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The Index contains a list of all Help topics available for Black Box. For information on how to use Help, press F1 or choose Using Help from the Help menu.

What is Black Box?

Black Box is a game of logic. Hidden inside the black-bordered grid are a number of targets. You have to find the location of these targets by firing rays into the box from any edge.

Rays are deflected or absorbed when they encounter targets and their entry and exit points (if any) are marked on the edges of the grid.

The purpose of the game is to locate all the hidden targets with the fewest possible shots.

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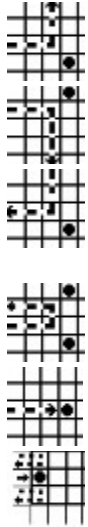
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Motion of Rays

When you fire a ray from an edge of the grid it proceeds in a straight line until it encounters one of the hidden targets. Below are some examples of the effect of a target on the ray's path.



Rays which strike a target are absorbed. Rays which would skim a target are deflected through 90 degrees away from the target. Rays which would skim a target as soon as they enter the grid are treated as reflections.

A straight line can be only horizontal or vertical in this game,

Symbols

When you choose a point on the edge of the grid from which to fire a ray, that point is marked by a colour and a hatch pattern. If the ray leaves the grid at any other point then the point at which it leaves is marked with the same colour and pattern.

If a ray is absorbed, its point of origin is shaded black.

If a ray leaves the grid at the same point at which it entered, that point is shaded white. Note that rays which cannot enter the grid because of a target located to either side of the point of entry also have their point of origin shaded white (See [Motion of Rays](#)).

Two other symbols are used in the game:

A black circle indicates a marker that you have placed on the grid

A smaller green circle indicates the position of each of the hidden targets when the game is over.

Firing a Ray

To fire a ray, position the mouse cursor over one of the firing positions (distinguished from the grid cells by a lighter border and bounded on only three sides). Click the **left** mouse button to fire a ray.

The origin of your shot and its final exit point from the grid will be marked by one of three kinds of symbols, depending on what happens to the ray.

See also:

[Motion of Rays](#)
[Symbols](#)

Marking a Target

Mark the suspected position of a target by positioning the mouse over the appropriate cell in the grid and pressing the **left** mouse button.

You can only mark as many suspected locations as there are hidden targets.

When the game is finished, your score will be determined by how many target locations you have correctly identified.

Unmarking a Target

Unmarking a Target

Remove the mark from a target by placing the mouse over the marked cell and pressing the **right** mouse button.

Ending the Game

To quit the game, choose Exit from the [File Menu](#).

To end a game and show your score (if any), choose Reveal Targets from the [Settings Menu](#).

Changing Settings

Use the Settings menu to alter the dimensions of the grid or the number of hidden targets.

The Settings menu is also used to signal that you have finished guessing the location of the targets in the current game and want to reveal the targets' actual locations.

File Menu

The File Menu provides two commands:

- Exit - use this to quit Black Box.
- New Game - use this to start a new game.

You can select this option from the keyboard by pressing Alt-x.

Edit Menu

The Edit menu is disabled in Black Box.

Settings Menu

The Settings menu allows you to:

- Alter the number of targets hidden in a grid (this will abort the current game)
- Alter the dimensions of the grid (this will also abort the current game)
- Reveal the locations of the hidden targets. This option will end the current game and, if you have correctly deduced all the locations, will score the game in terms of shots per ball.

Each of these menu options has a "shortcut key" associated with it. See [Black Box Keys](#) for more information.

Black Box Keys

In addition to the normal Windows keys, the following keys have meaning in Black Box:

Alt-x	Quit the game
Alt-t	Reveal the hidden targets
Alt-d	Alter the dimensions of the grid
Alt-b	Alter the number of hidden targets
Alt-a	Display the About... dialog box.

Windows Keys

The standard Windows keys are all available in Black Box, with the exception of the key combinations normally associated with the Edit menu, which are disabled.

Defined Terms

- Ray You never see a ray's path - only its entry and exit points from the Black Box target grid. These points are marked with special symbols.
- Target A number of hidden targets are placed in the Black Box at the beginning of each game. The purpose of the game is to locate each of these targets by firing rays into the box and deducing the path that the rays take, influenced by the presence of the targets. Target positions are revealed by choosing the Show Targets option from the Settings menu, and these positions are displayed as small green dots.
- Grid cell The Black Box is divided into a number of grid cells, each of which marks the possible location of a target.

