SYMPATHY

Crossword Grid Editor for MS Windows 3.1

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Using Sympathy

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Basic Concepts

Sympathy is an editor for crossword grids, with support for all puzzle types, including barred cryptics.

The crossword setter can use Sympathy in place of pencil and paper for the construction of the grid: thematic words can be placed into the grid, then moved around to their ideal positions and surrounded with slots for non-thematic words. See the section on Sympathy's Main Window for more information.

Once this has been done, the grid can be completed using Sympathy's automatic filling robot. See the Filling Normal Fill Command for more information.

Grids created with Sympathy can be printed directly, or exported as a scaleable picture or bitmap, for merging with a set of clues. See the File Print Command and File Export Command for more information.

Commands

This index lists the different menus available. Select one to view the list of commands for each menu:

Dialogs

This index lists all the different dialogs in Sympathy.

The following dialogs are modeless: these can be kept open while the main window is worked on:

View Properties Dialog
Grid Properties Dialog
Grid Statistics Dialog
Cell Properties Dialog
Light Properties Dialog
Filling Properties Dialog

The following dialogs are modal; these are opened to perform a single action and other parts of the application are disabled until a decision is taken to OK or Cancel them:

Aspect Ratio Dialog
Open Dialog
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Definitions

Bar
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Unch Model
Unnormalized Mode

A diagram including horizontal and vertical spaces for interlocking answers.

A grid in which lights in the same direction are separated by unused cells (blocks) which are usually colored black.

A grid in which lights are separated by bars, all cells typically being used.

A grid in which there are no unchecked cells: either cells are blocks, or they are crossed by both vertical and horizontal lights.

A light is a horizontal or vertical series of squares in the grid, usually filled with a single clue answer.

An unch is an unchecked cell: i.e. one which is crossed by only one light.

A cell is a single square in the grid; if lights pass through it, then the solver is usually required to enter a single letter into it.

A block is a cell through which no lights pass; it is usually colored black.

A bar is the thick line at a cell boundary needed to delimit the lights in a barred grid.

The diagonal running from the top left hand corner of the grid towards the bottom right hand corner.

The diagonal running from the top right hand corner of the grid towards the bottom left hand corner.

Properties define the appearance of different parts of the grid. Properties can be customized for the whole grid, for a single light, or for a single cell.

In normalized mode, the cells forming a light are ordered from left to right (an across light) and from top to bottom (a down light). This is the mode that is used most of the time.

In unnormalized mode, the cells forming a light can be ordered from right to left (a reversed light) and from bottom to top (an up light) as well as the normal ways (across and down).

A list of words associated with a grid that the automatic filling algorithm will never use.

A table of minimum and maximum numbers of unchecked letters allowed for particular light lengths. Sympathy shows which lights lie outside the acceptable range.

Fine horizontal and vertical lines between cells; these provide helpful guidance when the grid is being constructed, but do not appear in printed or exported output.

A printed line separating adjacent cells within a light.

An unused cell in the grid that has been designated as non-printing, rather than a foreground block. Holes are useful for creating irregularly shaped grids.

The line surrounding the printed parts of the grid. If there are holes in the grid, they are also surrounded by a border.

A light which only occupies one cell, typically requiring a one letter answer to be entered (these are very rare in crosswords). Single cell lights can be either across or down: Sympathy's direction arrows allow you to see the orientation of single cell lights.

Keyboard Guide

Help Keys

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Text Entry Keys

When a Light or Cell is selected, text entered into Sympathy's Main Window becomes associated with the light or cell:

If a light is selected, characters typed in are appended to the word that will appear at the light. Such text is anchored to the light and moves with the light. Pressing the backspace key will remove characters at the end of the word. As a convenience, lower case letters are automatically converted to upper case and spaces are converted to match all characters. You can use the Light Properties Dialog to enter lower case letters or spaces into a light, if that is really needed.

You can use the Light Clear Command (which has **Ctrl-Backspace** as an accelerator) to clear all the text anchored to a light.

If a cell is selected, lower case letters overwrite the text in the light(s) crossing the cell; space clears the text in the lights crossing the cell. On the other hand, upper case letters overwrite the text anchored to the cell and backspace clears the text anchored to the cell. You can use the Cell Properties Dialog to get full control over what appears at a cell (for example, you can have any printable character in a cell, including space, or more than one character in a cell).

Navigation Keys

The behavior of the keys depends on whether a cell or light is selected:

TAB Navigates through the cells from left to right, top to bottom; and through the lights in number order - across first, then downs.
SHIFT TAB The opposite of TAB.

ARROWS Changes the selection to the cell or light in the direction of the arrow.

HOME Selects the top left cell, or the first light.

END Selects the bottom left cell, or the last light.

PGUP Selects the top right cell, or the first light in the section (across or down).

PGDN Selects the bottom right cell, or the last light in the section (across or down).

Accelerator Keys

The key or key combinations shown to the right of menu items can be used as accelerators to perform menu commands quickly when working in the Main Window of Sympathy. For example pressing the **Del** key when a light is selected will cause the light to be deleted.

Parts of the Sympathy Screen

Title Bar
Minimize Icon
Maximize Icon
System Menu
Sizing Border
Scroll Bars
Main Window

Title Bar

The title bar shows the name of the Sympathy grid file being edited. If no file name has been specified since a new grid was created, the name is displayed as [Not Saved].

Minimize Icon

Clicking on this reduces the Sympathy program to an icon on the desktop.

Maximize Icon

Clicking on this makes Sympathy fill the whole display.

System Menu

The standard Windows menu.

Sizing Border

You can resize the Sympathy window by dragging its edges or corners with the mouse.

Scroll Bars

If the window is too small to display the grid completely, horizontal or vertical scroll bars appear. You can use these scroll bars to view the hidden bits of the grid.

Main Window

The main window contains a view of the crossword grid being edited. This may be slightly different to the printed grid to make editing easier; for example, the grid may be scaled and may have special rules and markers. These "view only" aspects of the grid are controlled using the View Properties dialog.

For the purposes of mouse interaction each Cell is split into two zones. You use the outer zone to interact with the Light or lights crossing a cell; and the inner zone to interact with the cell itself. The shape of the cursor indicates what would happen if the mouse button were pressed at the mouse position.

Pressing the mouse down in the center of a square and releasing in the same square selects the cell. It then has focus and keys pressed will change the text appearing in the cell (see Text Entry Keys). If the Cell Properties Dialog dialog is active, all the other properties of the cell can also be seen and changed.

Pressing the mouse down in the center of a square and releasing in a different square creates a new Light. The direction you do this in determines the light direction in Unnormalized Mode. You can create a single cell light by dragging out of the initial square, then back in again.

Clicking the mouse on the edge of a square selects the appropriate light (if any). It then has focus and keys pressed will change the text associated with the light (see Text Entry Keys). If the Light Properties Dialog is active, all the properties of the light can be seen and changed.

You can drag a light to a different position in the grid by pressing the mouse button down over the side of the light, moving the light to the desired position and then releasing the mouse button to drop the light.

You can drag the end of a light to a new position (changing its length or direction) by pressing the mouse button down over the end of the light, moving it to the desired position and then releasing the mouse button to drop the light end.

Double clicking in the center of a square pops up the Cell Properties Dialog dialog to allow the appearance of the cell to be changed.

Double clicking on the edge of a square crossed by a light pops up the Light Properties Dialog to allow the appearance of the light to be changed.

The light (plus any symmetrical ones) can be deleted using the Light Delete command. Similarly, the direction of the light can be reversed using the Light Reverse command (this is only available in Unnormalized Mode).

Double clicking outside of the grid itself pops up the Grid Properties Dialog to allow the overall appearance of the grid to be changed.

Control Menu Commands

Restore Restores a Sympathy window to its previous size after it has been maximized or minimized.

Move Enables you to use the keyboard to move a Sympathy window to another position.

Size Enables you to use the keyboard to change the size of a Sympathy window.

Minimize Reduces a Sympathy window to an icon.

Maximize Enlarges a Sympathy window to its maximum size.

Close Quits the Sympathy application, or closes a Sympathy dialog.

Switch To Opens Task List, which you can use to switch between running applications and rearrange their windows and icons.

File Menu Commands

New Command
Open Command
Save Command
Save As Command

Print Command
Printer Setup Command
Export Command

License Command

Exit Command

File New Command

Creates an empty grid with a size specified in the Aspect Ratio Dialog.

File Open Command

This command enables an existing grid file to be opened for editing. The file is selected using the Open Dialog.

File Save Command

This command saves a grid to a grid file. It is only available when the grid file name is known: if the grid hasn't been saved before, use the Save As Command command to save the file.

This command is disabled until a license to use Sympathy has been installed.

File Save As Command

This command saves a grid to a new file. The Save As Dialog is popped up to allow the file name to be entered.

This command is disabled until a license to use Sympathy has been installed.

File Print Command

Pops up the Print Dialog to enable the grid to be printed directly to a printer.

File Printer Setup Command

Pops up the Printer Setup Dialog to enable the printer used by Sympathy to be configured.

File Export Command

Pops up the Export Dialog to enable the grid to be exported to the clipboard or a file in various different ways.

One common use of this command is to copy the grid to a word processing document for merging with a set of clues.

File Open Old Command

Not applicable in this release.

License Command

Pops up the License Dialog to enable a license key to be entered.

This command is disabled when a license to use Sympathy has been installed.

File Exit Command

The File Exit Command closes the grid being edited and terminates the application.

View Menu Commands

Properties Command

Graticule Command

View Properties Command

This command pops up the View Properties Dialog which enables the display-only aspects of the grid to be changed.

Graticule Command

This command toggles the display of the Graticule. In the early stages of grid construction, the graticule allows the boundaries between cells to be seen, so it is always enabled by default. When the grid is nearing completion, the graticule can be switched off, allowing the grid to be displayed as it would be printed.

Grid Menu Commands

Properties Command
Dimensions Command
Kill List Command
Unch Model Command
Statistics Command

Restart Command
Reflect Command
Rotate Command
Resize Command

Grid Properties Command

This command pops up the Grid Properties Dialog which enables parameters controlling grid appearance and editing to be changed.

Grid Dimensions Command

This command pops up the Grid Dimensions Dialog which enables the size of the grid and its components to be changed.

Kill List Command

This command pops up the Kill List Dialog which allows you to change the Kill List for the grid.

Unch Model Command

This command pops up the Unch Model Dialog which allows you to change the Unch Model for the grid.

Grid Statistics Command

This command pops up the Grid Statistics Dialog which allows information about the grid to be viewed.

Grid Restart Command

This command deletes all the lights and sets the grid back to the starting configuration: i.e. it will either contain all lights or all blocks, depending on the starting configuration selected in the Aspect Ratio Dialog.

This differs from the New Command in that any properties changed from their defaults in the Grid Properties Dialog or Cell Properties Dialog will be preserved.

Grid Reflect Command

This command reflects the complete grid in the Main Diagonal. This has the effect of turning all the across lights into down lights and vice versa.

Grid Rotate Command

This command rotates the complete grid through 90 degrees anticlockwise.

Grid Resize Command

This command pops up the Grid Resize Dialog which allows grid columns and rows to be added or deleted.

It is only available when a cell is selected to indicate whereabouts in the grid the columns or rows should be added or deleted.

Light Menu Commands

Properties Command

One-shot Fill Command
Light Undo Fill Command
Light Commit Fill Command

Delete Command
Kill Word Command
Reverse Command
Clear Command

Clear All Command

Light Properties Command

This pops up the Light Properties Dialog which allows the appearance of the selected light to be changed.

It is only available when a light has been selected.

Light One-shot Fill Command

This enters the next possible word in the selected light. It can be used to see whether there are any words in the dictionary that can fill a particular light, or to cycle through the possible words at a light just after a fill has completed.

The command doesn't change the letters that are "locked in" by filled crossing lights, unless all the letters are locked in (in which case, they are all ignored).

It is only available when a light has been selected which has at least one cell that doesn't have text entered by the user (or committed after a fill).

Light Undo Fill Command

This clears all the characters in the selected light that have been filled by the computer, either with the One-shot Fill Command or with the Normal Fill Command.

The command doesn't clear the letters that are "locked in" by filled crossing lights, unless all the letters are locked in (in which case, all the computer-filled letters are cleared).

If the selected light has no characters filled by the computer, the command will do nothing.

Use the Filling Undo Fill Command to undo all the lights in a single action.

Light Commit Fill Command

This can be used immediately after an automatic fill to convert characters in the selected light that were entered by the computer into "committed" characters, as if they were entered directly by you.

It is only available when the selected light is completely filled by the computer.

Use the Filling Commit Fill Command to commit all the lights in a single action.

Light Delete Command

This deletes the selected light and any lights symmetrical to it.

It is only available when a light has been selected.

Light Kill Word Command

If a light has been filled, the word can be added to the kill list using this command.

This is handy when the filling algorithm uses an undesirable word: when the filling is completed or interrupted, the light containing the word can be selected and the word added to the kill list. When the filling algorithm is run again, a different word will be used.

It is only available when a light has been selected which is completely filled.

Light Reverse Command

This reverses the direction of the light, turning an across light into a reverse light, a down light into an up light and vice versa.

It is only available when a light is selected in Unnormalized Mode.

Light Clear Command

This completely clears the fixed contents (all the characters entered by you) in the selected light.

Light Clear All Command

This clears the fixed contents in all the lights. This is intended as a quick way of reverting to an unfilled grid.

Cell Menu Commands

Properties Command

Block Command
Light Command

Clear All Command

Cell Properties Command

This pops up the Cell Properties Dialog which allows the appearance of the selected cell to be changed.

It is only available when a cell has been selected.

Cell Block Command

This places a block at the selected cell, shortening or splitting any lights that used to pass through it.

It is only available when a cell has been selected that isn't already a block.

Cell Light Command

This makes the selected cell become part of a light - either by lengthening adjacent lights to project into the cell, or by creating new lights that cross the cell. If there are no lights surrounding the cell, then an across single cell light is created.

It is only available when a block has been selected and the checking mode is 100% (this can be set in the Grid Properties Dialog dialog).

Cell Clear All Command

This is a quick way of clearing the fixed contents in all the cells.

Filling Menu Commands

Properties Command

Normal Fill Command
Unch Fill Command

Filling Undo Fill Command
Filling Commit Fill Command

Filling Properties Command

This pops up the Filling Properties Dialog which allows the behavior of the automatic filling algorithm to be changed.

Filling Normal Fill Command

This starts a complete fill of the grid; during filling, the Fill In Progress Dialog appears allowing the automatic filling to be interrupted.

It is only available when there are unfilled lights in the grid.

Filling Unch Fill Command

This can be used immediately after a normal fill to adjust the unches to a different commonality level (set using the Filling Properties Dialog).

It is only available between running the Normal Fill Command and the Filling Undo Fill Command or Filling Commit Fill Command commands.

Filling Undo Fill Command

This can be used immediately after an automatic fill to clear all the characters entered by the computer.

It is only available after running the Normal Fill Command command.

Use the Light Undo Fill Command to undo the fill in a single light.

Filling Commit Fill Command

This can be used immediately after an automatic fill to convert all the characters entered by the computer to "committed" characters as if they were entered directly by you. Only the committed characters are printed, exported and saved to the grid file.

It is only available after running the Normal Fill Command command.

Use the Light Commit Fill Command to commit the fill in a single light.

Help Menu Commands

Contents
How to Use Help

About Sympathy

Help Contents Command

Starts the help application and positions to Contents.

How to Use Help Command

Starts help on How to Use Help topic

About Command

This opens Sympathy's About Box

View Properties Dialog

This allows properties that only affect the displayed appearance to be changed:

Zoom To allows the grid to be scaled up or down from the normal (100%) setting.

Light Direction Arrows Shown controls how light direction arrows are displayed for lights. Direction arrows are used for two purposes: to point out the lights with unching outside that set in the Unch Model; and also to show the direction of lights entered in Unnormalized Mode which otherwise isn't obvious.

Filling Redisplay Frequency controls how often the display will update when the filling algorithm is running. The grid takes time to redisplay, so the faster settings will slow the filling down a little.

Underunched Color controls the color used to display the direction arrows for underunched lights.

Overunched Color controls the color used to display the direction arrows for overunched lights.

Main Branch Filling Color controls the color used to display words entered as the "main branch" during filling.

Side Branch Filling Color controls the color used to display words entered in a "side branch" during filling. This is also the color that's used for uncommitted words after filling completes.

Save As Defaults saves the settings in the SYMPATHY.INI file so they are the defaults when the program starts up.

Grid Properties Dialog

This allows properties that affect the appearance of the complete grid to be changed. Some of these can be overridden for a light (using the Light Properties Dialog) or a cell (using the Cell Properties Dialog).

Grid properties can either have a default value taken from the SYMPATHY.INI file, or a customized value saved in the grid file. The box to the left of the property name is checked if the property has been customized for the grid. The property reverts to the default value if the box is unchecked; if the box is checked, the value shown for the property is saved with the grid.

Description allows a description of the grid to be saved with it.

Numbering determines whether lights are automatically numbered by default.

Number Posn determines whether lights are numbered in their first cell or the top left cell. For across and down lights, these are the same; but for reverse and up lights (created in Unnormalized Mode) these are different: If the setting is **First Cell**, numbers always appear at the first cell, i.e. the lowest cell in up lights and the rightmost cell in reverse lights. If the setting is **Top Left Cell**, numbers always appear in the top left cell, i.e. the topmost cell in up lights and leftmost cell in back lights. This is useful if you want to hide the use of reverse direction lights from the solver.

Symmetry determines the set of lights that are added, moved and deleted when a single light is manipulated. The icons in the combo box provide a graphical illustration of the symmetry modes.

Checking Mode can be set to **100%** to force the grid to stay 100% checked after any change to the grid; this mode is very useful for creating Fully Checked grids. If this behavior isn't desired, the **Unconstrained** setting should be selected (Barred Grids can only be constructed in unconstrained checking mode).

Direction Mode determines whether lights are normalized when they are added. In Normalized Mode, only across and down lights are allowed: if you attempt to make lights back or up, they flip round. In Unnormalized Mode reverse and up lights are allowed; these are filled from right to left and bottom to top, whether manually, or by the computer. Light direction arrows can be enabled in the View Properties Dialog allowing the directions to be seen.

Background determines the default background color for lights in the grid. Clicking on the existing color pops up the Color Selection Dialog which allows the color to be changed. The background color can be overridden for individual lights using the Light Properties Dialog and for individual cells using the Cell Properties Dialog.

Foreground determines the color used for the border, bars, blocks and rules. Clicking on the existing color pops up the Color Selection Dialog which allows the color to be changed.

Number font determines the font used for numbering the grid. Clicking on the existing font pops up the Font Selection Dialog which allows the font to be changed.

Text font determines the default text font used for lights in the grid. Clicking on the existing font pops up the Font Selection Dialog which allows the font to be changed. The text font can be overridden for individual lights using the Light Properties Dialog and for individual cells using the Cell Properties Dialog.

Block Type determines whether blocks are by default the foreground color (typically black) or a hole in the grid.

Save as defaults saves a group of properties in the SYMPATHY.INI file, which means they will be the default for all grids edited in Sympathy.

Kill List Dialog

This dialog allows the list of words that the filling algorithm does not use to be changed.

To add a word to the fill list, enter it into the space below the list and press the **Enter** key or click on **Add**. To delete words, select them in the list, then click on **Delete**.

To dismiss the dialog, click on the **Ok** button.

Unch Model Dialog

This dialog allows the rules used to report on unching to be changed.

The main part of the dialog is a table of the minimum and maximum numbers of unchecked cells allowed for lights of a particular length. There is also a rule for the maximum number of consecutive unchecked cells for lights of any length. These can be filled with one of the four built in unch models:

None disables the unch model by setting the minimum number of unches to 0 and the maximum number of unches to the light length.
Blocked Grid sets up an unch model suitable for blocked grids.
Ximenean Barred Grid sets up the rules suggested by Ximenes for barred grids.
Fully Checked sets the rules such that all used cells must be crossed by two lights: this is the constraint for fully checked grids.

The unch model set up from these built in templates can be modified as desired and saved with the grid being edited or as the default for all grids using the **Save as Defaults** button. The **Customized** check box shows whether the unch model has been customized for the grid being edited.

OK should be pressed to apply the unch model to the grid display and dismiss the dialog. This allows the effect of the model on the grid and grid statistics to be seen.

Cancel can be used to abandon changes to the unch model.

Apply can be pressed to apply the unch mode to the grid display without dismissing the dialog. This allows the effect of the model on the grid and grid statistics to be seen.

Grid Resize Dialog

This dialog allows the number of rows and columns in the grid to be changed by inserting or deleting rows and/or columns at any desired position.

The position at which columns and rows are added or deleted is based on the position of a selected cell. A cell must therefore be selected before popping up this dialog.

The **Number of columns** and **Number of rows** fields determine how many columns or rows are added or deleted.

The **Column Action** and **Row Action** determine how the grid is resized:

If **Add cells to left/above selection** is chosen, the number of columns and/or rows entered will be added immediately to the left of and/or above the selected cell.

If **Add cells to right/below selection** is chosen, the number of columns and/or rows entered will be added immediately to the right of and/or below the selected cell.

If **Delete cells at and to right of/below selection** is chosen, the column and/or row containing the selected cell will be deleted, together with columns and/or rows immediately to the right and/or below, as necessary to make up the number of columns and/or rows entered.

Note that when the grid is resized such that the symmetry mode set up in the Grid Properties Dialog is preserved. This can cause unexpected results, with other columns or rows being added or deleted other than those specified. If you don't want symmetry to be taken into account, temporarily set the symmetry mode to none. It's also a good idea to save the grid before a resize, if you're not sure what the effect will be.

OK should be pressed to resize the grid when the desired parameters have been entered.

Cancel can be used to abandon resizing of the grid.

Light Properties Dialog

This dialog allows properties that affect the appearance of a single light to be changed.

Light properties can either have a default value derived from the grid properties, or a customized value saved with the light in the grid file. The box to the left of the property name is checked if the property has been customized for the light. The property reverts to the default value if the box is unchecked; if the box is checked, the value shown for the property is saved with the light.

If the properties for an across and down light are incompatible, the across light property takes precedence. In the case of incompatible numbers and contents, the incompatibility is shown on the display using reverse video.

Number determines the number printed for the light. If numbering is enabled in the Grid Properties Dialog a default number will be displayed for the light. This can be overridden with a different number or text; if no number is required for the light, this can be achieved by deleting the text in the box. Note that the "number" can in fact be any printing characters desired.

Text font determines the text font used for the light; a default font is determined from the setting in the Grid Properties Dialog. Clicking on the existing font pops up the Font Selection Dialog which allows the font to be changed. The text font can be overridden for individual cells using the Cell Properties Dialog.

Background determines the background color for the light; a default color is determined from the setting in the Grid Properties Dialog. Clicking on the existing color pops up the Color Selection Dialog which allows the color to be changed. The background color can be overridden for individual cells using the Cell Properties Dialog.

Text determines what word is displayed in a light. This could have been entered by you or by the Filling Commit Fill Command after running the automatic filling algorithm.

The text is placed a cell at a time into the light. If the text string is shorter than the length of the light, the remaining contents is padded with non-displaying match-all characters. If the text string is longer than the length of the light, the surplus characters are ignored.

Case differences are significant here, so that lower case letters could be entered if necessary (text entered directly in the Main Window is automatically converted to upper case).

Non-alphabetic characters can also appear in the string: '.' is the match-all character. Other characters are displayed as-is. The automatic filling algorithm makes no attempt to fill a light consisting ONLY of printing characters (anything that can be entered other than '.'). However, if a light includes at least one match-all character, the Filling Normal Fill Command will try to fill it, provided that all the other characters are alphabetic.

By default, each cell accounts for a single character of the light contents; however, it is possible for cells to have more than one character allocated for them using the Cell Properties Dialog.

Cell Properties Dialog

This dialog allows properties that affect the appearance of a single cell to be changed.

Cell properties can either have a default value in the context of the grid and light properties, or a customized value saved with the cell in the grid file. The box to the left of the property name is checked if the property has been customized for the cell. The property reverts to the default value if the box is unchecked; if the box is checked, the value shown for the property is saved with the cell.

If the properties for a cell are incompatible with those for the light(s) crossing it, the cell property takes precedence. In the case of incompatible numbers and contents, the incompatibility is shown on the display using reverse video.

Block Type determines whether a block is shown as the foreground color (typically black) or a hole in the grid. This can only be changed for a cell that has no lights running through it.

Text associates a single character with a cell. It is intended to be used for thematic material not associated with an individual light (e.g. messages in diagonals).

Case differences are significant here, so that lower case letters could be entered if necessary (text entered directly in the Main Window is automatically converted to upper case).

The text can also be non-alphabetic: '.' is the match-all character. Other characters are displayed as-is. The filling algorithm makes no attempt to fill a light consisting ONLY of printing characters (anything that can be entered other than '.'). However, if a light includes at least one match-all character, the Filling Normal Fill Command will try to fill it, assuming that all the other characters are alphabetic.

The text can consist of more than one character: for example, if '..' is entered as the text for a cell, two characters from the light contents will be entered into the cell. Note, however, that the Filling Normal Fill Command will not fill lights with multi-character cells: such lights must be completely filled by you before the automatic filling algorithm is started.

Text font determines the text font used for the cell; a default font is determined in the context of the grid and light(s). Clicking on the existing font pops up the Font Selection Dialog which allows the font to be changed.

Background determines the background color for the cell; a default color is determined in the context of the grid and light(s). Clicking on the existing color pops up the Color Selection Dialog which allows the color to be changed.

Number determines the number printed in the normal (top left hand or north-west corner) position in the cell.

If the cell needs to be numbered because of a light crossing it, then it will have a default number; this number can be overridden.

If the cell has no number by default, one can be added by editing the property. Note that the "number" can in fact be any printing characters desired.

NE Number, SE Number, SW Number allow numbers to be entered in the north-east, south-east and south-west corners of the cell.

Filling Properties Dialog

This dialog allows properties affecting the automatic filling algorithm to be edited.

Dictionary allows you to pop up the Open Dialog change the dictionary used for filling; the dialog box will allow you to search for a dictionary index file, usually called WORDS.0.

Normal Letter Commonality gives some control over the words chosen during normal filling. With extreme positive values, the filling algorithm will choose the "easiest" words to fill around; with extreme negative values, the filling algorithm will choose the most "difficult" words to fill around.
In general, the higher the setting the faster the fill. Lowering the setting causes the fill times to lengthen unpredictably.
This can be used is to establish that a grid is fillable on the highest setting, then to lower the setting to see if any more "interesting" results appear given sufficient time.

Unch Letter Commonality controls the choice of words during unch filling. With extreme positive values, the filling algorithm will choose the most common letters and letter combinations; with extreme negative values, the filling algorithm will choose the rarest letters and letter combinations.
Unlike the **Normal Letter Commonality**, the setting doesn't greatly affect the unch filling time, which is linearly dependent on the dictionary size.
This can be used to force in the rarest possible words (by just changing unches) after a normal fill.

Grid Statistics Dialog

This displays statistics about a grid; it is modeless, so it can be kept open while the grid is worked on.

The following information is displayed:

Columns is the number of vertical columns that could be used in the grid.
Rows is the number of horizontal rows that could be used in the grid.
Across Lights is the number of across lights in the grid.
Down Lights is the number of down lights in the grid.
Total Lights is the sum of the across and down lights.
Unchecked cells is the number of cells crossed by one and only one light.
Used cells is the total number of cells crossed by a light.
Unchecked Ratio is the ratio of **Unchecked Cells** to **Used cells** expressed as a percentage
Consecutively Unched Lights displays any lights that exceed the maximum number of consecutive unches set up in the Unch Model for the grid.
Overunched Lights displays any lights that have too many unchecked cells for their length, according to the information set up in the Unch Model.
Underunched Lights displays any lights that have too few unchecked cells for their length, according to the information set up in the Unch Model.
Light Distribution displays the number of lights at each length as a bar chart.

The unch rules used in this view is set up in the Unch Model Dialog.

Aspect Ratio Dialog

This appears when a new grid is created to allow the number of rows and columns to be entered.

Number of columns allows the number of columns to be set, either by entering the number as text, or by using the arrows.

Number of rows allows the number of rows to be set, either by entering the number as text, or by using the arrows.

Start with determines the initial configuration of the grid: if a Fully Checked grid is being constructed, it is probably easiest to start with **All lights** and add blocks where necessary using the Cell Block Command; otherwise, it is probably easiest to start with **No lights** and add them using mouse actions in the Main Window.

Save as defaults saves the chosen settings as the defaults that will be used each time the application starts up.

OK should be pressed to create the new grid when the desired numbers have been entered.

Cancel can be used to abandon creation of the new grid.

Open Dialog

This is the Windows common dialog box for selecting the name of a file to be opened. Its main use is to select a Sympathy grid file for opening.

It is also used from the Filling Properties Dialog to select a dictionary for use by the automatic filling algorithm.

Save As Dialog

This is the Windows common dialog box for selecting the name of a file to be saved. It is used to determine the name of a Sympathy grid file.

Print Dialog

This dialog allows parameters affecting how a grid is printed to be changed.

Grid Offset X and **Grid Offset Y** allow the offset of the grid from the top left hand corner of the paper to be changed temporarily. The default values and units are those set up in the Grid Dimensions Dialog.

Include answers determines whether the solver's grid (answers shouldn't be included) or the solution grid (answers should be included) is printed.

Copies determines how many copies of the grid are printed.

OK should be pressed to print the grid when the desired parameters have been entered.

Cancel can be used to abandon printing of the grid.

Setup can be clicked to pop up the Printer Setup Dialog allowing the printer used by Sympathy to be changed.

Printer Setup Dialog

This is the Windows common dialog box allowing a printer to be selected and configured.

Printer Abort Dialog

This is the Windows common dialog box allowing a print job to be canceled.

Color Selection Dialog

This is the Windows common dialog box allowing a color to be selected.

Font Selection Dialog

This is the Windows common dialog box allowing a font to be selected.

Export Dialog

This dialog allows the grid to be exported in various ways.

Data to export allows you to decide whether to export the grid as a **Picture** (.WMF format) for inclusion in a word processing document, perhaps; or as **Text** for sending by e-mail; or as a device independent **Bitmap** (.BMP format); you can also export a **List of Answers** which provides a template for a set of clues.

Destination allows you to decide whether data should be copied to the **Clipboard** or saved to a **File**. If **File** is specified, you will be prompted for a file name after **OK** is pressed.

Include answers determines whether the solver's grid (answers shouldn't be included) or the solution grid (answers should be included) is exported.

OK should be pressed to export the grid when the desired parameters have been entered.

Cancel can be used to abandon exporting of the grid.

NOTE: to copy a grid to a word processing document, export a **Picture** to the **Clipboard** and paste it in.

License Dialog

This dialog allows you to enter a license key and enable all the features of Sympathy.

To enter a license, follow the instructions given with the license key.

Fill In Progress Dialog

This dialog pops up when the automatic filling algorithm is running. When the fill completes, the dialog displays the time taken; if the fill failed, the reason for the failure is given.

Abort appears until the fill finishes and can be pressed to abandon the automatic fill.

OK appears when the fill has completed and must be pressed to dismiss the dialog before work can continue.

Automatic filling starts by doing a quick check on all the lights with unfilled cells, and stops if any of the following problems are found:

There is no word that will fill a light, taking into account the lights crossing it.

A light includes cells that have multiple characters.

A light includes cells that have non-alphabetic characters.

In the above cases, the light which caused the filling to stop is displayed. Note that the filling algorithm can operate when there are cells with multiple characters or non-alphabetic characters, but only if they are embedded in lights that have been entered by you.

If the quick check succeeds, the filling algorithm then attempts to fill the complete grid. If an unfilled light is selected, the fill starts at that light; otherwise Sympathy chooses a good place to start. The following can be the result:

The filling algorithm completely fills the grid. Any letters entered by the computer are considered transient and not really part of the grid until they are committed. They are identified by being in the different color set up in the View Properties Dialog.

The filling algorithm fails to fill the grid after testing all the possible combinations of words in the dictionary. In this case, no particular light will be indicated as causing the problem, as the filling algorithm is failing due to the combined constraints of a number of lights.

The filling algorithm is aborted. If this happens, the words entered up to that point by the computer are left transiently in the grid. It is possible to add these words to the Kill List by selecting the light and using the Light Kill Word Command, which stops them being used again.

About box

This displays status, version and copyright information about Sympathy.

Grid Dimensions Dialog

This dialog allows parameters affecting the size of the grid to be changed.

Grid dimensions can either have a default value taken from the SYMPATHY.INI file, or a customized value saved in the grid file. The box to the left of the property name is checked if the dimension has been customized for the grid. The dimension reverts to the default value if the box is unchecked; if the box is checked, the current default value is saved with the grid.

Cell Width and **Cell Height** determine the width and height of each cell in the grid.

Bar Width and **Bar Height** determine the width of bars in the vertical or horizontal orientation.

Border Width and **Border Height** determine the width of the vertical border and the height of the horizontal border.

Nr Offset X and **Nr Offset Y** determine the offset of the numbers from the corners of their cells. The offset for the standard (top left hand or NE corner number) is from the top left of the cell to the top left of the number string; for the NE number it is the top right of the number string to the top right of the cell and so on.

Text Offset X and **Text Offset Y** determine the offset of the text from the corner of its cell. The offset is from the top left of the cell to the middle of the text horizontally and the baseline vertically.

Grid Offset X and **Grid Offset Y** determine the offset of the top left of the grid from the top left of the paper. These dimensions are only used when the grid is printed. They can be overridden on a one-shot basis in the Print Dialog.

Units allows the units in which dimensions are displayed in the dialog to be changed. Note that all dimensions are stored internally in twips (a twip is a twentieth of a point).

Width/Height Locked allows you to select whether all changes made to the width dimensions are copied to the height dimensions and vice versa.

Bar Style allows you to switch between the two possible styles for printing bars: in the **Lopsided** style, the bar is displayed above and to the left of the rule dividing cells; in the **Centered** style, the bar is centered around the rule dividing cells.

Save As Defaults allows the current settings to be saved to the SYMPATHY.INI file so they will be the defaults for all grids.

OK should be pressed to apply the dimensions to the grid display and dismiss the dialog.

Cancel can be used to abandon changes to the grid dimensions.

Apply can be pressed to apply the dimensions to the grid display without dismissing the dialog.

Tutorial Grids

The following grids supplied with Sympathy provide tutorial examples of increasing complexity:

checked.sym	a simple fully checked US style grid
blocked.sym	a simple 15x15 blocked grid
barred.sym	a simple 12x12 barred grid
shapes.sym	a fully checked grid with a non-orthogonal shape
colors.sym	a fully checked grid demonstrating light and cell colors
text.sym	a barred grid demonstrating light and cell text
numbers.sym	a barred grid demonstrating light and cell numbers
reverse.sym	a barred grid with reverse sense lights
fonts.sym	a barred grid demonstrating light and cell fonts

History

v0.1 (12 Apr 1993)
v0.2 (11 May 1993)
v0.3 (12 Jun 1993)
v0.4 (26 Sep 1993)

Various releases for Sun/Motif.

v0.5 (27 Mar 1994)
v0.51 (2 Apr 1994)
v0.52 (11 Apr 1994)
v0.6 (31 May 1994)
v0.61 (2 Jun 1994)

Alpha releases for PC/Windows.

v0.7 (22 Jun 1994)

First Beta release for PC/Windows.

v0.8 (21 Aug 1994)

Second Beta release for PC/Windows.

v1.0 (4 Sep 1994)
v1.01 (6 Sep 1994)

First production releases for PC/Windows.

v1.05 (29 Jan 1995)

Beta release.

v1.1 (19 Feb 1995)

First production update of Sympathy v1