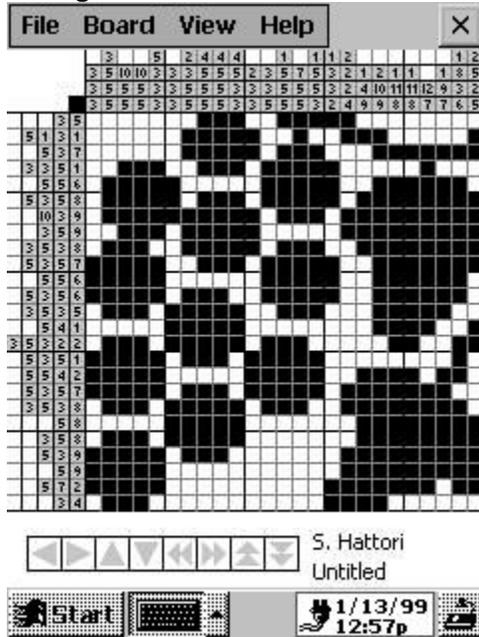


# NonoPocket Documentation

## Introduction

Nonograms are a new type of logic puzzle that forms a picture based on the numbers given. Numbers in the rows represent the sizes of groups of black blocks in each row. The same applies to columns. By using logic, one can derive the picture out of the numbers.

## Nonograms

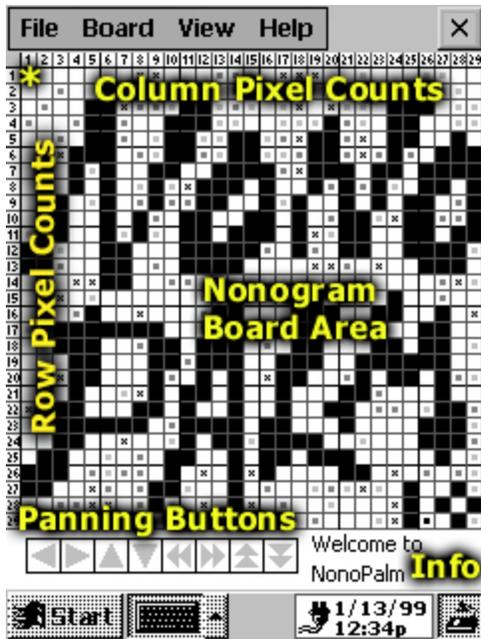


## NonoPocket: How to Use

### Installing

After installing NonoPocket simply copy any Nonogram files (nonoboards or nonoarchives into \My Documents\ or \Storage Card\My Documents\.

Main Board Components



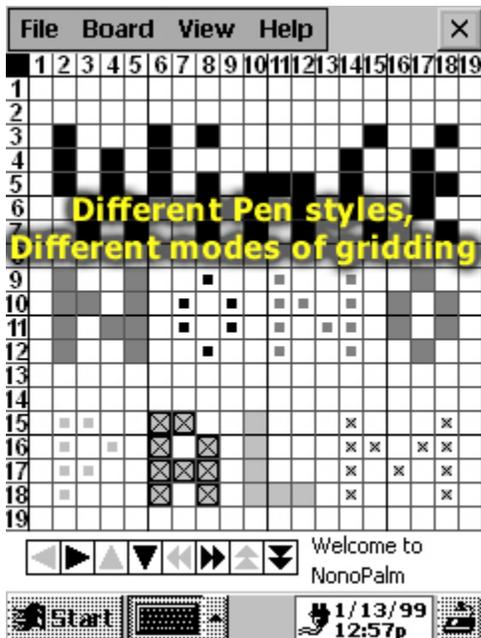
The main board where all the drawing happens is labeled as the Nonogram Board Area. It is the rectangular section of the grid that contains no numbers. This is where the picture will appear as you solve the nonogram (see the how-to for more information).

The Row and Column Pixel Counts are the dataset of numbers that actually define a nonogram (again, see the how-to for more information).

The Info area in the bottom right is where the board title and author of the board are shown, and the panning buttons area is the section where you can pan around a board if it is too large to be shown in the given window.

The '\*' area in the upper left is the indicator of the current pen type that will be used for drawing into the nonogram. It varies from black, to some grays, to an 'X'-type pen.

## Drawing on the Nonogram



By clicking on the board you change the cell that you click on. If the cell was blank, it gets drawn in with a block of the current pen color. A block of a pen color usually indicates that the solver of the nonogram knows that there is actually a block there in the final solution. If the cell has a block in it already, it gets changed to a dot. If the cell has a dot, it gets changed back to a blank cell. A dot indicates that the solver knows for sure that there is definitely NOT a block there in the final solution.

By clicking on the pen type in the upper-left, you change the pen type, from black to gray to light gray to an X.

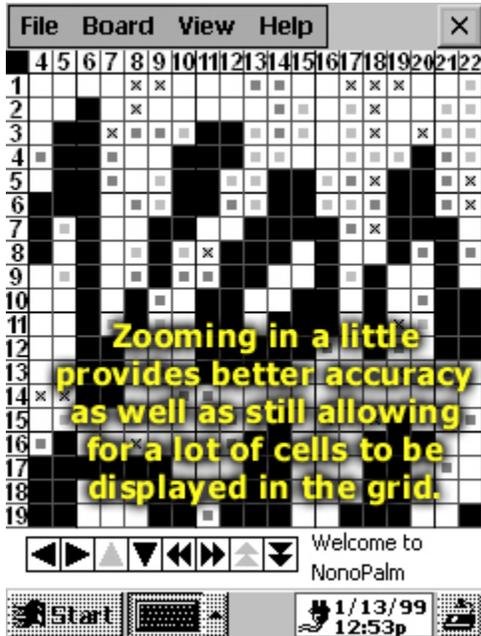
By clicking and dragging, you change all blocks that are the same color and type as the first one you clicked on. That is, to make a line of blocks, simply click a clear cell and drag. All other clear cells will turn to blocks of the current pen.

To make a line of dots, click a clear cell twice and drag on the second click, and it will change all blanks to dots.

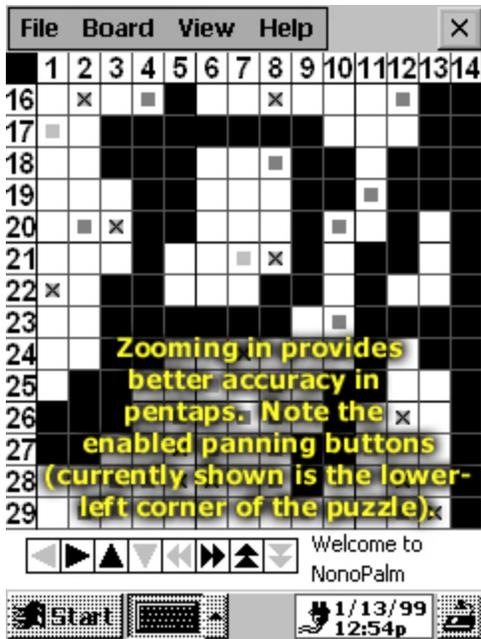
To change a line of blocks to dots, click on the line of blocks once and drag; all blocks will become dots (in this case the color of the pen is important, as this will only work on pens that are the same color as the current pen). After blocking cells or dotting cells, the numbers in the row

and column pixel counts will gray out if you have satisfied the conditions (see the how-to for more information).

## Zooming and Panning



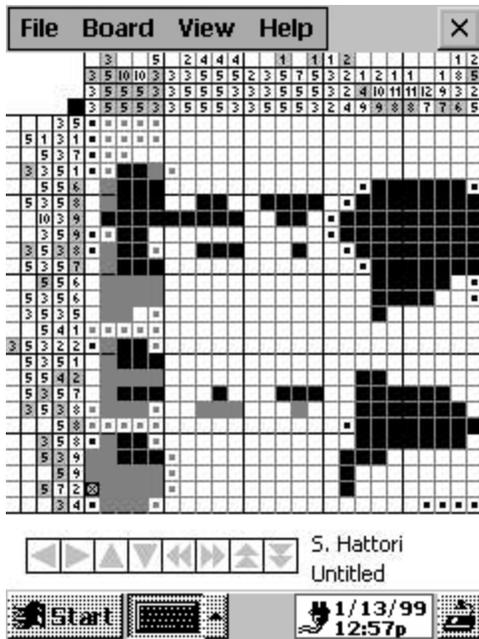
Due to the nature of handheld devices, it may be a bit instable to draw around and click with the stylus accurately. To remedy, NonoPocket provides a Zoom function, where a large puzzle that originally is shown with very small cells can be zoomed up fairly large so as to help the stability of the stylus as the nonogram is solved. Simply select 'Zoom In' from the View menu to do so (select 'Zoom Out' to go back to the smaller cell size). There are 3 sizes the cells can take on (and therefore 2 zoom levels other than the current).



Since when you are zoomed in you cannot see the whole board, a method was needed to get around in the board while zoomed in. The panning toolbar area in the lower left provides that. When an arrow is not grayed out, one can click it and the indicated action will be performed. Clicking the up arrow will scroll the puzzle over one arrow. Clicking the double-right arrow will scroll the puzzle all the way to the right. Note that these functions are needed even in the most zoomed out mode on puzzles that are over 25x25 or so. When a toolbar button is grayed out, it means you can't pan in that direction (have hit the edge).

## NonoPocket: How to Play

After reading the how to use section, some strategies can be quite useful in solving a nonogram. A few strategies are posted in the how-to section of the NonoPocket documentation.  
Advanced Features



To the left is shown a typical difficult nonogram with its solution underway. As you can see, a guess has been made in the lower left of the board (the cell with an X) and the gray blocks are everything that result from that guess. After validating (or in most cases, invalidating) a guess, NonoPocket provides a few functions, which aid in the solving of nonograms.

## Menu Items

### *File Menu*

**Open:** Clicking this causes the Open File dialog to appear. From there you can open .NGB files or .NGA files. NGB's are individual boards. NGA's are collections that contain multiple nonograms in one file. Selecting a NGA (Nonogram Archive) will then popup a window where you select which board from the file to play.

**Save:** Clicking this causes NonoPocket to save the current state of the game. It is merely here for debugging purposes. The game saves to the registry.

**Reset:** This has the same function as the Clear All function in the Board Menu.

**Exit:** This function saves the current state and exits.

**Exit without saving:** This function simply exits without saving.

### *Board Menu*

**Clear Current Pen:** This menu items scans the board and clears any cell that is the same color as the current pen color. In the case above, if the guess was found incorrect, selecting the dark

gray pen color and clicking this menu item would be the best way to start back at the last known "good" point. Then the black pen should be selected and the cell with an X be made a dot by clicking it once.

**Clear Dots:** This function is used after a nonogram has been solved, when one wants to see the picture without any obstruction. It clears all dotted cells from the board.

**Blacken Current Pen:** As said in the how-to, the black pen is used for things that you know for sure, and all other pens are for guessing. If you find (or feel strongly) that a guess is correct, you should blacken whichever pen you have made your extensive guesses in.

**Clear All:** This menu item clears the entire board and starts over from the beginning -- an empty grid.

**Undo (Redo):** This menu item undoes the last thing you did to the nonogram. Drawing or clearing items. If you just clicked the undo button or selected this item, it will Redo the last action.

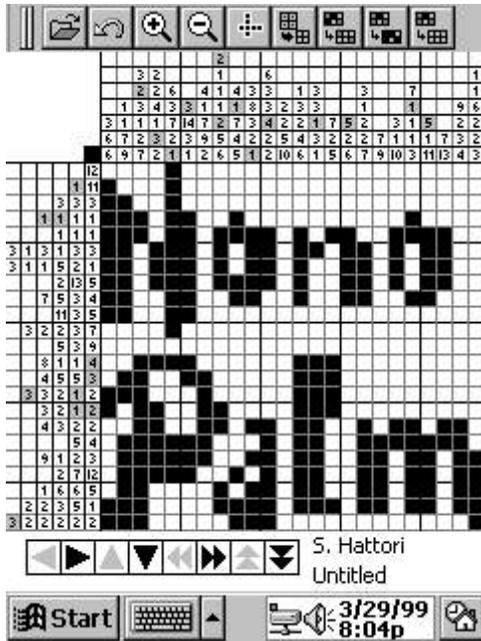
### ***View Menu***

**Zoom In:** This makes the cell size bigger.

**Zoom Out:** This makes the cell size smaller.

**Constrain Dragging:** By checking this menu item, when you drag the stylus, the only cells that will be affected are those in the same row or column as the first cell you clicked. If you drag to the left or right, only the row will be affected. If you drag up or down, the column will be affected only. This is another issue of the stability of the hand and precision during solving.

### **Toolbar**



The toolbar icons, from left to right, correspond to the following menu functions: Open, Undo/Redo, Zoom In, Zoom Out, Constrain Dragging, Clear Dots, Clear Current Pen, Blacken Current Pen, and Clear All.

## File Format

The file format for NonoPocket is fairly simple. Boards can even be constructed in Notetaker and then opened in NonoPocket for playing. A board file (.NGB) looks like the following:

```
NONOGRAM 5 5 {
  rows {
    5
    1
    3 1
    4
    2 1
  }
  cols {
    1
    3 1
    2 2
    1 1
    1 1
  }
  data {
    AUTHOR William Smith
    NAME Example
  }
}
```

Generally, it is:

```

NONOGRAM #ROWS #COLS {
  rows {
    ... Row Pixel Count entries
  }
  cols {
    ... Column Pixel Count entries
  }
  data {
    AUTHOR Author's Name
    NAME Name of Puzzle
  }
}

```

The format for a NGA (Nonogram Archive) is as follows:

```

NONOARCHIVE {
  NONOGRAM #ROWS #COLS {
    .. etc
  }
  NONOGRAM #ROWS #COLS {
    .. etc
  }
  NONOGRAM #ROWS #COLS {
    .. etc
  }
  ... etc
}

```

The parser built into NonoPocket is very simple. Unfortunately whitespace (loosely) matters, so conform to the rules laid out here and NonoPocket should be able to load in your puzzles.

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