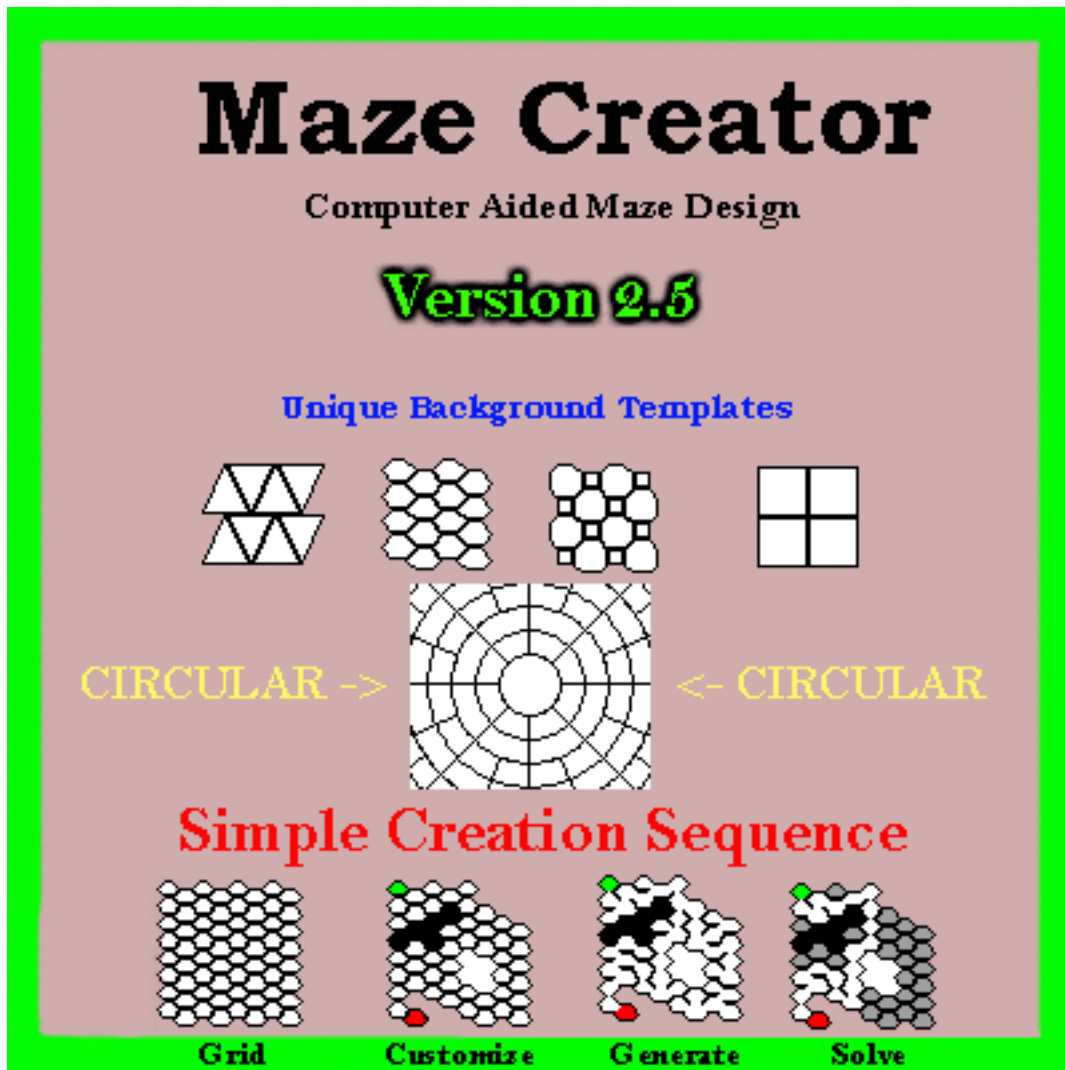


Maze Creator Users Manual

Version 2.x



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Please check the web site at WWW.MAZECREATOR.COM for updates to this document.

Maze Creator

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INTRODUCTION

Maze Creator is a Computer Aided Design software package to facilitate the creation of random mazes with solutions to be printed or exported (EMF, BMP, Clipboard). Mazes can be customized in shape, number of starting and stopping points and may be drawn-on. A mask can be applied to help rapidly develop new designs. You can save your work templates. Great for newsletters, newspapers, brochures, and web site free promotions. Many template styles are available such as CIRCULAR, HEX, TRIANGLES, OCT-BOX, SQUARE, and more.

DEDICATION

I dedicate this program to my loving and beautiful wife Joanne. Without her support and understanding, this program would be nothing more than a neat idea.

FEATURES

- On-Line Template/Mask Gallery to get you started quickly
- Circular, Square, Hex, Oct-Box, Triangle and other template patterns
- Import a MASK from a BMP file
- Exports to BMP or EMF file formats
- Export your maze to the clip-board
- Only one path from a start to a stop
- Place as many Starts and Stops in the maze as you would like (visible or hidden)
- Ability to “Erase” sections of a maze to change the outline or create voids in the center
- Ability to “Blacken” a section of a maze to draw letters and pictures
- Clear feature to get back to the template but keeps your customization to start generating a new maze
- Start the maze creation from a location of your choice
- Generate solutions for the mazes that you create
- Save and Load your templates to use again and again
- Set your own random number “SEED”
- Publishers will like the ability to change the pen width, for better copying

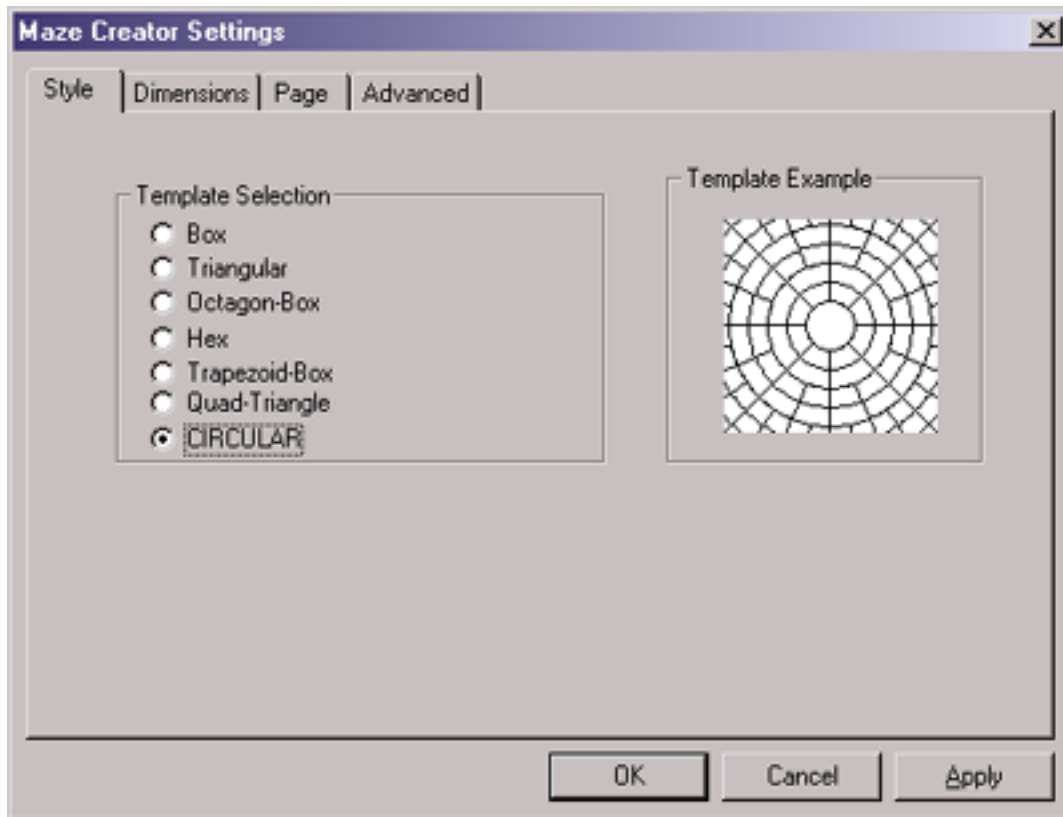
RECOMMENDED USES

- Promotion of your web site, have your visitors download a free puzzle/ad for your web site
- Pencil activities for newsletters, brochures, school newspapers
- Creating your own puzzles for mind expansion, entertainment, hobbies, etc.
- Creating memorable mazes for parties, including pictures of guests or event
- Creating gifts for people with messages
- Business waiting rooms, printing out several different mazes for clients (usually their children) to complete while waiting for services (dentist, doctor, automotive, hospital, etc.)
- Keeping children busy when parents cannot entertain (Real Estate, car dealer, childcare, library, car rides, plane rides, etc.)
- Educational classroom activities and pencil games

Configuring a Maze

Selecting a Style

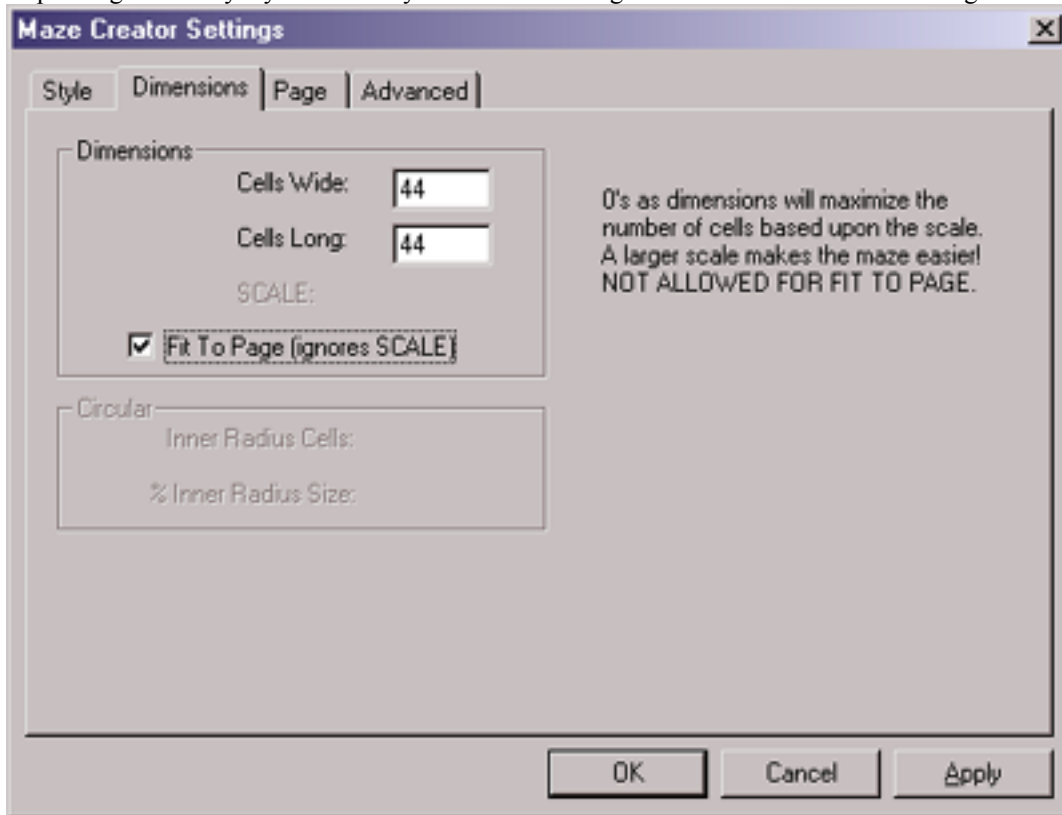
One of the first things that needs to be done is to select a Template Style for the maze you would like to create. This is done through the **Maze Options** menu, then select **Maze Setup**. You will get the following dialog box:



Select the **Template Style** with which you would like to work. As you click on the radio buttons to the left in the Template Selection area, the Template Example on the right will update to show a sample of the template. Once you have selected your template style, click on the **Dimensions** tab to select the **size** of the template grid.

Setting the Dimensions

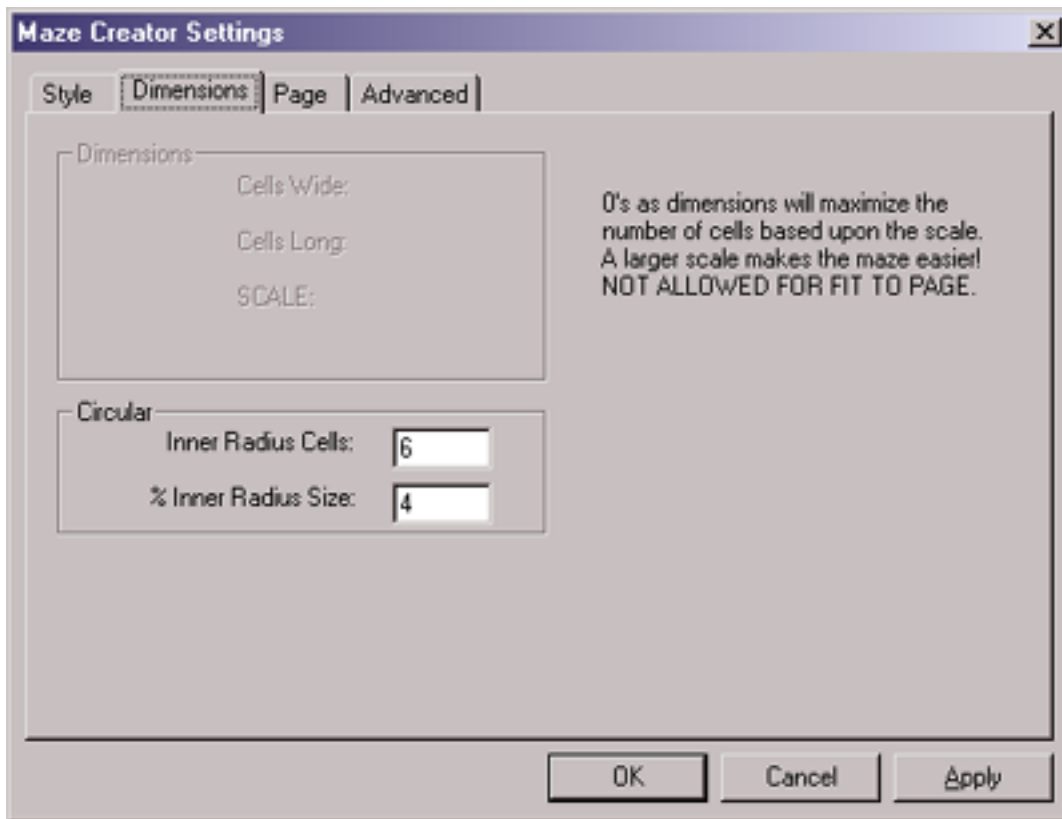
Depending on the Style you selected you will see a dialog box that looks like the following:



The **Dimensions** box is active due to the selection of a maze template that can be represented by a width and length. The “Fit To Page” option was added in this version to simplify the template configuration. Unless you are *VERY* familiar with the use of **SCALE** (described below), you should keep the “Fit To Page” selected. The **Scale** feature was kept for backward compatibility. It will be removed in Version 3.0 of Maze Creator to clean up the user interface. Users familiar with **Scale** feature should start using the “**Fit To Page**” setting. The directions for **SCALE** are removed from this document since it offers no advantage over the “Fit To Page” feature.

- **Cells Wide:** Enter the number of cells wide you want your template to be. You may be surprised with certain **Styles**, since the actual width may be a multiple of the cells requested. Some **styles** have 2 or 4 units across per “CELL”. If this is undesirable, divide the **Cell Width** in half.
- **Cells Long:** Enter the number of cells long you want your template. You may be surprised with certain **Styles**, since the actual length may be a multiple of the cells requested. Some **styles** may be 2 or 4 units long per “CELL”. If this is undesirable, divide the **Cells Long** number in half.

If you selected the **Circular maze style**, you will see the following dialog box:

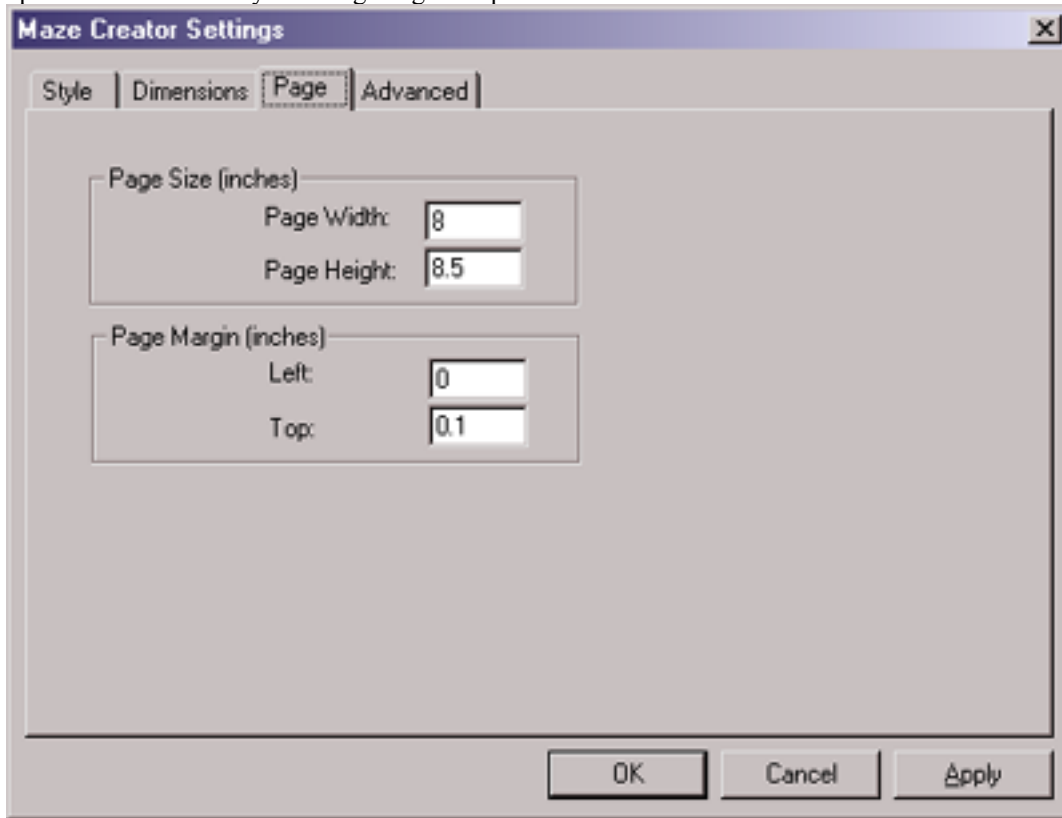


There are only two parameters to configure for a **Circular** template. These define the size of the hole in the middle of the maze and the number of inner ring cells the maze will contain. The “**% Inner Radius Size**” defines the general look of the maze. It can range from 0.1% up to 99.9%. Typical values will range from 4 % to 60%, but experiment with this number in combination with the “**Inner Radius Cells**”.

The **Inner Radius Cells** is the count of cells on the inner ring of the maze. For small percent radius, a small number of Inner Radius Cells should be selected. Maze Creator uses this number and the **% Inner Radius Size** to render your maze template. The goal in the rendering is to keep a somewhat **square** shape for the maze cells. If you select **OK** and you see nothing but a white background as your template, you need to re-adjust these values. Start by making one of them smaller.

Selecting Page Parameters

The page layout can be configured through the “PAGE” table of the configuration box. You can directly open the PAGE table by selecting “Page Setup” from the “File” menu. It looks like this:



These parameters can be reset after creating a maze. These will increase/decrease the printed size of the maze when “Fit to Page” is selected or the Style is Circular.

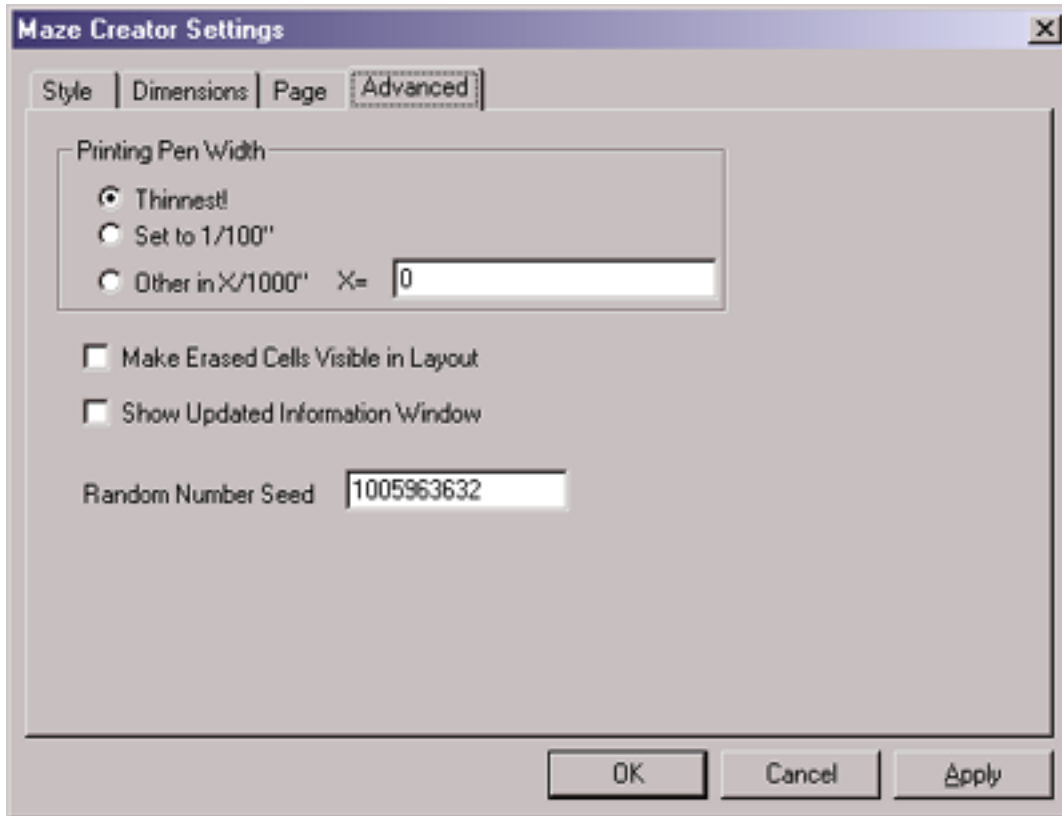
- **Page Width:** The width you want the maze to be in inches. Can be smaller than the actual paper in the printer.
- **Page Height:** The height in inches of the maze you wish to create. This value can also be smaller than the paper in the printer.

These parameters only affect printing of a maze:

- **Page Margin Left:** Bring the maze in this many inches from the left side.
- **Page Margin Top:** How far down should the maze be printed on the page.

Advanced Configuration

This tab is for setting the PEN WIDTH and other miscellaneous parameter.



Printing Pen Width has been added due to printing and publishing mazes in newspapers, magazines, etc., you may be required to use a “heavier” line. Some printing facilities need a wider line to assure it will be reproduced accurately at press time. The default setting is the “Thinnest”. The thinnest pen width is one physical pixel on your printing device (maybe 1/600 of an inch). Check with your publishing company for their requested line width. There is a pre-defined 1/100 of an inch. Also, you can select other and select a value for X to make the width X/1000 of an inch.

Select “**Make Erased Cells Visible in Layout**” if you need help seeing in complex templates what cells have been erased. Maze Creator will color those cells in a mustard like color to show it is erased.

If you have registered, you will see the “**Show Updated Information Window**” option. With this box checked you will receive information banners & special offers at the bottom of your screen. These are not always revenue generators for Maze Creator but simply a way for Maze Creator to help other small Software, product or service business get free exposure. You can remove the check from this box to free up the space at the bottom of the window.

Random Number Seed: In most cases you will not need to change this value. If you ever want to recreate a maze you had done before, this value will need to be changed to the “SEED” value of the original maze. You will need to record this value if you are ever interested in doing this. You will need to make sure that in re-creating that maze you make the same selections as before (same blackened, whitened, starting locations, etc..).

Working with Maze Creator

Loading & Saving a Maze Template & Gallery

You can load and save your creations through the **File** menu. Although you can save a “generated” maze or solution, the power of Maze Creator is the ability to load/save maze templates. Templates can be of a company logo, illustration, or anything else you desire. The template is the grid on which the maze will be generated. You can then quickly generate a random maze (and solution if desired).

The Template gallery is another feature to get your started quickly. Make sure you have an active internet connection, select the **File** menu, then select **Show Template Gallery**. Review the list of thumb nails and descriptions and simply click on the template with which you would like to work.

Editing/Customizing a Maze

Once you have configured the maze, Maze Creator will display a template of the maze it will create. You can use the Edit tool bar to make changes to this template shape or looks. The **Edit Tool Bar** from left to right (See Figure 1): Reset, Blacken, Erase, Add START, Add STOP, Seed Maze, and Solve maze.



Figure 1 - Edit Tool Bar

To use a tool, first left click on a tool, then left click on the template location where you would like the chosen to take place. For Reset, Blacken, and Erase you can hold the left button down and move the mouse to draw or cover a large area. Each cell the mouse passes over will have that tool’s effect applied.

The controls are as follows:

- **Reset:** Use this tool to remove any Blackened, Erased, START, or STOP from the template. This will help clean up your creation.
- **Blacken:** This tool can be used to blacken cells of the maze. This will allow you to draw pictures or write text on the maze template. These cells will remain BLACK (and unused) after creation of the maze. The right mouse button will Reset the cell.
- **Erase:** This tool can be used to create open white areas in the maze. This may be useful for you to glue a picture or hand draw on the paper hardcopy yourself. You can create “NON-RECTANGULAR” Mazes by “erasing” the outer boarder. The right mouse button will Reset the cell.
- **START:** By default, Maze Creator will add a START in the upper left of the template if you don’t tell it explicitly where there should be a start. Use the left mouse button to place a starting cell that will be filled green. Use the right mouse button to place a hidden start location. The hidden location will be a dimmer green and cause the cell to have no walls when printed or exported. If a hidden start is place on an edge of the maze template, it will appear as a hole. Also note that you can have more than one starting point. If you don’t want a starting location defined, then simply add a start using this tool and then erase it. That will flag to Maze Creator not to add a start itself.
- **STOP:** By default, Maze Creator will add a STOP in the bottom right of the template if you don’t tell it explicitly where there should be a stop. Use the left mouse button to place a stop cell that will be filled red. Use the right mouse button to place a hidden stop location. The hidden location will be a

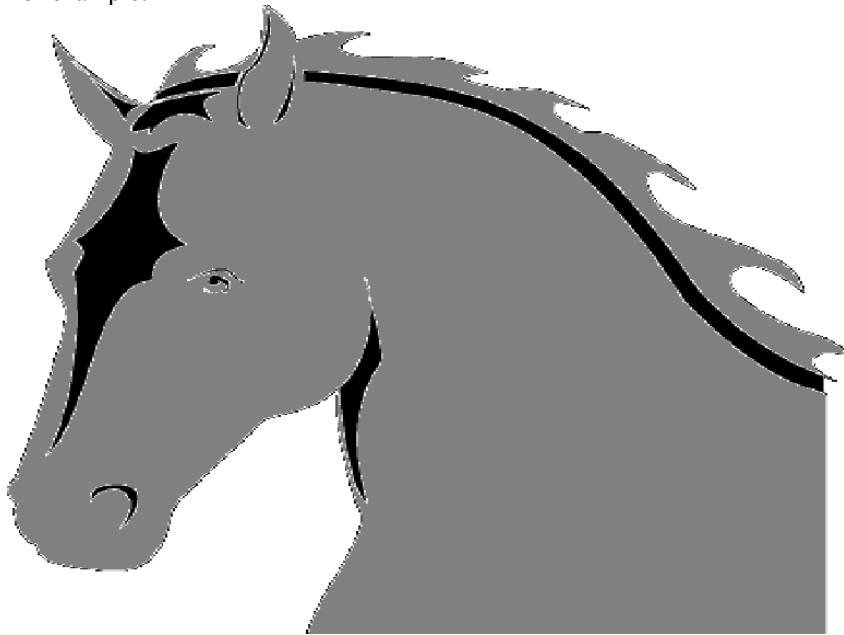
dimmer red and cause the cell to have no walls when printed or exported. If a hidden start is placed on an edge of the maze template, it will appear as a hole. Also note that you can have more than one stop. If you don't want a stop location defined, then simply add a stop using this tool and then erase it. That will flag to Maze Creator not to add a stop itself.

- **Seed:** If you use the **Maze Options -> Make Maze** menu selection, Maze Creator will randomly select a starting cell and start growing a maze before your eyes. When you start to **Blacken** and/or **Whiten** sections of the maze and use the **Make Maze** option, you may notice nothing happening. This is due to the randomly selected cell being one that **has been disabled by your selection**. Use of this **Grow Maze** tool gives you more control on how to grow a maze. Select this tool and click on the location you would like to start growing the maze. This would be required, for example, if you wanted to fill in the letter "O" in a maze. The inside of the letter will not be filled (or will be the only section filled) without the use of this tool.
- **Solve:** Creating the solution for a maze is very simple. After printing out your creation, select **Maze Options -> Solve Maze**. This will not take very long and will gray out portions of the maze that do not make up the solution. The process of solving the maze will be displayed as well.

APPLY A MASK

Use this feature to import a BMP file to MASK the current template. It is found under **Maze Options** as **Apply BMP Mask**. Note, this is not available for Circular maze styles. Masks can be made from your favorite images by forcing them to a sellout format and then flood filling sections you want to be the maze as “gray”. Near black color will be blackened that part of the template. Near white colors will be erased from the template. All other colors, such as gray will be the active template where the maze will be generated.

For example:



will become when applied as a template:



WWW.MAZECREATOR.COM

MASK GALLERY

Much like the On-Line Template gallery, there is an On-Line MASK gallery. This is found under the **Maze Options** menu as **Show Mask Gallery**. This gives good examples of Masks, what they look like and how they can be used. Make sure you have a live internet connection before requesting the gallery. Review the thumb nails and select. It is that easy.

Seeding a Maze

When you are satisfied with your customizations and edits to the maze template, you need to **Seed** the maze. You have two options by which you can **Seed** a maze. The simplest method would be to select **Maze Options -> Make Maze** option. This is a quick method if you have no edits to the maze. Otherwise, you should use the “**Seed**” tool described in the Editing/Customizing section above. Once seeded you will have your maze with exactly one solution from each start to stop location. You then can print out your creation!

Solving a Maze

Creating the solution for a maze is very simple. After printing out your creation, select **Maze Options -> Solve Maze**. This will not take very long and will gray out portions of the maze that do not make up the solution. The process of solving the maze will be displayed as well.

Clearing a Maze

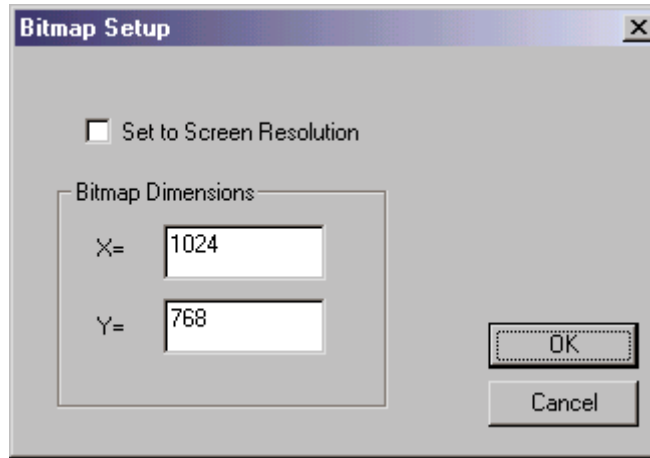
After generating a maze, selecting the **Maze Options -> Clear Maze** function will remove the random path on the maze template. This will allow you to keep your same drawing so you can create multiple random mazes.

Copy to the clip-board

To rapidly integrate Maze Creator designs into other applications, copy the current design to the clip-board. The current design can be at any stage, Template, Maze, or Solution. To do this selecting the **Edit** menu then **Copy**. You can then go to your other application to paste the maze.

SAVE TO BMP

Templates/Mazes/Solutions can now be exported as BMP files. From the **File** menu select **Save to BMP**. They will have the number of colors as your current display mode and the size of the BMP can be configured as follows:



If you use the “**Set to Screen Resolution**”, your bitmap dimensions will be ignored and you will get a BMP similar to what you see on the screen. This is the closest to WYSIWYG (what you see is what you get). If you don’t select this option, you can select the dimensions of the exported BMP manually by setting X & Y. After selecting OK, you will be confronted with the file save dialog box to choose a location and name for the exported file.

SAVE TO EMF

From the **File** menu select **Save to EMF**. Exports the current displayed image as an EMF file. A file dialog box will open for you to choose a location and name for the exported file.

FUTURE ADDITIONS

Listed in this section are features and demos to come in future revisions of Maze Creator. The speed of revisions will be dependent upon the amount of people registering the application.

- Integrate photos/images into the maze template for printing
- Adding Text to template
- Automatic “BLOCK” Lettering upon template
- water mark behind template (company logos, etc)
- Kiosk mode for customers to use without assistance (for waiting rooms)
- Draw your own solution, let Maze Creator fill in the rest

TECHNICAL SUPPORT

Updates can be found at WWW.MAZECREATOR.COM

Registered Users can obtain technical support by one of two methods. You can send an e-mail message including you UNIQUE ID number to:

support@mazecreator.com

Or writing to:

Greg Peatfield
PO Box 592
North Salem, NH 03073
WWW.MAZECREATOR.COM

REVISION HISTORY

- 1.1 Added "Clear Maze" feature
Enabled automatically purchase a license for Maze Creator with a Credit Card
Automatic installation
- 1.2 Added "Load & Save" features. Included some examples to get you using Maze Creator fast.
Registration status is now clearer, before it was hard to tell if you had registered by a credit card that your registration has been completed.
- 1.5 Now you can COPY the current maze to the Clip-Board! Updated license to allow for publication of generated mazes (See license.txt file for details). Adjust Pen Size. Automatic Link to HOME PAGE WWW.MAZECREATOR.COM.
- 1.7 Only a beta release, no public offering. First test of additional template shapes.
- 2.0 Release of new template shapes; HEX, Triangle, OCT-BOX. Exit function now works (how did this one get missed I will never know). Button bar improved. Some optimization for speed. Fixed rendering problem when seed cell was invalid (not an open template cell). Other minor bug fixes.
- 2.1 Bug fixes. Addition of export to EMF/BMP format. Import MASK added. Cell selection speed greatly sped up. Starting to develop a "RESIZE" function. Accelerators were added for some of the most common functions.
- 2.5 Circular template added. On-line template & mask gallery. 45 day free trial. Easier configuration. Can have open mazes with hidden start and stop points. Greatly improved performance.