



## **Asteroids Help Contents**

Click the colored, [underlined words](#) to see a definition or jump to another topic.

The Contents lists all the Help topics for Asteroids®.

To learn how to use Help, choose How to Use Help from the Help menu, or press F1.

Click here for [copyright information](#) specific to Asteroids.

### **How to Play**

[Overview](#)

[Playing the Game](#)

[Scoring](#)

[Strategy and Hints](#)

[History of the Game](#)

### **Commands**

[Game Menu Commands](#)

[Options Menu Commands](#)

## Overview

Click the colored, [underlined words](#) to see a definition or jump to another topic.

You are in command of a [spaceship](#) and your mission is to shoot and dodge your way through an endless [asteroid belt](#). To stay alive, you must blow up the huge floating [asteroids](#) before they hit your spaceship.

Beware! When you shoot a large asteroid, it breaks into two medium-sized asteroids. When you shoot a medium-sized asteroid, it breaks into two small asteroids. Fortunately, when you shoot a small asteroid, it disintegrates.

Keep an eye open for [large flying saucers](#) and [small flying saucers](#). They shoot at you until you destroy them or until they collide with an asteroid!

### See Also

[Playing the Game](#)

[Scoring](#)

[Strategy and Hints](#)

[History of the Game](#)

[Game Menu Commands](#)

[Options Menu Commands](#)

## Playing the Game

Click the colored, [underlined words](#) to see a definition or jump to another topic.

Asteroids is easy to play. All you need to know is how to start a game, fire missiles, and move your [spaceship](#). Beyond that, you're on your own for hours of daring expeditions through [space](#).

### To start a new game

- ▶ From the Game menu, choose New, or press F2.  
When you choose the New command, Asteroids resets your score to zero.

### To fire the spaceship's missiles

- ▶ Press the SPACEBAR to fire a missile.  
There can only be four missiles active on the screen at one time.

### To turn the spaceship

- ▶ Press the LEFT ARROW key or the RIGHT ARROW key to turn left or right.

### To apply thrust to the spaceship

- ▶ Press the UP ARROW key once or twice.  
You apply [thrust](#) each time you press the UP ARROW key.

### To apply maximum thrust to the spaceship

- ▶ Press and hold down the UP ARROW key for a few moments.  
When you thrust your spaceship off one side of the screen, it quickly returns on the opposite side.

### To stop the spaceship

- 1 Press the LEFT ARROW key or the RIGHT ARROW key to turn the spaceship in the opposite direction.
- 2 Press the UP ARROW key to apply thrust until the spaceship stops.  
This is called reverse thrust.

### To escape into hyperspace

- ▶ Press the SHIFT key.  
Your spaceship escapes into [hyperspace](#) and ends up in another part of the [asteroid belt](#), but there are no guarantees that you get there safely.

### To pause a game

- ▶ Press F3.  
To resume play, press F3 again or choose Pause from the Game menu.  
**Note:** When you pause a game, the mouse pointer is displayed so you can choose menus and commands.  
When you are playing a game, the mouse pointer is no longer displayed.

### To change player controls

- ▶ From the Options menu, choose Player Controls, or press F8.  
You can change the keys you use for spaceship controls.

### To customize a game

- ▶ From the Options menu, choose Customize Game, or press F9.  
You can change the speed of the asteroids, flying saucers, and adjust other game variables to create your own personalized version of Asteroids.

### See Also

[Scoring](#)

[Strategy and Hints](#)

[History of the Game](#)

[Overview](#)

[Game Menu Commands](#)

[Options Menu Commands](#)

## Scoring

Click the colored, [underlined words](#) to see a definition or jump to another topic.

The scoring strategy for Asteroids is simple: The smaller the asteroid, the more points you get. You get the most points for shooting flying saucers.

### Points



Large asteroid: 20 points



Medium asteroid: 50 points



Small asteroid: 100 points



Large flying saucer: 200 points



Small flying saucer: 1000 points

### Additional Scoring Information

- You start out with three lives (or spaceships). Each time you reach 10,000 points you get a bonus [spaceship](#) so you can play longer.
- Flying saucers can destroy and be destroyed by asteroids, but you don't get any points.
- High scores are displayed at the end of each game.
- If your score is higher than the lowest score on the current High Scores screen, Asteroids asks for your initials. You can add them using the keyboard or mouse.
- If you reach 100,000 points, Asteroids resets your score to zero.

### To give yourself more lives

- 1 From the Options menu, choose Customize Game.  
Asteroids displays the Customize Game dialog box.
- 2 Under Game Variables, choose Number of Lives and click the Arrow buttons to give yourself more lives.

### See Also

[Strategy and Hints](#)

[History of the Game](#)

[Overview](#)

[Playing the Game](#)

[Game Menu Commands](#)

[Options Menu Commands](#)

## Strategy and Hints

Click the colored, [underlined words](#) to see a definition or jump to another topic.

This section contains helpful hints for playing Asteroids successfully.

- Don't shoot all the large and medium [asteroids](#) first. They break into smaller pieces creating a more crowded (and dangerous) [asteroid belt](#). Leave some of the large asteroids for later.
- Destroy the fastest moving asteroids first. The slower asteroids are easier to avoid and you can deal with them later.
- Remember that you get most of your points by shooting [large flying saucers](#) and [small flying saucers](#).
- Try to keep a few defensive missiles in reserve. In Asteroids, only four of your missiles can be active on the screen at one time so it isn't wise to fire them all at once. Without a missile or two in reserve, you are vulnerable if you need to protect yourself from an unexpected asteroid or flying saucer.
- Use [hyperspace](#) cautiously. Sometimes it's not such a great solution. Your spaceship escapes danger, but you can end up anywhere. . . for example, in the path of a flying-saucer missile or a plummeting asteroid!
- Leave one or two slow-moving asteroids on the screen. This way, you can shoot flying saucers before the next screen begins with the destruction of the final asteroid. This is the famous [lurking strategy](#) that led to some very high scores during the early arcade days.
- If you are playing Asteroids in less than perfect surroundings (for example, at school or at work), you can press the ESC key (also known as the BOSS key) to make the game instantly disappear from your screen. When the coast is clear, press ALT+TAB to continue playing where you left off.

### See Also

[History of the Game](#)

[Overview](#)

[Playing the Game](#)

[Scoring](#)

[Game Menu Commands](#)

[Options Menu Commands](#)

## History of the Game

Click the colored, [underlined words](#) to see a definition or jump to another topic.

Asteroids, completed at the end of 1979, was a much celebrated [arcade](#) game that captured the imaginations of millions of players, while capturing a good many quarters as well.

### The Creation of Asteroids

Asteroids was inspired by [Lyle Rains](#), who suggested to [Ed Logg](#) that players might enjoy shooting big rocks into smaller pieces.

"I guess the way I describe it is that I'm the father of Asteroids," Rains said. "Ed Logg is the mother of Asteroids, because he had to live with it for nine months and deliver finished product. All I had to do was to provide a seed."

### Remembrances from the Video Game Masters

Working on Asteroids was so intense that Lyle Rains and Ed Logg often dreamt about their work.

Lyle Rains: "In the course of my work I have always found that there are times during the development process when the project gets to me in such a way that I'm eating, drinking, sleeping, and breathing the project. When I close my eyes the images of the screen are there and I dream about them at night. There is something just very intense when you live with a project like that day and night, for months at a time. When we were working on Asteroids, I would play Asteroids for a number of hours in the evening, then I'd go home and I'd close my eyes, and as I was drifting off to sleep I'd see the asteroids floating around the screen. "

Ed Logg: "I was shooting the asteroids all night long . . . I'd just play the game over and over and over in my head, just as if you were playing it in real life. To a certain extent, I play a lot of the games in my mind long before I ever write them because you have to get all the interactions down pat before you can start programming. I know what it's going to look like before I even get there."

### Popular from the Start

A good barometer of a game's future success was how popular it was within the labs at Atari. The software developers often had to chase people away from their prototype machines when they arrived at their desks in the morning or returned from lunch.

Lyle Rains: "The development on the really good games gets bogged down, because people want to . . . play them all the time. I was in the lab quite often playing Asteroids, as were many other people."

On the overall popularity of Asteroids, [Steve Calfee](#) said:

"A lot of people really liked it. Somehow there's something about people, they like to clean spaces. With Asteroids it's easy to measure your accomplishment, you're breaking big rocks into little rocks and then the little rocks into nothing. It's sort of a metaphor for life."

[Rich Adam](#) recalled his own first encounter with Asteroids:

"I'll never forget going into the lab and seeing that game for the first time. It was like an adrenaline rush. . . I'm out flying this spaceship and it's the miraculous escape. I've got this situation where I've got tons of these boulders flying around the screen, I have almost nowhere to go. I get to blast my way out of it and cheat death one more time. . . . That's a good fantasy. . . You've got all these things flying around and yet you're able to survive."

[Howard Delman](#) described what it was like creating the sounds for Asteroids:

"In those days there were no all-purpose sound chips like we have now, so I had to create a hardware circuit for each sound. I would string together electrical circuits that would produce an output wave-form that corresponded to the wave-form of the sound. When put through an amplifier and a loud-speaker, it would sound like whatever I was trying to create. . . The boom-boom-boom background sound was sort of meant to be like a heartbeat, and the idea was that as the game progressed, the sound sped up, and the player's heart would speed up, too. You know, stress!"

### The Great 25-Cent Escape

On the intensity of playing Asteroids, [Ed Rotberg](#) recalled:

"Asteroids was just so intense in the fact that you had a concept of all around fantasy. You had to keep your eyes constantly in motion around the screen because the danger could be coming from any direction, at anytime, and it was always so imminent. In Asteroids it was just you out there, trying to survive. It's an incredibly intense game. The tuning in terms of how fast the spaceship turns and how fast the bullets move and how far they go and how fast the asteroids can go, just all the tuning that Ed Logg put into that, is real artistry. Asteroids is a video game artistic masterpiece."

The simple fact that the spaceship in Asteroids continues to move after you cut thrust, providing a wee glimpse of the Newtonian mechanics of actual space flight, triggered the imaginations of many users. Rich Adam said:

"Asteroids fulfilled the fantasy of being out in space, with no gravity, and free floating. The spaceship had a very elegant grace. A lot of motion in the game had grace, even the way the boulders floated around."

And the epic quality of the game was noted by Ed Rotberg:

"What Asteroids allows players to do is to put themselves in an incredible predicament, and then extricate themselves from it. You feel like a hero coming out of it."

### **See Also**

[Overview](#)

[Playing the Game](#)

[Scoring](#)

[Strategy and Hints](#)

[Game Menu Commands](#)

[Options Menu Commands](#)

## **How to Play**

Click the colored, [underlined words](#) to see a definition or jump to another topic.

This section contains information on how to play Asteroids.

[Overview](#)

[Playing the Game](#)

[Scoring](#)

[Strategy and Hints](#)

[History of the Game](#)

### **See Also**

[Commands](#)

## **Commands**

Click the colored, [underlined words](#) to see a definition or jump to another topic.

This section contains information about commands in Asteroids.

[Game Menu Commands](#)

[Options Menu Commands](#)

### **See Also**

[How to Play](#)

## Game Menu Commands

Click the colored, [underlined words](#) to see a definition or jump to another topic.

This section contains information about Game menu commands in Asteroids.

<u>G</u> ame
<u>N</u> ew F2
<u>P</u> ause F3
<u>E</u> xit

### **New**

Starts a new game. You can also press F2 to start a new game.

### **Pause**

Pauses the game and blacks out the screen. When you choose the Pause command, the mouse pointer is displayed so you can choose menus and commands.

To resume play, choose Pause again, or press F3. When you resume play the mouse pointer is no longer displayed.

### **Exit**

Quits Asteroids. You can quit at any time, even in the middle of a game. You can also press ALT+F4 to quit a game.

### **See Also**

[Options Menu Commands](#)

[How to Play](#)

## Options Menu Commands

Click the colored, [underlined words](#) to see a definition or jump to another topic.

This section contains information about the Options menu commands in Asteroids.

Options	
Full Screen	F4
✓ Sound	
Skip Quick Help	
Player Controls...	F8
Customize Game...	F9

### Full Screen

Enlarges your screen for a bigger and better view of Asteroids.

You can also press F4 to enlarge or reduce the window.

You can press ESC to minimize Asteroids to an icon.

### Skip Quick Help

Turns Quick Help off and on.

If you do not want to see the Quick Help screen each time you start a game, choose Skip Quick Help. A check mark is displayed next to the command name when Skip Quick Help is turned on.

### Sound

Turns the sound effects on and off.

A check mark is displayed next to the command name when the sound is turned on.

**Note:** You need a sound card and a Windows™-based sound driver to hear sound effects.

Asteroids provides warning sounds when attack is imminent as well as sounds when you fire missiles from your spaceship. Click the buttons below to familiarize yourself with game sounds.



The sound of a large flying saucer.



The sound of a small flying saucer.



The sound of a spaceship missile as you fire.

### Player Controls

Displays the Player Controls dialog box so that you can change the keys you use to control your spaceship. You can also press F8 to change player controls.

### Customize Game

Displays the Customize Game dialog box so that you can change game settings and create your own personalized version of Asteroids. For example, you can increase or decrease the speed of the game objects and the frequency with which they appear, or you can give yourself more lives (spaceships) in a game. You can also press F9 to customize a game.

**See Also**

[Game Menu Commands](#)

[How to Play](#)

## Player Controls dialog box

With the Player Controls dialog box, you can choose the keys you want to control the game.

Click on specific dialog box options or buttons in the picture below to get more information.



## **Rotate Left**

When you start playing Asteroids, you press the LEFT ARROW key to turn your spaceship toward the left, but you can change this key. For example, if you are a left-handed person, you can change this to the A key or another key on the left side of the keyboard.



To choose a different key, click the Down Arrow button next to Rotate Ship Left. Asteroids displays a complete list of available keys. Click the one you want.

## Rotate Right

When you start playing Asteroids, you press the RIGHT ARROW key to turn your spaceship toward the right, but you can change this key. For example, if you are a left-handed person, you can change this to the S key or another key on the left side of the keyboard.



To choose a different key, click the Down Arrow button next to Rotate Ship Right. Asteroids displays a complete list of available keys. Click the one you want.

## **Apply Thrust**

When you start playing Asteroids, you press the UP ARROW key to apply thrust and make your spaceship move forward, but you can change this key.



To choose a different key, click the Down Arrow button next to Apply Thrust. Asteroids displays a complete list of available keys. Click the one you want.

## Fire

When you start playing Asteroids, you press the SPACEBAR to fire missiles at asteroids or flying saucers, but you can change this key.



To choose a different key, click the Down Arrow button next to Fire. Asteroids displays a complete list of available keys. Click the one you want.

## Hyperspace

When you start playing Asteroids, you press the SHIFT key to jump into hyperspace and escape collision, but you can change this key.



To choose a different key, click the Down Arrow button next to Hyperspace. Asteroids displays a complete list of available keys. Click the one you want.

**OK**

Choose the OK button to save changes you've made to player controls and return to the game.

**Cancel**

Choose the Cancel button to return to the game without saving the changes you've made to player controls.

**Default**

Choose the Default button to restore player controls to their original settings

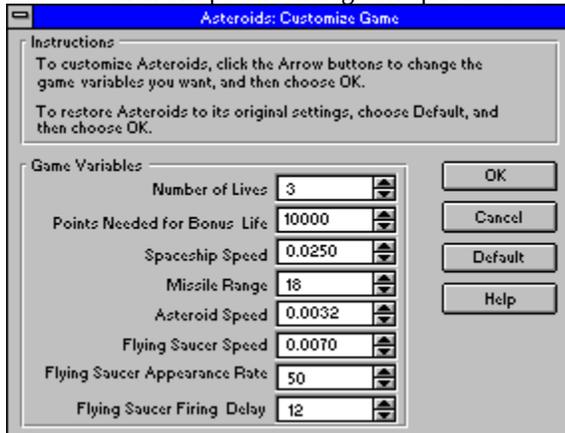
**Help**

Choose the Help button to get help on dialog box options.

## Customize Game dialog box

With the Customize Game dialog box, you can change game elements to create your own personalized version of Asteroids.

Click on specific dialog box options or buttons in the picture below to get more information.



### **Number of Lives**

When you start playing Asteroids, you have three lives. After your spaceship is destroyed three times, the game is over.

- ▶ To give yourself more lives (and make the game easier to play), click the Up Arrow button next to Number of Lives, and then start a new game.
- ▶ To give yourself fewer lives (and make the game more challenging), click the Down Arrow button next to Number of Lives, and then start a new game.

### **Points Needed for Bonus Life**

When you start playing Asteroids, you need 10,000 points for a bonus life.

- ▶ To decrease the number of points needed for a bonus life (and make the game easier to play), click the Down Arrow button next to Points Needed for Bonus Life, and then start a new game.
- ▶ To increase the number of points needed for a bonus life (and make the game more challenging), click the Up Arrow button next to Points Needed for Bonus Life, and then start a new game.

### **Spaceship Speed**

- ▶ To decrease the speed of your spaceship (and make the game easier to play), click the Down Arrow button next to Spaceship Speed.
- ▶ To increase the speed of your spaceship (and make the game more challenging), click the Up Arrow button next to Spaceship Speed.

**Missile Range**

- ▶ To increase the range of your missiles (and make the game easier to play), click the Up Arrow button next to Missile Range.
- ▶ To decrease the range of your missiles (and make the game more challenging), click the Down Arrow button next to Missile Range.

### **Asteroid Speed**

- ▶ To decrease the speed of asteroids (and make the game easier to play), click the Down Arrow button next to Asteroid Speed.
- ▶ To increase the speed of asteroids (and make the game more challenging), click the Up Arrow button next to Asteroid Speed.

### **Flying Saucer Speed**

- ▶ To decrease the speed of flying saucers (and make the game easier to play), click the Down Arrow button next to Flying Saucer Speed.
- ▶ To increase the speed of flying saucers (and make the game more challenging), click the Up Arrow button next to Flying Saucer Speed.

### **Flying Saucer Appearance Rate**

- ▶ To decrease the frequency with which flying saucers appear (and make the game easier to play), click the Down Arrow button next to Flying Saucer Appearance Rate.
- ▶ To increase the frequency with which flying saucers appear (and make the game more challenging), click the Up Arrow button next to Flying Saucer Appearance Rate.

### **Flying Saucer Firing Delay**

- ▶ To increase the delay time before flying saucers fire (and make the game easier to play), click the Down Arrow button next to Flying Saucer Firing Delay.
- ▶ To decrease the delay time before flying saucers fire (and make the game more challenging), click the Up Arrow button next to Flying Saucer Firing Delay.

**OK**

Choose the OK button to save changes you've made in the Customize Game dialog box and return to the game.

**Cancel**

Choose the Cancel button to return to the game without saving the changes you've made in the Customize Game dialog box.

**Default**

Choose the Default button to restore the Customize Game dialog box to its original settings.

**Help**

Choose the Help button to get help on dialog box options.

## **underlined words**



Find out more information or transport yourself to a topic that interests you. It's like blasting off into space.

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## spaceship



Press the arrow keys to move your spaceship or press the SPACEBAR to fire a missile. When you're ready to close this box and return to the game, click the button and hear the sound of a spaceship missile firing.

**asteroid belt**

Asteroids are huge rocks floating in space. Within our solar system, it appears as if most of the asteroids are located in an asteroid belt, a region of space between the orbits of Mars and Jupiter. (The real asteroid belt isn't anywhere as crowded as the one that you see on the screen, but this makes the game more fun!)

## asteroids



Large asteroid: Shoot one and it breaks into two medium-sized asteroids.



Medium asteroid: Shoot one and it breaks into two small asteroids.



Small asteroid: Finally! Shoot one and it disintegrates.

### **large flying saucers**

Yikes! Flying saucers! You get the most points for shooting flying saucers. When you're ready to close this box and return to the game, click the button below and hear the sound of a large flying saucer.



Large flying saucer: 200 points

### **small flying saucers**

Yikes! Flying saucers! You get the most points for shooting flying saucers. When you're ready to close this box and return to the game, click the button below and hear the sound of a small flying saucer.



Small flying saucer: 1000 points

## **space**

Asteroids creates an environment similar to what would be found within the vacuum of space. No gravity!

## **thrust**

The application of force against an object to give it motion. In space flight (and in Asteroids), the application of thrust results in the acceleration of your spaceship.



A spaceship applying thrust.

### lurking strategy



Position your spaceship (or lurk) along one side of the screen so that you can quickly shoot down flying saucers as they emerge. Make sure to leave one asteroid on the screen so that you can fire at flying saucers without starting a new round. If you keep a large asteroid on the screen, you can continue to lurk even if a flying saucer shoots it, creating two medium asteroids.

## **hyperspace**

Press the **SHIFT** key and save your spaceship from imminent collision. Hyperspace, still within the realm of science fiction, provides faster-than-light travel and is a great escape. But just to keep the game fun, your destination is unknown.

**arcade**

Arcade refers to the coin-operated games that are built into large cabinets and placed in stores and other public places for people to play. A classic arcade is a room filled with coin-operated video and pinball machines.

**Lyle Rains**

Formerly vice-president of engineering at Atari, he is now chief corporate engineer at Atari.

**Ed Logg**

Formerly a programmer and project lead at Atari, he is now a senior staff engineer at Atari.

**Steve Calfee**

Formerly a chief engineer at Atari, he is now vice-president of product development at Tengen.

**Rich Adams**

Formerly a senior design engineer at Atari, he is now manager of application publishing for Interactive Network.

**Howard Delman**

Formerly a hardware engineer at Atari, he is now an electronics consultant.

**Ed Rotberg**

Formerly a senior game designer at Atari, he is now a senior staff engineer at Apple Computer.

