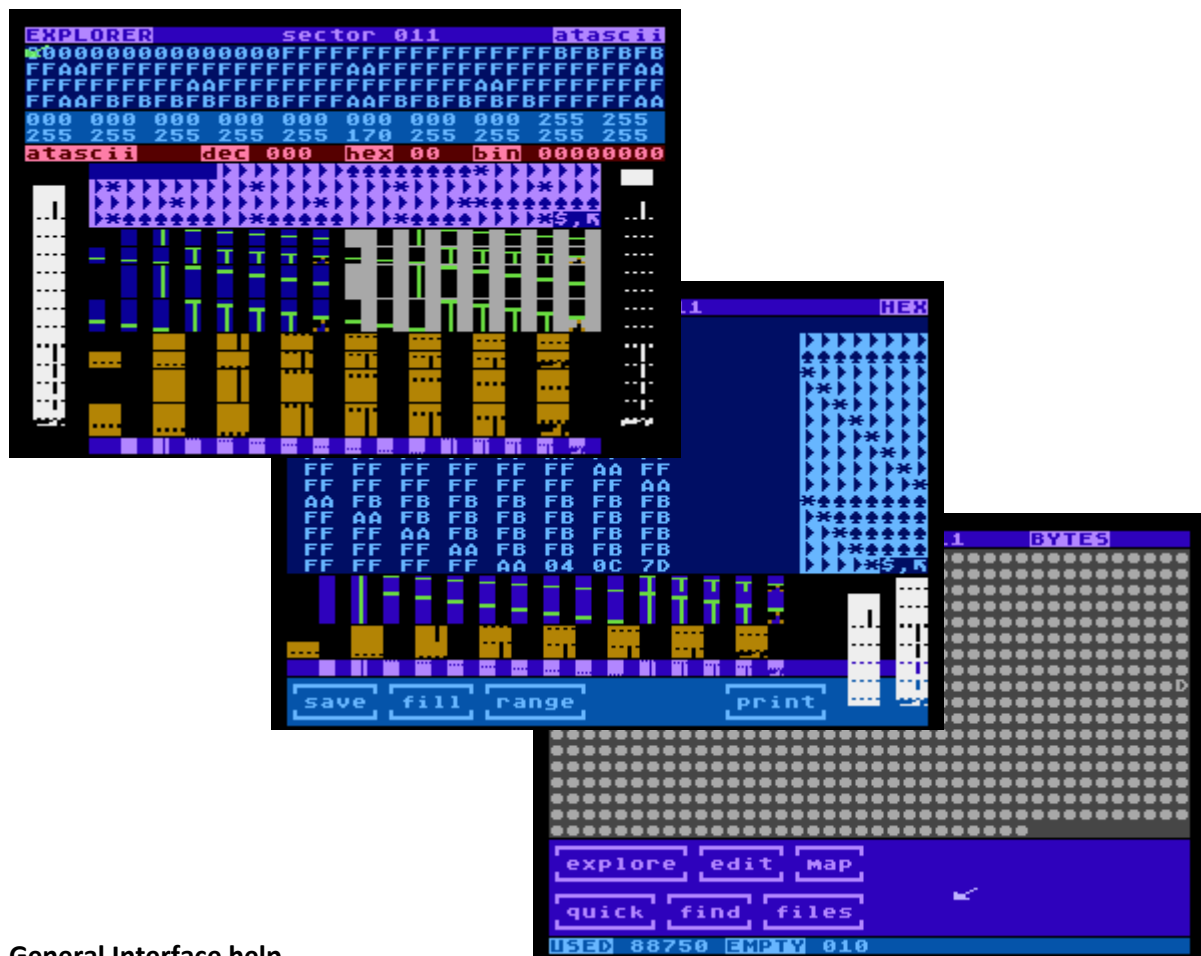


## Disk Explorer – Copyright © 2015 Jim Wilkinson

Disk explorer is sector based tool to allow data and graphics encoded on an Atari disk to be viewed and edited. The tool consists of three main parts, the **Explorer** that provides multiple visualizations of the graphics data as well as Hexadecimal and Decimal conversions. The **Editor** which allows the editing of individual bytes and the **Selector** which allows the user to pick specific disk sectors as well as perform some basic disk mapping functions.

### Requirements

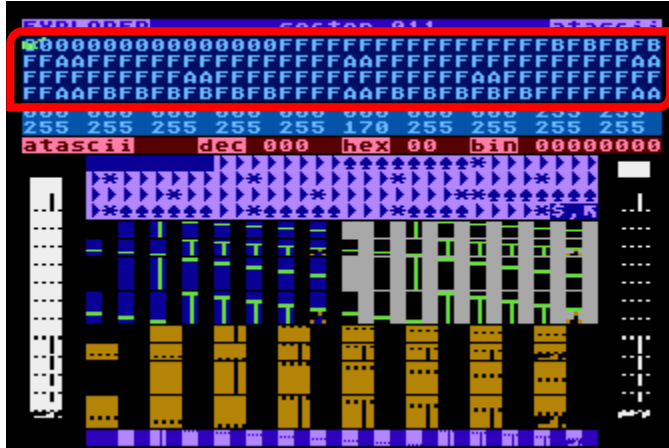
48 K Atari with a SSSD (Single Sided Single Density) disk drive and an ST compatible mouse connected to joystick port 2, or a joystick connected to port 1.



### General Interface help

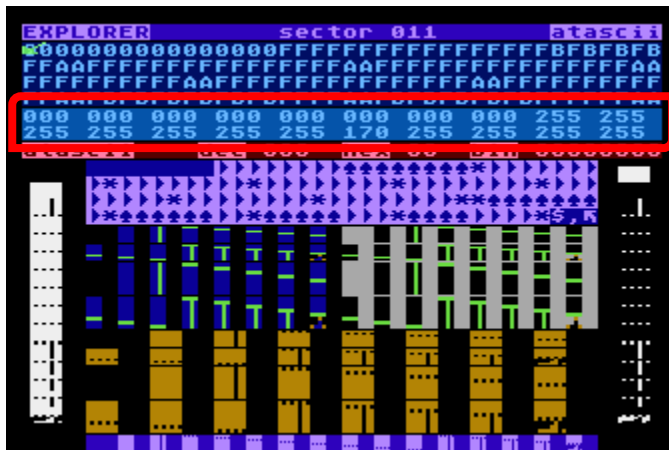
Press the **START** button to access the Explorer  
Press the **SELECT** button to access the Selector  
Press the **OPTION** button to access the Editor  
Press **SPACE** to advance to the next sector  
Press **BACKSPACE** to move to the previous one





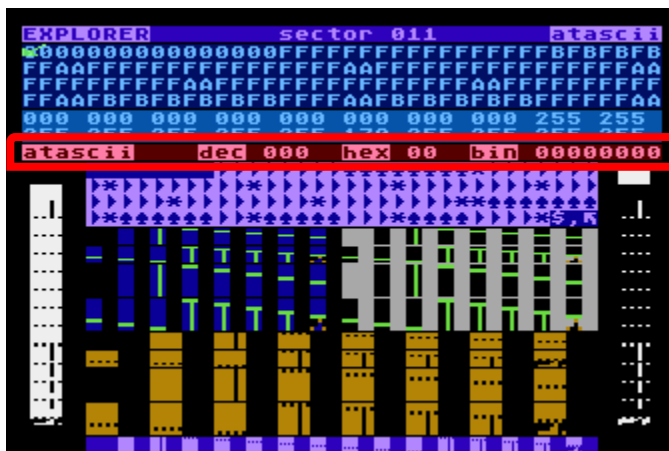
### Hex (Hexadecimal) Window

Shows the current sector displayed in hexadecimal format. Each horizontal line consists of 32 bytes or 64 hex characters. In order to see the entire line, use the mouse to scroll left and right. Click on the right side of the Hex Window to scroll forward, or click on the left side to scroll backward.



### Decimal Window

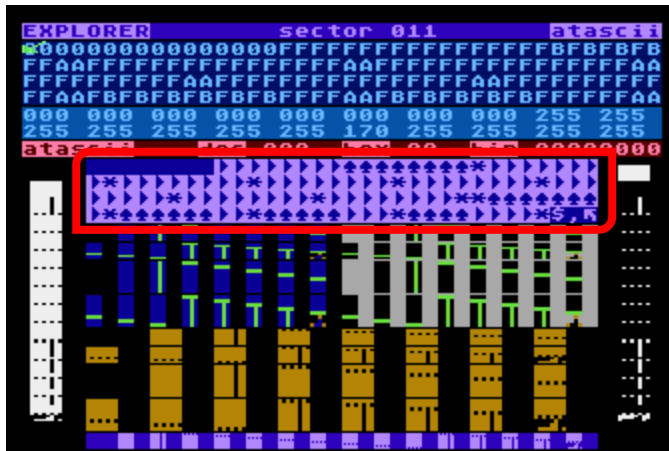
Shows the current sector displayed in Decimal format. Each horizontal line consists of 64 bytes or 256 decimal characters. In order to see the entire line, use the mouse to scroll left and right. Click on the right side of the Dec window to scroll forward, or click on the left side to scroll backward.



### Byte Bar

The Byte bar shows the currently selected byte in ATASCII, Decimal, Hexadecimal and Binary formats. To choose the byte to display, click on it

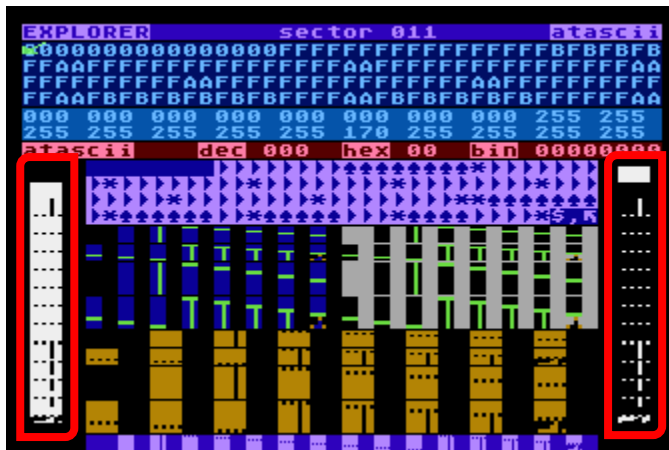
In the ATASCII window below. When moving to a new sector, the byte bar will display the first byte of the sector.



### The ATASCII Window

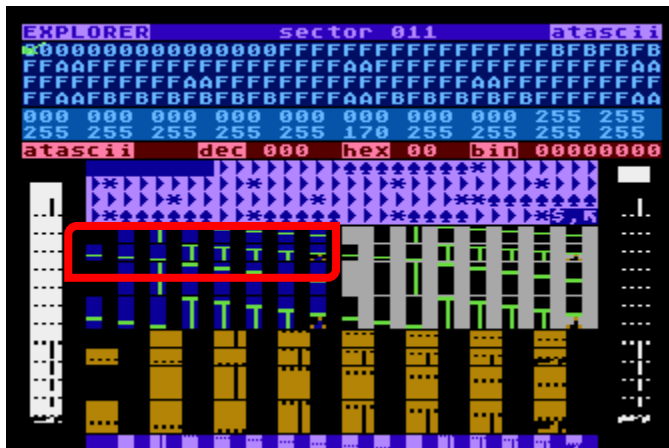
The ATASCII Window shows the contents of the current sector in either ASCII or ATASCII format (depending upon the current view mode).

Clicking on any byte in the ATASCII Window will show it in the Byte Bar as well as highlight the relevant bytes in both the Hex and Decimal Windows.



### Player Columns

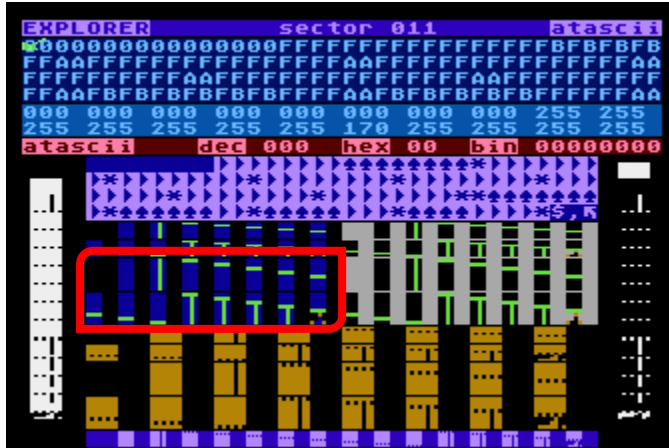
The current sector will be rendered directly as a player on the left side of the screen, and its inverse values will be rendered as a player on the right hand side.



### Antic Mode 4

The contents of the sector are rendered as Antic mode 4 characters in this area. The first 64 bytes represent the top row of characters, and the last 64, the bottom row.

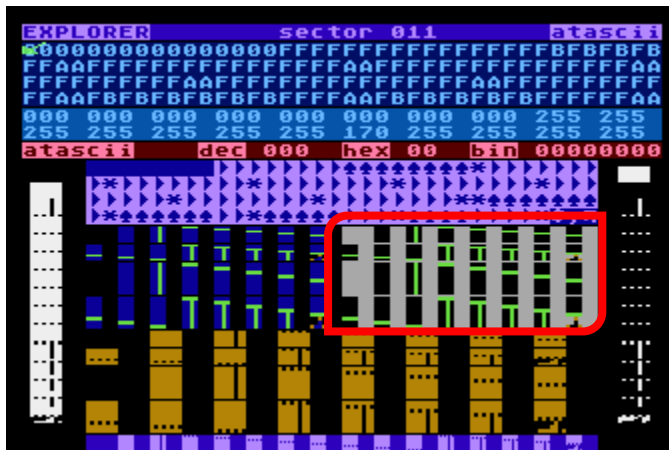
Clicking on any of the characters will highlight the relevant set of bytes in the Hex and Decimal windows.



### Antic Mode 5

The contents of the sector are rendered as Antic mode 5 characters in this area. The first 64 bytes represent the top row of characters, and the last 64, the bottom row.

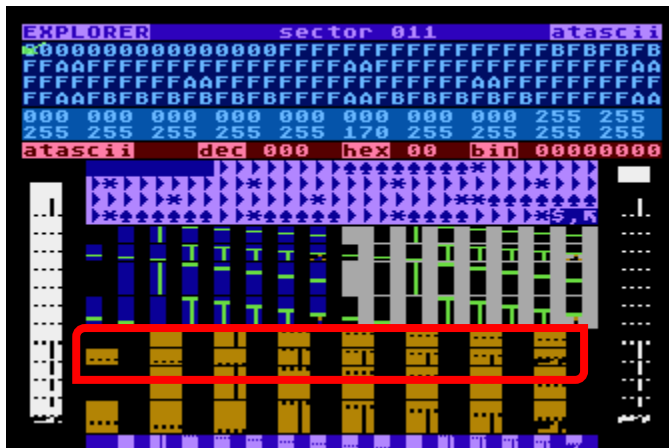
Clicking on any of the characters will highlight the relevant set of bytes in the Hex and Decimal windows.



### Antic Modes 4 & 5 High Contrast

This section displays the same set of Antic mode 4 & 5 characters, but also includes a high contrast background.

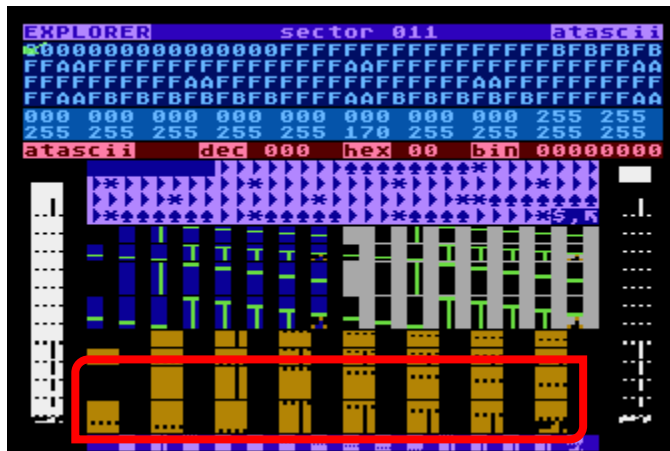
Clicking on any of the characters will highlight the relevant set of bytes in the Hex and Decimal windows.



### Antic Mode 6 (Graphics 1)

The contents of the sector are rendered as Antic mode 6 characters in this area. The first 64 bytes represent the top row of characters, and the last 64, the bottom row.

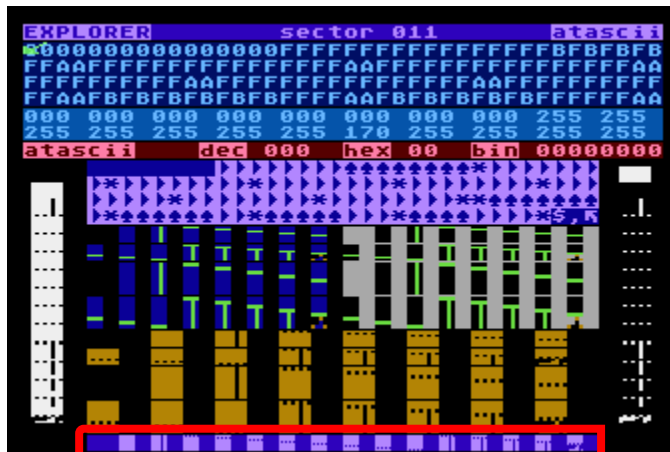
Clicking on any of the characters will highlight the relevant set of bytes in the Hex and Decimal windows.



### Antic Mode 7 (Graphics 2)

The contents of the sector are rendered as Antic mode 7 characters in this area. The first 64 bytes represent the top row of characters, and the last 64, the bottom row.

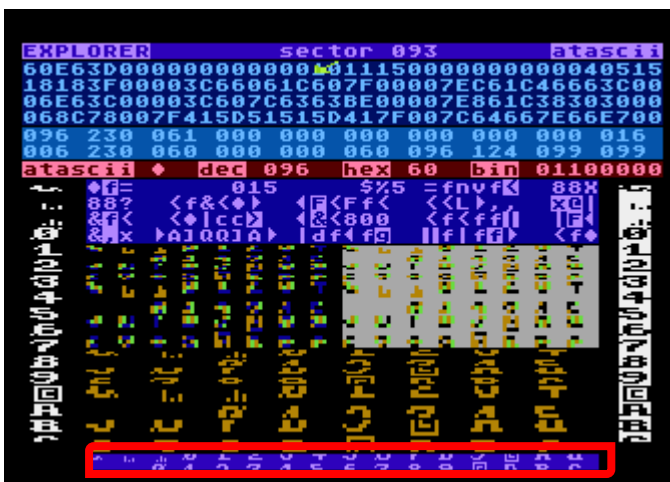
Clicking on any of the characters will highlight the relevant set of bytes in the Hex and Decimal windows.



### Antic Mode 2 (Text)

The contents of the sector are rendered as Antic mode 7 characters in this area. The entire 128 bytes are rendered as 16 characters.

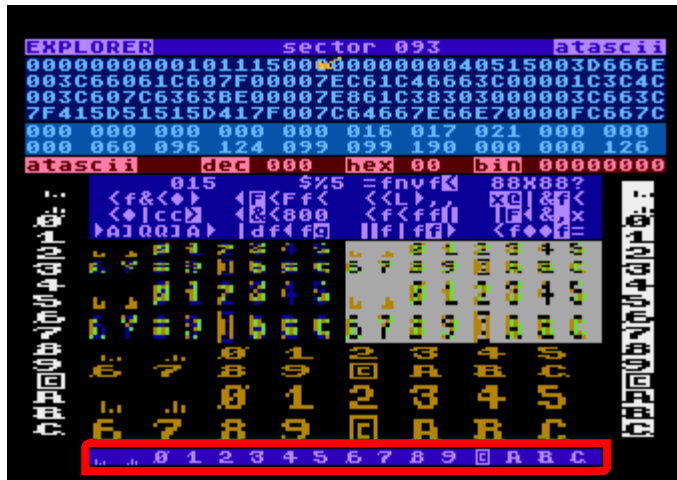
Clicking on any of the characters will highlight the relevant set of bytes in the Hex and Decimal windows.



### Rolling

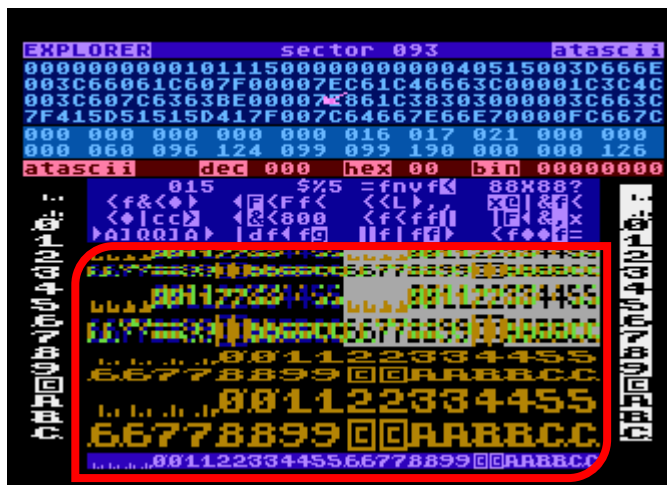
Use the "<" and ">" keys to roll one byte up or down through the sector. This will allow mis-aligned graphics to be viewed correctly.

Before



Rolling

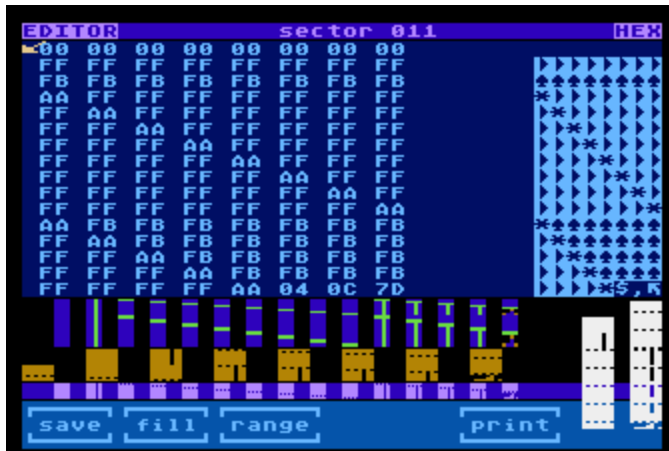
After



Spacing

Press the "S" key to double up each character in the display.

Press "S" again to return to the default view.



## The Editor

The Editor allows individual bytes from each sector to be edited in either Hexadecimal or Decimal format.

Additionally, this screen can be used to fill an entire sector with one value, as well as write the same information to a range of sectors.

Press SPACE for next, or BKSPC for previous sector.



## Editing Hexadecimal

Press the "H" key to switch (if required) to Hex view. Click on any byte to enter edit mode. Once editing, you can type (0-F for hex) digits directly into the data. As you complete each byte, the edit mode will be automatically moved to the next byte.

Press ESC to cancel the edit mode.

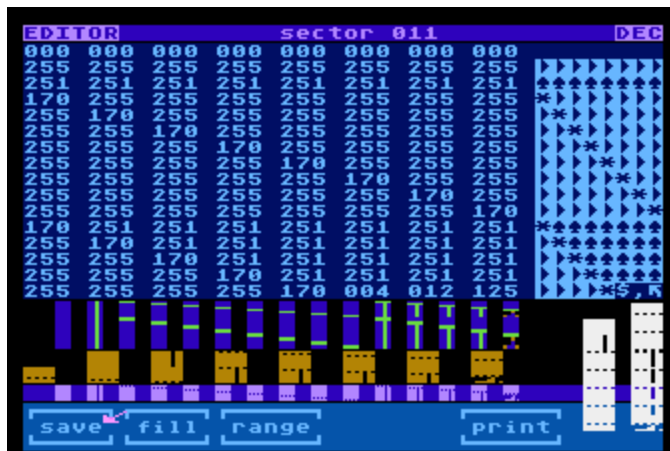


## Editing Decimal

Press the "D" key to switch (if required) to Decimal view. Click on any byte to enter edit mode. Once editing, you can type (0-9 for decimal) digits directly into the data. As you complete each byte, the edit mode will be automatically moved to the next byte.

Press ESC to cancel the edit mode.





### Save

If you have made changes to any of the data you can save it back to disk by clicking on the “save” button.

Please note that saving will overwrite the existing contents of the disk without warning.

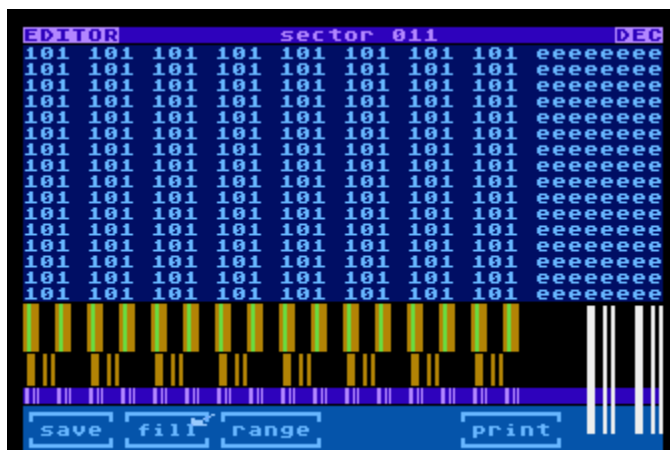
Please use with caution!



### Range

Click on the Range button to specify a start and end sector range. When this range has been set, save operations will save the same (current) data to each of the sectors in the range.

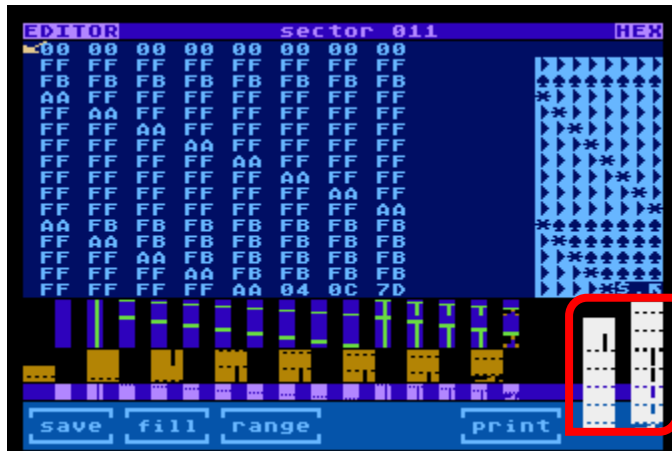
Please use with extreme caution!



### Fill

Fill simply changes each byte in the current sector to be the same as the first byte.

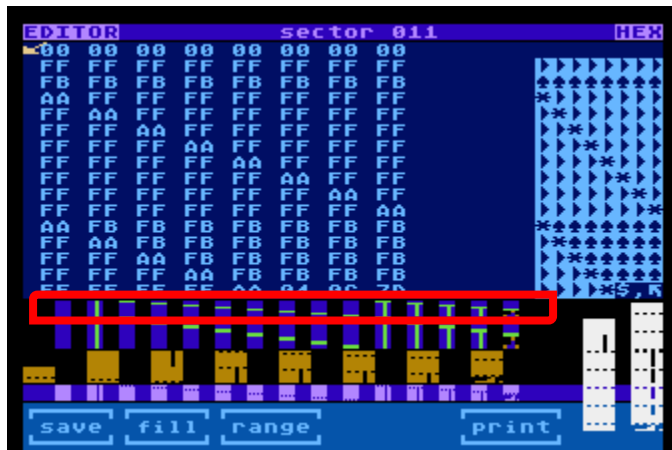
No changes will be made to the disk until a save button is clicked.



### Player Visualization

The two players on the right hand side of the screen represent the first and second 64 bytes of the sector respectively.

When bytes are edited on the screen, the players are dynamically updated.



### Hotspots (Antic Mode 5)

Clicking on any character in the Antic 5 mode row (top row) will highlight that byte on the edit screen. Please note that this hotspot is accurate to the byte, so that where (horizontally) you click on the character will decide exactly which byte is to be highlighted.

When bytes are edited on the screen, the character graphics are dynamically updated.



### Print / Export

The Print function prints the current sector as comma separated ASCII values, 8 per line. If a range has been set, all sectors in the range will be printed.

This function reads data from the disk, not the screen, so make sure you have saved changes before printing.

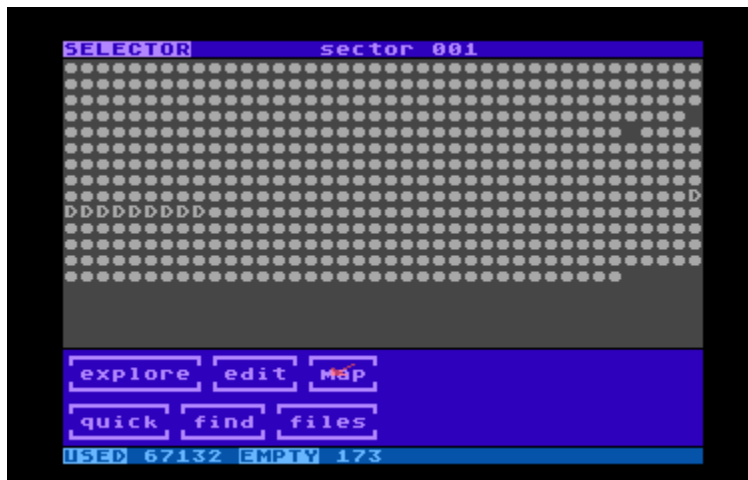


## The Selector

The Selector allows individual sectors to be selected, disk usage visually mapped, and files to be listed and plotted.

The screen has space to display a marker for each sector on the disk, as well as an area for the directory list to be viewed.

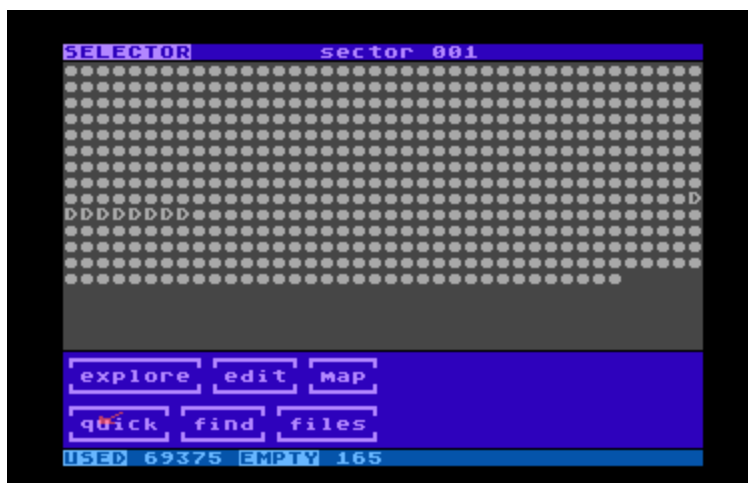
Additionally, information such as disk space USED, the number of EMPTY sectors and the number of BYTES in the currently selected sector are displayed.



## Map

Map is the slower but more accurate method to determine disk usage. Click on the Map button and the program will read each sector on the disk and map its status on the screen.

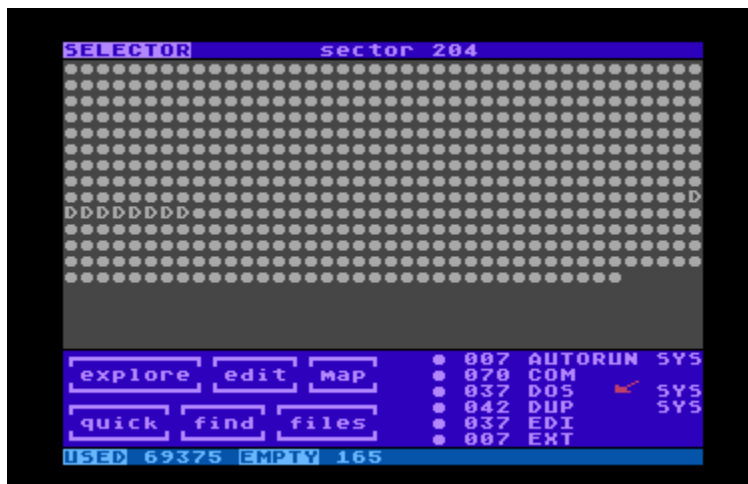
This process can take an extended amount of time. When complete, the disk information will be updated.



## Quick Map

The quick map function looks at the disk's VTOC information and plots it on the screen. If the disk does not have a VTOC (or it is inaccurate), this display will not report the correct information.

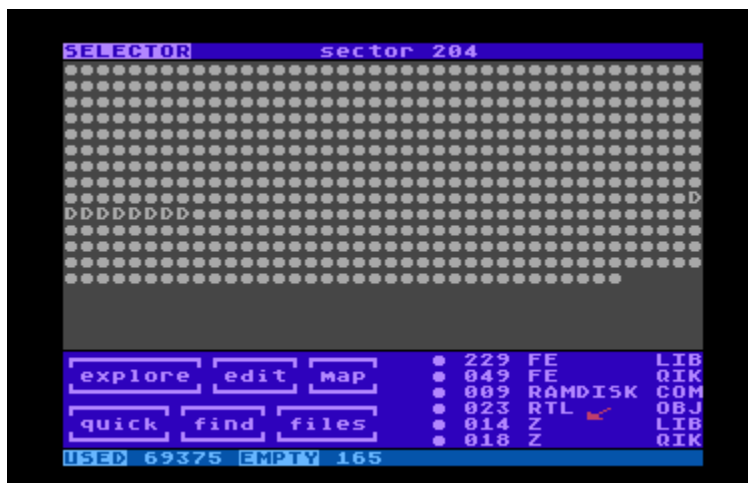
When complete, the disk information will be updated.



## Files

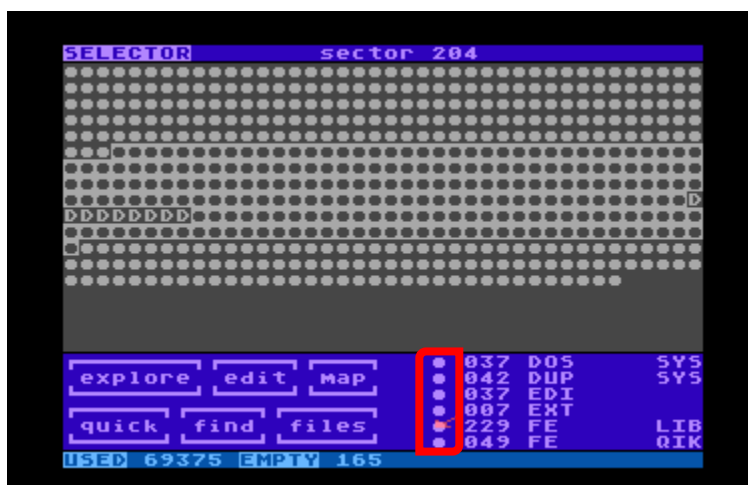
Clicking on the Files button will display the contents of the directory sectors.

The size of the file, along with its name will be displayed.



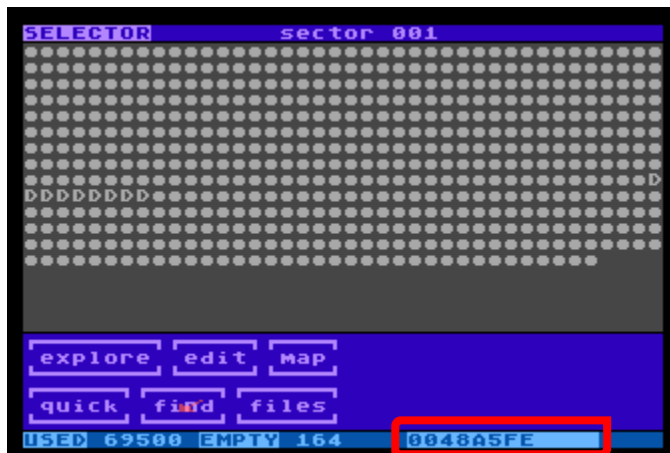
You can scroll through this list by clicking on the top or bottom half of the list if more than 6 files exist on the disk.

The first sector of the file will become the selected sector.



Clicking on the dot to the left of each file will show its position and size in the drive map.

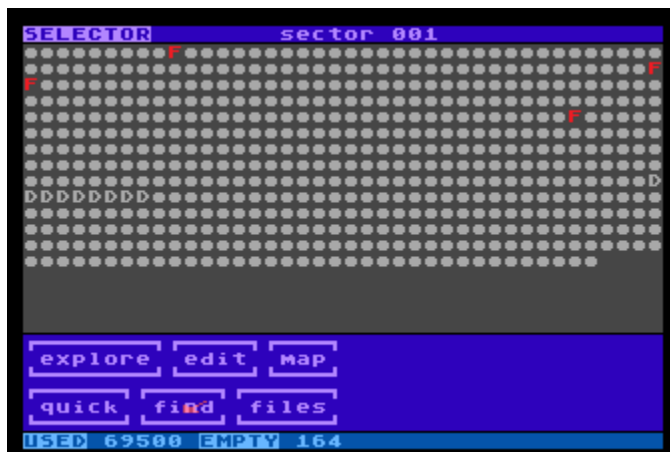
The first sector of the file will become the selected sector.



## Find

Clicking on the Find button will open a text input box on the bottom row that will allow you to enter up to 16 digits (8 bytes) of hexadecimal.

When you press enter, each sector will be searched for a match to the byte string.



As the search progresses, each matching sector will be marked with an "F".

This function will take an extended amount of time to complete.

*(highlighting shown is artificial)*