



Maximus78

A Front End for the A7800 Emulator

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User's Guide

Revision 1.0

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What is Maximus78?

Maximus78 is a new front-end for the Atari 7800 ProSystem emulator, A7800. It offers a friendly GUI for A7800, including Organized Game ROM Lists, Launching games with many of the normally command-line only options, A Favorites recently played Game ROM List, support for displaying Box Art, Screenshots, and Manuals, a High Score List, as well as 7800 Game documentation that includes Difficulty switch options and button operation for all of the retail released games as well as many homebrews.

How is Maximus78 Licensed?

It is licensed under GPL v3. GPL 3 is a strong [copyleft license](#), meaning that any copy or modification of my original code must also be released under the GPL v3. In other words, you can take my GPL 3'd code, add to it or make major changes, then distribute your version. However, your version is subject to the same license requirements, meaning that it must be under GPL v3 as well — anyone can see your modified code and install it for their own purposes.

The GPL v3 license permits users of my code to:

- **Use the code for commercial purposes:** Like GPL v2, GPL v3 imposes no conditions on the internal use of Maximus78.
- **Change the code:** Users can change or rework the Maximus 78 code, but if you distribute these changes/modifications in binary form, you're also required to release the updates in source code form under the GPL v3 license.
- **Distribute copies or modifications of the code:** As long as your modifications are also released under the GPL v3 license, they can be distributed to others.
- **Place warranty:** Distributors of the original code can offer their own warranty on the licensed software.

GPL v3 does *not* allow you to sublicense the code. In other words, you cannot rework, alter, or add to the code, then close those changes off to the public. The “open source-ness” of the original code follows any update or addition.

What are the requirements to run Maximus78?

Maximus78 was developed using Visual Studio 2022 VisualBasic.NET and requires that .NET Framework v4.8 be installed. The application will run natively on both Windows x86 and Windows ARM. The following Windows Operating system versions are supported:

Windows Client versions: Windows 10 version 1903, Windows 10 version 1809, Windows 10 version 1803, Windows 10 version 1709, Windows 10 version 1703, Windows 10 version 1607, Windows 8.1, Windows 7 SP1

Windows Server versions: Windows Server 2019, Windows Server version 1803, Windows Server 2016, Windows Server 2012, Windows Server 2012 R2, Windows Server 2008 R2 SP1

The .NET Framework package can be downloaded from Microsoft here:

[Download .NET Framework | Free official downloads \(microsoft.com\)](#)

Getting Started

Below are the basic steps required to get Maximus78 up and running. This information is also included in the application itself when it's launched for the first time.

Maximus 78 can be downloaded from GitHub Here:

[GitHub - AtariusMaximus/Maximus78: Maximus78 Front End for the A7800 Emulator](https://github.com/AtariusMaximus/Maximus78)

You'll need to complete the following steps first to enjoy the full experience of Maximus78 with all of the associated artwork, manuals, help files, and screenshots. These steps outline the basic requirements to get started, please see the official documentation for more specific information on using and configuring Maximus78.

If you're reading this, you've already downloaded Maximus78. You can check for updates and for the latest version at GitHub Here:

<https://github.com/AtariusMaximus/Maximus78>

1. Download the A7800 Windows Package

Maximus78 requires the A7800 Emulator. Download the latest version from GitHub and unzip it to the folder of your choice. Below is a link to the Windows version of the emulator.

<https://github.com/7800-devtools/a7800/releases/download/v5.2/a7800-win-v5.2.zip>

2. Download the A7800 Optional Files

Download and unzip this package to the same root folder location as A7800. It is located on the Internet Archive at archive.org.

This file includes two subfolders, "bios" and "roms", whose contents should be installed in the same respective subfolders in the A7800 installation folder. While optional, you will want to download this archive to use all of the features of Maximus78 and A7800. Note that the roms folder contains an older version of Trebor's 7800 ROM pack, so you'll want to download the latest version in the next step.

Note that this download package is periodically updated, and all versions of the A7800 Optional Files package can be viewed Here:

[Internet Archive Search: a-7800-optional-files](https://archive.org/search?terms=a-7800-optional-files)

As of this writing, below is a link to the most recent version:

https://archive.org/download/a-7800-optional-files-20220628/A7800_Optional_Files_20220628.zip

3. Download Trebor's 7800 ROM ProPack

This file includes a comprehensive compilation of Atari 7800 Homebrews, Hacks, Demos, Prototypes, and all retail releases in both NTSC and PAL formats. You can safely overwrite the contents of the ROMs folder with this file if you have an older version of Trebor's ROM pack. It's important to note that all of the screenshots, manuals, and box art are tied to the exact file names in Trebor's ROM Pack, it's important that you do not rename any of the ROM files for Maximus78 to function properly.

Unzip it anywhere you'd like, but I'd suggest the roms folder in your A7800 Directory.

http://7800.8bitdev.org/index.php/Trebor's_7800_ROM_PROPack

4. Download the Game Information zip file (includes Manuals and Screenshots) for Maximus78.

You can unzip this archive anywhere, however I would suggest creating a "gameinfo" subfolder in your main A7800

Directory. This archive is available at the same location as the official release page for Maximus78 on GitHub. You'll need to download all of the files, they are a split archive due to the 25MB file limit on GitHub.

[Maximus78_GameInfo.zip](#)
[Maximus78_GameInfo.z01](#)
[Maximus78_GameInfo.z02](#)
[Maximus78_GameInfo.z03](#)
[Maximus78_GameInfo.z04](#)
[Maximus78_GameInfo.z05](#)
[Maximus78_GameInfo.z06](#)
[Maximus78_GameInfo.z07](#)
[Maximus78_GameInfo.z08](#)
[Maximus78_GameInfo.z09](#)

The files includes all of the screenshots and manuals for Maximus78. The manuals archive will be periodically updated as it does not contain screenshots and/or manuals for every game in Trebor's ROM pack.

Note that the Game information file includes images of many of the instruction manuals for retail and homebrew releases, and all are displayed with a corresponding HTM file that is also included in the archive. This HTML file is configured to display screenshots, manuals and in some cases cartridge images within the application, without this archive some features of Maximus78 will not display correctly.

The HTM files can be easily edited from within the application if you'd like to make changes yourself. The current HTM files are very simple and easy to edit, and simply contain links and formatting information to display the included manuals and screenshots. You can also create an HTM file for any game that does not currently have one. Simply create a "<filename>.htm" file in the gameinfo subdirectory, where "<filename>" is the exact same name as the ROM. For example, if you have a game ROM named "Dungeon Stalker (v1.42) (2015) (AtariAge).a78", name the HTML file "Dungeon Stalker (v1.42) (2015) (AtariAge).htm". The HTM file can then link to and display any image that's placed in the gameinfo subdirectory, once edited to do so.

5. Download the Box Art zip file for Maximus78.

If you wish to add your own box art to Maximus78, it's a simple process. Simply place an image file with either a JPG or PNG extension in the boxart subfolder, give it the exact same name as the game ROM file, and it will automatically appear along with the ROM in the application. For example, if you have a game ROM named "Dungeon Stalker (v1.42) (2015) (AtariAge).a78", name the box art file either "Dungeon Stalker (v1.42) (2015) (AtariAge).png" or "Dungeon Stalker (v1.42) (2015) (AtariAge).jpg" and it will appear automatically.

This file includes all of the box art I have available for Maximus78. The box art archive may be periodically updated as it does not contain screenshots and/or manuals for every game in Trebor's ROM pack.

You can unzip this archive anywhere, however I would suggest creating a "boxart" subfolder in your main A7800 Directory.

[Maximus78_BoxArt.zip](#)

Setting up Maximus78

First time Setup

The first time you launch the application you will see the first time setup window. Step 1 shows the same getting started information as written in this manual, just prior to this section. Step 2 involves setting up all of the necessary directory paths for Maximus78. The Root Path to the A7800 directory is set first. You may click on the ellipses button to the left to select the folder from within Windows Explorer, or you may manually type the directory in the text field to the right of it.

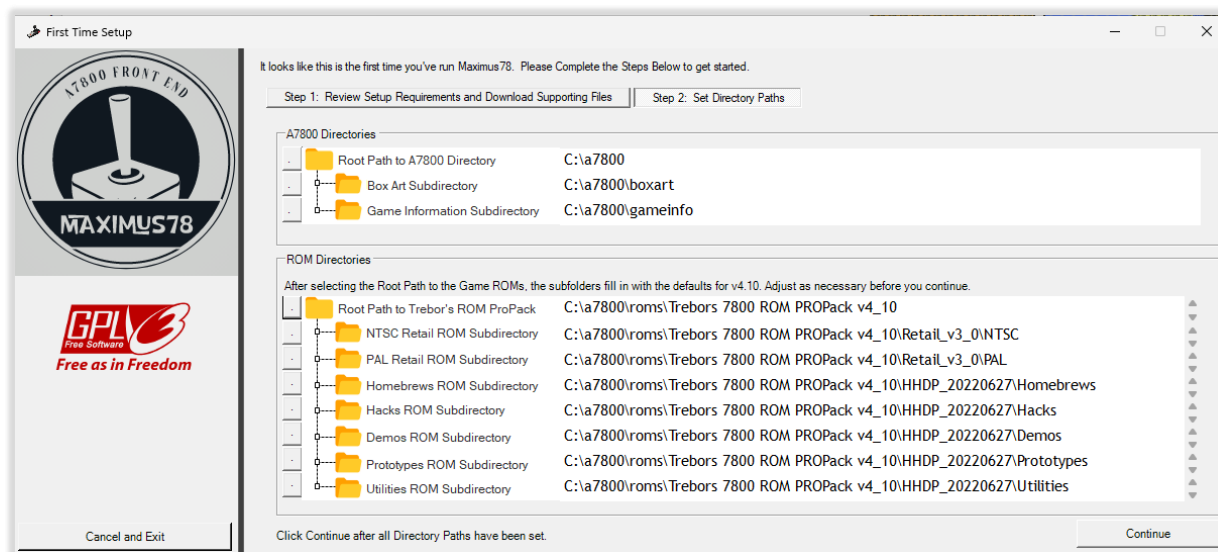


Figure 1: A Sample Directory Configuration for Maximus78

The next two directories for Box Art and Game Information are by default shown to be included in the root A7800 directory, but that's not a requirement. They can be anywhere you like, just specify the correct path. The ROM Directories are based on Trebor's 7800 ROM ProPack, which as of this writing is at v4.10. Maximus78 v0.99.28b is hard coded to pre-populate the ROM subdirectories with the folder names that are in the v4.10 ROM pack by default in the first time setup window. They can be easily changed, and will need to be changed when Trebor's new ROM pack is released. Future versions of Maximus78 will be updated with the latest subdirectory names in the ProPack. Once you've confirmed that all of your directory paths are correct, click Continue to start the application. When it loads for the first time, you will see the screen in Figure 2.

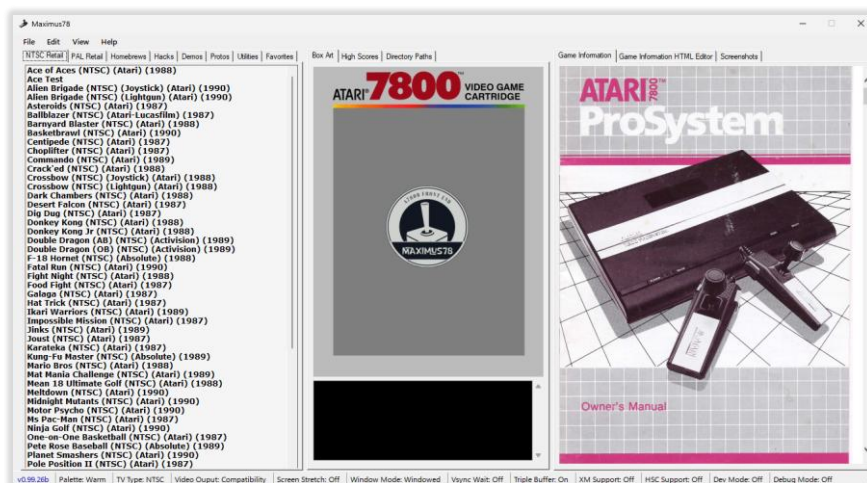


Figure 2: The Initial Window for Maximus78

You'll notice that the NTSC Retail ROM folder receives the focus when you launch, and that there is no game selected. Because no game is selected, the box art will display a blank image and the game information window will default to the 7800 ProSystem Owner's Manual. This is expected.

When you select a game from the list, the box art and game information will be updated, assuming there are corresponding image and htm files in the GameInfo subdirectory for the selected ROM. As seen in Figure 3, once you select a ROM from one of the lists, the Box art and GameInfo areas will auto-populate.

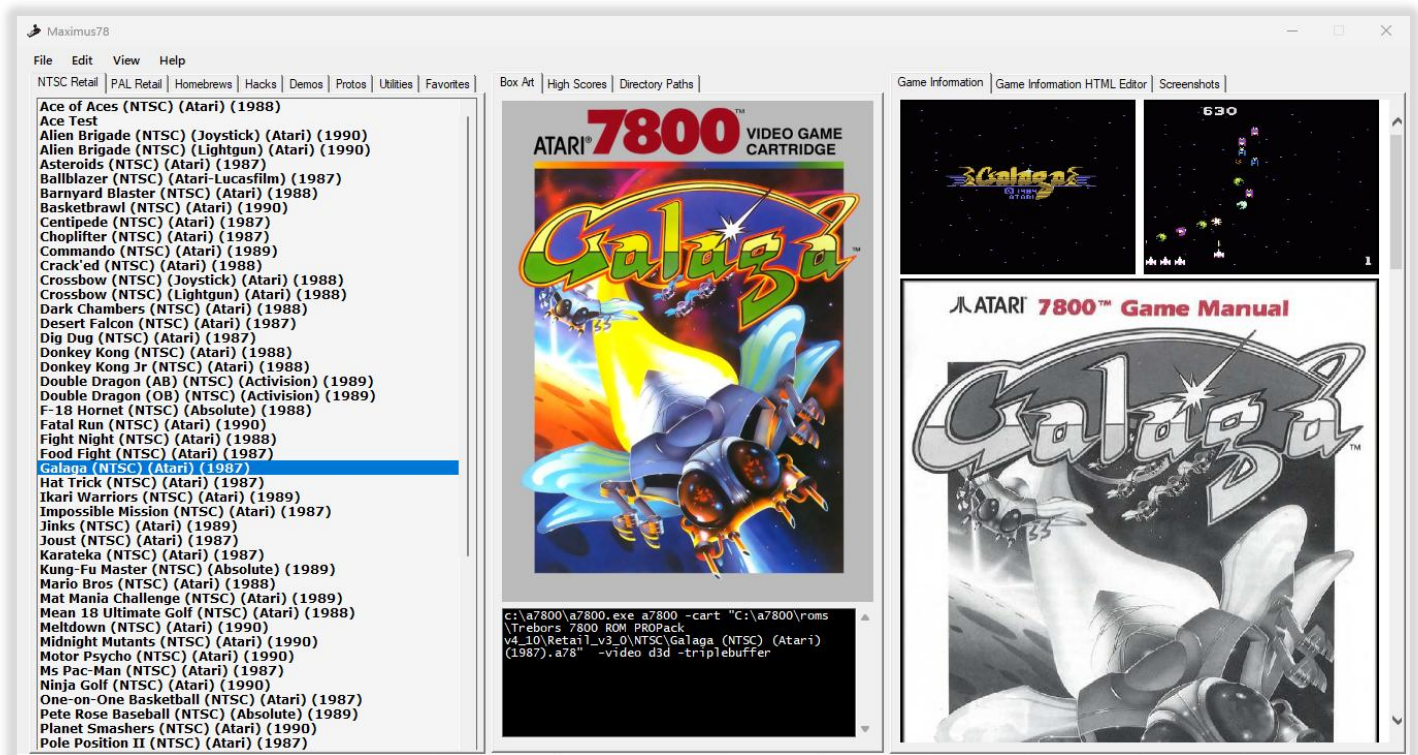


Figure 3: Box art and Game Info displayed once a ROM is selected

Changing Directory Paths

You may change directory paths with two different methods in Maximus78. You may use the “Directory Paths” tab in the center window, or you may change the paths using the options in the Edit Menu. Select the tab to view the currently assigned directory paths and to make changes. This method requires that you manually type in the directory paths, to select them using a Windows Explorer tree view, choose the options from the Edit Menu instead.

The core directory paths to the A7800 folder and the boxart and gameinfo folders will require the application to be restarted if you change them. Once changed, click on the “Save Changes to Registry (Application Restart Required)” Button.

The ROM Directories can be changed on the fly and the changes will be reflected immediately after clicking the corresponding Save Button. Note that the ROM Directories chosen will fill in the associated Game ROM lists in each tab. You can select alternate ROM folders that don’t match the tab title, but you cannot change the name of the tab.

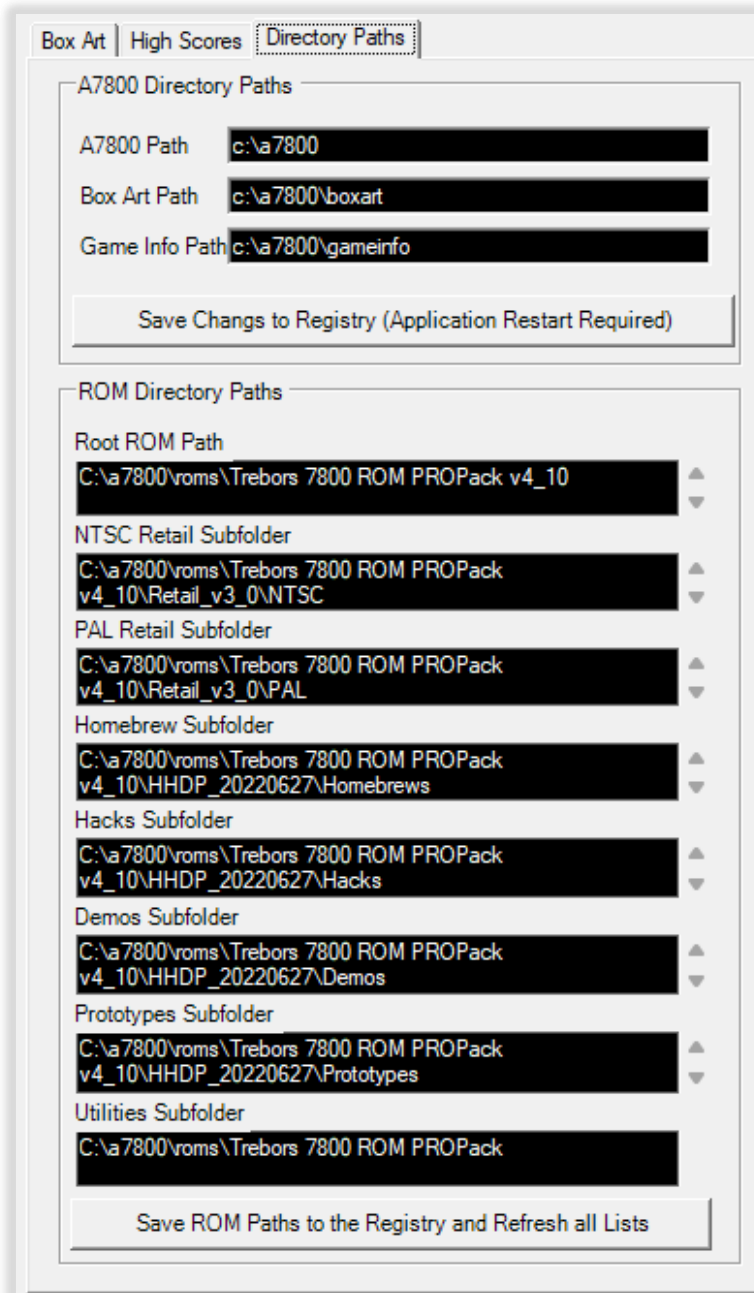


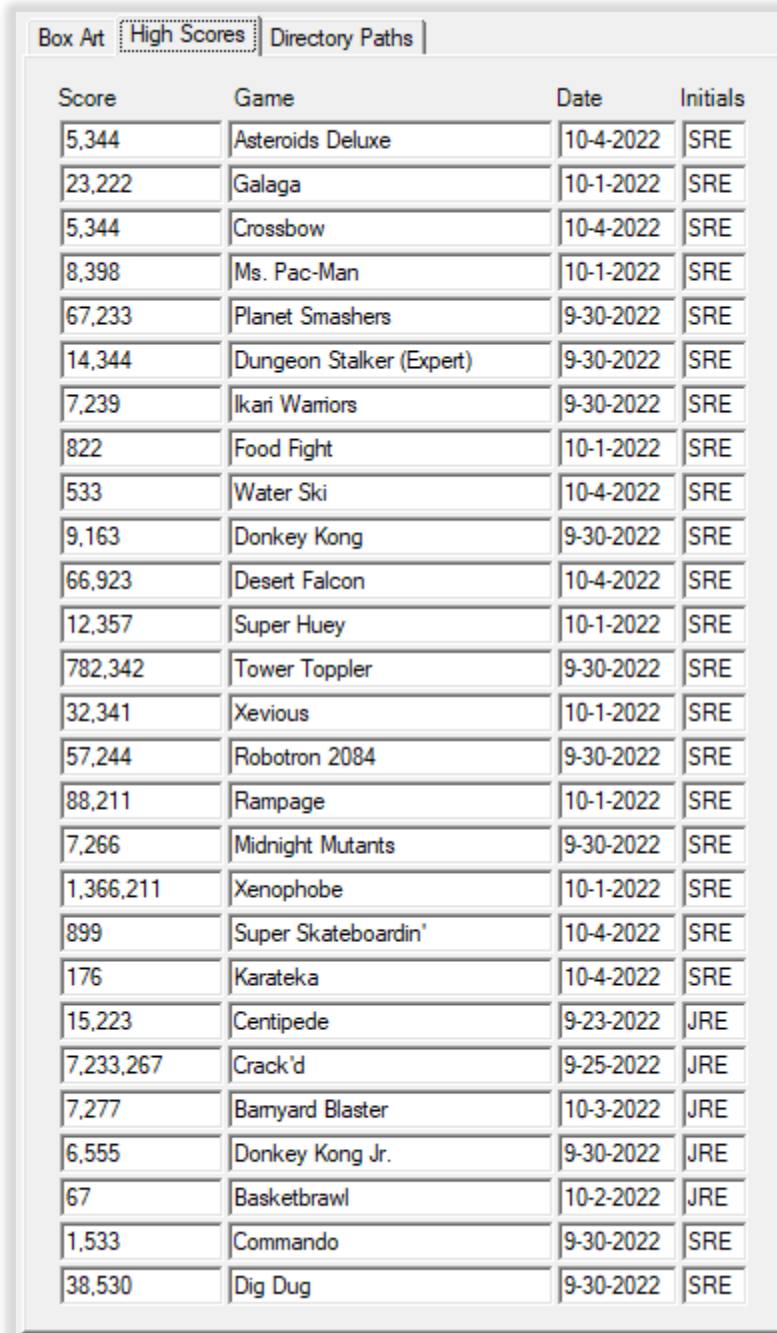
Figure 4: Changing Directory Paths

High Scores

Maximus78 supports the automatic saving of up to 27 High Score entries on the “High Scores” tab in the center window. You can record the Score, the Name of the Game, the Date, and the Initials of the person who achieved the score. All fields are free-form, you can type whatever you’d like in each box.

The High Score table is automatically saved to the registry in real-time, so the scores will be persistent when you exit and restart the application. You can clear all of the scores with the Edit Menu Option “Reset All High Scores”. To erase a single entry, simply delete the text from the box.

I’d suggest making a screenshot of your high score and adding it to the corresponding Screen Shot window, which I’ll describe next.



The screenshot shows a window titled "Maximus78" with three tabs: "Box Art", "High Scores", and "Directory Paths". The "High Scores" tab is active, displaying a table with four columns: "Score", "Game", "Date", and "Initials". The table contains 27 rows of data, each representing a high score for a specific game. The scores are listed in descending order. The initial "SRE" appears for the first 25 entries, while "JRE" appears for the last two entries.

Score	Game	Date	Initials
5,344	Asteroids Deluxe	10-4-2022	SRE
23,222	Galaga	10-1-2022	SRE
5,344	Crossbow	10-4-2022	SRE
8,398	Ms. Pac-Man	10-1-2022	SRE
67,233	Planet Smashers	9-30-2022	SRE
14,344	Dungeon Stalker (Expert)	9-30-2022	SRE
7,239	Ikari Warriors	9-30-2022	SRE
822	Food Fight	10-1-2022	SRE
533	Water Ski	10-4-2022	SRE
9,163	Donkey Kong	9-30-2022	SRE
66,923	Desert Falcon	10-4-2022	SRE
12,357	Super Huey	10-1-2022	SRE
782,342	Tower Toppler	9-30-2022	SRE
32,341	Xevious	10-1-2022	SRE
57,244	Robotron 2084	9-30-2022	SRE
88,211	Rampage	10-1-2022	SRE
7,266	Midnight Mutants	9-30-2022	SRE
1,366,211	Xenophobe	10-1-2022	SRE
899	Super Skateboardin'	10-4-2022	SRE
176	Karateka	10-4-2022	SRE
15,223	Centipede	9-23-2022	JRE
7,233,267	Crack'd	9-25-2022	JRE
7,277	Barnyard Blaster	10-3-2022	JRE
6,555	Donkey Kong Jr.	9-30-2022	JRE
67	Basketbrawl	10-2-2022	JRE
1,533	Commando	9-30-2022	SRE
38,530	Dig Dug	9-30-2022	SRE

Figure 5: The High Scores Table in Maximus78

Screenshots

Maximus78 supports the saving of up to six screenshots in its built-in screenshots tab. You can also save and display additional screenshots in the Game Information HTML window as well, more on that later.

Each screenshot box has a resolution of . That is exactly 50% of a 640x480 screenshot, which it will scale down automatically to fit the window box. While you can use any sized image you like, keep in mind that any image added to the screenshot boxes will only display properly if saved in a 4:3 aspect ratio, any other aspect ratio will appear to be stretched one way or the other.



Figure 6: Screenshots Tab in Maximus78

LOADING AN IMAGE

To load a screenshot image, you can either click on the image itself or click on the “Load” button. That will bring up a Windows dialog box allowing you to navigate to the location of the picture. Either JPG or PNG images are supported by the application.

When you load an image, the existing image is immediately removed and cannot be recovered. This is done to release the image from memory within the application, if that’s not done first a new image cannot be loaded. Don’t worry though, your original screenshot images are not actually loaded directly into the application. Upon loading, a new copy of the screenshot image is created in the gameinfo subdirectory and will be titled “<ROM Name>.screenshot.<1-6>.png”. Your original screenshot image is not used or altered in any way. This is done so the application knows the exact file name and the exact location of the image to save it persistently for the next time you run the application.

You can alternately load screenshots from the ROM lists as well. Simply right click on any ROM in the list and choose “Add Screenshots”, and then the image slot you wish to change. The top two images are Image 1 and Image 2, the middle row is Image 3 and 4, and the bottom row is Image 5 and 6.

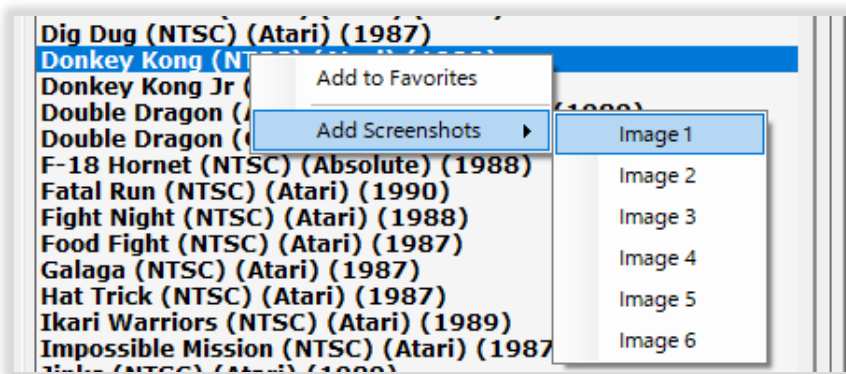


Figure 7: Right Click to add a Screenshot from the ROM List

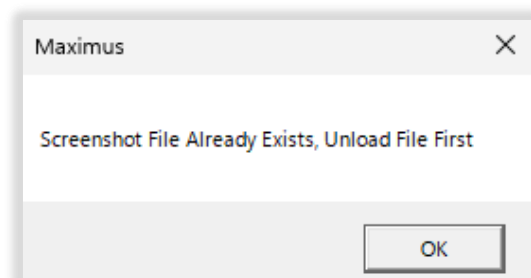
UNLOADING AN IMAGE

Each Screenshot also has an option to unload a screenshot. This is to simply unload a screenshot and reset the image to a blank box, without loading a new image.

SAVING AN IMAGE

Don’t forget to Save! If you load an image from the Screenshots tab by clicking on the Load Button, it does not commit the change. You must click on Save before exiting the window for your changes to be permanently recorded. Saving will delete any existing screenshot image in that slot and save and overwrite that slot with the new image.

When you change the screenshots with the right click option, the unload/load/save functions are all run in order for you. The additional options in the window itself are to give you the ability to have more precise control over the process. Once an image is saved, it can only be saved once. Saving it commits it to memory, so clicking on the save button again without changing the image will result in a warning message that the file already exists.



Game Information Window

The Game Information window is actually a built in HTML browser window, which provides a much more free-form method to include whatever game information you'd like within the application. By default, the retail ROM releases and some of the homebrew releases already have pre-configured .HTM files that contain some screenshots, an original copy of the instruction manual, and in some cases images of cartridges and/or related hardware.

The Game Information window automatically displays an HTM file with the same name as the ROM if placed in the GameInfo subdirectory. The preconfigured HTM files match the names of the ROMs in Trebor's ROM ProPack, in Figure 8, it is displaying the file "FailSafe (NTSC) (20100227).htm" located in c:\a7800\gameinfo. All corresponding image files used by the local .HTM files are also located in the root path of the GameInfo subdirectory. These files can be edited from within the application, more on that next.



Figure 8: The Game Information Window in Maximus78

Maximus78 also includes a basic editor that allows you to modify or create an associated .HTM file for a new ROM. The editor will automatically try to load an .HTM file with the same name as the ROM file in the GameInfo subdirectory. If the file does not exist, it will be blank, however the file name that “should” be there will still populate in the file path box at the top. Here you can simply copy and paste any HTML code into the window, click Save, and it will then save the file to the proper location. It will display the next time you refresh the Game Information display window (which can be done by navigating away from it with a different game, then back to it again, or right click on a blank area in the content window and choose “Refresh”).

All of the preconfigured HTML files have their images saved in the root of the GameInfo subdirectory for simplicity. You can create a subdirectory in that folder to store images as well, you’ll just need to specify that subfolder in your HTML code.

You can use this Game Information window to display a whole lot more relevant information than what is there by default. Add Reviews, Gameplay notes, tips and tricks, easter eggs, High score tables for that specific game, anything you can think of that you’d like instantly available when you run the game can be added here.

This window is for HTML code only, it is not just a basic text editor. If you simply type text in the window it may not display as you would expect, you need to use HTML tags. For beginners or those that don’t know HTML very well, if you do just want to add lines of text, remember to add a
 tag at the end of each typed line or the text will display as one continuous line in the display window.

Use your imagination!

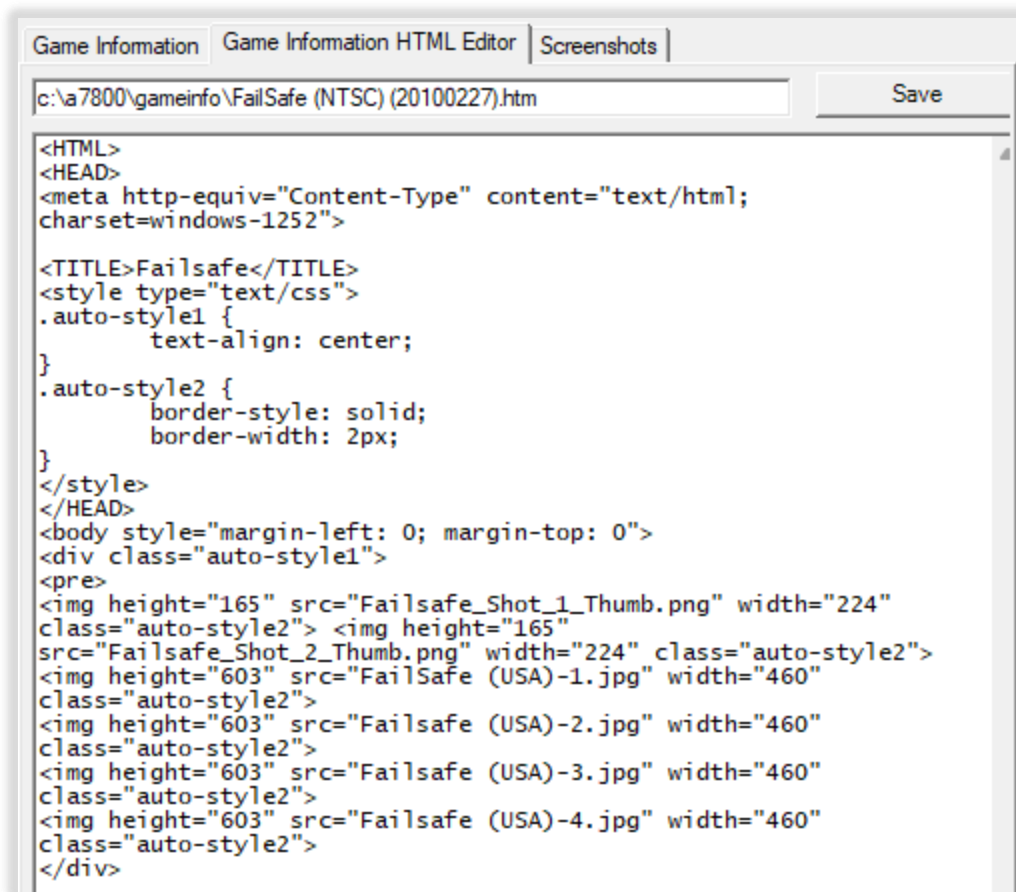


Figure 9: The Game Information HTML Editor in Maximus78

Box Art and A7800 Command Window Tab

The Box Art and A7800 Command window tab is shown by default in the center of the application when you start it up. The Box Art window will automatically load Box Art from the "BoxArt" subdirectory that you define when setting up Maximus78 for the first time.

As mentioned earlier, If you wish to add your own box art to Maximus78, it's a simple process. Simply place an image file with either a JPG or PNG extension in the boxart subfolder, give it the exact same name as the game ROM file, and it will automatically appear along with the ROM in the application. For example, if you have a game ROM named "Dungeon Stalker (v1.42) (2015) (AtariAge).a78", name the box art file either "Dungeon Stalker (v1.42) (2015) (AtariAge).png" or "Dungeon Stalker (v1.42) (2015) (AtariAge).jpg" and it will appear automatically.

This file includes all of the box art I have available for Maximus78. The box art archive may be periodically updated as it does not contain screenshots and/or manuals for every game in Trebor's ROM pack. Check GitHub for any updates.

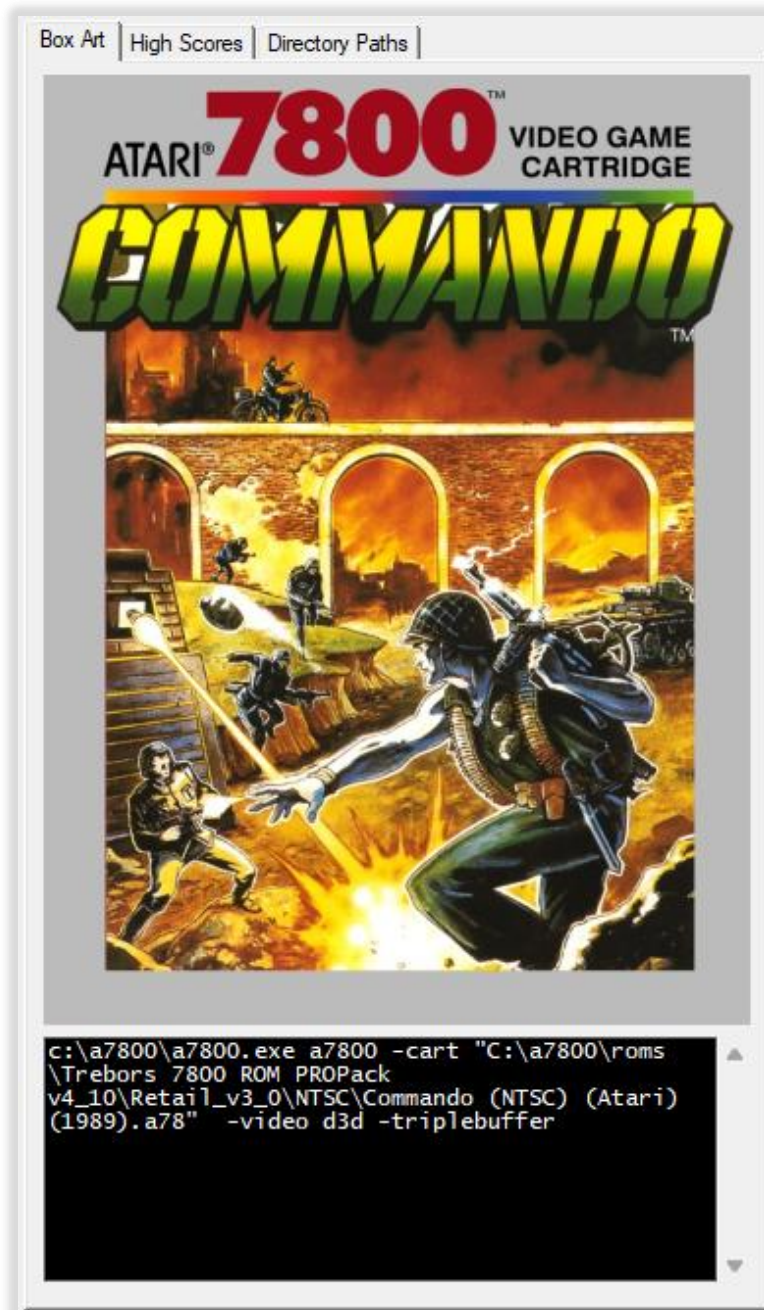
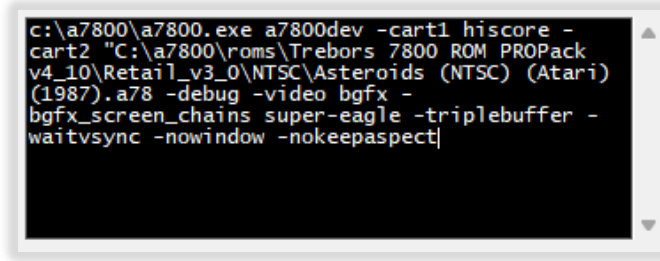


Figure 10: The Box Art and A7800 Command Window Tab

Just Below the Box Art display is the A7800 Command Window. This informational box will display the precise command that will be sent to A7800 when the game is launched, including all the options you enabled from the Edit Menu.



```
c:\a7800\a7800.exe a7800dev -cart1 hiscore -  
cart2 "C:\a7800\roms\Trebors 7800 ROM PROPack  
v4_10\Retail_v3_0\NTSC\Asteroids (NTSC) (Atari)  
(1987).a78 -debug -video bgfx -  
bgfx_screen_chains super-eagle -triplebuffer -  
waitvsync -nowindow -nokeepaspect
```

Figure 11: The A7800 Command Window in Maximus78

In Figure 11 above, I've enabled most of the available options in Maximus78. If desired, you can copy and paste the command line in this window and paste it directly into an actual command prompt window to run it from the CLI.

Using the ROM Lists

After defining all of the correct ROM directory paths for Trebor's ROM ProPack, all of the tabs that contain the Game ROM lists should auto-populate when you launch the application. As the lists are dynamically created with a folder discovery, you cannot remove a ROM from a list within the application. You will need to remove it from the directory being scanned if you don't wish for it to be displayed. There are 8 Tabs for Game ROMs, each corresponding to a different directory, as seen in Figure 12 below. In addition to the seven subdirectories defined in the ROM pack, there is an 8th tab named "Favorites".

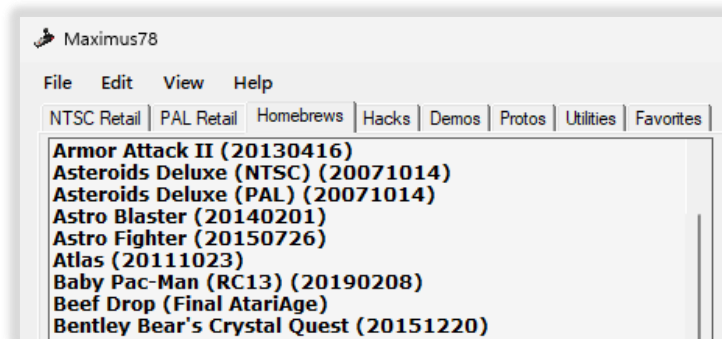


Figure 12: The Game ROM Tabs in Maximus78

THE FAVORITES TAB

Use the favorites tab to store your most frequently played games. To add a game to the favorites list, you can right click on the Game ROM and choose "Add to Favorites", or you can also choose to add a favorite from the File Menu.

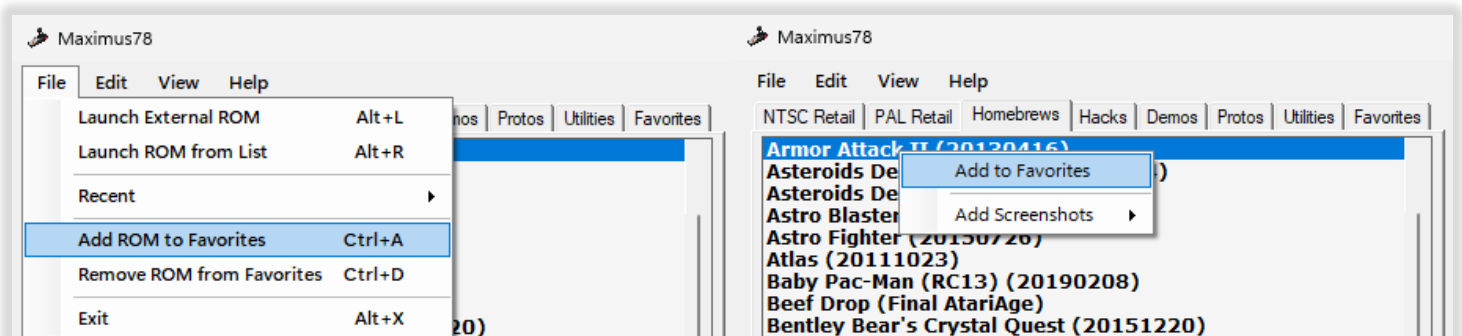


Figure 13: Adding a Favorite to the List

LAUNCHING A GAME FROM THE GAME ROM LISTS

To Launch a game from the list, you can double click on it, with it highlighted you can choose the File Menu Option “Launch ROM from List”, or you can use the keyboard shortcut ALT+R (for Run). When you launch a game, whichever method you choose, the game will be added to the “Recent” List in the File Menu. The Recent list will display the 10 most recent games that you launched. If you launch a game that is already on the list it will not add a duplicate entry. The recent list is only for the current session, recently launched games are not saved once you exit the application.

LAUNCHING AN EXTERNAL ROM

Maximus78 also supports launching an external ROM that is not included in the list. This is an easy way to launch a ROM with all of the selected options from within Maximus78, regardless if the game is listed on one of the tabs. Launching a game with this method will also add it to the “Recent” list.

Editing the A7800 Configuration File

Maximus78 also has a built-in editor for the A7800 configuration file. This file is named a7800.ini and is always located in the root folder of your A7800 installation. For detailed information on the specific changes that can be made to this file, please reference the A7800 Documentation.

To launch the A7800 Configuration File Editor, choose “Edit A7800 Configuration File” from the Edit Menu.

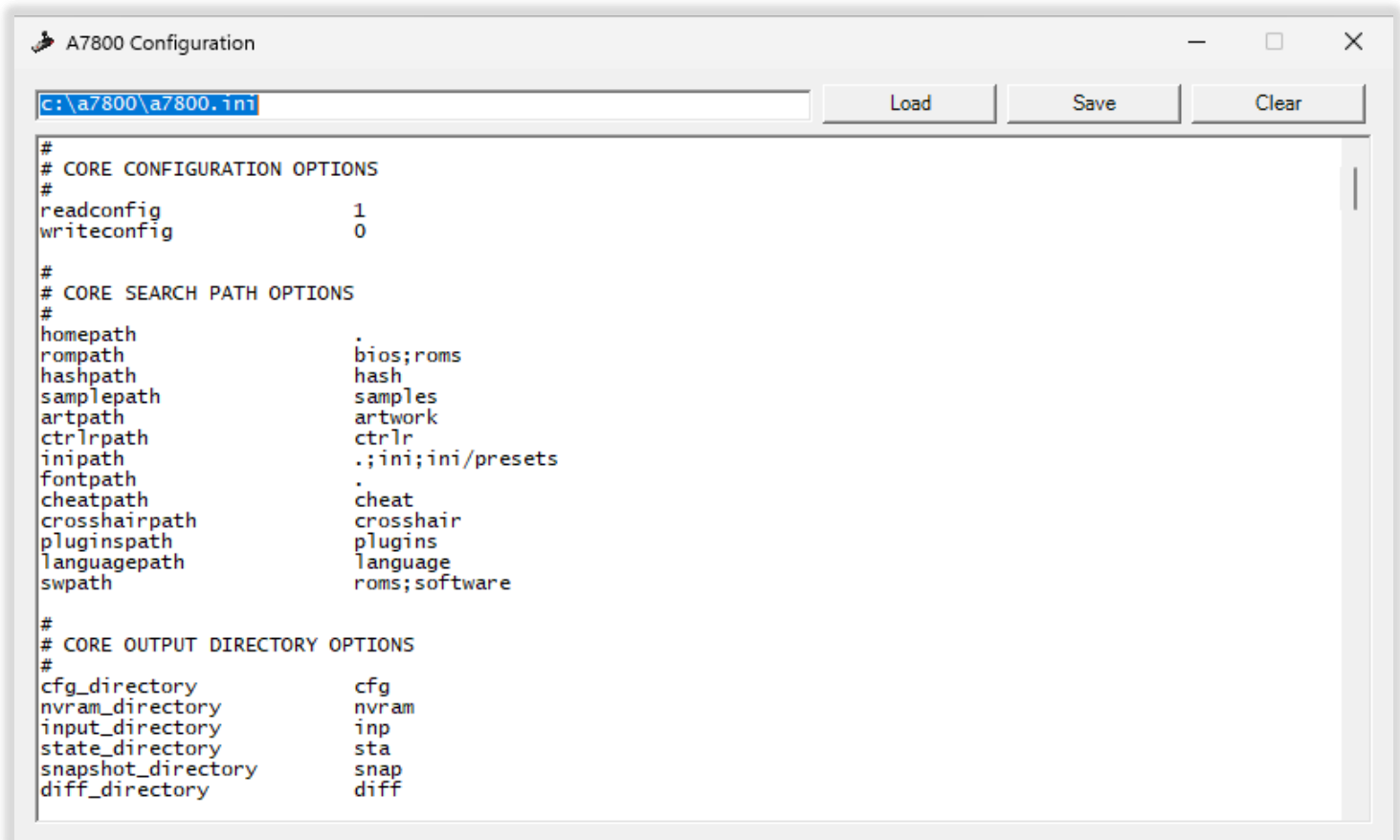


Figure 14: The A7800 Configuration Editor in Maximus78

Using the A7800 TV and Video Options

Maximus78 Includes the ability to enable and disable the most commonly used options in the A7800 Emulator. I'll review the basics of each option. All of these options are persistent when changed, so any change you make will remain in effect after closing and relaunching the application.

TV TYPE

The TV Type option allows you to select the NTSC or PAL Region. Make sure you select PAL when running any of the PAL Game ROMS, as it will default to NTSC.

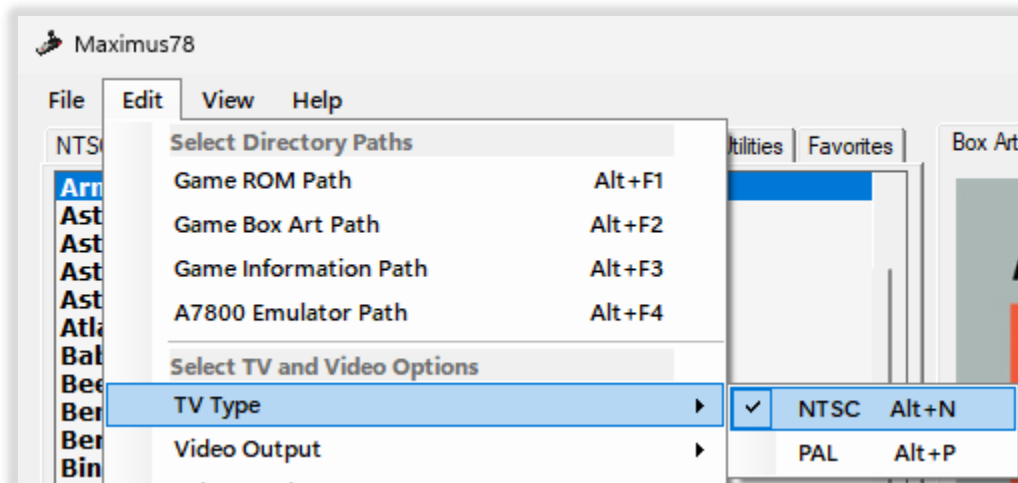


Figure 15: The NTSC/PAL Option in Maximus78

VIDEO OUTPUT

The Video Output Option has 8 different options.

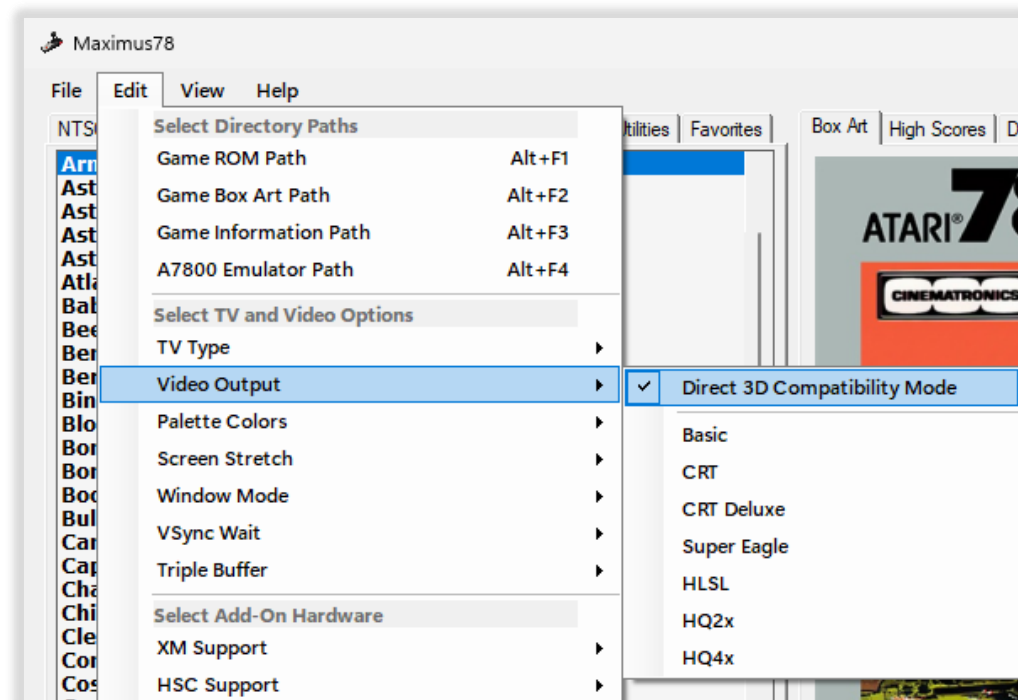


Figure 16: Video Output Options in Maximus78

Compatibility mode is best if you have an older PC or laptop that does not have a dedicated graphics card or any kind of graphics acceleration. The other options in this list do require a bit of CPU and GPU horsepower, this is the base setting.

Basic is the least demanding video mode that still offers graphics acceleration. It displays a pixel perfect display with no extra graphics effects, and is the default for A7800.

The details of each individual mode are beyond the scope of this documentation, you should reference the A7800 User's guide which goes into detail. From that guide:

"For those looking to recreate the closest CRT experience possible from among the near 30 different video effects, it is highly recommended to utilize "hls". Inclusion of all bells and whistles of that effect requires setting "Enable NTSC" to "On". It is turned on by default for A7800. Of course, the more effects utilized the more hardware horsepower that is required. So, if some effects from hls are desired, but either the computer cannot handle the additional resource utilization or a cleaner look with some effects is the goal, turning "Enable NTSC" to "Off" would be best."

PALETTE COLORS

You have three choices for Palette Colors, Warm is the default setting. They are selectable from the Edit Menu.

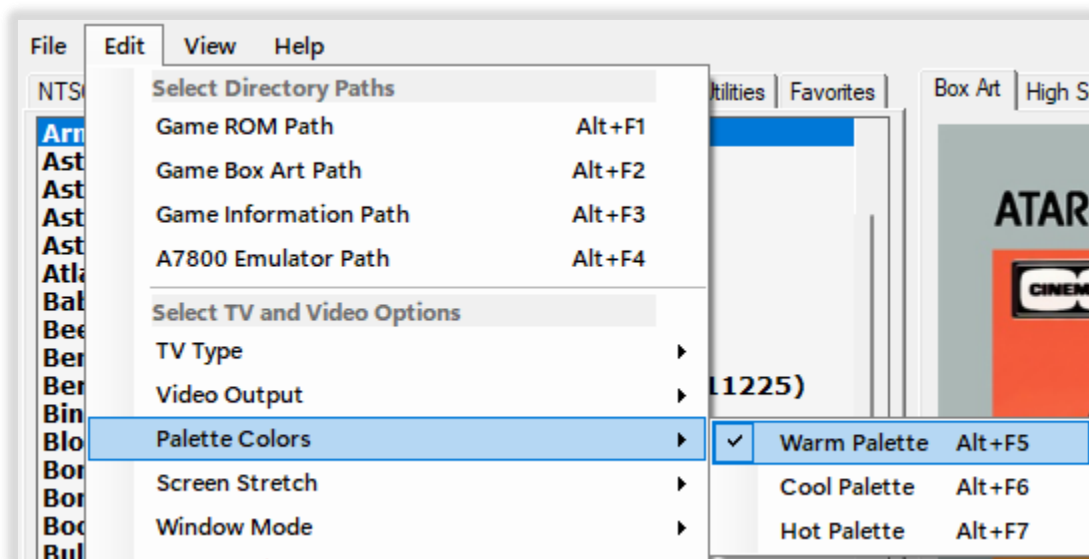


Figure 17: Palette Options in Maximus78

Cool: Hue Separation of ~25.7 degrees. This is the 'factory' setting and instructed method, per the CPS 7800 Diagnostic Test Cartridge, to calibrate the system's color pot located on the motherboard just below the cartridge slot. This seems typically to have been set within a minute or two of a system being powered on, as many factory set consoles appear to drift higher in hue separation as the system continues to warm up. Some early titles have their colors represented best at this setting such as Galaga and Joust. Titles that have their colors best showcased under "Cool" look their worst under "Hot".

Hot: Hue Separation of ~27.7 degrees. This is the 'typical' setting often experience after a console has been running continuously for 15-30 minutes. Most late release titles such as Midnight Mutants and Ikari Warriors, as well as the earlier released Choplifter, display optimal colors when the palette is provisioned this way. Game colors looking best "Hot" have the least favorable appearance under "Cool".

Warm: Hue Separation of ~26.7 degrees. This is the 'ideal' setting as it best matches official documentation on the color order for the console, including a full 256 unique colors palette for the system. It allows for some system warm-up, resulting in several games yielding colors neither at their best or worst. However, other games do yield best color results with a "Warm" palette. Scrapyrd Dog, for example, results in a fence and sky having the best balance of colors. Some games, such as Dig Dug, look excellent regardless of temperature.

SCREEN STRETCH (ASPECT RATIO)

This setting changes the aspect ratio of the game. If you'd like the game to be stretched horizontally, turn this setting on. If you'd like the default game aspect ratio, leave it turned off. The option is available in the Edit Menu.

Figure 18 below is an example of the screen stretch option being enabled vs. disabled.

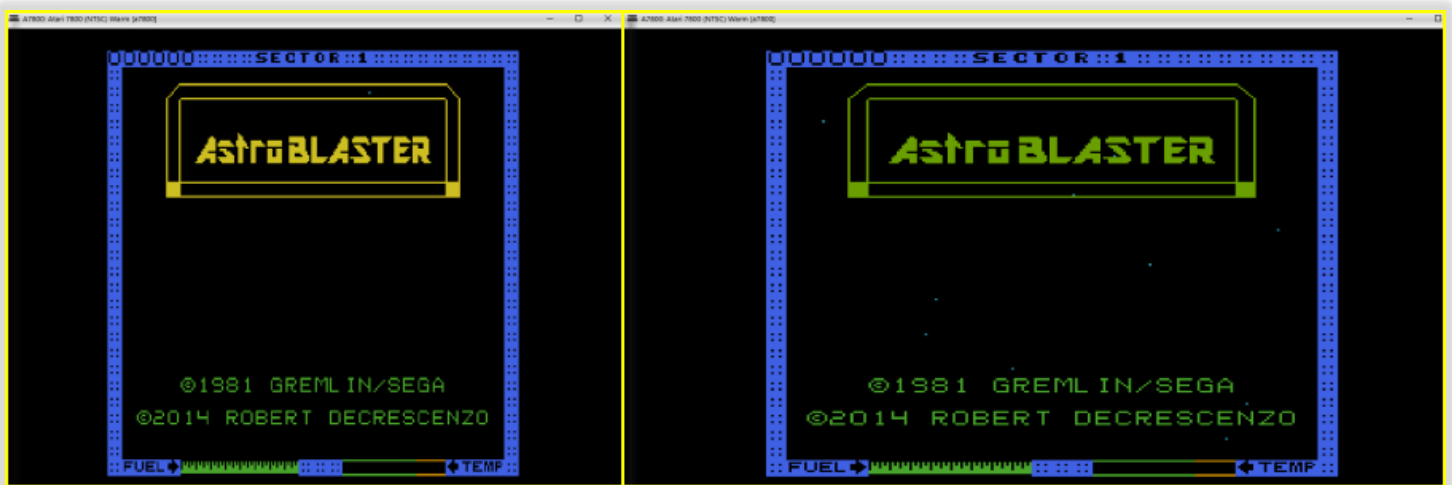


Figure 18: The A7800 Screen Stretch Option

WINDOW MODE

The Window Mode option simply controls whether the game will run in full-screen mode or in windowed mode. The default setting is to run in windowed mode, and it can be changed in the Edit Menu.

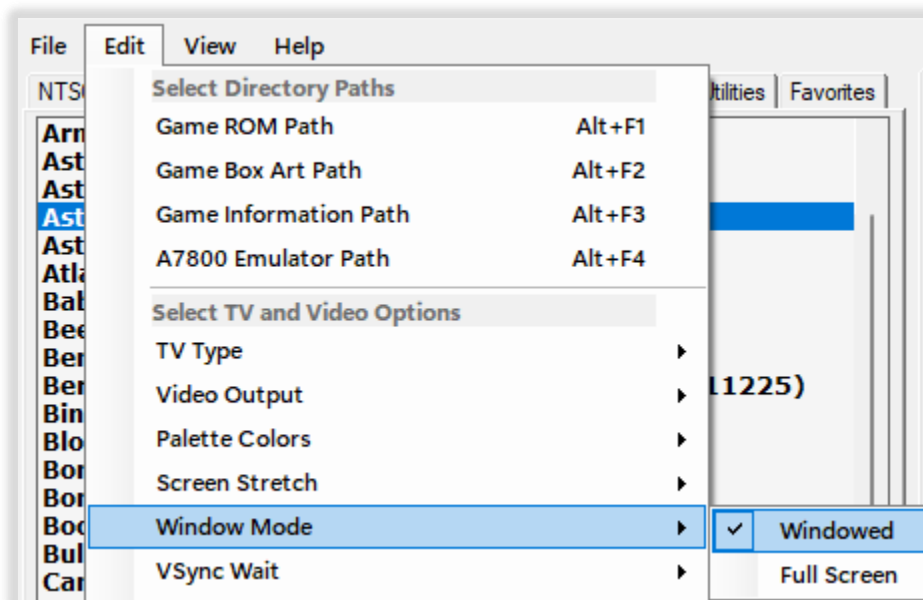


Figure 19: The Window Mode Option in Maximus78

VSYNC WAIT

When using A7800 in Windowed Mode, it is suggested that you enable Vsync Wait. To do this, go to the Edit Menu, Select "Vsync Wait" and set it to "On". This setting is persistent and will stay on the next time you launch Maximus78. It will use more of your CPU Processing power to properly display the game on-screen. The default setting is Off.

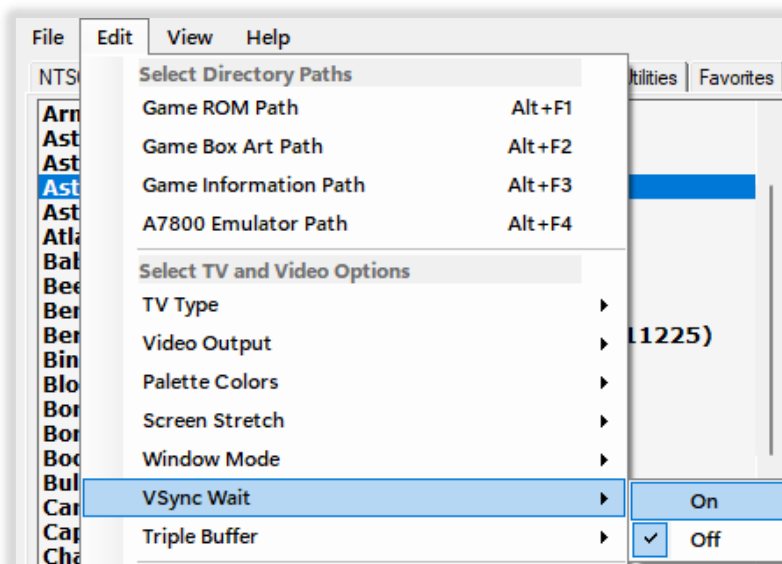


Figure 20: The Vsync Wait Option in Maximus78

TRIPLE BUFFER

When using A7800 in Full Screen Mode, it is recommended that you enable Triple Buffering. To do this, go to the Edit Menu, Select "Triple Buffer", and set it to "On". This setting is persistent and will stay on the next time you launch Maximus78.

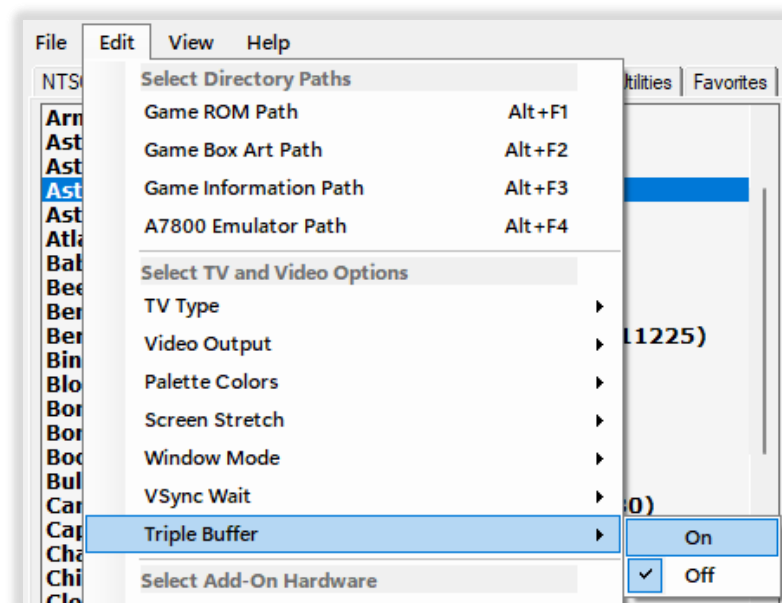


Figure 21: The Triple Buffer Option in Maximus78

Using the A7800 Hardware Options

XM SUPPORT

The XM was a planned 7800 Expansion Module that featured High Score Saving, 128K of additional RAM, Pokey I/O and audio enhancement and a Yamaha audio chip. A7800 supports this hardware device in emulation. To enable it, select XM Support from the Edit menu and choose "On", the default is "Off". The High Score support offered by the XM is compatible with the original Atari High Score Cartridge.



HIGH SCORE CARTRIDGE (HSC) SUPPORT

The High Score Cartridge was originally planned by Atari and some cartridges were released by the hobbyist community. The original Retail releases of Asteroids, Dig Dug, Centipede, Galaga, Joust, Ms. Pac Man, Xevious, Food Fight, and Robotron 2084 all offer native support for the Cartridge. More detailed information on the High Score Cartridge can be viewed here: [7800 High Score Cartridge \(atari7800.org\)](http://atari7800.org)

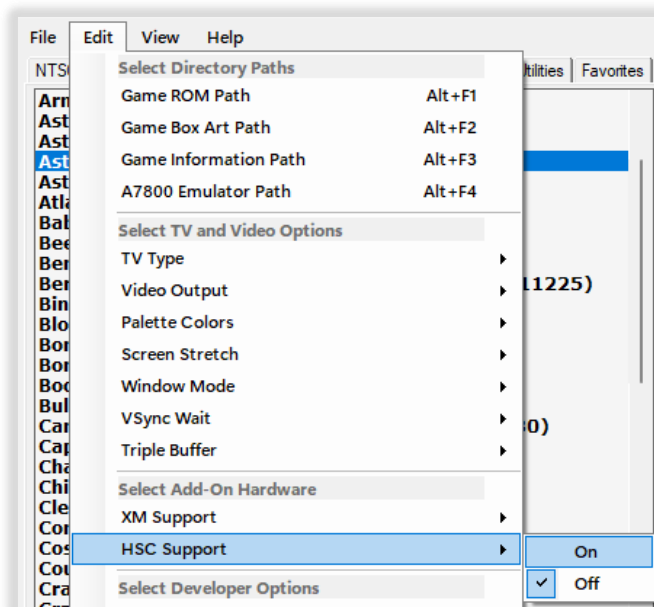


Figure 22: The HSC Option in Maximus78

Using the A7800 Developer Options

DEVELOPER MODE

Developer Mode is for tracking DMA Usage in your game.

A warm console palette is leveraged for its respective region while the left-side of the screen provides color pixels indicating the DMA usage of that line:

Deep Red: Hardly any DMA.

Light Pink: Lots of DMA.

Light Yellow: DMA limits have been reached.

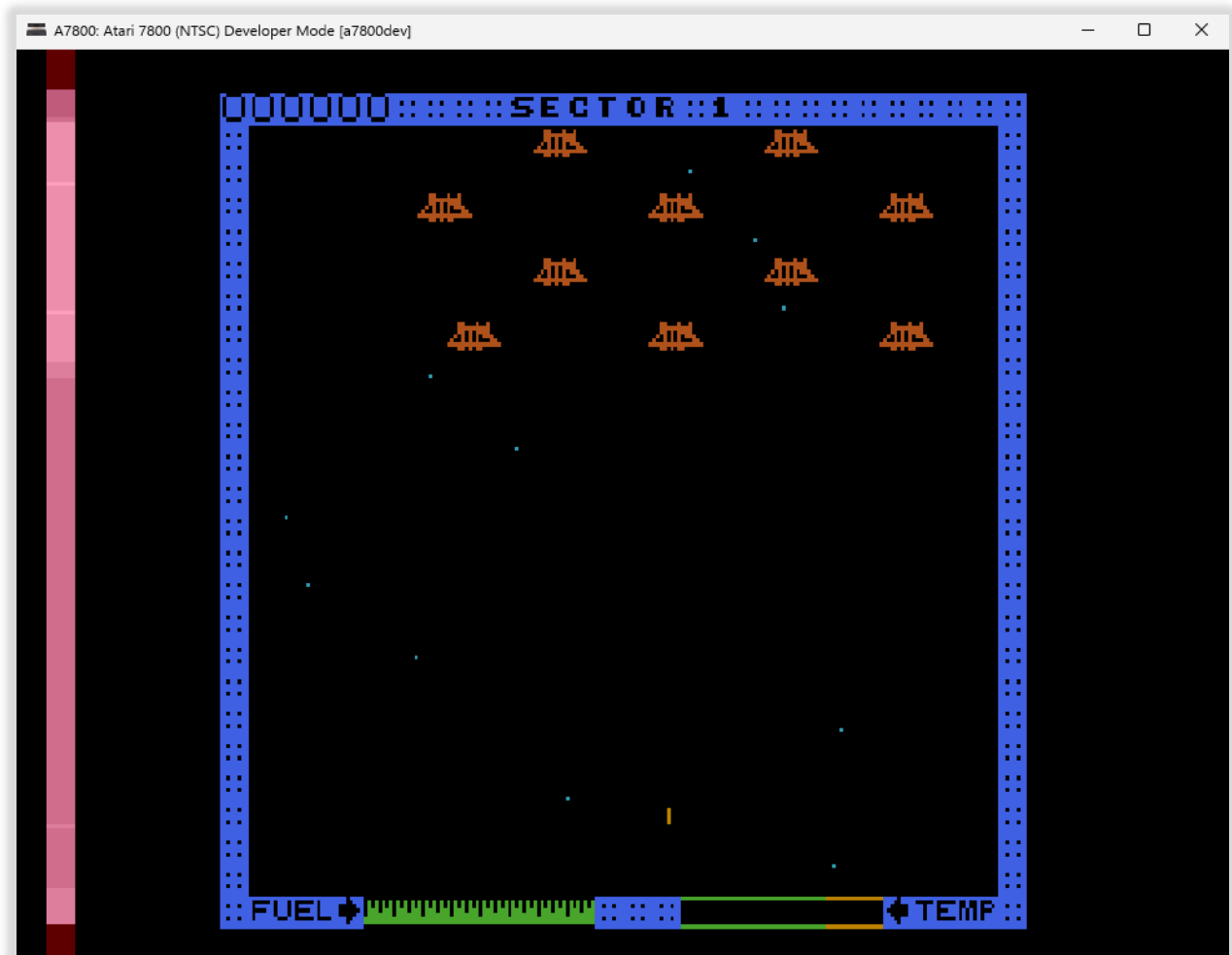


Figure 23: A7800 with Developer Mode Enabled

DEBUG MODE

A7800 has a built-in debugger which can be enabled by selecting Debug Mode from the Edit Menu, and setting it to “On”. After launching a game with the debug option enabled, two windows will appear: the typical emulation window display and a smaller debugger window. The Debug window will grab the focus first. To play the game and run the debugger in the background, select “Run” from the Debug window or press F5. More details on using the debugger are included in the A7800 documentation.

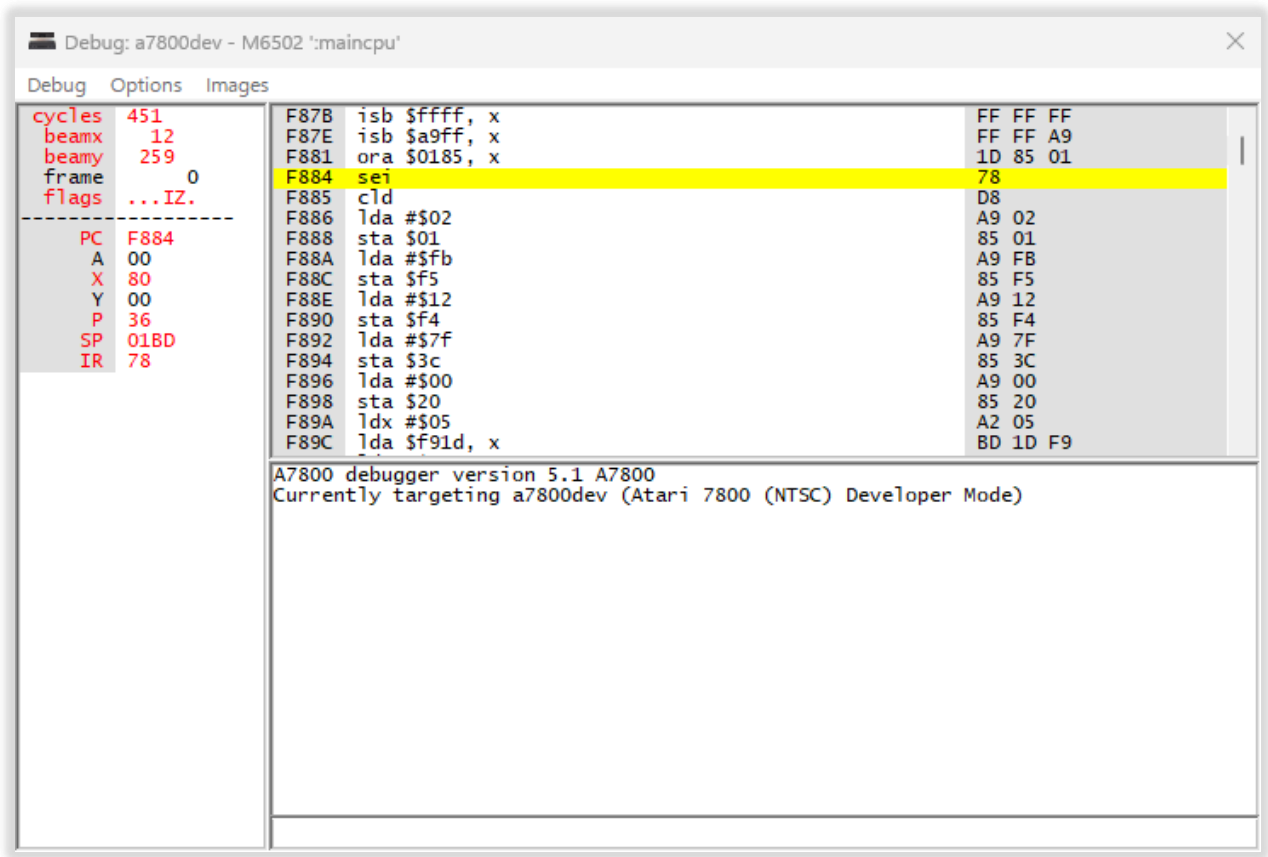


Figure 24: The A7800 Debug Window

Other Options

SETTING DEFAULTS

From the Edit Menu, you can reset all of the Menu Options and the High Score Table.

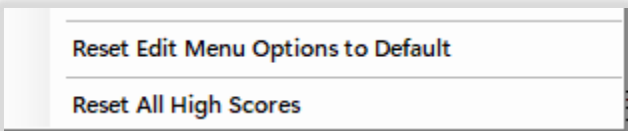


Figure 25: Maximus78 Reset Options

To Reset the Favorites List, right click on any item in the Favorites list and select “Clear All Favorites”.

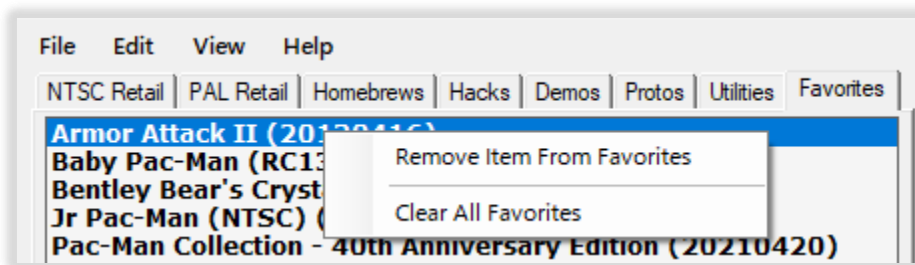


Figure 26: Maximus78 Reset Favorites Option

Getting Help

Maximus78 Includes a variety of extra and useful information. From the Help Menu, you can choose to view the Default Keyboard Mappings, Difficulty Switch Options, Button Options, User Guides and Manuals, and other tips. Future versions of Maximus78 will include even more information.

Below are the A7800 Default Keyboard Mappings, which are viewable within the application:



For any additional questions, comments, concerns, or requests for assistance on the application, please visit the AtariAge.Com forum thread for Maximus78. I will answer questions there.

THANK YOU

A special thank you to AtariAge user Trebor. He helped quite a bit with debugging and sharing feedback, and his definitive ROM collection made the development of this Front End much easier. Another thank you to AtariAge user RevEng, for his tireless dedication to the community and the development of the A7800 Emulator.

And most of all, thank you to everyone who downloaded this application and continues to enjoy one of my favorite vintage consoles, the Atari 7800!

-Steve