Main Index

The Chartist help information is organized into the following major areas:

Keyboard/Mouse
Using the Cursor
The Tool Bar
The Shape Palette
Commands
Procedures

Context Help:

In addition to using the help system via the Index, Browsing, or Searching, you may also get help for any **Chartist** menu item:

Activate a **Chartist** pull down menu, using **Alt+** the underlined letter of the item in the menu bar (e.g. Alt+F for the File menu), or by clicking on the menu bar item with the mouse left button.

Highlight the menu command for which you want help by using the arrow keys.

Press F1, and the Help system will display information on that command.

Dialog Help

Finally, in most dialogs, there is dialog help. To get help on an item in a dialog, click on the ? that appears in the title bar of the dialog, then click on the item of interest.

Keyboard / Mouse

How the keyboard and mouse is used in Chartist is descirbed below:

<u>General</u> - General Windows interface reference <u>Accelerators</u> - Short cut key sequences. <u>Main Window</u> - How the main window is organized.

Command Index

The Main Menu commands are described in the following sections:

File Menu Commands
Edit Menu Commands
Symbol Menu Commands
Line Menu Commands
View Menu Commands
Options Menu Command
Window Menu Command
Tools Menu Command
Help Menu Commands

Procedures Index

Using The Cursor

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Printing a Chart

Printer Options

Novagraph Order Form (Use File Print Topic... to print) Purchase orders are accepted from corporations, government organizations and institutions. Otherwise, payment can be made with with credit cards, checks or money orders in US funds and drawn on US banks, otherwise add \$35.00 to cover collection fees. Currency accepted at your own risk. Mail: Novagraph, Inc. Phn: (972) 231-2169 PO Box 850115 FAX: (214) 764-0159 Richardson TX 75085-0115 sales@novagraph.com **USA** www.novagraph.com Name: Company: Address: Email: Check here if you want to download the distribution archive from our web site (credit card or prepaid orders only). We email instructions. Charge #: Expire Date: _____ (Visa, MC, Amex, Discover) Phn: Signature: Where did you get the demo version? Software includes, user guide (html format), 1 year tech support. All prices are in US Dollars. Qty Item Each Ext Cost \$49.00 **Chartist® Chartist®-Pro** 89.00 **Chartist Update*** 25.00 __Chartist-ProUpdate* 40.00 *For update orders, please include your serial number(s): Ship CDROM: US: \$4.00, Elsewhere: \$7.00 Foregn check fee: \$35.00 Total For Goods: Texas Residents Only: 8.25% Sls Tax Total, Including Taxes:

Quantity discounts are available, see our web site for details.

Chartist-Pro Enhanced Product Information.

Chartist-Pro is an enhanced product, upward compatible with Chartist. In addition to all of the features of Chartist, Chartist-Pro includes:

OLE Client Support

Link or embed OLE objects from Chartist-Pro or other applications into symbol pictures or symbol references. Embedded symbol references provide a powerful general capability to nest Chartist diagrams inside each other.

Browse capability for symbol references.

Nest charts inside symbols, and automatically print the nested charts.

Advanced Group Editing Functions

Group resize, allowing all or part of a chart to be resized, or respaced.

Text grow / shrink in selected symbols.

Align to row, column or grid.

Permanent Grouping Support

Make a permanent grouping of any set of selected symbols.

Integrated Spell Checker

Spelling checker for several Western languages.

Spell Checker Interface

Support for using your word processor spell checker to check Chartist-Pro documents.

Text File Exchange Format

Externally document file save and load format for charts. Use to integrate Chartist-Pro with other user software.

XML File Format

Save and load Chartist documents in XML format. XML is an international standard self defining data format. Other applications can generate or read XML files. The Chartist DTD (Document Type Definition) file is included, and posted on our web site.

Rotate, Flip Shapes

Symbol shapes may be rotated in 90 degree increments, or reflected about either axis.

Rotate Text

Symbol text may be rotated in 90 degree increments.

Find / Replace

Symbol text may be searched and replaced with standard dialogs.

Additional Symbol Text Macros

Place document title, page number or symbol identifier number in symbols.

Copy All or Part of a Document To Placeable Metafile. Enhanced Metafile. or PNG formats

Copy an area of a document image to a file in a standard graphics format. This is for use with external image preparation programs. The PNG is a royalty-free format supported by web browsers.

Drawing Order For Lines

Have lines drawn either first or last, either running "under" or "over them"

Using The Cursor

The appearance of the cursor changes in the main window, depending on whether any items are selected, or some action is under way:

Cui	rsor	Meaning
B	Arrow	No items selected.
+	Cross	One or more items selected.
	Dotted Box	Adding, moving or pasting.
4	Gunsight	Waiting for initial point selection in a multistep operation.
	Pencil	Drawing or selecting a line.
↔	Double Arro	ow Cursor is over a sizing handle for the selected symbol.
- -	Quad Arrov	vSizing a symbol, or selecting a group.
R	Router	Routing lines.
Z	Hourglass	Time consuming operation.

General

Refer to the Microsoft (c) Windows (tm) User's Guide for general instructions on using Windows applications.

Accelerators

Certain keys act as "accelerators" for some menu actions. This allows a short key sequence to activate a menu action. Activate the main menu with F10 and pull down each submenu to see these key assignments. Accelerator keys do not operate when a menu is active.

Main Window

Unique Keyboard/Mouse Actions In Main Window:

Home Restores the display to the horizontal origin.

Ctrl+Home Restores the display to the chart origin.

End Moves the display horizontally to show the right side of the chart.

Ctrl+End Moves the display vertically to show the bottom of the chart.

Page Down Moves the display down by 1/2 of the window height.

Ctrl+

Page Down Moves the display right by 1/2 of the window width.

Page Up Moves the display up by 1/2 of the window height.

Ctrl+

Page Up Moves the display left by 1/2 of the window width.

Esc Aborts the current action.

Left Button Selects/Deselects a symbol if cursor is inside that symbol

Left Button

Click&Drag If inside a symbol, selects and begins moving that symbol. Otherwise, begins selecting a

group symbols. Mouse movement is tracked until button is released, at which time the

action completes, if possible.

Shift+ Left Button

Click/Drag If inside a symbol, adds that symbol to those selected, and begins moving them as a

group. Otherwise, begins adding to a selected group of symbols. Mouse movement is

tracked until button is released, at which time the action completes, if possible.

Shift+Ctrl Left Button

Click/Drag If inside a symbol, toggles the selected state of that symbol, without affecting any other

symbols.

Arrow Keys Arrow keys move the cursor in the direction indicated. Holding down a key causes the

rate of movement to increase as it repeats.

Return Key The Return or Enter key simulates a click of the left mouse button.

The Tool Bar

The Tool Bar lies just below the main menu. Its purpose is provide point-and-click short cuts to some frequently used commands, and to show **status** information.

To see what command is associated with a tool bar button. Place the mouse cursor over the tool bar. In a moment, a tool tip will appear with the name of the associated command.

Status Information

At the bottom of the main window is the status bar. If displays certain status information:

- 1. Scale Factor of the main window.
- 2. Current font selection for line labels.
- 3. Current font selection for symbol text.
- 4. Source line terminator type.
- 5. Default line routing style.
- 6. Destination line terminator type.

The Shape Palette

The Shape Palette is visible along the right hand side of the Chartist Window when the **View Shape Palette** command is checked. This palette contains up the shapes from the current shape library, and provides a quick way to add symbols of different shapes. See **Adding Symbols**.

Adding Text Outside Symbols

All text in a chart document must either be inside a symbol or on a line, as a line label (set in the Line Style... dialog).

There is, however a special shape that is used for placing text in a chart, such that it does not appear to be inside a symbol. This shape is called **Titl-Cent**. On the default shape palette it appears as a rectangle with a phantom, or dashed, border. In a chart, on the main display it also has a phantom border, so you can see where it is, and what the boundaries are. When printed, however, there is no border.

Note that any lines connected to the **Titl-Cent** shape will go all the way to the center of the shape. This is because the **Title-Cent** shape has a secondary use as a line connector or waypoint. To have "free floating" text that does not appear to be inside a symbol, but has lines terminating at the bounding rectangle, use a **Rect** shape, and color the border white with the symbol color dialog.

Adding Symbols

Using The Tool Bar Or The Menu:

Select the **Symbol Add...** Menu Command, press the **Ins** key, or click on •. The cursor changes to a dotted box shape. Move the cursor to the desired location on the chart, and click the left button.

Possible locations for a symbol are indicated with grid dots. A symbol is **centered** on a grid dot. Grid dots are shown for reference only, and are not printed.

The **Symbol Properties** dialog box will be displayed.

Using The Shape Palette:

If the Shape Palette is visible, click the mouse left button with the cursor over the desired shape. Then, as above, move the cursor to the desired location on the chart, and click the left button. The Shape Palette is made visible by checking the **View Shape Palette** command. The Shapes Palette contains all of the shapes in the currently loaded shape library.

Setting Symbol Properties

To change the shape properties of one or more symbols, choose the Symbol Properties command (F4), or click on .

When no symbols are selected, the current default settings for new symbols are edited.

When multiple symbols are selected, only those properties that are in common among the selected symbols are shown in the dialog. Any of the properties may be edited, however, and forced to take on a new common value.

Select a shape for the symbol from the list. Highlighting a shape name in the list, causes a model of that shape to be previewed in the dialog box.

The width and style of the border may also be selected from the radio buttons. It a width other than **Normal** is selected, the style selection is ignored.

The **Plane** selected for a symbol determines the order in which it is drawn. Symbols are drawn in plane o first, followed by the higher numbered planes in order. This selection allows symbols to be "stacked", using symbols to provide framing and background for other symbols, for example.

Changing Symbol Shapes With The Shape Pallette:

The **Shape** of one or more symbols may also be changed with the Shape Pallette. To do this, select the symbol(s) to change, then hold down the **Shift** key, and click on the desired shape in the Shape Pallette.

Setting Color for Symbols

Choose the **Symbol Properties** command **(F4)**, or click on 3. Then choose the **Colors** tab of the dialog box. If no symbols are selected, the colors for new symbols will be edited. If symbols are selected, then the colors chosen in the dialog will be applied to the selected symbols.

If the **Transp.** box is checked, then the background area of the affected symbols is made transparent. This means that information that is in a lower plane, or drawn earlier in the drawing sequence will show through. Any background color selection is ignored.

Selecting Symbols

One at a time with the mouse:

1. Click the left button with the cursor inside the desired symbol.

or,

One or more at a time using the Select command:

2. Choose the **Symbol Select** command. Click at a point to start the selection. Drag a rectangle to touch or enclose the desired symbols. Click to complete the Selection.

or,

One or more at a time by dragging the mouse:

3. Click and hold the left button with the cursor outside all opaque symbols Drag a rectangle to touch or enclose the desired symbols. Release the left button to complete the selection.

When **one** symbol is selected, it is highlighted with eight **"handles"** that may be used for sizing. When **multiple** symbols are selected they are surrounded with **dotted rectangles**.

To keep prior selections from being dropped when a new selection is made, hold down the Shift key is while selecting.

To toggle the selected state of a symbol while a group is selected, hold down the Alt and Shift keys, and click inside the symbol.

Other ways to select symbols:

Select All Symbols:

Use the **Symbol Select All** command. This will select all symbols in the document.

Select By Shape:

Select a symbol. Then use the **Symbol Select By Shape** command to select all symbols with the same shape.

Select in a Direction:

Use the **Symbol Select To End** commands to select all symbols in a given direction from the currently selected symbols.

To de-select all items, click on the chart outside any symbol and away from any line.

Deleting, Cutting Symbols

With one or more symbols selected, choose the **Edit Delete** or **Edit Cut** command.

If the **Delete** command is chosen, the selected items are removed, they may be recovered with the **Edit Undo** command, of no other symbol or line changes have been made to the chart..

If the **Cut** command is chosen, the deleted symbols and lines will be placed in the Clipboard and may be Pasted back into the current chart, another chart, or a different application.

Copying Symbols From the Clipboard, Replicating Symbols

With one or more symbols selected, chose the **Edit Copy** command. The selected information is copied to the Clipboard. As in the **Cut** command, the Clipboard data may be pasted into the current chart, another chart, or a different application.

Replicating Symbols

Symbols can be replicated with a direct click and drag operation. Select one or more symbols to replicate. Then hold down the **Ctrl** key, and click and drag the copy to the desired location. You can also drag these selected symbols into another Chartist document window, or any other application that supports drag and drop for OLE objects.

Clipboard Data Exchange

Other applications that can read Clipboard metafile pictures can **Paste** the Chartist information from the Clipboard. The application will generally enable its **Paste** command, if it can read a Clipboard bitmap or metafile picture. Multiple instances of Chartist may also exhange information in this manner.

Applications that support OLE can link or embed Chartist objects. When Chartist information is copied to the clipboard, information is also copied that allows these applications to link or embed that information. Chart objects may be *linked* only if they have been saved to a chart file.

Editing Text in Symbols

With the desired symbol selected, choose **Symbol Text...** or press **F3.** The Edit Symbol dialog box is displayed. The area for text entry operates similary to other Windows applications.

Note: You may also initiate the **Symbol Text** command by **double-clicking** on the symbol to edit with the mouse left button, if there is no OLE object picture in the symbol.

Use the direction keys and mouse to move the cursor and caret. Refer to the *Chartist User Guide* for details on selecting, cutting and pasting text.

A new symbol uses the last selected font for text. See **Selecting Fonts for Symbol Text**

If more text is placed in a symbol than will fit, it is clipped when displayed in the chart, but remains in the symbol. To complete editing, click on the **OK** button. To disregard any changes click on the **Cancel** button.

To enter **special characters** or symbols, click on the **Charmap...** button. This will launch the Windows Character Map application. This application allows you to choose any of the special characters available. See Windows Help for details on the operation of Charmap.

Justifying Text in Symbols

You can set the horizontal justification of symbol text from the **Tool Bar**, the **Symbol Menu** or from within the **Edit Text Dialog**.

From the **Tool Bar**:

Select t Horizon	he desired symbol(s). Click on the toolbar button to set up the desired text justification:		
_	iai.		
=	Horizontal Center Justify		
F	Left Justify		
3	Right Justify		
Vertical			
	Top Justify		
⊟	Vertical Center Justify		

From the **Symbol Menu**:

Select the desired symbol(s). Pull Down the **Symbol Menu**, locate the **Text Sub-Menu**, then the **Justify** sub-menu, and choose the desired action.

From the **Edit Symol Text** Dialog:

Click on the desired push button for horizontal justification setting. The vertical justification cannor be set in this dialog. Use one of the above methods.

Selecting Fonts for Symbol Text

With the **Symbol Text** dialog box displayed, move the caret to the desired location to start a new font, or select the text to be "re-fonted". Pull down the list of fonts, and choose the font. Similarly, pull down the list of font sizes and choose the font size.

Fonts effects such as **Bold**, *Italic*, <u>Underline</u>, or Strikethrough can be selected with their respective buttons.

Supercript, subscript or normal alignment may aslo be chosen.

Changing Fonts In Symbols

The fonts used in a group of symbols can be modified at the same time. Any changes made will be applied to all of the symbols selected.

Enlarging or Reducing Text Size (Chartist-Pro Only)

Choose the **Symbol Text Enlarge (Alt +)** In, or the **Symbol Text Reduce (Alt -)** command to grow or shrink all text in selected symbols by 2 points.

Modifying Fonts

Chose the **Symbol Text Font... (Ctrl+F)** command to modify all fonts in the selected symbols at once. The Choose Font dialog will appear. Any changes made will be applied to all fonts in the selected symbols. Font properties which vary among the selected group will be "grayed" or not shown, but they may still be modified.

Establishing A Symbol Reference

The symbol reference is a command string to display a reference document. Such a document can be displayed by selecting the **View Reference** (**Shift F3**) command or double clicking on the symbol with the **Ctrl** key held down. This behavior is similar to that of hypertext.

When a symbol has a reference established, an asterisk (*) will de displayed in the lower right corner of the symbol, in the text color used by the symbol and in the current line font. The asterisk does not show in data sent to the clipboard nor when the Chartist document is printed.

To establish or modify a symbol reference, select the symbol and then choose the **Symbol Reference...** command (**Alt+F4**), or click on the **S** button in the Tool Bar. The **Edit Symbol Reference** dialog box will be displayed. The reference may be a document for which there is a file manager association, an execute command, or a linked or embedded OLE object.

For documents or commands:

Enter the command string for the reference document into the edit field. **File names for documents should be fully qualified with the path name**.

Chartist-Pro Only:

For OLE objects:

If an object is in the clipboard, the **Paste** button will be enabled. Click on the **Paste** button to embed the object.

If a linkable object is in the clipboard, the **Paste Link** command will be enabled. Click on the **Paste Link** button to link the object.

To insert a new embedded object, click on the **Insert...** button. The **Insert Object** dialog will appear. Choose one of the objects. The application for that object will be activated, and you will be able to create the new object and insert it into the symbol reference.

The **Action...** button activates the object, or in the case of objects with multiple verbs, brings up a list of verbs that are available for activations.

The **Clear** button removes the symbol reference.

Adding A Picture To A Symbol

A symbol can display a picture in its text area. The picture may be stretched or shrunk to fit inside the symbol. Pictures may be device independent bitmaps (.bmp) files, metafiles (.wmf), metafile pictures from the clipboard, or OLE linked or embedded objects that provide metafile picture data.

To add a picture to a symbol, select the desired symbol and choose the **Symbol Picture...** command (**Shift+F4**) or click on the **1** button in the Tool Bar. The **Edit Symbol Picture** dialog box will appear. Any picture already in the symbol will be displayed in the dialog box.

To remove a picture, click on the **Clear** button.

Checking the **Stretch to Fil** checkbox, will cause the picture to be stretched or shrunk to fit extactly within the symbol. Otherwise the picture will be displayed in its original size and clipped if necessary.

For files:

To load a new picture from a file, click on the **Load** button. The **Open File** dialog will be displayed, with the default extension set to **.?M?** which will display .BMP and .WMF files. Select the desired file by double-clicking on it in the list box, or by typing in the file name and clicking on **Open**. The selected picture will be loaded into the picture.

For Metafile Pictures From the Clipboard:

Click on the **Picture** button, if it is enabled. The metafile picture in the clipboard will be loaded and shown in the preview area.

Chartist-Pro Only:

For OLE objects:

If an object is in the clipboard, the **Object** button will be enabled. Click on the **Object** button to embed the object.

If a linkable object is in the clipboard, the **Link** command will be enabled. Click on the **Link** button to link the object.

To insert a new embedded object, click on the **Insert...** button. The **Insert Object** dialog will appear. Choose one of the objects. The application for that object will be activated, and you will be able to create the new object and insert it into the symbol reference.

The **Action...** button activates the object, or in the case of objects with multiple verbs, brings up a list of verbs that are available for activation.

The **Update** button is enabled if the symbol contains a linked object. Clicking on **Update** will obtain the latest picture data from the source document.

If the **View Pictures** command is checked all symbol pictures will be displayed. Unchecking the **View Pictures** command causes all symbol pictures to be shown as gray rectangles, speeding up the display process considerably if there are pictures.

Stretch or shrink the symbol to get the desired size and aspect ratio for the picture. Depending on how the picture was digitized, it may look distorted on the display.

If there is also text in a symbol, it is displayed on top of the picture.

Moving, Pasting Symbols

Using the Symbol Move or Edit Paste Commands:

With the desired symbols selected, pick the **Symbol Move Command** (F2)

or if there is chart information in the clipboard, select the **Edit Paste Command** (Ctrl+V).

The cursor changes to a dotted box. Move the cursor to the desired chart location and click the left button.

Alternative **Move** techniques:

Dragging a symbol with the Mouse:

To **drag** one symbol to a new location:

Click and hold the mouse left button while in the symbol.

As you start moving the cursor, the bounding rectangle of the symbol will appear and move with the cursor.

Release the mouse button with the cursor centered over the grid point for the new location.

To **drag** a selected group of symbols:

Hold down the Shift key.

Click and hold the mouse left button while in one of the selected symbols.

As you start moving the cursor, the bounding rectangle of the selected group will appear and move with the cursor. If you approach the boundary of the main window, the document will begin to autoscroll.

Release the mouse button with the cursor centered over the grid point for the new location

Point of Reference for a group:

The point of reference for the cursor is the upper left corner of a rectangle bounding the group of symbols to be moved or pasted. If appropriate, a dashed bounding rectangle will track the cursor, to show the area needed by the **Move** or **Paste**.

Note: If the **Options Snap to Grid** command is checked, the point of reference will be positioned on a grid point.

Copying and Pasting Symbol Text

You can use the spelling checker of your word processor to check the spelling in Symbols. The Edit Copy Text and Edit Paste Text commands are provided for this purpose.

Select the symbols that you ant to check, and then use the Edit Copy Text command.

Run your word processor and open a blank document. Then use the Edit Paste command in your word processor to bring in the symbol text. Do not change any of the numeric information between colons, as these are the symbol identifier numbers.

Then, use your spelling checker on the information. When you have completed any corrections, select the entire document and use the Edit Copy command in your word processor.

Return to Chartist-Pro, and use the Edit Copy Text command to replace the symbol text.

Sizing Symbols

Using the Symbol Size Command: (For one or multiple symbols)

With the desired symbol(s) selected, choose the **Symbol Size (F6)** command. The cursor will move the the lower right corner of the selected symbol(s). Using the mouse or arrow keys, stretch the symbol(s) to the desired size, and click again to complete.

Hold down the Shift key while stretching to maintain the original aspect ratio of the symbol(s).

Hold down the Control key while stretching to anchor the opposite corner of the symbol, rather than the center.

Hold down the Alt key while stretching to keep the symbols in a multiple selection the same size. The result of the operation, then, is to spread or compact the spacing between the symbols, leaving the symbol sizes unchanged.

or,

Stretching with the Selection Handles: (One symbol or joined group only)

Having selected the desired symbol, move the mouse so that the cursor covers one of the small black rectangles (selection handles) around the symbol. The cursor will change to a **double arrow**, indicating the directions that the symbol sides may be stretched.

While the cursor is a double arrow, click and hold the left mouse button, then move the mouse to change the size of the symbol as desired. Release the left button to complete the operation.

Resetting Symbol Size:

If you make a mistake in sizing a symbol, you can select it and reset it to the current default symbol size with the **Symbol Reset Size** Command.

Note: If the **Options Snap to Grid** command is checked, dimensions of symbols will be rounded to the nearest grid interval multiple. The **Options Chart...** command allows you to change the grid interval.

Since symbols are always **centered** on grid points, the corners of a symbol can snap to 1/2 the distance between two grid points (for odd multiples of the grid interval).

Aligning Symbols To Grid Points, Rows, Columns

Chartist-Pro Only:

To re-center a group of symbols onto the nearest grid points, select them and choose the **Symbol Align To Grid (Ctrl+S)** command. The selected symbols will be "snapped" to be centered on the nearest grid points.

To align a group of symbols to a Column or Row. Select the group, and choose the **Symbol Align Row**, or **Symbol Align Column**, command. The symbols will move to line up their centers with that of the topmost or leftmost symbol in the group.

Setting The Text Angle in Symbols

Chartist-Pro Only:

The text angle in symbols may be set in 90 degree increments from normal horizontal. Select the desired symbols. Choose the **Symbol Text Angle** command. Use the dialog to set the angle to the required value.

Setting The Orientation of Symbols

Chartist-Pro Only:

Symbols may be rotated and reflected (flipped) relative to their normal orientation. These operation may be performed on one or more selected symbols from the **Symbol Properties** dialog. When settings to these properties are made from this dialog with no symbols selected, then the default orientation for new symbols is set.

Existing symbols may be rotated or flipped by selecting them and using the **Symbol Rotate** or **Symbol Flip (X or Y)** commands. Rotations are in 90 degree increments counter clockwise.

Finding and Replacing Symbol Text Chartist Pro Only

A symbol can be located and selected based on the text contained within the symbol. Use the **Edit Find...** command to activate the Find dialog. Enter the text to locate and click on the **Find** button. If a symbol contains that text, it will be selected and brought into view if necessary. Clicking on **Find** again will cause the next symbol containing that text to be selected.

The text inside symbols can be searched and replaced as well. Use the **Edit Replace...** command. Enter the desired text to search, and the desired text to replace. Click on **Find** to locate the next occurance of the text. Click on **Replace** to replace it. **Replace All** will replace all occurences of the text in all symbols.

Adding Lines

Choose the **Line Add** menu command **(Tab)**, or click on . Click **inside** the source symbol bounding rectangle near the desired exit side (and attachment point), and drag a line to the destination symbol. Click again **inside** the destination symbol bounding rectangle near the desired entry side (and attachment point) to complete the operation.

The right mouse button may be used to add lines directly.

The number of points on a symbol side to which a line may be attached is selected with the **Options Line Attach Points** command (1,3, or 7 points per side). The attachment points on symbols may be seen by checking the **View Line Attach Points** command.

The line will exit the source symbol's side that is closest to the initial point. It will enter the destination symbol's side that is closest to the destination point.

Routing Lines

Line routing takes place automatically after any change to the chart that affects the layout of lines.

A line will fail to route properly if the endpoints are not properly designated, or if the connected symbols are moved so that the router cannot route the line.

After a routing failure, the offending line is drawn in **red**, but the line is not deleted automatically. The user can delete the line, rearrange the chart so the line will route, or add a waypoint as described below and manupulate the line route manually.

The route of a line can be modified manually with the **Line Add Waypoint** command. Select the line to be changed and choose the **Line Add Waypoint** (**Ctrl+Tab**) command. The selected line will be split into two segments, with an invisible symbol (shown with a dot-dash border) at the mid point. The line route can them be moved by dragging the invisible symbol. When this operation is done, there are **two lines and a symbol** replacing the original line.

Selecting Lines

1. Place the cursor on a unique part (within 1/16") of the line, that is, a part of the line that is not combined with other lines. Click the left button to select.

Note: This method will not work on lines that share full paths with other lines. You must use the **Line Select** Command for them.

or,

2. Choose the **Line Select** command. Click on the source symbol, drag a selection line to the destination symbol and click again to select.

When a line is selected, its path is shown in **reverse colors**.

Selecting Multiple Lines:

The selection of other lines will be dropped unless the **Shift** key is held down while selecting. If the **Shift** key is held down while selecting, multiple lines may be selected.

Selecting Lines From Symbols

A fast way to select several lines is to select the symbols that they connect to, and then choose the **Line Pick From Symbol** command **(Shift F7)**. All lines connected to those symbols will be selected. The symbols will be deselected.

Setting Style for Lines

With the desired line selected, choose **Line Properties...** (Alt+F3), or click on . The **Line Properties** dialog box will be displayed.

Note: A line that is selectable by clicking directly on it (it does not share its entire path), can be **double-clicked** to activate the **Line Properties** dialog. Refer to **Selecting Lines**

Setting Color for Lines

To select line colors, choose the **Line Properties** command **(Alt+F3)**, or click on . Then choose the **Colors** tab of the dialog. If no lines are selected, the colors for new lines will be selected. If lines are selected, then the selected lines will take on the colors chosen in the dialog box.

Moving A Line End

To move one end of a line, select it. Then move the mouse cursor over the end of the line, until the cursor changes to the pencil. Click the left mouse button to pick up the line end and then drag the mouse to the new end location. Release the left button to complete the operation.

Save Chart File

To save a document, select the **File Save** command. If the current chart does not have a file name, the Save As dialog box will be displayed. **See Save Chart As**

Save Chart As...

To save a chart and specify the file name, select the **File Save As...** command. Enter the desired name for the file.

The default extension for chart files is .nvg-cht-bin, and need not be entered. If the chosen name would cause the overwriting of an existing file, a confirmation is requested.

In earlier versions the default extension is .cht. This extension is still available for compatibility,but the format is the same in either case.

Chartist-Pro Only:

In Chartist Pro, there are two additional formats available, Text and XML.

Text File format is the same as in previous versions. To save a file in this format, choose it from the drop down list in the file dialog, create a name for the file, and click on Save. The format for text files is described in detail in the User's Guide. Not all information is saved or restored in this format.

XML format carries the extension .nvg-cht-xml, and has two variants.

The Rich Text variant saves and restores all information in the chart, including all text formatting in symbols. That text is saved in RTF using unicode characters (UTF8). While this format provides a human readable and complete definition of the text, it requires external programs to understand RTF.

The Plain Text variant saves all information in the chart, except the symbol text information is rendered in the default font for the document. All other text formatting is discarded. This makes the external parsing of the XML file simpler in the case where that text formatting is not important.

The User's Guide documents the Document Type for Chartist XML format files, and the DTD is available on the web site, as well as in the software distribution. Refer to the User's Guide for details.

Save Graphics File

You may save all or part of a drawing in one of three standard formats, **Placeable Metafile (.WMF)**, **Enhanced Metafile (.EMF)** or **Portable Network Graphics (.PNG)**. The Placeable Metafile format is used by many word processing and desktop publishing applications. The Enhanced Metafile format is a Windows format is newer and has many of the characteristics of the Placeable Metafile format. The Portable Network format is a standard format used by modern web browsers. It is similar in performance to .GIF format. However unlike GIF files, PNG files do not use any patented techniques, and thus do not subject you to royalty payments.

To save all of a drawing, choose this command form the **File** menu, and enter or browse for the desired file name. To save part of a drawing, select the desired symbols, then choose this command and check the **Save Selection** check box.

In either case, choose the desired format from the drop down list.

Save Web Page

All or part of a document may be saved as a web page in one of 3 standard formats:

1. Raster image with an HTML wrapper.

This is the most universally standard format. An image of the selection or document is saved as a PNG (Portable Network Graphics) file, which is recognized by all modern browsers. Also a small HTML file is saved that references the PNG file as an image. Both of these files have the same name, with extensions of .png and .htm respectively, and must be located in the same directory on the server.

2. VML format.

VML (Vector Markup Language) is an XML application that runs on Microsoft Internet Explorer (versions 5.5 and later). The image is represented as a sequence of vector commands. Typical documents are shorter, and load faster in this format. However this format is not supported by other browsers. A single file is generated with and extension of .htm. Rotated text, and pictures in symbols are not supported in this format.

3. SVG format.

SVG (Scalable Vector Graphics) is an international standard XML application that is defined by W3C. Most commercial browsers required an add-in module to display SVG documents. These modules are available free from third parties. See the Novagraph web site (www.novagraph.com) for information on getting an SVG module. Like VML, SVG is a vector graphics language, and generally results in a smaller document than the raster image in format 1. Two files are created, the image file with an extension of .svg, and an HTML wrapper that references the svg file as an object. Both files must be moved together to the same directory. Both files have the same name with extension of .svg and .htm respectively.

Open Chart File

Select the **File Open...** command. Select the desired chart file from the directory list. You may also browse other directories. The chart file name may be typed in if it is known.

Chartist-Pro Only:

Chartist-Pro supports two additional file formats, text (.chx) and XML (.nvg-cht.xml). These formats are documented in the user guide, and provide a means for other applications to process Chartist documents.

Load Shape File

Select the **File Load Shapes...** command. Select the desired shape file from the directory list, as in the **File Open Chart** procedure. A shape file defines the names and drawing instructions for symbols. The extension for shape files is SHP.

Launching a New Blank Document – The File New command.

To launch a new blank document use the **File New** command or the New Document Tool Button. A new document will be launched using the current default settings.

Loading A Template File – The File New... command.

Any Chart file may be loaded as a template. This operation loads the file, but does not initialize the Chartist document name. This means that on closing the document, the user will be prompted for a new file name.

To load a Template File, choose the **File New...** command. Browse the list of files and directories to find the desired template.

You can create a template by creating a chart and saving it into the Templates subdirectory of the Chartist Program Directory (Usually **Program Files\Chartist\Templates**). Then when you use the **File New...** command, you will quickly be able to locate and use your custom template.

Closing a Document – The File Close command

Use the File Close command to close an open document. If the file has unsaved information from editing, you will be prompted to save the current changes. Choose **Yes** to save the changes, **No**. to close the file without saving the changes, and **Cancel** to leave the file open.

Other open Chartist documents are not affected by this operation. If you have embedded objects open in Chartist-Pro, those objects will be closed at the same time.

Printing a Chart

Select the **File Print...** command. A confirmation will be requested. After a print operation is started it may be canceled before completion via the dialog box that remains in view while Chartist is sending output to the printer. The current printer is used.

When there are selected symbols, the Selection Only or Selected Pages box may be checked.

For **Selection Only**, the selected group is printed starting at the top left corner of the printer paper. Only those lines connected entirely within the selected group are printed.

For Selected Pages, all pages containing selected information are printed in their entirety.

When the **Print Selection** box is not checked, the **entire chart** is printed. The chart is **tiled** onto the required number of printer pages. Also, the **Fit To Page** checkbox will cause the entire chart to be printed on one page in the current page size and orientation.

The **Tile Y First** checkbox causes the chart to be tiled onto paper in Y-order first. This is useful for printing large charts in portrait orientation on continuous form paper.

By choosing a **Scale Factor** other than 100%, the overall size of the priinted chart may be enlarged or reduced. This is usefeul for getting an overview of a large chart on one or a few sheets of paper. Non scalable device fonts may not reduce or enlarge properly with this option.

Chartist Pro Only:

By checking the **Print Embedded References** command. Symbol references that are embedded Chartist-Pro objects are printed after the main body of the document is printed.

Printer Options

Choose the **File Setup Printer & Paper...** command to choose a printer or change the printer settings or paper settings.

Paper settings are made in this dialog. The paper settings are saved with the chart document.

On the display, solid green lines mark the physical boundaries of the pages, net of margin settings. Dashed green lines mark the centers of the pages.

File Menu Commands

File

New

Launches a new Chartist document, using the current default settings.

File

<u>New...</u>

Launches a new Chartist document, based on a template or sample document that you choose.

File

Open...

Loads a chart from a file. The default extension for chart files is ".CHT".

File

Save

Saves the current chart into the current file. If there is no current file, the user is prompted for a file name.

File

Save As...

Saves the current chart into the file specified by the user.

Save Graphics File

Saves all or part of the file as a graphics image (.PNG .EMF .WMF).

Save Web Page

Saves all or part of a file as a web page.

File

Print...

Prints the current chart.

File

Close

Closes the currently open document.

File

Delete

Allows you to choose and delete files.

File

Setup Printer & Paper...

Selects and configures the current printer, and paper settings

File

Load Shapes...

Loads a shape file. A shape file defines the names and drawing instructions for symbol types. See Help About...

File

Exit

Exits the Chartist application. If the current charts have been changed, the user will be prompted to save or abandon it.

Edit Menu Commands

Edit

Delete...

Deletes selected items.

Edit

Undo

Restores previously changed items.

Edit

Сору

Copies the selected symbols and lines to the Clipboard.

Edit

<u>Cut</u>

Copies the selected symbols and lines to the Clipboard and deletes them from the chart.

Edit

Paste

Copies the contents of the Clipboard to the chart.

Edit

Copy Text

Copies text from selected symbols to the clipboard. Chartist-Pro

Edit

Paste Text

Pastes text from clipboard into symbols. Chartist-Pro

Edit

..<u>Find...</u>

Locates a symbol containing text.

Edit

..Replace...

Locates, replaces text in symbols.

Symbol Menu Commands

Symbol

Add...

Adds a new symbol to the current chart.

Symbol

Select

Selects a group of symbols.

Symbol

Select All

Selects all symbols in the current chart.

Symbol

Select By Shape

When one symbol is selected. You can use this command to select all other symbols that have the same shape.

Symbol

Select To End

Right

Left

Up

Down

Selects all symbols from the selected symbol to the end of the chart in the direction indicated.

Symbol

Group

When multiple symbols are selected, you can check this command to group those symbols together. If exactly one group is selected, then you can uncheck this command to remove all symbols from the group. Grouped symbols bahave as if they were a single symbol, moving together, etc. *Chartist-Pro*

Symbol

Move

Relocates the selected symbols, together with any lines.

Symbol

Align To Grid

Causes selected symbols to snap their centers to the nearest grid points. Chartist-Pro

Align Row

Align Col

Cauese selected symbols to be aligned into Rows or Columns. Chartist-Pro

Symbol

Poperties

Modify properties for the selected symbols.

Symbol

Rotate

Flip X

Flip Y

Changes the <u>orientation</u> of the selected symbols. Rotations are in 90 degree increments, counter clockwise. *Chartist-Pro*

Symbol

Size

Changes the size of the selected symbol.

Symbol

Reset Size

Changes the selected symbols to the current default size setting.

Symbol

Text

Edit...

Edits the text inside a symbol, and allows the selection of fonts for use with that text.

Symbol

Text

Font...

Modifies fonts in the selected symbol or symbols.

Symbol

Text

Enlarge

Reduce

Increases or decreases the size of all fonts in the selected symbols by 2 points. Chartist-Pro

Symbol

Text

Angle

Selects the angle of the symbol text, relative to normal horizontal, in 90 degree increments. *Chartist-Pro*

Symbol

Text

Justify

Left

Center

Right

Top

Vertical Center

Sets the text justification of the selected symbols.

Symbol

Picture...

Selects the bitmap picture to be displayed inside the symbol.

Symbol

Reference...

Edits the reference command line for the symbol.

Line Menu Commands

Line

<u>Add</u>

Adds a line from one symbol to another.

Line

Select

Selects a line between two symbols.

Line

Pick From Symbol

Selects the lines connected to all selected symbols, then deselects the symbols.

Line

Font...

Selects the font to be used for line labels, and the default font for the document.

Line

Style...

Changes the pen style, line width, arrow style and label text for the selected line.

Line

Color...

Selects the color for lines and line labels.

Line

Add Waypoint

Segments a line and inserts a "handle" between the segments, allowing manual manuipulation of the route.

Line

Main Branch

Causes the selected line to be the line to which all other lines, connecting to the same point, fan into. The Options Auto Fan In command must be checked for the fan in logic to operate.

View Menu Commands

View

Refresh

Redraws the chart display.

View

Zoom In

The scale of the display is increased by one step, to 4X full scale at most.

View

Zoom Out

The scale of the display is decreased by one step, to a minimum of 1/4 full scale.

View

Normal

The display is returned to full scale.

View

Reference

The reference document of the symbol is activated. See Establishing A Symbol Reference.

View

Tool Bar

When checked, the **Tool Bar** is displayed.

View

Shape Palette

When checked. the Shape Palette is displayed along the right side of the Chartist-Pro Window

View

Grid

When checked, the grid is displayed.

View

Ruler

When checked, the ruler is displayed.

View

Pictures

When checked, pictures that have been loaded into symbols are displayed. When not checked, gray rectangles are displayed in place of the pictures to save time.

View

Line Attach Points

When checked, locations on symbols where lines can be attached are shown. The number of line attachment points per symbol side is selected with the **Options Line Attach Points...** command.

Options Menu Commands

Options

Spell Options...

Views and modifies the settings for the spelling checker. This command is available on Chartist-Pro only.

Options

Default Symbol Size...

Selects the initial size of new symbols added to the chart. Sizes of symbols already in the chart may be changed to the default size by selecting them and using the Edit Reset Size command.

Options

Chart...

Select the chart dimensions, units and grid spacing.

Options

Default Font

Select the default font for the document, and for line labels.

Options

Snap to Grid

When checked, symbol positions and dimensions are rounded to the nearest multiple of the grid interval for that axis. Note that symbols are positioned relative to their **centers**.

Options

Line Attach Points

Selects the number of possible line attachment points per symbol side. The possible selections are 1, 3, and 7 attachment points per side. Existing lines are not affected. Checking the **View Line Attach Points** command shows the attachment points on symbols.

Options

Auto Fan In

When checked, **Auto** routed lines fan into the first line that connects to a given attach point, with the arrows at the first line, or main branch. The main branch can be chosen with the **Line Main Branch** command.

Options

Fast Line Routing

When checked, lines route to the bounding rectangle of symbols, rather than the actual boundary of the solid region of symbols. This results in much faster routing of lines, at less accuracy in some cases. When not checked, lines route to the boundary of the solid region of symbols.

Options

Diagonal Labels

When checked, line labels on **Direct** style lines follow the lines. If a line follows a diagonal path, then the line label text will flow along the line. Uncheck this command to have line labels on **Direct** lines placed as they are for other styles of lines.

Options

Route Lines First

When checked, lines are drawn before symbols are drawn.

Options

Active Planes...

Turns on or off the selection and designation logic in the six symbol planes. This is useful for working with symbols in layers.

Options

Background Color...

Sets the background color for the chart.

Options

Directories

Documents...

Shapes...

These dialogs allow you to set the initial working directories for chart documents, and shape libraries. The path set by the Shapes... dialog is the one from which shape libraries will be loaded as specified from documents. If no setting is made, then the initial paths are the same as the Chartist-Pro program file.

Options

Misc Settings...

Change the settings of standard symbol height and width, and line and border thicknesses.

Window Menu Commands

Window

Tile Horiz

Divides the display equally among the active Chartist document windows, horizontally.

Window

Tile Vert

Divides the display equally among the active Chartist document windows, vertically.

Window

Cascade

Stacks the active Chartist document windows, making them all the same size.

Window

(Document)

Each active Chartist document window is listed, and may be brought to the top by clicking here.

Tools Menu Commands (Available in Chartist-Pro only)

Tools

Spell Check...

Checks the spelling of the text in all of the symbols in the document.

Help Menu Commands

Help

Index

Activates the Help system with the Main Index displayed.

Help

Keyboard

Activates the Help system with the Keyboard Index displayed.

Help

Commands

0 Activates the Help system with the Commands Index displayed.

Help

Procedures

Activates the Help system with the Procedures Index displayed.

Help

Using Help

Activates the Help system with the Help On Help file.

Help

..Welcome Dialog

When this command is checked, the Welcome dialog displays when you first start Chartist. The Welcome dialog includes the Tip of the Day, and some shortcuts to the On Line Tutorials, and creating new documents.

Help

About...

Displays the Chartist copyright information and the full path name of the current shape file.

Help

Novagraph Web Page

Activates the Novagraph Home Page in your default browser.

This list shows the colors of the current palette. Choose a color from the list to edit.

Modify this component of the selected color by slidir 255.	ng the scroll bar, or by typing in a value between 0 and

This shows the appearance of the palette entry being modified.

Click here to reset the entire palette to its default settings.

Accept the modifications and exit the dialog.

Exit the dialog and discard the modifications.

This is the list of available colors.

Click here to choose the background color from the list.

Click here to choose the border or line color from the list.

Click here to choose the text color from the list.

Check this box to make the symbol transparent.

This shows a sample of the color selections.

The list of shapes from the currently loaded shape library.

Drawing of the shape selected in the shape list.

Choose one of the line styles for the symbol border.

Choose the thickness of the symbol border.

Select the plane (drawing order) for the symbol. Plane 0 is the lowest.

Select the rotation angle and reflection of the symbol.

Add the selected shape to the shapes palette.

Delete the selected shape from the shapes palette.

Choose a cross-hatch pattern for the symbol.

Type in a short line of text to go at one end of the line. The default end for a label is the source.

Check this box to make the label text appear at the destination end of the line.

Select one of the styles for the line pen: solid, dash, or dot.

Choose a width for the line.

Select the line routing technique. uses one straight line.	Auto turns right angle co	rners. Curved turns roun	ded corners. Direct

Enter a length for any line terminators or arrows on the line. A length of zero is not permitted.

Choose a terminator for the source end of the line from this drop down list.

Choose a terminator for the destination end of the line from this drop down list

Click this button to use inches for dimensons.

Click this button to use centimeters for dimensions.

Set the distance between grid points.

Set the overall height and width of the document.

Reset the chart grid spacing to the default values.

Set the default width for new symbols. See the Options Chart dialog for using English or metric units.

Set the default height for new symbols. See the Options Chart dialog for using English or metric units.	

Copy the dimensions of the selected symbol as the default height and width for new symbols.

Use the standard symbol dimensions as the default height and width for new symbols. The standard symbol dimensions are set in the Options Miscellaneous Settings dialog.

Use the standard symbol dimensions, divided in half, as the default height and width for new symbols. The standard symbol dimensions are set in the Options Miscellaneous Settings dialog.

The path to the reference.

Paste the object in the clipboard as the symbol reference.

Link the object in the clipboard as the symbol reference.

Clear the symbol reference.

Embed a new object as the symbol reference.

Activate the linked or embedded object that is the symbol reference.

Point or link to a file as the symbol reference.

Click here to paste the metafile picture that is in the clipboard.

Click this button to embed the object that is in the clipbard.

Click to link to the object in the clipboard.

Activate the picture object.

Update the linked picture object.

Insert a new object as the symbol picture.

Load a bitmap file or metafile as the symbol picture.

Clear the current symbol picture.

Check this box to make the picture the same size as the symbol.

Preview of the current symbol picture.

Shows the currently selected printer.

Enter the number of copies to print.

Enter a scale factor in percent.

Print the document to fit on one page, centered.

Print the entire document.

Print any pages that contain selected items.

Print the selection only.

Print the document in the Y direction (top down) first. right) first.	The default action is to print in the X direction (left

Ignore color selections when printing. Lines and borders are printed black, and backgrounds are white.	

Print all symbol references that contain embedded objects (nested charts, for example).

The text you are editing for this symbol.

Use this box to choose the font for text. If no text is selected, then the is set. If any text is selected, then the font is set for that selected text.	font for the current cursor	position

Use this box to choose the size of the font for text. If no text is selected, then the size for the current cursor position is set. If any text is selected, then the size is set for that selected text.

This box indicates the current script for entering text. The current script depends upon the input language you have selected in the system, and the font itself. If you pull down the list box, you can see all of the scripts supported by the selected font.

Check this button to shift the selected text above the normal baseline

Check this button to shift the selected text below the normal baseline.

Check this button to align the baseline of the selected text normally.

Choose the horizontal justification for the text.

Check this button to make the selected text **bold**.

Check this button to make the selected text italic.

Check this button to strike through the selected text.

Check this button to <u>underline</u> the selected text.

Click here to check the spelling of all of the text.

Click here to change the spelling check options.

Check this box to double the displayed size of the text in this dialog. This is only a visual aid for editing small size text, and does not change the size of the text as printed.

Activates the Windows Character Map applet.

Choose how many line attachment points are used on each side of symbols.

Select one of the available actions or verbs for the object.

Choose an orientation for the text in the selected symbol(s).

Enter or edit the desired path to files.

Scroll to the desired character and double click on it to add that character to the text.

Enter the desired standard width for new symbols.

Enter the desired standard height for new symbols.

Enter the desired thickness of **medium** lines and symbol borders.

Enter the desired thickness of **thick** lines and symbol borders.

Reset the above settings to their default values.

Click here to add or remove words from your ignore list.

Check this box to correct sentence capitalization.

Check this box to make capitalization agree with dictionary words.

Check to correct accidental double capitalization of words.

Check to correct embedded hyphens and other punctuation as defined in dictionary words.

Check to correct diacritical marks as defined in dictionary words.

German – favor the ß symbol if found in dictionary word.

Select one or more dictionaries from the list to use in spelling checks.

Check the indicated plane to make in that plane non-selectable.	e symbols in that plane	sensitive to selection.	Uncheck to make symbols

Raster Image format is the most universal. It creates a short HTML file with an image reference to a second file, which it also creates, in PNG format. Both files have the same first name, with extensions of .htm and .png respectively. Both files must reside in the same directory. You link to the .htm file from your other web pages. For some diagrams the PNG image can be large, and take a long time to download. Hypertext links from symbols to other web pages are not supported in this format.

VML (Vector Markup Language) format requires Microsoft Internet Explorer version 5.5 or later, with version 6 recommended. One file is created with an extension of .htm. This format is generally much more compact than the Raster Image format, and can be embellished with additional HTML markup, if desired. Rotated text is not supported in this format. Pictures inside symbols are not rendered in this format. You can create hypertext links in symbol references in this format.

SVG (Scalable Vector Graphics) format is a newer international standard. Two files are created, one with an extension of <code>.svg</code>, containing the image vectors, and the other with an extension of <code>.htm</code>, a short HTML file that references the image as an embedded object. An add-in is required for most popular browsers to view SVG files. Free add-in viewers are available from third parties. See the Novagraph website for information on how to obtain and install one of these free viewers. This format is even more compact (and more powerful) than VML. Rotated text is rendered properly in this format. Pictures inside symbols are not rendered in this format. You can create hypertext links in symbol references.