one of the Team Member boxes
 - 2 *either* From the Layout menu, choose Size
or Press F8
- In the Box Size dialog:
- 3 In the Top margin edit control, enter 0
 - 4 In the Left margin edit control, enter 0.05"
 - 5 In the Bottom margin edit control, enter 0
 - 6 In the Right margin edit control, enter 0.05"
 - 7 Choose the OK button to complete the Box Size dialog

Adjusting the spacing of Team Leaders

- 1 Move the caret to any one of the Team Leader boxes
 - 2 *either* From the Layout menu, choose Spacing
or Press SHIFT+F8
- In the Box Spacing dialog:
- 3 Set the Minimum Distance between this box and subordinates to 0.2"
 - 4 Set the Minimum Vertical Distance between subordinates to 0.1"
 - 5 Set the Offset Distance between this box and subordinates to 0.1"
 - 6 Set the Vertical Stem Distance to 0
 - 7 Choose the OK button to complete the Box Spacing dialog

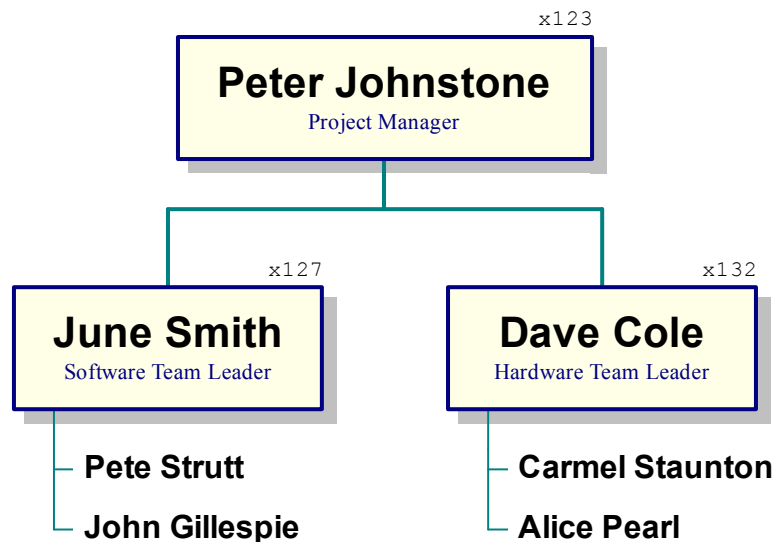
Matching box sizes

While the size of individual boxes is determined by the text that they contain, and Layout options like Fonts & Box Size, TreeChart also offers a variety of options to automatically make boxes the same size. The best option for the example chart is to have boxes using the same Layout made the same width.

To match box widths among boxes using a Layout:

- 1 From the Chart menu, choose Match Box Sizes
- In the Match Box Sizes dialog:
 - 2 In the Width Rule group, select Equal Using Layouts
 - 3 Choose the OK button to complete the Match Box Sizes dialog

The chart is again redrawn:



2.3.8 Speeding up adding boxes

Defining the initial Layout of a new box

When a new box is inserted, the Layout it initially uses is determined by the level the box is at within the chart. You can decide which Layout is the default for each level, so that any new boxes you add can immediately use Layouts you have defined. The Default Layout can be thought of as the 'most probable' Layout to use for a box; you can always change which Layout a box uses.

We'll choose to have boxes at level 2 to initially use Layout 'Team Leader' and boxes at level 3 to

initially use Layout 'Team Member':

- 1 From the Layout menu, choose Defaults
- In the Default Layouts dialog:
 - 2 In the Level 2 list, select Team Leaders
 - 3 In the Level 3 list, select Team Members
 - 4 Choose the OK button to complete the Default Layouts dialog

To be prompted for box text when you insert a new box

When you insert a new box, TreeChart will optionally prompt you automatically for the text to go in the box. So far, we've had this option turned off. This allowed us to construct the hierarchy of boxes while ignoring the text. Now that we've got most of the hierarchy in place, it would be more convenient if we were automatically prompted.

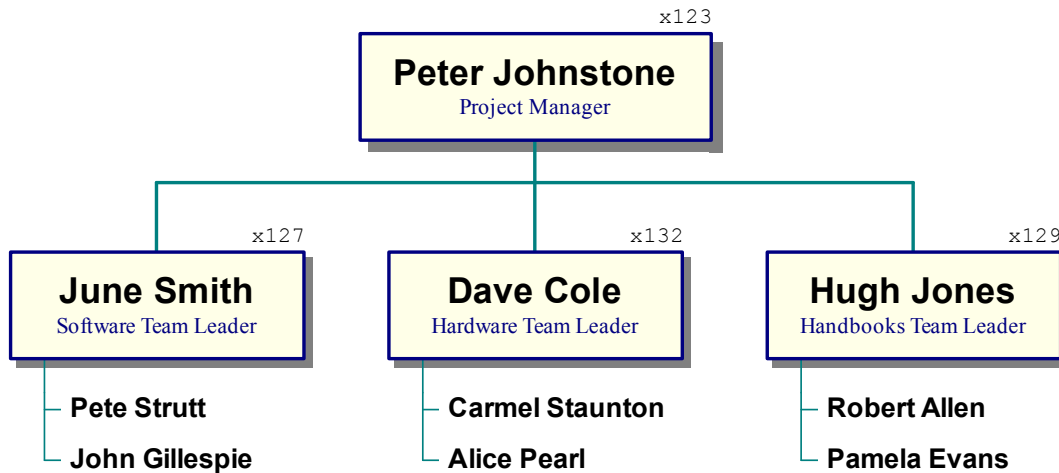
- 1 From the File menu, choose Preferences
- In the Preferences dialog:
 - 2 Select the Edit After Insert checkbox
 - 3 Choose the OK button to complete the Preferences dialog

Inserting the Handbooks boxes

Now, if you insert new boxes at levels two or three they will initially use the Default Layouts you've just defined. Now add the three boxes for the Handbooks Team, and enter their text.

Take care when inserting the "Pamela Evans" box. The Team Leader's Layout causes the "Pamela Evans" box to be *drawn* underneath the "Robert Allen" box, but it must be *inserted to the right* of the "Robert Allen" box, since they are both subordinates of the Team Leader. Any box inserted below the "Robert Allen" box would be a subordinate of Robert Allen, which is *not* what is needed here. If you insert a box with the wrong relationship, you can undo the insertion: from the Edit menu, choose Undo Insertion. Alternatively, press CTRL+Z.

After you've inserted the three boxes, the chart will be redrawn like this:



2.3.9 Adding an Assistant

We've left the Project Manager's Assistant until last when preparing the first chart because that box is a little different.

One of the big benefits of TreeChart is that it automatically positions boxes uniformly. TreeChart regards an Assistant as just another subordinate, but one that is marked as an exception to the normal Layout rules.

There are a number of other ways you can mark boxes as exceptions to the rules. These can help you illustrate, for example, Co-Managers (dual-reporting structures), and junior staff who report directly to a senior member of staff.

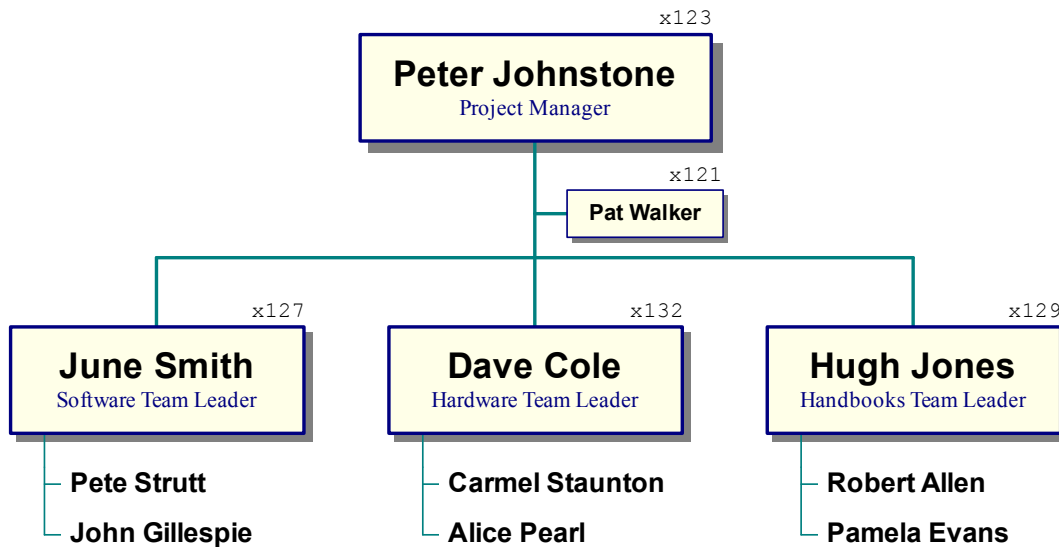
To add the new box, and mark it as an Assistant:

- 1 Insert a new box below the Project Manager
 (note that the new box initially uses the Default Layout for level 2: Team Leader)
- In the Edit Text Fields dialog: *(automatically shown)*
- 2 Enter the box text
- 3 *either* From the Edit menu, choose Mark Boxes
 or Press CTRL+M
 or On the Toolbar, click the Mark Boxes button
- In the Mark Boxes dialog:
- 4 Select the Assistant checkbox
- 5 Choose the OK button to complete the Mark Boxes dialog

In our chart, we created a new Layout (imaginatively called 'Assistant'). In this Layout, we:

- Hid the Position Text Field
- Set the Name Text Field font to Arial, Bold, size 10
- Chose a thin Shadow
- Chose a Border Width of 1 pt
- Chose size margins of: Top 0.05", Left 0.1", Bottom 0.05", Right 0.1"

After making these changes, and telling the new box to use the Assistant Layout, the chart looks like this:



2.3.10 Adding a Border and printing the chart

An important point to note is that TreeChart always prints the Current View - that is, if you have applied Focus to any box, or collapsed any boxes, these outlining selections are applied to the printed chart as well as the chart displayed on the screen. What you see on the screen is what will be printed. To print the whole chart, you must view the whole chart. To print just one department or level of management, view that department or level of management.

Preview before printing

Before actually printing, lets see what the chart will look like.

- either* From the File menu choose Print Preview
- or* On the Toolbar, click the Print Preview button

The entire TreeChart window is replaced by a Print Preview window. This allows you to look at your chart exactly as it would be printed. You can view one or two pages at a time, and you can zoom in by clicking on a page. Depending on your printer settings, the chart might be shown split over a number of pages.

Notice that a border has been added to the chart. The Border can be thought of as a large box which frames your chart. Like a box, it has text fields, and uses a Layout. While all boxes within a chart have the same text fields, you define totally independent text fields for the Border.

Close the Print Preview window by choosing the Close button.

Changing the Border Text

To edit the Border text:

- either* double-click on the chart background (*IE anywhere except over a box*)
- or* From the Chart menu, choose Border Text
- or* Press F7

The Edit Border Text dialog appears. This is identical to the box text dialog you saw earlier, except that different text fields have been defined.

TreeChart defaults to defining four Border Text Fields: Header, Footer, Title and Subtitle. You can add, delete or rename fields at any time, and you can change the defaults. For the example chart, we simply used the default fields.

Change the text to something more appropriate; we used:

Header:	TreeChart Version 1.0
Footer:	15 July 1993
Title:	Tutorial Example Chart
Subtitle:	See TUTORIAL.WRI

Now choose the OK button to complete the Edit Border Text dialog.

Changing the Border Layout

To edit the Border Layout:

- either* SHIFT+double-click on the chart background
- or* From the Chart menu, choose Border Layout
- or* Press SHIFT+F7

Editing the Border Layout is pretty much like editing any other Layout, though a few options aren't available.

Changing the text styles

We need to select different fonts, and re-position some fields.

To change the text style for Field 'Header':

- 1 Choose the Font button
In the Font dialog:
- 2 Select Arial, Regular, 8, Black
- 3 Choose the OK button to complete the Font dialog

- 4 In the Horizontal Alignment list, select Left

To change the text style for Field 'Footer':

- 1 In the Field list, select 'Footer'

- 2 Choose the Font button
In the Font dialog:
- 3 Select Arial, Regular, 8, Black
- 4 Choose the OK button to complete the Font dialog

- 5 In the Horizontal Alignment list, select Left

To change the text style for Field 'Title':

- 1 In the Field list, select 'Title'

- 2 Choose the Font button
In the Font dialog:
- 3 Select Arial, Bold, 20, Black
- 4 Choose the OK button to complete the Font dialog

To change the text style for Field 'Subtitle':

- 1 In the Field list, select 'Subtitle'

- 2 Choose the Font button
In the Font dialog:
- 3 Select Arial, Bold Italic, 14, Gray
- 4 Choose the OK button to complete the Font dialog

- 5 Choose the Up button to change the field from bottom-aligned to top-aligned

Changing the border style

We need to change the border width and color; add a drop-shadow, and adjust the distance between the border and the Header and Footer fields.

- 1 In the Line Width list, select 1½ pt
- 2 In the Shadow list, select the thickest bottom-right shadow
- 3 Choose the Border Color button
In the Border Color dialog:
- 4 Select the Navy color chip
- 5 Choose the OK button to complete the Border Color dialog
- 6 Choose the Shadow Color button
In the Shadow Color dialog:
- 7 Select the Silver color chip
- 8 Choose the OK button to complete the Shadow Color dialog
- 9 Choose the Margins button
In the Border Margins dialog:
- 10 In the Above edit control, enter 0.05"
- 11 In the Below edit control, enter 0.05"
- 12 Choose the OK button to complete the Border Margins dialog

Now choose the OK button to complete the Edit Border Layout dialog.

Changing printer settings

A further simple step we can take before printing is select landscape printing (most appropriate for the example we've worked through), and ask TreeChart to shrink the chart so that it all fits on one page. TreeChart can print your chart in two different styles:

Poster where all your fonts, sizes & spacing are absolute, and your chart will be printed as a series of sheets of paper that you'll need to stick together.

Fit-to-page where all your fonts, sizes & spacing are scaled to fit on a single sheet of paper

To select Landscape printing:

- 1 From the File menu, choose Print Setup
In the Print Setup dialog:
- 2 Select the Orientation: Landscape radio button

- 3 Choose the OK button to complete the Print Setup dialog

If you don't want to print to your default printer, you should also choose the printer you would like to print to.

To select Fit-to-Page print style:

- 1 From the Chart menu, choose Page Setup
In the Page Setup dialog:
 - 2 Select the Print Style: Fit-to-Page radio button
 - 3 Choose the OK button to complete the Page Setup dialog

Preview before printing, again

Before finally printing, lets again preview the output:

- either* From the File menu, choose Print Preview
- or* On the Toolbar, click the Print Preview button

The entire TreeChart window is again replaced by a Print Preview window. Your chart should now look exactly like the finished version at the start of this tutorial.

Close the Print Preview window by choosing the Close button.

Print the chart

- 1 Ensure that the printer is turned on and connected
- 2 *either* From the File menu, choose Print
or Press CTRL+P
or On the Toolbar, click the Print button
In the Print dialog:
 - 3 Choose the OK button to complete the Print dialog

Since printing can take a bit of time, a message box reports progress during printing, and allows you the option of cancelling the print job.

2.3.11 Saving the chart

So far, the example chart has been given a temporary name (Chart1). If you'd like to be able to return to this chart after closing the TreeChart window, you'll need to save the chart to a disc file, giving it a permanent name as you do so.

TreeChart files are stored in a compact special format, and normally would have a filename extension of **.TCF**.

To save the chart:

- 1 From the File menu, choose Save As
- 2 In the File Save As dialog:
In the File Name edit control, type MYFIRST

*You do not need to type the filename extension **.TCF**.
TreeChart automatically adds it to the filename you type.*
- 3 Choose the OK button to complete the File Save As dialog

TreeChart can also save files in a number of other formats which can then be used by other programs.

2.4 Postscript: Creating a Template File

Before finishing this tutorial, lets create a Template File.

A Template File is simply a chart that acts as a starting point when you create a new chart. A Template contains:

- Definition of Text Fields
- A set of Layouts
- Definition of Default Layouts
- Other chart settings (Border, size matching rules, etc)

Normally, a Template would contain no boxes, though you can store boxes in a Template file if you wish - these boxes would then be created automatically for you when you create a new chart.

Template files are the same format as charts, but would normally have a filename extension of **.TCT** to show that they serve a different purpose.

TreeChart only recognises one Template File at a time, but you can switch Templates to any TreeChart-format file whenever you wish.

Creating a Template File

So, having prepared our first chart, if we wanted to be able to produce charts with the same appearance (but different text), we can simply delete all the boxes, save the chart as a Template File, then close the chart:

Note: Step 1 is only needed if some boxes were hidden by outlining; if the View All command is disabled, no boxes are hidden

- 1 *either* From the View menu, choose View All
 or Press CTRL+Q
 or On the Toolbar, click the View All button
- 2 *either* From the Edit menu, choose Select All
 or Press CTRL+A
 or On the Toolbar, click the Select All button
- 3 *either* From the Edit menu, choose Delete
 or Press DELETE
- 4 From the File menu, choose Save As
 In the File Save As dialog:
- 5 In the Save File As Type drop-down list, select 'Template File (*.tct)'
- 6 In the File Name box, type MYTEMPL as a name for the file.

*You do not need to type the filename extension .TCT.
TreeChart automatically adds it to the filename you type.*

- 7 Choose the OK button to complete the File Save As dialog
- 8 *either* From the File menu, choose Close
or Press CTRL+F4

Selecting the Template File

As you saw in section 2.1 (where we ensured that no Template File was selected before creating the example chart), the Template File is selected from the Preferences dialog:

- 1 From the File menu, choose Preferences
- In the Preferences dialog:
 - 2 *either* In the Template File edit control, enter MYTEMPL.TCT
 - or*
 - 1 Choose the Browse button
 - In the Select Template dialog
 - 2 Select the file MYTEMPL.TCT
 - 3 Choose the OK button
- 3 Choose the OK button to complete the Preferences dialog

Creating a new chart, using the Template

Now, create a new chart:

- either* From the File menu, choose New
- or* Press CTRL+N
- or* On the Toolbar, click the New button

Insert a few boxes to form a hierarchy. You'll see that all the Layouts you previously created are available, and some are used as defaults. Creating one chart is pretty simple; creating further charts in the same style is even simpler.

To produce finished charts, you often only need to:

- Select a Template File
- Insert boxes
- Enter the box text

As well as opening TreeChart-format files, TreeChart allows you to open text-format files produced by other programs. TreeChart then creates boxes and sets the box text automatically. Choosing the right

Template File when you do this can enable you to prepare charts almost instantly!