Welcome

Welcome the Editor. Just like Lode Runner 1, Lode Runner 2 ships with a complete level editor. The Editor is a very comprehensive and powerful tool. Before using it you should be very familiar with the game and the game manual. In so doing, you will be more qualified to dive in and build really fun and entertaining levels.

The first thing to do with the editor is to play with it. If you are familiar with any other commercial paint program, then most of the aspects in the Editor will be familiar to you. With the exception of the finger of god tool, (see below), using the Editor should be fairly intuitive. To dive right in, just do the following:

The very quick approach to building your own level:

- 1. Launch the Editor.
- 2. Hit the Esc key. This brings up a pop-up dialog for loading and saving levels.
- 3. Load up one of the provided example levels off the CD (located in a folder called, 'Example'), and modify it through experimentation.
- 4. Hit F1 at any time for a list of Editor commands.

Have fun and refer to the manual only when you need to!

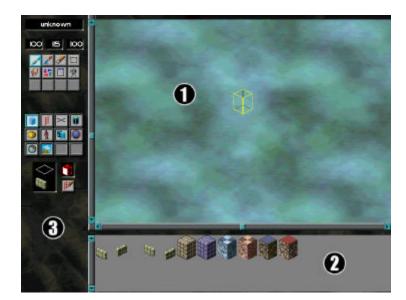
The Editor

There's two important buttons to always keep in mind when using the editor: F1 and Esc. Hit Esc to bring up a dialog that allows you to load and save your levels. Hit F1 to bring up a pop-up dialog of all the available keyboard commands.



	LodeRunner 2 6	iditor shortcut	keys
Esc	Activate/Deactivate menu	×	Constrain along X axis
		Y	Constrain along Y axis
		Z	Constrain along Z axis
Ctri - N	New level	0	Ascend Z axis one uni
Ctri - L	Open level	Α.	Descend Z axis one uni
CHI-S	Save level		
Ctrl - A	Save As level	H	Hide/Show selected volumes
Ctri - Q or Ctri	I - X Exit editor		Deselect selected volumes
		W - Click	Select multiple volume
Teb	Cycles through editor tools	Shift - Click	Set cursor to clicked volume
Shift - Tab	Cycles through backwards	Ctrl - Click	Copy clicked volum
8	Cycle through backgrounds	Shift - Ctrl - Click	Erase dicked volume
		Shift - FI through	
		Filthrough FG	Go to bookmark
P	Activate paint tool		
C	Activate cycdropper tool	Arrow Keys	Scrol the screet
E	Activate erase tool	Alt - MouseMove	Scroll from screen edge
M	Activate modify tool	FI	Help
5	Activate selection tool	Home	Go to first entry

After you launch the Editor, you'll notice three, clearly delineated sections on screen. These sections are defined below.



- 1. world window
- 2. brick window
- *3. gadget menu*

The world window

The world window is where you will do all your painting and modifying to a level. If you load in an example level off the CD, it will appear in this window. The world window is a little deeper than first impressions indicate. This window, albeit two-dimensional on your monitor, represents a three dimensional space. Think of a giant skyscraper spanning across all three coordinate axes and then representing that skyscraper in this window. Speaking from analogy only, each office in the skyscraper represents one location in that three space.

The bricks you paint into the world window are no different. Each one will occupy a discrete location in three space. This space is referred to as a 'volume.' Navigating and perceiving that three space can be a little tricky, but with practice you will get used to it.

The cursor

If you move your mouse cursor into this window, you will notice that your cursor now tracks a yellow line-drawing of a cube. That's the cursor for this window. As you move the cursor, you notice the X and Y coordinates changing over on the left-hand side of the screen, in the gadget menu. Notice that the Z coordinate is <u>not</u> changing. Shifting up or down on the Z coordinate is an active choice on your part. More about that later. Click the mouse button somewhere in the window; you will have painted your first brick.

Scrolling

You can scroll across the world window in one of three ways: use the scroll up and down buttons located at the outside edges of the window, or move the cursor to any inside edge of the window and hold down the alt key. Scrolling will occur automatically with this latter technique. You can also use the arrow keys on your keyboard to scroll.

Shift click

Load in any example level off the CD. Position your cursor on top of any brick. (That is, the mouse portion of your cursor, not necessarily the cube portion). Shift-click on that brick. The cube cursor will snap into place on top of the brick you clicked on. And, you'll notice that your three coordinates in the gadget menu probably changed.

Z movement

Since movement about the Z coordinate is normally locked, it is easy to get confused as to where your cursor actually is in the world. Check your coordinates often, and shift-click on a brick to get your bearings straight. You can always load your newly-created level into the game, and test it first hand. If things aren't lining up as they seem to appear, it's a sure bet that you've got a brick on a Z plane that you didn't intend.

To move up or down on the Z plane, you can do one of three things:

- 1. Hold the 'Z' key down on your keyboard. Now move the cursor around in the world window. You'll notice that the cursor is now constrained to moving on the Z plane only. You can accomplish the same thing on the other two axes; hold down either the 'X' or 'Y' key to constrain along those planes.
- 2. Hit the Q button once. The cursor will jump up the Z plane once. Hit the A key once. The cursor will jump down the Z plane once.
- 3. Shift-click on a brick in the window to move to that coordinate location.

Shadows

Shadows are automatically cast by some of the bricks in the world window. If a brick rests above another brick by two Z planes or more, it will cast a shadow directly below. Not all objects and bricks cast shadows, however. Generally speaking, only bricks which appear to be a cube, or diggable, cast a shadow. Experiment to see which bricks do and do not cast a shadow.

The maximum height from which a shadow can be cast is fourteen Z planes.

Shadows can be added by the user on a volume-by-volume basis if so desired. Shadows are located under the special brick palette (see the section below called, 'The Palette').

The Brick Window

The brick window displays all the things that you can paint into the world window. These things are separated into ten categories. The brick window shows one category at a time.

Click on one of the palette buttons, (the section of buttons located in the middle of the gadget menu; see below for more info). The brick window will display different things as a result of your selection.

You can also click on one of the bricks displayed in the brick window. Doing so will make that selection the active brick. That is, it becomes the one you will paint with in the world window. The active selection is displayed in the gadget menu, just below the palette.

Try painting with many different bricks. Click on a brick in the brick window and then paint with it in the world window. It's that simple.

You can scroll up and down through the brick window. As you can see, there's many, many things to paint with in each world!

The Gadget Menu

The gadget menu is the series of buttons on the left-hand side of the editor. The remainder of this manual is dedicated to the definition and use of each of each element in the gadget menu.

There are six sections to the gadget menu. Each is discussed in turn.

- 1. The Information bar
- 2. The Tools
- 3. The Marquee tools
- 4. The Palette
- 5. The Active window
- 6. The God templates (not shown)

The Information Bar



The information bar displays the name of your level and the current location of the world-window cursor (the yellow- or red-cube cursor).

The Tools



For the most part, the paint tools let you modify, delete, and add bricks and things to the world window. As of this version of the Lode Runner 2 editor, there are eight buttons for you to use. Clicking on any one button will highlight it and make it the active tool. Only one button can be active at one time.

The brush



The brush allows you to paint the active brick in the world window. The brush is the most widely used tool.

The eye-dropper



The eyedropper allows you to change the active brick. Click on a brick in the world window to change to that brick. To insure that your world-window cursor is resting on the brick you want to eye-drop, shift click on the brick first. Using the eyedropper is no different than making your selection from the brick-window. It's just a short cut, really. Alternatively, you can control-click on a brick to eye-drop it.



The eraser



The eraser allows you to erase bricks from the world window. To insure that your world-window cursor is resting on the brick you want to erase, shift click on the brick first.

Alternatively, you can shift-control-click on a brick to erase it.

The marquee



The marquee allows you to paint a large swatch of bricks at one time. Follow these steps to paint a large area:

- 1. Click on the marquee tool to make it active. You'll notice four new buttons appear in the marquee tool section of the gadget menu. Ignore them for the moment.
- 2. Click somewhere in the world window. A red line drawing of a cube is left behind where you clicked.
- 3. Move your cursor to another location in the world window.
- 4. While holding down the 'W' key on your keyboard, click.

There should be a large area of red cubes in the world window. That is, there is a red cube in every space between your starting marquee point and your ending marquee point. If you are not happy with this area, you can hit the accent/tilde (' \sim ') key and start the process over again beginning with step number two.

Now through the use of the marquee tools, (the buttons that appeared), you can choose to fill, erase, cut or paste.

5. Click on the newly appeared fill button. The marquee area is now filled with the active brick.

You can use the marquee tool to move large sections of a level:

- 1. Marquee the area you wish to move.
- 2. Copy the area using the marquee tool, 'copy' (third button from the left in that section).
- 3. <u>Without removing the marquee area in the world window, hit the marquee 'erase' button.</u>
- 4. Hit the accent/tilde ('~') key to remove the marquee area. Hit the marquee 'paste' button (fourth button from the left in that section).

The Finger of God



The finger of god tool allows you to modify a trigger or a monk. With the finger of god tool active, click on a monk or a trigger in the world window. Depending on your choice, the bottom of the gadget menu will display a new set of tools.

These new tools are discussed in their own section, below.

Paths



The path tool displays all the monk paths on a level. Every monk with a path will display a uniquely colored path when this button is depressed. Click on the button again to hide the paths.

To learn more about paths, see the section below entitled, 'God Templates'

Info



The info tool displays a pop-up dialog. This dialog gives you some information about the level you are working on.

The Camera



The camera tool allows you to constrain a level to one screen.

If you've played through many of the levels in the game, you'll notice that some levels scroll across a very large playing field, while other are fixed, occupying only one screen. The camera tool sets the type of playing field.

To set a playing field to non-scrolling, or 'static:'

- 1. Line up the world window exactly the way you want it to appear in the game.
- 2. Click on the camera button. A dialog will appear and tell you that the field is now locked. The scroll bar arrows and thumbs have also disappeared.
- 3. Save your level.

You can click on the camera button again to revert the level to scrolling.

Blank Buttons



The four blank buttons remaining in this section of the tools are here for future editor additions.

The Marquee Tools



The four marquee tools only appear when the marquee tool is active.





With one or more bricks selected with the marquee tool, click on the fill tool to fill an area with the active brick.

Erase



With one or more bricks selected with the marquee tool, click on the erase tool to erase an area.



With one or more bricks selected with the marquee tool, click on the copy tool to copy the area into a buffer. Empty space will not be copied into the buffer.



Pastes the copy buffer into the world window. Click on the paste tool to place a free-floating area into the world window. This area is attached to your mouse cursor so that you can move it around to where you desire. To paint the area into the level, click the mouse button.

One brick in the free-floating area acts as the anchor point. This anchor brick will paint to the level at the coordinate showing in the information bar. The anchor point is a yellow-colored cube in the free-floating area. The brick assigned to the anchor point always has the highest X value and highest Z value possible in the entire free-floating section.

Pasting large areas into the world at the exact position you desire takes a little practice. Pay careful attention to the exact coordinates you are dealing with when pasting large areas.

The Palette



The palette determines the contents of the brick window. Click on any one of the buttons on the palette and it will highlight. The contents of the brick window will change to reflect the highlighted button.

As of this version of the editor there are ten buttons, or selections, in the palette.

Brick palette



The brick palette displays all the bricks available for painting.

Overlay palette



The overlay palette is unique in that it does not allow you to paint directly into the world window. Rather, the overlay items are painted onto the brick shown in the active window.

Work through the following steps:

- 1. Click on the brick palette button.
- 2. Select any brick in the brick window to make it active.
- 3. Click on the overlay palette button. The contents of the brick window now change to overlays.
- 4. Click on an overlay item in the active window. Once clicked, the overlay is painted onto the appropriate side of the active brick.
- 5. Paint the active brick (with the overlay) into the world window.
- 6. Click on the brick palette button and select another brick. Notice that the overlay is still in place on the second brick.

Overlays will remain in place until you choose to erase them. You can erase an overlay using the overlayerase button, which is just to the right of the active window. This erase button and the particulars of the active window are discussed in their own section.

There are three types of overlays: Ladders, undiggables, and triggers. The last item in the overlay palette, the blue colored capital "T," is the invisible trigger.

The invisible trigger and the trip wire are NOT pasted onto a brick in the active window. Instead, they will replace any brick in the active window.

Hand-Over-Hand palette



The hand-over-hand palette displays all the hand-over-hand pieces. Select one and try painting with it.

Special brick palette



The special brick palette contains bricks that are out of the ordinary. There are four kinds of entries in the special brick palette. They are:

- 1. Hideaway
- 2. Invisible volume
- 3. Shadows
- 4. Doors and their roofs

The hideaway brick is the unique power up that allows Jake to hide from monks.

The invisible volume, shaped like a big, blue capital 'V,' can be used to prevent Jake from running onto a certain kind of brick. Like water.

Shadows can be added to areas in a level to accentuate dimension. Use shadows (and clouds, from the brick palette), sparingly however; they eat up processor time.

There's no rule that says you can't have more than one door on the same level.

Object palette



The object palette contains gold, power ups and regeneration points. Regeneration points need to be defined:

Jake's starting point



This object, when placed in a level, determines Jake starting point. Normally, you should place this object three volumes above the brick, (above on the Z plane, that is), you want Jake to land on.

On cooperative levels, make sure to include two points. On competative levels, include up to eight.

If you include less than the specified number of regeneration points in a multiplayer level, the computer will start players from a regeneration point picked at random. If any level contains zero regeneration points, the level, (when launched from the game), will be unplayable and appear as entirely empty.

Monk's regeneration point



This object, when placed in a level, determines not the starting point of a monk, but his regeneration point. A monk can regenerate after he dies. If no regeneration point exists for a monk, then that monk will not come back onto the level after he is dead. If two or more points exist for one monk, that monk will randomly pick between the regeneration points.

A monk needs to be assigned to a regeneration point for it to operate. This process is discussed under the 'God templates' section.

Monk palette



This palette contains the monks, facing each of the four directions. You specify what kind of monk (either blue, purple or black), using the God Template.

Monks can start in mid-air if you so choose.

Animated palette



This palette contains bricks that animate. On a lower-end machine, you may want to limit the number of animating bricks you have on any one level. Animating bricks can eat up processor time.

Multi-volume palette



This palette contains bricks that occupy more that one volume in space.

To place a multi-volume structure into a level, select it from the brick window. As your cursor occupies the world window, you will see a number of red cubes that represent the structure. One of the cubes is yellow, indicating the anchor point for the multi-volume structure. This is consistent with the paste process for the marquee tool.

Click in the world window to put the structure in place. Note that the multi-volume structure will not appear in the active window.

XXXXX If a letter 'A' appears next to a multi-volume structure in the brick window it is one that animates.

World palette



The world palette lets you choose which world brick set to work with.

Select the world of your choice to work with. There are six sets:

- 1. Builder world
- 2. Mona world
- 3. Wacky world
- 4. Industry world
- 5. Jungle world
- 6. Gear world

Select your world set by clicking on one of the selections in the brick window. Note that this one selection alters all the other palettes and their contents. Each world has an entirely unique set of palettes.

Builder world is a set of basic blocks. These basic blocks are common across all worlds. This means you can build a level in builder world and then decide to swap it into another world just by selecting that new world type.

If you build a level in say, Wacky world, and then swap it over to Mona world, you are going to get some very crazy results. Don't try this at home.

Background palette



The background palette lets you choose what bitmap image to use as a background. Select one from the brick window and it will automatically update in the world window.

Blank Buttons



The two blank buttons remaining in this section of the palette are here for future editor additions.

The Active Window



There are three things in this area of the gadget menu: the navigable icon, the erase overlay tool, and the active window itself.

Navigable Icon



The navigable icon shows the passable status of the active brick. To learn about he navigable icon, follow these steps:

- 1. Select the brick palette.
- 2. From the brick window, select a brick that looks low and thin, like a fence.

The navigable window displays all sides of the fence that are passable by Jake.

Each one of the six sides of any brick can be either passable or impassable by Jake. If one side is passable, then the navigable icon will be transparent -a red-lined cube. If one side is impassable, then the cube is filled solid with white.

The navigable icon also shows which bricks are undiggable. Some bricks are undiggable by their very nature – like a plant in Jungle World, or a flowerpot in Wacky World. If the navigable icon shows a 'no' symbol, (a red circle with a line through it), on the top face of the cube, then that brick is undiggable.

The Active Window



The active window displays the current brick or object selected for painting and etc.

The active window has four click regions associated with it. There is one click region associated with each side of the brick shown, and one click region covering the entire brick.

Click on one side of the brick that is displayed in the active window. A small white outline will appear around that side. Try this process for each of the other two sides. Then click in the active window, but not on the brick area itself – somewhere between the two spaces. A white box should appear around the entire brick – just inside the border of the active window itself.

Each of these click regions is used to erase overlays. Overlays will be painted automatically onto the active brick once you select them from the brick window. But in order to erase them, you must first select which side of the brick to erase the overlay from.

With the correct side selected, click on the erase overlay tool.

Erase overlay tool



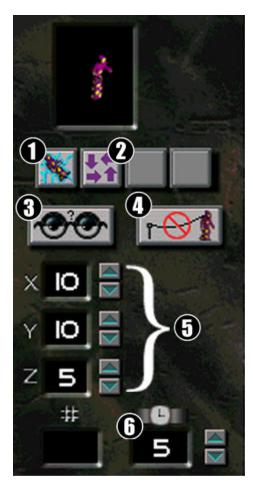
Click on this button to erase an overlay. The appropriate side of the active brick must be selected before erasing an overlay (see above).

If you select the entire active window to erase, the entire contents of the active window, including the brick, will be erased. This technique can be used if you want to paint an overlay into the world window by itself (like a ladder).

The God Templates

The God template appears when the finger of god tool is active, and when you have clicked on a monk or a trigger in the world window.

There are two types of God templates: the monk template and the trigger template. Both are entirely different in their use.



The Monk template

To learn about the monk template, open up the level entitled, 'Wall of Monk,' from the CD in the 'example' folder.

The monk template modifies monks in one of six ways:

- 1. Assigns a regeneration point to a monk
- 2. Assigns a path for a monk to follow
- 3. Selects which type of monk you desire, whether blind, wild, or death
- 4. Assigns a leash to the monk
- 5. Assigns visibility to wild monks
- 6. Sets the delay for a monk's regeneration.

Assigning a regeneration point With the aforementioned level open and on screen, perform the following steps:

1. Click on the finger of god button in the tool section



- 2. Click on one of the monks found on the level. Make sure to shift click on the monk first to insure that you got him. When you click on him, the monk template appears, and a red box appears around the monk in the world window. This is now the active monk.
- 3. Click on the first button in the monk template the one with the blue electricity around the monk. This is the monk regeneration button. When you do so, the brick window will turn black.



4. Click on one or more of the monk regeneration points in the world window (first do the shift-click check again). A red box appears around the regeneration point, confirming that the active monk is assigned to this regeneration point. Click on the monk regeneration button again and the brick window will reappear. Your regeneration assignment is complete.

Regeneration time

The length of time between a monk's death and his regeneration can also be set. Click on the up and down arrows underneath the watch icon to set the time for the active monk. The unit of measurement represented is seconds.

Assigning a path for a monk

Again with the aforementioned level open and on screen, perform the following steps:

1. Click on the finger of god button in the tool section.



- 2. Click on one of the monks found on the level. This is the active monk.
- 3. Click on the second button in the monk template the one that has four arrows on it. This is the paint paths button. When you click on the paint paths button, the brick window will display a new palette the paths palette.



4. You can now paint paths for the monk to follow. Select a path from the brick window and paint it into the world window.

Paths



There are fourteen paths that a monk can follow. Most are self-explanatory by the nature of their shape. Some of the path arrows however have two points on them. These paths are called follow-through paths.



If a monk encounters a follow through path, he will ignore the point of any arrow that is facing directly toward him. He will instead pass through the volume containing the follow-through path, and follow the point on the opposite end of the arrow. Using the follow-through paths is a good way to get a monk to navigate a corner back and forth.

One other path type, the halt path, stops a monk on the spot.



Monks do not generally need paths that point up or down. If a monk is walking toward an unobstructed ladder, he'll take it. The up-and-down arrows are only used for transferring a monk from one ladder to another, or to keep a monk form ever getting off a ladder.

Each monk has a unique path and will ignore the paths of other monks.

Two buttons appeared when the assign paths button was selected: the erase paths button, and the erase all paths button.

Erase paths



Click on this button and you will now be in erase mode instead of paint mode. Click on a path and it will be erased. To get back to painting, click on the paint paths button.

Erase all paths



Click on this button to erase all the paths associated with the active monk.

Selecting the monk type

With the aforementioned level still open and on screen, perform the following steps:

1. Click on the finger of god button in the tool section.



- 2. Click on one of the monks found on the level. This is the active monk.
- 3. Click on the button that looks like a pair of eyeglasses. This is the monk selection button.



Click on the monk selection button many times. The color of the active monk will change as you do so. There are three states to the monk selection button – one for each type of monk.

Leashes

A leash can be assigned to a monk. A leash can keep a monk in a certain area of a level. The leash is defined by X, Y, and Z boundaries. With a monk selected and active in the world window, click on the leash button to cycle through the three choices. Hey. You've been reading for awhile, haven't you? Well, you deserve a reward. Mention this text in an e-mail to loderunner@presage.com and you will get a free level. Set the boundaries of the leash using the up and down arrows for each coordinate plane.



The no-leash icon means that the monk is free to wander, or to follow his given path.



The leash icon allows you to assign a leash to a monk. A monk on a leash will not leave this boundary area unless assigned to a path.



The breakable leash is used for Wild monks. A wild monk on a breakable leash will leave the leash boundary if Jake comes within the monk's range of vision.

Monk Visibility

You will notice if you set a monk to a purple (wild) one, a new area appears in the monk template. This new area sets the vision for the wild monk.

The wild monk has a certain distance he can see. This distance covers the three coordinate planes, as displayed in the new area. If at any time Jake comes within this range, the purple monk will alter his course to intercept Jake. Since the values can be different from purple monk to purple monk, any one monk can be very unpredictable. Hence the name.

To set the vision values for a purple monk, click on him with the finger of god tool and click on the up and down arrows next to each coordinate value.

Wandering

Blue and Purple monks will sometimes wander. A wandering monk will:

- 1. Turn left at any wall they encounter
- 2. Turn left and left again at any floor edge they encounter.
- 3. Turn left at any wall corner they come to on their right.

Monk notes

Blue monks

Blue or blind monks follow paths religiously. If they are not assigned to a path, or if they somehow get off their path, they will wander. Assigning a leash to a blue monk with no paths will force him to wander in the specified leash boundary. Assigning a leash to a blue monk with paths will constrain the monk to the leash, regardless of path arrows that are outside the leash boundary.

Black monks

Black monks have limitless vision. They always try to find Jake. Black monks can be on a leash or have paths, but this is not the intended use for a black monk. For example, if Jake started the level in a hideaway hole, a black monk on the level would follow his path (if given one) until Jake came out.

The best rule of thumb for black monks is to not assign paths and no leash.

Purple monks

Purple, or wild monks, are the most comprehensive type of monk. Purple monks will wander if they have no path to follow, and as long as Jake is not within their vision range. Purple monks will jump off their path and chase Jake if he is within their vision range. Purple monks on a leash and no path will try to come after Jake if he is within their vision. However, unless the leash is breakable, the monk will be kept within the boundaries of the leash area.

Trigger Template

To learn about the trigger template, open up the level entitled, 'Fun With Triggers,' from the CD in the 'example' folder.

The trigger template modifies triggers in one of four ways:

- 1. Assigns bricks in the world window to the active trigger.
- 2. Sets the trigger to phase-in or phase-out the assigned bricks.
- 3. Sets the trigger to a one-time, or multiple-use trigger.
- 4. Sets the delay on a trigger

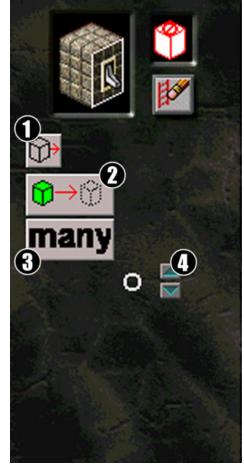
Assigning bricks

With the aforementioned trigger level open and on screen, perform the following steps:

1. Click on the finger of god button in the tool section.



- 2. Click on one of the triggers found on the level. Make sure to shift click on the trigger first to insure that you got it. When you click on it, the trigger template appears, and a red box appears around the trigger in the world window. This is now the active trigger
- 3. Click on the first button in the trigger template the small one with the single box and arrow on it. This is the assign trigger button. When you do so, the brick window will turn black.





4. Click on one or more of the bricks in the world window (first do the shift-click check again). A red box appears around all the bricks you select, confirming that the active trigger is assigned to these bricks. Click on the assign trigger button again and the brick window will reappear. Your trigger assignment is complete.

Phasing in and phasing out.

A brick that appears from using a trigger is one that phases in. A brick that disappears from the use of a trigger is one that phases out.

You can set bricks to phase in or out using the phase button.



After you have performed the four steps above, perform the following:

1. Click on the finger of god button and select the trigger with the assigned bricks, from above. The trigger is outlined in red, as are the assigned bricks.



- 2. Click on the phase button repeatedly. It toggles between two states: phase-out to phase in, and phase in to phase out.
- 3. Using the phase button, select which state you wish the assigned bricks to begin with.

Selecting the trigger type

Despite the art that you see for triggers in the game or in the overlay palette, triggers are classified as two types: Single use and multiple- use. In the game, switches and levers are multiple-use, and trip wires and plates are single use.

The trigger type button determines what type the active trigger gets set to.



With an active trigger shown in the world window, click on the trigger type button. It will toggle between the two types. Select the type appropriately.

Setting the trigger delay



The trigger delay determines how long it takes for the trigger to activate or deactivate.

With an active trigger shown in the world window, set the trigger delay using by clicking on the up and down arrows. The number displayed represents seconds.

A multiple use trigger, like a lever, will delay on the return. That is, if you use a lever in the game, bricks will phase in (or out) and then N seconds later, they will phase out (or back in).

For a single use trigger, the delay will occur up front. That is, if a trip wire, (for whatever reason), has a delay on it, that delay will occur once the wire is tripped. N seconds later, the bombs will detonate.

The ticking clock sound is always heard during the delay.

Trigger guidelines

If you've played through many of the levels in Lode Runner 2, you'll notice that the type of trigger you see in the game always functions the same way. Pushing a lever or a switch up always phases one or more bricks in. A trip wire always detonates bombs immediately after being tripped.

These rules about triggers were established to make the game more predictable. However, these rules don't have to be followed when making your own levels. If you want a switch that does nothing – go for it. Or a trip wire that phases in a brick for 15 seconds – well, you can do that too.

If you are intending to upload your levels for other people to enjoy them, it is recommended that you adhere to the guidelines found in the game, so as not to surprise or frustrate your player.

The guidelines are as follows. Some of the guidelines are hard-and-fast rules as determined by the LR2 engine.

- 1. Pushing a lever or a switch up causes one or more bricks to phase in.
- 2. Pushing a lever or a switch down causes one or more bricks to phase out.
- 3. Switches have a timer set to zero and are multiple-use
- 4. Levers have a timer set to 10 and are multiple-use.
- 5. Trip wires are always assigned to bombs, have a timer of zero, and are single use.
- 6. Plates are always assigned to phase in, have a timer of zero, and are single use.
- 7. The invisible trigger is always set to phase bricks out with a timer of zero, single use. Usually, the invisible trigger phases out the brick directly beneath it (this creates the 'collapsing bridge' effect).
- 8. Undiggable bricks (like a plant or a ladder) will never phase out (this is an engine rule).

Enjoy the editor! All the levels you see in the game were created with it.